TWO FRIARGATE
COVENTRY

TENANT HANDBOOK
OFFICE FIT-OUT

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1 INTRODUCTION

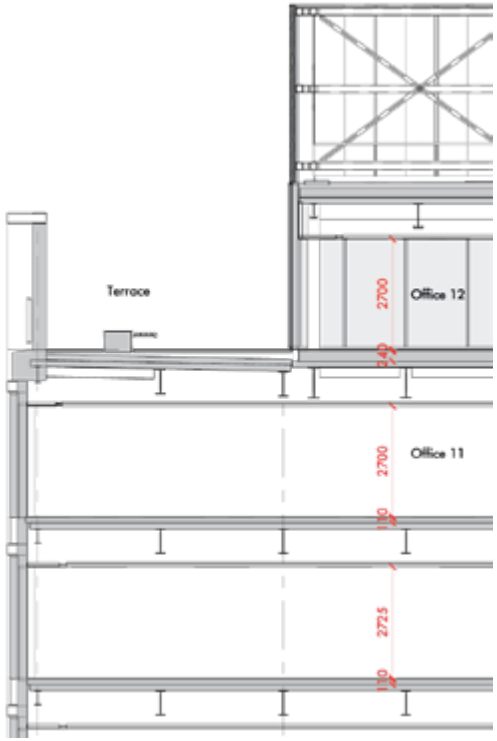
1.1 PROFESSIONAL TEAM

Client	Friargate
Project Manager	Cumming
Architect	Allies and Morrison
Civil and Structural Engineer	Curtins
Building Services Engineer	Ernest Griffiths

1.2 GENERAL TENANT CONSTRAINTS

This document sets out criteria which tenants are to adhere to when designing and installing their fitout works. 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:

- An Energy Performance Certificate is required from each tenant prior to occupation.
- Each 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.
- 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 to 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.
- The typical floor void is 100mm with the exception of level 12 where this increases to a void of 230mm.
- The floor to ceiling height is typically 2725mm with a slight reduction on floors 11 and 12 to 2700mm due to the sloping beams of the roof and deeper transfer beams.



FLOOR AND CEILING ZONES

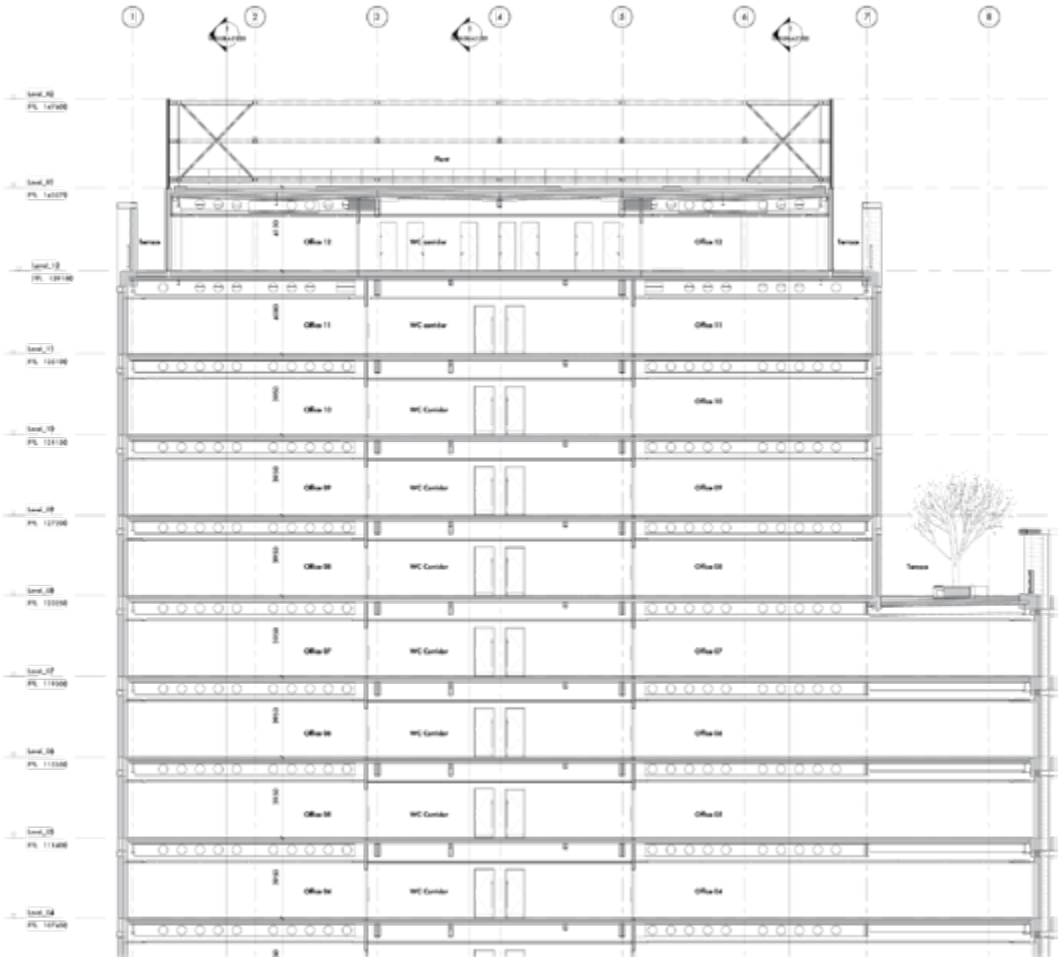
- The rainwater pipe to the balconies is located at the intersection of gridline F & gridline 6 on all typical floor plates relocating slightly at first floor.

- Floors directly below the roof and terraces will have rainwater pipes within the ceiling void and in some locations dropping down beside a column. This will need to be considered in the tenants fit out. The floors this applies to are 6, 7, 9, 10, 11, 12.

- The ceiling voids on levels 7, 11, 12 vary due to the sloped roof structure above.

- The office floor plate has been designed to accommodate a central tenancy split along gridline 4. The two halves of the floor plate can be serviced independently. The partition forming the demise line between tenancies will need to meet both fire and acoustic requirements.

- The floor plate has been designed to a 1.5m planning grid which aligns with the central mullion to the windows. Partitions should be aligned with the mullion if required within the window bay.



ROOF SECTION

1.3 TENANT CONSTRAINTS TO CAT A FLOORS

In addition to the general constraints noted above tenants fitting out a Cat A floor should be aware of the following:

- Apart from minor adjustments required to accommodate the tenants layout and additional partitions installed finishes must be maintained. This is to minimise waste and is required for the building to achieve a BREEAM Excellent rating.

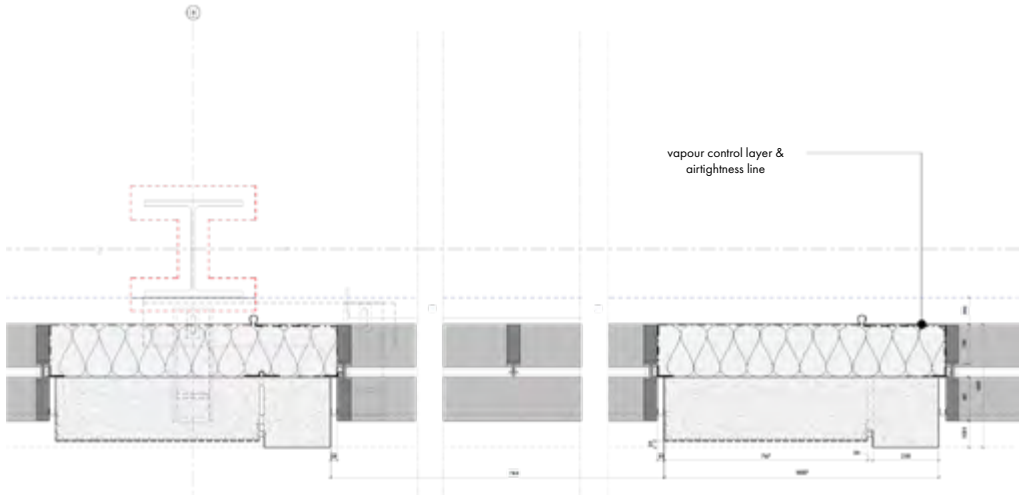
- Fire barriers have been installed to the voids in the suspended ceiling & raised access floor. Care should be taken when fit out work is carried out in the proximity of these barriers and they should be assessed after work is complete to confirm they are still fit for purpose. If not it will be the tenants responsibility to replace with a suitable solution.

CAT A CEILING LAYOUT

1.4 TENANT CONSTRAINTS TO SHELL & CORE FLOORS

On the shell and core floors the following should be considered:

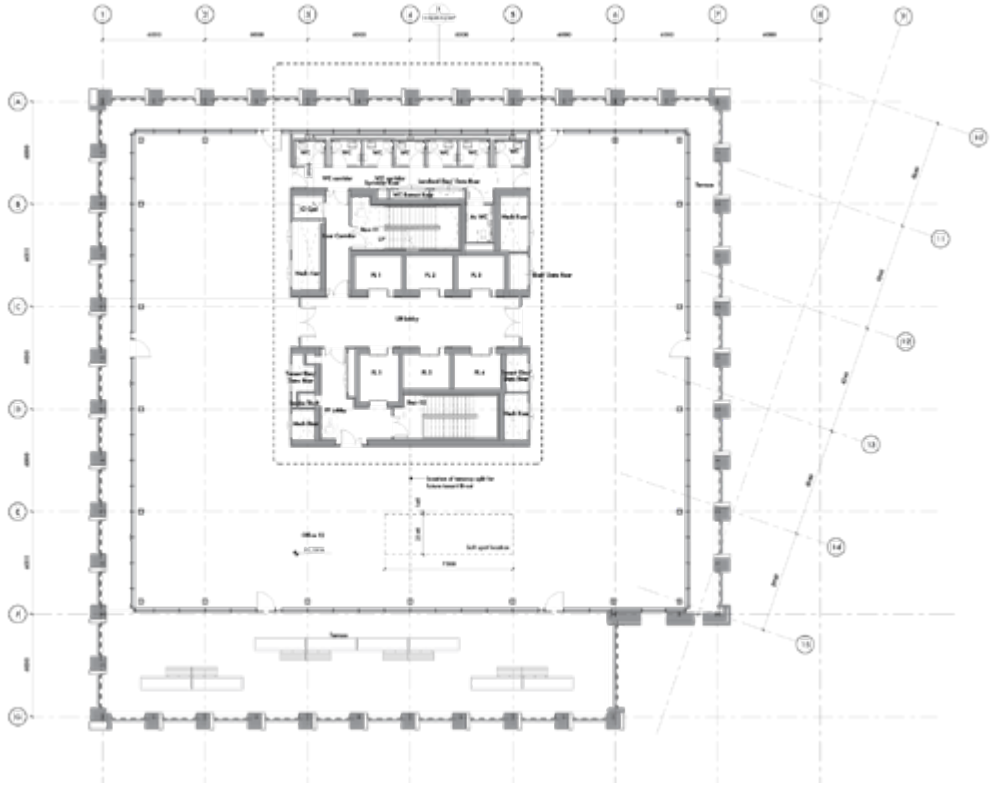
- The vapour control layer and air tightness membraneis exposed on the back of the facade. The tenant will be responsible for installing perimeter linings to close off the back of the facade and provide protection to the vapour control layer.
- The ceiling system and light fittings should match those used on the Cat A floors.
- Fire exit signs have been installed with temporary support and should be remounted when the ceiling system has been installed.
- Temporary door stops have been provided to the terrace doors on level 8. It is the tenants responsibility to ensure adequate door stops are installed as part of the fit-out to protect the doors from damage.



FACADE PLAN DETAIL; SHELL & CORE FLOORS

1.5 FUTURE FLEXIBILITY

Soft spots have been formed in the floor slab on levels 8 & 12. This is to allow for an accommodation stair to be installed should a tenant occupy one of these floors and the floor below. Consideration of how the stair flight will be lifted to the relevant floor will be required as well as the impact on the fire strategy.



SOFT SPOT LOCATION LEVEL 12

1.6 ACCESS & SECURITY

Various security systems have been installed throughout the building which is elaborated on in section 5 (Mechanical & Electrical Systems) of this handbook. Below is a brief description of the internal and external security points.

MAIN ENTRANCE

During office hours the revolving doors and pass door will allow free access into the reception. Security to the rest of the building is maintained via the speed gates which will require a security card to operate.

Out of hours access to the building is via the pass door which will be controlled by the access control system.

CAR PARK ENTRANCE

The car park has an automated roller shutter which will remain closed when no vehicles are entering or exiting the car park. The roller shutter will be activated via a fob provided to the tenants. Visitors will need to use the intercom provided on the right-hand side of the car park entrance to gain entry to the car park and then use a second intercom to gain entry to the core. Guests will need to be collected from the basement lift lobby.

CYCLE ENTRANCE

A separate door is provided for cyclists to enter the basement ramp operated via the access control system.

FLOOR PLATE

Tenant spaces are secured by the access control system and magnetic locks. The levels of the core are connected via the escape stairs allowing free movement between floors to use the WC facilities.

Guest who enter the building via reception will be taken to the correct floor level by the lift destination control but will need to be greeted at the lift lobby of the relevant floor by the tenant they are visiting.

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).

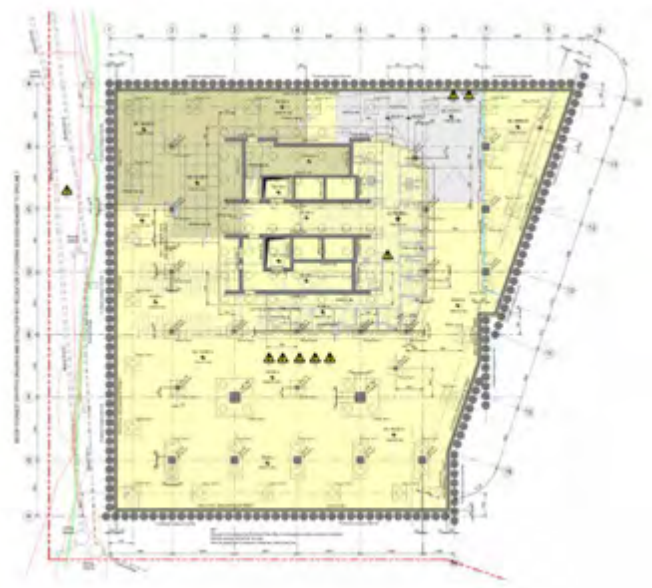


FIGURE 2.1 – PLAN OF BASEMENT

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.

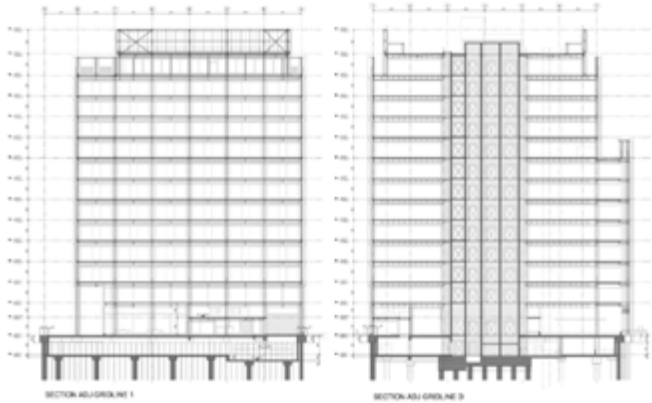


FIGURE 2.2 — TYPICAL SECTIONS THROUGH BUILDING

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^2 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^2 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 DISTRIBUTON

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^2 should be taken over 5% of the office floor areas to account fo file storage.

The following locations have been proposed:

- Adjacent to the straight core wall parallel to and between gridlines D & E (52m^2) 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^2) 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 m/s
Distance to shore	L_{shore} = 150 km
Altitdude above sea	A_{alt} = 100.00 m (AOD)
Fundamental Wind Speed Velocity	$V_{b,0}$ = 23.9 m/s

TABLE 2.1 — WIND LOADING PARAMETERS

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 kN/m^2
Site altitude	A_{alt} = 100 m (AOD)
Site snow load	s_k = 0.50 kN/m^2
Shape coefficient	μ_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.

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.

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3 ACOUSTIC NOISE & VIBRATION

3.1 ACOUSTIC NOISE & VIBRATION

FLOORS

The floor construction is considered commensurate with achieving the airborne sound insulation performance requirements for between office floors. The floors will achieve DnT,w 48 if fitted to Cat A standard (in conjunction with the ceiling). The reference reverberation time T0 is 0.8s.

Impact sound would be expected to be controlled in general by finishes installed as part of the Cat A and/or Cat B fit-out. Therefore the tenant should specify soft floor finishes or resilient layers beneath hard floor finishes in the office floors to mitigate impact noise transfer. Impact sound insulation between office floors shall be ≤60dBLnT,w.

WALLS

Separating walls between tenancies will be a dry lined partition specified to achieve an acoustic performance of DnT,w48. The performance of these walls must not be compromised by the tenant via fixings or penetrations.

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 emissions 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. Any new plant shall not increase the noise level in adjacent tenancies.

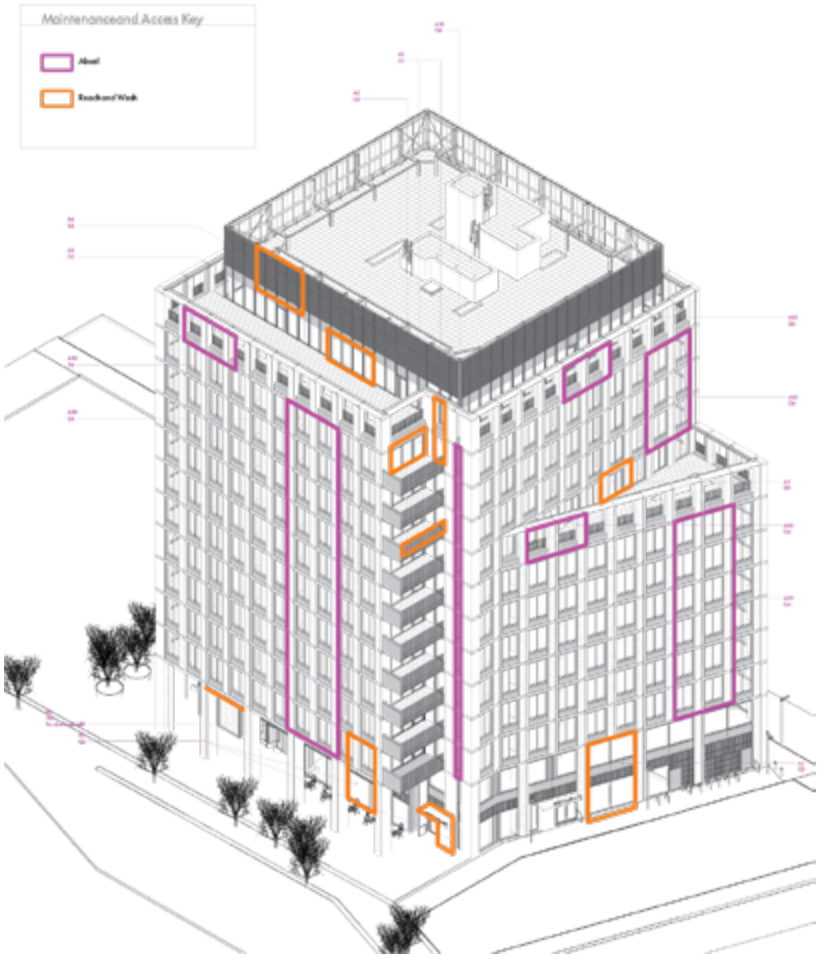
The demise walls separating the lift lobby and office area have been constructed to achieve a minimum Rw 45 DB with a double door of Rw 30 dB. Tenants may wish to consider having a further lobby within the office demise if greater acoustic separation is required.

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

4 ACCESS FOR MAINTENANCE & WASTE MANAGEMENT

4.1 ACCESS REQUIREMENTS

Access for window cleaning is required on levels 8 & 12 where rope access will be utilised from the terraces to reach the floors below. For this reason the terrace perimeter needs to be kept clear to allow safe access to the abseiling eyebolt fixings. Periodic testing of the eyebolts will also be required, for further information refer to the O&M manual.



MAINTENANCE ACCESS DRAWING

4.2 WASTE MANAGEMENT

The Landlord will be responsible for providing a cleaner's service to the common parts within the building, including the reception, WCs and showers, and the core areas on each floor. The Landlord will also manage the external cleaning regime for the car park and building frontage. Tenants will be responsible for providing a cleaning service to their demised areas.

Refuse bins will be provided by the Landlord in the secure, dedicated bin store located at ground floor, to the rear of the building. Tenants will be responsible for emptying their own refuse into the bins, and the Landlord will provide a regular waste and recycling collection service, as part of the overall building service charge. 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.

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5 MECHANICAL & ELECTRICAL SYSTEMS

5.1 INTRODUCTION & OVERVIEW

GENERAL

This section of the handbook provides a brief description of the various Building Services systems within the office building.

AIR-CONDITIONING AN VENTILATION

The office floors are air-conditioned by way of a 4-pipe fan-coil system. The system provides heating and cooling throughout the seasons. It also provides filtered ventilation air to all office areas from roof-mounted airhandling plant.

ELECTRICAL DISTRIBUTION

Electrical power is distributed to all floors with distribution boards for tenants' power supplies located in two locations per floor.

LIGHTING

Tenant areas are artificially lit by arrays of recessed ceiling-mounted luminaires fitted with LED light sources. Emergency lighting is also provided to illuminate escape routes in the event of a power failure.

FIRE SAFETY

The building is equipped with an automatic fire alarm system and an automatic sprinkler system. There is a fire-fighting lift in the central core together with a smoke ventilated Fireman's lobby and staircase.

ACCESS CONTROL

Entrance doors to the office suites and the main entrance into the building from outside are fitted with access control equipment. Access into the building, and then into the office suites, by authorised staff, is via cardcontrolled devices at each entry point.

Similarly, access into the Basement car park is via card controlled devices.

DATA CONNECTIVITY

Data connectivity to each floor is provided by a tubular containment system accepting blown optical fibre media. There are two dedicated containment tubes per floor. These are terminated close to the electrical distribution boards on each floor. Data connectivity to Wired Score Platinum Standard is provided.

CCTV

The Landlord operates a local CCTV system to monitor some of the common internal areas of the building. The CCTV also monitors the pedestrian walkways that are external to the building. The CCTV system does not extend into the tenanted areas.

VERTICAL TRANSPORTATION

Access to all floors above the Ground Floor is provided by six passenger lifts. One of the lifts is also configured as a fire-fighting lift. One of the other passenger lifts may be fitted with protective drapes and used to transport goods to the upper floors. The lifts are controlled by a destination control system whereby travellers key in their chosen destination upon arrival in the main Ground Floor Reception.

BUILDING MANAGEMENT SYSTEM

The mechanical services within the building are controlled by a Building Management system (BMS). This system, amongst other things, controls the temperature of the various zones in the office suites. User adjustable features are included.

ENERGY METERING

Tenants' electricity consumption for both lighting and small power is metered at each distribution board; there being two such boards serving each office floor.

In addition to electricity metering, there are heat meters connected to the Low Pressure Hot Water and Chilled Water branch connections on each tenanted floor. The meters allow the Landlord to measure and charge for the energy used by each tenant.

ELECTRIC VEHICLE CHARGING

The Basement car park has been fitted with two electric vehicle charging points. The electrical energy consumed will be charged to the recipient by way of the Landlord's metering agreement.

5.2 PARAMETERS

GENERAL

This section of the handbook describes the parameters used when designing the building services systems.

The parameters are based on the guidance offered by the 2019 Edition of the British Council of Office Guide to Specifications. All parameters described under the subsequent headings are based on the office floor plates being occupied on an open plan basis unless stated otherwise.

VENTILATION RATES

The ventilation rate to all office floors is based on a Workplace Density of one person per 8 m^2 of nett internal area. The ventilation rate to satisfy this density becomes 1.65 litres/second per m^2 of nett floor area when applying BCO guidelines. Ventilation air is distributed evenly throughout floors fitted out to Category A standards.

VENTILATION CONTROL ZONES

The ventilation system on each floor has been subdivided into four zones. Each zone is equipped with an air control valve which regulates the rate of ventilation to that zone. The control valves are often referred to as Variable Air Volume control boxes or VAV boxes. Regulation is controlled by a carbon dioxide sensor in each zone. In this way, the ventilation system, as a whole, adapts to the levels of occupancy in the building at any point of time. The tenant may alter, adapt, or introduce more air control valves to suit a particular space planning arrangement. The concentration of carbon dioxide is (at the design stage) anticipated to range from 400 part per million (unoccupied) to 1,100 part per million (densely occupied).

Floor plans indicating the ventilation zones are based on the Category A floors. It is anticipated that zones on shell and core floors will be similar unless a future tenant introduces a greater number of VAV boxes.

FIGURE 5.1 – VENTILATION CONTROL ZONES & VAV ARRANGMENT

COOLING LOAD ALLOWANCES

TEMPERATURE CONTROL ZONES

Office floors fitted out to Category A standards have been sub-divided into temperature control zones. Zoning is based on BCO guidance where perimeter zones extend to a depth of approximately 4.5 metres. The width of a perimeter zone is no more than 6.0 metres. Internal zones are larger in area but no more than 70 square metres in floor area.

The temperature control zones are indicated on the following floor plans where a fitting out has taken place to a Category A standards;

- Levels 02, 03 and 04
- Levels 10, 11 and 12

There is a fan-coil unit to control air temperature in each zone.

Temperature control zones for shell and core floors are not defined as these are to be determined by the tenant. The Landlord would encourage a tenant to follow the BCO Guidance, as a minimum requirement, when defining the temperature control zones.

The shell and core floors are;

- Level 01
- Levels 05, 06, 07, 08 and 09

FIGURE 5.2 – TEMPERATURE CONTROL ZONES (CATEGORY A)

COOLING LOAD ANALYSIS

Cooling loads for each zone have been evaluated by computer software using standard CIBSE data to determine solar and transmission heat gains. Zoning for the shell and core floors follows the same zoning patterns as the Category A floors in order to establish central plant cooling loads.

CASUAL GAINS

Casual gains, meaning the heat gains generated within each zone from occupancy, lighting and small power, are based on the following criteria:

(a) Occupancy
1 person per 8 m^2 of nett internal area using standard CIBSE data for metabolic gains.

(b) Lighting
An allowance of 6 Watts per m^2 of nett internal area is included for the heat gains from electric lighting.

(c) Small Power
An allowance of 20 Watts per m^2 of nett internal area is included for small power heat gains.

FIGURE 5.3 – SHELL & CORE FLOORS WITH SERVICES CONNECTIONS

A tenant wishing to occupy their tenancy with Workplace Densities greater than 1 person per 8 m^2 and/or consume small power with a dissipation rate greater than 20 W/m^2 should seek further guidance. The Landlord's Consulting Engineer will be happy to oblige.

LOAD DIVERSITY

It is not anticipated that the whole of an office floor plate will be occupied to a Workplace Density of 1 per 8 m^2. A diversity factor (or a utilisation factor) of 80% has been assumed at the design stage.

Over the area of a whole floorplate, the Effective Density becomes 1 person per 10 m^2. Similarly, the casual gains from small power heat dissipation reduces to 16 W/m^2 over a whole floor. However, this reduction has only been factored into the sizing and selection of the building's water chillers.

CENTRAL PLANT START AND STOP TIMES

The Landlord's heating, ventilating and air-conditioning plant will run on weekdays from 7.0 am to 7.0 pm. This time schedule is subject to amendment by the Landlord.

INTERNAL TEMPERATURES

The air-conditioning system serving the office floors has been designed to control the air temperature at the temperature sensor within a band between 20°C and 24°C (i.e. 22°C ± 2°C).

The internal temperature for each control zone may be adjusted, either upwards or downwards, by amending the setpoint settings on the Building Management System (BMS). The BMS is under the control of the Landlord and such adjustments are to be made in consultation with the Landlord.

The building envelope is thermally-insulated to a high standard. It has also been constructed to achieve a high degree of airtightness. This will mean that internally generated heat will not readily escape through the walls and windows of a tenanted office area.

In view of this, it may be advisable to choose a higher than normal winter room air temperature to reduce the energy consumption attributable to cooling. This would be especially so where the density of occupation and the level of small power consumption for business machinery, (such as computers, printers, copiers, etc.) is very high. For example, choosing a temperature of 24°C will be more energy efficient than a temperature of 22°C in areas where internally generated heat gains exceed the heat loss through the structure and fabric of the building.

The choice of temperature is of course a matter for each tenant and how the office space is used. The foregoing example is given for information and guidance.

LIGHTING LEVELS

Office lighting has been designed to achieve an average level of 500 lux on the working plane under open plan conditions.

The lighting system has been sub-divided into control zones that allow the users to dim the lighting levels to suit their particular preferences.

The perimeter zones also include dimming features to account for daylight entering through the external glazing.

For modern offices with computer screens, it is suggested that the lighting levels are dimmed to an average level of between 300 and 400 lux.

As stated previously, the lighting system has been arranged for open plan conditions. It may be necessary to alter and/or enhance the lighting to account for partitions.

FIGURE 5.4 – LIGHTING CONTROL ZONES

5.3 LANDLORD MECHANICAL SERVICES

GENERAL

This section is intended to provide a general overview of the Landlord's mechanical services that are installed within the building. These systems are owned and operated by the Landlord but are described here to provide a tenant with some background knowledge as to how their tenancy is serviced.

HEATING

HEAT SOURCE

The building is heated by way of a connection to the Coventry District Energy Company's district heating scheme. There is a district heating sub-station in the Basement which provides a source of heat to the entirety of the building.

The heat supplied by CDEC is a low carbon energy source.

HEAT DISTRIBUTION

The heat arriving into each tenancy is in the form of piped hot water (known as Low Pressure Hot Water). This is circulated to the perimeter fan-coil units in those tenancies fitted out to Category A standards.

On shell and core floors, the tenant is to install piped hot water to the heat emitters of their choice.

Heat emitters are most likely to be 4-pipe fan-coil units of a similar specification to those installed on the Category A floors. The heating pipework, whether on a Category A floor or a shell and core, is to be arranged with a reverse return configuration.

HEAT METERING

There are heat meters on each floor to allow the Landlord to charge for the heat consumed by the tenant.

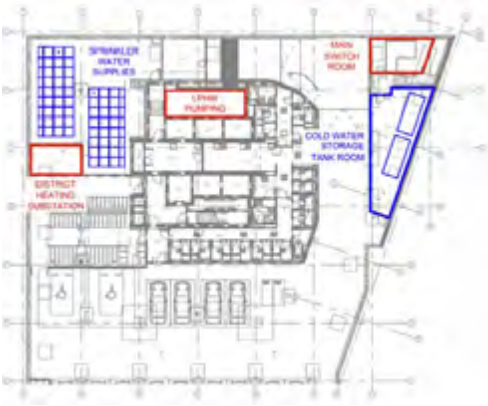


FIGURE 5.5 – BASEMENT SERVICES

FIGURE 5.6 – GROUND FLOOR SERVICES

COOLING

WATER CHILLERS

The building is cooled by a pair of roof-mounted air-cooled water chillers.

CHILLED WATER

Chilled water is distributed to all tenanted areas by way of pumping plant at roof level.

On the Category A floors, the chilled water is piped to all of the fan-coil units. On shell and core floors, the chilled water terminates with isolating valves in the ceiling void close to the main risers.

Chilled water pipework, whether on a Category A floor or a shell and core floor, is to be arranged with a reverse return configuration.

Tenants are to note that the chilled water is designed to arrive at each tenant floor at a temperature of 7° Celsius. This will mean that all pipework to be installed on the shell and core floors is to be thermally-insulated and vapour-sealed. Fan-coil units will need to be fitted with condensate drains.

CHILLED WATER METERING

There are “heat” meters on each floor to allow the Landlord to charge for the cooling energy consumed by the tenant.

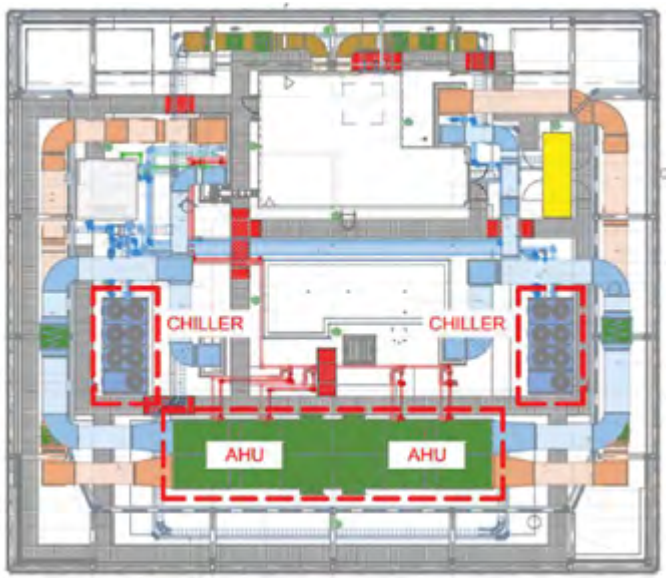


FIGURE 5.7 – AIR HANDLING UNITS AND CHILLERS AT ROOF LEVEL

VENTILATION

AIR-HANDLING PLANT

There are two air-handling units installed on the roof of the building. These units provide filtered and heated ventilation air to the tenanted areas of the building.

DISTRIBUTION

The ventilation air is ducted to each floor by way of two rising ducts; one on the Eastern Wing of the central core and one on the Western Wing of the core. There are ducted connections from the two riser positions supplying air to a total of four Variable Air Volume (VAV) controllers. The VAV controllers regulate the ventilation airflow in response to the concentration of carbon dioxide gas in the air within that zone of the office floor plate.

There is a range of ductwork on the downstream side of the VAV controllers that connects to each fan-coil unit on each of the Category A floors.

On shell and core floors, the incoming tenant will be obliged to install the ductwork distribution on the downstream side of the VAV controllers to suit the preferred space planning arrangements.

Tenants are at liberty to install a greater number of VAV controllers to suit their particular fitting-out plans. For example, a large Conference Room with a high, but infrequent, occupancy may benefit from having a VAV controller dedicated to that room.

EXHAUST AIR

Exhaust air is removed from the office floor plates through open grilles in the ceiling. Thereafter, air is drawn from the ceiling void into an air shaft that rises to roof level.

SPRINKLERS

GENERAL

The building is sprinkler-protected to an Ordinary Hazard III classification.

WATER SUPPLIERS

The water supplies for the sprinkler installation are located in a dedicated room in the Basement. This room contains two water storage tanks, two fire pumps, and the main valves that distribute fire-fighting water to the office floor plates.

SPRINKLER HEADS

Tenanted areas fitted out to Category A standards are equipped with both ceiling-mounted sprinkler heads and sprinkler heads protecting the ceiling void above.

Shell and core floors are fitted with basic arrays of high level sprinklers to satisfy BS EN 12845:2015. These may need to be amended as necessary to suit a tenant's space planning requirements.

HOT AND COLD WATER

GENERAL

Hot and cold water is supplied to the common areas of the building under the Landlord's control. Common areas in this context refer to the toilet accommodation on each floor and the Basement shower accommodation amongst others.

WATER SUPPLIES

There is a pair of cold water storage tanks in the Basement. Water is pumped to all draw-off points by way of a pressure booster located in the Tank Room.

Hot water is generated by a pair of fast recovery storage calorifiers in the Basement.

Primary heat for the calorifiers is sourced from the district heating sub-station.

TENANTS' WATER SUPPLIES

Tenants wishing to install kitchenettes and other similar facilities requiring a water supply are to connect to the building's boosted cold water service. Connections to the building's hot water service are not admissible.

Valved and demountable sections of cold water pipework are installed above the ceilings in the core areas of each floor. The tenant is to install a tee into the demountable sections when connecting into the Landlord's cold water system.

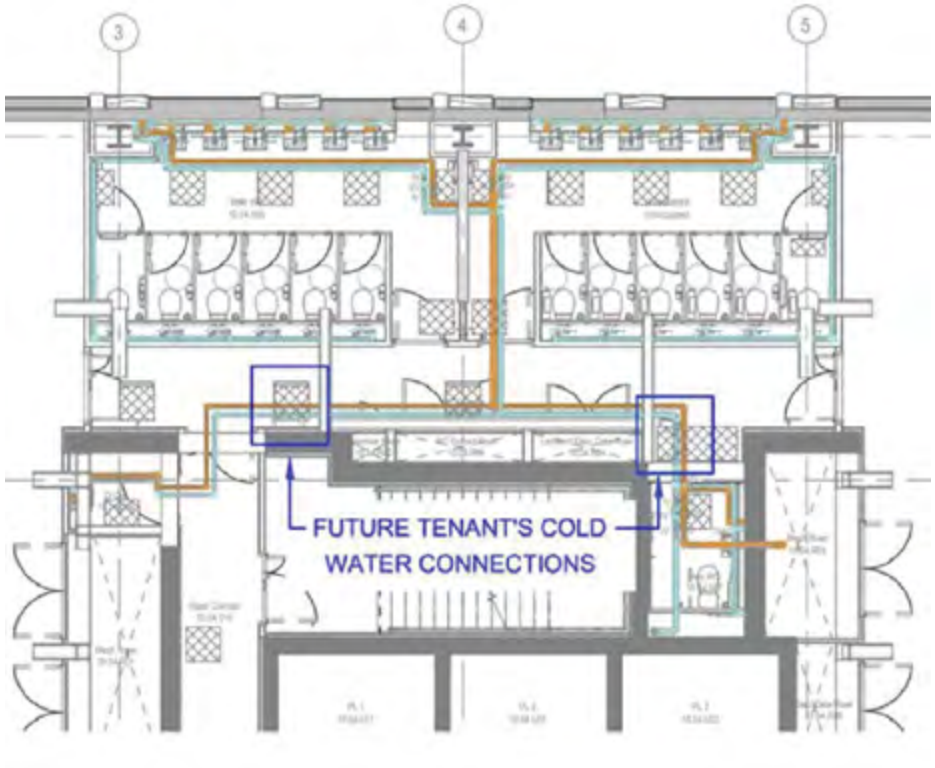


FIGURE 5.8 – LOCATION OF DEMOUNTABLE SECTIONS IN COLD WATER PIPEWORK FOR TENANT SERVICES CONNECTIONS

MISCELLANEOUS VENTILATION SYSTEMS

GENERAL

The following systems are dedicated to the common areas of the building. Their descriptions are given for information; they are unlikely to feature in any tenants' fitting-out work associated with the office accommodation.

TOILET VENTILATION

The Male, Female, and Disabled WC toilet accommodation on each office floor is equipped with extract ventilation. The extract fans are located at roof level.

Replacement air is drawn from the office ceiling voids by way of attenuated duct connections. These are fire-dampered where the duct penetrates the dividing wall between office and toilet.

BASEMENT SHOWER FACILITIES

This area is ventilated by way of a balanced system of supply and extract ventilation.

The air-handling plant associated with this system is located at Mezzanine level and is inclusive of a heat recovery device.

BASEMENT CAR PARK

The Basement car park is equipped with a fan-assisted extract system. The system has two principal functions:

- To control the level of pollution arising from vehicle exhausts.
- To evacuate heat and smoke in the event of an outbreak of fire.

Replacement air arrives into the Basement from the entrance at Ground Floor level and flows along the ramp leading to the Basement parking area.

The extract fans, of which there are two, are located in a dedicated plantroom at Mezzanine level.

BASEMENT GENERAL VENTILATION

There is a separate extract ventilation system serving the ancillary areas of the Basement, such as the switch room, the heating pump room, district heating sub-station, and the sprinkler water supply/pump room. Normally, this system provides general ventilation to these rooms.

In the event of a fire in any particular room, a series of automatically-controlled fire dampers open to the "fire" room and close to all other rooms, and extract heat and smoke to outside from the "fire" room. The fans associated with this system are located in the Mezzanine Fan Room which also houses the car park extract fans.

FIRE-FIGHTING LOBBY VENTILATION

The fire-fighting lobbies on each floor associated with the fire-fighting staircase and lift are equipped with an extract ventilation system. This system is designed to provide visibility to the fire service in their efforts to extinguish a fire on an office floor.

Replacement air for the extract system is introduced through an Automatic Opening Vent located at the head (i.e. at roof level) of the fire-fighting staircase.

There is an automatic damper at each lobby landing level. These dampers are connected to a rising builder's duct equipped with a pair of axial fans at roof level. The dampers are normally closed. In the event of a fire, the lobby damper on the "fire" floor opens and the extract fans located at the head of the ventilation shaft start.

SPRINKLER ROOM FRESH AIR VENTILATION

The Sprinkler Room in the Basement is equipped with a diesel engine-driven fire pump.

Aspiration and general ventilation air for the diesel engine is provided by a dedicated supply air system.

RECEPTION AND ENTRANCE FOYER

The Reception and Entrance Foyer are ventilated and air-conditioned by a dedicated constant volume air-handling system. The plant is located in a plantroom at Mezzanine level.

BIN STORE

This is equipped with an extract ventilation system.

RECEPTION OFFICE

This is ventilated and air-conditioned by way of a 4-pipe fan coil unit mounted in the ceiling void.

5.4 LANDLORD ELECTRICAL SERVICES

GENERAL

This section is intended to provide a general overview of the Landlord's electrical services that are installed within the building. These systems are owned and operated by the Landlord but are described here to provide a tenant with some background knowledge as to how their tenancy is serviced.

POWER DISTRIBUTION

INCOMING ELECTRICAL SUPPLY AND LOW VOLTAGE DISTRIBUTION

A dedicated substation is located on the Ground Floor of the building to provide power throughout the building. The substation in turn feeds the main switchboard located within the basement. Power is then distributed throughout the building via submain cables, installed on containment, and rising busbars.

Distribution Boards have been provided throughout the building in order to provide power to the landlord services (lighting, door access, mechanical equipment etc.).

Two Distribution Boards have been provided per half floor, one for power and one for lighting. These are solely for use by the individual tenancies.

BUSBAR TAP-OFF

LIGHTING & POWER DISTRIBUTION BOARDS

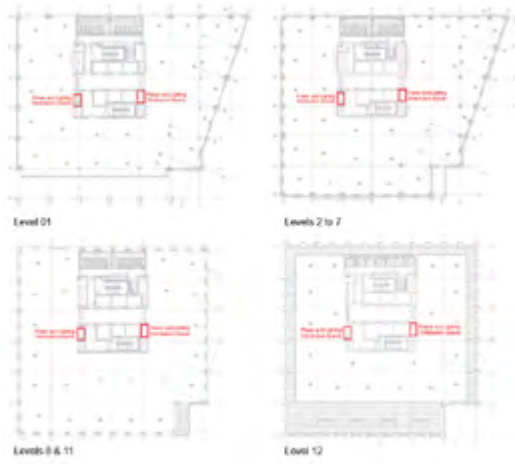


FIGURE 5.9 – LOCATION OF POWER & LIGHTING DISTRIBUTION BOARDS

GENERATOR

A diesel generator package is installed on the roof to provide power to essential services in the event of a power failure. The generator feeds a dedicated MCCB board also located on the roof. Essential power is then distributed to automatic transfer switches located adjacent to each piece of essential equipment. An 8-hour capacity service fuel tank has been installed.

- The following are the loads the generator supports:
- The firefighting lift.
- The two basement car park extract fans.
- The car park impulse fan.
- The smoke ventilation fans serving the fire fighting lobbies.
- The basement smoke clearance ventilation fans.
- The sprinkler diesel engine pump ventilation and aspiration air fans.
- The Firefighting stairs lighting.
- The three uninterruptable power supply units.

UNINTERRUPTABLE POWER SUPPLIES

To ensure that continuous power is supplied to the Landlord data infrastructure, UPSs have been installed in each of the three landlord data cabinets (two on the mezzanine and one on Level 8). The UPSs have a duration of 25 minutes.

POWER QUALITY

To provide the correct voltage and to correct any power factor issues on site, a harmonic mitigationand correction of displacement power factor units have been installed on the wall in the to the main LV Switchboard room.

The unit is able to operate to provide harmonic compensation and reactive power compensation to improve the displacement power factor (either leading or lagging) and load balancing to improve the mains current as seen by the utility supply. The unit is to correct the line-line or line-neutral connected loads.

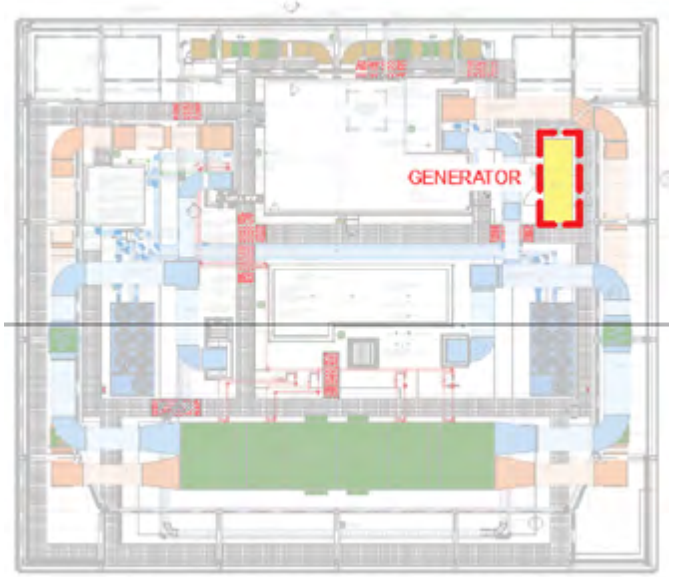


FIGURE 5.10 – LOCATION OF GENERATOR AT ROOF LEVEL

SURGE PROTECTION

In addition to the Units described above, Surge Protection Devices (SPDs) have been installed to provide protection from overvoltage (such as lightning strikes)

The SPDs as provided are located in/adjacent to the following:

- Type 1+2 connected to the Main LV panel.
- Type 1+2+3 on all MCCB boards and DBs serving external equipment.
- Type 1+2+3 on all DBs serving telecommunication rooms.
- Type 2+3 on all circuits supplying the landlord's comms room.
- All incoming utility supplies, including all telecommunications cabling.

EARTHING

The electrical installation has been installed complete with all required earthing arrangements. In addition provision has been made, in the form of a dedicated earth bar within each tenant's riser, for a clean earth.

This is intended to be used solely for any IT equipment installed within the tenancy.

LIGHTING

GENERAL

Lighting has been provided throughout the landlord areas including:

- Main entrance
- Lift lobbies
- Corridors and stairs
- Toilet/shower facilities
- Plantroom and risers
- Carpark
- External

All light fittings have an LED source to provide an energy efficient scheme.

LIGHTING CONTROL

To further enhance the efficiency of the system lighting control has been installed throughout. The user interface is a cloud-based software package which can be accessed via PC. Any future modifications to the layouts, or changes to the lighting requirements, can be achieved by using this interface. The DALI based system operates in the following way:

(a) Main entrance
Lighting is to be controlled via a DALI based control system with a scene setting plate located at the reception desk.

(b) Lift lobbies
The Ground Floor lift lobby is to be controlled from the main entrance scene setting plate.

Lift lobbies on other levels are to be controlled by local PIRs with simple ON/OFF, presence, and daylight functions. The PIRs are to be equipped with a run-on timer, the timers are to be set initially to 10 minutes.

(c) Corridors and stairs
Corridors are generally to be controlled by local PIRs with simple ON/OFF, presence, and daylight functions. The PIRs are to be equipped with a run-on timer, the timers are to be set initially to 10 minutes.

Fittings located within these areas which are equipped with smart controls are to be activated as groups by their internal sensors.

Stair fittings are to be programmed to operate in such a way that upon entry into the stairwell, the fittings on that level, one level above, and one level below are turned on.

(d) Toilet/shower facilities
Toilet and shower areas are to be controlled by local PIRs with simple ON/OFF, presence, and daylight functions. The PIRs are to be equipped with a run-on timer, the timers are to be set initially to 10 minutes.

(e) Plantroom and risers
Plantrooms and risers are controlled by local PIRs with simple ON/OFF, presence, and daylight functions. The PIRs are to be equipped with a run-on timer, the timers are to be set initially to 10 minutes.

(f) Carpark
Carpark fittings are controlled by local PIRs with simple ON/OFF, presence, and daylight functions. The PIRs are to be equipped with a run-on timer, the timers are to be set initially to 10 minutes.

(g) External Lighting
The external lighting is to be controlled with a DALI based system with a photocell and timer. The external lighting is also to be capable of scene setting and timed programmed scenes.

(h) Category A Fitout
A fully addressable DALI lighting has been installed. The office lighting system is equipped with user operated dimmable controls in zones with a floor area as indicated opposite to allow an illuminance range of between 300 and 500lux.

Lighting within each zone is controlled by suitable sensors which enable zones to be individually, and automatically, dimmed whenever external daylight can contribute to the interior lighting levels.

