

St. Vincent's Hospital Fairview Redevelopment, Richmond Road & Convent Avenue, Fairview, Dublin 3



**M&E Utilities Report
IN2 Project No. D2116
23rd March 2023
Rev05**

Revision History

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23/03/2023	05	Planning Stage Issue

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1.0 Executive Summary

The subject site is located at St. Vincent's Hospital, Richmond Road and Convent Avenue, Fairview, Dublin 3. In summary, the proposed development comprises of the following.

A ten year planning permission is sought for the proposed development comprising of the following (see public notices for the detailed description):

- Provision of a new part two and part three storey hospital building, providing mental health services, accommodating 73 no. beds, associated facilities, a single storey facilities management building, plant rooms and service areas, associated car and cycle parking, access roads, and open space, all on a proposed hospital site of c. 2.67 ha.
- Refurbishment and repurposing of existing buildings on site including Brooklawn (RPS Ref.: 8789), Richmond House, including chapel and outbuildings (RPS Ref.: 8788), the Laundry building and Rose Cottage for ancillary uses associated with the new hospital. The existing gate lodge building will remain in residential use and used by visiting members of staff to the new hospital.
- Change of use, refurbishment, alterations and extensions, to the existing hospital building (part protected structure under RPS Ref.: 2032), to provide residential amenity areas, a gym, a café, co-working space, a library, a childcare facility, and a community hall (referred to as Block K).
- The proposal includes the demolition of existing structures on site with a GFA of 5,872 sq.m, including the (1) westernmost range of the hospital building, which includes St. Teresa's and the Freeman Wing, (2) extensions to the south and north of the main hospital building, including the conservatory extension, toilet block extension, an external corridor, toilet core, lift core, and stair core (which are all part of / within the curtilage of RPS Ref.: 2032), (3) hospital buildings and outbuildings located to the north of the existing main hospital building, (4) St. Joseph's Adolescent School located in the southeast of the site, (5) Crannog Day Hospital located in the southwest of the site, and (6) extensions to the Old Laundry Building and Rose Cottage.
- Provision of 9 no. residential buildings (Blocks A, B, C, D-E, F, G, H, J, and L) providing a total of 811 no. residential units, including 494 no. standard designed apartments (in Blocks A, B, C, G, H, J, and L) and 317 no. Build to Rent apartments (in Blocks D-E and F). Residential amenities and facilities are proposed in Block C, D-E, J and K. A retail unit is proposed in Block A and a café in Block F. Block J is proposed as an extension of the existing hospital buildings (protected structure RPS Ref.: 2032- referred to as Block K).
- The building heights of the proposed residential blocks range from part 2 to part 13 storeys. A proposed basement / lower ground level, containing car and cycle parking and plant areas, is located below and accessed via Blocks C, D-E and F.
- Access to the new hospital and associated grounds is provided from Richmond Road and Convent Avenue, with separate internal access points. A separate vehicular access to the residential development is provided from Richmond Road. The development includes a proposed pedestrian / cycle connection to Griffith Court, requiring alterations to the service yard of the Fairview Community Unit, pedestrian /

cycle connections to the Fairview Community Unit campus to the north (providing an onward connection to Griffith Court), a pedestrian / cycle connection to Grace Park Wood, and makes provision internally within the site for a potential future connection to Lomond Avenue / Inverness Road.

- The proposal includes public open space, including allotments, children's play areas, a central park, a linear park and an entrance plaza, with a set down area at Richmond Road, and communal open space at surface level. The proposal includes communal roof terraces on Block C and Blocks D-E and private balconies / terraces for the apartments.
- The proposal also includes provision of internal access roads, car and cycle parking, pedestrian and cycle infrastructure, associated set down areas, alterations to existing landscape features, landscaping, boundary treatments, lighting, telecommunications infrastructure at roof level of Block B, green roofs, lift overruns and plant at roof level, site services, including a watermain connection / upgrade via Griffith Court, Philipsburgh Avenue and Griffith Avenue, site clearance, and all associated site works.

