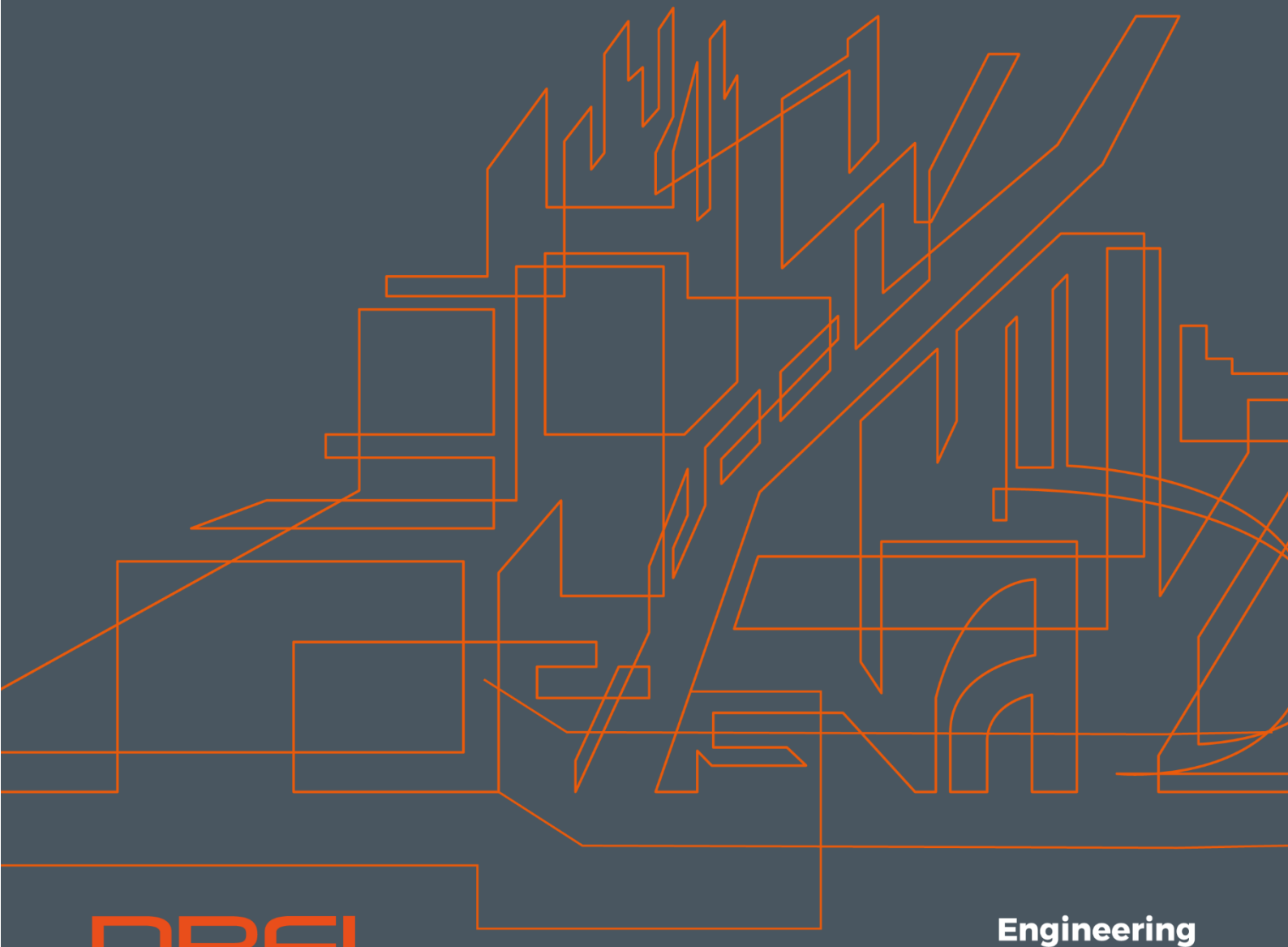
Proposed Residential-Led Mixed Use Development, Sandford Road, Dublin 6

Preliminary Construction Management Plan

190226-X-X-X-XXX-RP-DBFL-CE-0004

December 2025



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P3	6	10/12/25	LRD Application	Susan Mwaniki	Emma Daly	Emma Daly

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1 Works Proposal

This Preliminary Construction Management Plan (PCMP) is for the works associated with the construction of a Large-Scale Residential Development at a c. 4.26-hectare site at Milltown Park, Sandford Road, Dublin 6, D06 V9K7. Works are also proposed on Milltown Road and Sandford Road to facilitate access to the development including improvements to pedestrian facilities on an area of c. 0.16 hectares. The development's surface water drainage network shall discharge from the site via a proposed 300mm diameter pipe along Milltown Road through the junction of Milltown Road / Sandford Road prior to outfalling to the existing drainage network on Eglinton Road (approximately 200 metres from the Sandford Road / Eglinton Road junction), with these works incorporating an area of c. 0.32 hectares. The development site area, road works and drainage works areas will provide a total application site area of c. 4.74 hectares.

The development will principally consist of: the demolition of c. 4,847.5 sq. m of existing structures on site including Milltown Park House (880 sq. m), Milltown Park House Rear Extension (2,031 sq. m), the Finlay Wing (622 sq. m), the Archive (1,240 sq. m) and the Link Building between Tabor House and Milltown Park House Rear Extension to the front of the Chapel (74.5 sq. m); the refurbishment and reuse of Tabor House (1,575 sq. m) and the Chapel (768 sq. m) and the provision of a single storey glass entrance lobby to the front and side of the Chapel (52 sq. m); and the provision of 562 No. residential units comprising 6 No. three-bed courtyard houses and 556 No. apartment units (70 No. studios, 176 No. one-bed units, 267 No. two-bed units and 43 No. three-bed units).