(i) Shell and core floors
A lighting control enclosure and data outlet has been installed within the rider for future installation and connection of control modules. 4.3.3

EMERGENCY LIGHTING

The general lighting is supplemented with emergency fittings and illuminated exit signs to illuminate the exit routes during any local or general power outage. The emergency lighting system is monitored and tested by the central DALI control.

TYPICAL LIGHTING CONTROL MODULE

FIRE SAFETY

FIRE ALARM SYSTEM

A Fire Detection and Alarm System has been installed throughout the building. The system comprises a number of panels, repeater panels, employs both conventional and aspiration detection, manual call points, interfacedevices, beacons, and voice evacuation alarms.

The entire system, including within the tenanted areas, is linked together to enable phased evacuation of the building.

The core areas, including interfaces to door access etc., are connected onto one of the two landlord's Fire Alarm Panels.

Each tenanted floor is equipped with one dedicated loop from one of the two tenant Fire Alarm Panels.

Detection within the shell and core floors is achieved by using an aspirating smoke detection system. Several loop devices have been installed onto these levels which will enable any future devices to be installed without interrupting other loops on the system.

Within the Category A levels the void detection is in the form of an aspirating system and detection below ceiling level is by conventional optical detectors. These areas have also been equipped with beacons and voice evacuation alarms.

ASPIRATING SMOKE DETECTION SYSTEM

REFUGE ALARM

A refuge alarm system has been installed to enable less able-bodied persons to communicate with fire officers when the building is being evacuated.

Main panels are located at the reception desk and within the dedicated Fire response room, outstations are located within each escape stair on each level.

ACCESS CONTROL

FOB/CARD ACCESS

A number of fob/card readers have been provided throughout the building to allow authorised persons entry. The access system has been installed to the main entrances into the building, on all doors leading from the core area into the office space (5 per floor), and for the security barriers in the reception area.

AUDIO/VIDEO INTERCOMS

In addition to the fob/card entry there is an Audio/ Video intercom system which provides two-way audio and one way video between the three entry points and the two base stations (receivers) in the following locations:

Wall mounted vandal resistant external audio/video intercoms:

- Basement
- Ground floor external pass door (adjacent to main entrance)
- Ground floor cyclist door to car park

Desk mounted Internal Intercom Handset / Monitors:

- Reception desk
- Post Room / Management Office

DATA CONNECTIVITY

The building data infrastructure has been installed to achieve Wired Score Platinum status. It has two dedicated ‘meet-me’ chambers located externally which are linked to the dedicated intake rooms via several ducts. The potential to have two incoming lines provides resilience to the telecommunications system.

TELECOMMUNICATION INTAKE ROOMS

The building has two telecommunication intake rooms; one located within the basement and one on the Ground Floor. These are equipped with dedicated Distribution Boards and cooling.

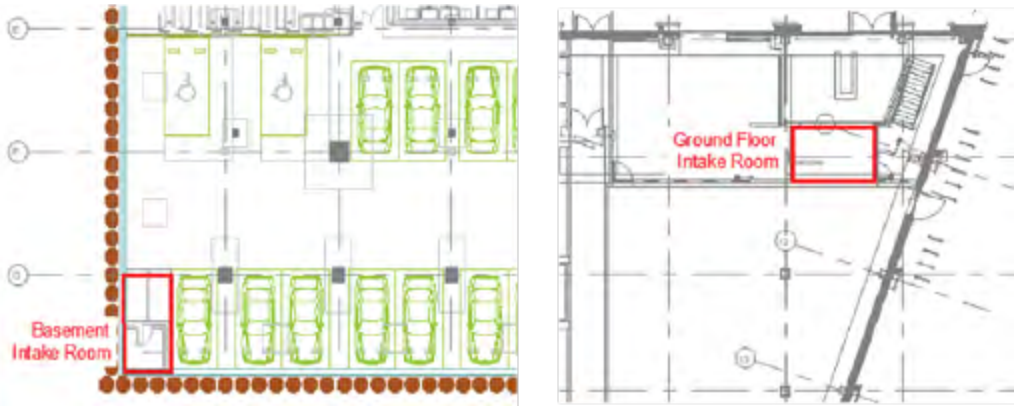


FIGURE 5.11 – LOCATION OF TELECOMMUNICATION INTAKE ROOMS

DATA CONNECTIVITY

The building data infrastructure has been installed to achieve Wired Score Platinum status. It has two dedicated ‘meet-me’ chambers located externally which are linked to the dedicated intake rooms via several ducts. The potential to have two incoming lines provides resilience to the telecommunications system.

TELECOMMUNICATION INTAKE ROOMS

The building has two telecommunication intake rooms; one located within the basement and one on the Ground Floor. These are equipped with dedicated Distribution Boards and cooling.

FIBRE TUBE/DUCT

A fibre ducting system has been installed to connect the landlord comms rooms and tenant risers to the intake rooms as follows:

- 12-way duct from Basement intake to Mezzanine comms room
- 12-way duct from Ground floor intake to Mezzanine comms room
- 12-way duct from Basement intake to ground floor intake
- 12-way duct from Mezzanine comms room to landlord satellite cabinet
- Basement intake to each and every tenant floor via the LHS riser utilising 2 x 12-way ducts
- Ground floor intake position to each and every tenant floor via the RHS riser utilising 2 x -way duct

The tenant ducting installed within the riser will be equipped with the following on each level:

- An internal tube distribution box
- Break out of two tubes from the duct
- The remaining tubes will be connected with clear straight connectors

Please note that the installation of the fibres within the tubes will be future IS/BT works.

LANDLORD COMMS ROOM

The landlord comms equipment is located on the Mezzanine level with an additional satellite cabinet located on the 8th Floor. The data installation serves systems such as CCTV, Door Access, Data outlets (within landlord areas), and Wi-Fi provision.

FIBRE OPTIC BREAKOUT BOX INSTALLED WITHIN TENANT’S RISER

WI-FI

Wi-Fi access points have been installed to provide coverage within the Ground Floor reception area and within the lift lobbies from level 1-12.

CCTV

The CCTV system has been installed to provide general surveillance and monitoring of the building at Ground Floor and within landlord areas.

Command and control of all the cameras is via the PC workstation located in the management office. The rack mounted NVR is set to record at a rate of 16 images per camera per second archiving for thirty days at 2Mp 1080p resolution.

The system design consists of the following cameras:

- 153 x HIK 4 MP IR Fixed Turret Network Camera
- 12 x HIK 8MP IR varifocal Bullet Cameras

ENERGY METERING

A sitewide metering system has been installed to facilitate the recording and viewing of all electric, water & heat meters.

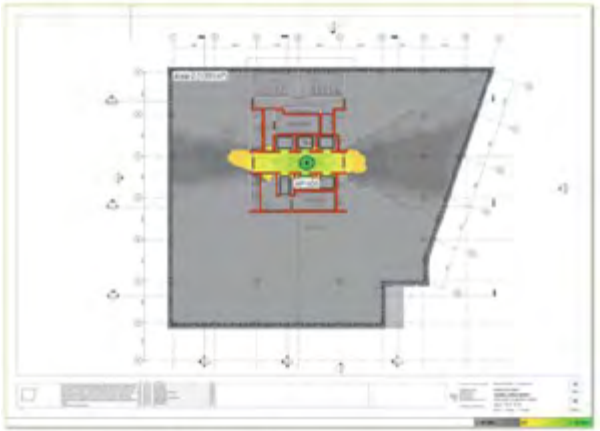
The system comprises a Universal Gateway installed within the Basement Electrical Switchroom and Modbus wiring to meters throughout the building.

The gateway is fitted with a GPRS telephone module to enable connection to the Autometers remote servers where information is recorded & can be viewed on-line. A data connection to the clients IT network will also be provided as back-up.

The electric meters record the Voltage, Current, kWh, kVAr, frequency, maximum demand and harmonics for all meters.

Two electrical meters are installed within each tenancy; one for power and one for lighting. These are located in the bottom enclosure of the Distribution Boards and can be read manually if required.

Ground Floor Wi-Fi Coverage



Typical Floor Wi-Fi Coverage

FIGURE 5.12 – PLANS ILLUSTRATING WI-FI COVERAGE

ELECTRIC VEHICLE CHARGING

The EV charging system in the basement consists of two 7kW wall mounted charging units with automatic load management. A dedicated distribution board has been provided with 12 TP&N ways and a 100A supply within a separate room in the basement.

The load management system allows for future expansion using the existing 100A supply. In addition, containment routes have already been installed to serve 7 additional spaces.

FIGURE 5.13 – EV CHARGING LOCATIONS & FUTURE PROVISION

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6 APPENDICES

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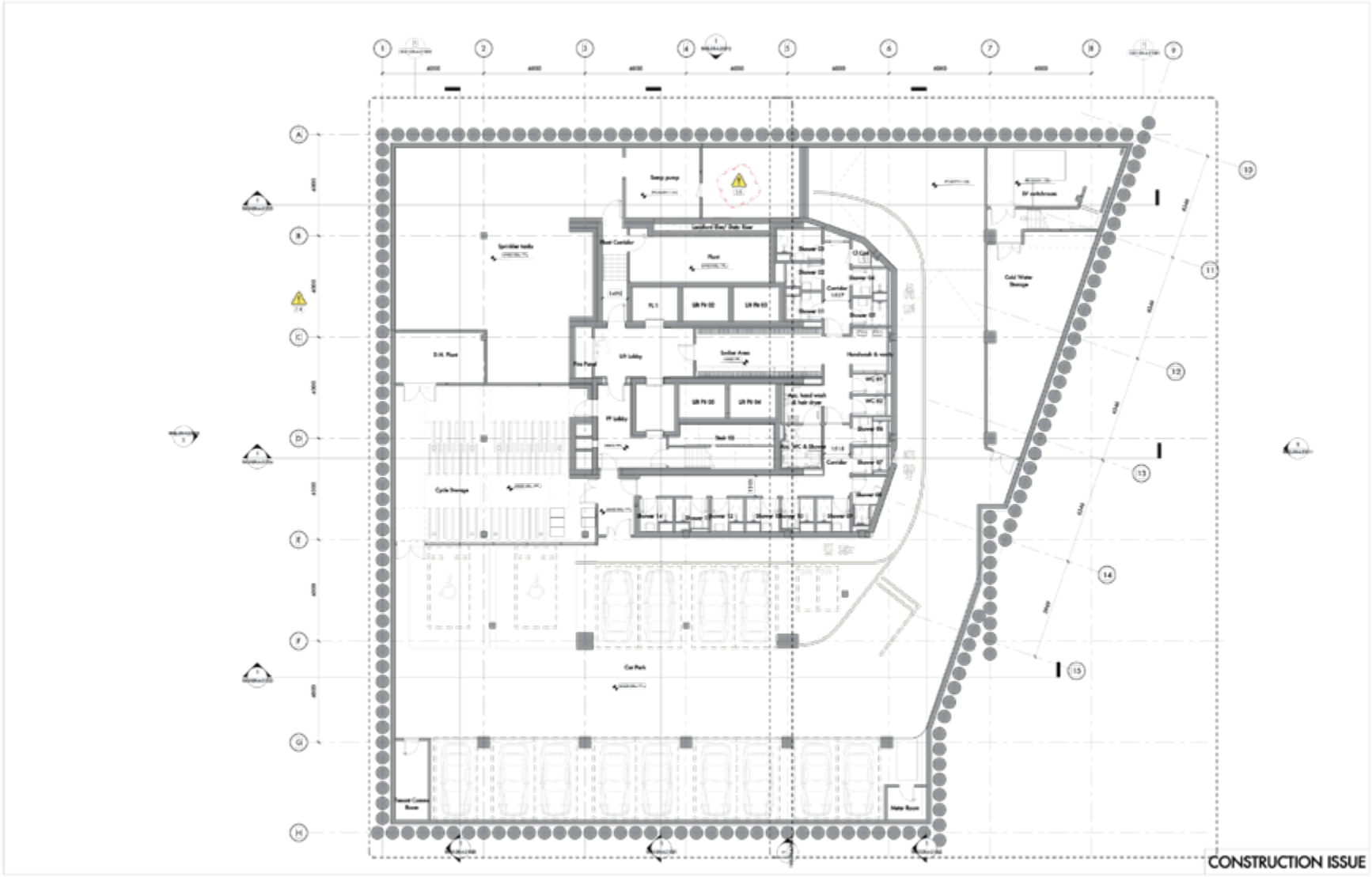
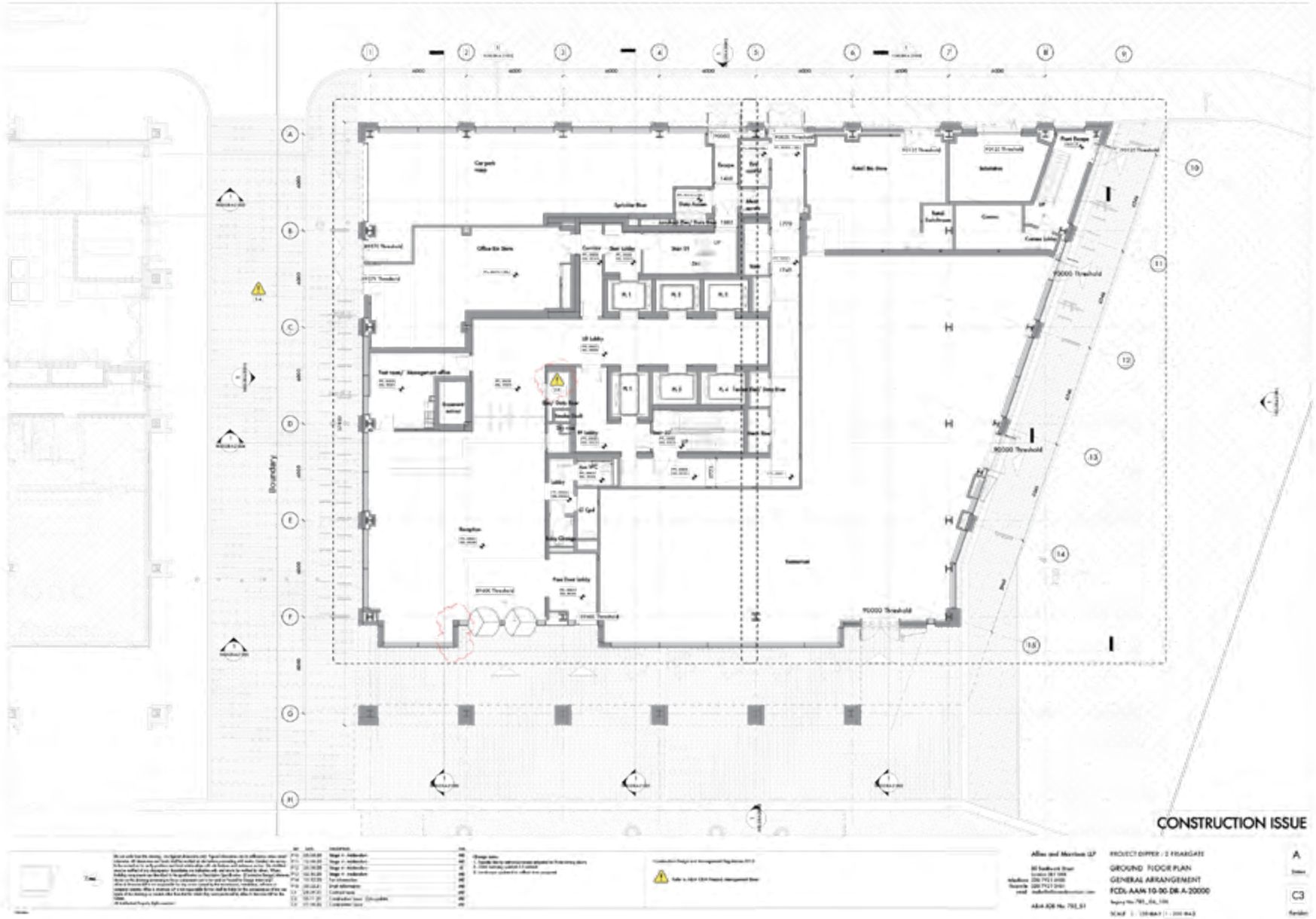
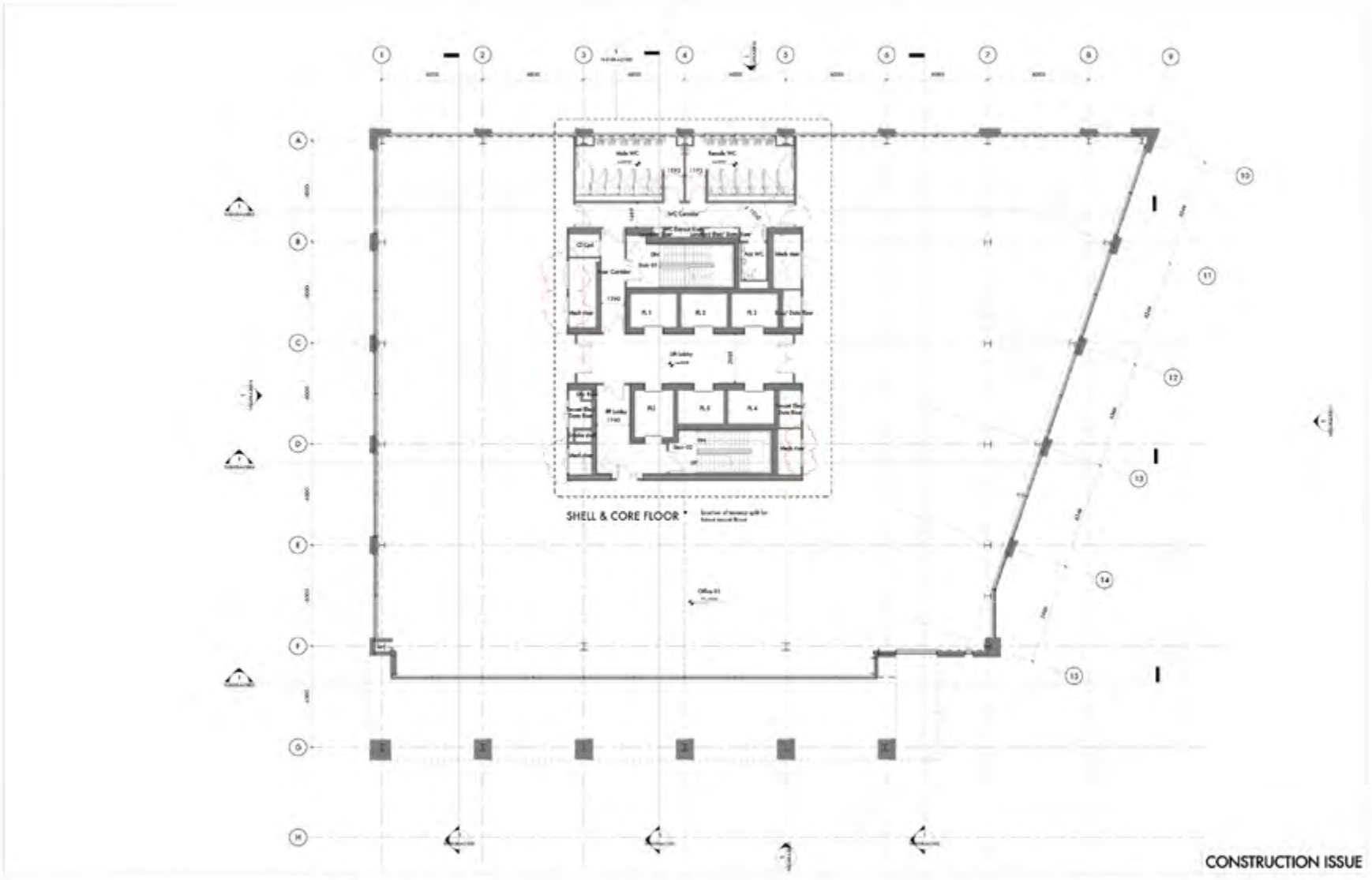
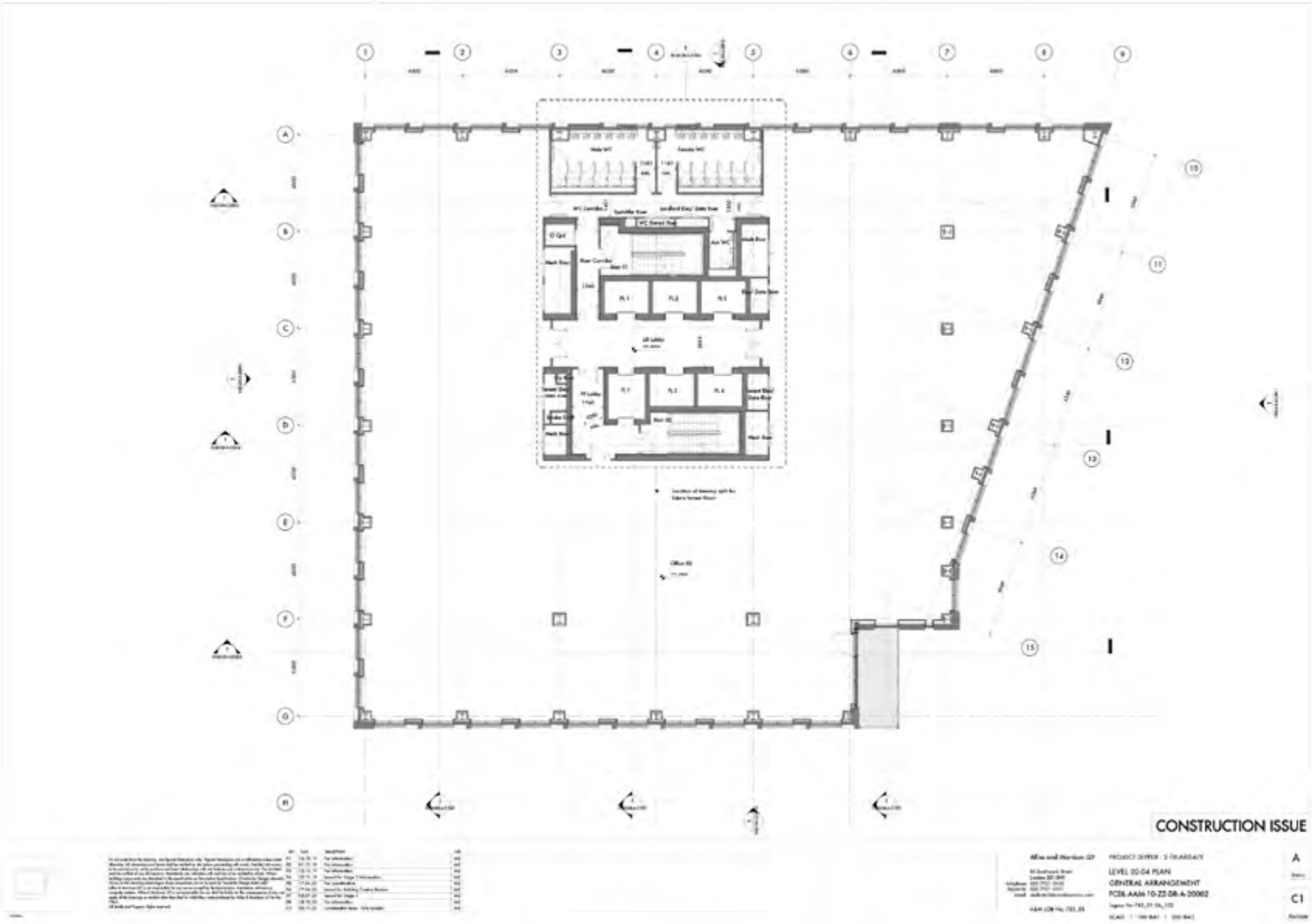
ARCHITECTURAL **DRAWINGS**


CONSTRUCTION ISSUE
Allies and Morrison LLP
PROJECT DIPPER : 2 FEARGATE
BASEMENT PLAN
GENERAL ARRANGEMENT
FCDL-AAM-10-B1-DR-A-20000
A
C2


Boundary
CONSTRUCTION ISSUE
GROUND FLOOR PLAN
GENERAL ARRANGEMENT
FCDL-AAN-10-00-DR-A-20000


CONSTRUCTION ISSUE


SHELL & CORE FLOOR *
CONSTRUCTION ISSUE
Allies and Morrison LLP
PROJECT DIPPER : 2 TRIANGATE
FIRST FLOOR PLAN
GENERAL ARRANGEMENT
FCDS-AAM6 10-01-DR-A-20001
A
C1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LEVEL 02-04 PLAN
GENERAL ARRANGEMENT
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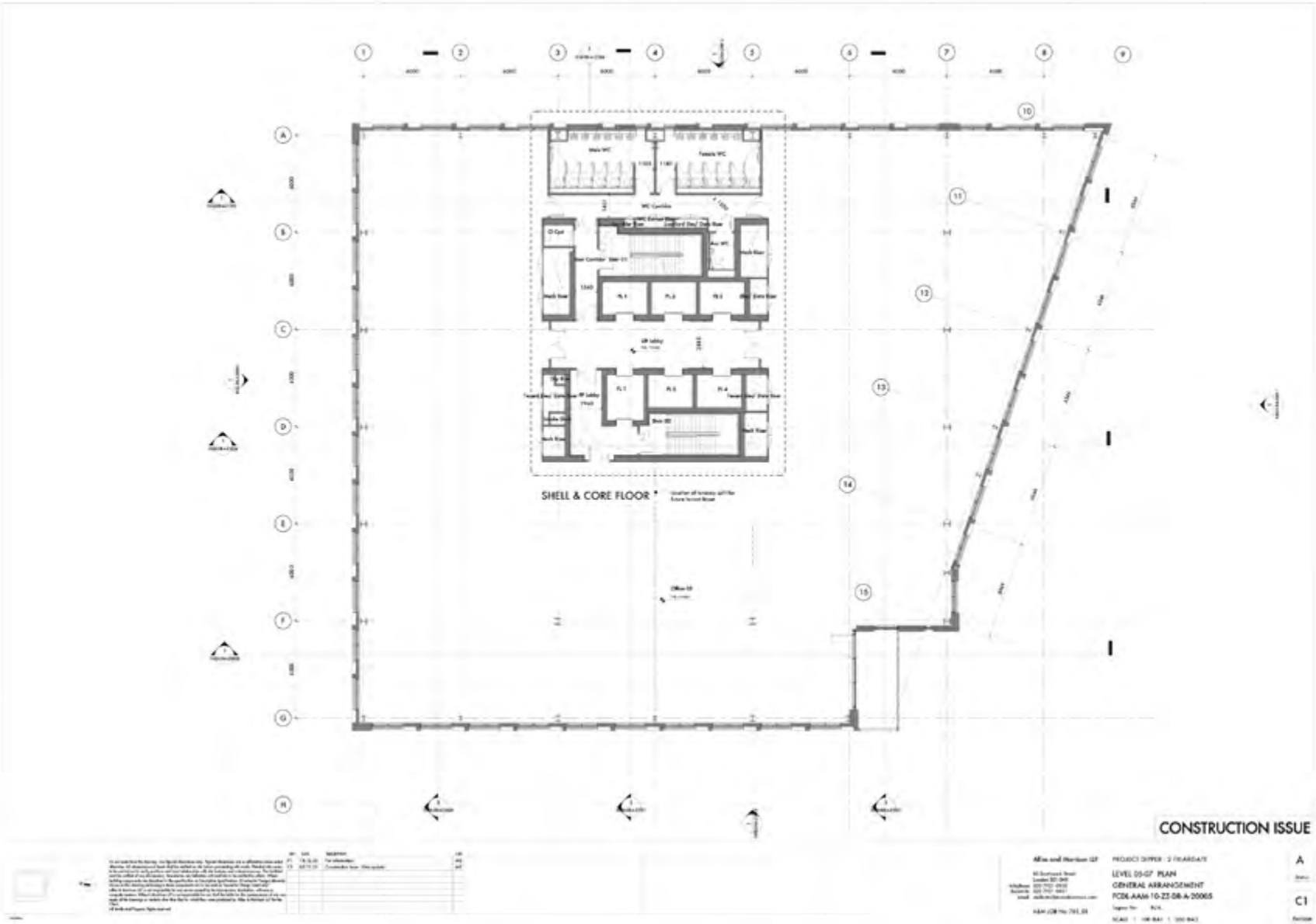
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CONSTRUCTION ISSUE
LEVEL 05-07 PLAN
GENERAL ARRANGEMENT
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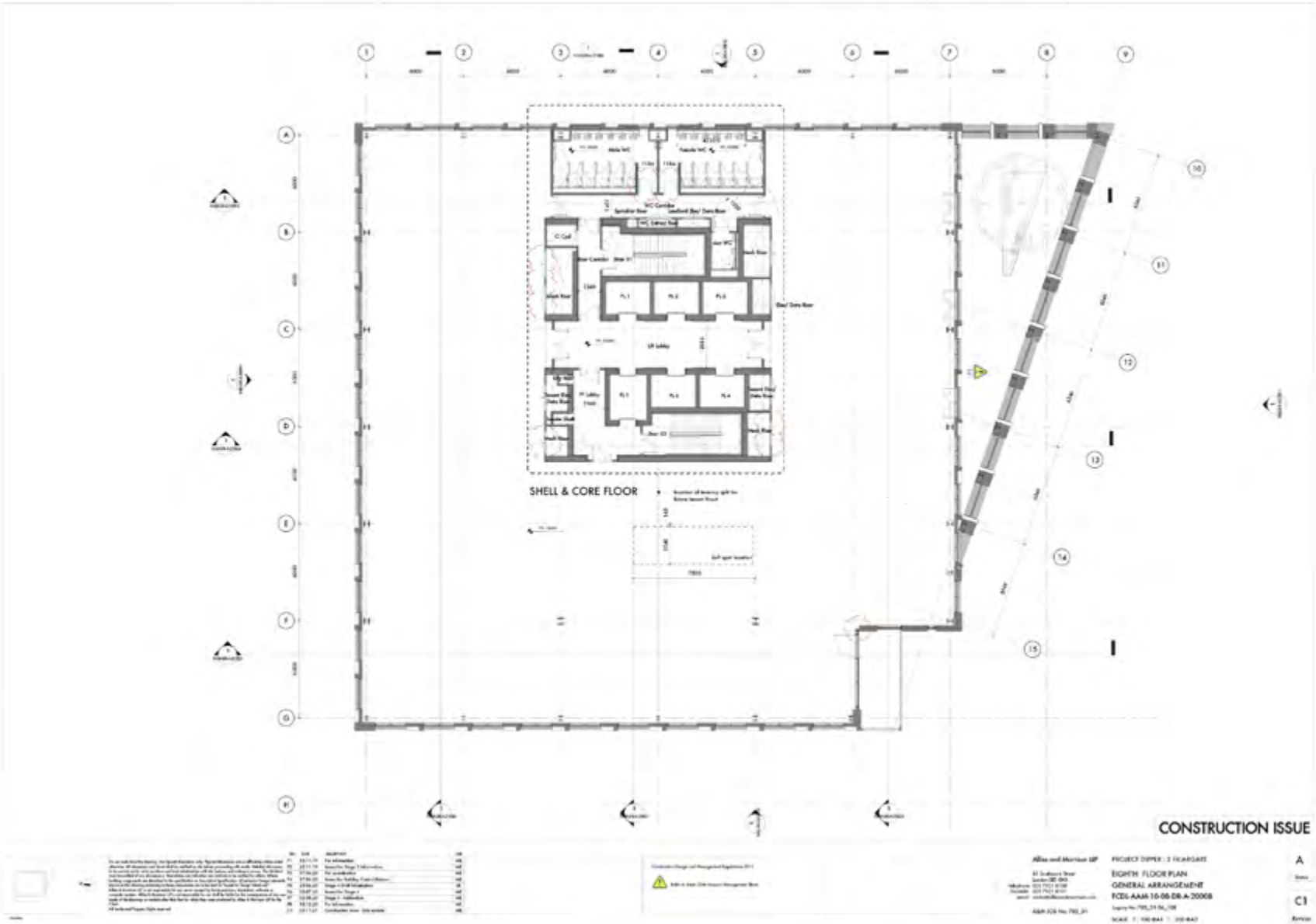
SHELL & CORE FLOOR
CONSTRUCTION ISSUE
EIGHTH FLOOR PLAN
GENERAL ARRANGEMENT
FCEL-AAA6-10-08-DR-A-20008
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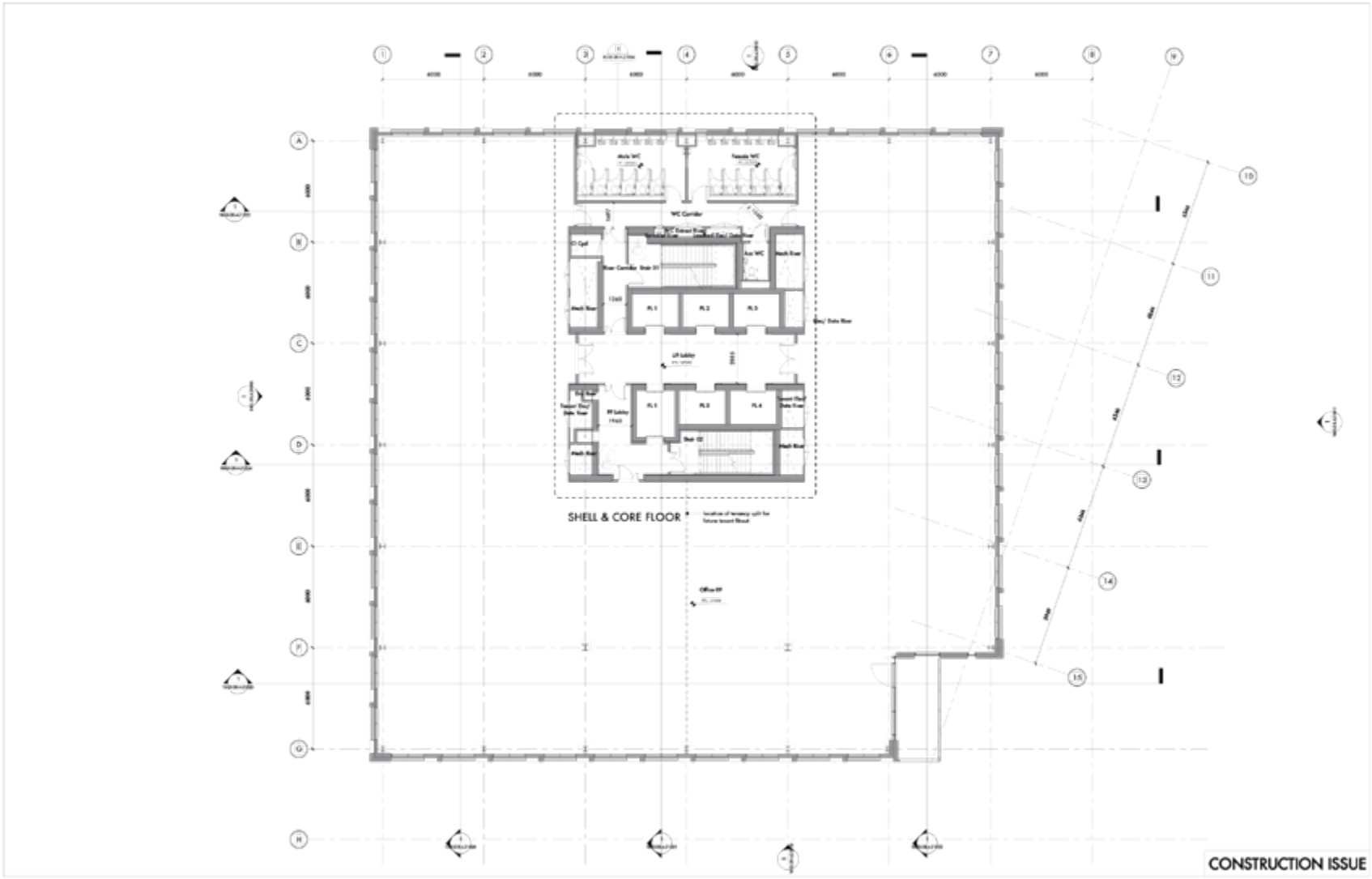
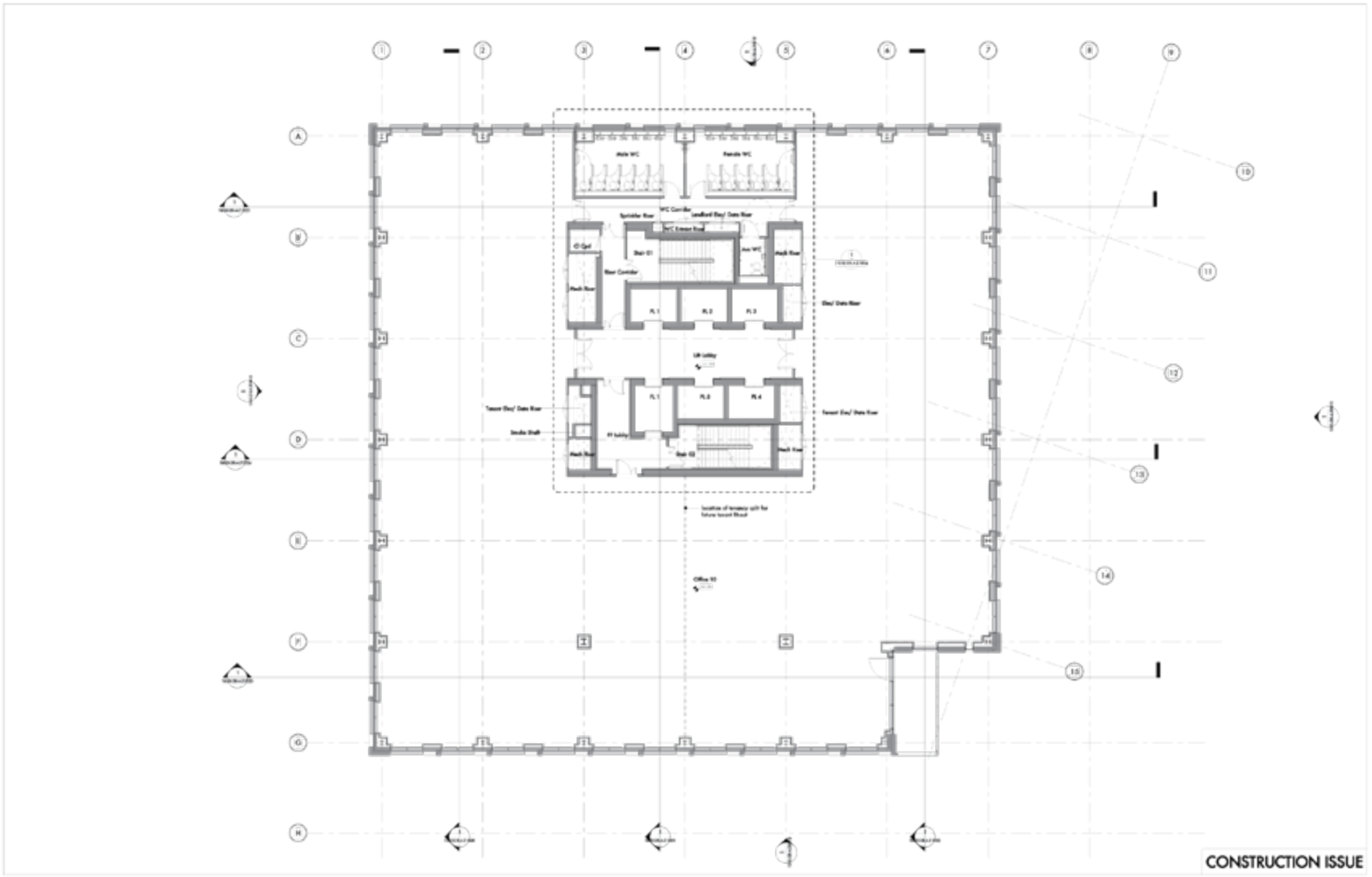
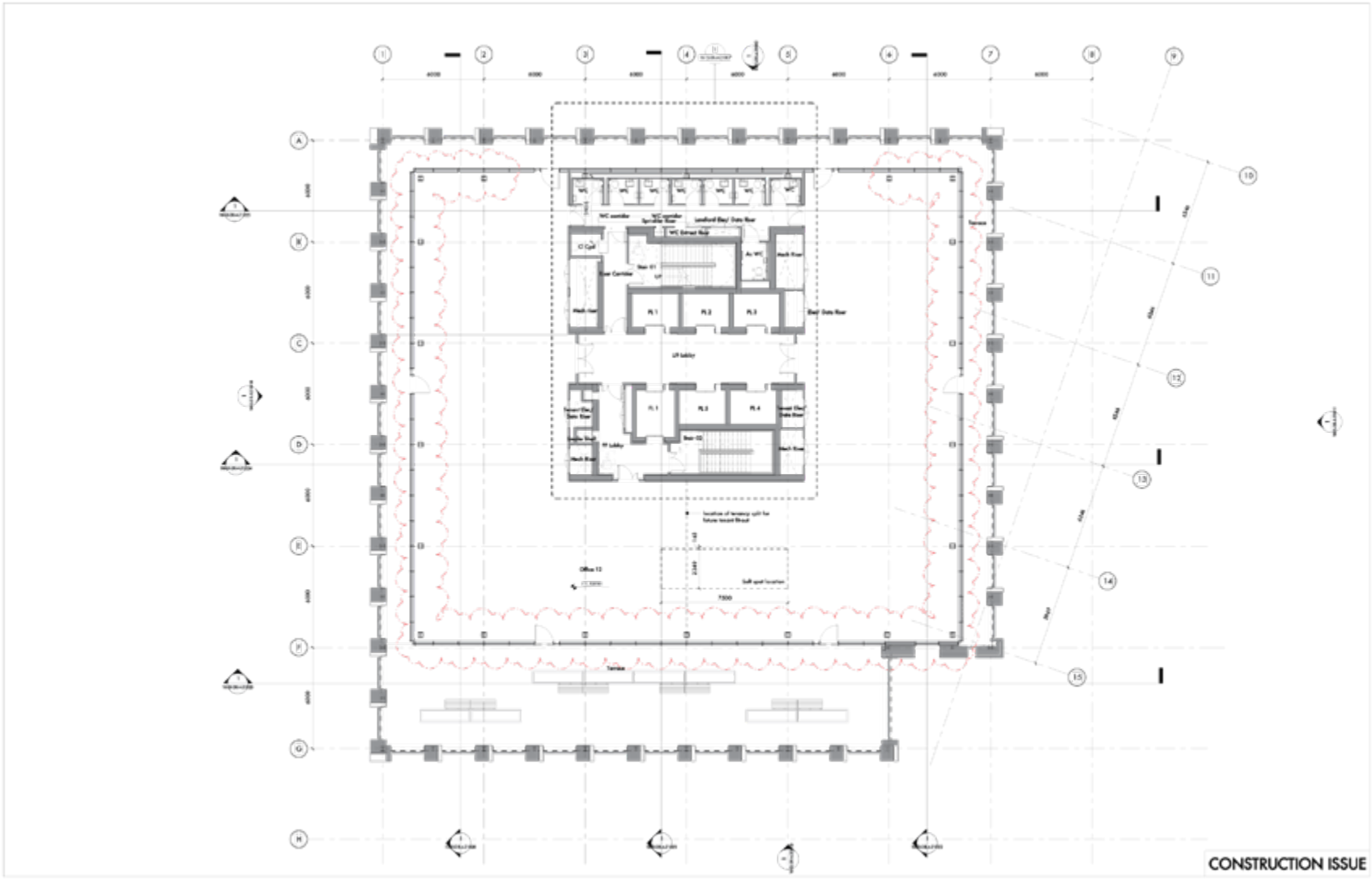
C1


SHELL & CORE FLOOR
CONSTRUCTION ISSUE
NINTH FLOOR PLAN
GENERAL ARRANGEMENT
PCDL-AAA6-10-09-DR-A-20009


Male WC
Female WC
WC Corridor
Sprinkler Riser
Landlord Elec/ Data Riser
Stair 01
Riser Corridor
Mech Riser
Elec/ Data Riser
Tenant Elec/ Data Riser
Smoke Shaft
Stair 02
Location of temporary wall for future tenant fitout
Office 01
CONSTRUCTION ISSUE
Allies and Morrison LLP
PROJECT DIPPER - 2 FRAIRGATE
LEVELS 10-11 PLAN
GENERAL ARRANGEMENT
PCDL-AAM-10-ZZ-DR-A-20010
B
C1