The existing infrastructure connections have been identified. These connections will each be isolated and removed prior to the commencement of site construction.

New infrastructure connections have been considered in the design of the proposed residential development and there are no issues with Infrastructure to supply the new development.

Where the site boundary line is indicated within this report it indicates the approximate outline of the land within the ownership of the applicant and is not the overall application site boundary.

2.0 ESB Infrastructure

The site is well located with regards to ESB infrastructure. The ESB Networks drawing of existing ESB infrastructure below indicates the network distribution capacity to the St Vincent's Hospital and residential development. There are existing 10/20kV underground cables and 400/230V overhead LV lines surrounding the site.

There is an Existing unit substation named 'Richmond road' located on the site which shall decommissioned and removed as part of the new works. Initial contact has been made with the ESB about modifications to existing ESB infrastructure.

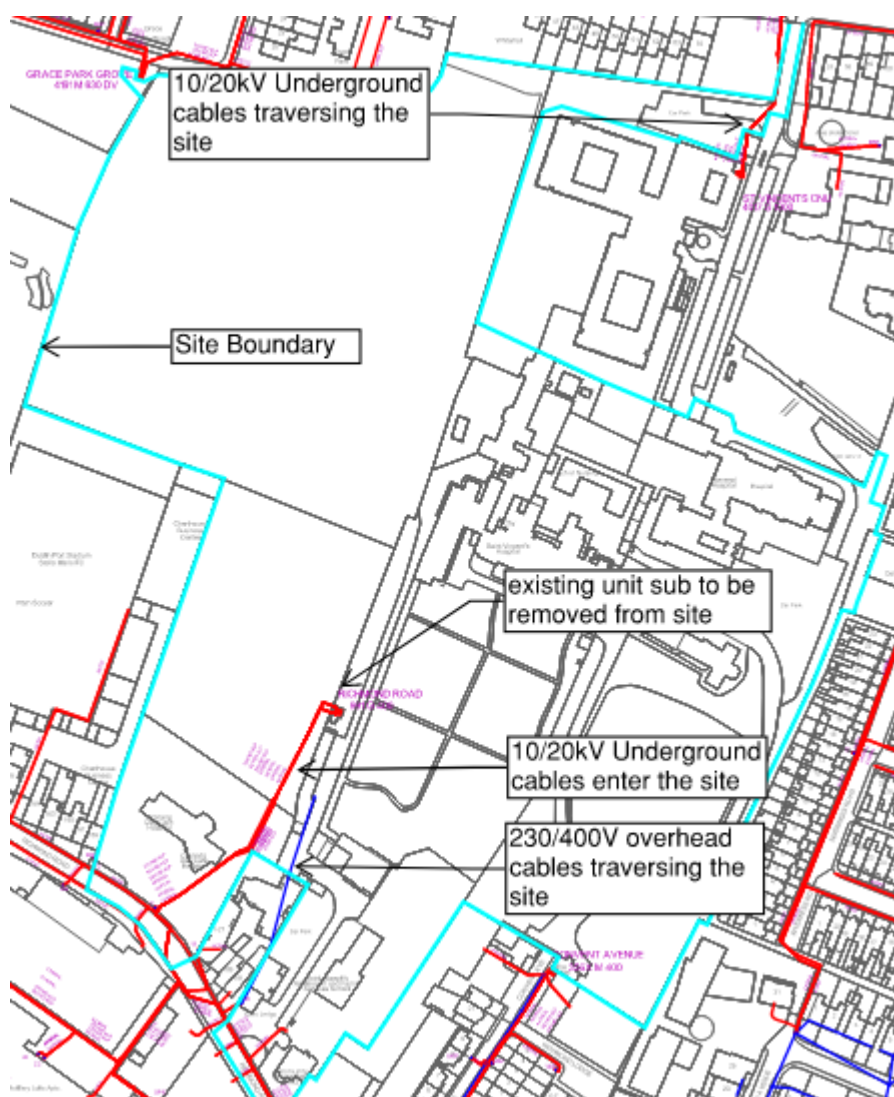


Fig 2.1.1 ESB Networks Map of St Vincent's Hospital Fairview Redevelopment (Indicative Only)

Initial contact has been made with the ESB and there are currently no issues with the provision of the required power to the proposed development.