Block A1 will range in height from 5 No. storeys to 8 No. storeys and will comprise 81 No. apartment units; Block A2 will range in height from 6 No. storeys to 8 No. storeys and will comprise 139 No. apartment units; Block B will range in height from 3 No. to 7 No. storeys and will comprise 74 No. apartment units; Block C will range in height from 4 No. storeys to 7 No. storeys and will comprise 151 No. apartment units; Block D will range in height from 3 No. storeys to 5 No. storeys and will comprise 30 No. apartment units; Block E will be 2 No. storeys in height and will comprise 6 No. courtyard type houses; and Block F will range in height from 5 No. storeys to 7 No. storeys and will comprise 81 No. apartment units.

The development also includes the provision of: cultural/community space within Tabor House (4 No. storeys including lower ground floor level) and the Chapel (2 No. storeys including lower ground floor level and mezzanine level) (1,698 sq. m) with associated outdoor space (248 sq. m); a café/restaurant (179 sq. m) and a creche (375 sq. m) within Block F with associated outdoor creche

play area; ancillary residents' amenities and facilities (324 sq. m) within Blocks B & C; and a single storey bin store and substation adjacent to Block F (101 sq. m).

The development also provides a new access from Milltown Road (which will be the principal vehicular entrance to the site) in addition to utilising and upgrading the existing access from Sandford Road as a secondary access principally for deliveries, emergencies and taxis; new pedestrian access points; pedestrian/bicycle connections through the site; 319 No. car parking spaces (288 No. at basement level and 31 No. at surface level); set down area for deliveries; bicycle parking; 22 No. motorcycle spaces; bin storage; boundary treatments; private balconies and terraces facing all directions; hard and soft landscaping including public open space and communal open space; green/blue roofs; PV panels; substations; lighting; plant; lift cores and overruns; and all other associated site works above and below ground.

The proposed development has a gross floor space of c.50,196 sq. m above ground level over a partial basement (under part of Blocks A1 and A2 and under Blocks B and C) measuring c. 10,550 sq. m, which includes parking spaces, bin storage, bike storage and plant.

The development will also include the following associated engineering infrastructure:

- Provision of surface water drainage, foul drainage and water supply infrastructure and connections.
- Retain existing entrance on Sandford Road (facilitates pedestrian and cycle access as well as limited vehicle access to the plaza at the northern end of the site). Improvements to pedestrian facilities adjacent to the entrance off Sandford Road are also proposed.
- Provision of a new vehicle access off Milltown Road (primary vehicle access to the proposed development facilitating access to the basement carpark as well as serving pedestrians and cyclists). This new site access shall be a priority junction.
- Provision of an additional access point for pedestrians and cyclists adjacent to the junction of Sandford Road / Milltown Road.

This project is currently at planning stage and as such input from the contractor has not been incorporated into this document.

On appointment of a contactor a detailed CMP shall be prepared. This PCMP will form the basis of the detailed CMP. The detailed CMP shall incorporate the requirements of the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction & Demolition Projects (DoEHLG, 2006).

The construction management issues addressed within this plan include the following:

- Health and Safety
- Working Hours
- Demolition
- Traffic Management
- Stripping of Topsoil
- Excavation of Subsoil
- Importation of fill
- Erosion and Sediment Control
- Accidental Spills and Leaks
- Ecology
- Waste Management
- Noise and Vibration
- Air Quality and Dust Control
- Landscape and Visual Impact
- Material Assets – Site Services
- Site Compound Facilities and Parking

This Preliminary Construction Management Plan shall be referenced in all tender and contract documentation for the proposed works and is to be read in conjunction with all relevant Engineering and Architectural documentation.

All works must be carried out in accordance with the mitigation measures as outlined in the individual chapters of the Environmental Impact Assessment Report enclosed with the subject planning application.

The following legislation, regulations and guidelines are referenced in this Preliminary Construction Management Plan;

- 2005 Safety Health and Welfare at Work Act
- Construction Regulations (SI 291 of 2013)
- Safety, Health and Welfare at Work (General Application) Regulations 2007
- Department of Transport Traffic Signs Manual 2010 – Chapter 8 Temporary Traffic Measures and Signs for Roadworks
- Department of Transport Guidance for the Control and Management of Traffic at Road Works (2010)

- Design Manual for Roads and Bridges (DMRB)
- Design Manual for Urban Roads & Streets (DMURS)
- Article 27(1) of the European Communities (Waste Directive) Regulations, 2011
- Waste Management Act 1996
- Department of the Environment, Heritage and Local Government's 2006 Publication – Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects
- Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration
- National Roads Authority (NRA) Guidelines for Treatment of Noise and Vibration in National Roads Schemes
- BS 5228-1:2009+A1:2014 (Code of Practice for Noise Control on Construction and Open Sites)
- BS 5228-2:2009+A1:2014 (Code of Practice for Vibration Control on Construction and Open Sites)
- BS 7385: 1993 (Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration)
- BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations"

2 Location

The subject site is situated at the corner of Sandford Road and Milltown Road, Dublin 6. Sandford Road is located along the site's north-eastern boundary and Milltown Road is located along the site's south-eastern boundary. Existing residential development is located to the north-west and west of the site while lands in the ownership of the Jesuit Order are located to the south-west and south of the site as shown in Figure 2-1 below.