CONSTRUCTION ISSUE
TWELFTH FLOOR PLAN
GENERAL ARRANGEMENT
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A
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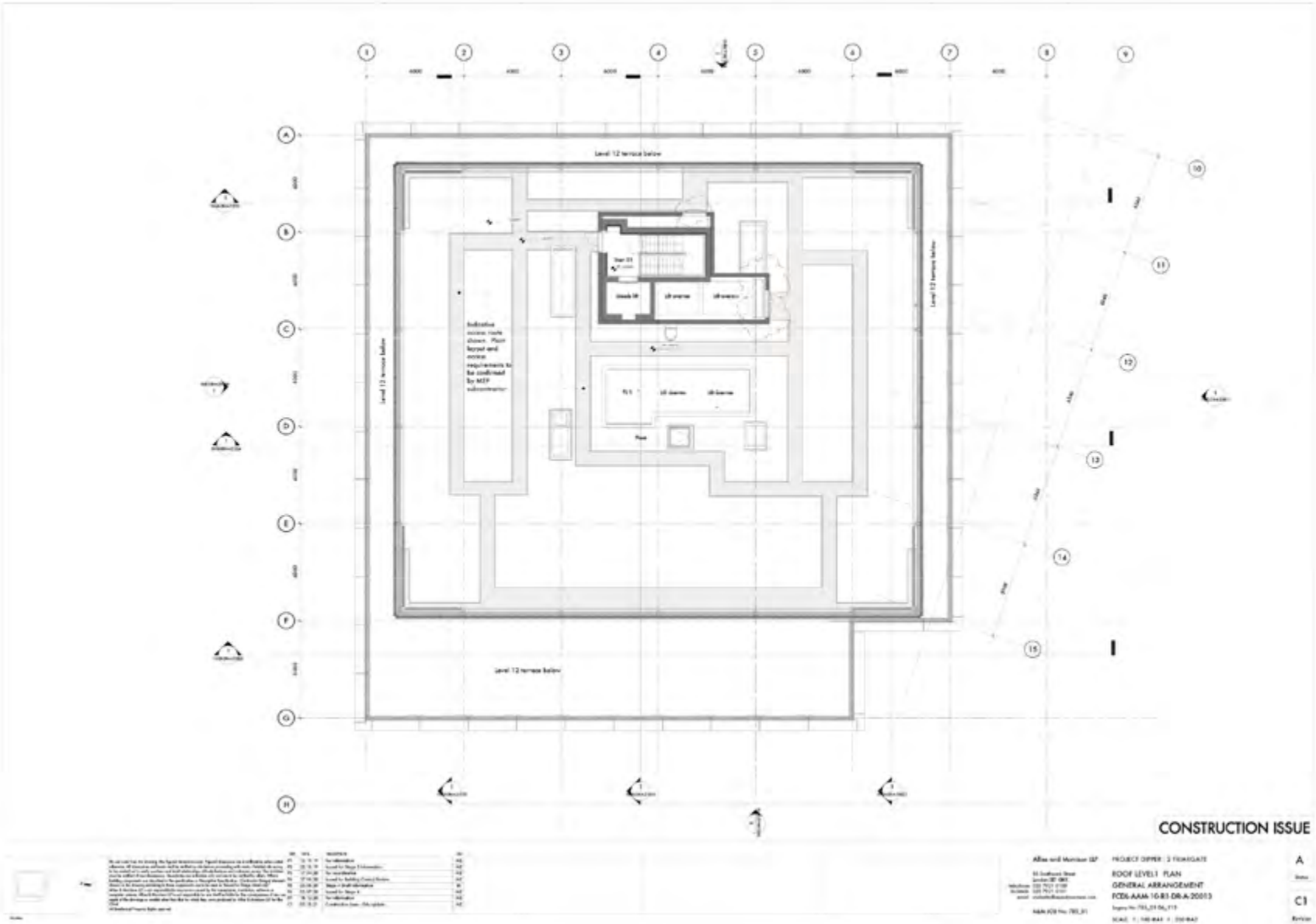
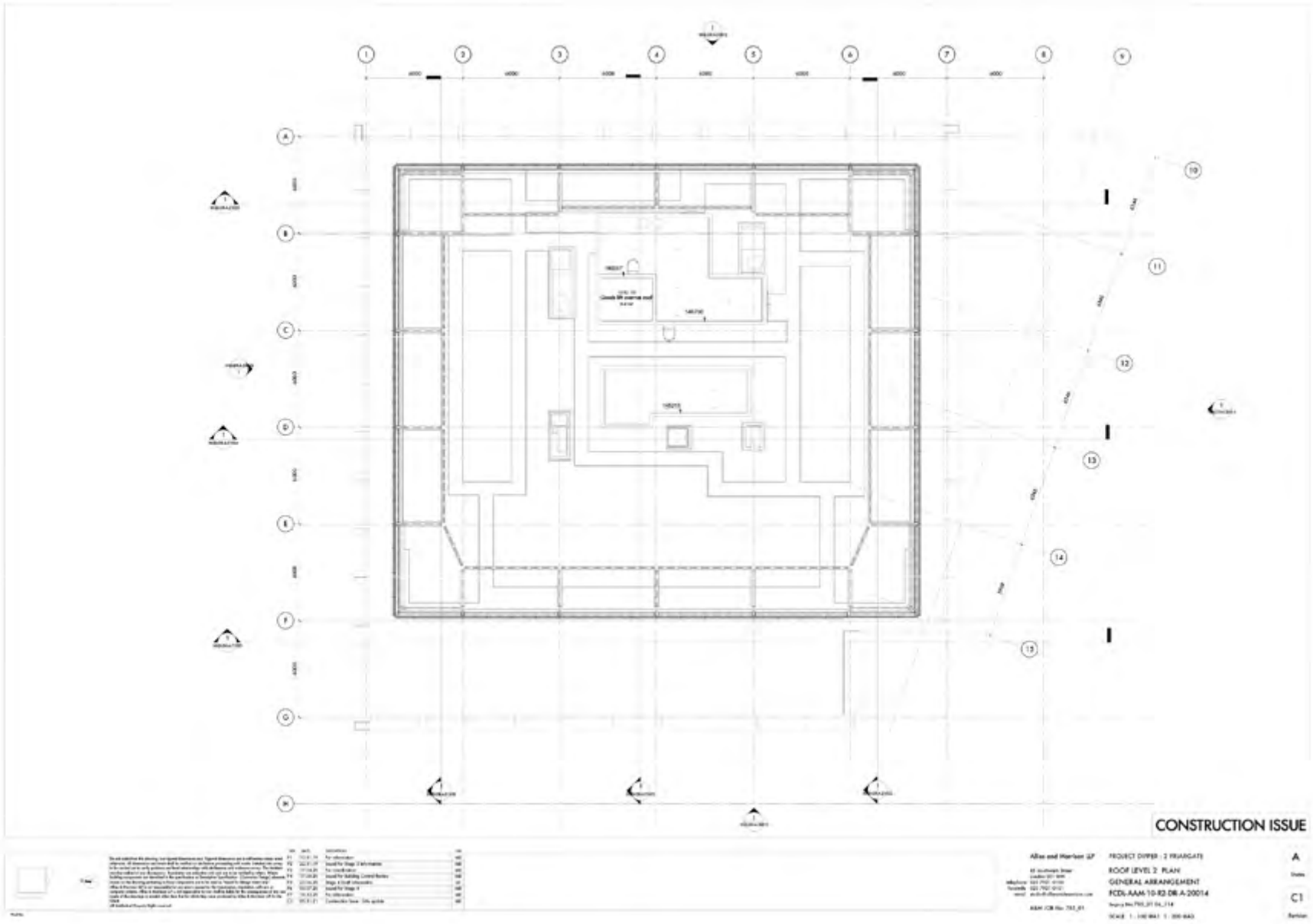
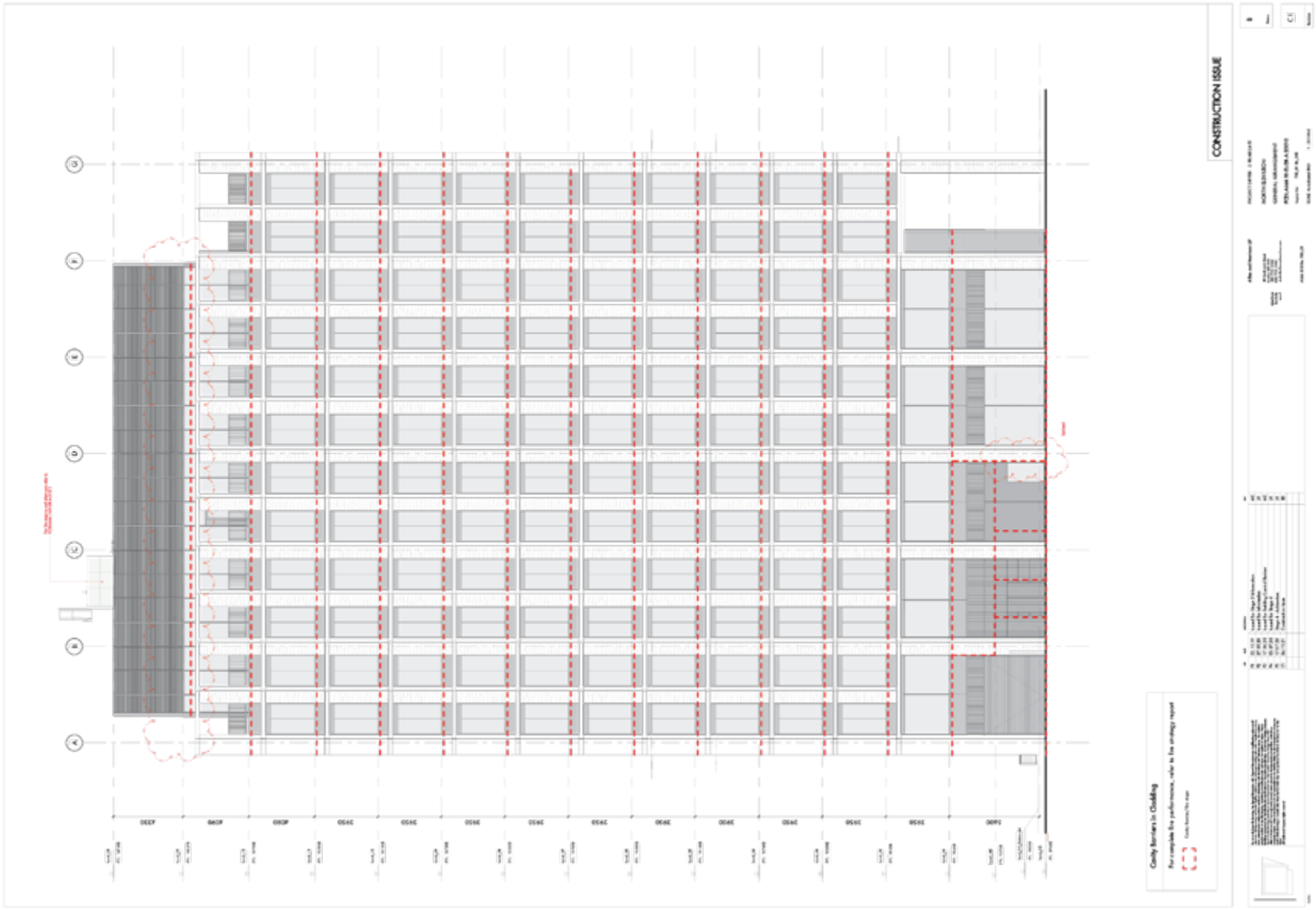

Level 12 terrace below
Level 12 terrace below
Level 12 terrace below
Level 12 terrace below
Indicative access route shown. Plant layout and access requirements to be confirmed by MEP subcontractor
Plant
CONSTRUCTION ISSUE
PROJECT OFFER : 2 FRANGATE
ROOF LEVEL1 PLAN
GENERAL ARRANGEMENT
FCDS-AAA6-10-B1-DR-A-20013
A
C1


CONSTRUCTION ISSUE
Allies and Morrison LLP
PROJECT DIPPER : 2 FRIARGATE
ROOF LEVEL 2 PLAN
GENERAL ARRANGEMENT
FCDL-AAM-10-R2-DR-A-20014
A
C1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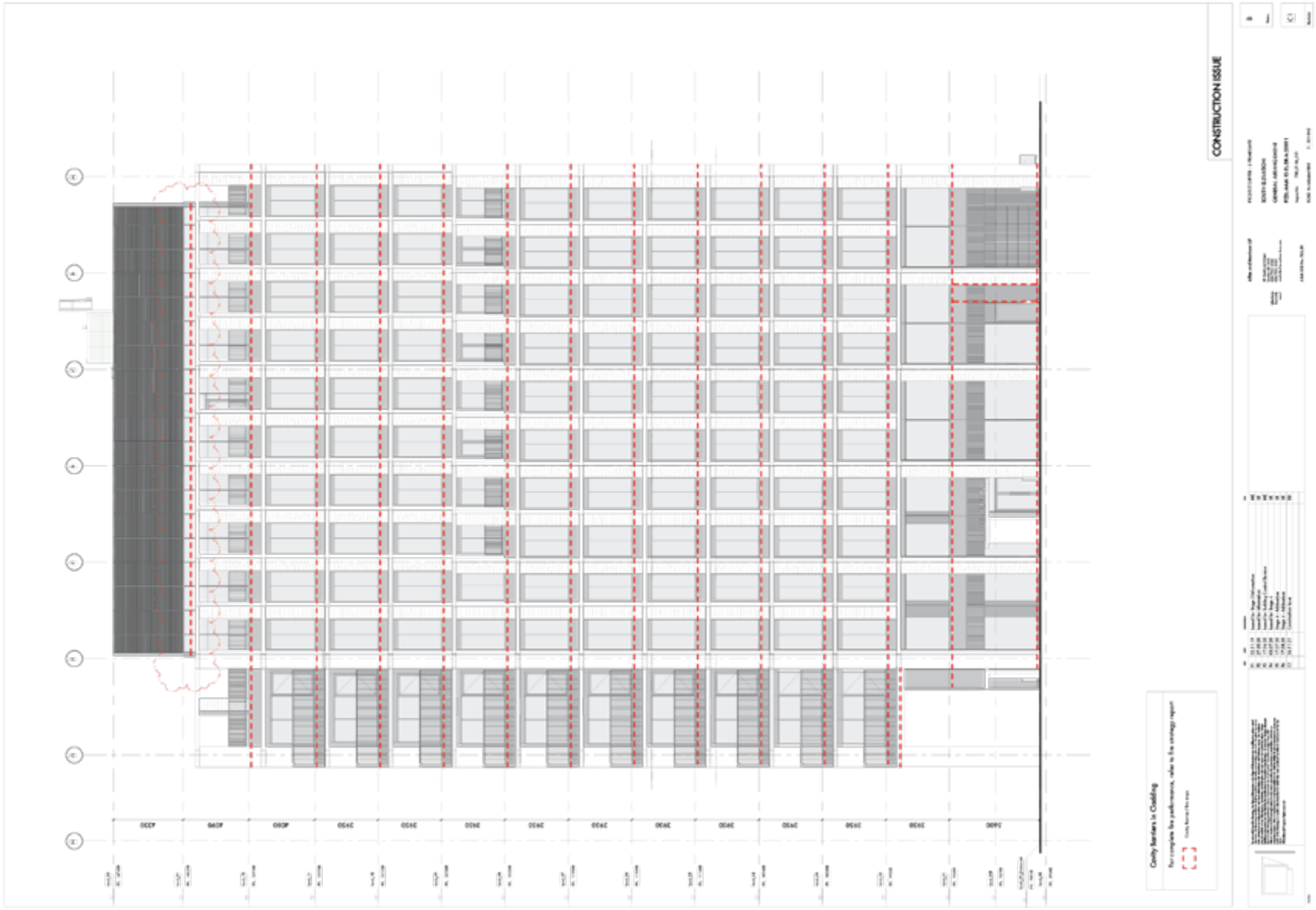
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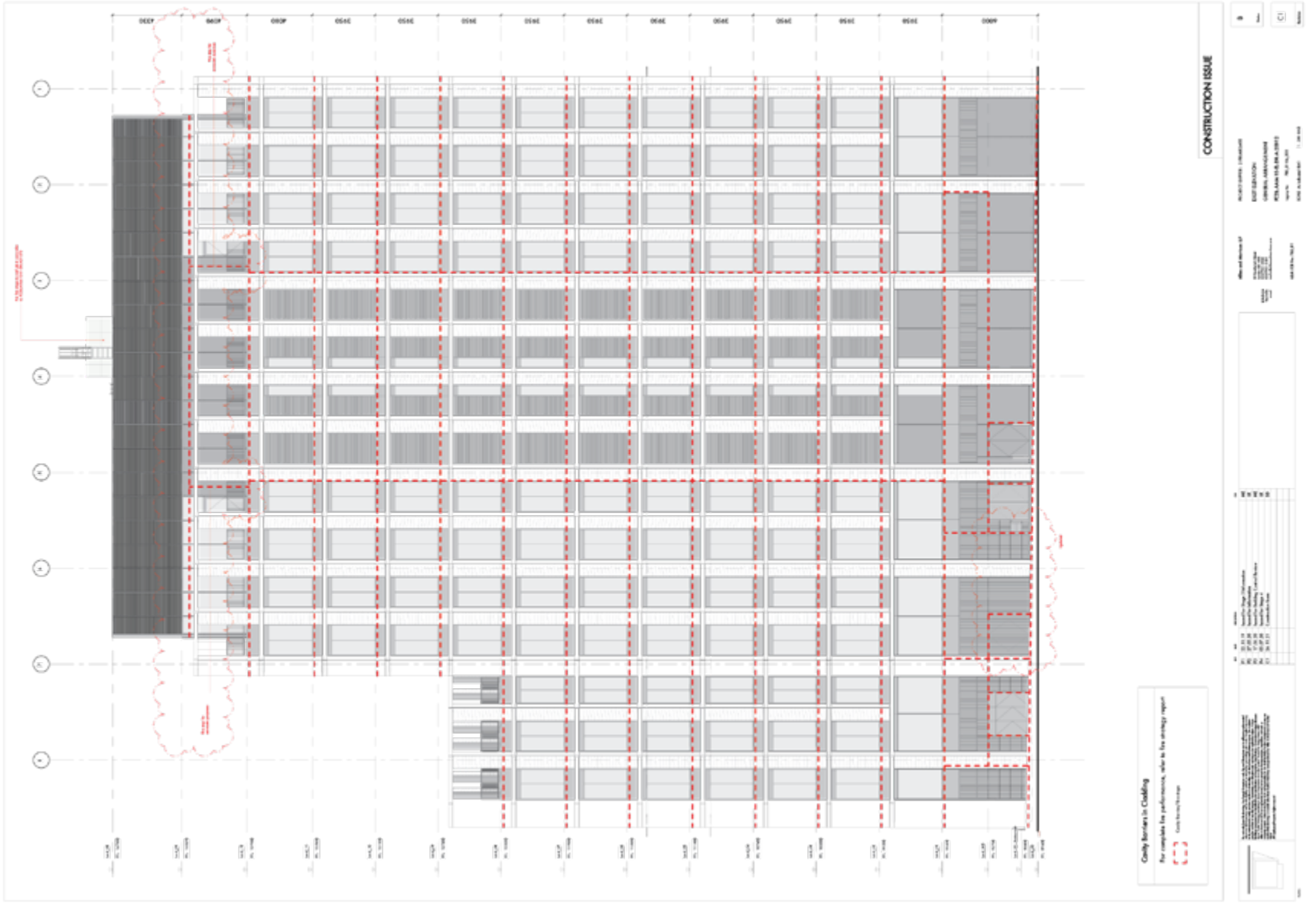
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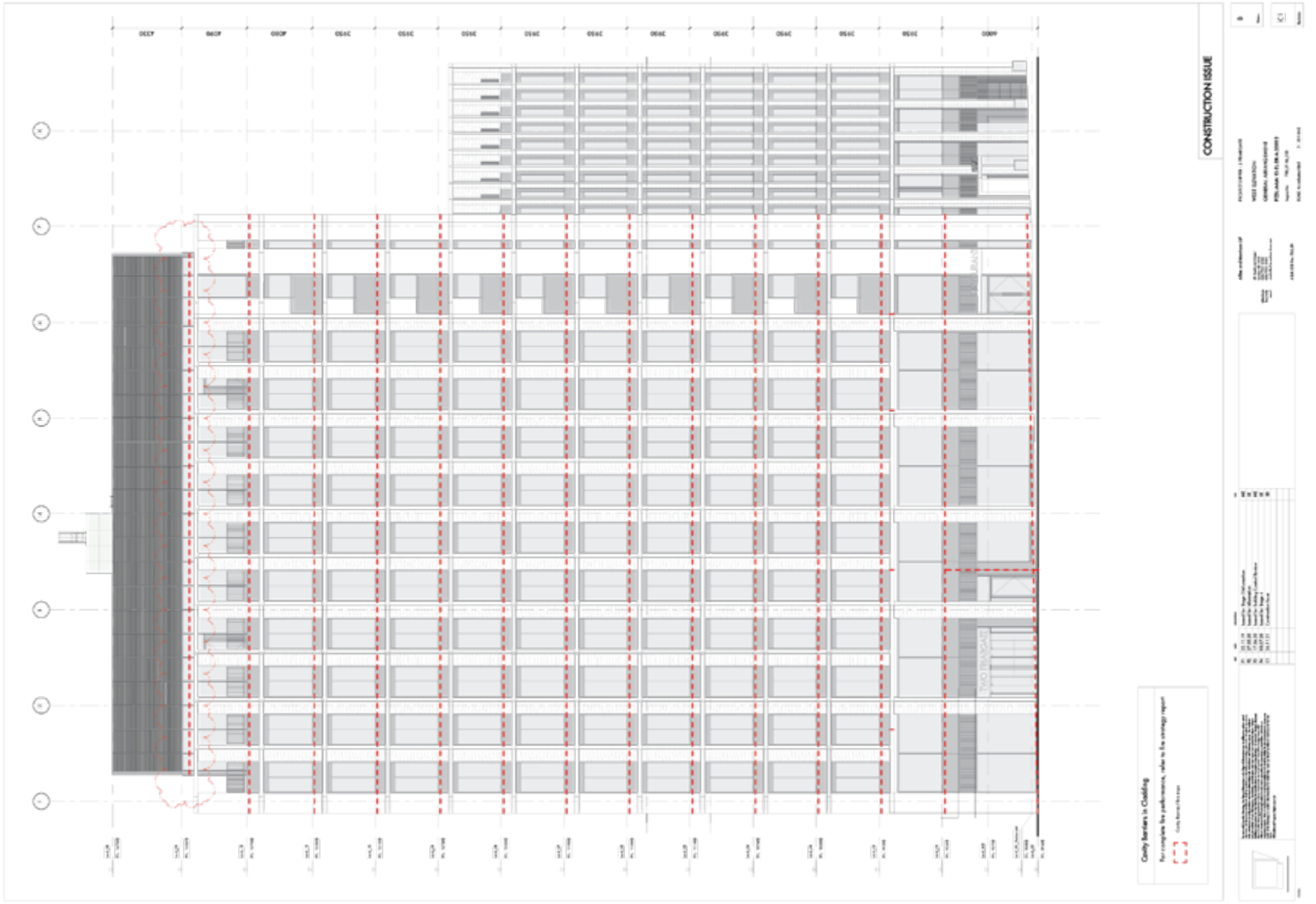
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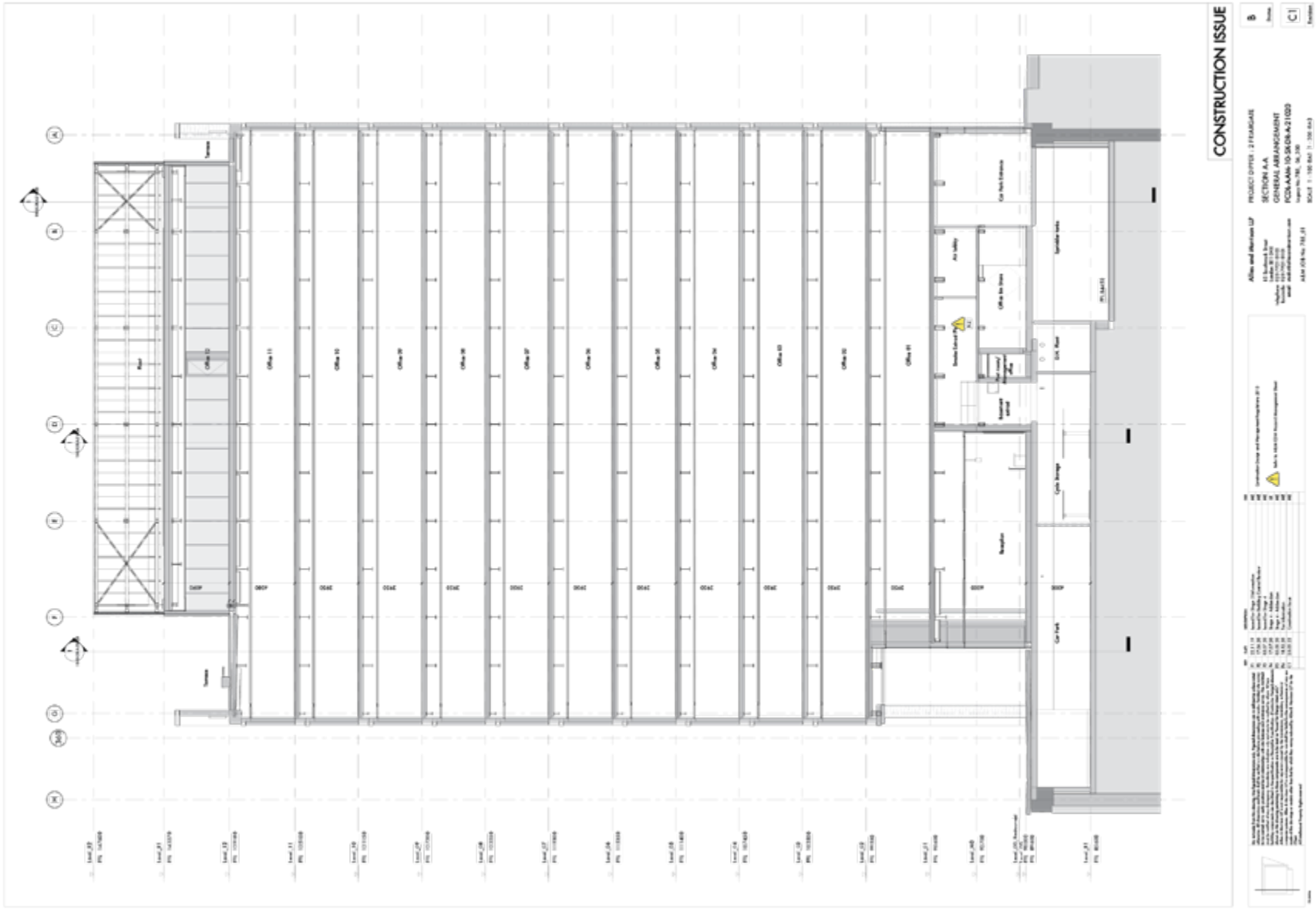
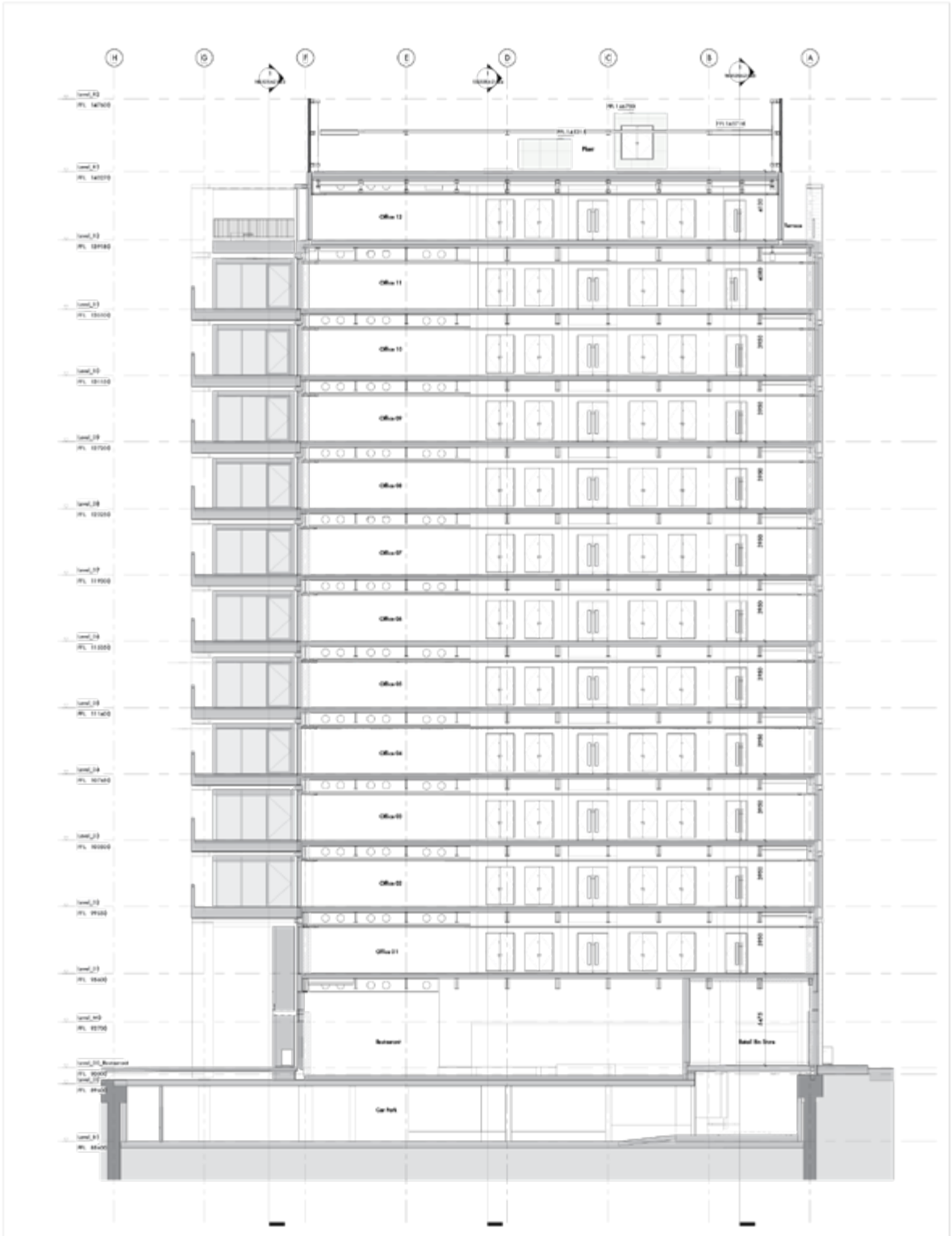

CONSTRUCTION ISSUE


CONSTRUCTION ISSUE
PROJECT OFFICE - 2 FARADAY
SECTION B-B
GENERAL ARRANGEMENT
PCDS-AAWe-10-SB08-A-21021
Allies and Morrison LLP



CONSTRUCTION ISSUE

REV	DATE	DESCRIPTION	BY
P1	22.11.19	Issued For Stage 3 Submission	AM
P2	17.04.20	Issued For Building Control Review	AM
P3	03.07.20	Issued For Stage 4	AM
P4	03.08.20	Stage 4 - Addendum	AM
P5	18.12.20	Tree Information	AM
C1	24.03.21	Construction Issue	AM

Construction Design and Management Regulations 2015

Refer to HSE CDM Project Management Sheet

Allies and Morrison LLP
85 Southwark Street
London SE1 0HX
Telephone 020 7921 0100
Facsimile 020 7921 0101
email mail@alliesandmorrison.com

A&M JOB No 785_01

PROJECT DIPPER : 2 FEARGATE

SECTION C-C
GENERAL ARRANGEMENT
PCDL-AAM-10-SK09-A-21022

Layout No 785_10_102

SCALE 1 : 100 @A1 1 : 200 @A3

B
Status

C1
Revision

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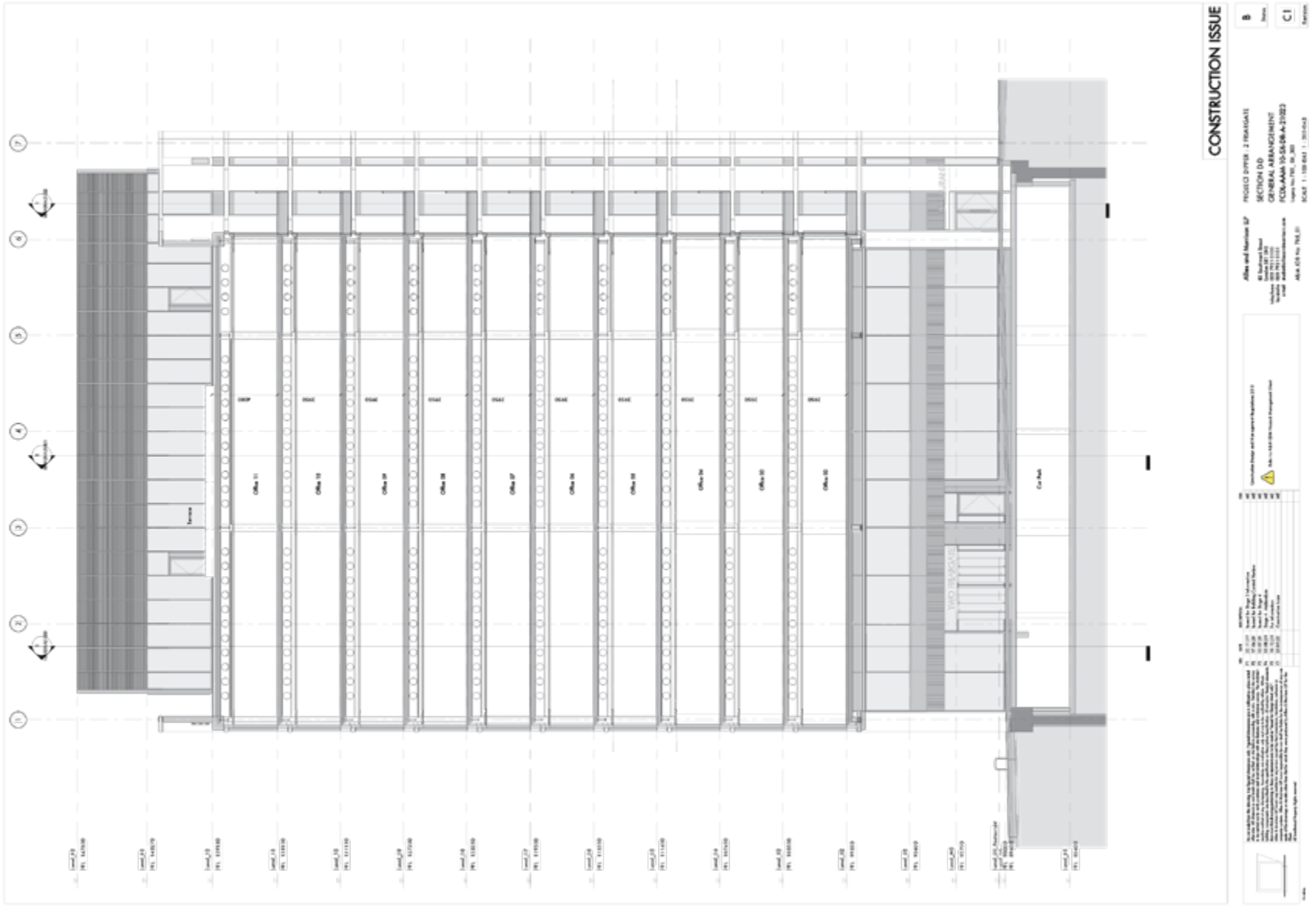
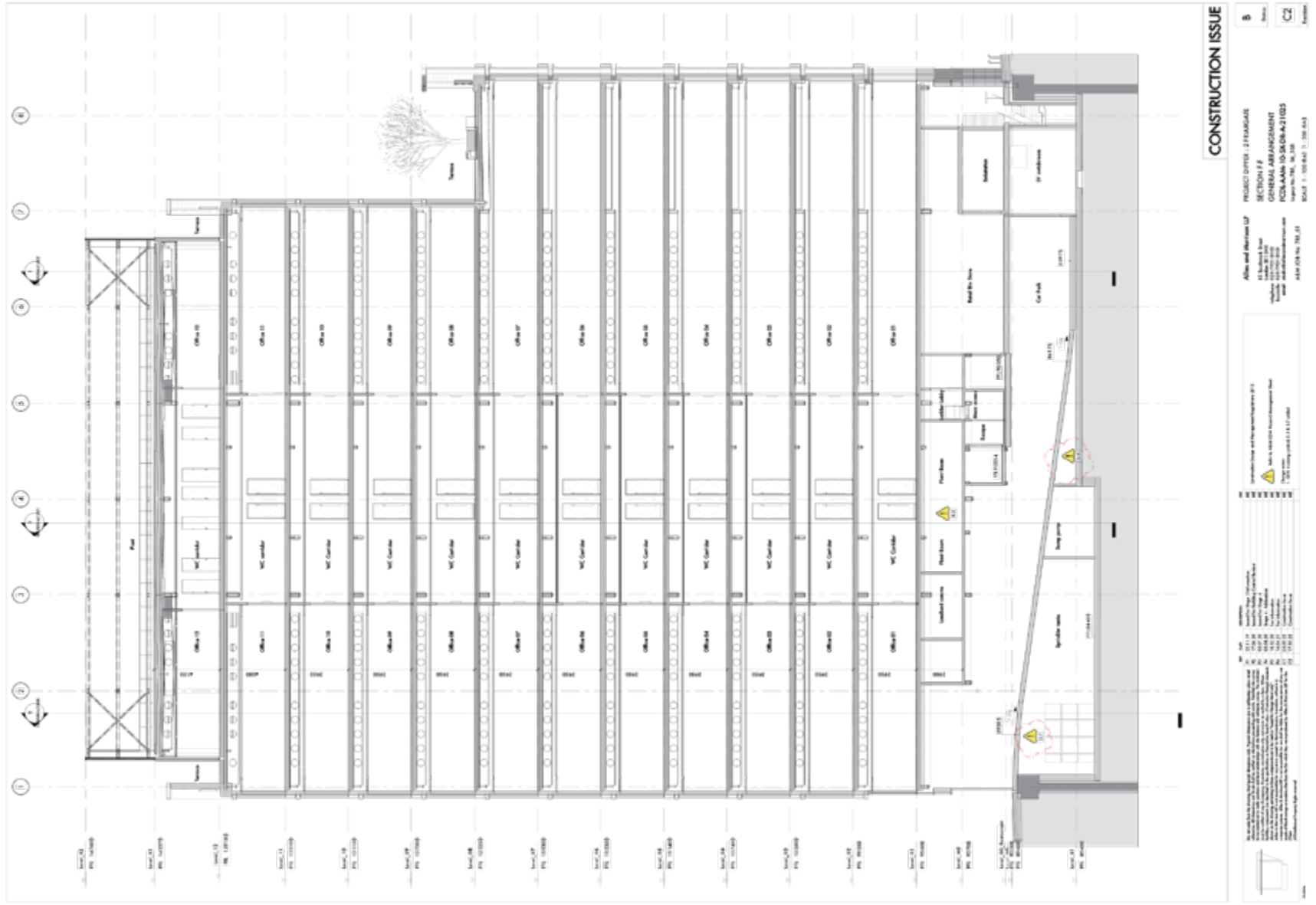

CONSTRUCTION ISSUE
Office 11
Office 10
Office 09
Office 08
Office 07
Office 06
Office 05
Office 04
Office 03
Office 02
Car Park


CONSTRUCTION ISSUE


CONSTRUCTION ISSUE

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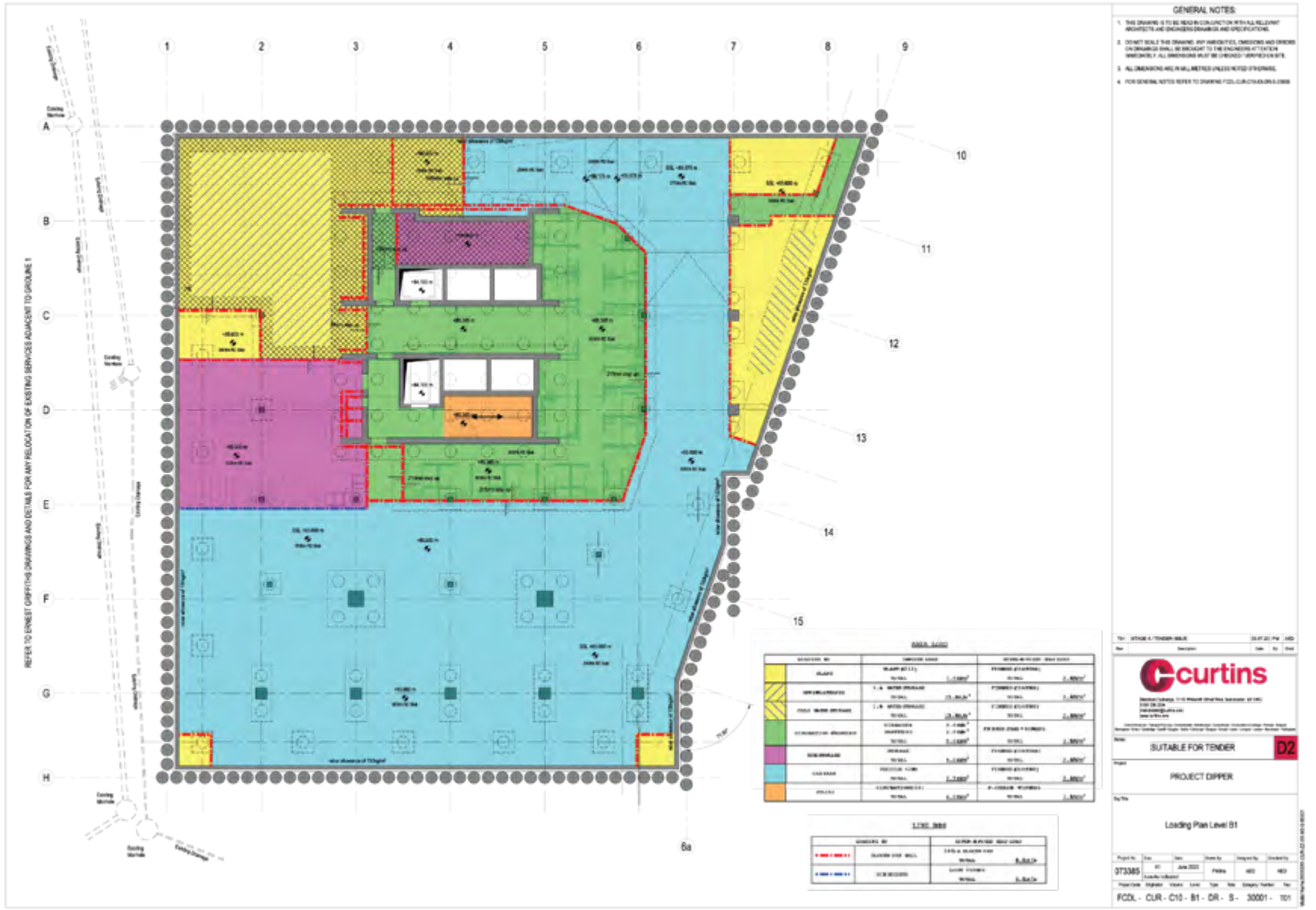
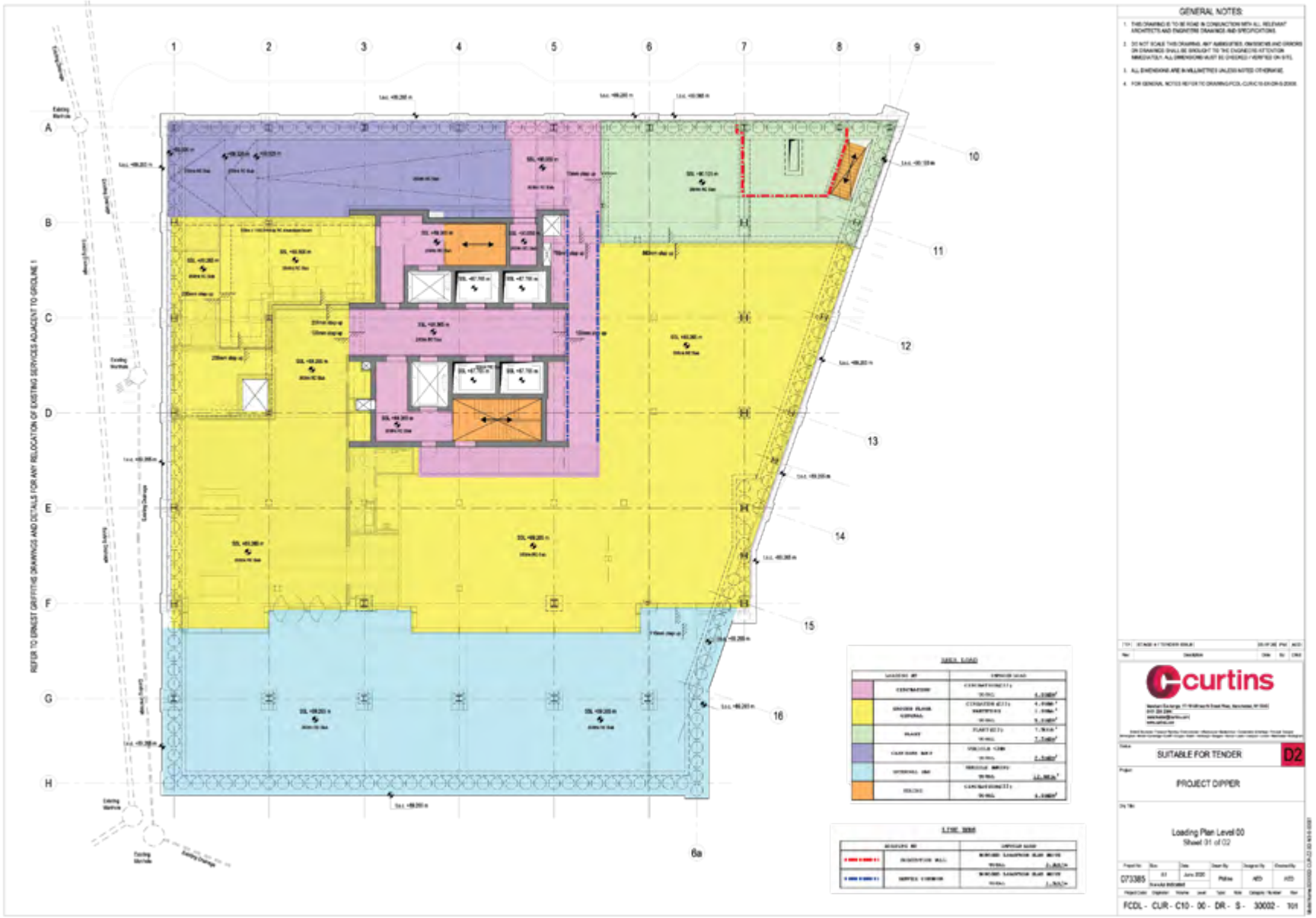
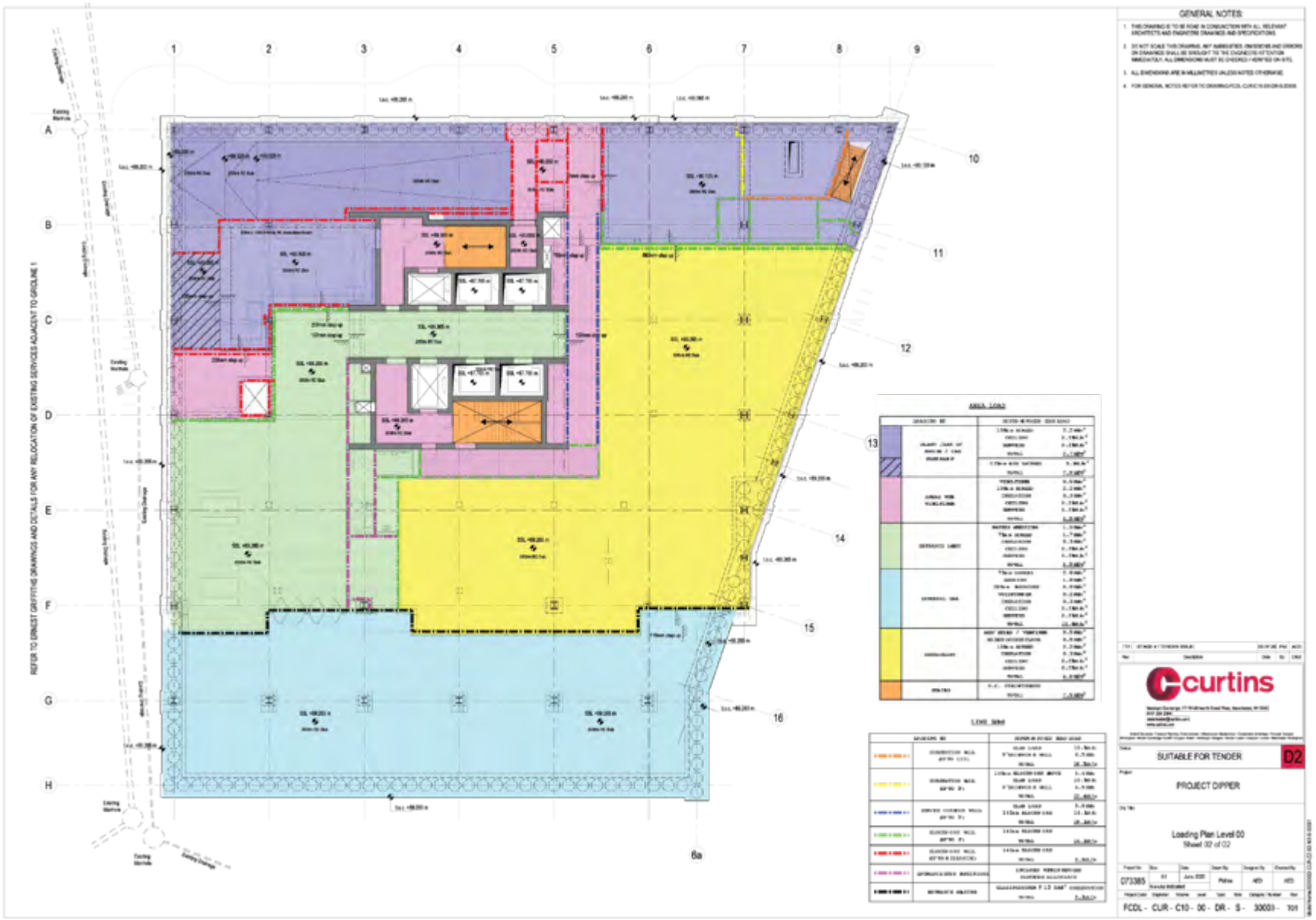
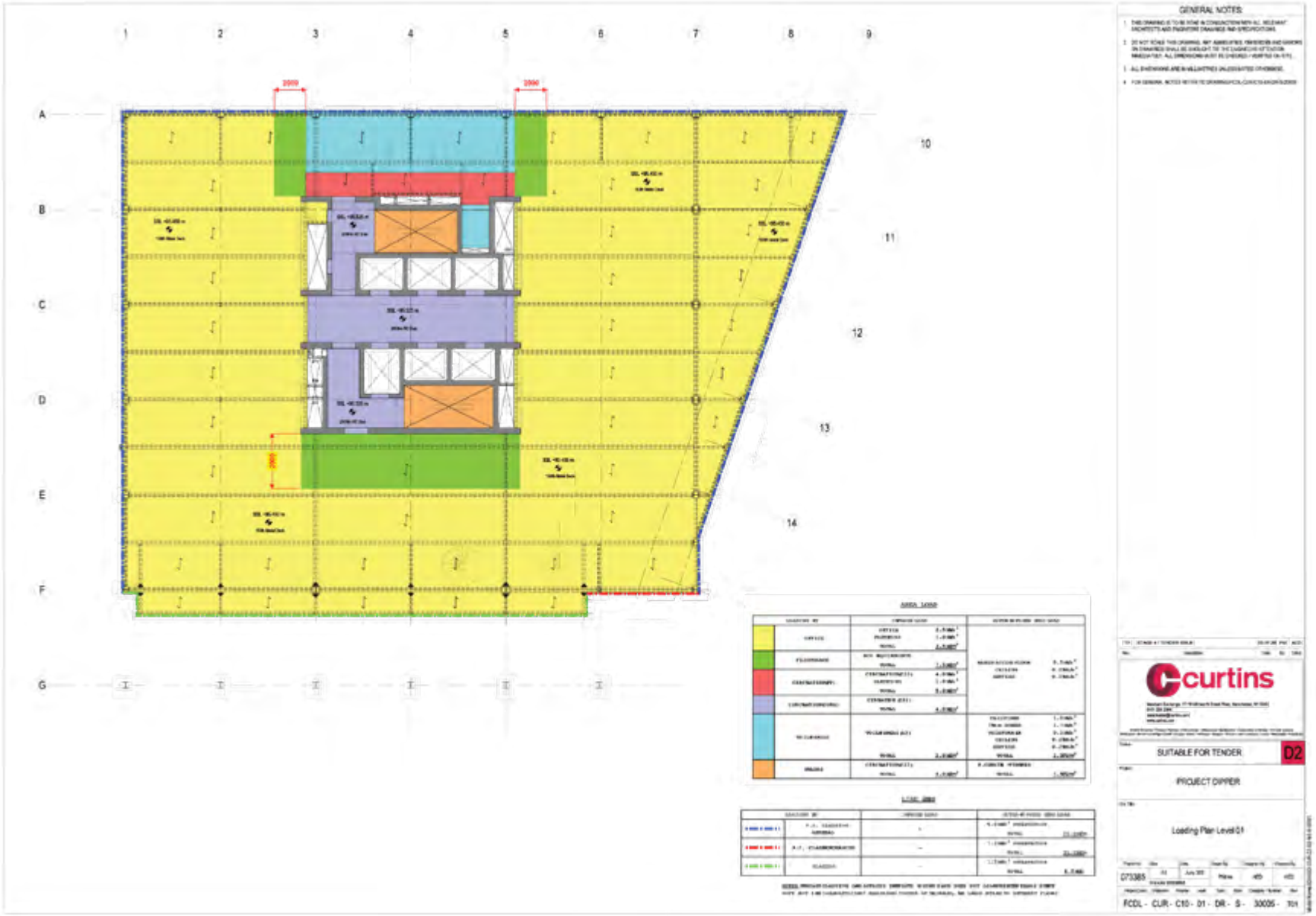
STRUCTURAL **DRAWINGS**