IN2 will submit a new electricity connection application to ESB Networks on behalf of the client, once planning is approved and naming and numbering is approved by Dublin City Council.

There are plans for six substations within the site and they have all been sized accordingly with the number of apartments within the development, this is calculated using 12kVA for the 1st apartment and a diversified 3.5kVA for the remaining apartments per block, this is the calculation method used by the ESB network design engineers. Any Blocks where a core Electrical load exceeds 200kVA a substation has been provided. The substations are located across numerous blocks on the site. Refer to IN2 Drawing SVRD-IN2-ST-ZZ-DR-ME-0105 for Substation locations.

A Medium Voltage (MV) ESB connection has been designed into Block DE as the Mechanical plant Heat pump load shall exceed 500kVA, this is as per ESB requirements. Associated MV switchroom and Transformer rooms have been included in the design.

3.0 Gas Infrastructure

The natural gas infrastructure within the vicinity of the site is managed by Gas Networks Ireland. There is a low-pressure distribution pipeline which is present in the site, which serves the existing St Vincent's Hospital building.

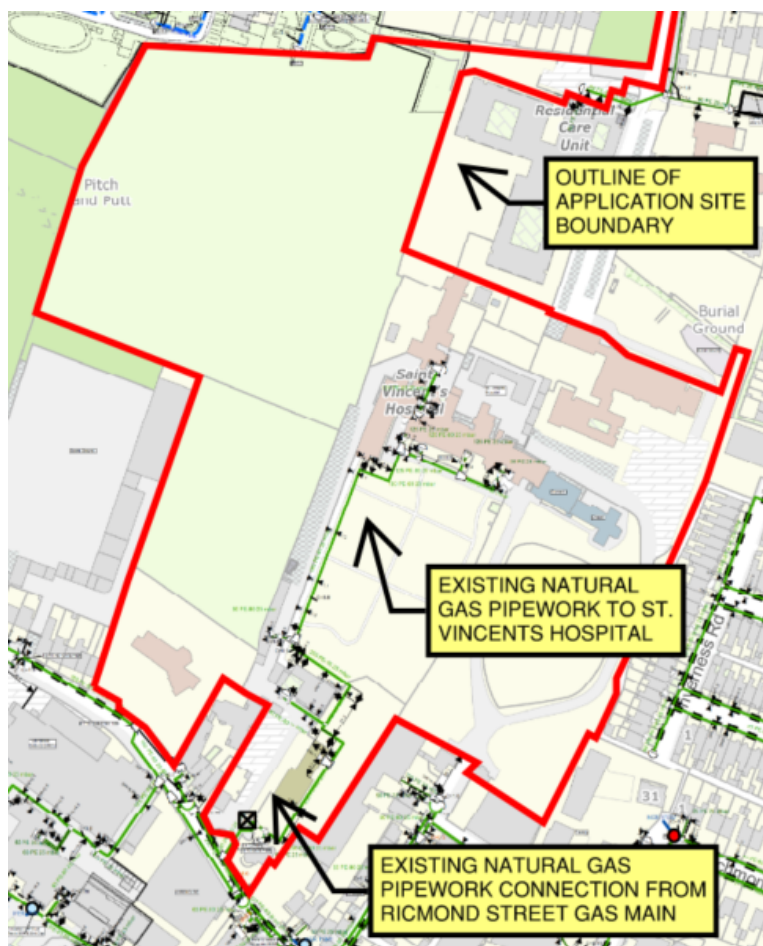


Fig 3.1.1 St Vincent's Hospital Fairview Redevelopment Natural Gas Infrastructure Map (Indicative Only)

The utility strategy for the St Vincent's residential and hospital elements of the development is to avail of centralised heat plant consisting of electrically driven air source heat pumps. There is no intention to provide natural gas to serve the new build residential. There is a preference by Hospital staff to use natural gas for the commercial kitchen so a natural gas connection shall be provided.