Figure 2-1 Site Location

3 Construction Phasing

The site will be developed over the following phases:

- Phase 1 – Site Set Up, Enabling Works and Demolitions
- Phase 2 – Basement Box
- Phase 3 – Block D, Block F and works at Tabor House and The Chapel
- Phase 4 - Block A1, Block A2, Block B, Block C and Block E (courtyard houses).

Phasing arrangements need to ensure that each phase can manage its own surface water catchment area until the final connection is granted. Connection to the public surface water sewer is generally not permitted until development of phase is near completion and all SuDS elements are in place.

The site compound will be located internally within the site and may include several mobilisations/de-mobilisations to facilitate the construction of different elements of the project.

4 Compliance with General Safety Requirements

The Contractor shall be responsible for overall management of the site for the duration of the proposed works and must progress their works with reasonable skill, care, diligence and to proactively manage the works in a manner most likely to ensure the safety and welfare of those carrying out construction works.

The Contractor shall comply with all relevant Statutory requirements such as the 2005 Safety Health and Welfare at Work Act, The Construction Regulations (SI 291 of 2013), the General Application Regulations (SI 299 of 2007), etc. (and any amendments thereof).

In addition, the Contractor shall comply with all the reasonable safety requirements of the Client, the Project Supervisor for the Design Process and the Project Supervisor for the Construction Stage as well as providing all staff with a site specific safety induction and appointment of a safety officer.

5 Working Hours

For the duration of the proposed infrastructure works the maximum working hours shall be 07:00 to 18:00 Monday to Friday (excluding bank holidays) and 08:00 to 15:00 Saturdays, subject to the restrictions imposed by the local authority.

No working will be allowed on Sundays and Public Holidays.

Subject to the agreement of the local authority, out of hours working may be required for water main connections, foul drainage connections, surface water outfall route in the public road or when large loads are limited to road usage outside peak times. These will be kept to a minimum.

All deliveries will be notified to the Contractor's Project Manager/Traffic Management Co-ordinator in advance with specific times identified. These will be collated and held in a diary by the Co-ordinator who will manage the deliveries on a daily basis. The co-ordinator will highlight any clashes and anticipated busy periods to streamline the processing of deliveries.

On arrival at the agreed locations, drivers must wait and ring for attention in accordance with the relevant site signage. They will then be escorted to the appropriate location for unloading by the contractor's Banksmen.

Unloading will be carried out at one of the material storage areas. All deliveries, where possible, must be able to be unloaded by forklift or mechanical means.

All access roads used by contractors will be monitored for mud and any construction materials and cleared using a shovel and broom and if required a mechanical road sweeper.

6 Demolition

The development includes the demolition of c. 4,847.5 m^2 of existing structures on site including Milltown Park House (880m^2), Milltown Park House Rear Extension (2,031m^2), the Finlay Wing (622m^2), the Archive (1,240m^2) and the link building between Tabor House and Milltown Park House rear extension to the front of the Chapel (74.5m^2).

Two buildings are to be retained within the proposed development (The Chapel and Tabor House). The careful management of the demolition process including design of temporary protection measures is required to ensure that retained buildings are protected from damage. Also refer to mitigation requirements outlined in Chapter 7 of the EIAR (Architectural Heritage).

Noted below are some of the key points for inclusion in the Contractor's Demolition Management Plan:

- Carry out site investigation on potentially hazardous materials contained within each structural element;
- "Soft strip" internal finishes segregating into individual materials, and recyclable and non-recyclable materials. This includes fixed building services for space heating, cooling pipework, electrical equipment and cabling, etc.;
- Identify external wall build up with the intention to segregate materials that can be recycled and not recycled;
- All structural elements will be demolished with the purposes of reuse. Structural steel elements will be removed and recycled.

7 Traffic and Transportation Plan

A Traffic Management Plan (TMP) will be prepared for the works by the Contractor in accordance with the principles outlined below and shall comply at all times with the requirements of:

- Department of Transport Traffic Signs Manual 2010 – Chapter 8 Temporary Traffic Measures and Signs for Roadworks
- Department of Transport Guidance for the Control and Management of Traffic at Road Works (2010)
- Any additional requirements detailed in the Design Manual for Roads and Bridges (DMRB) & Design Manual for Urban Roads & Streets (DMURS).

The main construction access will be off Milltown Road at the location of the proposed primary vehicle access for the development. A secondary construction access is proposed at the existing entrance from Sandford Road. The location of the primary and secondary access points noted above is identified on DBFL's Roads Layout drawing (ref. no. 190226-DBFL-RD-SP-DR-C-1201). The indicative compound location is shown in Figure 18-1.

The use of both / either entrance will be coordinated with the phasing of the development (refer to Section 3 above).

Construction Traffic will consist of the following categories:

- Private vehicles owned and driven by site staff and management
- Construction vehicles e.g. excavation plant, dump trucks
- Materials delivery vehicles involved in site development works

It should be noted that a large proportion of construction workers will arrive via public transport. The site is ideally located to avail of multiple bus routes on Milltown Road and Sandford Road. The Beechwood Luas stop is approximately 1.0km walking distance from the site.