GENERAL NOTES
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Level B1
373385
FCDL - CUR - C10 - B1 - DR - S - 30001 - 101

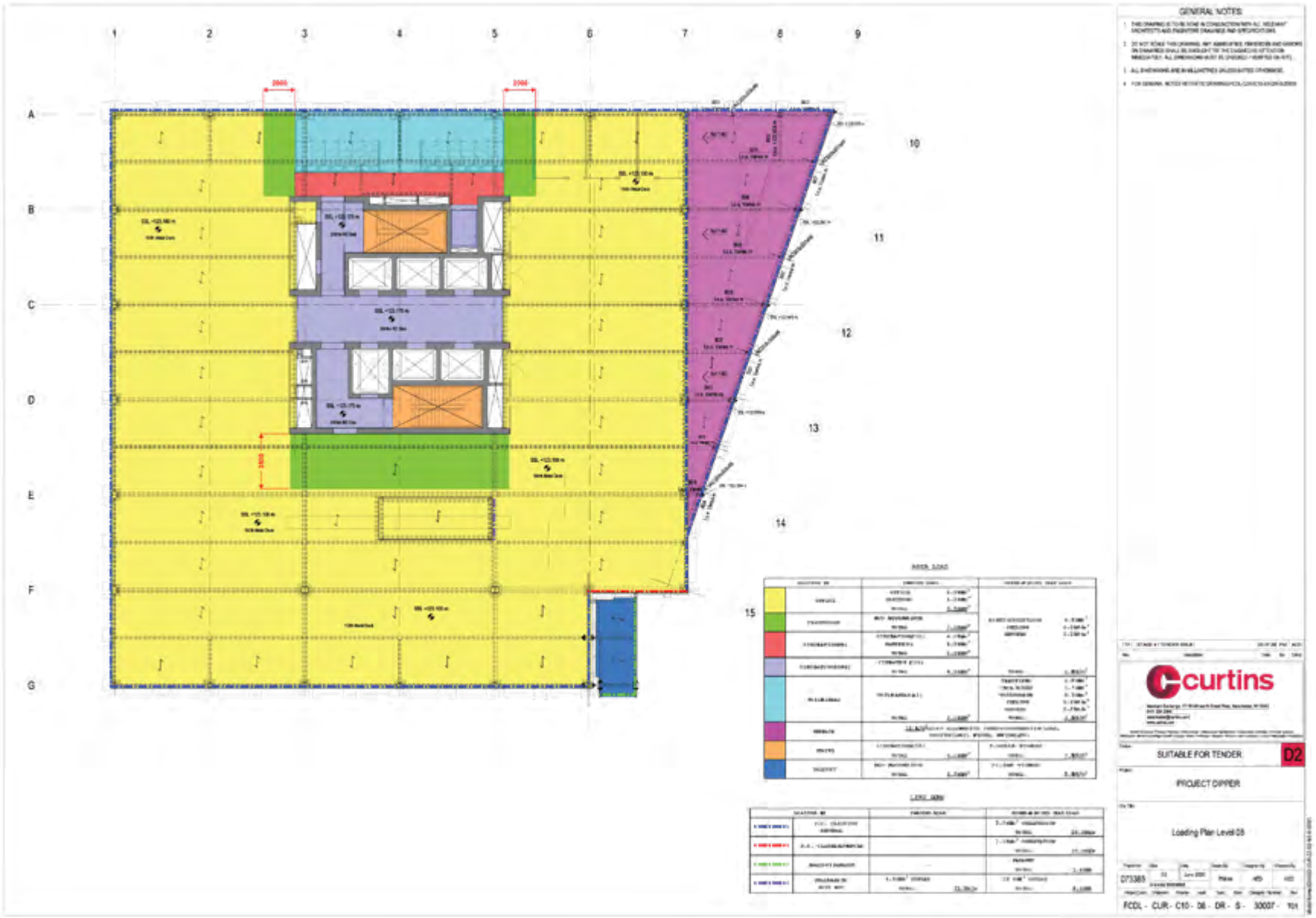

GENERAL NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY ABBREVIATIONS, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-C10-XX-DR-S-30000
REFER TO ERNEST GRIFFITHS DRAWINGS AND DETAILS FOR ANY RELOCATION OF EXISTING SERVICES ADJACENT TO GRIDLINE 1
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Level 00
Sheet 01 of 02
073385
FCDL - CUR - C10 - 00 - DR - S - 30002 - 101


GENERAL NOTES
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Level 00
Sheet 02 of 02
073385
FCDL - CUR - C10 - 00 - DR - S - 30033 - 101


GENERAL NOTES
PLAN ON MEZZANINE LEVEL
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Mezzanine Level
073385
FCDL - CUR - C10 - MZ - DR - S - 30004 - 101


GENERAL NOTES
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Level 01
073385
FCDL - CUR - C10 - 01 - DR - S - 30005 - T01


GENERAL NOTES
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Levels 02 - 07
073385
FCDL - CUR - C10 - ZZ - DR - S - 30006 - 101


GENERAL NOTES
curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
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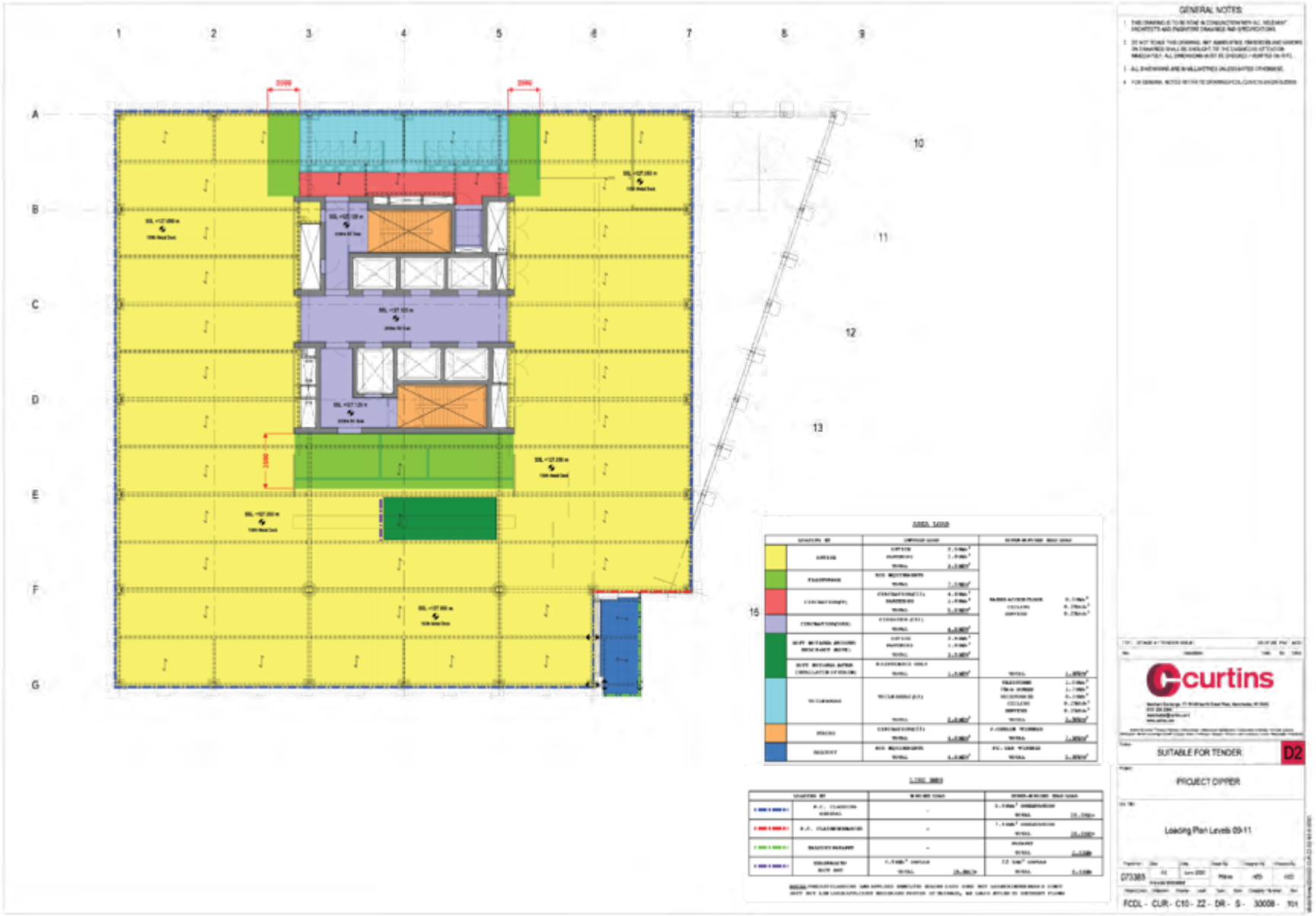
D73385
FCDL - CUR - C10 - 08 - DR - S - 30007 - 101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curtins
SUITABLE FOR TENDER
D2
PROJECT DIPPER
Loading Plan Levels 09-11
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FCDL - CUR - C10 - ZZ - DR - S - 30008 - 101

GENERAL NOTES:

curtins

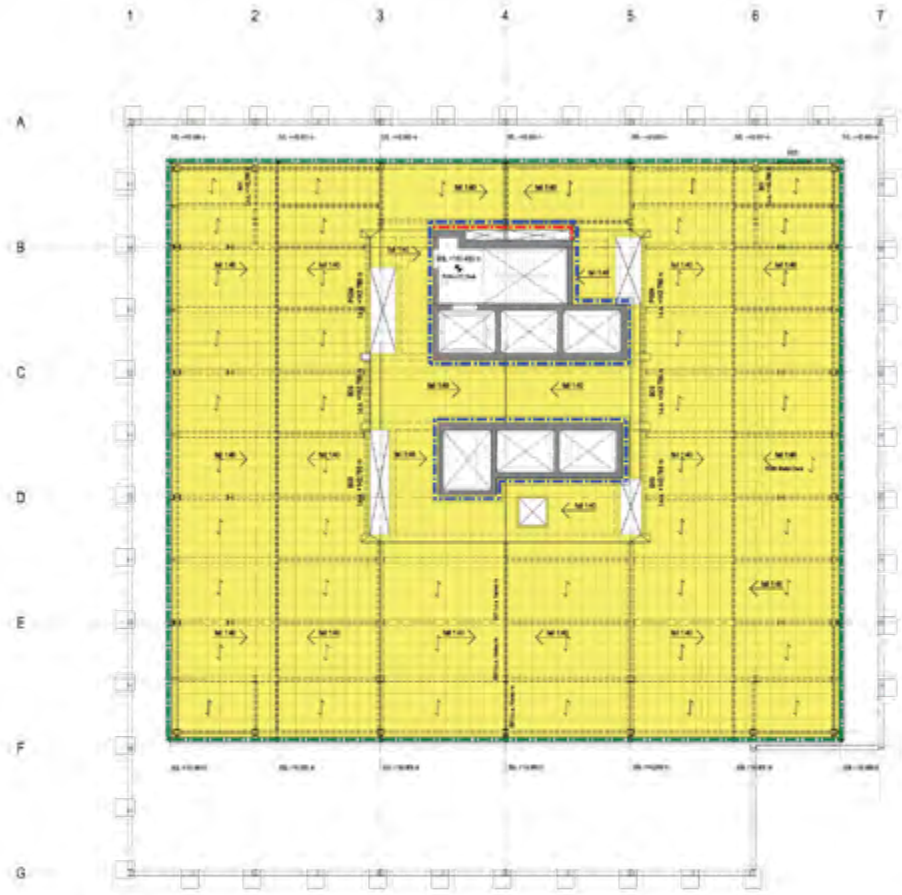
SUITABLE FOR TENDER D2

PROJECT DIPPER

Loading Plan Level 12

073385

FCDL - CUR - C10 - 12 - DR - S - 30009 - TH



GENERAL NOTES

curtins

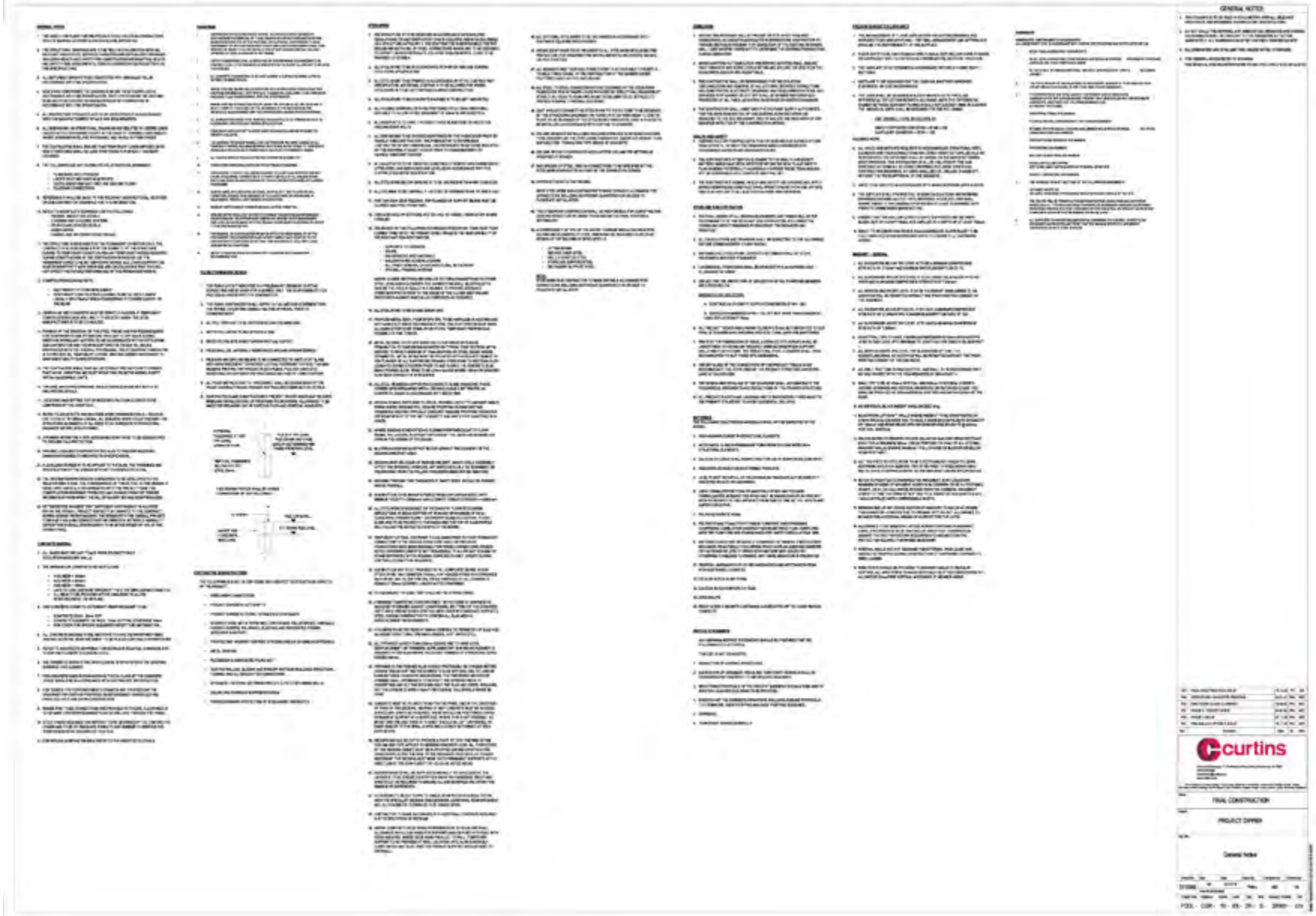
SUITABLE FOR TENDER D2

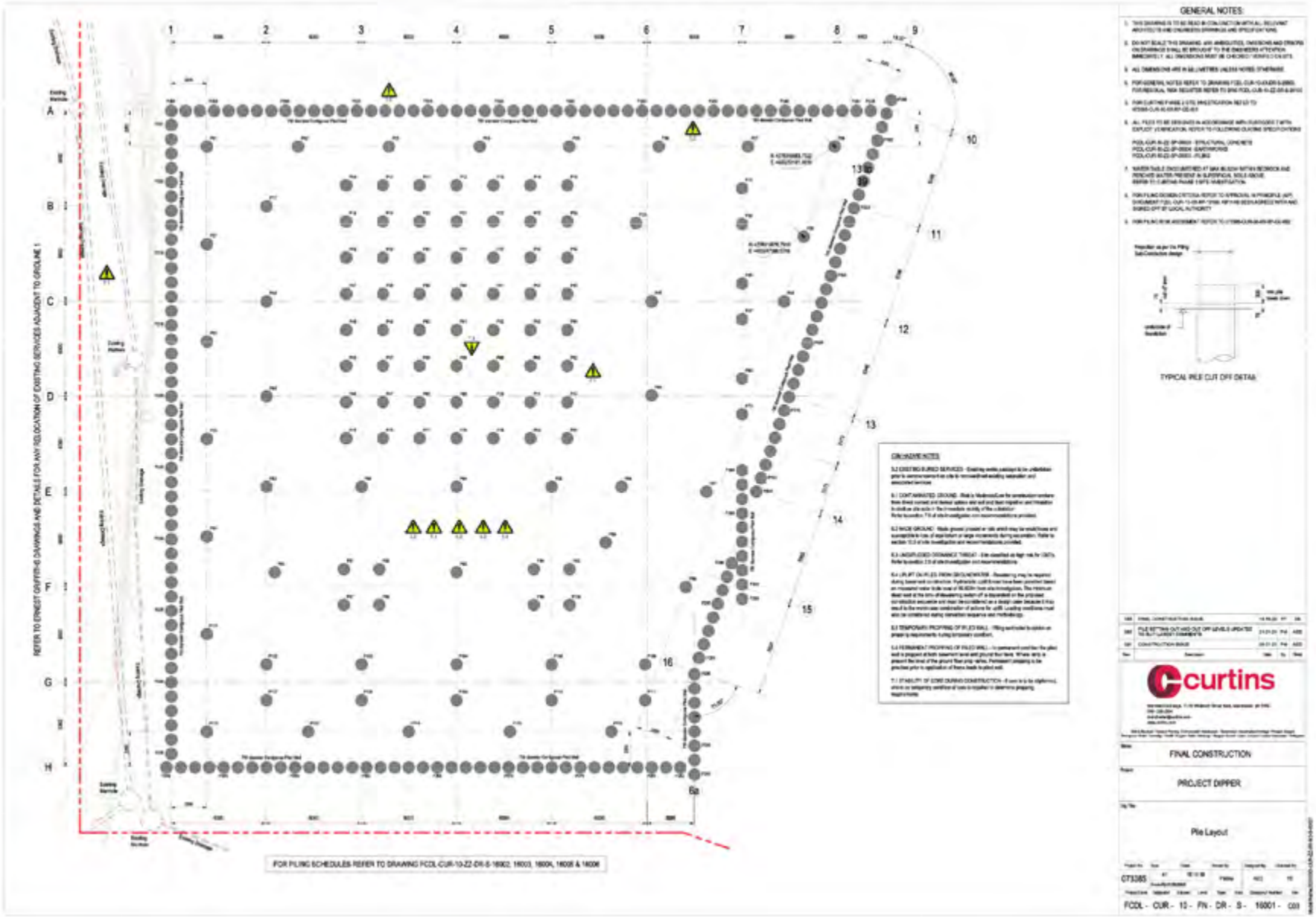
PROJECT DIPPER

Loading Plan Level 13

073365

FCDL - CUR - C10 - 13 - DR - S - 30010 - T01




GENERAL NOTES:
TYPICAL PILE CUT OFF DETAIL
FOR PILING SCHEDULES REFER TO DRAWING FCDL-CUR-10-Z2-DR-S-16902, 16903, 16904, 16908 & 16906
curtins
FINAL CONSTRUCTION
PROJECT DIPPER
Pile Layout
073385
FCDL - CUR - 10 - FN - DR - S - 16901 - C03

BACK TO CONTENTS

PILE			COORDINATES (m)		VERTICAL ACTIONS (kN)					HORIZONTAL ACTIONS (kN)				
PILE REF	SIZE	CUT OFF LEVEL	EASTING	NORTHING	Max Dead Gk, max	Min Dead Gk, min	Imposed Qk	Wind Wk	Hydrostatic Uplift (Uk)	Max Dead Gk, max	Min dead Gk, min	Imposed Qk	Wind Wk	Rev
P01	750	9.45026	38.610051	74.501679	1050	100	1200	-	-400	15	10	5	25	C02
P02	750	9.45026	44.351718	74.501679	1050	100	1200	-	-400	15	10	5	25	C02
P03	750	9.45026	50.093384	74.501679	1050	100	1200	-	-400	15	10	5	25	C02
P04	750	10.10026	55.835051	74.501679	1000	450	400	-	-175	15	10	5	25	C02
P05	750	10.60026	61.456301	74.501679	1000	450	400	-	-175	15	10	5	25	
P06	750	10.60026	67.097551	74.501679	1000	450	400	-	-175	15	10	5	25	
P07	750	10.60026	72.728801	74.501679	1000	450	400	-	-175	15	10	5	25	
P08	750	10.60026	78.187315	74.501679	1000	450	400	-	-175	15	10	5	25	C02
P09	750	8.45026	47.385051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P10	750	8.45026	49.710051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P11	750	8.45026	52.035051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P12	750	8.45026	54.360051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P13	750	8.45026	56.685051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P14	750	8.45026	59.010051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P15	750	8.45026	61.335051	72.06415	2200	1200	800	± 600	-200	25	15	10	100	C02
P16	750	9.85026	72.360051	71.679679	2600	1350	1200	-	-150	15	10	5	25	
P17	750	9.45026	42.360051	70.751679	1050	100	1200	-	-400	15	10	5	25	C02
P18	750	8.45026	47.385051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P19	750	8.45026	49.710051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P20	750	8.45026	52.035051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P21	750	8.45026	54.360051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P22	750	8.45026	56.685051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P23	750	8.45026	59.010051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P24	750	8.45026	61.335051	69.785605	2200	1200	800	± 600	-200	25	15	10	100	C02
P25	750	10.35026	65.684146	69.679935	1000	450	400	-	-175	15	10	5	25	C02
P26	750	9.85026	72.360051	69.428679	2600	1350	1200	-	-150	15	10	5	25	
P27	750	9.45026	38.610051	68.339723	1050	100	1200	-	-400	15	10	5	25	C02
P28	750	8.45026	47.385051	67.507037	2200	1200	800	± 600	-200	25	15	10	100	C02
P29	750	8.45026	49.710051	67.507037	2200	1200	800	± 600	-200	25	15	10	100	C02
P30	750	8.45026	52.035051	67.507037	2200	1200	800	± 600	-200	25	15	10	100	C02
P31	750	8.45026	54.360051	67.507037	2200	1200	800	± 600	-200	25	15	10	100	C02
P32	750	8.45026	56.685051	67.507037	2200	1200	800	± 600	-200	25	15	10	100	C02
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P34	750	8.45026	61.335051	67.507037	2200	1200	800	± 600	-200	25	15	10	100	C02
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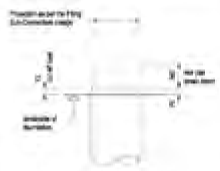
P36	750	9.85026	72.360051	65.679679	2600	1350	1200	-	-150	15	10	5	25	
P37	750	8.45026	47.385051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P38	750	8.45026	49.710051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P39	750	8.45026	52.035051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P40	750	8.45026	54.360051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P41	750	8.45026	56.685051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P42	750	8.45026	59.010051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P43	750	8.45026	61.335051	65.229466	2200	1200	800	± 600	-200	25	15	10	100	C02
P44	750	9.45026	42.360051	64.751679	1050	100	1200	-	-400	15	10	5	25	C02
P45	750	10.35026	66.681301	64.753429	1000	450	400	-	-175	15	10	5	25	
P46	750	10.60026	75.009801	64.751679	1000	450	400	-	-175	15	10	5	25	
P47	750	9.85026	72.360051	63.428679	2600	1350	1200	-	-150	15	10	5	25	
P48	750	8.45026	47.385051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P49	750	8.45026	49.710051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P50	750	8.45026	52.035051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P51	750	8.45026	54.360051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P52	750	8.45026	56.685051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P53	750	8.45026	59.010051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P54	750	8.45026	61.335051	62.949894	2200	1200	800	± 600	-200	25	15	10	100	C02
P55	750	10.60026	38.610051	62.217756	1050	100	1200	-	-400	15	10	5	25	
P56	750	8.45026	47.385051	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02
P57	750	8.45026	49.710051	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02
P58	750	8.45026	52.035051	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02
P59	750	8.45026	54.360051	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02

PILE DESIGN NOTES:

CDM HAZARD NOTES:

GENERAL NOTES:



TYPICAL PILE CUT OFF DETAIL

curtins

FINAL CONSTRUCTION

PROJECT DIPPER

Pile Schedule sheet 1

073385

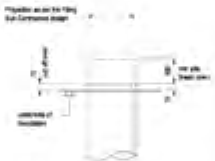
FCDL - CUR - 10 - PN - DR - S - 16002 - C03

PILE			COORDINATES (m)		VERTICAL ACTIONS (kN)					HORIZONTAL ACTIONS (kN)				
PILE REF	SIZE	CUT OFF LEVEL	EASTING	NORTHING	Max Dead Qk, max	Min Dead Qk, min	Imposed Qk	Wind Wk	Hydrostatic Uplift (Uk)	Max Dead Qk, max	Min dead Qk, min	Imposed Qk	Wind Wk	Rev
P60	750	8.45026	58.660951	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02
P61	750	8.45026	59.210951	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02
P62	750	8.45026	61.335951	60.671323	2200	1200	800	± 600	-200	25	15	10	100	C02
P63	750	9.65026	72.360951	59.676675	2800	1350	1200	-	-150	15	10	5	25	
P64	750	10.80026	42.360951	58.751679	1000	450	400	-	-175	15	10	5	25	
P65	750	10.36526	66.560951	58.819179	1000	450	400	-	-175	15	10	5	25	
P66	750	8.45026	47.385951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P67	750	8.45026	49.710951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P68	750	8.45026	52.035951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P69	750	8.45026	54.360951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P70	750	8.45026	56.685951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P71	750	8.45026	59.010951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P72	750	8.45026	61.335951	58.392751	2200	1200	800	± 600	-200	25	15	10	100	C02
P73	750	9.65026	72.360951	57.626675	2800	1350	1200	-	-150	15	10	5	25	
P74	750	10.80026	39.810951	56.075972	400	100	150	-	-175	15	10	5	25	
P75	750	8.45026	47.385951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P76	750	8.45026	49.710951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P77	750	8.45026	52.035951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P78	750	8.45026	54.360951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P79	750	8.45026	56.685951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P80	750	8.45026	59.210951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P81	750	8.45026	61.335951	56.11418	2200	1200	800	± 600	-200	25	15	10	100	C02
P82	750	10.80026	42.360951	53.066675	1000	450	400	-	-175	15	10	5	25	C02
P83	750	10.90026	48.360951	53.066675	1000	450	400	-	-175	15	10	5	25	C02
P84	750	10.38526	54.360951	53.066675	1000	450	400	-	-175	15	10	5	25	C02
P85	750	10.38526	60.360951	53.066675	1000	450	400	-	-175	15	10	5	25	C02
P86	750	10.38526	64.760951	53.066675	1000	450	400	-	-175	15	10	5	25	C02
P87	750	10.80026	70.110951	52.751679	400	100	150	-	-175	15	10	5	25	
P88	750	10.80026	38.610951	49.933957	400	100	150	-	-175	15	10	5	25	
P89	750	10.80026	63.760951	49.551679	1000	450	400	-	-175	15	10	5	25	
P90	750	10.80026	42.860951	47.576675	1000	450	400	-	-175	15	10	5	25	
P91	750	9.60026	47.235951	47.576675	2800	1350	1200	-	-150	15	10	5	25	
P92	750	9.60026	49.485951	47.576675	2800	1350	1200	-	-150	15	10	5	25	
P93	750	10.80026	54.360951	47.576675	1000	450	400	-	-175	15	10	5	25	
P94	750	9.60026	59.235951	47.576675	2800	1350	1200	-	-150	15	10	5	25	
P95	750	9.60026	61.485951	47.576675	2800	1350	1200	-	-150	15	10	5	25	
P96	750	10.80026	66.61158	46.751679	400	100	150	-	-175	15	10	5	25	
P97	750	9.60026	47.235951	45.526675	2800	1350	1200	-	-150	15	10	5	25	
P98	750	9.60026	49.485951	45.526675	2800	1350	1200	-	-150	15	10	5	25	
P99	750	9.60026	59.235951	45.526675	2800	1350	1200	-	-150	15	10	5	25	
P100	750	9.60026	61.485951	45.526675	2800	1350	1200	-	-150	15	10	5	25	
P101	750	10.80026	38.510951	43.751901	400	100	150	-	-175	15	10	5	25	
P102	750	9.65026	42.360951	41.576675	2000	475	1000	-	-150	15	10	5	25	
P103	750	9.65026	48.360951	41.576675	2000	475	1000	-	-150	15	10	5	25	
P104	750	9.65026	54.360951	41.576675	2000	475	1000	-	-150	15	10	5	25	
P105	750	9.65026	60.360951	41.576675	2000	475	1000	-	-150	15	10	5	25	
P106	750	9.65026	66.250951	41.576675	2000	475	1000	-	-150	15	10	5	25	
P107	750	9.65026	42.360951	39.626675	2000	475	1000	-	-150	15	10	5	25	
P108	750	9.65026	48.360951	39.626675	2000	475	1000	-	-150	15	10	5	25	
P109	750	9.65026	54.360951	39.626675	2000	475	1000	-	-150	15	10	5	25	
P110	750	9.65026	60.360951	39.626675	2000	475	1000	-	-150	15	10	5	25	
P111	750	9.65026	66.250951	39.626675	2000	475	1000	-	-150	15	10	5	25	
P112	750	10.90026	38.510951	37.649946	400	100	150	-	-175	15	10	5	25	
P113	750	10.90026	44.360951	37.649946	400	100	150	-	-175	15	10	5	25	
P114	750	10.90026	51.360951	37.649946	400	100	150	-	-175	15	10	5	25	
P115	750	10.90026	57.735951	37.649946	400	100	150	-	-175	15	10	5	25	
P116	750	10.90026	64.110951	37.649946	400	100	150	-	-175	15	10	5	25	

BACK TO CONTENTS

PILE			COORDINATES (m)		VERTICAL ACTIONS (kN)					HORIZONTAL ACTIONS (kN)				
PILE REF	SIZE	CUT OFF LEVEL	EASTING	NORTHING	Max Dead Gk, max	Min Dead Gk, min	Imposed Qk	Wind Wk	Hydrostatic Uplift (Uk)	Max Dead Gk, max	Min dead Gk, min	Imposed Qk	Wind Wk	Rev
P201	750	13.91526	36.360051	75.851679	1500	300	500	-	-50	-	-	-	-	
P202	750	13.91526	36.360051	74.951679	750	150	250	-	-50	-	-	-	-	
P203	750	13.91526	36.360051	74.051679	750	150	250	-	-50	-	-	-	-	
P204	750	13.91526	36.360051	73.151679	750	150	250	-	-50	-	-	-	-	
P205	750	13.91526	36.360051	72.251679	750	150	250	-	-50	-	-	-	-	
P206	750	13.91526	36.360051	71.351679	1500	300	500	-	-50	-	-	-	-	
P207	750	13.91526	36.360051	70.451679	1500	300	500	-	-50	-	-	-	-	
P208	750	13.91526	36.360051	69.551679	1500	300	500	-	-50	-	-	-	-	
P209	750	13.91526	36.360051	68.651679	750	150	250	-	-50	-	-	-	-	
P210	750	13.91526	36.360051	67.751679	750	150	250	-	-50	-	-	-	-	
P211	750	13.91526	36.360051	66.851679	750	150	250	-	-50	-	-	-	-	
P212	750	13.91526	36.360051	65.951679	1500	300	500	-	-50	-	-	-	-	
P213	750	13.91526	36.360051	65.051679	1500	300	500	-	-50	-	-	-	-	
P214	750	13.91526	36.360051	64.151679	1500	300	500	-	-50	-	-	-	-	
P215	750	13.91526	36.360051	63.251679	750	150	250	-	-50	-	-	-	-	
P216	750	13.91526	36.360051	62.351679	750	150	250	-	-50	-	-	-	-	
P217	750	13.91526	36.360051	61.451679	750	150	250	-	-50	-	-	-	-	
P218	750	13.91526	36.360051	60.551679	750	150	250	-	-50	-	-	-	-	
P219	750	13.91526	36.360051	59.651679	1500	300	500	-	-50	-	-	-	-	
P220	750	13.91526	36.360051	58.751679	1500	300	500	-	-50	-	-	-	-	
P221	750	13.91526	36.360051	57.851679	1500	300	500	-	-50	-	-	-	-	
P222	750	13.91526	36.360051	56.951679	750	150	250	-	-50	-	-	-	-	
P223	750	13.91526	36.360051	56.051679	750	150	250	-	-50	-	-	-	-	
P224	750	13.91526	36.360051	55.151679	750	150	250	-	-50	-	-	-	-	
P225	750	13.91526	36.360051	54.251679	750	150	250	-	-50	-	-	-	-	
P226	750	13.91526	36.360051	53.351679	1500	300	500	-	-50	-	-	-	-	
P227	750	13.91526	36.360051	52.451679	1500	300	500	-	-50	-	-	-	-	
P228	750	13.91526	36.360051	51.551679	1500	300	500	-	-50	-	-	-	-	
P229	750	13.91526	36.360051	50.651679	750	150	250	-	-50	-	-	-	-	
P230	750	13.91526	36.360051	49.751679	750	150	250	-	-50	-	-	-	-	
P231	750	13.91526	36.360051	48.851679	750	150	250	-	-50	-	-	-	-	
P232	750	13.91526	36.360051	47.951679	1500	300	500	-	-50	-	-	-	-	
P233	750	13.91526	36.360051	47.051679	1500	300	500	-	-50	-	-	-	-	
P234	750	13.91526	36.360051	46.151679	1500	300	500	-	-50	-	-	-	-	
P235	750	13.91526	36.360051	45.251679	750	150	250	-	-50	-	-	-	-	
P236	750	13.91526	36.360051	44.351679	750	150	250	-	-50	-	-	-	-	
P237	750	13.91526	36.360051	43.451679	750	150	250	-	-50	-	-	-	-	
P238	750	13.91526	36.360051	42.551679	750	150	250	-	-50	-	-	-	-	
P239	750	13.91526	36.360051	41.651679	750	150	250	-	-50	-	-	-	-	
P240	750	13.91526	36.360051	40.751679	750	150	250	-	-50	-	-	-	-	
P241	750	13.91526	36.360051	39.851679	750	150	250	-	-50	-	-	-	-	
P242	750	13.91526	36.360051	38.951679	750	150	250	-	-50	-	-	-	-	
P243	750	13.91526	36.360051	38.051679	750	150	250	-	-50	-	-	-	-	
P244	750	13.91526	36.360051	37.151679	750	150	250	-	-50	-	-	-	-	
P245	750	13.91526	36.360051	36.251679	750	150	250	-	-50	-	-	-	-	
P246	750	13.91526	36.960051	35.399946	150	50	100	-	-25	-	-	-	-	
P247	750	13.91526	36.960051	35.399946	150	50	100	-	-25	-	-	-	-	
P248	750	13.91526	37.860051	35.399946	150	50	100	-	-25	-	-	-	-	
P249	750	13.91526	38.760051	35.399946	150	50	100	-	-25	-	-	-	-	
P250	750	13.91526	39.660051	35.399946	150	50	100	-	-25	-	-	-	-	
P251	750	13.91526	40.560051	35.399946	150	50	100	-	-25	-	-	-	-	
P252	750	13.91526	41.460051	35.399946	150	50	100	-	-25	-	-	-	-	
P253	750	13.91526	42.360051	35.399946	150	50	100	-	-25	-	-	-	-	
P254	750	13.91526	43.260051	35.399946	150	50	100	-	-25	-	-	-	-	
P255	750	13.91526	44.160051	35.399946	150	50	100	-	-25	-	-	-	-	
P256	750	13.91526	45.060051	35.399946	150	50	100	-	-25	-	-	-	-	
P257	750	13.91526	45.960051	35.399946	150	50	100	-	-25	-	-	-	-	
P258	750	13.91526	46.860051	35.399946	150	50	100	-	-25	-	-	-	-	
P259	750	13.91526	47.760051	35.399946	150	50	100	-	-25	-	-	-	-	
P260	750	13.91526	48.660051	35.399946	150	50	100	-	-25	-	-	-	-	
P261	750	13.91526	49.560051	35.399946	150	50	100	-	-25	-	-	-	-	
P262	750	13.91526	50.460051	35.399946	150	50	100	-	-25	-	-	-	-	
P263	750	13.91526	51.360051	35.399946	150	50	100	-	-25	-	-	-	-	
P264	750	13.91526	52.260051	35.399946	150	50	100	-	-25	-	-	-	-	
P265	750	13.91526	53.160051	35.399946	150	50	100	-	-25	-	-	-	-	
P266	750	13.91526	54.060051	35.399946	150	50	100	-	-25	-	-	-	-	
P267	750	13.91526	54.960051	35.399946	150	50	100	-	-25	-	-	-	-	
P268	750	13.91526	55.860051	35.399946	150	50	100	-	-25	-	-	-	-	
P269	750	13.91526	56.760051	35.399946	150	50	100	-	-25	-	-	-	-	
P270	750	13.91526	57.660051	35.399946	150	50	100	-	-25	-	-	-	-	
P271	750	13.91526	58.560051	35.399946	150	50	100	-	-25	-	-	-	-	
P272	750	13.91526	59.460051	35.399946	150	50	100	-	-25	-	-	-	-	
P273	750	13.91526	60.360051	35.399946	150	50	100	-	-25	-	-	-	-	
P274	750	13.91526	61.260051	35.399946	150	50	100	-	-25	-	-	-	-	
P275	750	13.91526	62.160051	35.399946	150	50	100	-	-25	-	-	-	-	
P276	750	13.91526	63.060051	35.399946	150	50	100	-	-25	-	-	-	-	
P277	750	13.91526	63.960051	35.399946	150	50	100	-	-25	-	-	-	-	
P278	750	13.91526	64.860051	35.399946	150	50	100	-	-25	-	-	-	-	
P279	750	13.91526	65.760051	35.399946	150	50	100	-	-25	-	-	-	-	
P280	750	13.91526	66.660051	35.399946	150	50	100	-	-25	-	-	-	-	

GENERAL NOTES



TYPICAL PILE CUT OFF DETAIL

curtins

FINAL CONSTRUCTION

PROJECT DIPPER

Pile Schedule sheet 3

073385

FCDL - CUR - 12 - PN - DR - S - 18004 - C02

PILE REF	PILE SIZE	CUT OFF LEVEL	COORDINATES (m) EASTING	NORTHING	VERTICAL ACTIONS (kN) Max Dead Gk, max	Min Dead Gk, min	Imposed Qk	Wind Wk	Hydrostatic Uplift (Uk)	HORIZONTAL ACTIONS (kN) Max Dead Gk, max	Min dead Gk, min	Imposed Qk	Wind Wk	Rev
P261	750	13.91526	67.580051	35.599646	150	50	100	-	-25	-	-	-	-	
P262	750	13.91526	68.460051	35.599646	150	50	100	-	-25	-	-	-	-	
P263	750	13.91526	69.360051	34.958424	150	50	100	-	-25	-	-	-	-	
P264	750	13.91526	69.360051	35.858424	150	50	100	-	-25	-	-	-	-	
P265	750	13.91526	69.360051	36.758424	150	50	100	-	-25	-	-	-	-	
P266	750	13.91526	69.360051	37.658424	150	50	100	-	-25	+	+	+	+	
P267	750	13.91526	68.360051	38.558424	150	50	100	-	-25	-	-	-	-	
P268	750	13.91526	69.360051	39.458424	150	50	100	-	-25	-	-	-	-	
P269	750	13.91526	69.360051	40.358424	150	50	100	-	-25	-	-	-	-	
P260	750	13.91526	69.360051	41.258424	150	50	100	-	-25	-	-	-	-	
P251	750	13.91526	69.553079	42.284605	150	50	100	-	-25	+	+	+	+	
P252	750	13.91526	69.946106	43.135788	150	50	100	-	-25	-	-	-	-	
P253	750	13.91526	70.239134	43.986727	150	50	100	-	-25	+	+	+	+	
P254	750	13.91526	70.532161	44.837668	150	50	100	-	-25	-	-	-	-	
P255	750	13.91526	70.825189	45.688649	150	50	100	-	-25	+	+	+	+	
P256	750	13.91526	71.118217	46.53951	150	50	100	-	-25	-	-	-	-	
P257	750	13.91526	71.411244	47.390571	150	50	100	-	-25	-	-	-	-	
P258	750	13.91526	71.704272	48.241532	150	50	100	-	-25	-	-	-	-	
P259	750	13.91526	72.358448	45.999366	1500	300	500	-	-50	-	-	-	-	
P300	750	13.91526	72.358448	46.899366	1500	300	500	-	-50	+	+	+	+	
P301	750	13.91526	72.358448	47.799366	1500	300	500	-	-50	-	-	-	-	
P302	750	13.91526	72.358448	48.699366	1500	300	500	+	-50	+	+	+	+	
P303	750	13.91526	72.358448	49.599366	1500	300	500	+	-50	+	+	+	+	
P304	750	13.91526	72.358448	50.499366	1500	300	500	+	-50	+	+	+	+	
P305	750	13.91526	72.358448	51.399366	1500	300	500	-	-50	-	-	-	-	
P306	750	13.91526	72.358448	52.299366	1500	300	500	-	-50	-	-	-	-	
P307	750	13.91526	72.358448	53.199366	1500	300	500	-	-50	+	+	+	+	
P308	750	13.91526	72.358448	54.099366	1500	300	500	+	-50	+	+	+	+	
P309	750	13.91526	73.28717	52.751196	750	150	250	+	-50	+	+	+	+	
P310	750	13.91526	73.550198	53.80216	750	150	250	+	-50	+	+	+	+	
P311	750	13.91526	73.813226	54.853121	750	150	250	+	-50	+	+	+	+	
P312	750	13.91526	74.136253	55.504082	750	150	250	-	-50	-	-	-	-	
P313	750	13.91526	74.429281	56.155043	750	150	250	-	-50	+	+	+	+	
P314	750	13.91526	74.722308	57.006004	750	150	250	-	-50	-	-	-	-	
P315	750	13.91526	75.015336	57.856965	750	150	250	+	-50	+	+	+	+	
P316	750	13.91526	75.308364	58.707927	750	150	250	+	-50	+	+	+	+	
P317	750	13.91526	75.601391	59.558888	750	150	250	+	-50	+	+	+	+	
P318	750	13.91526	75.894419	60.409849	750	150	250	+	-50	+	+	+	+	
P319	750	13.91526	76.187446	61.26081	750	150	250	+	-50	+	+	+	+	
P320	750	13.91526	76.480474	62.111771	750	150	250	+	-50	+	+	+	+	
P321	750	13.91526	76.773501	62.962732	750	150	250	+	-50	+	+	+	+	
P322	750	13.91526	77.066529	63.813693	750	150	250	+	-50	+	+	+	+	
P323	750	13.91526	77.359557	64.664654	750	150	250	+	-50	+	+	+	+	
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P331	750	13.91526	79.703777	71.472343	750	150	250	+	-50	+	+	+	+	
P332	750	14.21526	78.996806	72.323306	750	150	250	+	-50	+	+	+	+	
P333	750	14.21526	80.289832	73.174268	750	150	250	+	-50	+	+	+	+	
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P359	750	13.91526	62.460051	78.751679	750	150	250	+	-50	+	+	+	+	
P360	750	13.91526	61.560051	78.751679	1500	300	500	-	-50	-	-	-	-	