The utility strategy for the St Vincent's Historic building element is still under review. There is a possibility the existing natural gas supply to the building will be retained due to the nature of the protected structure.

We have been in contact with Gas Networks Ireland, and they confirm there is sufficient gas capacity in the area to retain gas supply to these buildings and to provide to the new Hospital.

4.0 Telecoms – EIR

EIR infrastructure to the surrounding area is sufficient to service the development from Richmond Road subject to final agreement with EIR.

There are numerous EIR existing in-ground ducts in the vicinity of the development in front of the site along Richmond Road and also surrounding the site in existing developments.

A new EIR Ducting network shall be provided to the development so the option for provision of EIR is available to each household.

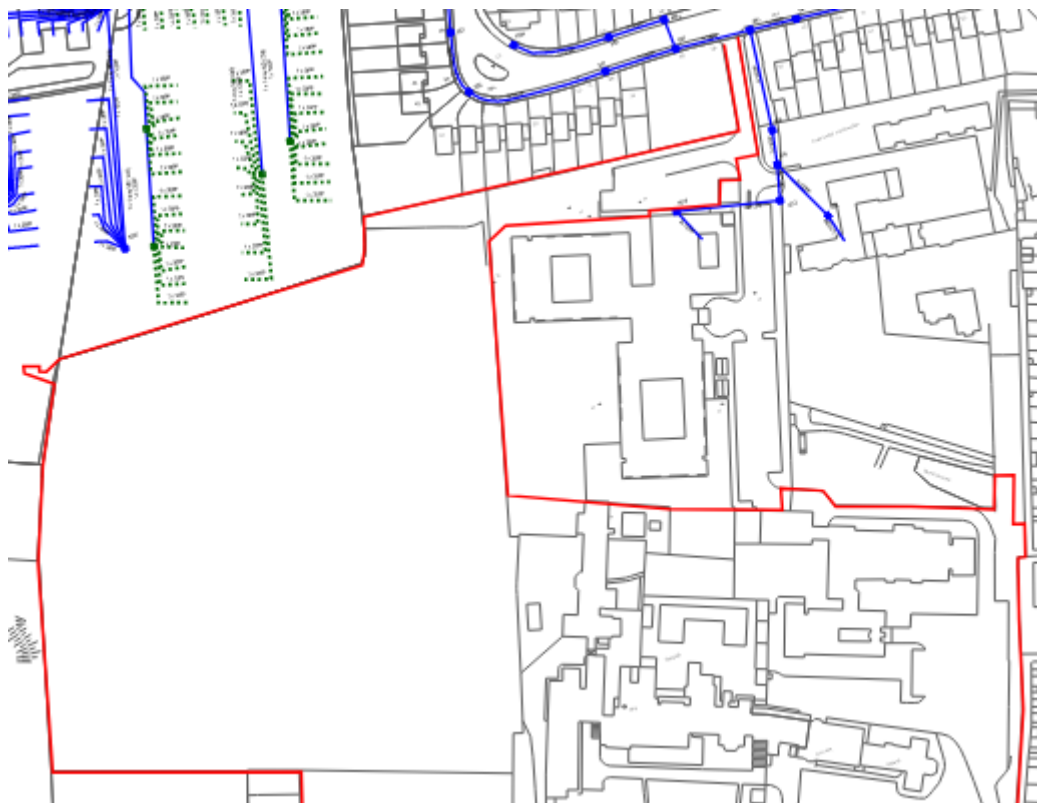


Fig 4.1.1 St Vincent's Hospital Redevelopment EIR Infrastructure Map (A)(Indicative Only)