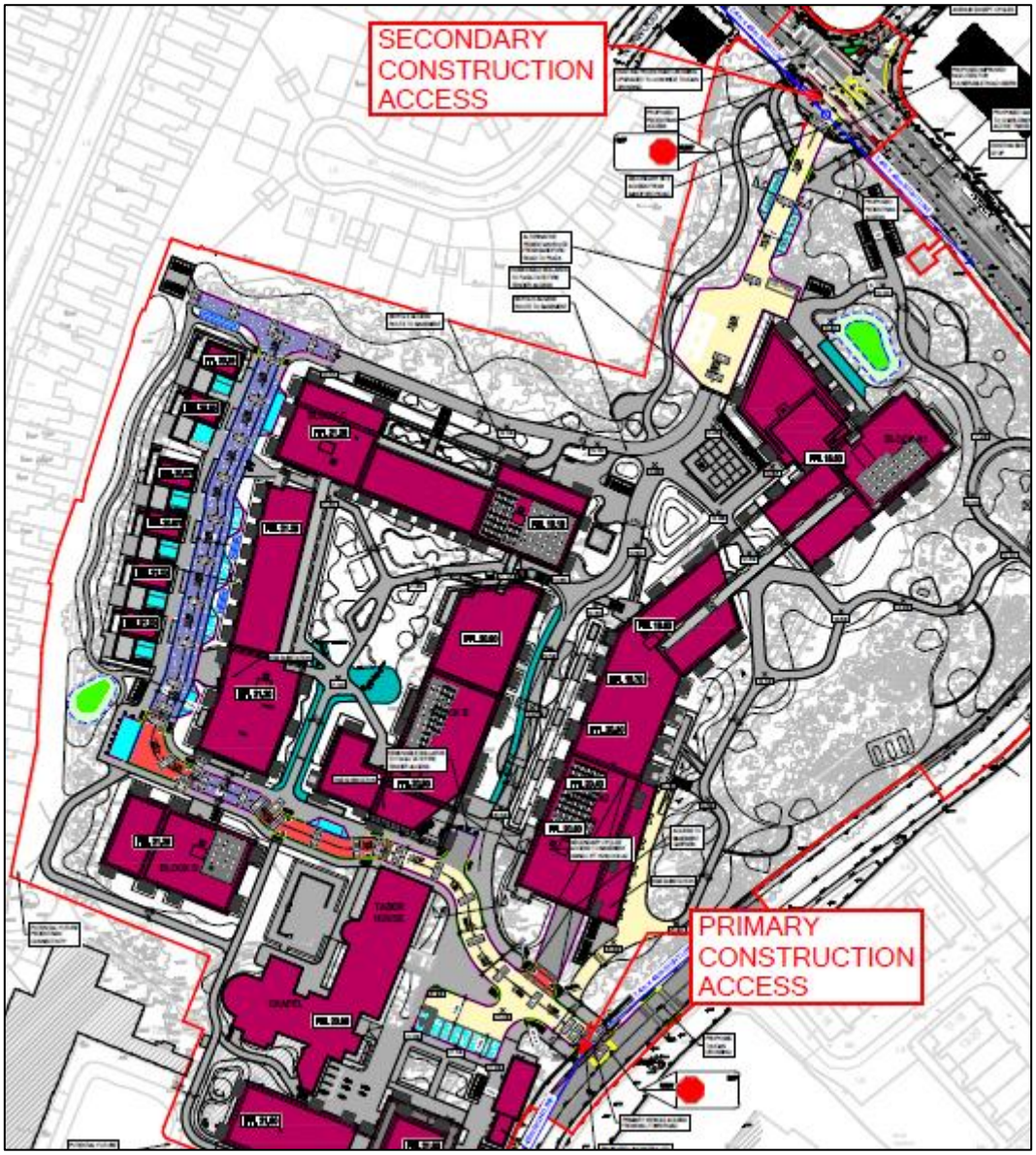

Figure 7-1 Construction Access

The following initiatives will be implemented to avoid, minimise and/or mitigate against traffic issues:

- During the pre-construction phase, the site will be securely fenced off/hoarded off from adjacent properties, public footpaths and roads;
- Appropriate on-site parking (temporary parking for the duration of construction works) and compound area will be provided to prevent overflow onto the local network;
- A large proportion of construction workers are anticipated to arrive in shared transport. It is likely that some numbers of the construction team will be brought to/from the site in vans/minibuses, which will serve to reduce the trip generation potential;

- The construction site will be organised so that, where possible, vehicles and pedestrians using site routes are segregated and can move around safely;
- Delivery vehicles to and from the site will be spread across the course of the working day, therefore, the number of HGVs travelling during the peak hours will be relatively low. Queuing of material delivery vehicles will not be permitted on the public roads adjacent to the site;
- Truck wheel washes will be installed at construction entrances and adjacent public roads swept as required;
- Any specific recommendations with regard to construction traffic management made by Dublin City Council will be adhered to;
- Potential localised traffic disruptions during the construction phase will be mitigated through the implementation of industry standard traffic management measures such as the use of traffic signage. These traffic management measures shall be designed and implemented in accordance with the Department of Transport's Traffic Signs Manual "Chapter 8 Temporary Traffic Measures and Signs for Roadworks" and "Guidance for the Control and Management of Traffic at Roads Works – 2nd Edition" (2010);
- The Contractor will be subject to the full statutory procedures outlined in the Temporary Closing of Roads Regulations. The period of closure will be the minimum to facilitate construction of the works;
- Site entrance point/s from the public road will be constructed with a bound, durable surface capable of withstanding heavy loads and with a sealed joint between the access and public highway. This durable bound surface will be constructed for a distance of 10m from the public road.
- Material storage zones will be established in the compound area and will include material recycling areas and facilities;
- 'Way finding' signage will be provided to route staff / deliveries into the site and to designated compound / construction areas;
- Dedicated construction haul routes will be identified and agreed with Dublin City Council prior to commencement of activities on-site; and
- On completion of the works, all construction materials, debris, temporary hardstands etc. from the site compound will be removed off-site and the site compound area reinstated in full on completion of the works.