PILE			COORDINATES (m)		VERTICAL ACTIONS (kN)					HORIZONTAL ACTIONS (kN)					
PILE REF	SIZE	CUT OFF LEVEL	EASTING	NORTHING	Max Dead Gk, max	Min Dead Gk, min	Imposed Qk	Wind Wk	Hydrostatic Uplift (Uk)	Max Dead Gk, max	Min dead Gk, min	Imposed Qk	Wind Wk	Rev
P361	750	13.91526	60.660051	76.751679	1500	300	500	-	-50	-	-	-	-	C02
P362	750	13.91526	59.760051	76.751679	1500	300	500	-	-50	-	-	-	-	
P363	750	13.91526	58.860051	76.751679	750	150	250	-	-50	-	-	-	-	
P364	750	13.91526	57.960051	76.751679	750	150	250	-	-50	-	-	-	-	
P365	750	13.91526	57.060051	76.751679	300	150	150	-	-50	10	10	5	20	
P366	750	13.91526	56.160051	76.751679	300	150	150	-	-50	10	10	5	20	
P367	750	13.91526	55.260051	76.751679	750	300	300	-	-50	10	10	5	20	
P368	750	13.91526	54.360051	76.751679	750	300	300	-	-50	10	10	5	20	
P369	750	13.91526	53.460051	76.751679	750	300	300	-	-50	10	10	5	20	
P370	750	13.91526	52.560051	76.751679	300	150	150	-	-50	10	10	5	20	
P371	750	13.91526	51.660051	76.751679	300	150	150	-	-50	10	10	5	20	
P372	750	13.91526	50.760051	76.751679	300	150	150	-	-50	15	10	5	20	
P373	750	13.91526	49.860051	76.751679	900	300	450	-	-50	15	10	5	20	
P374	750	13.91526	48.960051	76.751679	900	300	450	-	-50	15	10	5	20	
P375	750	13.91526	48.060051	76.751679	900	300	450	-	-50	15	10	5	20	
P376	750	13.91526	47.160051	76.751679	900	300	450	-	-50	15	10	5	20	
P377	750	13.91526	46.260051	76.751679	300	150	150	-	-50	15	10	5	20	
P378	750	13.91526	45.360051	76.751679	300	150	150	-	-50	15	10	5	20	
P379	750	13.91526	44.460051	76.751679	300	150	150	-	-50	10	10	5	20	
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P385	750	13.91526	39.060051	76.751679	300	150	150	-	-50	10	10	5	20	
P386	750	13.91526	38.160051	76.751679	300	150	150	-	-50	10	10	5	20	
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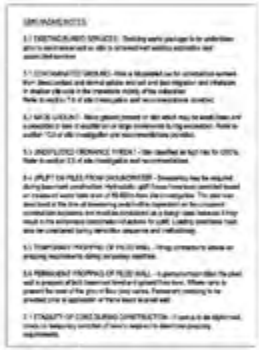


curtins

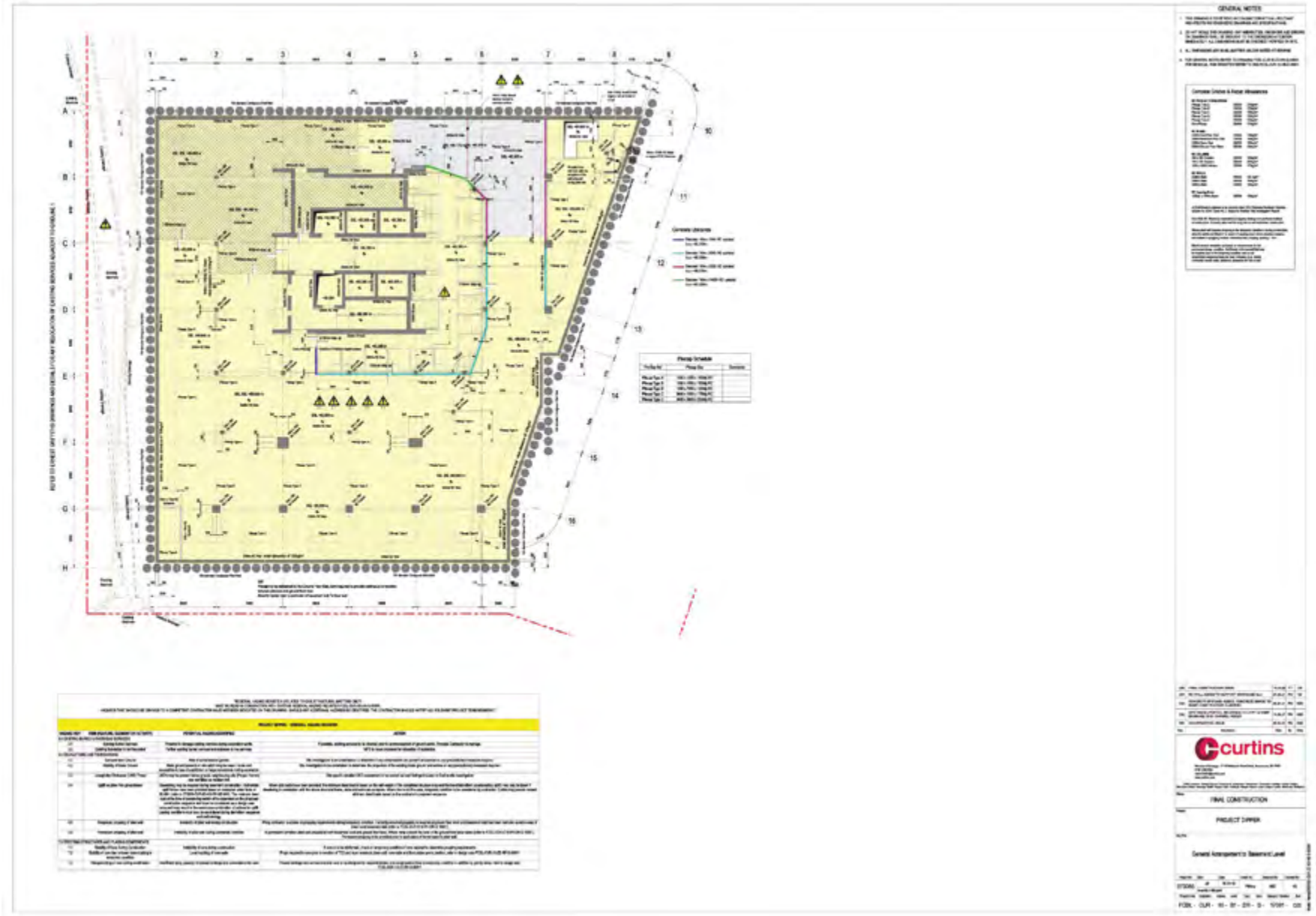
FINAL CONSTRUCTION

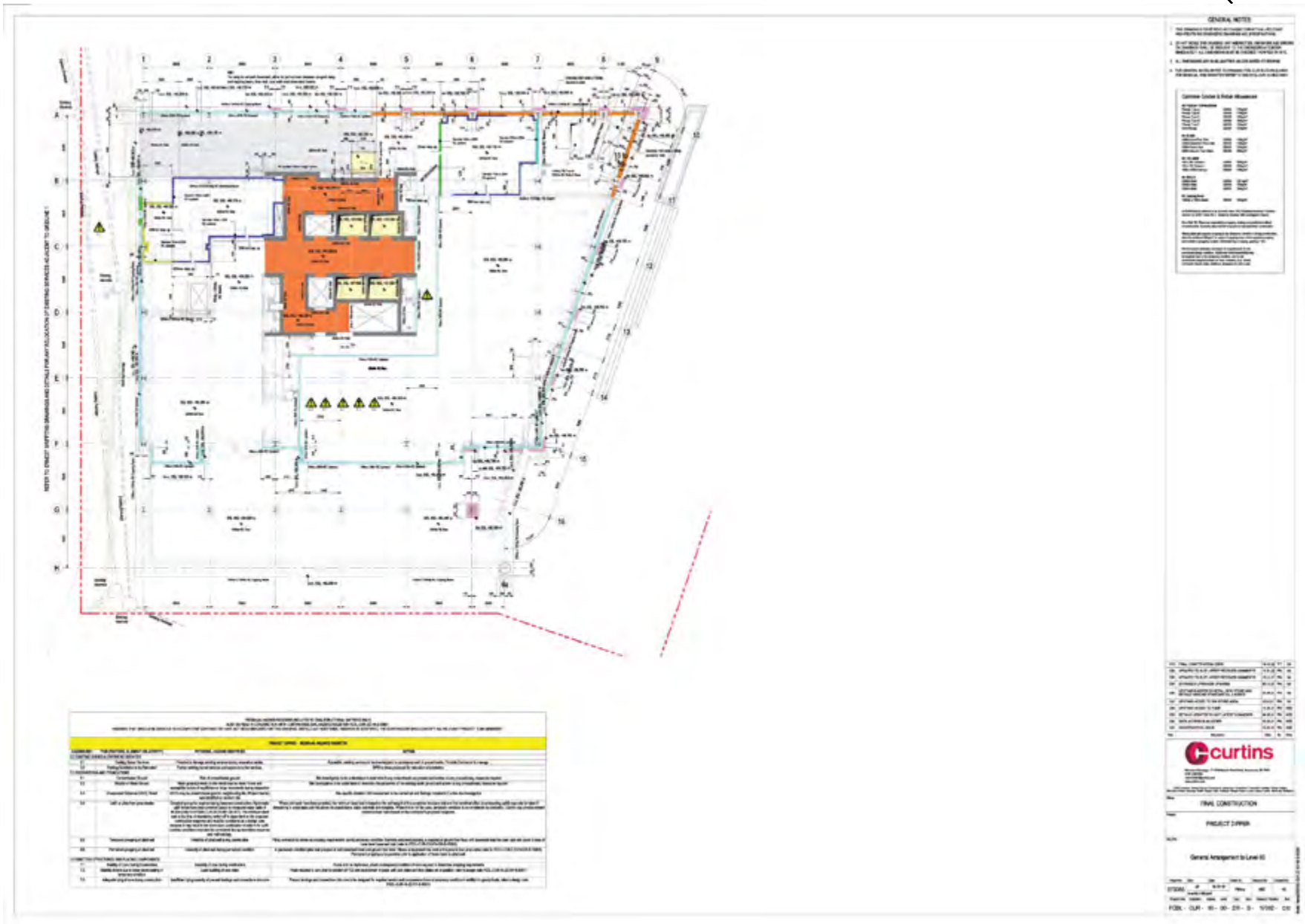
PROJECT DIPPER

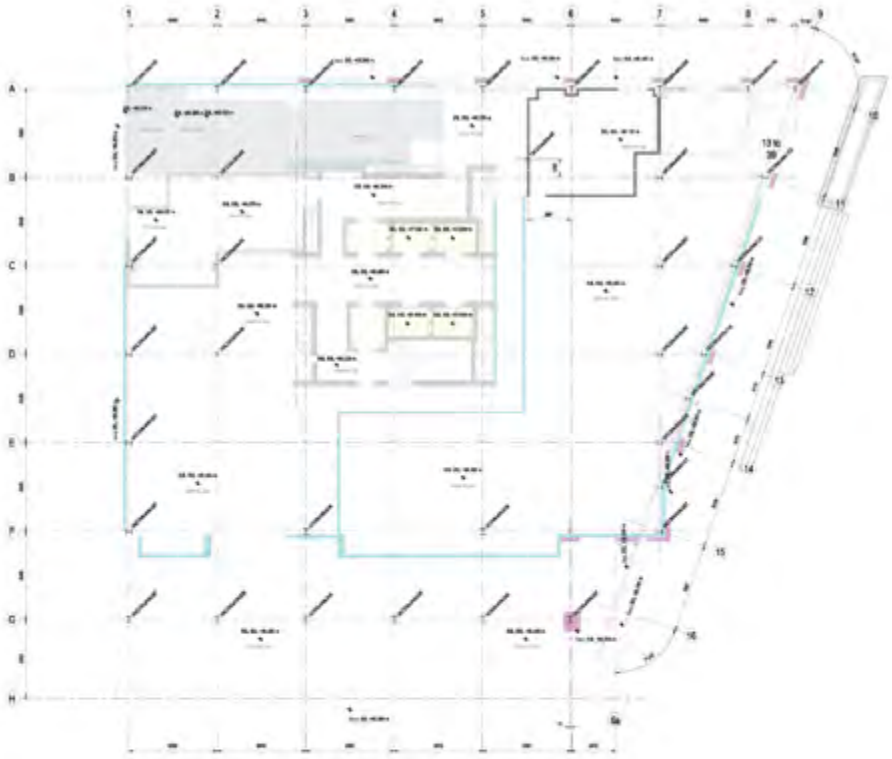
Pile Schedule sheet 5

CT3385

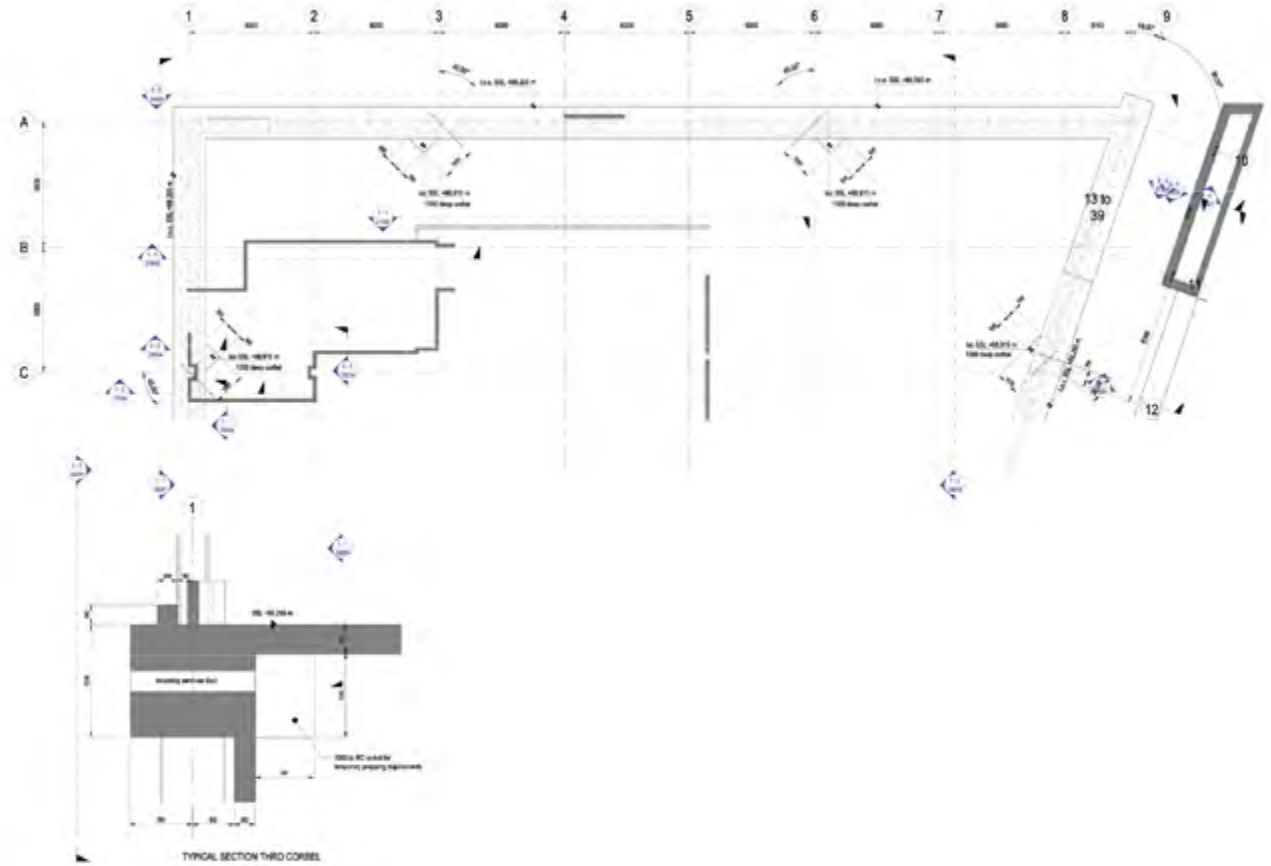
FCDL - CUR - 10 - PN - DR - S - 19006 - C03








GENERAL NOTES
curtins
FINAL CONSTRUCTION
PROJECT ZIPPER



GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, DISCREPANCIES AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-XX-DR-S-0003. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-0010

002	FINAL CONSTRUCTION ISSUE	14.06.22	PT	DR
001	CONSTRUCTION ISSUE	13.04.21	PW	ADD
Rev	Description	Date	By	Check

curtins

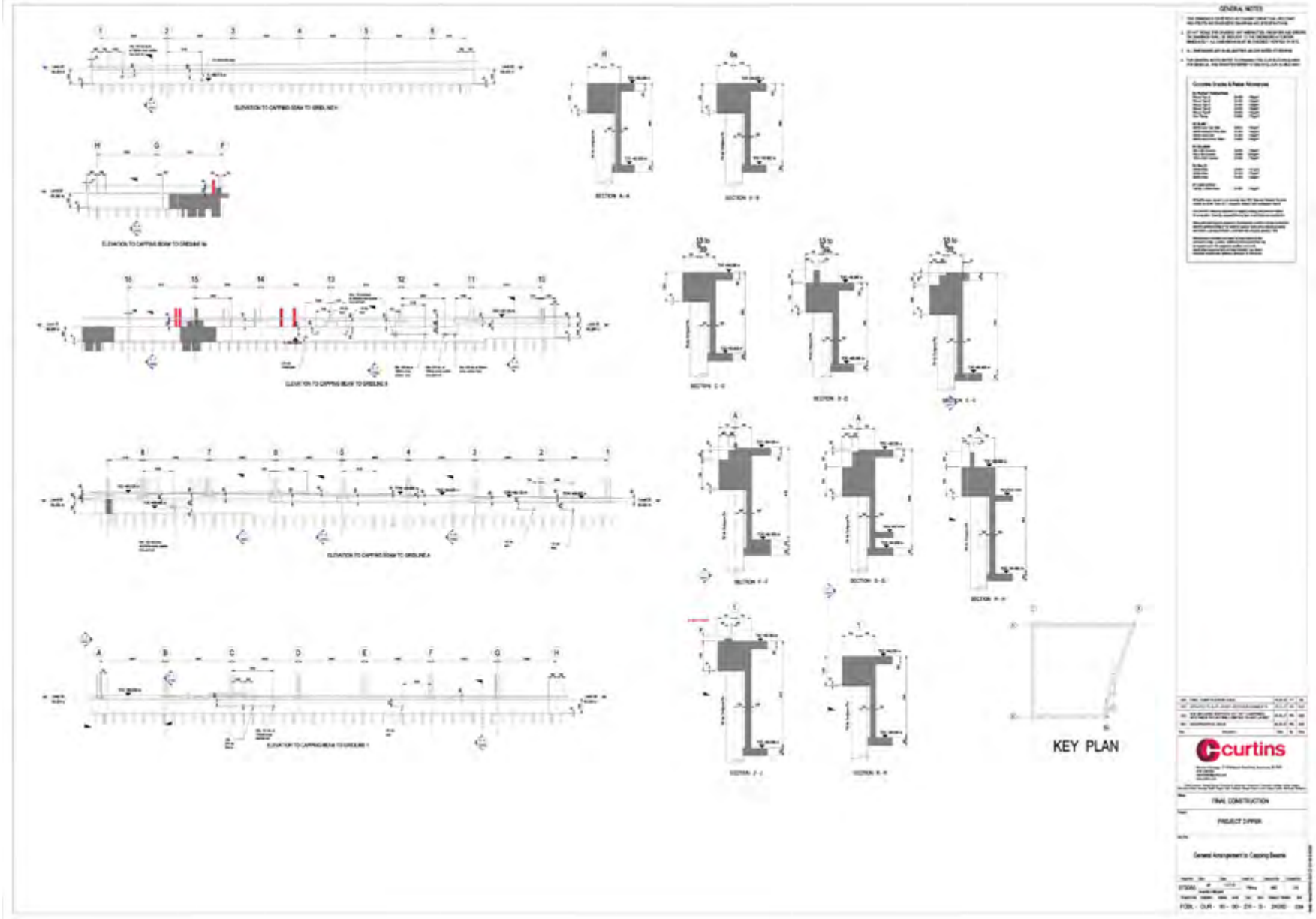
Status: FINAL CONSTRUCTION

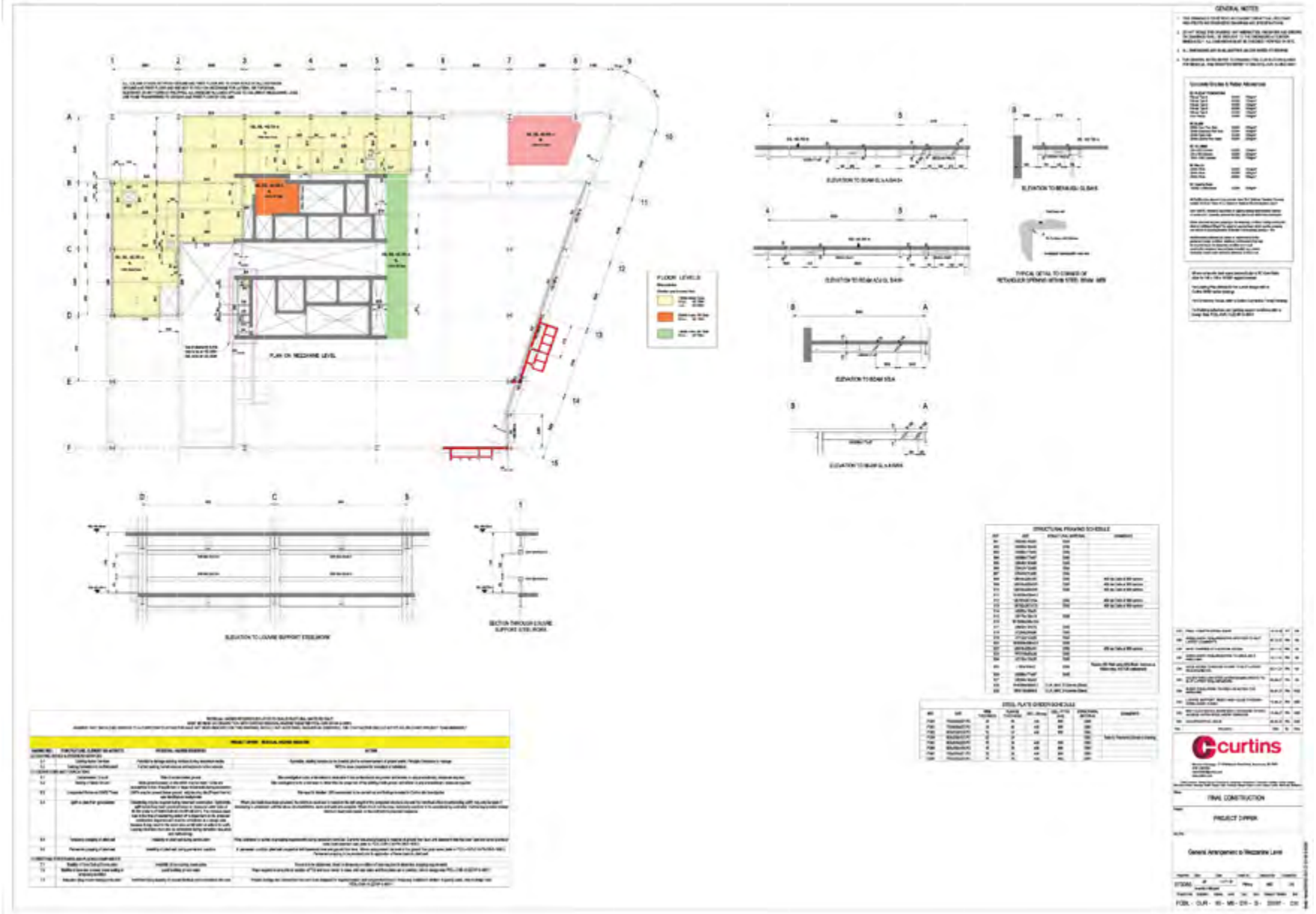
Project: PROJECT DIPPER

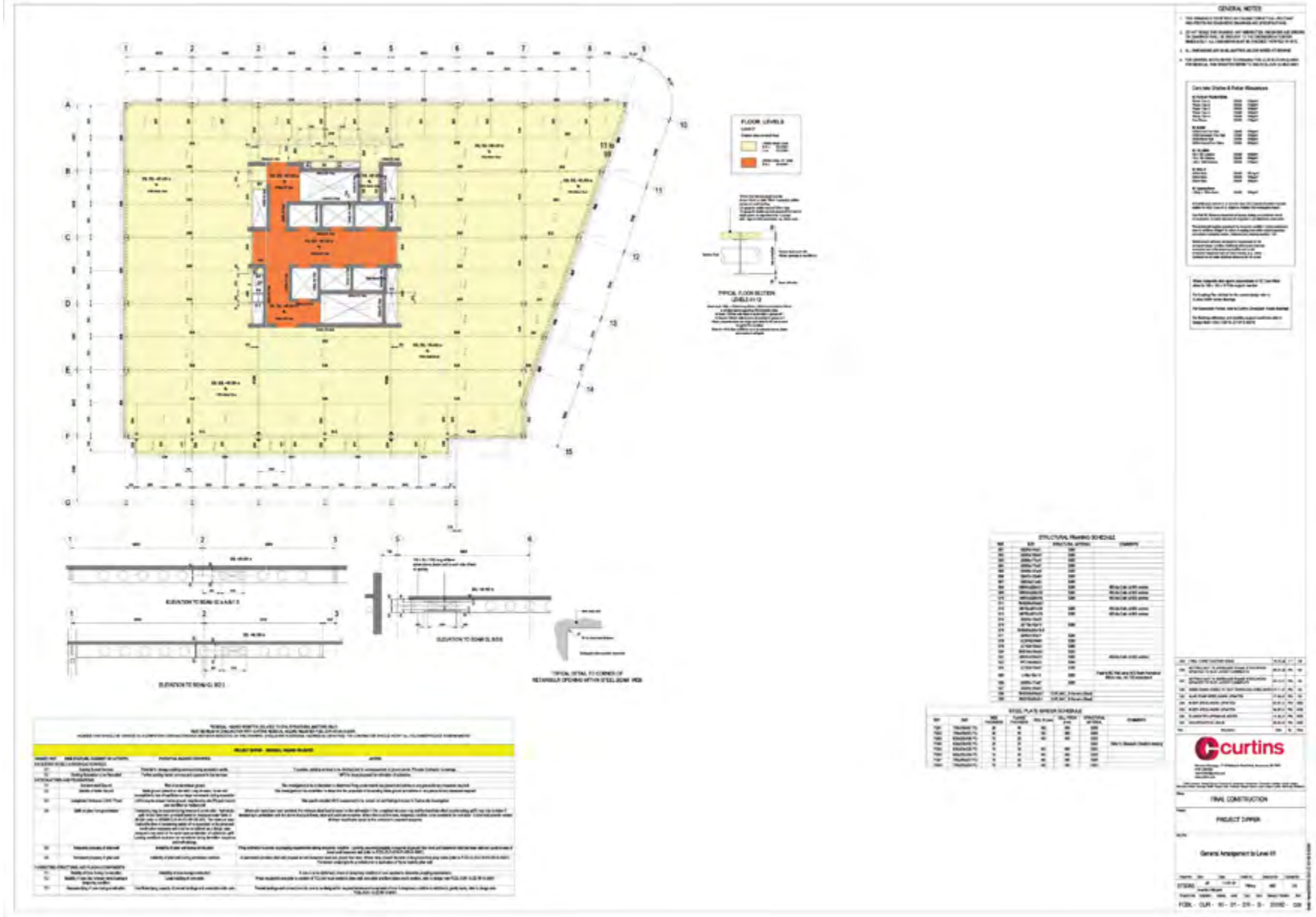
Dwg Title: Details to Temporary Propping Corbels

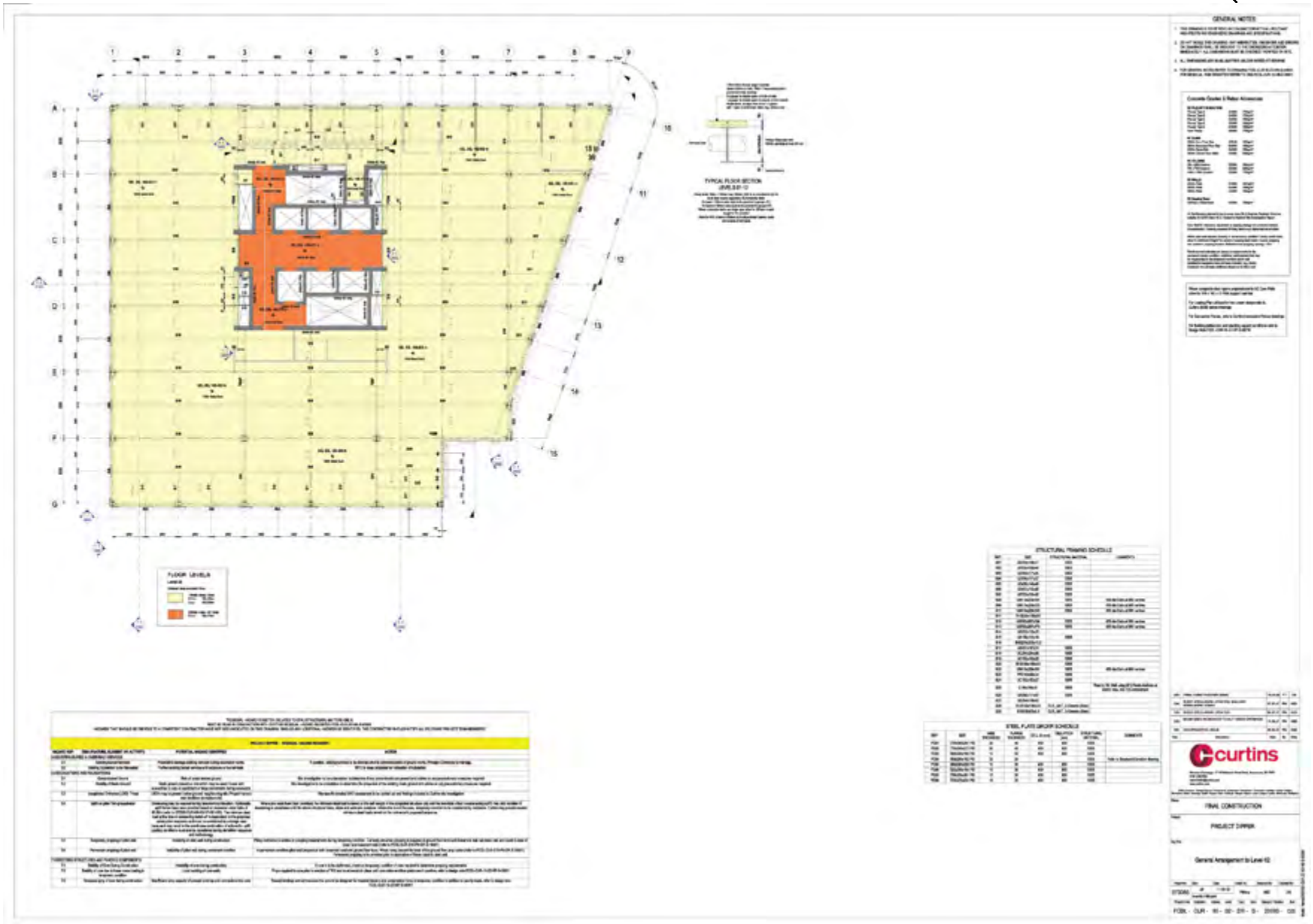
Project No	Size	Date	Drawn By	Designed By	Checked By
073385	A1	March 2021	PWhite	REC	DR

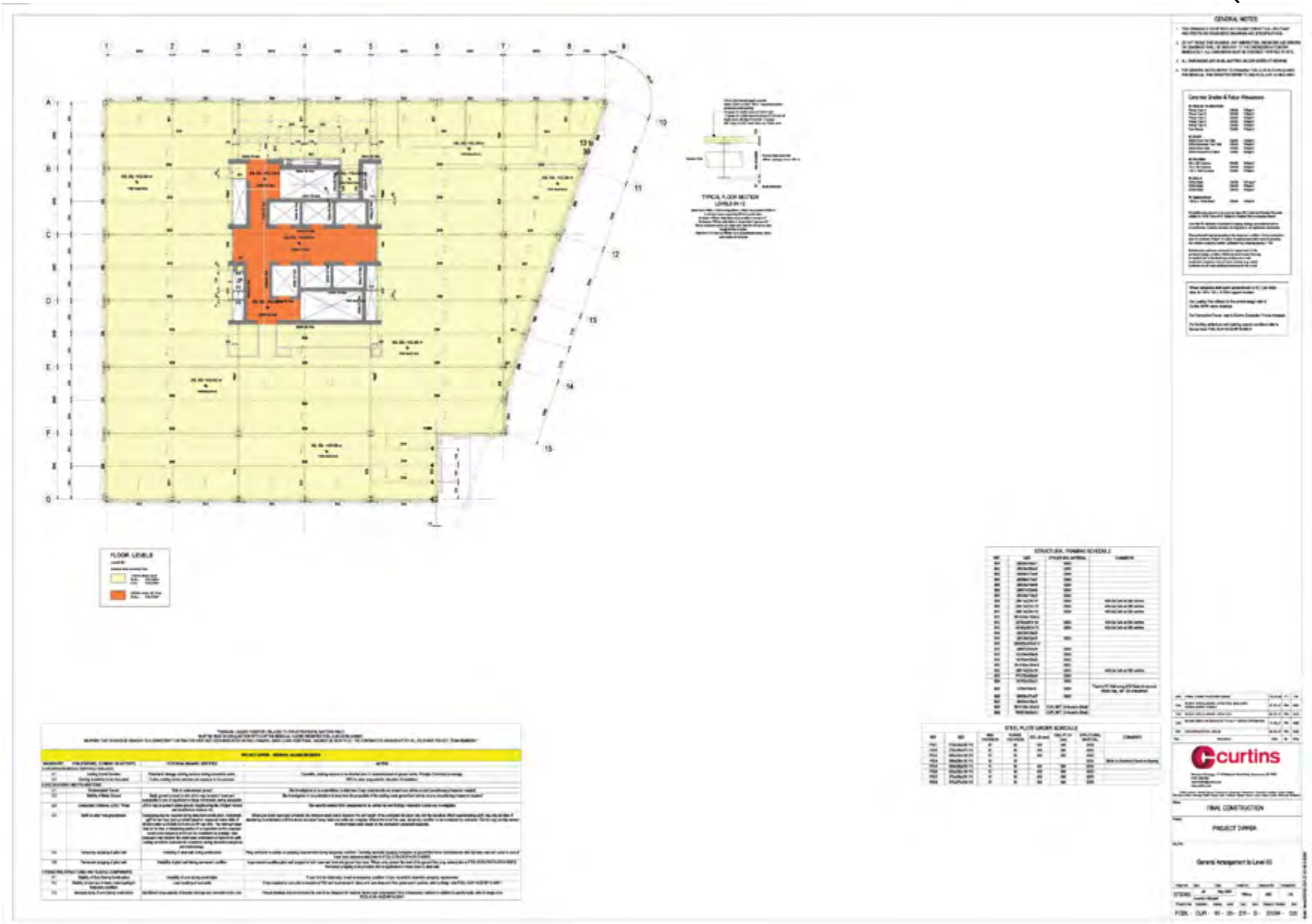
Project Code: FCDL - Originator: CUR - Volume: 10 - Level: 00 - Type: DR - Role: S - Drawing Number: 17004 - Revision: 002

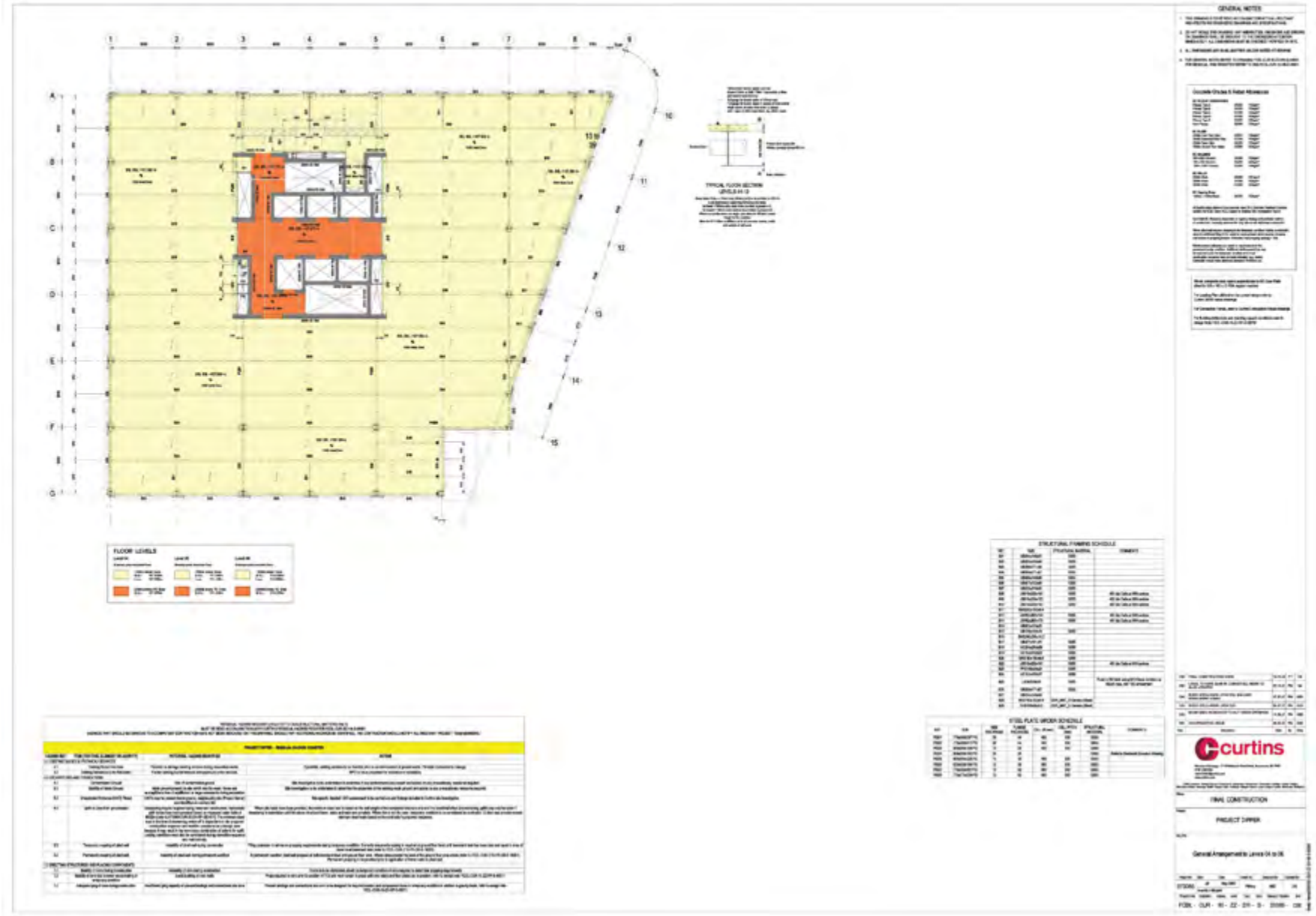

GENERAL NOTES
KEY PLAN
curtins
FINAL CONSTRUCTION
PROJECT ZIPPER
General Arrangement to Capping Beams