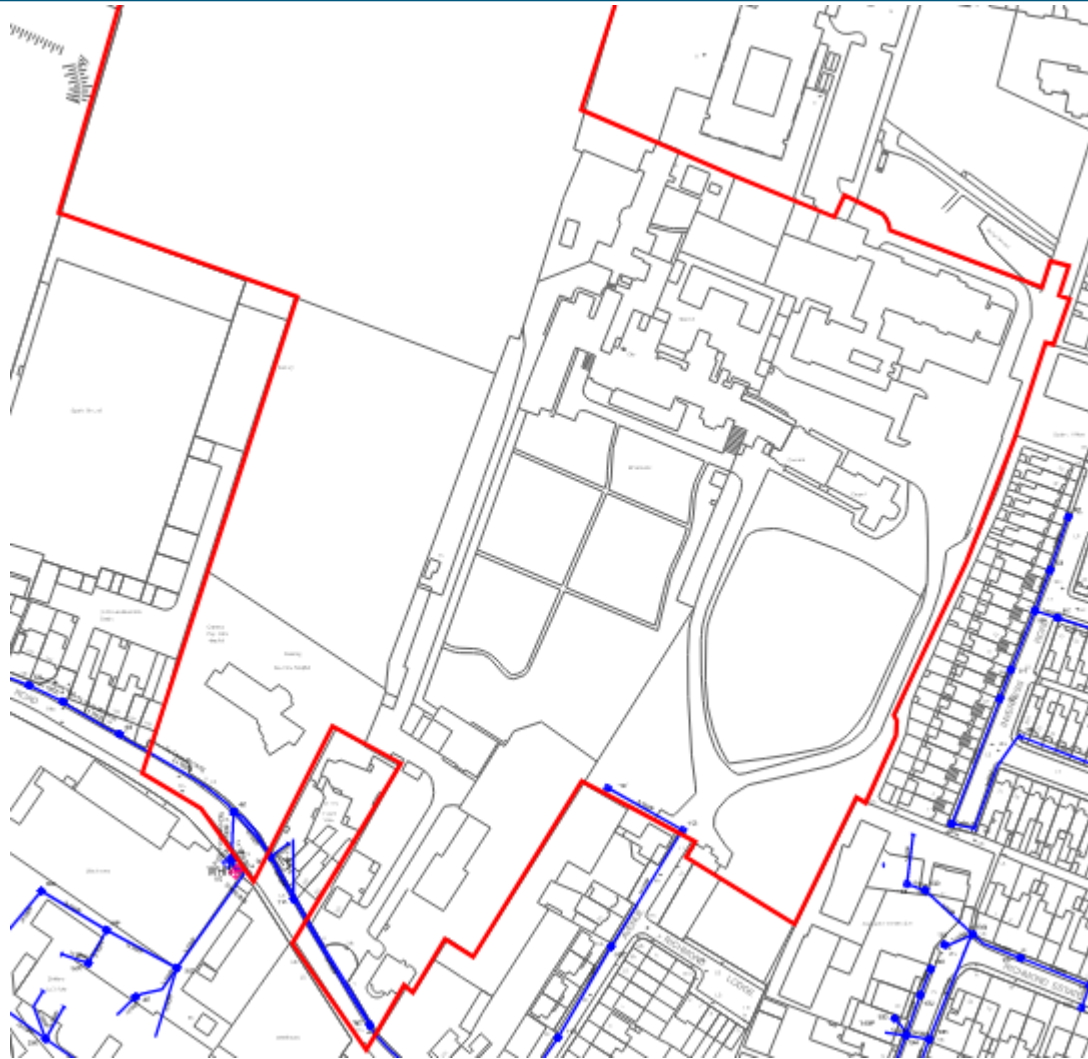


Fig 4.1.2 St Vincent's Hospital Fairview Redevelopment EIR Infrastructure (B)(Indicative Only)

5.0 Telecoms - Virgin Media

Virgin Media infrastructure to the surrounding area is sufficient to service the development subject to final agreement with Virgin Media.

There appears to be existing Virgin Media overhead lines traversing the site to the existing hospital, these shall be removed.

New connections to new development shall come from the road at main entrance underground.

A new Virgin Media Ducting network shall be provided to the development so the option for provision of Virgin Media is available.