8 Soils and Geology

Site development works will include stripping of topsoil and excavation of subsoil layers. These activities have potential to expose the soils and geological environment to pollution.

The contractor shall obtain approval of their proposed erosion and sediment control measures from Dublin City Council's Environment Section prior to commencing works on site.

The following measures are to be implemented in order to mitigate against such risks.

8.1 Stripping of Topsoil

- Stripping of topsoil shall be carried out in a controlled and carefully managed way and coordinated with the proposed staging for the development.
- At any given time, the extent of topsoil strip (and consequent exposure of subsoil) shall be limited to the immediate vicinity of active work areas.
- Topsoil stockpiles shall be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains.
- Topsoil stockpiles shall also be located so as not to necessitate double handling.

8.2 Excavation of Subsoil Layers

- The duration that subsoil layers are exposed to the effects of weather shall be minimised.
- Disturbed subsoil layers will be stabilised as soon as practicable (e.g. backfill of service trenches, construction of road capping layers, construction of building foundations and completion of landscaping).
- Similar to comments regarding stripped topsoil, stockpiles of excavated subsoil material shall be protected for the duration of the works. Stockpiles of subsoil material shall be located separately from topsoil stockpiles.

8.3 Weather Conditions

- Typical seasonal weather variations will also be taken account of when planning stripping of topsoil and excavations with an objective of minimising soil erosion.

8.4 Dust Control

- Dust suppression practices are to be implemented during stripping of topsoil layers and excavation of subsoil layers as outlined in Section 16 of this Preliminary Construction Management Plan.

8.5 Importation of Fill

- Materials imported to site will be natural stones sourced from locally available quarries or materials that have been approved as by-products by the EPA in accordance with the EPA's criteria for determining a material is a by-product, per the provisions of article 27(1) of the European Communities (Waste Directive) Regulations, 2011.
- The majority of imported fill materials will be granular in nature and used in the construction of ground slab formations, basement backfill, road pavement foundations, drainage and utility bedding and surrounds.
- Materials will be brought to site and placed in their final position in the shortest possible time. Any imported material will be kept separate from material excavated from the site. All excavation to accommodate imported material will be precisely coordinated to ensure no surplus material is brought to site beyond the engineering requirement.
- No large or long-term stockpiles of imported fill material will be held on the site. At any time, the extent of fill material held on site will be limited to that needed in the immediate vicinity of the active work area.
- Smaller stockpiles of fill where required, will be suitably protected to ensure no sediment laden runoff enters existing surface water drains. Such stockpiles are to be located in order to avoid double handling.

9 Water and Hydrogeology

The following measures are to be implemented during the construction phase in order to mitigate risks to the water and hydrogeological environment.

9.1 Accidental Spills and Leaks

- All oils, fuels, paints and other chemicals will be stored in a secure bunded hardstand area.
- Refuelling and servicing of construction machinery shall take place in a designated hardstand area which is also remote from any surface water inlets (when not possible to carry out such activities off site).
- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds.
- A response procedure shall be put in place to deal with any accidental pollution events and spillage kits shall be available and construction staff will be familiar with the emergency procedures and use of the equipment.

9.2 Concrete

- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed on site.
- Pumped concrete will be monitored to ensure there is no accidental discharge.
- Mixer washings are not to be discharged into surface water drains.

9.3 Surface Water Runoff

- Measures shall be implemented to capture and treat sediment laden surface water runoff (e.g. sediment retention ponds, surface water inlet protection, fencing and signage around specific exclusion zones and earth bunding adjacent to open drainage ditches).
- Surface water runoff from areas stripped of topsoil and rainwater collected in excavations shall be directed to on-site settlement ponds where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.
- Groundwater pumped from excavations is to be directed to on-site settlement ponds.
- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds.
- On-site settlement ponds are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.

- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed on site.
- Surface water discharge points during the construction phase are to be agreed with Dublin City Council's Environment Section prior to commencing works on site.
- Weather conditions and seasonal weather variations shall also be taken account of when planning stripping of topsoil and excavations, with an objective of minimizing soil erosion.

9.4 Water Pumped from Excavations

- Rainwater pumped from excavations is to be directed to on-site settlement ponds.
- Groundwater pumped from excavations is to be directed to on-site settlement ponds.
- On-site settlement ponds are to include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.
- Surface water discharge points during the construction phase are to be agreed with Dublin City Council's Environment Section prior to commencing works on site.

9.5 Wheel Wash Areas

- Debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility.

10 Foundation Design and Construction

10.1 Standard Pad and Strip Footings

The selection of the current foundation proposal of standard strip and pad footings is based on results of the site investigations, the structural modelling, loading calculations and site constraints. If during excavation of the foundations and basement unexpected ground conditions arise that vary from the site investigations results, it may be necessary to amend the indicative foundation solutions proposed at this juncture.