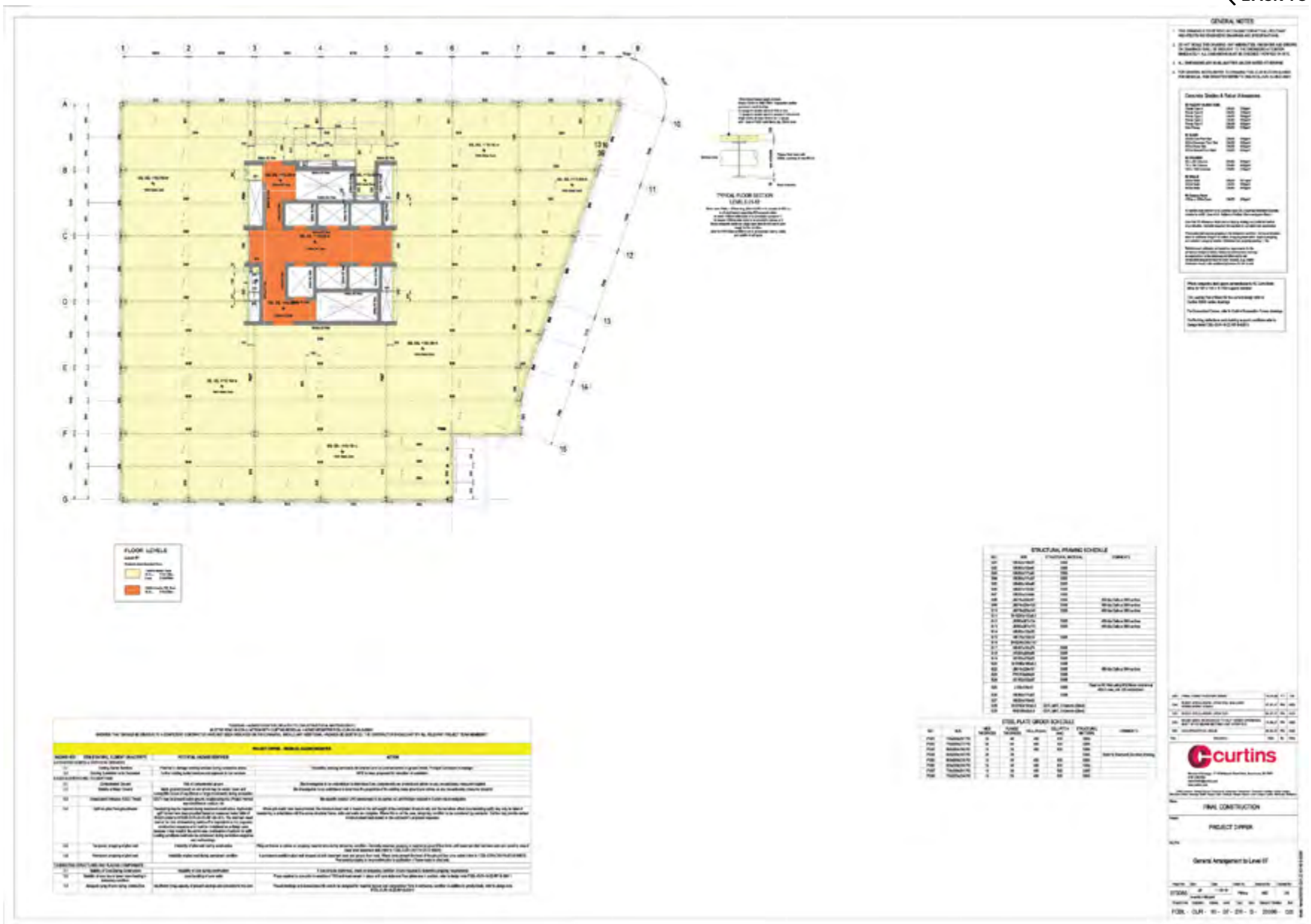


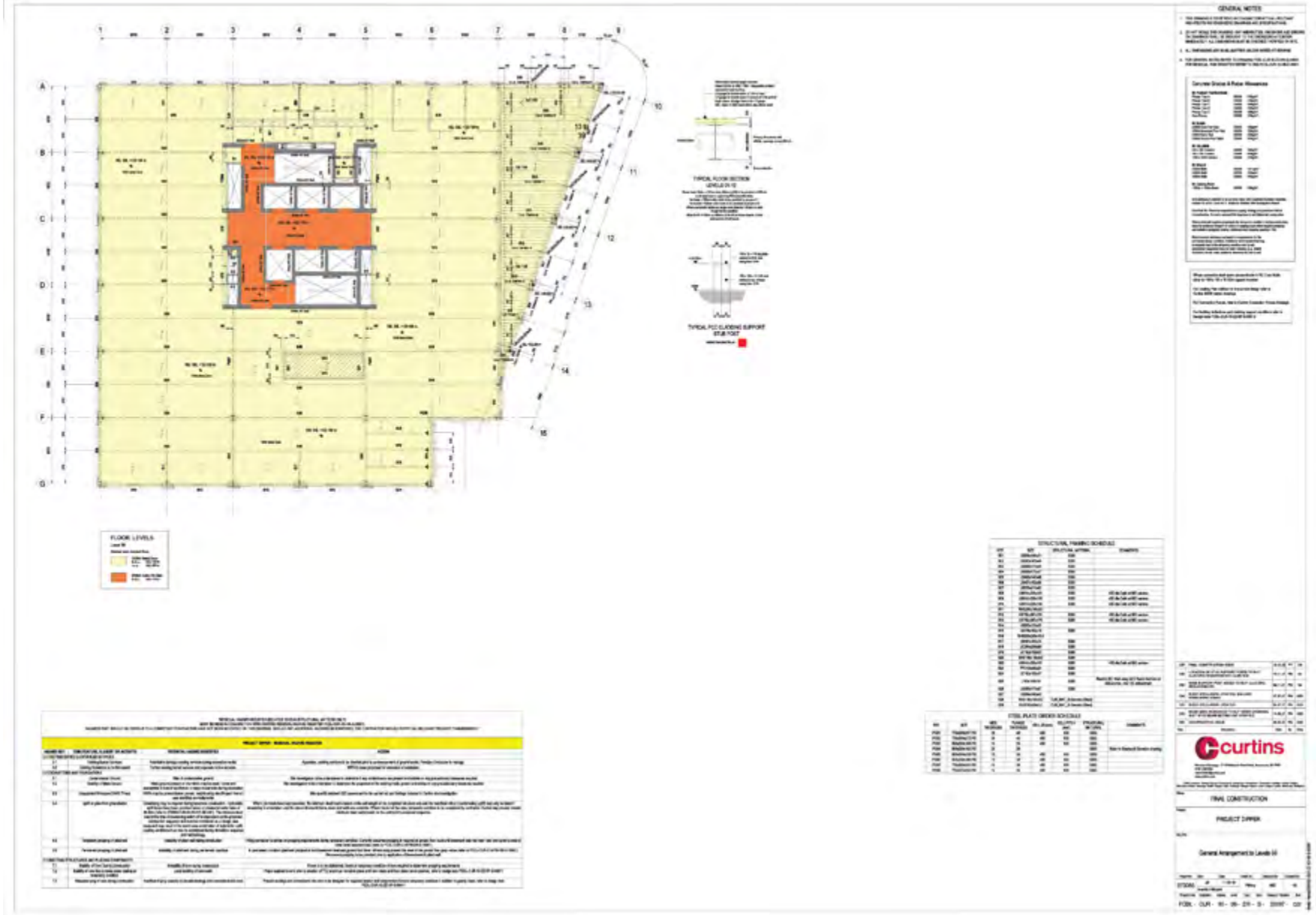


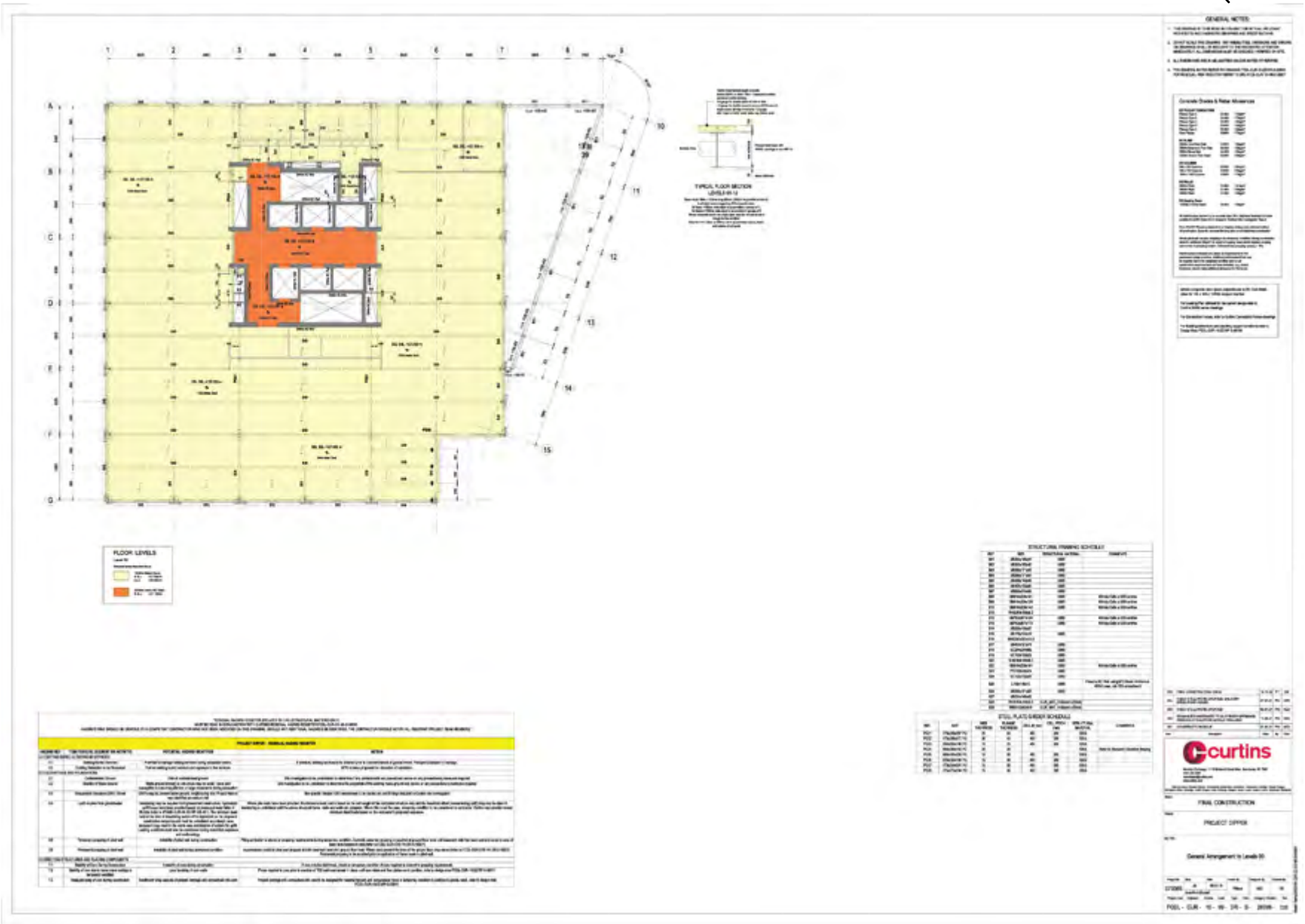


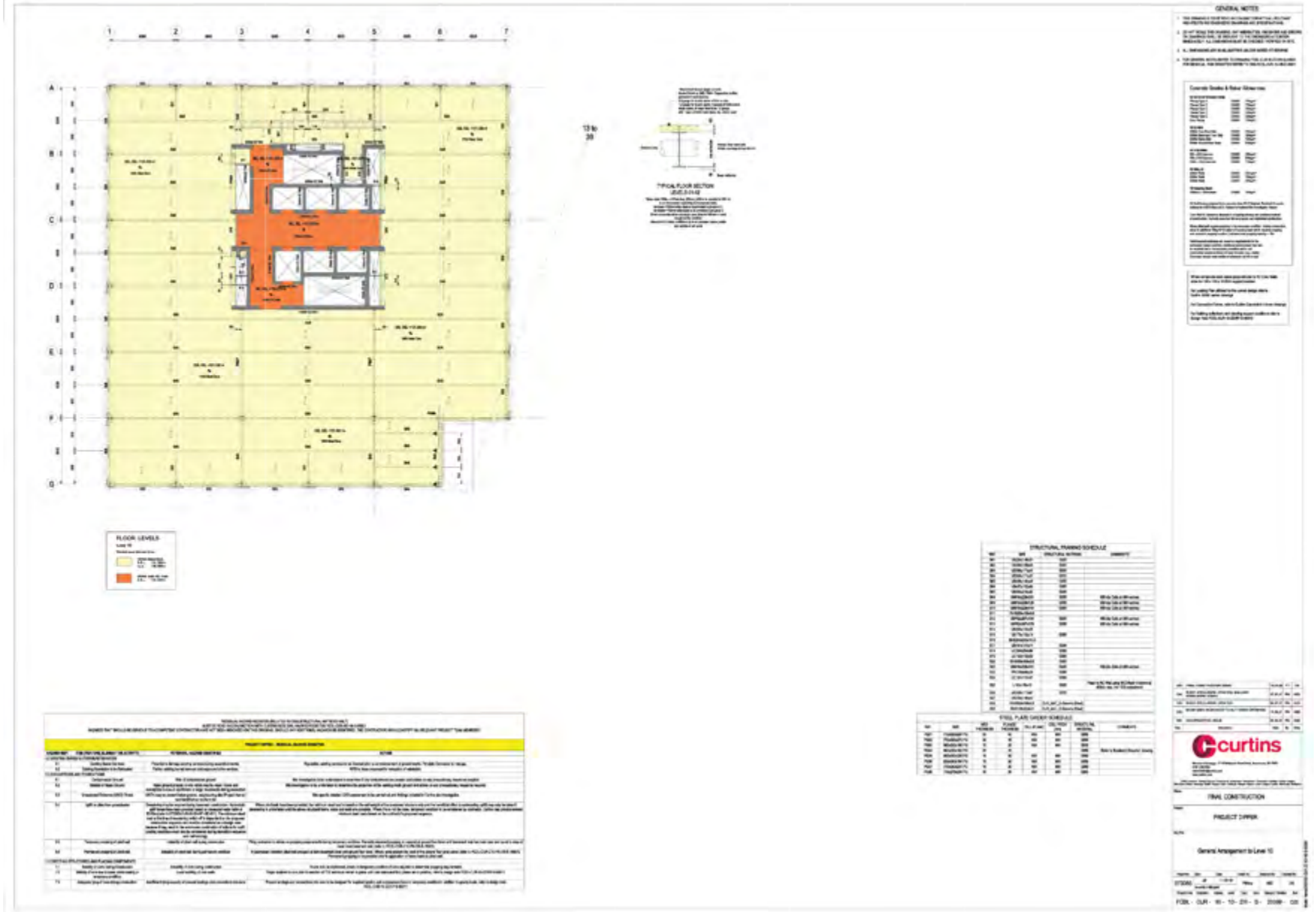


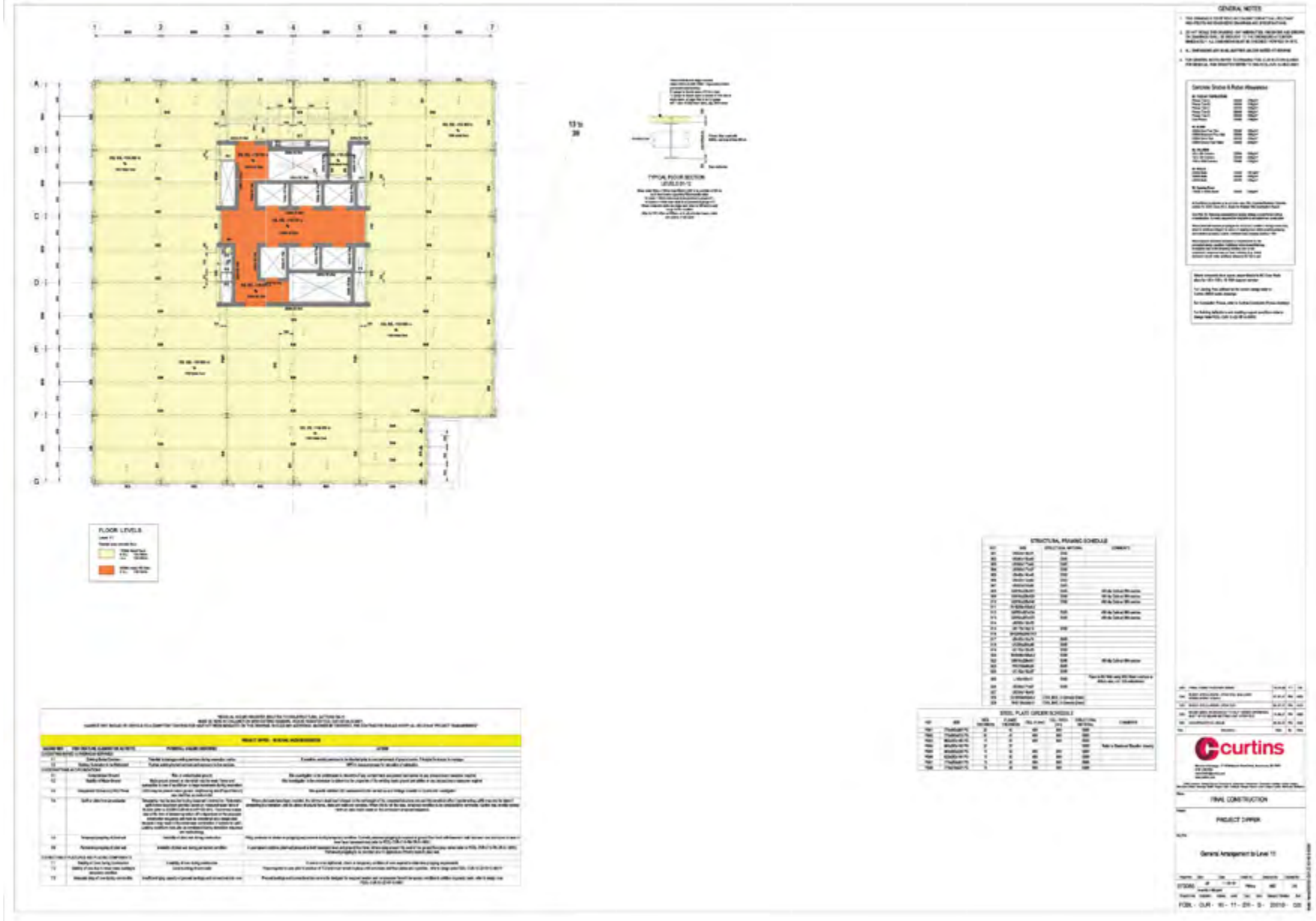


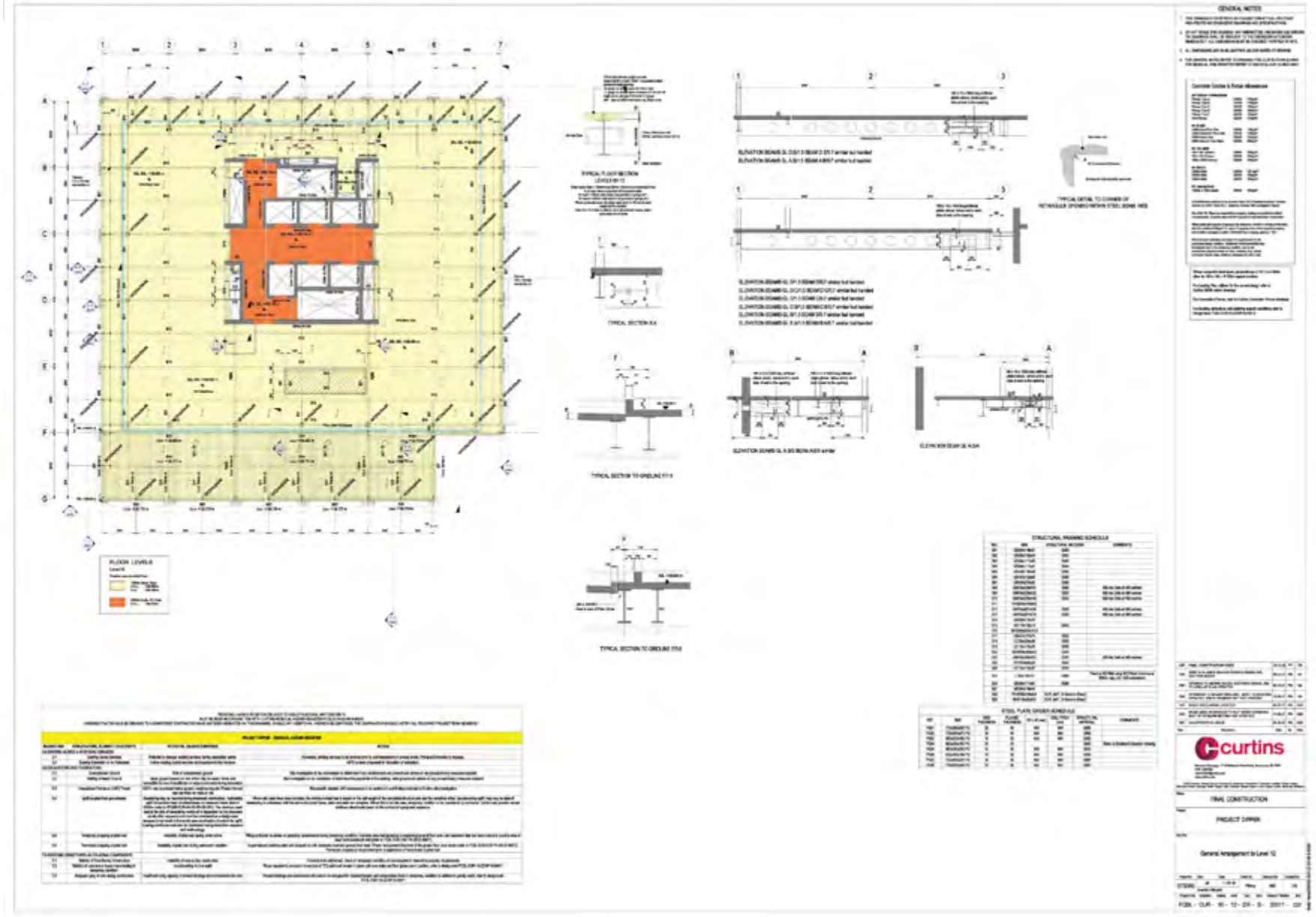


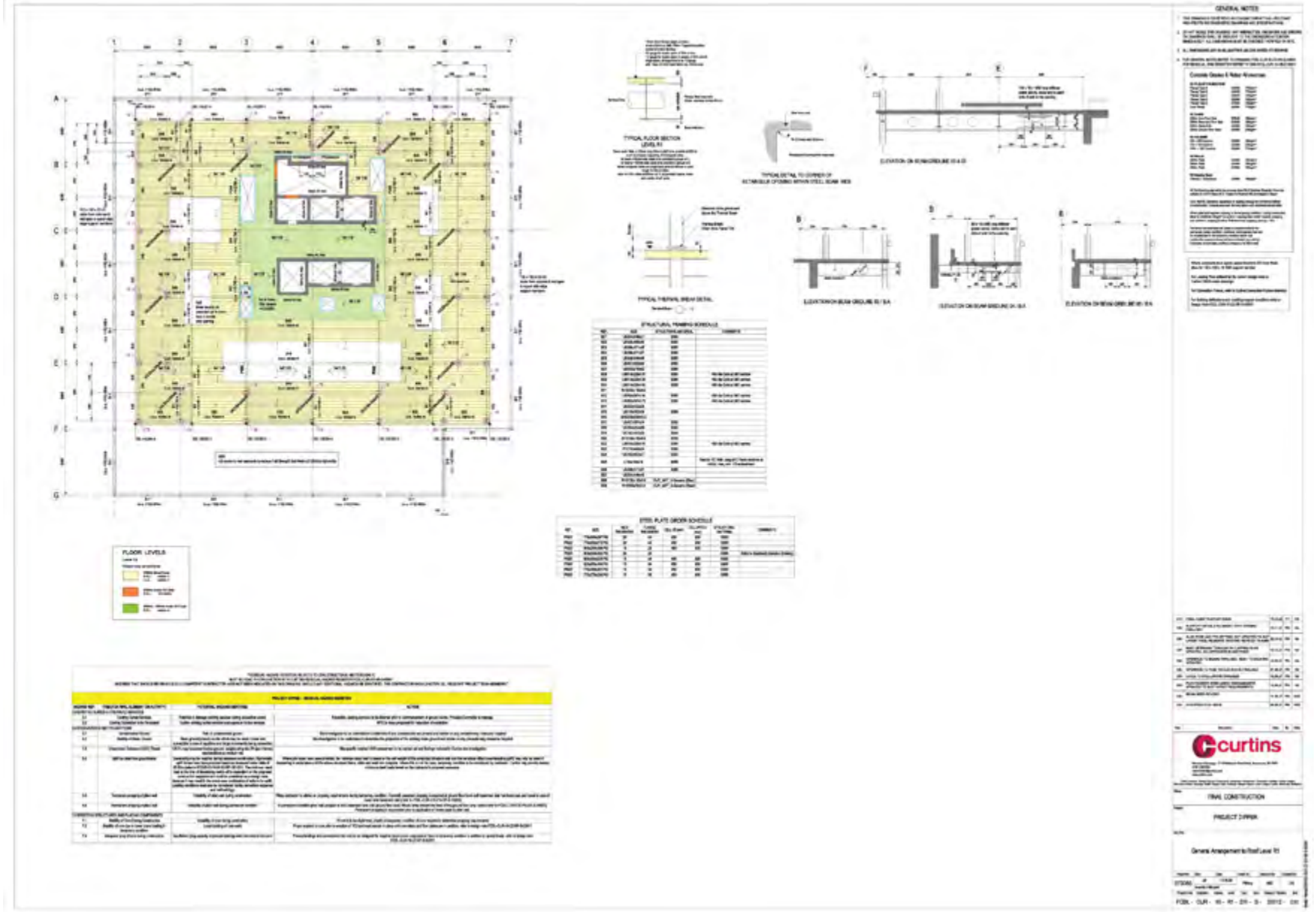


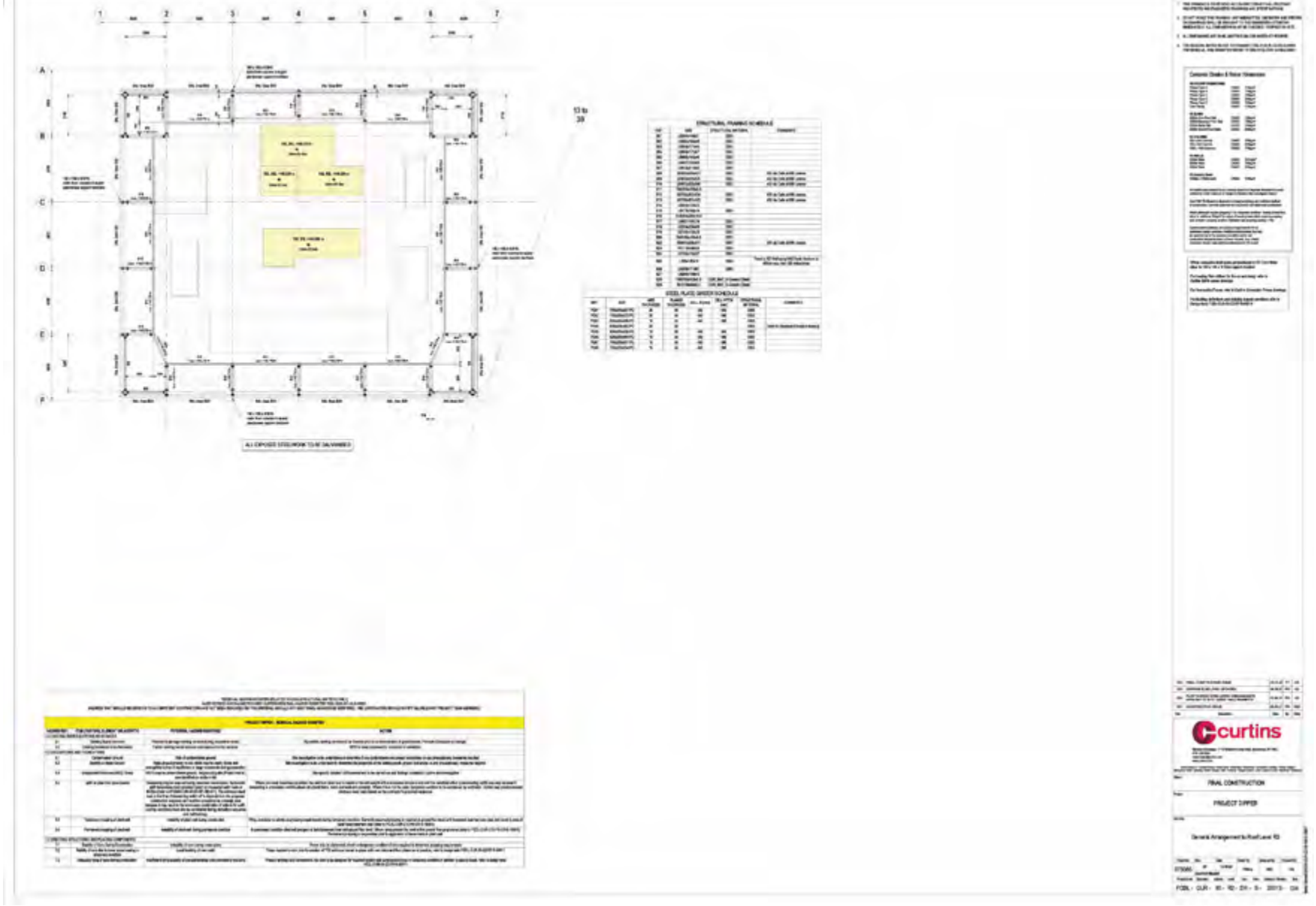




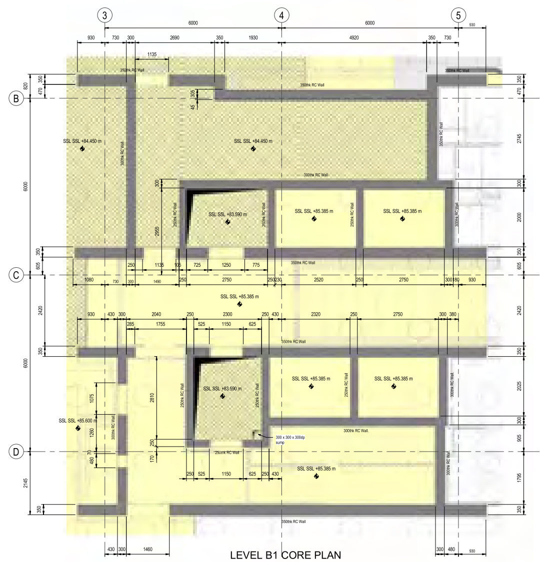




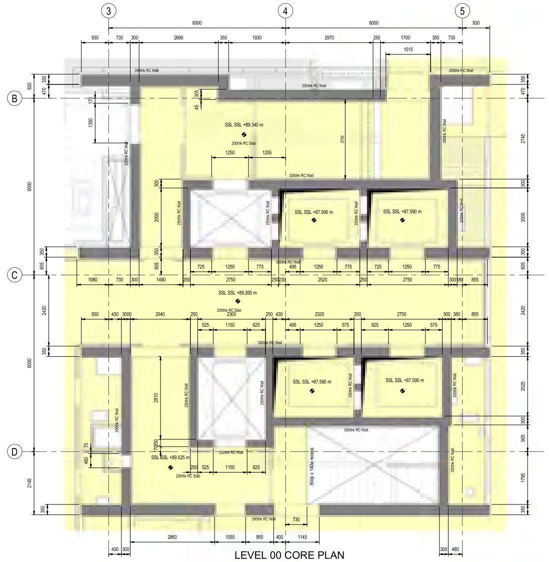




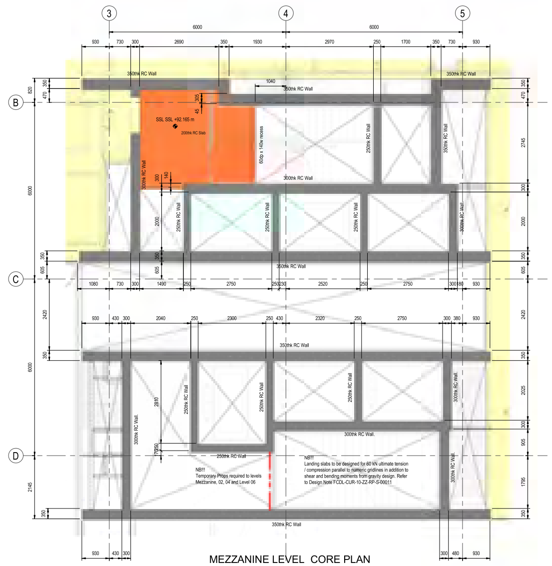
BACK TO CONTENTS



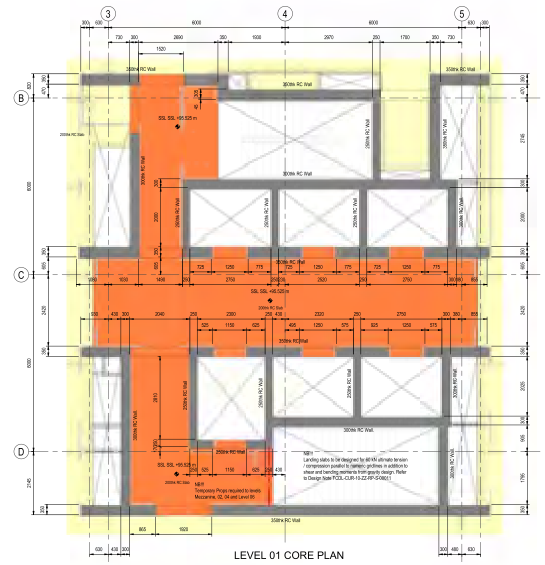
LEVEL B1 CORE PLAN



LEVEL 00 CORE PLAN



MEZZANINE LEVEL CORE PLAN



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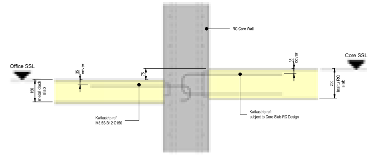

TYPICAL KWIKASTRIP DETAIL
RC WALL / METAL DECK / INSITU SLAB INTERFACE WHERE DECKING SPANS PERPENDICULAR OR PARALLEL TO RC WALL

"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER FCDL-CUR-XX-HA-S-00001.
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 Cores

HAZARD REF:	ITEM (FEATURE, ELEMENT OR ACTIVITY)	POTENTIAL HAZARD IDENTIFIED	ACTION
3.0 EXISTING BURIED & OVERHEAD SERVICES			
3.1	Existing Buried Services	Potential to damage exisitng 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.	WPD to issue proposasl for relocation of substation.
5.0 EXCAVATIONS AND FOUNDATIONS			
5.1	Contaminated Ground	Risk of contaminated ground	Site investigation to be understaken to determine if any contaminents 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 properteis 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 Herron) was identified as medium risk	Site-specific detailed UXO assessment to be carried out and findings included in Curtins site investigation
5.4	Uplift on piles from groundwater	Dewatering may be required during basement construction. Hydrostatic uplift forces have been provided based on measured water table of 85.82m (refer to 073385-CUR-00-XX-RP-GE-001). The minimum dead load at the time of dewatering switch-off is 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 condition 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 lower level basement slab (refer to FCDL-CUR-C10-FN-DR-S-16001)
5.6	Permanent propping of piled wall	Instability of piled wall during permanent condition	In 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 FCDL-CUR-C10-FN-DR-S-16001). Permanent propping to be provided prior to application of frame loads to piled wall.
7.0 ERECTING STRUCTURES AND PLACING COMPONENTS			
7.1	Stability of Core During Construction	Instability of core during construction	If core is to be slipformed, 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	Props required to core prior to erection of TC2 and must remain in place until core slabs and floor plates are in position, refer to design note FCDL-CUR-10-ZZ-RP-S-00011
7.3	Adequate tying of core during construction	Insufficient 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 FCDL-CUR-10-ZZ-RP-S-00011

GENERAL NOTES:

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Concrete Grades & Rebar Allowances

RC PILECAP FOUNDATIONS		
Pilecap Type A	C40/50	175kg/m³
Pilecap Type B	C40/50	175kg/m³
Pilecap Type C	C40/50	150kg/m³
Pilecap Type D	C50/60	150kg/m³
Pilecap Type E	C40/50	125kg/m³
Core Pilecap	C50/60	175kg/m³
RC SLABS		
200thk Core Floor Slab	C35/45	135kg/m³
350thk Basement Floor Slab	C40/50	150kg/m³
250thk Ramp Slab	C40/50	150kg/m³
350thk Ground Floor Slabs	C50/60	200kg/m³
RC COLUMNS		
350 x 350 Columns	C50/60	160kg/m³
700 x 700 Columns	C50/60	200kg/m³
1000 x 1000 Columns	C50/60	175kg/m³
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250thk Walls	C40/50	125 kg/m³
300thk Walls	C40/50	150kg/m³
350thk Walls	C40/50	160kg/m³
RC Capping Beam		
1350dp x 1500w Beam	C40/50	150kg/m³

All SubStructure element to be concrete class DS-2 Sulphate Resistant Concrete suitable for ACEC Class AC-2. Subject to finalised Site Investigation Report

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Rev:	Description:	Date:	By:	Chkd:
C04	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C03	PROPPING NOTE ADDED	05.08.21	PM	NJ
C02	STAIR LANDINGS FINALISED	19.07.21	PM	NJ
C01	CONSTRUCTION ISSUE	29.06.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: General Arrangement to Core sheet 1

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0 / Scale: As indicated	June 2020	PMilne	AED	DS

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24005 -	C04

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

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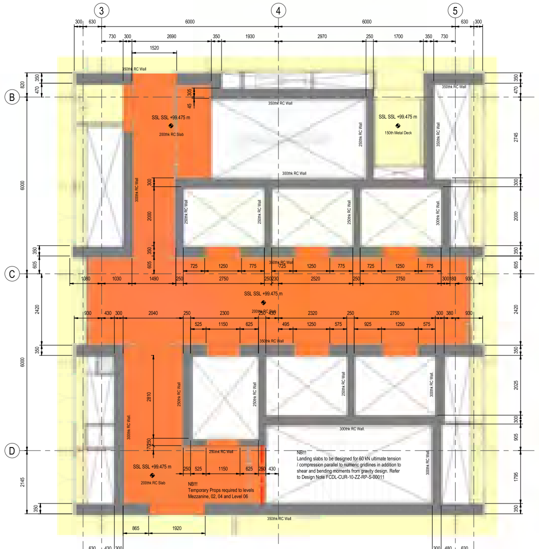
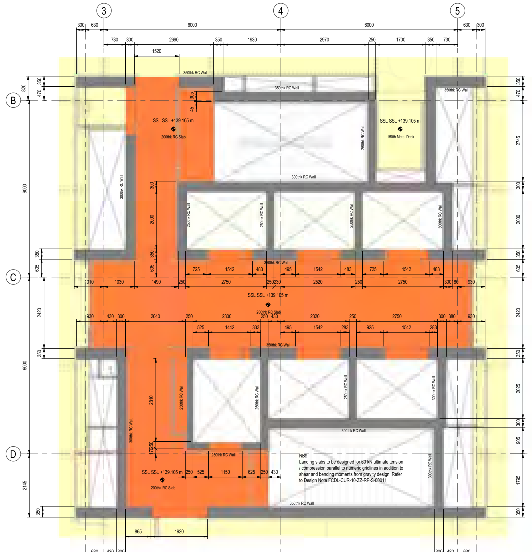
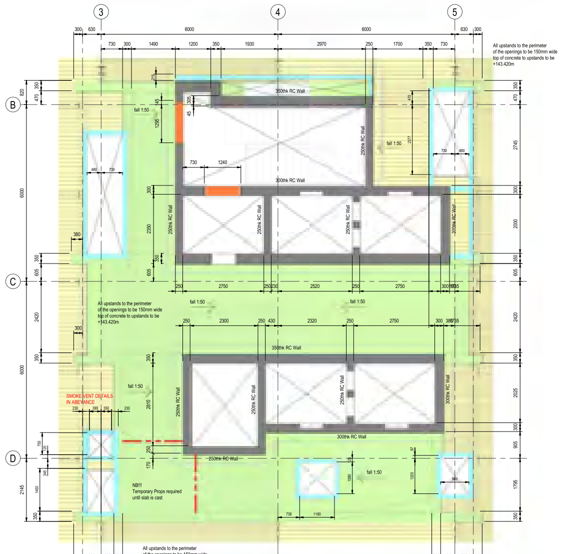


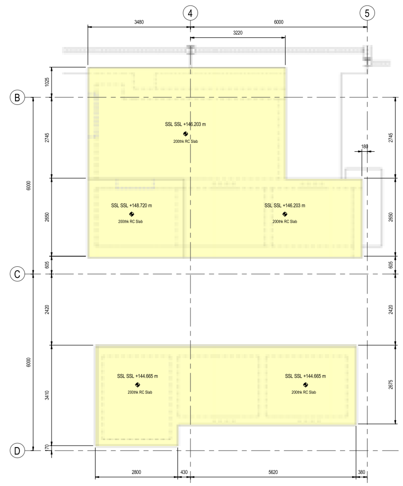
LEVEL 02 CORE PLAN
LEVELS 03 to 11 simliar



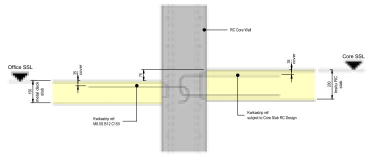
LEVEL 12 CORE PLAN



LEVEL R1 CORE PLAN



LEVEL 14 CORE PLAN



TYPICAL KWIKASTRIP DETAIL
RC WALL / METAL DECK / INSITU SLAB INTERFACE WHERE DECKING SPANS PERPENDICULAR OR PARALLEL TO RC WALL

"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER FCDL-CUR-XX-HA-S-00001.
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 Cores

HAZARD REF:	ITEM (FEATURE, ELEMENT OR ACTIVITY)	POTENTIAL HAZARD IDENTIFIED	ACTION
3.0 EXISTING BURIED & OVERHEAD SERVICES			
3.1	Existing Buried Services	Potential to damage exisitng 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.	WPD to issue proposasl for relocation of substation.
5.0 EXCAVATIONS AND FOUNDATIONS			
5.1	Contaminated Ground	Risk of contaminated ground	Site investigation to be understaken to determine if any contaminents 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 properteis 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 Herron) was identified as medium risk	Site-specific detailed UXO assessment to be carried out and findings included in Curtins site investigation
5.4	Uplift on piles from groundwater	Dewatering may be required during basement construction. Hydrostatic uplift forces have been provided based on measured water table of 85.82m (refer to 073385-CUR-00-XX-RP-GE-001). The minimum dead load at the time of dewatering switch-off is 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 condition to be considered by contractor. Curtins may provide revised minimum dead loads based on the contractor's proposed sequence.
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Concrete Grades & Rebar Allowances

RC PILECAP FOUNDATIONS		
Pilecap Type A	C40/50	175kg/m³
Pilecap Type B	C40/50	175kg/m³
Pilecap Type C	C40/50	150kg/m³
Pilecap Type D	C50/60	150kg/m³
Pilecap Type E	C40/50	125kg/m³
Core Pilecap	C50/60	175kg/m³
RC SLABS		
200thk Core Floor Slab	C35/45	135kg/m³
350thk Basement Floor Slab	C40/50	150kg/m³
250thk Ramp Slab	C40/50	150kg/m³
350thk Ground Floor Slabs	C50/60	200kg/m³
RC COLUMNS		
350 x 350 Columns	C50/60	160kg/m³
700 x 700 Columns	C50/60	200kg/m³
1000 x 1000 Columns	C50/60	175kg/m³
RC WALLS		
250thk Walls	C40/50	125 kg/m³
300thk Walls	C40/50	150kg/m³
350thk Walls	C40/50	160kg/m³
RC Capping Beam		
1350dp x 1500w Beam	C40/50	150kg/m³

All SubStructure element to be concrete class DS-2 Sulphate Resistant Concrete suitable for ACEC Class AC-2. Subject to finalised Site Investigation Report

Core Wall RC Allowance dependant on lapping strategy and preferred method of construction. Currently assumed 6m long bars to suit slipformed construction

Where piled wall requires propping in the temporary condition / during construction, allow for additional 50kg/m³ for extent of capping beam which requires propping and corbels in propping location. Estimated max propping spacing = 10m

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Rev:	Description:	Date:	By:	Chkd:
C06	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C05	LEVEL R1 UPDATED	18.10.21	PM	NJ
C04	LEVELS R1 & R2 UPDATED	21.09.21	PM	NJ
C03	DOOR OPENING WIDTH INCREASED	21.09.21	PM	NJ
C02	LEVEL 12 PLAN ADDED, LIFT OVER RUN LEVELS UPDATED. PROPPING NOTE ADDED	05.08.21	PM	NJ
C01	CONSTRUCTION ISSUE	29.06.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: General Arrangement to Core sheet 2

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	June 2020	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24006 -	C06

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

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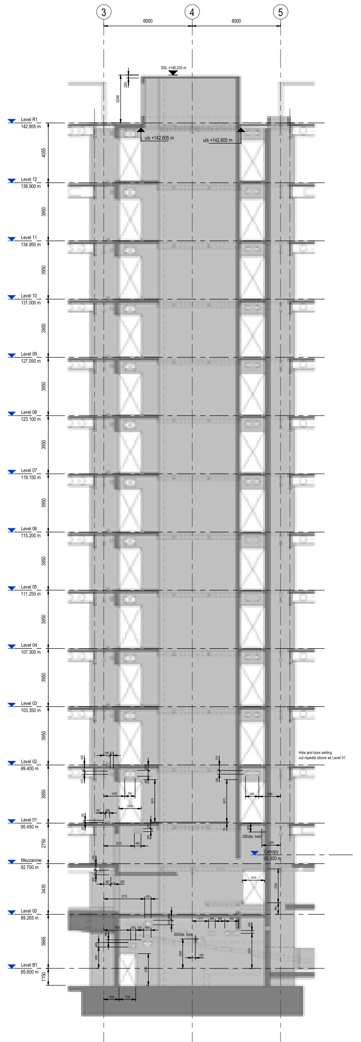
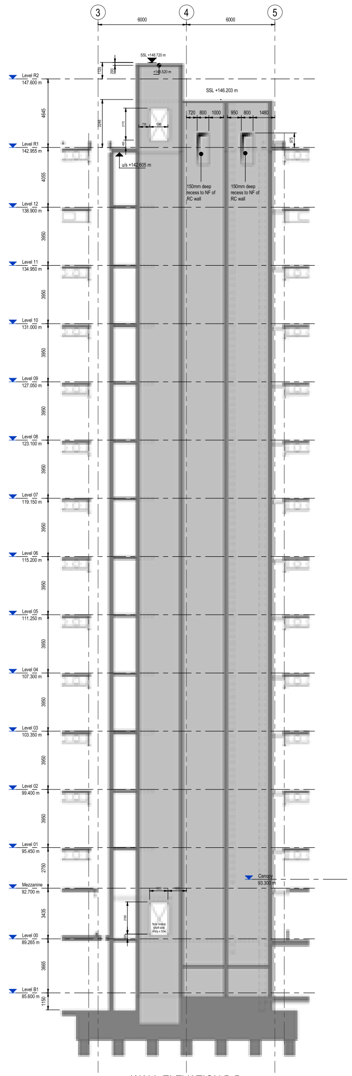
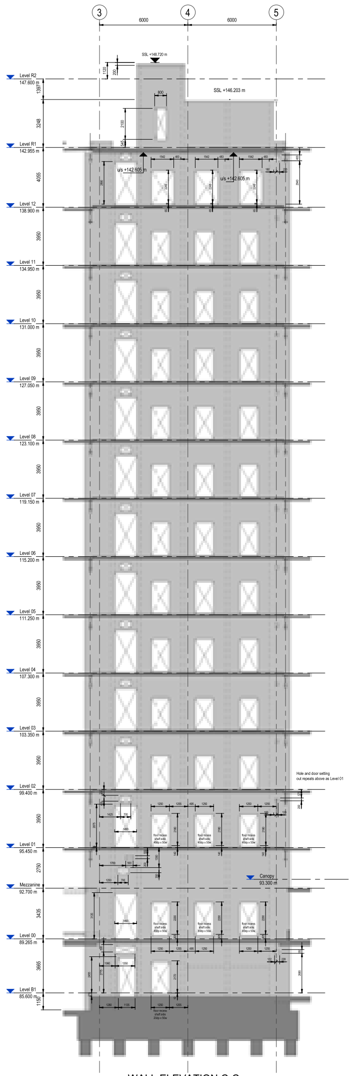


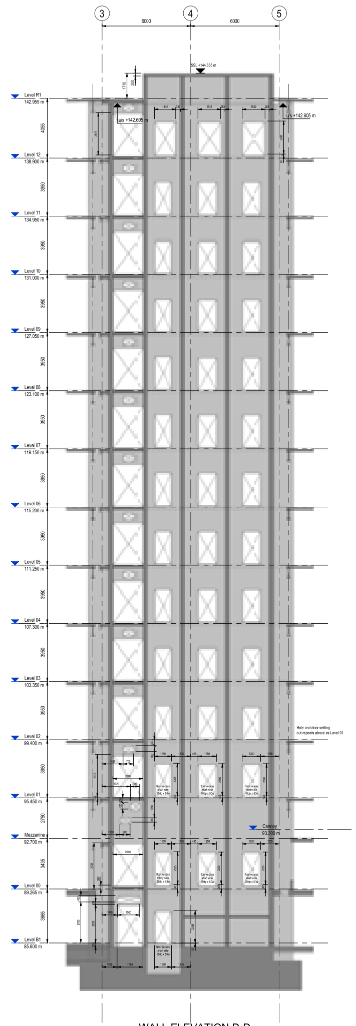
WALL ELEVATION A-A



WALL ELEVATION B-B



WALL ELEVATION C-C



WALL ELEVATION D-D

GENERAL NOTES:

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Concrete Grades & Rebar Allowances

RC PILECAP FOUNDATIONS		
Pilecap Type A	C40/50	175kg/m³
Pilecap Type B	C40/50	175kg/m³
Pilecap Type C	C40/50	150kg/m³
Pilecap Type D	C50/60	150kg/m³
Pilecap Type E	C40/50	125kg/m³
Core Pilecap	C50/60	175kg/m³
RC SLABS		
200thk Core Floor Slab	C35/45	135kg/m³
350thk Basement Floor Slab	C40/50	150kg/m³
250thk Ramp Slab	C40/50	150kg/m³
350thk Ground Floor Slabs	C50/60	200kg/m³
RC COLUMNS		
350 x 350 Columns	C50/60	160kg/m³
700 x 700 Columns	C50/60	200kg/m³
1000 x 1000 Columns	C50/60	175kg/m³
RC WALLS		
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300thk Walls	C40/50	150kg/m³
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RC Capping Beam		
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All SubStructure element to be concrete class DS-2 Sulphate Resistant Concrete suitable for ACEC Class AC-2. Subject to finalised Site Investigation Report

Core Wall RC Allowance dependant on lapping strategy and preferred method of construction. Currently assumed 6m long bars to suit slipformed construction

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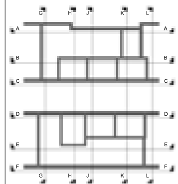

CORE WALL KEY PLAN

Rev:	Description:	Date:	By:	Chkd:
C06	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C05	CAPPING SLAB SSL UPDATED	24.09.21	PM	NJ
C04	DOOR THRESHOLD CORRECTED	23.09.21	PM	NJ
C03	U/S OF R1 SLAB DENOTED	21.09.21	PM	NJ
C02	OPENINGS TO UPPER LEVELS FINALISED	16.08.21	PM	NJ
C01	CONSTRUCTION ISSUE	29.06.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: Core Wall Elevations sheet 1

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	June 2020	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24011 -	C06

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

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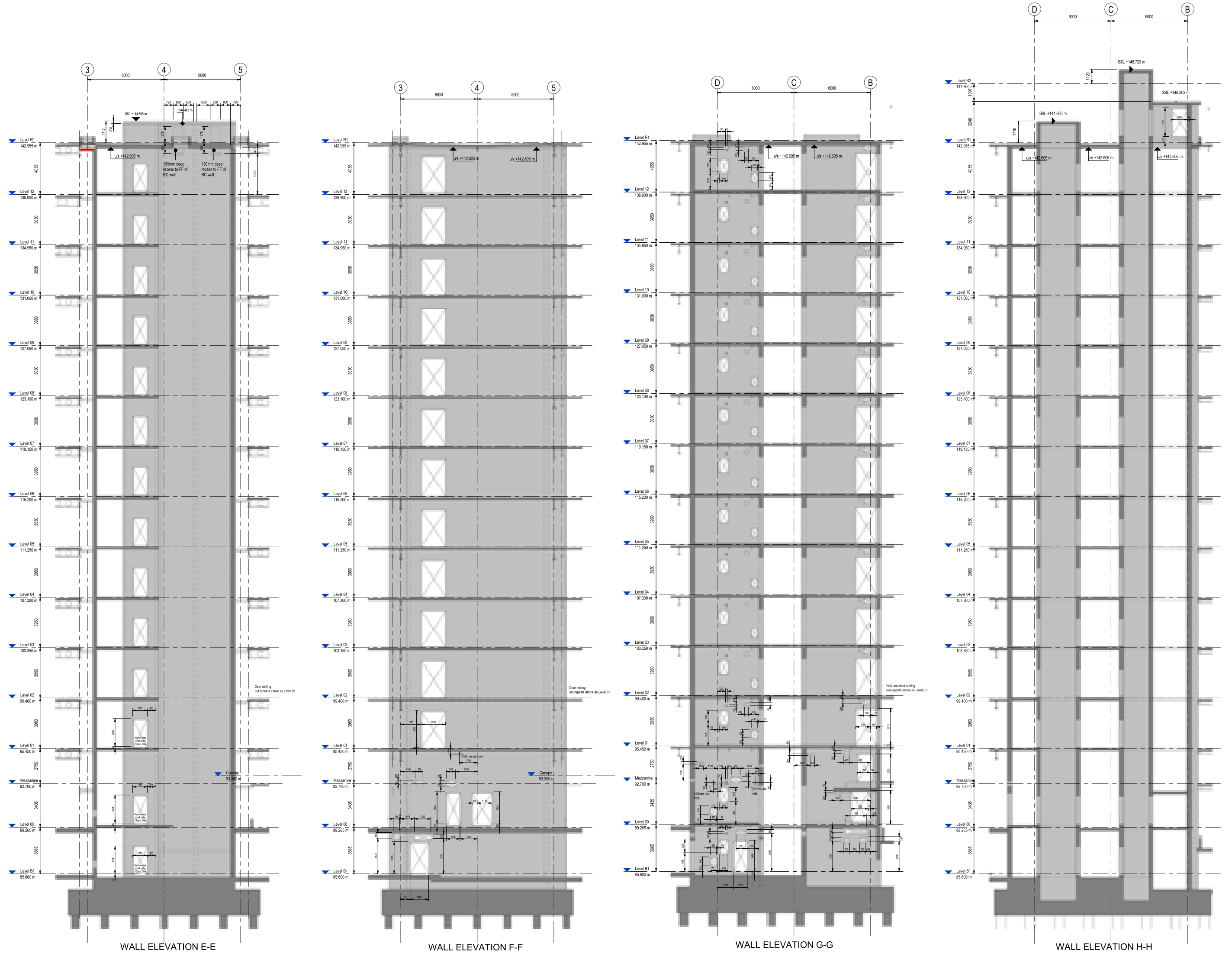

WALL ELEVATION E-E   WALL ELEVATION F-F   WALL ELEVATION G-G   WALL ELEVATION H-H

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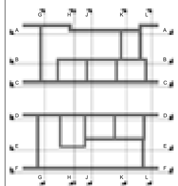

CORE WALL KEY PLAN

Rev:	Description:	Date:	By:	Chkd:
C05	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C04	CAPPING BEAM SSL UPDATED	24.09.21	PM	NJ
C03	U/S OF R1 SLAB DENOTED	21.09.21	PM	NJ
C02	OPENINGS TO UPPER LEVELS FINALISED	16.08.21	PM	NJ
C01	CONSTRUCTION ISSUE	24.06.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: Core Wall Elevations sheet 2

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	June 2020	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24012 -	C05

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

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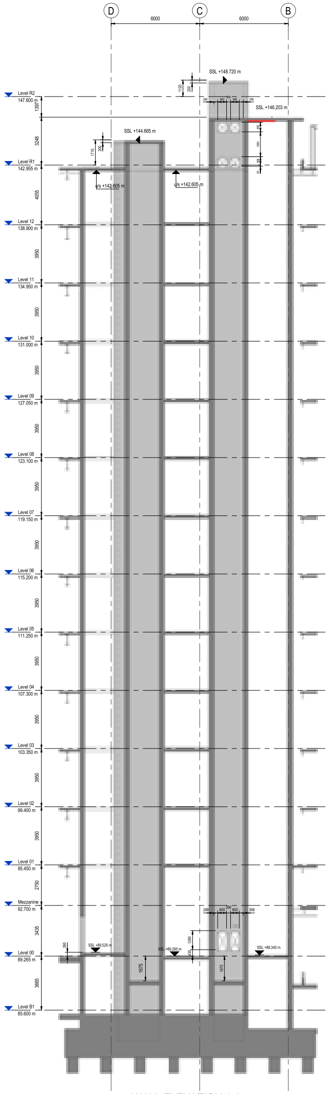
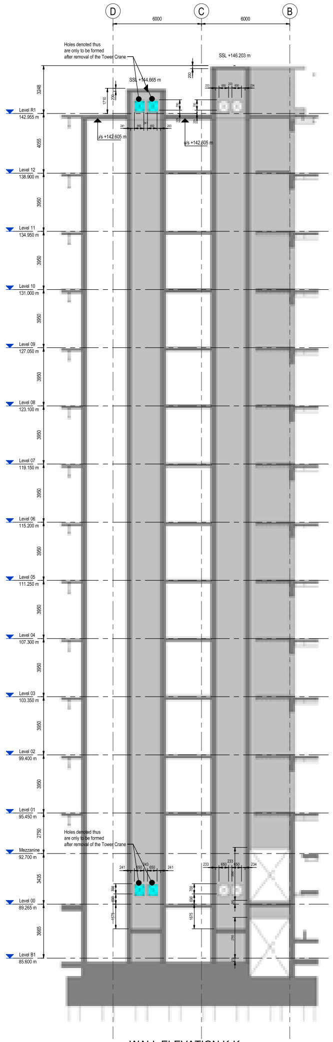
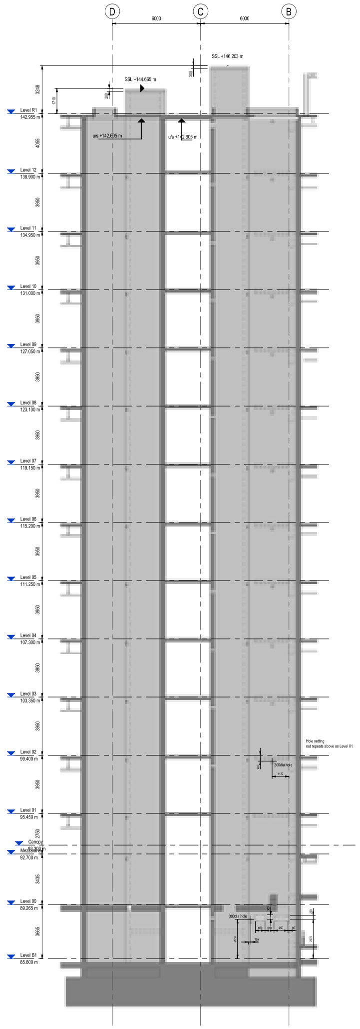


WALL ELEVATION J-J



WALL ELEVATION K-K



WALL ELEVATION L-L

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-ZZ-DR-S-20000 FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-HR-Z-00001

Concrete Grades & Rebar Allowances

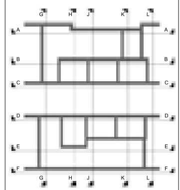
RC PILECAP FOUNDATIONS		
Pilecap Type A	C40/50	175kg/m³
Pilecap Type B	C40/50	175kg/m³
Pilecap Type C	C40/50	150kg/m³
Pilecap Type D	C50/60	150kg/m³
Pilecap Type E	C40/50	125kg/m³
Core Pilecap	C50/60	175kg/m³
RC SLABS		
200thk Core Floor Slab	C35/45	135kg/m³
350thk Basement Floor Slab	C40/50	150kg/m³
250thk Ramp Slab	C40/50	150kg/m³
350thk Ground Floor Slabs	C50/60	200kg/m³
RC COLUMNS		
350 x 350 Columns	C50/60	160kg/m³
700 x 700 Columns	C50/60	200kg/m³
1000 x 1000 Columns	C50/60	175kg/m³
RC WALLS		
250thk Walls	C40/50	125 kg/m³
300thk Walls	C40/50	150kg/m³
350thk Walls	C40/50	160kg/m³
RC Capping Beam		
1350dp x 1500w Beam	C40/50	150kg/m³

All SubStructure element to be concrete class DS-2 Sulphate Resistant Concrete suitable for ACEC Class AC-2. Subject to finalised Site Investigation Report

Core Wall RC Allowance dependant on lapping strategy and preferred method of construction. Currently assumed 6m long bars to suit slipformed construction

Where piled wall requires propping in the temporary condition / during construction, allow for additional 50kg/m³ for extent of capping beam which requires propping and corbels in propping location. Estimated max propping spacing = 10m

Reinforcement estimates are based on requirements for the permanent design condition. Additional reinforcement that may be required due to the temporary condition and to suit construction sequence have not been included, (e.g. chairs) Contractor should make additional allowance for this to suit.