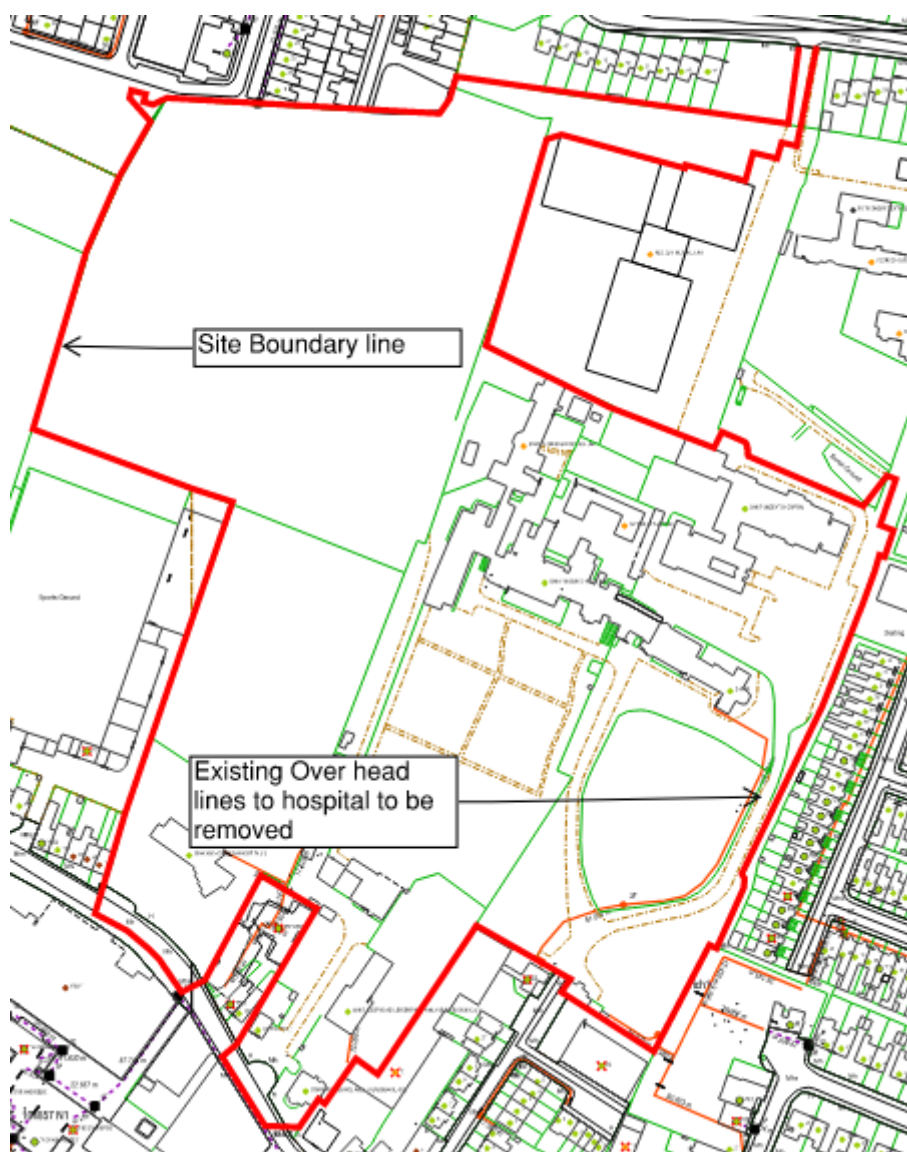


Fig 5.1.1 St Vincent's Hospital Fairview Redevelopment Virgin Media Infrastructure Map
(Indicative Only)

6.0 Electric Vehicle (EV) Charging Infrastructure

The St Vincents Hospital Fairview Redevelopment will include Electric Vehicle charging points to 50% of the car parking spaces. There will be EV charging infrastructure, comprising of cable ducting systems and cable trays provided to every parking space in the redevelopment in compliance with Technical Guidance Document L- Conservation of Fuel and Energy – Dwellings (2021),

The infrastructure will be routed back to the main landlord electrical supply. The EV infrastructure will be adequately designed to meet the full capacity of all recharging points when installed in the future and appropriately sized for EV charging point capacity. The ESB sub-stations have been sized to accommodate the electrical loads associated with the future provision of EV charging to all parking spaces.