The standard strip and pad foundations and basement excavation/construction shall be executed as follows :-

- Excavate to foundation/basement formation level forming slope batters as necessary
- Cast the reinforced concrete pad and strip footings, rising walls and ground floor slabs
- Cast the basement to ground level reinforced concrete retaining walls, columns and lift, stair, shear walls
- Cast the reinforced concrete ground slabs
- Backfill to ground level the surrounding slope batters using granular material as appropriate.

Please refer to the Figure 10-1 and Figure 10-2 in respect of the basement and strip foundations construction.

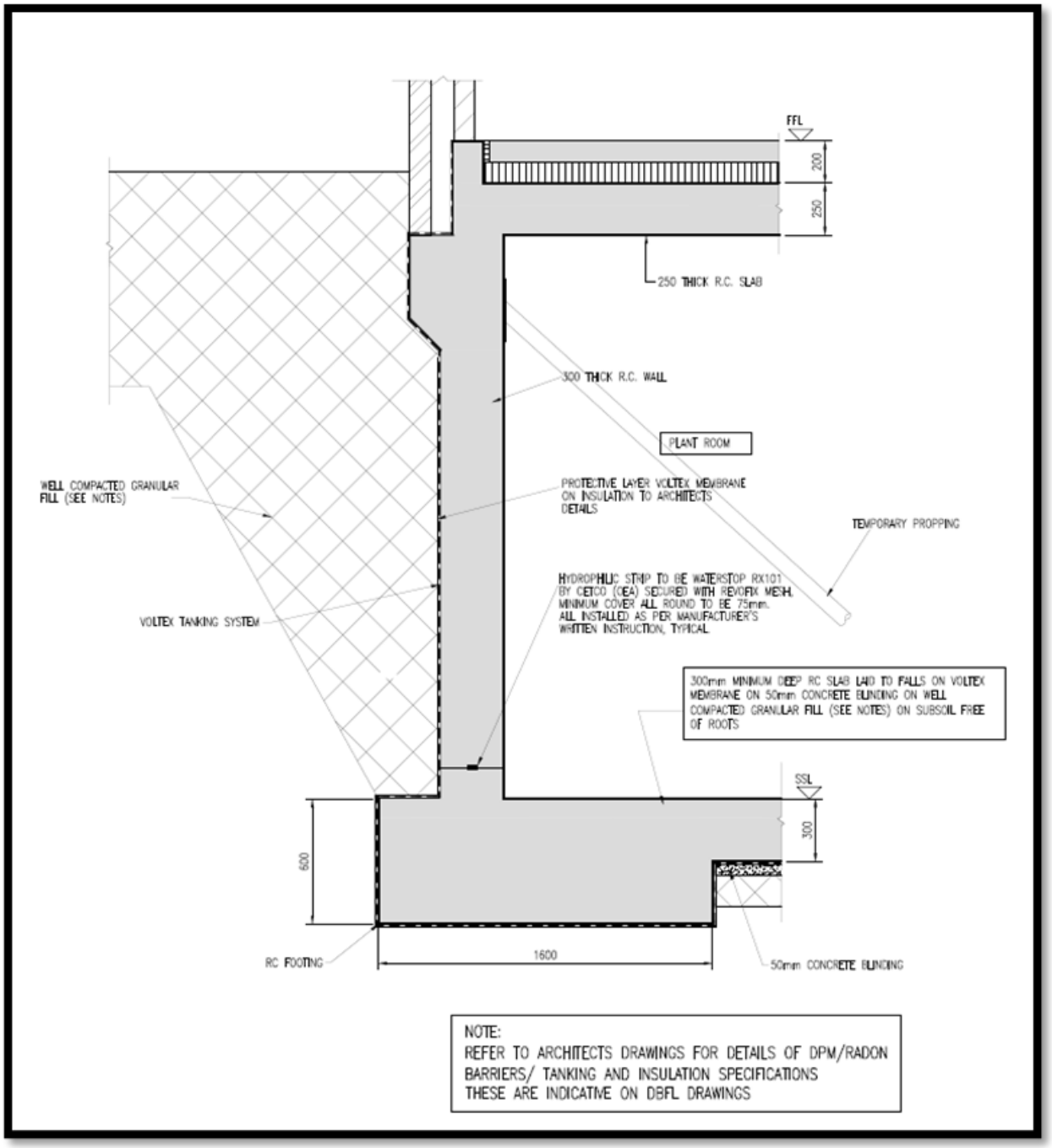

Figure 10-1 Full context sample section through basement external ground boundary in future/permanent condition.