CORE WALL KEY PLAN

Rev:	Description:	Date:	By:	Chkd:
C06	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C05	CAPPING SLAB SSL UPDATED	24.09.21	PM	NJ
C04	U/S OF R1 SLAB DENOTED	21.09.21	PM	NJ
C03	LOW LEVEL OPENINGS FINALISED	17.08.21	PM	NJ
C02	OPENINGS TO UPPER LEVELS FINALISED	16.08.21	PM	NJ
C01	CONSTRUCTION ISSUE	24.06.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: Core Wall Elevations sheet 3

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	June 2020	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24013 -	C06

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

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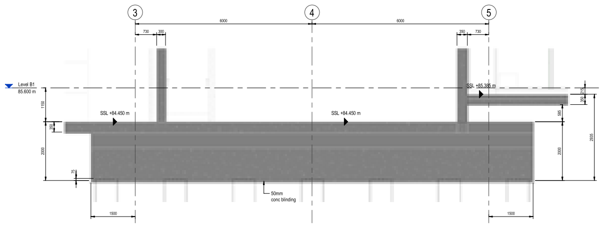
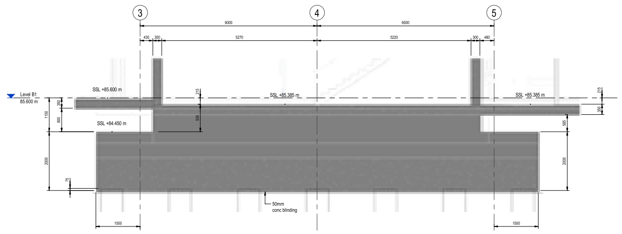
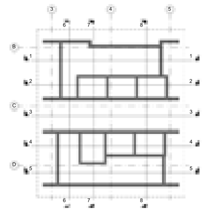


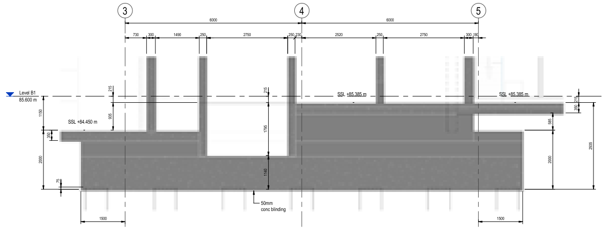
SECTION 1 - 1



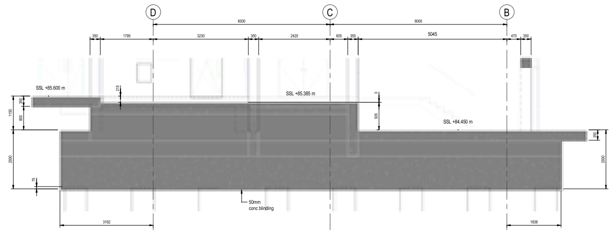
SECTION 5 - 5



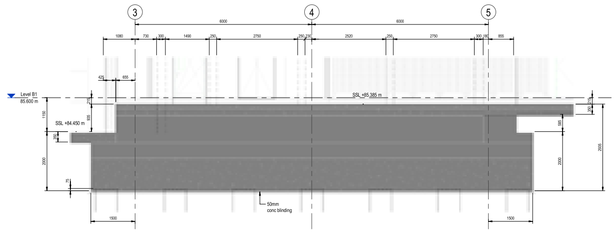
CORE BASE KEY PLAN



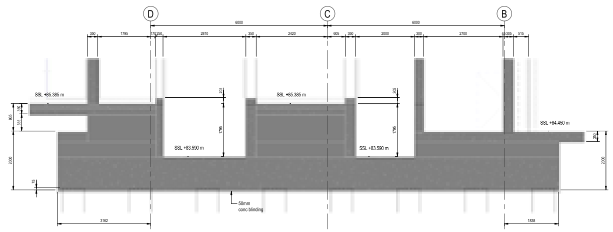
SECTION 2 - 2



SECTION 6 - 6



SECTION 3 - 3



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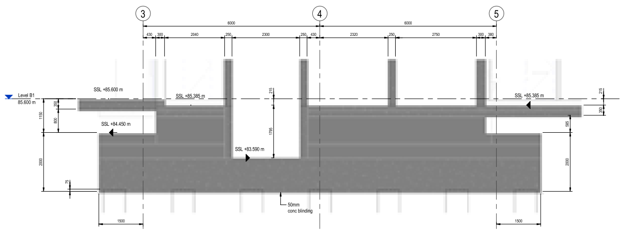
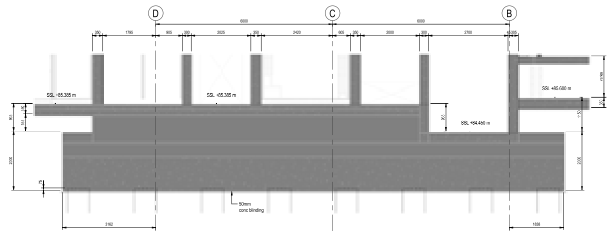


SECTION 4 - 4



SECTION 8 - 8

GENERAL NOTES:

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Concrete Grades & Rebar Allowances

RC PILECAP FOUNDATIONS		
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Rev:	Description:	Date:	By:	Chkd:
C02	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C01	CONSTRUCTION ISSUE	29.04.21	PM	AED

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Status: FINAL CONSTRUCTION

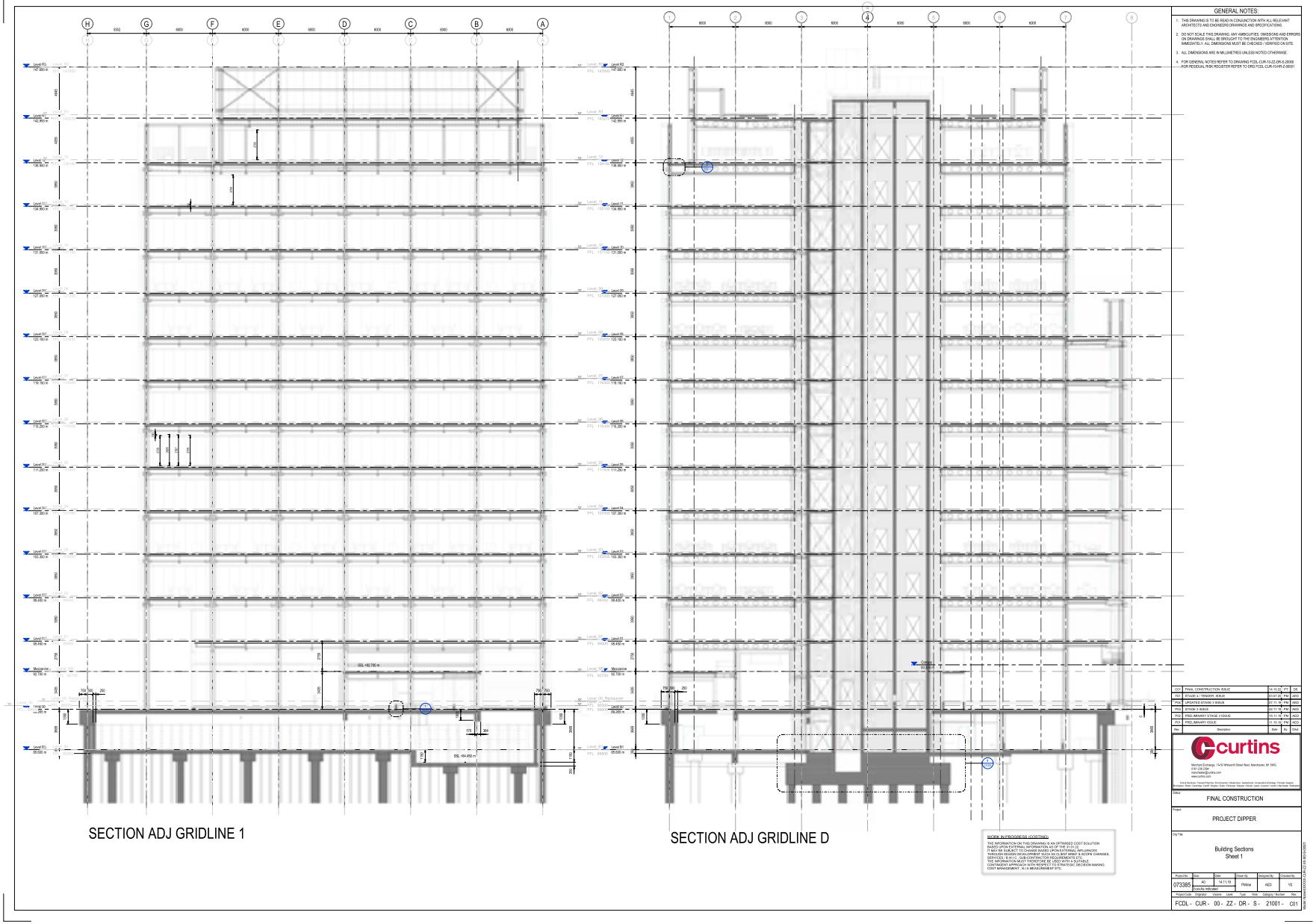
Project: PROJECT DIPPER

Drg Title: Core Base Sectional Details

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	20.01.21	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	B1 -	DR -	S -	21005 -	C02

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001



SECTION ADJ GRIDLINE 1

SECTION ADJ GRIDLINE D

GENERAL NOTES:

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Rev	Description	Date	By	Chkd
C01	FINAL CONSTRUCTION ISSUE	14.10.21	PT	DS
P04	STAGE 2 TENDER ISSUE	03.07.20	PM	AED
P03	UPDATED STAGE 3 ISSUE	27.11.19	PM	AED
P02	STAGE 3 ISSUE	22.11.19	PM	AED
P01	PRELIMINARY STAGE 3 ISSUE	13.11.19	PM	AED
P00	PRELIMINARY ISSUE	11.10.19	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

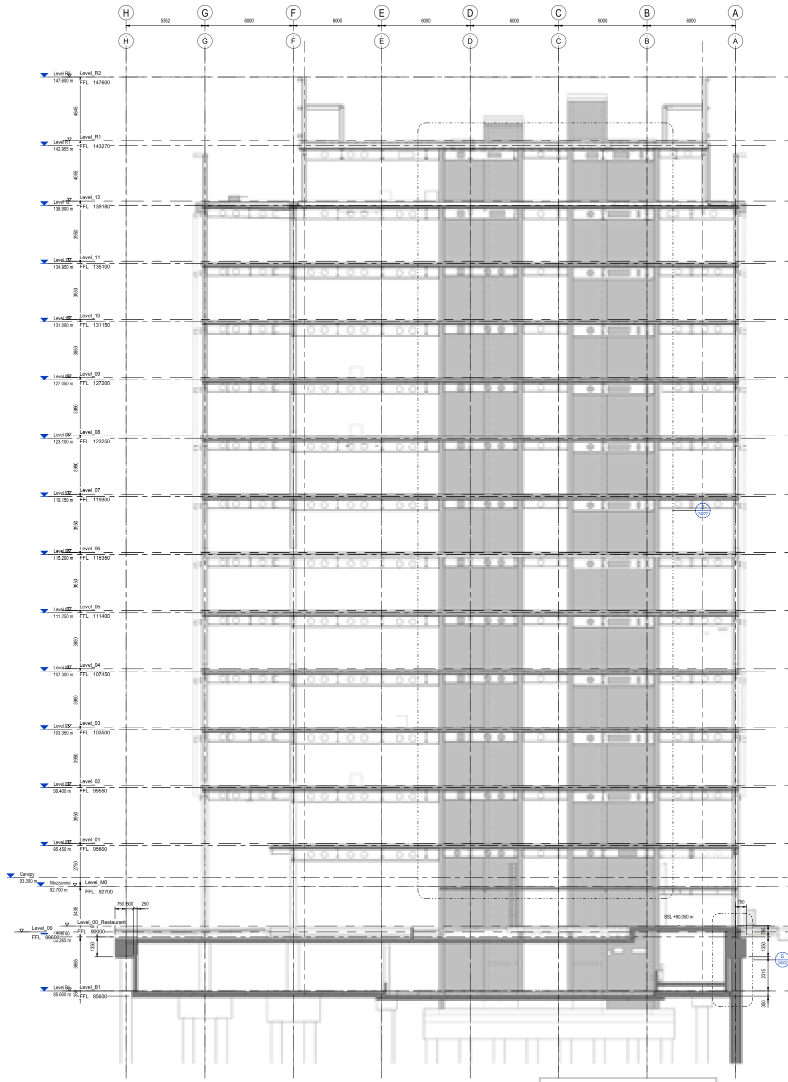
Dwg Title: Building Sections Sheet 1

Project No.	Size	Date	Drawn By	Designed By	Checked By
073385	A0	14.11.19	PWilde	AED	YE
Suitability Indicated					

Project Code	Originator	Volume	Level	Type	Role	Category	Number	Rev
FCDL	CUR	00	ZZ	DR	S	-	21001	C01

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, PLANNING, BUILDING REGULATIONS AND SITE CONDITIONS.
THE INFORMATION MUST THEREFORE BE USED WITH A SUITABLE CONTINGENT APPROACH WITH RESPECT TO STRATEGIC DECISION MAKING, COST MANAGEMENT, N.I.A MEASUREMENT ETC.



SECTION ADJ GRIDLINE 5

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.W.I.C., SUB-CONTRACTOR REQUIREMENTS ETC.
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Rev:	Description:	Date:	By:	Chkd:
C01	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
T01	STAGE 4 / TENDER ISSUE	03.07.20	PM	AED
P04	UPDATED STAGE 3 ISSUE	27.11.19	PM	AED
P03	STAGE 3 ISSUE	22.11.19	PM	AED
P02	PRELIMINARY STAGE 3 ISSUE	15.11.19	PM	AED
P01	PRELIMINARY ISSUE	11.10.19	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: Building Sections Sheet 2

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	14.11.19	PMilne	AED	YE
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	00 -	ZZ -	DR -	S -	21002 -	C01

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

BACK TO CONTENTS

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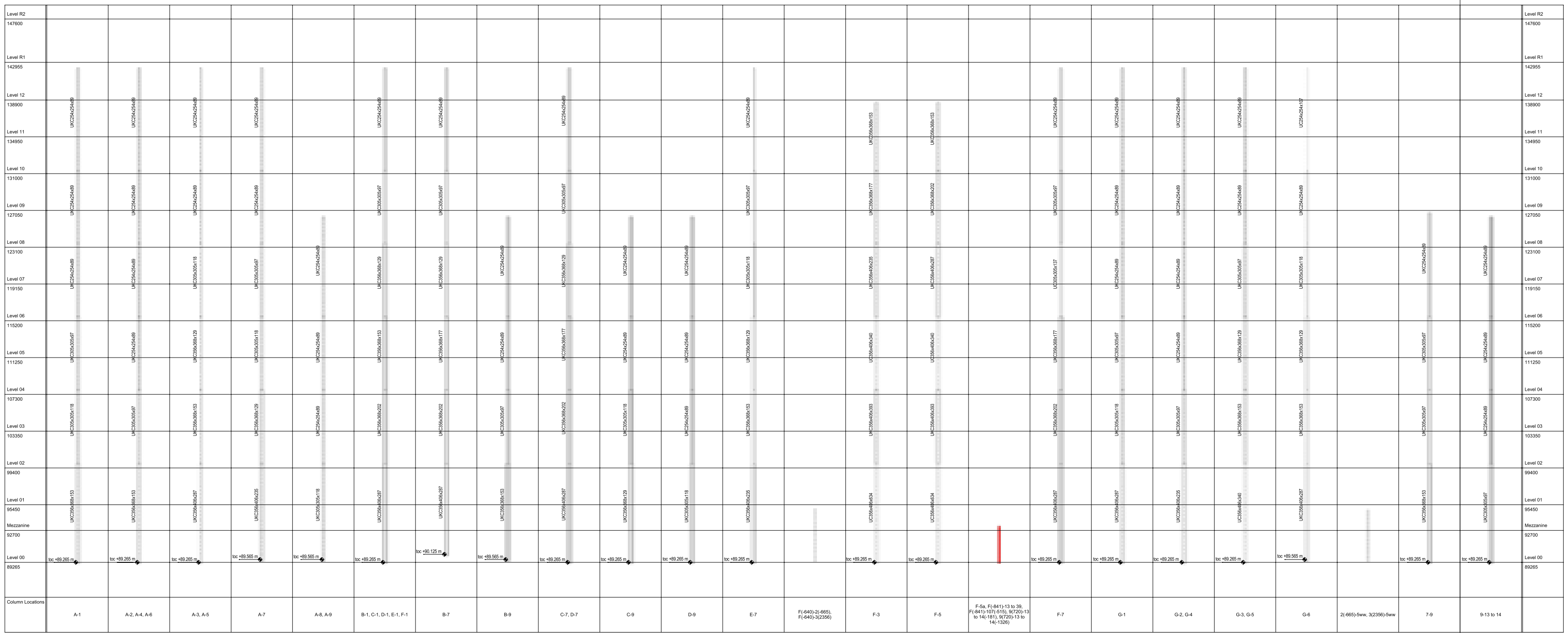


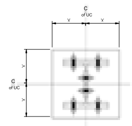
ALL COLUMN STACKS BETWEEN GROUND AND FIRST FLOOR ARE TO SPAN HORIZONTALLY BETWEEN GROUND AND FIRST FLOOR AND ARE NOT TO RELY ON MEZZANINE FOR LATERAL OR TORSIONAL RESTRAINT OR ANY FORM OF PROPPING. ALL HORIZONTAL LOADS APPLIED TO COLUMN AT MEZZZANINE LEVEL ARE TO BE TRANSFERRED TO GROUND AND FIRST FLOOR BY COLUMN.

Where composite deck spans perpendicular to RC Core Walls allow for 100 x 100 x 10 RSA support member

For Loading Plan uttilised for the current design refer to Curtins 30000 series drawings

For Connection Forces, refer to Curtins Connection Forces drawings

For Building deflections and cladding support conditions refer to Design Note FCDL-CUR-10-ZZ-RP-S-00010



COLUMN SPLICE DETAIL

PLAN IS DIAGRAMATIC SHOWING THE MAXIMUM AREA THE PROPOSED SPLICE CONNECTION CAN UTILISE 'x' = HALF THE LARGEST COLUMN SIZE AT SPLICE LOCATION +75mm

Splice connections, as set by the steelwork fabricator are set 650mm above top of floor steel

Rev:	Description:	Date:	By:	Chkd:
C06	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C05	COLUMN F/7 RELEASED FROM BEING IN ABEYANCE	07.09.21	PM	NJ
C04	COLUMNS HEIGHTS UPDATED TO SUIT FINALISED BEAM LEVEL	18.08.21	PM	NJ
C03	COLS G3-G5 REMOVED FROM ABEYANCE COLUMN C9 SECTION SIZED INCREASED AS REQUESTED	29.07.21	PM	NJ
C02	COLUMN SIZES UPDATED, AVAILABLE PCC CLADING BRACKET LOADS REVIEWED	21.06.21	PM	AED
C01	CONSTRUCTION ISSUE	28.05.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Drg Title: Column Schedule

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	14.11.19	PMilne	AED	YE
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24001 -	C06

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

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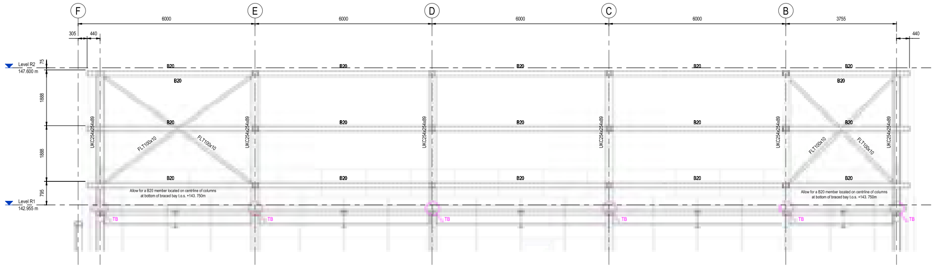
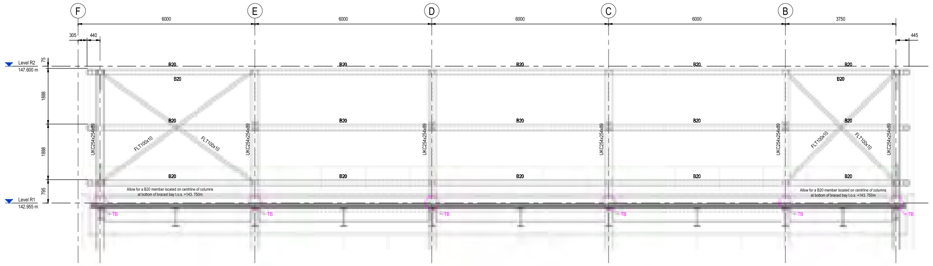


PLANTSCREEN ADJ GRIDLINE 6:7



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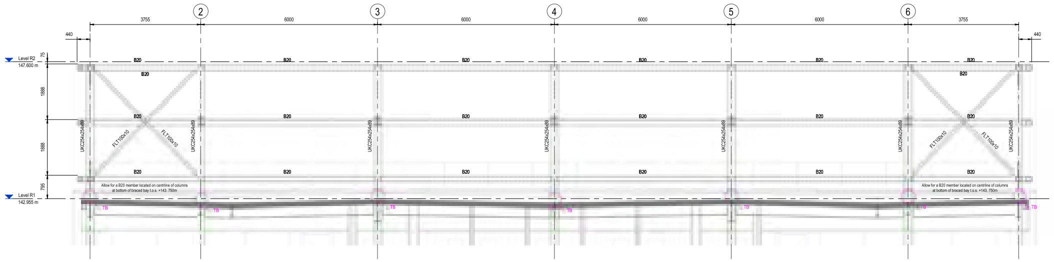

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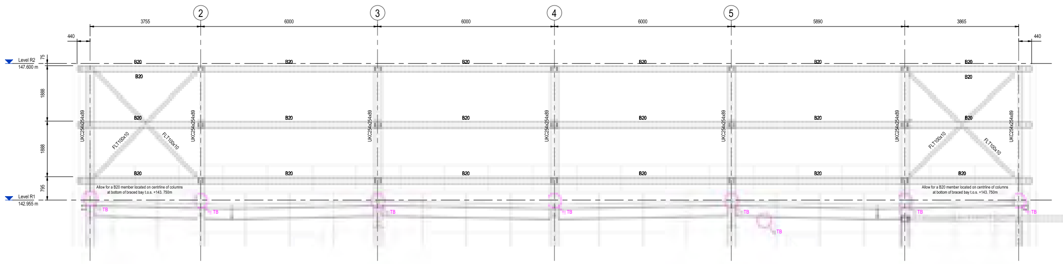
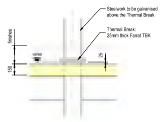


PLANTSCREEN ADJ GRIDLINE F



TYPICAL THERMAL BREAK DETAIL

Denoted thus -

STRUCTURAL FRAMING SCHEDULE			
REF.	SIZE	STRUCTURAL MATERIAL	COMMENTS
B01	UB254x146x31	S355	
B02	UB305x165x40	S355	
B03	UB356x171x45	S355	
B04	UB356x171x57	S355	
B05	UB406x140x46	S355	
B06	UB457x152x60	S355	
B07	UB533x210x82	S355	
B08	UB610x229x101	S355	450 dia Cells at 900 centres
B09	UB610x229x125	S355	450 dia Cells at 900 centres
B10	UB610x229x140	S355	450 dia Cells at 900 centres
B11	RHS250x150x8.0		
B12	UB762x267x134	S355	450 dia Cells at 900 centres
B13	UB762x267x173	S355	450 dia Cells at 900 centres
B14	UB203x133x25		
B15	UB178x102x19	S355	
B16	SHS200x200x10.0		
B17	UB457x191x74	S355	
B18	UC254x254x89	S355	
B19	UC152x152x23	S355	
B20	SHS180x180x8.0	S355	
B22	UB610x229x101	S355	450 dia Cells at 900 centres
B23	PFC150x90x24	S355	
B24	UC152x152x37	S355	
B25	L100x100x10	S355	Fixed to RC Wall using M12 Resin Anchors at 450c/c max, min 125 embedment
B26	UB356x171x67	S355	
B27	UB254x146x43		
B28	RHS150x100x5.0	CUR_MAT_S-Generic-(Steel)	
B29	RHS100x50x5.0	CUR_MAT_S-Generic-(Steel)	

"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER FCDL-CUR-XX-HA-S-00001.
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
3.0 EXISTING BURIED & OVERHEAD SERVICES			
3.1	Existing Buried Services	Potential to damage exisitng 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.	WPD to issue proposasl for relocation of substation.
5.0 EXCAVATIONS AND FOUNDATIONS			
5.1	Contaminated Ground	Risk of contaminated ground	Site investigation to be understaken to determine if any contaminents 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 properteis 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 Herron) was identified as medium risk	Site-specific detailed UXO assessment to be carried out and findings included in Curtins site investigation
5.4	Uplift on piles from groundwater	Dewatering may be required during basement construction. Hydrostatic uplift forces have been provided based on measured water table of 85.82m (refer to 073385-CUR-00-XX-RP-GE-001). The minimum dead load at the time of dewatering switch-off is 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 condition 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 lower level basement slab (refer to FCDL-CUR-C10-FN-DR-S-16001)
5.6	Permanent propping of piled wall	Instability of piled wall during permanent condition	In 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 FCDL-CUR-C10-FN-DR-S-16001). Permanent propping to be provided prior to application of frame loads to piled wall.
7.0 ERECTING STRUCTURES AND PLACING COMPONENTS			
7.1	Stability of Core During Construction	Instability of core during construction	If core is to be slipformed, 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	Props required to core prior to erection of TC2 and must remain in place until core slabs and floor plates are in position, refer to design note FCDL-CUR-10-ZZ-RP-S-00011
7.3	Adequate tying of core during construction	Insufficient 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 FCDL-CUR-10-ZZ-RP-S-00011

GENERAL NOTES:

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Where composite deck spans perpendicular to RC Core Walls allow for 100 x 100 x 10 RSA support member

For Loading Plan uttilised for the current design refer to Curtins 30000 series drawings

For Connection Forces, refer to Curtins Connection Forces drawings

For Building deflections and cladding support conditions refer to Design Note FCDL-CUR-10-ZZ-RP-S-00010

Rev:	Description:	Date:	By:	Chkd:
C04	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C03	VERTICAL BRACING LEVELS UPDATED TO SUIT LATEST REQUIREMENTS	12.08.21	PM	DS
C02	LEVEL OF HORIZONTAL MEMBER UPDATED TO SUIT LATEST REQUIREMENTS	01.07.21	PM	DS
C01	CONSTRUCTION ISSUE	28.05.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

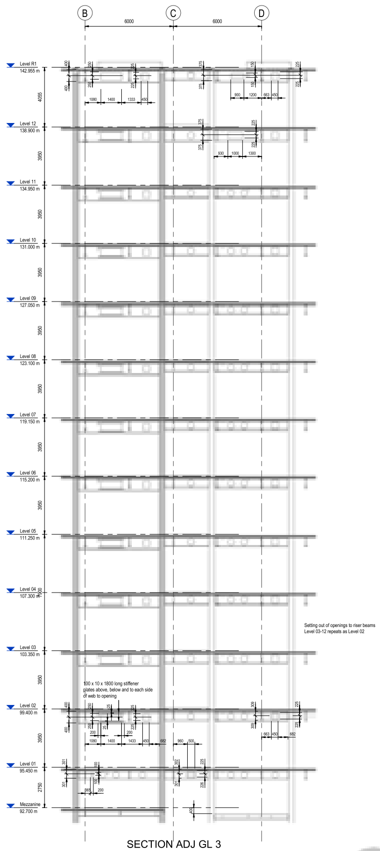
Drg Title: Elevations to Plantscreens

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	May 2021	PMilne	AED	DS
	Scale: As indicated				

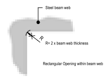
Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24021 -	C04

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001

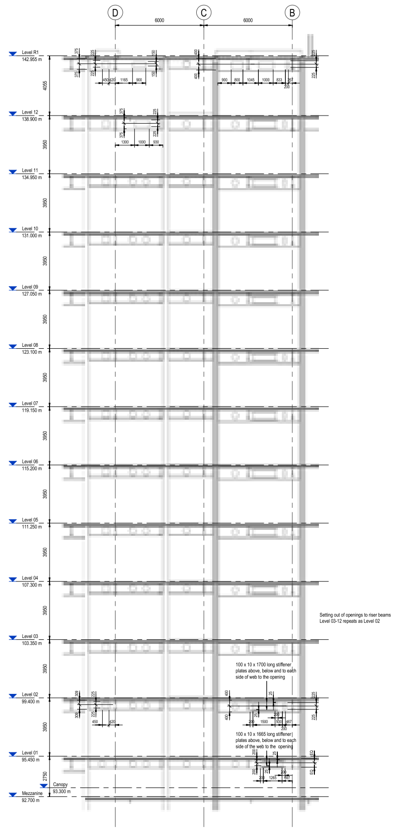
< BACK TO CONTENTS



SECTION ADJ GL 3



TYPICAL DETAIL TO CORNER OF RETANGULR OPENING WITHIN STEEL BEAM WEB



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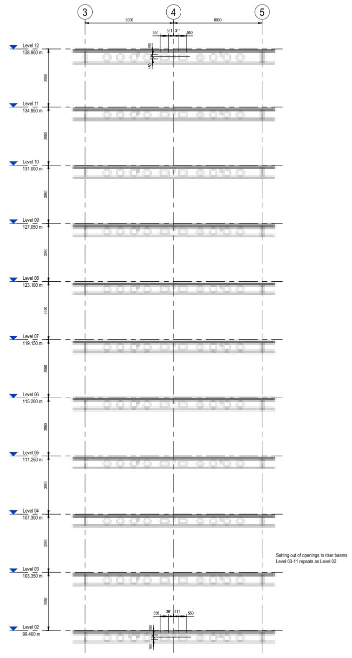

ELEVATION TO STEELWORK BEAMS BETWEEN GRIDLINES A:B / 3:5

GENERAL NOTES:

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Where composite deck spans perpendicular to RC Core Walls allow for 100 x 100 x 10 RSA support member

For Loading Plan uttilised for the current design refer to Curtins 30000 series drawings

For Connection Forces, refer to Curtins Connection Forces drawings

For Building deflections and cladding support conditions refer to Design Note FCDL-CUR-10-ZZ-RP-S-00010

Rev:	Description:	Date:	By:	Chkd:
C06	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C05	OPENING TO RISER STEELWORK TO LEVEL 12 BEAMS UPDATED	29.09.21	PM	NJ
C04	OPENING TO RISER STEELWORK TO LEVEL 12 BEAMS FINALISED	07.09.21	PM	NJ
C03	OPENING TO RISER STEELWORK ADJ GL 3 UPDATED, STEELWORK ELEVATION TO GL Z ADDED	03.08.21	PM	NJ
C02	BW OPENINGS TO BEAMS FINALISED	11.06.21	PM	AED
C01	CONSTRUCTION ISSUE	28.05.21	PM	AED

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Status: FINAL CONSTRUCTION

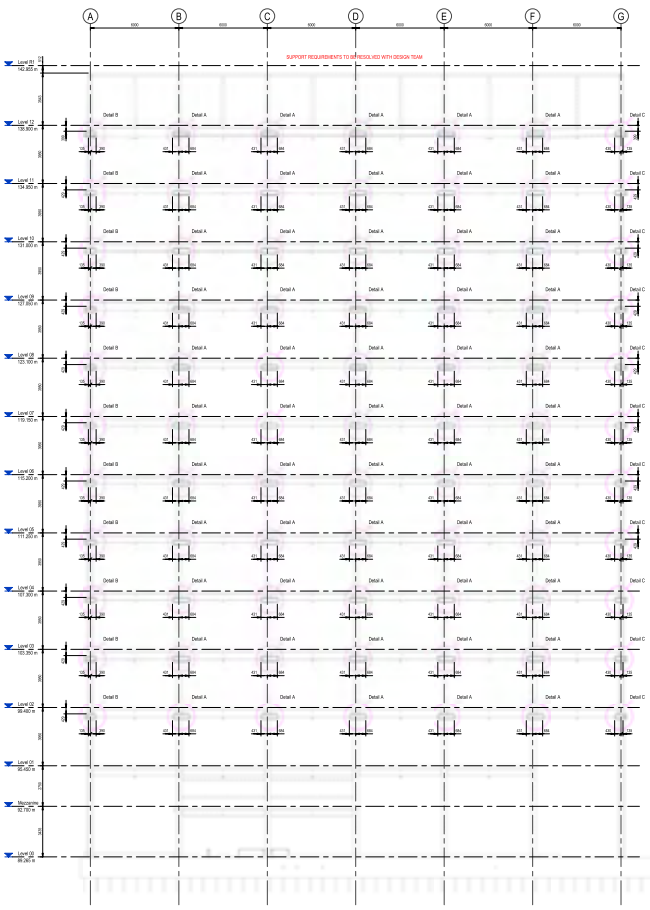
Project: PROJECT DIPPER

Drg Title: Elevations to Riser and Floor Steelwork

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	June 220	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24022 -	C06

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001



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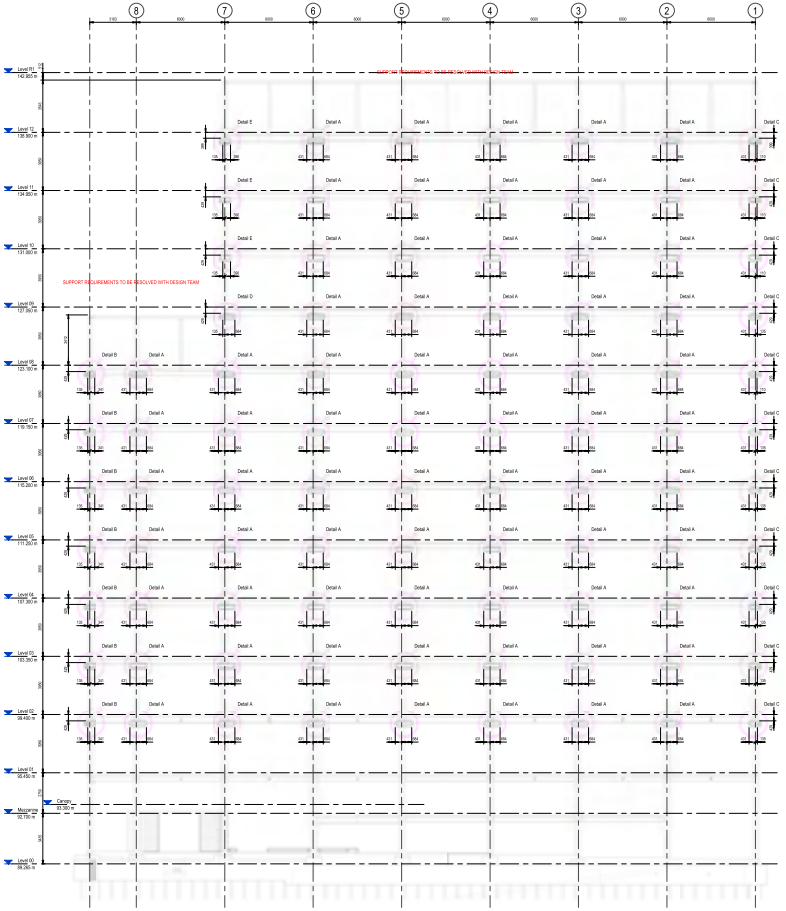

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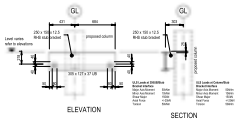

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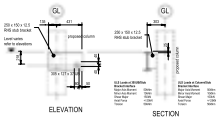
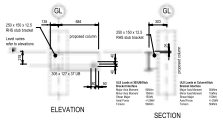


DETAIL B
DETAIL C similar but handed



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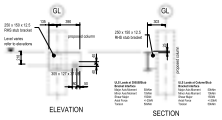

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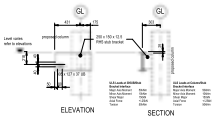

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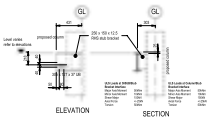

DETAIL G

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Rev	Description	Date	By	Chkd
C04	FINAL CONSTRUCTION ISSUE	14.10.21	PT	DS
C03	CONNECTION FORCES & STUB BRACKET ADDED	01.07.21	PM	MJ
C02	CONSTRUCTION ISSUE	25.05.21	PM	AED

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Status: FINAL CONSTRUCTION

Project: PROJECT DIPPER

Dwg Title: General Arrangement to Secondary Steelwork to PCC Facade Support sheet 1

Project No.	Size	Date	Drawn By	Designed By	Checked By
073385	A0	May 2021	Pilkina	AED	DS
Drawing Initialled					

Project Code	Originator	Volume	Level	Type	Role	Category	Number	Rev
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24051 -	C03	

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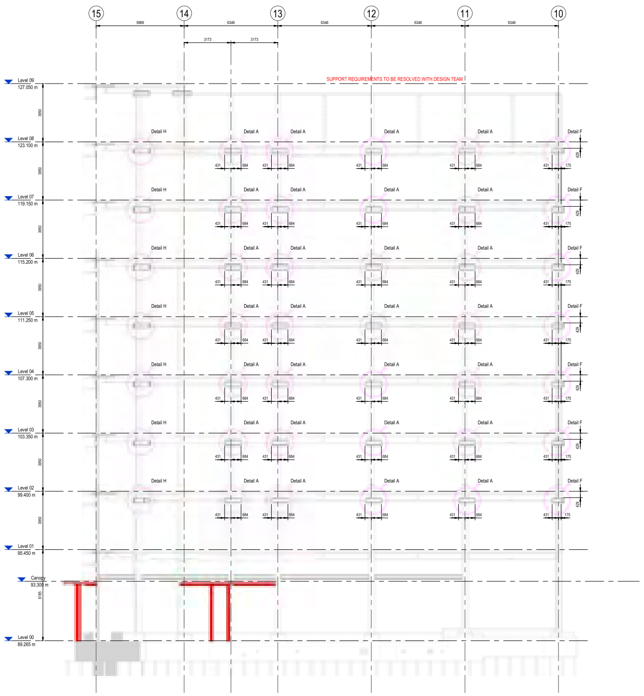

SOUTH SPLAYED ELEVATION

Rev:	Description:	Date:	By:	Chkd:
C04	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C03	CONNECTION FORCES & STUB BRACKET ADDED	16.09.21	PM	NJ
C02	CONNECTION FORCES & STUB BRACKET ADDED	01.07.21	PM	NJ
C01	CONSTRUCTION ISSUE	28.05.21	PM	AED

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Status: FINAL CONSTRUCTION

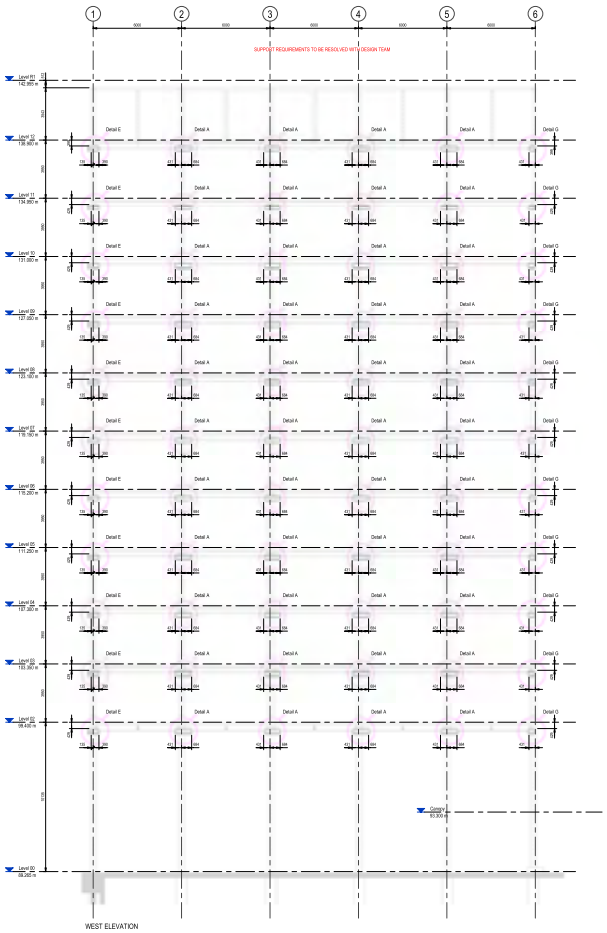
Project: PROJECT DIPPER

Drg Title: General Arrangement to Secondary Steelwork to support PCC Facade sheet 2

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	May 2021	PMilne	AED	DS
	Scale: 1 : 100				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24052 -	C04

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001



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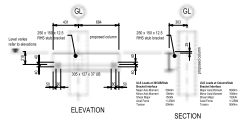

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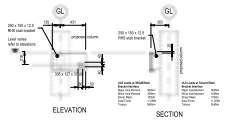

DETAIL B
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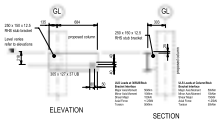

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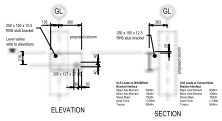

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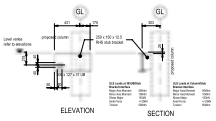

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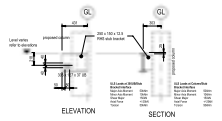

DETAIL G

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Rev	Description	Date	By	Chkd
C04	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DB
C03	CONNECTION FORCES & STUB BRACKET ADDED	21.07.21	PM	MJ
C01	CONSTRUCTION ISSUE	21.05.21	PM	AED

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Status: FINAL CONSTRUCTION

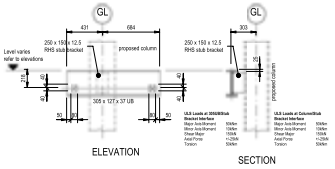
Project: PROJECT DIPPER

Dwg Title: General Arrangement to Secondary Steelwork to PCC Facade support sheet 3

Project No.	Size	Date	Drawn By	Designed By	Checked By
073385	A0	May 2021	PMcKie	AED	DB

Drawing Initialled

Project Code	Originator	Volume	Level	Type	Role	Category	Number	Rev
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24053 -		C03



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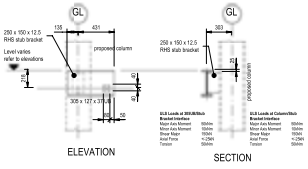
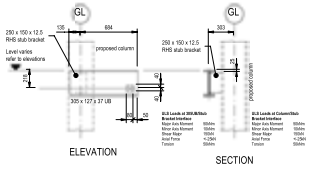


DETAIL B

DETAIL C similar but handed



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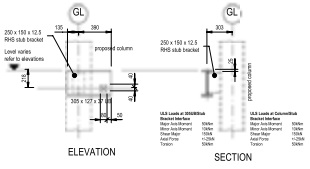

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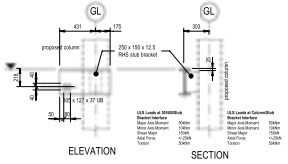

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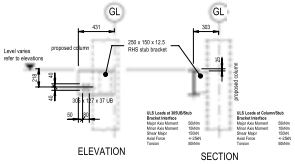
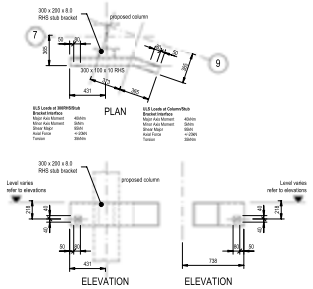


DETAIL G



DETAIL H

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4. FOR GENERAL NOTES REFER TO DRAWING FCDL-CUR-10-XX-DR-S-20000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-20100

Rev:	Description:	Date:	By:	Chkd:
C02	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C01	CONSTRUCTION ISSUE	16.09.21	PM	NJ

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Status:
FINAL CONSTRUCTION

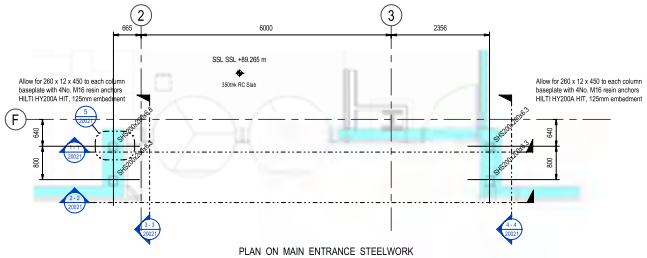
Project:
PROJECT DIPPER

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

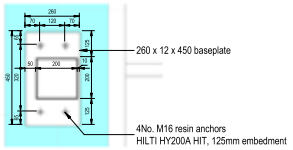
Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	Sept 2021	PMilne	NJ	DS
	Scale: 1 : 25				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	24054 -	C02

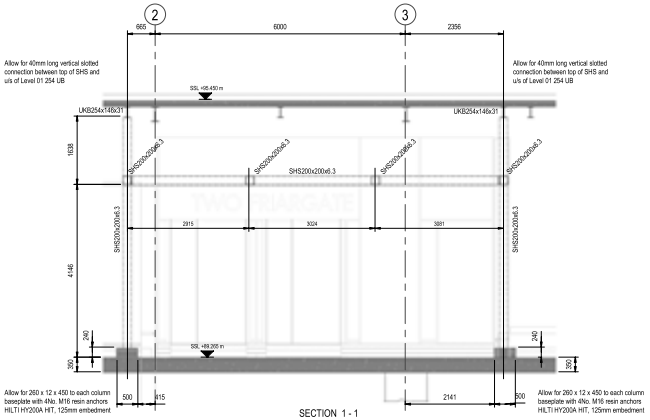
Model Name: XX-XXX-CUR-ZZ-XX-A00-S-00001



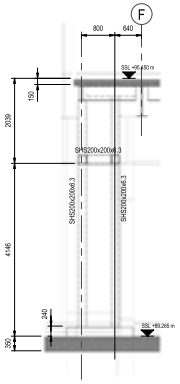
PLAN ON MAIN ENTRANCE STEELWORK



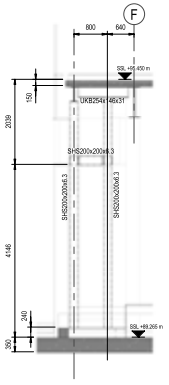
PLAN ON BASEPLATE



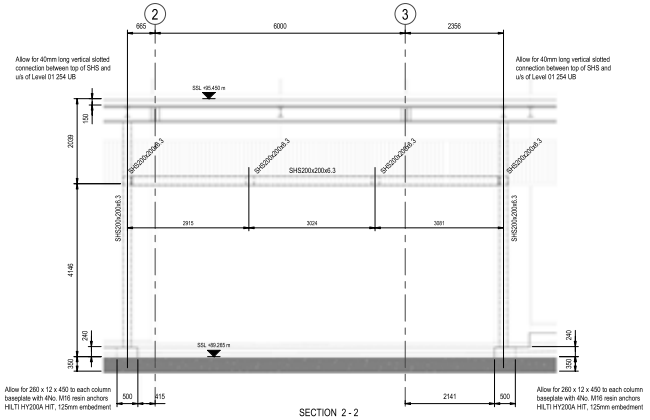
SECTION 1 - 1



SECTION 3 - 3



SECTION 4 - 4



SECTION 2 - 2

GENERAL NOTES:

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Rev:	Description:	Date:	By:	Chkd:
C05	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C04	BASEPLATE DETAIL ADDED, STEEL LEVEL AMENDED	22.02.22	SW	NJ
C03	STEELWORK SETTING OUT UPDATED TO SUIT LATEST COMMENTS	04.01.22	PM	NJ
C02	STEELWORK SETTING OUT UPDATED TO SUIT LATEST COMMENTS	03.12.21	PM	NJ
C01	CONSTRUCTION ISSUE	17.11.21	PM	NJ

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Status:

FINAL CONSTRUCTION

Project:

PROJECT DIPPER

Drg Title:

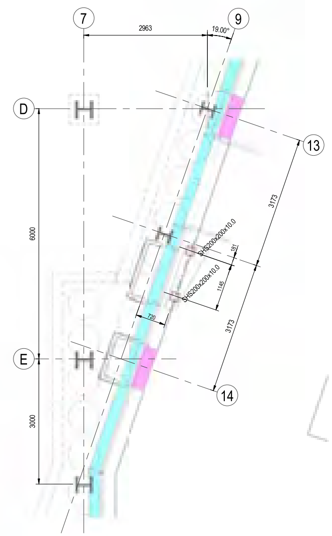
General Arrangement to Main Entrance Steelwork