The ducting infrastructure will be fit for purpose, capped as appropriate and clearly identified. Adequate space will be provided to accommodate all EV Charging point ducting connections and electrical supply equipment and will be adequately designed for maintenance access.

The complete EV infrastructure installations, including associated electrical equipment, etc. will be installed in accordance with the general wiring rules and safety requirements as outlined in the National Rules for Electrical Installations I.S. 10101:2020.

See the following drawings for preliminary layout for the basement EV infrastructure as listed and attached below:

7.0 DCC Public Lighting

The St Vincents Hospital Fairview site is not going to be taken in charge by Dublin City Council so it shall be provided with a private lighting scheme which shall be operated and maintained by the landlord and thus shall not be powered (unmetered) by the ESB or designed to DCC public standards. If in the future the site is to be taken in charge the landlord will have to upgrade the lighting to DCC public lighting standards.

A virtual meeting was held between Tim Jago (IN2 Engineering) and Seamus McSweeney (DCC Public Lighting) on February 27th 2023. IN2 presented the proposed planning application and advised the site will remain private and shall be managed by the landlord.

The New access / egress routes from public areas to the St Vincents Hospital Fairview site were discussed. The following is a record of the discussion.

1. Richmond road lights were upgraded in last 7 years and are in good condition. There appears to be clash with the new vehicle entrance to the residential site and DCC public lighting Pole No.20 which will need to be relocated.



Image 7.1.1 Existing DCC Public lighting column to be relocated for new entrance

2. The existing Lights on Convent Avenue are old and outdated, DCC Public lighting plan to upgrade these soon.
3. The existing lights at Griffith Court are in reasonable condition.
4. The existing lighting at Grace Park is not operated or maintained by DCC public lighting. The lights are new and appear to be installed as part of the private residential development.



Fig 7.1.2 St Vincent's Hospital Fairview Redevelopment DCC PL Infrastructure Map 1of 2 (Indicative Only)



Fig 7.1.3 St Vincent's Hospital Fairview Redevelopment DCC PL Infrastructure Map 1of 2 (Indicative Only)