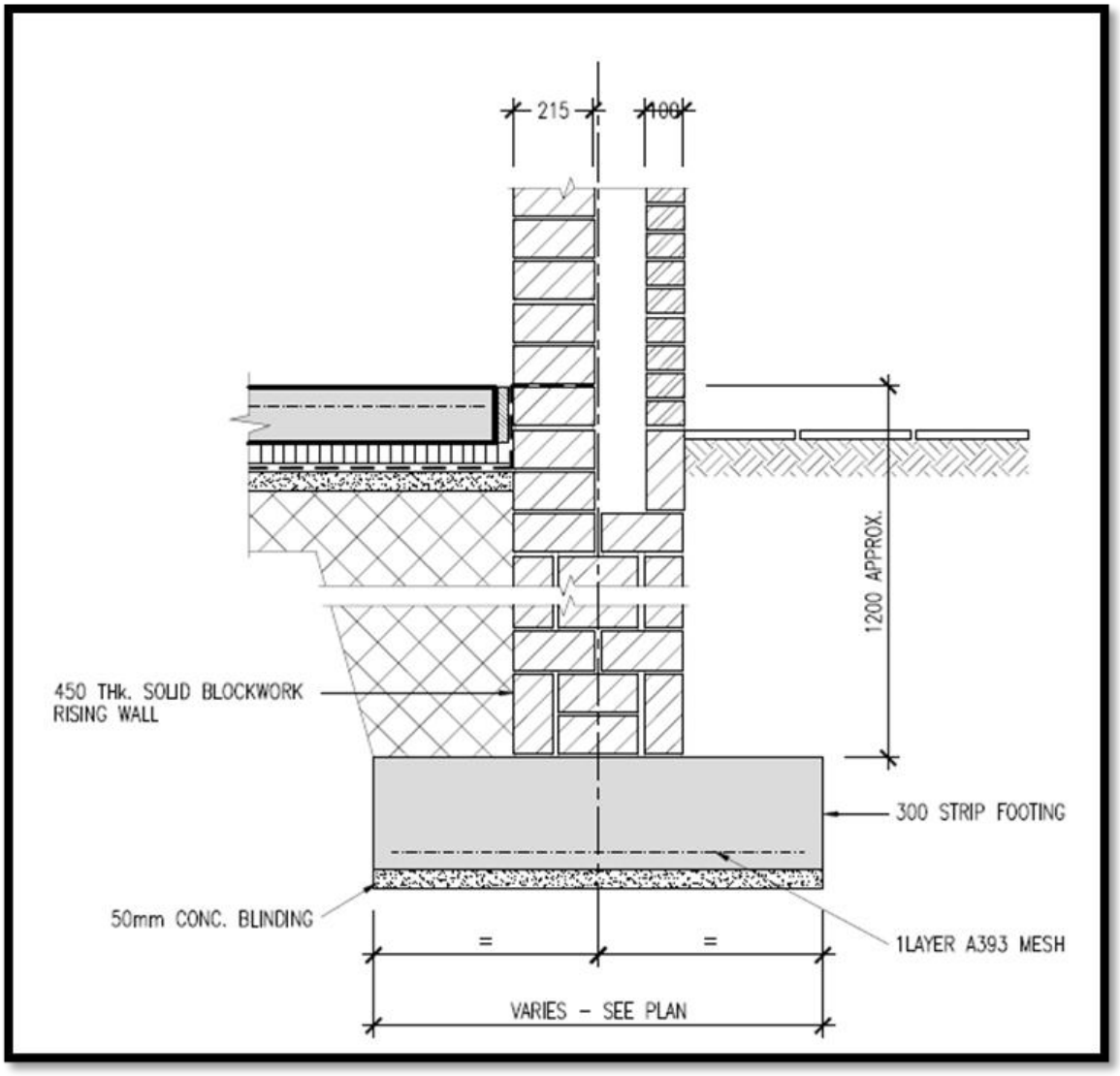

Figure 10-2 Sample section through strip foundation external ground boundary in future/permanent condition.

10.2 Temporary Ground Retention Works

Whilst not required as a permanent foundation solution, the proximity of protected tree roots and structures such as the Chapel Building and Tabor House may necessitate some element of temporary sheet piling on site in discrete areas where the space for slope battering is not available. Steel sheet piles are driven into the ground using a piling hammer to facilitate vertical excavation on one side. The steel sheet piles are extracted and reused once the permanent works are complete and backfilled.

10.3 Other Solutions

Alternative foundation solutions under consideration for this project are noted below:

Augered Bored Piles

- Bored piles are cylindrical shaped shafts formed in the ground by extracting soil and replacing it with concrete and steel reinforcement cages. Augered bored piles are formed using a rotary boring method to produce uncased, partially / fully cased or slurry-supported bored piles. The soil is excavated by a drilling tool mounted at the tip of a telescopic Kelly bar. Alternatively, Continuous Flight Auger (CFA) method may be implemented which is a rotary drilling technique which permits high drilling performance but to a limited diameter and depth. This method employs a continuous flight auger which is a helical screw with hollow stem as the drilling tool that bores into the ground. When the final depth is reached, concrete is pumped from bottom to top through the hollow stem auger as it is extracted back up the shaft. The reinforcement is installed subsequently, assisted by a cage vibrator where required. Whichever way these cast insitu reinforced concrete piles are formed they will transmit large structural loads to lower loadbearing soils such as the very stiff clay encountered during the site investigation works. The length, diameter, material, geometry, and layout of the piles are determined by the detailed design process to suit the intended use and engineering parameters. Pile arisings are brought to the surface during drilling and concreting phase and must be disposed of.
- Because the depth to a suitable bearing stratum beneath Blocks D and Block F is 2.5m below ground level, bulk excavation is required with foundations extending to the required depth. For the foundation design of these blocks, augered piles may be considered as a more appropriate foundation solution than standard deep strip and pads. When considering the use of augered piles the contractor will have to address specific concerns regarding noise, vibration, disposal of pile uprisings and the use of very heavy plant on site requiring the design and installation of piling mats as set out in sections 14 and 15 below. In the case of augered piles the building will be supported on a system of ground beams, pile caps and suspended slabs supported on the piles. The piles themselves will be augered approximately 6-10m into the very stiff clays to gain capacity through a combination of end bearing and friction along the pile shaft.