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	Oct 2021	PMilne	NJ	DS
	Scale:As indicated				

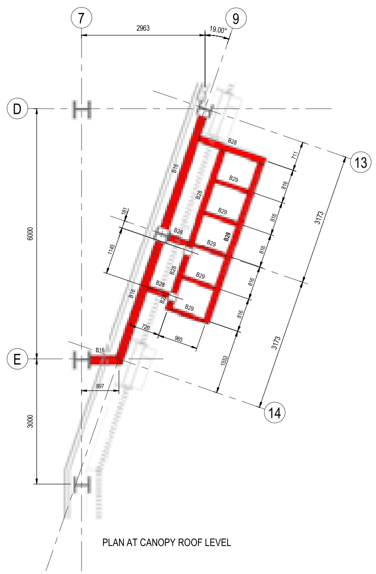
Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	20021 -	C05

Model Name:XXXXXX-CUR-ZZ-XX-M3-S-XXXX1

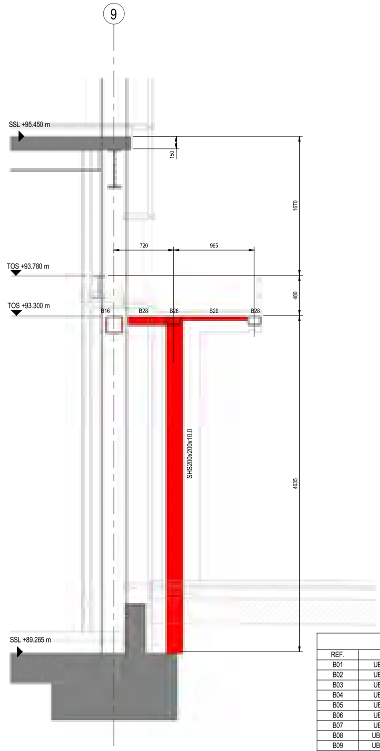
BACK TO CONTENTS



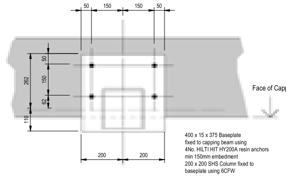
PLAN AT CAPPING BEAM LEVEL



PLAN AT CANOPY ROOF LEVEL



SECTION THROUGH CANOPY



TYPICAL BASEPLATE DETAIL

"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)
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3.1	Existing Buried Services	Potential to damage exisitng 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.	WPD to issue proposasl for relocation of substation.
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5.3	Unexploded Ordnance (UXO) Threat	UXO's may be present below ground, neighbouring site (Project Herron) was identified as medium risk	Site-specific detailed UXO assessment to be carried out and findings included in Curtins site investigation
5.4	Uplift on piles from groundwater	Dewatering may be required during basement construction. Hydrostatic uplift forces have been provided based on measured water table of 85.82m (refer to 073385-CUR-00-XX-RP-GE-001). The minimum dead load at the time of dewatering switch-off is 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 condition 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 lower level basement slab (refer to FCDL-CUR-C10-FN-DR-S-16001)
5.6	Permanent propping of piled wall	Instability of piled wall during permanent condition	In 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 FCDL-CUR-C10-FN-DR-S-16001). Permanent propping to be provided prior to application of frame loads to piled wall.
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7.1	Stability of Core During Construction	Instability of core during construction	If core is to be slipformed, check on temporary condition of core required to determine propping requirements
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STRUCTURAL FRAMING SCHEDULE

REF.	SIZE	STRUCTURAL MATERIAL	COMMENTS
B01	UB254x146x31	S355	
B02	UB305x165x40	S355	
B03	UB356x171x45	S355	
B04	UB356x171x57	S355	
B05	UB406x140x46	S355	
B06	UB457x152x60	S355	
B07	UB533x210x82	S355	
B08	UB610x229x101	S355	450 dia Cells at 900 centres
B09	UB610x229x125	S355	450 dia Cells at 900 centres
B10	UB610x229x140	S355	450 dia Cells at 900 centres
B11	RHS250x150x8.0		
B12	UB762x267x134	S355	450 dia Cells at 900 centres
B13	UB762x267x173	S355	450 dia Cells at 900 centres
B14	UB203x133x25		
B15	UB178x102x19	S355	
B16	SHS200x200x10.0		
B17	UB457x191x74	S355	
B18	UC254x254x89	S355	
B19	UC152x152x23	S355	
B20	SHS180x180x8.0	S355	
B22	UB610x229x101	S355	450 dia Cells at 900 centres
B23	PFC150x90x24	S355	
B24	UC152x152x37	S355	
B25	L100x100x10	S355	Fixed to RC Wall using M12 Resin Anchors at 450c/c max, min 125 embedment
B26	UB356x171x67	S355	
B27	UB254x146x43		
B28	RHS150x100x5.0	CUR_MAT_S-Generic-(Steel)	
B29	RHS100x50x5.0	CUR_MAT_S-Generic-(Steel)	

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Rev:	Description:	Date:	By:	Chkd:
C02	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C01	CONSTRUCTION ISSUE	31.01.22	PM	BA

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Status: FINAL CONSTRUCTION

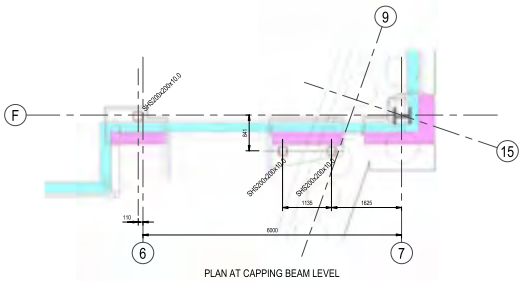
Project: PROJECT DIPPER

Drg Title: Canopy Structure to Gridline 9

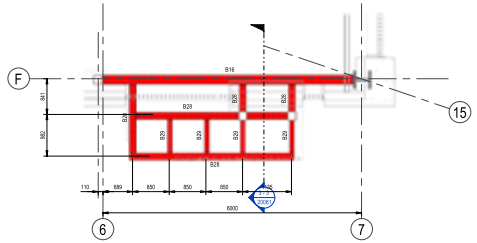
Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	Jan 2022	PMilne	BA	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	20060 -	C02

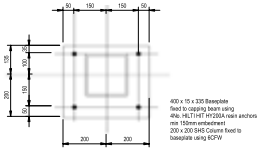
Model Name:XXXXXX-CUR-ZZ-XX-M3-S-00001



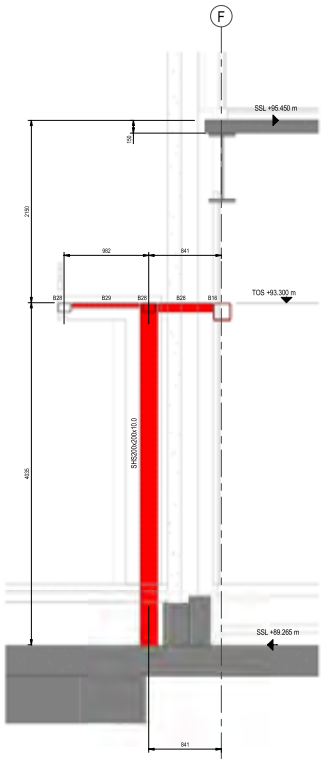
PLAN AT CAPPING BEAM LEVEL



PLAN AT CANOPY ROOF LEVEL



TYPICAL BASEPLATE DETAIL
2No. Plates Thus. 1No. Handed



SECTION THROUGH CANOPY

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B14	UB203x133x25		
B15	UB178x102x19	S355	
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B17	UB457x191x74	S355	
B18	UC254x254x89	S355	
B19	UC152x152x23	S355	
B20	SHS180x180x8.0	S355	
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B24	UC152x152x37	S355	
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B27	UB254x146x43		
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WORK IN PROGRESS (COSTING)

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Rev.	Description:	Date:	By:	Chkd:
C01	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
P01	PRELIMINARY ISSUE	31.01.22	PM	BA

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Status:
FINAL CONSTRUCTION

Project:
PROJECT DIPPER

Drg Title:
Canopy Structure to Gridline F

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1		Author		Checker
Scale: As indicated					

Project Code: FCDL - Originator: CUR - Volume: 10 - Level: ZZ - Type: DR - Role: S - Category / Number: 20061 - Rev: C01

Model Name: XXXXXX-CUR-ZZ-XX-M3-S-00001

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WORK IN PROGRESS (COSTING)

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THE INFORMATION MUST THEREFORE BE USED WITH A SUITABLE CONTINGENT APPROACH WITH RESPECT TO STRATEGIC DECISION MAKING, COST MANAGEMENT , N.I.A MEASUREMENT ETC.

Rev.	Description:	Date:	By:	Chkd:
C01	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
T01	STAGE 4 / TENDER ISSUE	03.07.20	PM	AED

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Status:
FINAL CONSTRUCTION

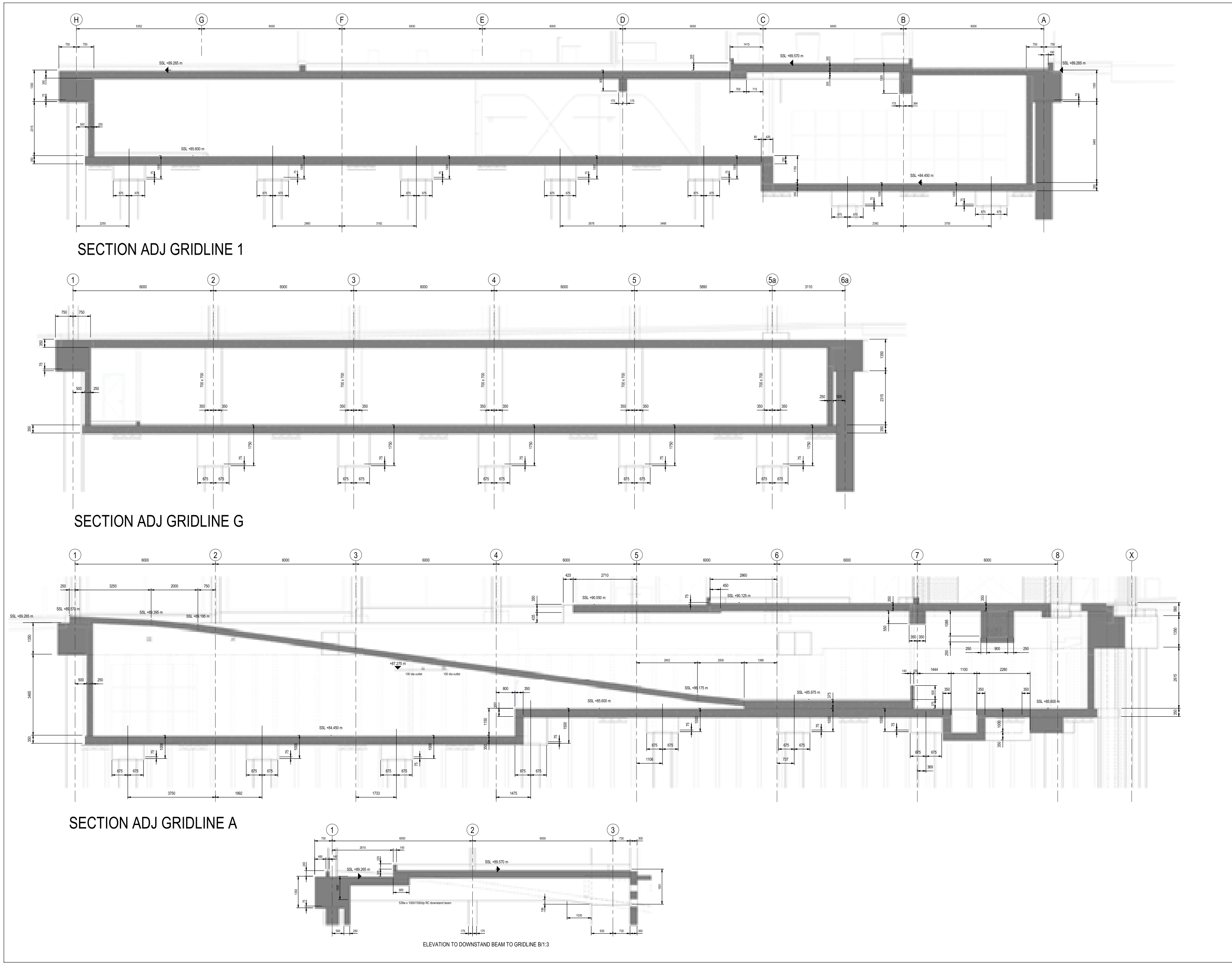
Project:
PROJECT DIPPER

Drg Title:
Residual Hazard Register

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	July 2020	PMilne	AED	DS
	Scale: 1 : 1				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	C10 -	ZZ -	DR -	S -	20100 -	C01

Model Name:XXXXX-CUR-ZZ-XX-M3-S-XX0001



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 ENGINEERS 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-ZZ-DR-S-20000 FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-HR-Z-00001

Concrete Grades & Rebar Allowances

RC PILECAP FOUNDATIONS		
Pilecap Type A	C40/50	175kg/m³
Pilecap Type B	C40/50	175kg/m³
Pilecap Type C	C40/50	150kg/m³
Pilecap Type D	C50/60	150kg/m³
Pilecap Type E	C40/50	125kg/m³
Core Pilecap	C50/60	175kg/m³
RC SLABS		
200thk Core Floor Slab	C35/45	135kg/m³
350thk Basement Floor Slab	C40/50	150kg/m³
250thk Ramp Slab	C40/50	150kg/m³
350thk Ground Floor Slabs	C50/60	200kg/m³
RC COLUMNS		
350 x 350 Columns	C50/60	160kg/m³
700 x 700 Columns	C50/60	200kg/m³
1000 x 1000 Columns	C50/60	175kg/m³
RC WALLS		
250thk Walls	C40/50	125 kg/m³
300thk Walls	C40/50	150kg/m³
350thk Walls	C40/50	160kg/m³
RC Capping Beam		
1350dp x 1500w Beam	C40/50	150kg/m³

All SubStructure element to be concrete class DS-2 Sulphate Resistant Concrete suitable for ACEC Class AC-2. Subject to finalised Site Investigation Report

Core Wall RC Allowance dependant on lapping strategy and preferred method of construction. Currently assumed 6m long bars to suit slipformed construction

Where piled wall requires propping in the temporary condition / during construction, allow for additional 50kg/m³ for extent of capping beam which requires propping and corbels in propping location. Estimated max propping spacing = 10m

Reinforcement estimates are based on requirements for the permanent design condition. Additional reinforcement that may be required due to the temporary condition and to suit construction sequence have not been included, (e.g. chairs) Contractor should make additional allowance for this to suit.

Rev:	Description:	Date:	By:	Chkd:
C03	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C02	BEAM ELEVATION ADDED	02.08.21	PM	NJ
C01	CONSTRUCTION ISSUE	28.04.21	PM	AED

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Status: FINAL CONSTRUCTION

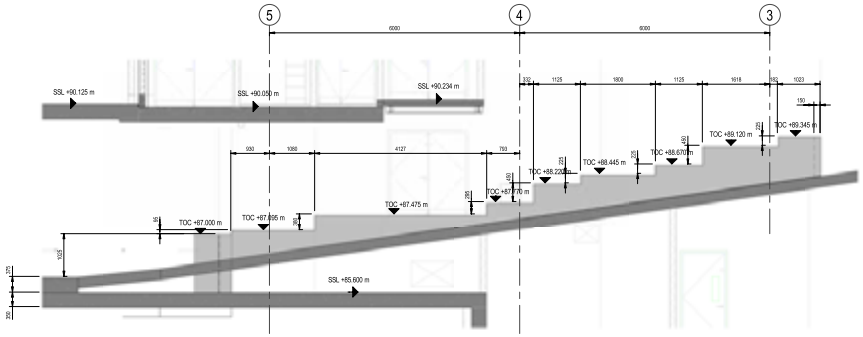
Project: PROJECT DIPPER

Drg Title: Basement Sections sheet 1

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A0	22.01.21	PMilne	AED	DS
	Scale: As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	21006 -	C03

Model: NameXXXXXX-CUR-ZZ-XX-M3-S-00001



SECTION TO UPSTAND TO RAMP TO SUPPORT BLOCKWORK

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-20000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-20100

Concrete Grades & Rebar Allowances

RC PILECAP FOUNDATIONS		
Pilecap Type A	C40/50	175kg/m³
Pilecap Type B	C40/50	175kg/m³
Pilecap Type C	C40/50	150kg/m³
Pilecap Type D	C50/60	150kg/m³
Pilecap Type E	C40/50	125kg/m³
Core Pilecap	C50/60	175kg/m³
RC SLABS		
250thk Core Floor Slab	C35/45	125kg/m³
350thk Basement Floor Slab	C40/50	150kg/m³
250thk Ramp Slab	C40/50	150kg/m³
350thk Ground Floor Slabs	C50/60	200kg/m³
RC COLUMNS		
250 x 350 Columns	C50/60	160kg/m³
700 x 700 Columns	C50/60	300kg/m³
1000 x 1000 Columns	C50/60	170kg/m³
RC WALLS		
250thk Walls	C40/50	125 kg/m²
300thk Walls	C40/50	150kg/m³
350thk Walls	C40/50	160kg/m³
RC Capping Beam		
1350dp x 1500w Beam	C40/50	150kg/m³

All SubStructure element to be concrete class DS-2 Sulphate Resistant Concrete suitable for ACEC Class AC-2. Subject to finalised Site Investigation Report

Core Wall RC Allowance dependant on lapping strategy and preferred method of construction. Currently assumed 6m long bars to suit slipformed construction

Where piled wall requires propping in the temporary condition / during construction, allow for additional 50kg/m³ for extent of capping beam which requires propping and corbels in propping location. Estimated max propping spacing = 10m

Reinforcement estimates are based on requirements for the permanent design condition. Additional reinforcement that may be required due to the temporary condition and to suit construction sequence have not been included. (e.g. chairs) Contractor should make additional allowance for this to suit.

Rev:	Description:	Date:	By:	Chkd:
C03	FINAL CONSTRUCTION ISSUE	14.10.21	PT	DS
C02	UPDATED TO SUIT LATEST INFORMATION	01.09.21	PM	NJ
C01	CONSTRUCTION ISSUE	11.05.21	PM	AED

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Status:

FINAL CONSTRUCTION

Project:

PROJECT DIPPER

Drg Title:

Basement Sections sheet 2

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	May 2021	PMilne	AED	DS
	Scale:As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	ZZ -	DR -	S -	21007 -	C03

Model Name:XXXXXX-CUR-ZZ-XX-M3-S-XXXX1

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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-20000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-20100

Rev:	Description:	Date:	By:	Chkd:
C02	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C01	CONSTRUCTION ISSUE	18.06.21	PM	AED

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Status:
FINAL CONSTRUCTION

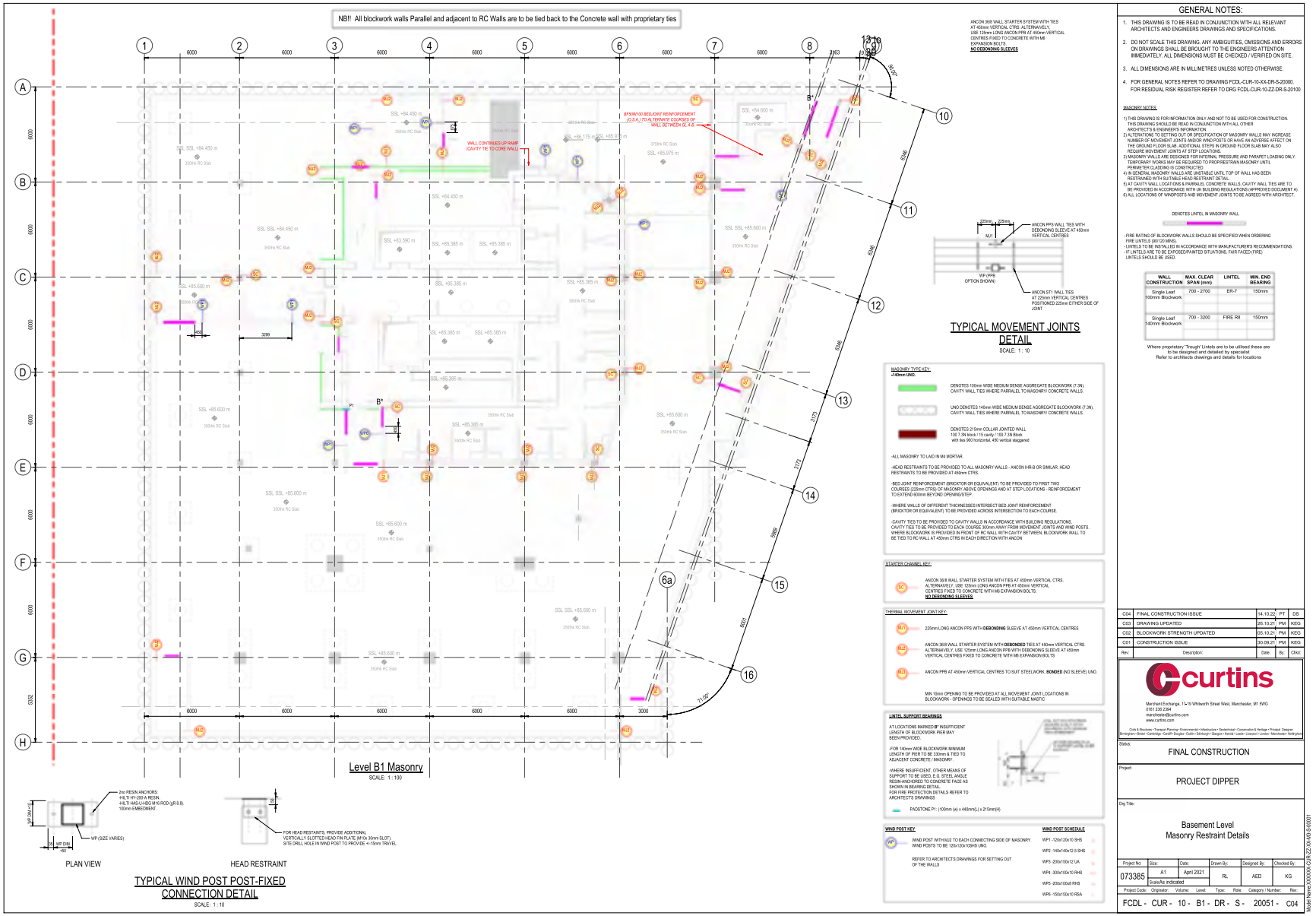
Project:
PROJECT DIPPER

Drg Title:
Loading Plan Level 08

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	June 2020	PMilne	AED	AED
	Scale: 1 : 100				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	08 -	DR -	S -	30007 -	C02

Model Name: XX-XXX-CUR-ZZ-XX-M3-S-30001


NB!! All blockwork walls Parallel and adjacent to RC Walls are to be tied back to the Concrete wall with proprietary ties
Level B1 Masonry
SCALE: 1 : 100
TYPICAL MOVEMENT JOINTS DETAIL
SCALE: 1 : 10
TYPICAL WIND POST POST-FIXED CONNECTION DETAIL
SCALE: 1 : 10
PLAN VIEW
HEAD RESTRAINT
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 ENGINEERS 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-XX-DR-S-20000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-20100
MASONRY NOTES:
1) THIS DRAWING IS FOR INFORMATION ONLY AND NOT TO BE USED FOR CONSTRUCTION. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECT'S & ENGINEER'S INFORMATION.
2) ALTERATIONS TO SETTING OUT OR SPECIFICATION OF MASONRY WALLS MAY INCREASE NUMBER OF MOVEMENT JOINTS AND/OR WIND POSTS OR HAVE AN ADVERSE AFFECT ON THE GROUND FLOOR SLAB. ADDITIONAL STEPS IN GROUND FLOOR SLAB MAY ALSO REQUIRE MOVEMENT JOINTS AT STEP LOCATIONS.
3) MASONRY WALLS ARE DESIGNED FOR INTERNAL PRESSURE AND PARAPET LOADING ONLY. TEMPORARY WORKS MAY BE REQUIRED TO PROPRESTRAIN MASONRY UNTIL PERIMETER CLADDING IS CONSTRUCTED.
4) IN GENERAL MASONRY WALLS ARE UNSTABLE UNTIL TOP OF WALL HAS BEEN RESTRAINED WITH SUITABLE HEAD RESTRAINT DETAIL.
5) AT CAVITY WALL LOCATIONS & PARRALEL CONCRETE WALLS, CAVITY WALL TIES ARE TO BE PROVIDED IN ACCORDANCE WITH UK 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 (60/120 MINS).
- LINTELS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- IF LINTELS ARE TO BE EXPOSED/PAINTED SITUATIONS, FAIR FACED (FIRE) LINTELS SHOULD BE USED.
WALL CONSTRUCTION | MAX. CLEAR SPAN (mm) | LINTEL | MIN. END BEARING
Single Leaf 100mm Blockwork | 700 - 2700 | FIR-7 | 150mm
Single Leaf 140mm Blockwork | 700 - 3200 | FIRE R9 | 150mm
Where proprietary "Trought" Lintels are to be utilised these are to be designed and detailed by specialist
Refer to architects drawings and details for locations
MASONRY TYPE KEY:
-140mm UNO.
DENOTES 100mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.3N). CAVITY WALL TIES WHERE PARRALEL TO MASONRY/ CONCRETE WALLS.
UNO DENOTES 140mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.3N). CAVITY WALL TIES WHERE PARRALEL TO MASONRY/ CONCRETE WALLS.
DENOTES 215mm COLLAR JOINTED WALL 100.7.3N block / 15 cavity / 100.7.3N Block with ties 600 horizontal, 450 vertical staggered
-ALL MASONRY TO LAID IN M4 MORTAR
-HEAD RESTRAINTS TO BE PROVIDED TO ALL MASONRY WALLS - ANCON HR-B OR SIMILAR. HEAD RESTRAINTS TO BE PROVIDED AT 450mm CTRS.
-BED JOINT REINFORCEMENT (BRICKTOR OR EQUIVALENT) TO BE PROVIDED TO FIRST TWO COURSES (225mm CTRS) OF MASONRY ABOVE OPENINGS AND AT STEP LOCATIONS - REINFORCEMENT TO EXTEND 900mm BEYOND OPENING/STEP.
-WHERE WALLS OF DIFFERENT THICKNESSES INTERSECT BED JOINT REINFORCEMENT (BRICKTOR 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 300mm AWAY FROM MOVEMENT JOINTS AND WIND POSTS. WHERE BLOCKWORK IS PROVIDED IN FRONT OF RC WALL WITH CAVITY BETWEEN, BLOCKWORK WALL TO BE TIED TO RC WALL AT 450mm CTRS IN EACH DIRECTION WITH ANCON
STARTER CHANNEL KEY:
SC ANCON 368 WALL STARTER SYSTEM WITH TIES AT 450mm VERTICAL CTRS. ALTERNAVELY , USE 125mm LONG ANCON PPB AT 450mm VERTICAL CENTRES FIXED TO CONCRETE WITH M8 EXPANSION BOLTS. NO DEBONDING SLEEVES
THERMAL MOVEMENT JOINT KEY:
MJ1 225mm LONG ANCON PPS WITH DEBONDING SLEEVE AT 450mm VERTICAL CENTRES
MJ2 ANCON 368 WALL STARTER SYSTEM WITH DEBONDED TIES AT 450mm VERTICAL CTRS. ALTERNAVELY , USE 125mm LONG ANCON PPB WITH DEBONDING SLEEVE AT 450mm VERTICAL CENTRES FIXED TO CONCRETE WITH M8 EXPANSION BOLTS
MJ3 ANCON PPB AT 450mm VERTICAL CENTRES TO SUIT STEELWORK. BONDED (NO SLEEVE) UNO.
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 B* INSUFFICIENT LENGTH OF BLOCKWORK PIER MAY BEEN PROVIDED.
-FOR 140mm WIDE BLOCKWORK MINIMUM LENGTH OF PIER TO BE 330mm & TIED TO ADJACENT CONCRETE / MASONRY
-WHERE INSUFFICIENT, OTHER MEANS OF SUPPORT TO BE USED, E.G. STEEL ANGLE RESIN-ANCHORED TO CONCRETE FACE AS SHOWN IN BEARING DETAIL.
FOR FIRE PROTECTION DETAILS REFER TO ARCHITECTS DRAWINGS
PACSTONE P1 : (100mm (w) x 440mm(L) x 215mm(H)
WIND POST KEY
WP WIND POST WITH M12 TO EACH CONNECTING SIDE OF MASONRY. WIND POSTS TO BE 120x120x10SHS UNO.
REFER TO ARCHITECTS DRAWINGS FOR SETTING OUT OF THE WALLS
WIND POST SCHEDULE
WP1 -120x120x10 SHS
WP2 -140x140x12.5 SHS
WP3 -200x150x12 UA
WP4 -300x100x10 RHS
WP5 -200x100x8 RHS
WP6 -150x150x10 RSA
C04 FINAL CONSTRUCTION ISSUE 14.10.22 PT DS
C03 DRAWING UPDATED 26.10.21 PM KEG
C02 BLOCKWORK STRENGTH UPDATED 05.10.21 PM KEG
C01 CONSTRUCTION ISSUE 30.09.21 PM KEG
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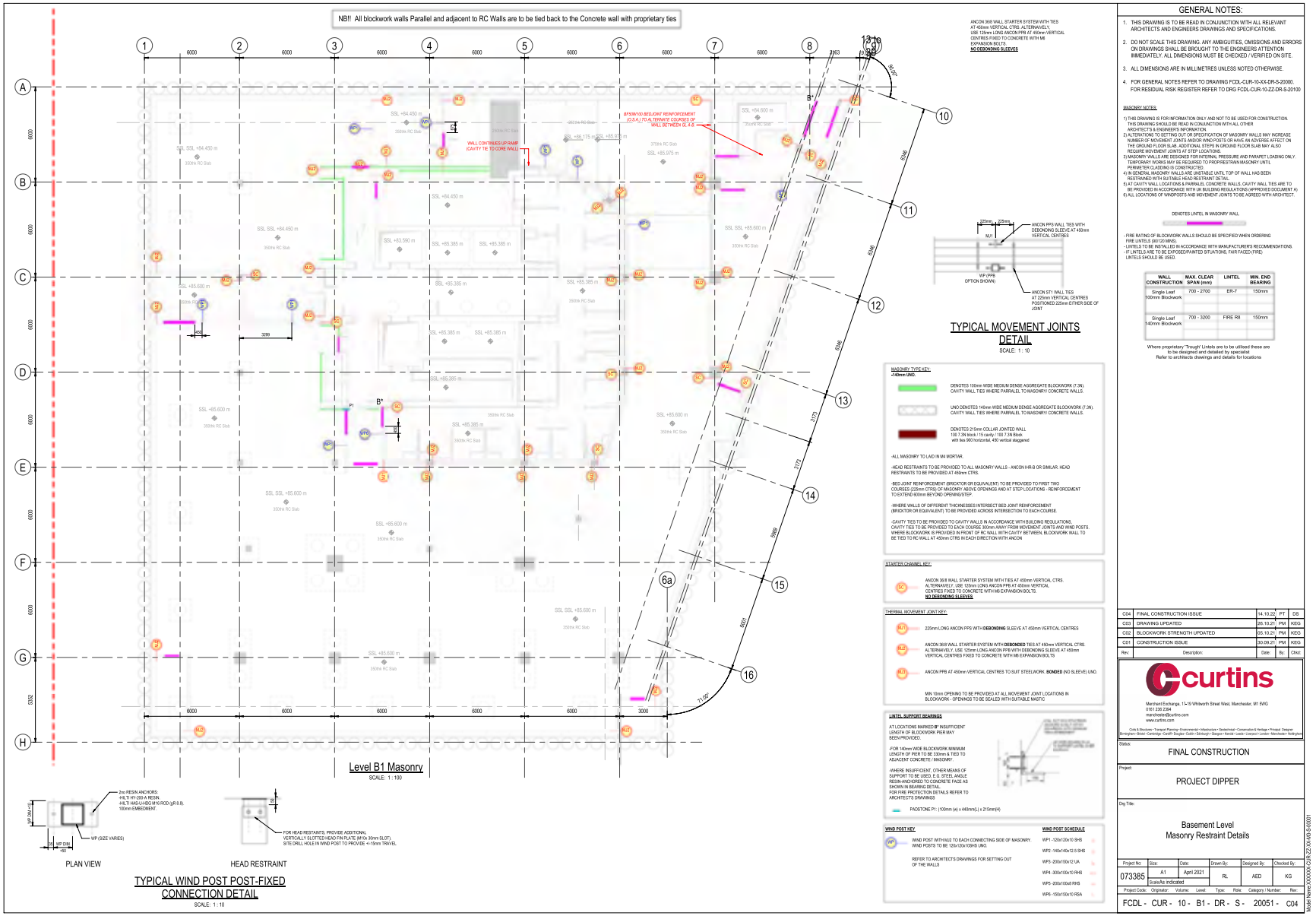
Status: FINAL CONSTRUCTION
Project: PROJECT DIPPER
Drg Title: Basement Level Masonry Restraint Details
Project No: 073385
Size: A1
Date: April 2021
Drawn By: RL
Designed By: AED
Checked By: KG
Scale: As indicated
Project Code: FCDL - Originator: CUR - Volume: 10 - Level: B1 - Type: DR - Role: S - Category / Number: 20051 - Rev: C04
Model Name: XX-XXX-CUR-ZZ-XX-M3-S-XX001


NB!! All blockwork walls Parallel and adjacent to RC Walls are to be tied back to the Concrete wall with proprietary ties
Level B1 Masonry
SCALE: 1 : 100
TYPICAL MOVEMENT JOINTS DETAIL
SCALE: 1 : 10
TYPICAL WIND POST POST-FIXED CONNECTION DETAIL
SCALE: 1 : 10
PLAN VIEW
HEAD RESTRAINT
GENERAL NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
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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-20000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-20100
MASONRY NOTES:
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6) ALL LOCATIONS OF WINDPOSTS AND MOVEMENT JOINTS TO BE AGREED WITH ARCHITECT.
DENOTES LINTEL IN MASONRY WALL
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- IF LINTELS ARE TO BE EXPOSED/PAINTED SITUATIONS, FAIR FACED (FIRE) LINTELS SHOULD BE USED.
Where proprietary "Trough" Lintels are to be utilised these are to be designed and detailed by specialist
Refer to architects drawings and details for locations
MASONRY TYPE KEY:
-140mm UNO.
DENOTES 100mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.3N). CAVITY WALL TIES WHERE PARRALEL TO MASONRY/ CONCRETE WALLS.
UNO DENOTES 140mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.3N). CAVITY WALL TIES WHERE PARRALEL TO MASONRY/ CONCRETE WALLS.
DENOTES 215mm COLLAR JOINTED WALL 100.7.3N block / 15 cavity / 100.7.3N Block with ties 600 horizontal, 450 vertical staggered
-ALL MASONRY TO LAID IN M4 MORTAR
-HEAD RESTRAINTS TO BE PROVIDED TO ALL MASONRY WALLS - ANCON HR-B OR SIMILAR. HEAD RESTRAINTS TO BE PROVIDED AT 450mm CTRS.
-BED JOINT REINFORCEMENT (BRICKTOR OR EQUIVALENT) TO BE PROVIDED TO FIRST TWO COURSES (225mm CTRS) OF MASONRY ABOVE OPENINGS AND AT STEP LOCATIONS - REINFORCEMENT TO EXTEND 900mm BEYOND OPENING/STEP.
-WHERE WALLS OF DIFFERENT THICKNESSES INTERSECT BED JOINT REINFORCEMENT (BRICKTOR 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 300mm AWAY FROM MOVEMENT JOINTS AND WIND POSTS. WHERE BLOCKWORK IS PROVIDED IN FRONT OF RC WALL WITH CAVITY BETWEEN, BLOCKWORK WALL TO BE TIED TO RC WALL AT 450mm CTRS IN EACH DIRECTION WITH ANCON
STARTER CHANNEL KEY:
SC ANCON 368 WALL STARTER SYSTEM WITH TIES AT 450mm VERTICAL CTRS. ALTERNAVELY , USE 125mm LONG ANCON PPB AT 450mm VERTICAL CENTRES FIXED TO CONCRETE WITH M8 EXPANSION BOLTS. NO DEBONDING SLEEVES
THERMAL MOVEMENT JOINT KEY:
AJ1 225mm LONG ANCON PPS WITH DEBONDING SLEEVE AT 450mm VERTICAL CENTRES
AJ2 ANCON 368 WALL STARTER SYSTEM WITH DEBONDED TIES AT 450mm VERTICAL CTRS. ALTERNAVELY , USE 125mm LONG ANCON PPB WITH DEBONDING SLEEVE AT 450mm VERTICAL CENTRES FIXED TO CONCRETE WITH M8 EXPANSION BOLTS
AJ3 ANCON PPB AT 450mm VERTICAL CENTRES TO SUIT STEELWORK. BONDED (NO SLEEVE) UNO.
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 B* INSUFFICIENT LENGTH OF BLOCKWORK PIER MAY BEEN PROVIDED.
-FOR 140mm WIDE BLOCKWORK MINIMUM LENGTH OF PIER TO BE 330mm & TIED TO ADJACENT CONCRETE / MASONRY
-WHERE INSUFFICIENT, OTHER MEANS OF SUPPORT TO BE USED, E.G. STEEL ANGLE RESIN-ANCHORED TO CONCRETE FACE AS SHOWN IN BEARING DETAIL.
FOR FIRE PROTECTION DETAILS REFER TO ARCHITECT'S DRAWINGS
PACSTONE P1 ; (100mm (w) x 440mm(L) x 215mm(H)
WIND POST KEY
WP WIND POST WITH M12 TO EACH CONNECTING SIDE OF MASONRY. WIND POSTS TO BE 120x120x10SHS UNO.
REFER TO ARCHITECTS DRAWINGS FOR SETTING OUT OF THE WALLS
WIND POST SCHEDULE
WP1 -120x120x10 SHS
WP2 -140x140x12.5 SHS
WP3 -200x150x12 UA
WP4 -300x100x10 RHS
WP5 -200x100x8 RHS
WP6 -150x150x10 RSA
Rev: Description: Date: By: Chkd:
C04 FINAL CONSTRUCTION ISSUE 14.10.22 PT DS
C03 DRAWING UPDATED 26.10.21 PM KEG
C02 BLOCKWORK STRENGTH UPDATED 05.10.21 PM KEG
C01 CONSTRUCTION ISSUE 30.09.21 PM KEG
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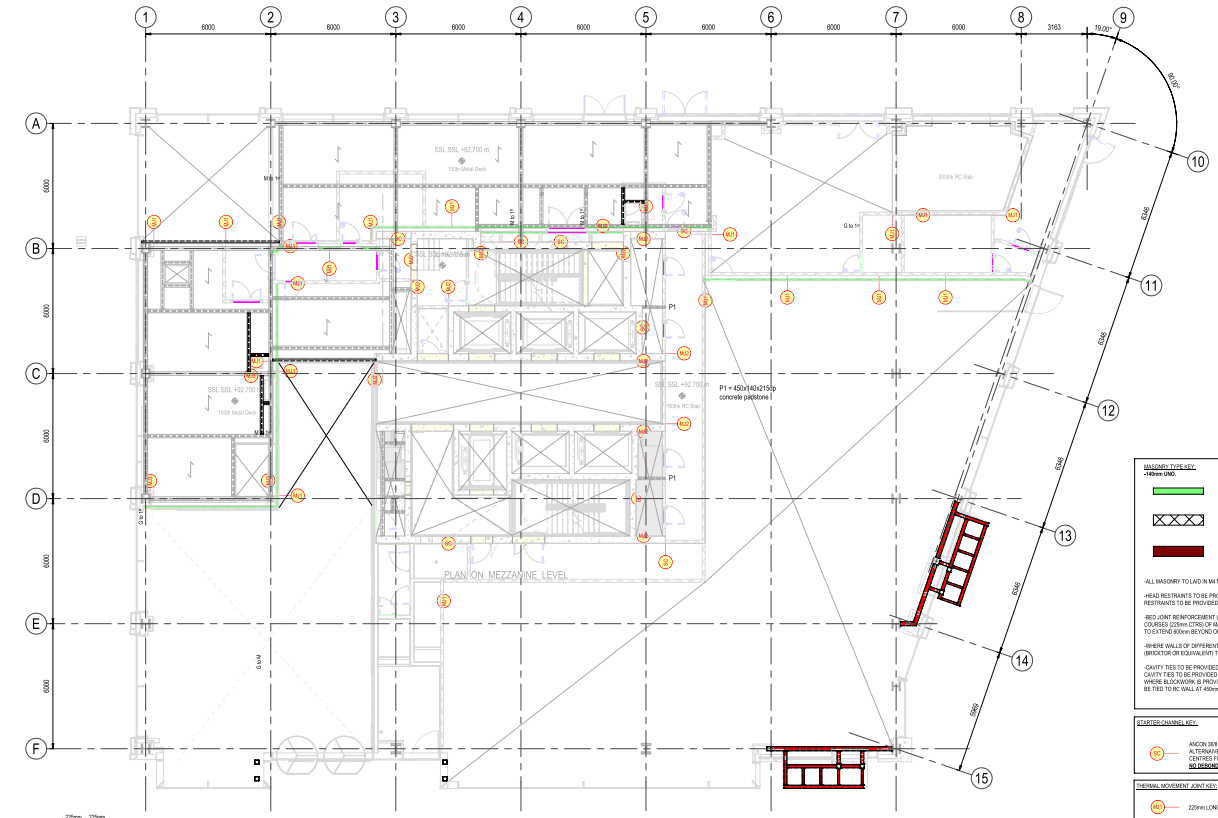
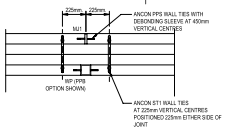
Status: FINAL CONSTRUCTION
Project: PROJECT DIPPER
Drg Title: Basement Level Masonry Restraint Details
Project No: 073385
Size: A1
Date: April 2021
Drawn By: RL
Designed By: AED
Checked By: KG
Scale: As indicated
Project Code: FCDL- Originator: CUR- Volume: 10- Level: B1- Type: DR- Role: S- Category / Number: 20051- Rev: C04
Model Name: XXXXXX-CUR-ZZ-XX-M3-S-XXXXX





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

MASONRY TYPE KEY:
-140mm UNO.

DENOTES 100mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.3N). CAVITY WALL TIES WHERE PARRALEL TO MASONRY/ CONCRETE WALLS.

UNO DENOTES 140mm WIDE MEDIUM DENSE AGGREGATE BLOCKWORK (7.3N). CAVITY WALL TIES WHERE PARRALEL TO MASONRY/ CONCRETE WALLS.

DENOTES 215mm COLLAR JOINTED WALL
100 7.3N block / 15 cavity / 100 7.3N Block
with ties 600 horizontal, 450 vertical staggered

-ALL MASONRY TO LAID IN M4 MORTAR.

-HEAD RESTRAINTS TO BE PROVIDED TO ALL MASONRY WALLS - ANCON HR-B OR SIMILAR. HEAD RESTRAINTS TO BE PROVIDED AT 450mm CTRS.

-BED JOINT REINFORCEMENT (BRICKTOR OR EQUIVALENT) TO BE PROVIDED TO FIRST TWO COURSES (225mm CTRS) OF MASONRY ABOVE OPENINGS AND AT STEP LOCATIONS - REINFORCEMENT TO EXTEND 600mm BEYOND OPENING/STEP.

-WHERE WALLS OF DIFFERENT THICKNESSES INTERSECT BED JOINT REINFORCEMENT (BRICKTOR 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 300mm AWAY FROM MOVEMENT JOINTS AND WIND POSTS. WHERE BLOCKWORK IS PROVIDED IN FRONT OF RC WALL WITH CAVITY BETWEEN, BLOCKWORK WALL TO BE TIED TO RC WALL AT 450mm CTRS IN EACH DIRECTION WITH ANCON

STARTER CHANNEL KEY:

SC — ANCON 3408 WALL STARTER SYSTEM WITH TIES AT 450mm VERTICAL CTRS. ALTERNAVELY, USE 125mm LONG ANCON PPB AT 450mm VERTICAL CENTRES FIXED TO CONCRETE WITH M6 EXPANSION BOLTS. **NO DEBONDING SLEEVES**

THERMAL MOVEMENT JOINT KEY:

MJ1 — 225mm LONG ANCON PPS WITH **DEBONDING** SLEEVE AT 450mm VERTICAL CENTRES

MJ2 — ANCON 3408 WALL STARTER SYSTEM WITH **DEBONDED** TIES AT 450mm VERTICAL CTRS. ALTERNAVELY, USE 125mm LONG ANCON PPB WITH DEBONDING SLEEVE AT 450mm VERTICAL CENTRES FIXED TO CONCRETE WITH M6 EXPANSION BOLTS

MJ3 — ANCON PPB AT 450mm VERTICAL CENTRES TO SUIT STEELWORK. **BONDED** (NO SLEEVE) UNO.

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 **B*** INSUFFICIENT LENGTH OF BLOCKWORK PIER MAY BEEN PROVIDED.

-FOR 140mm WIDE BLOCKWORK MINIMUM LENGTH OF PIER TO BE 330mm & TIED TO ADJACENT CONCRETE / MASONRY.

-WHERE INSUFFICIENT, OTHER MEANS OF SUPPORT TO BE USED, E.G. STEEL ANGLE RESIN-ANCHORED TO CONCRETE FACE AS SHOWN IN BEARING DETAIL.
FOR FIRE PROTECTION DETAILS REFER TO ARCHITECT'S DRAWINGS

P1 PADSTONE P1: (100mm (w) x 440mm(L) x 215mm(H)

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 ENGINEERS 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-XX-DR-S-20000. FOR RESIDUAL RISK REGISTER REFER TO DRG FCDL-CUR-10-ZZ-DR-S-20100

MASONRY NOTES:

1) THIS DRAWING IS FOR INFORMATION ONLY AND NOT TO BE USED FOR CONSTRUCTION. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECT'S & ENGINEER'S INFORMATION.
2) ALTERATIONS TO SETTING OUT OR SPECIFICATION OF MASONRY WALLS MAY INCREASE NUMBER OF MOVEMENT JOINTS AND/OR WIND POSTS OR HAVE AN ADVERSE AFFECT ON THE GROUND FLOOR SLAB. ADDITIONAL STEPS IN GROUND FLOOR SLAB MAY ALSO REQUIRE MOVEMENT JOINTS AT STEP LOCATIONS.
3) MASONRY WALLS ARE DESIGNED FOR INTERNAL PRESSURE AND PARAPET LOADING ONLY. TEMPORARY WORKS MAY BE REQUIRED TO PROPRIESTRAIN MASONRY UNTIL PERIMETER CLADDING IS CONSTRUCTED.
4) IN GENERAL, MASONRY WALLS ARE UNSTABLE UNTIL TOP OF WALL HAS BEEN RESTRAINED WITH SUITABLE HEAD RESTRAINT DETAIL.
5) AT CAVITY WALL LOCATIONS & PARRALEL CONCRETE WALLS, CAVITY WALL TIES ARE TO BE PROVIDED IN ACCORDANCE WITH UK 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 (60/120 MINS).
- LINTELS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- IF LINTELS ARE TO BE EXPOSED/PAINTED SITUATIONS, FAIR FACED (FIRE) LINTELS SHOULD BE USED.

WALL CONSTRUCTION	MAX. CLEAR SPAN (mm)	LINTEL	MIN. END BEARING
Single Leaf 100mm Blockwork	700 - 2700	ER-7	150mm
Single Leaf 140mm Blockwork	700 - 3200	FIRE R6	150mm

Where proprietary "Trought" Lintels are to be utilised these are to be designed and detailed by specialist
Refer to architects drawings and details for locations

Rev:	Description:	Date:	By:	Chkd:
C04	FINAL CONSTRUCTION ISSUE	22.11.22	PT	DS
C03	FINAL CONSTRUCTION ISSUE	14.10.22	PT	DS
C02	WIND POST ADDED	15.11.21	PM	NJ
C01	CONSTRUCTION ISSUE	26.10.21	PM	NJ

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Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Status:
FINAL CONSTRUCTION

Project:
PROJECT DIPPER

Drg Title:
Mezzanine Level
Masonry Restraint Details

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
073385	A1	April 2021	RL	AED	KG
	Scale:As indicated				

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
FCDL -	CUR -	10 -	M0 -	DR -	S -	20053 -	C04

Model Name:XXXXXX_CUR-ZZ-XX-M3-S-00001

BACK TO CONTENTS

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