8.0 Appendix – EV & Site Ducting Layout

- SVRD-IN2-01-B1-DR-E-7001 EV Layout
- SVRD-IN2-ST-ZZ-DR-ME-0105 Site Ducting

DRAWING REFERENCE KEY



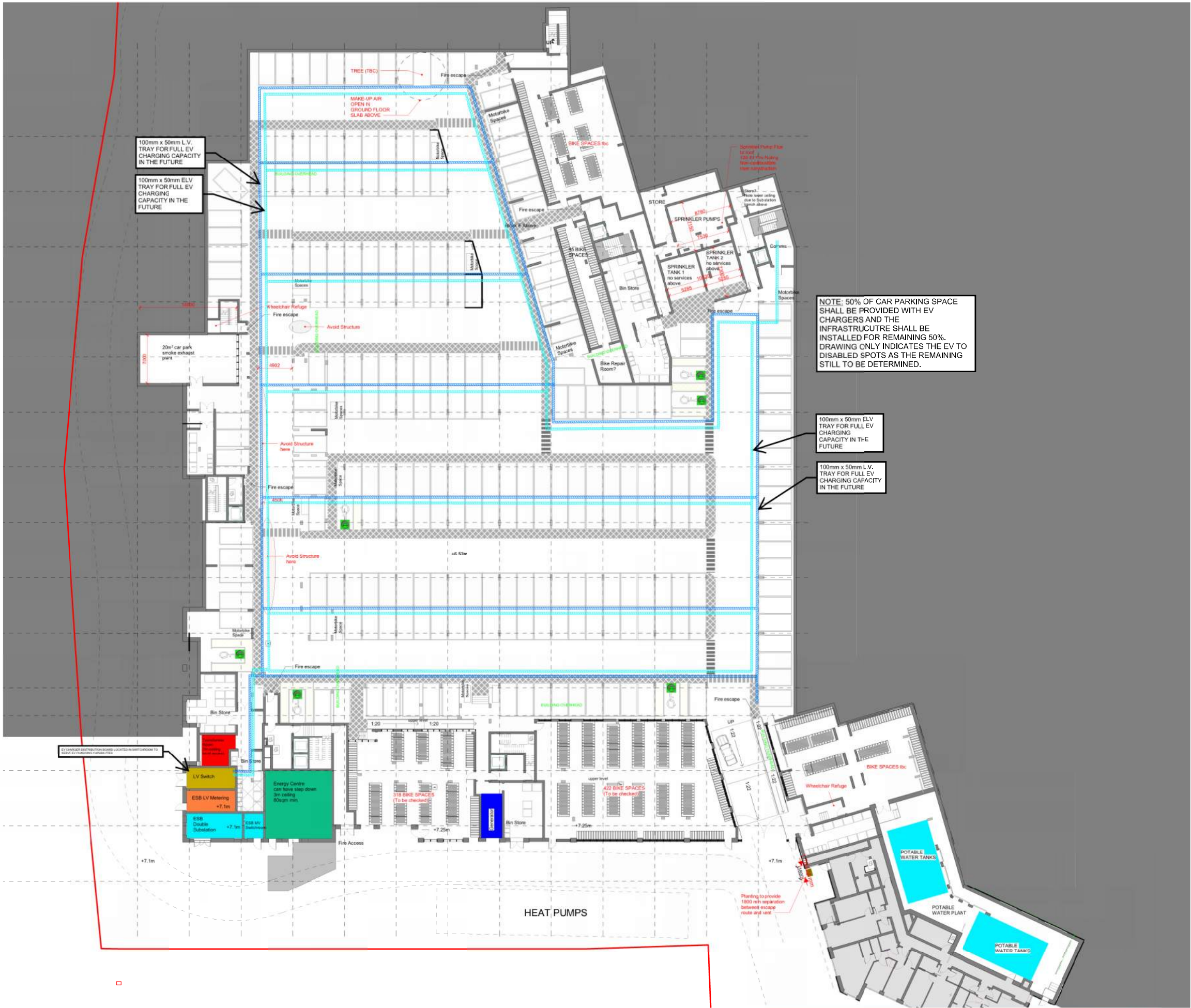
EV CHARGER



LV CABLE TRAY
(SIZE AS INDICATED)



ELV CABLE TRAY
(SIZE AS INDICATED)



NOTE: 50% OF CAR PARKING SPACE SHALL BE PROVIDED WITH EV CHARGERS AND THE INFRASTRUCTURE SHALL BE INSTALLED FOR REMAINING 50%. DRAWING ONLY INDICATES THE EV TO DISABLED SPOTS AS THE REMAINING STILL TO BE DETERMINED.

100mm x 50mm ELV TRAY FOR FULL EV CHARGING CAPACITY IN THE FUTURE

100mm x 50mm L.V. TRAY FOR FULL EV CHARGING CAPACITY IN THE FUTURE

100mm x 50mm L.V. TRAY FOR FULL EV CHARGING CAPACITY IN THE FUTURE

100mm x 50mm ELV TRAY FOR FULL EV CHARGING CAPACITY IN THE FUTURE

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STATUS	DATE	DESCRIPTION	DRN	ENG	APP

STATUS	DATE	DESCRIPTION	DRN	ENG	APP
P1-1	21-09-2022	PLANNING STAGE ISSUE	DS	JL	JR

PROJECT
St. Vincents Hospital Fairview Redevelopment

CLIENT
ROYALTON GROUP

DRAWING TITLE
ELECTRICAL SERVICES INSTALLATION
BASEMENT PLAN
ELECTRIC VEHICLE (EV) INFRASTRUCTURE LAYOUT

IN2 REF: D2116
DRAWING No. D2116-IN2-01-B1-DR-E-7001

SCALE
1:

STATUS
P1-1

SIZE
A1



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