- In the case of the basement under Block A, Block B and Block C piles are not required to reach the very stiff clay layer as the excavation is at sufficient depth.

Ground Improvement

- Ground improvement techniques have also been considered; however these are only appropriate for low rise lightly loaded structures of which only the Block E courtyard houses are relevant. Currently the site investigation indicates a suitable bearing stratum can be reached by extending standard strip footings into the upper firm clays for the low-rise houses. However, should this situation change during the construction, the following ground improvement technique may also be considered:-
- Lime stabilization is the mixing of quicklime with soft, fine grained soils to improve the shear strength and deformation characteristics of the soil. By a process of digging to a reduced level to reach a suitable bearing stratum and reinstating back to the existing ground levels using lime mixed with the soil which is then backfilled in well compacted layers, providing a suitable bearing strata at a higher level for proposed foundations. This is carried out under controlled conditions under the supervision of a specialist. Where the characteristics of the ground are considered appropriate, cement is used as opposed to lime. Standard pad and strip footings can then be installed in the improved ground at shallower depth than might be necessary using bulk excavation and infilling.

11 Services: Water Supply, Drainage and Utilities

The following measures are to be implemented during the construction phase in order to mitigate risks to the water supply, drainage and utilities on the site and in the vicinity of the site when connections are made on the public roads. The measures to be implemented during the construction of the surface water outfall along Milltown Road, the junction with Sandford Road and Milltown Road and along Eglinton Road is detailed in Section 12.

- The location of all existing underground services are to be confirmed by the contractor prior to commencing any works on site or on the public roads.
- Surface water runoff from areas stripped of topsoil and surface water collected in excavations shall be directed to on-site settlement ponds where measures will be implemented to capture and treat sediment laden runoff prior to discharge of surface water at a controlled rate.
- Foul drainage discharge from the construction compound will be tankered off site to a licensed facility until a connection to the public foul drainage network has been established.
- The construction compound's potable water supply shall be located where it is protected from contamination by any construction activities or materials.
- Relocation of any overhead ESB lines shall be fully coordinated with ESB Networks to ensure interruption to the existing power network is minimized.
- Connections to the existing gas and telecommunications networks shall be coordinated with the relevant utility provider and carried out by approved contractors.

12 Surface Water Outfall Construction

The following measures shall be implemented during the construction of the proposed surface water outfall from the edge of the development site on Milltown Road, through the junction of Milltown Road and Sandford Road and along Eglinton Road. These measures will mitigate risks to utilities, traffic management, water supply, and drainage.

Utility Surveys

- The contractor shall carry out a comprehensive utility survey to confirm the location and condition of all existing underground services, including water mains, foul sewers, surface water pipes, gas, electricity, and telecommunications infrastructure. This shall be completed prior to any excavation works.
- All works involving relocation or protection of existing utilities shall be fully coordinated with the respective providers (e.g., Uisce Eireann, ESB Networks, Gas Networks Ireland, telecom companies). Only approved contractors shall carry out such works.

Construction and Traffic Management Plan

- Given the busy nature of Milltown Road, Sandyford Road and Eglinton Road, phased construction and traffic management plans shall be implemented to ensure safe access for utility providers and emergency services, while minimising disruption to the public.
- The works will be divided into manageable sections to limit the extent of road occupation at any one time.
- Where full road closures are not feasible, single-lane closures with temporary traffic lights or contra-flow systems will be implemented to maintain traffic flow.
- Clearly signed diversion routes will be established for through traffic, with advance warning signs placed at key junctions.
- Safe, well-lit pedestrian routes will be maintained at all times, with temporary crossings provided where necessary. Where cycle lanes are affected, alternative routes or shared paths will be clearly marked and protected.
- Access to residential properties, businesses, and emergency services will be maintained throughout the works, with temporary ramps or steel plates used where necessary. Affected stakeholders will be notified in advance of any temporary access restrictions or changes.

- Signage will be placed at strategic locations to inform road users of upcoming works, delays, and alternative routes. A communications plan will be implemented, including updates via local authority websites, social media, and letter drops to residents and businesses.
- Where possible, works will be scheduled during off-peak hours or overnight to reduce traffic disruption. Noise barriers and low-noise equipment will be used to minimise disturbance, especially in residential areas.
- Traffic management will be coordinated with utility providers to allow access for inspections, diversions, or emergency repairs. Emergency services will be consulted during TMP development to always ensure unimpeded access.
- A dedicated supervisor will be on-site to monitor traffic conditions, adjust signage or barriers as needed, and respond to incidents. The TMP will be reviewed regularly and updated based on feedback from stakeholders and observed traffic patterns.

Management of Surface Water Flows During Construction

- A temporary bypass pumping system will be installed to divert surface water flows around the active construction zone. This will ensure uninterrupted drainage and prevents water accumulation in the work area.
- The construction of the surface water outfall along the public roads will be carried out in phases, allowing sections of the existing sewer to remain operational while others are being replaced. This minimises disruption to the drainage network.
- Temporary surface water pipes or open channels may be laid to convey runoff safely through or around the works. They will be sized appropriately to handle peak flows and prevent surcharging.
- All temporary drainage systems will include sediment traps, silt fences, or settlement tanks to prevent sediment-laden water from entering the public network or nearby watercourses.
- Regular inspection and maintenance of temporary drainage systems will be essential to ensure they remain effective throughout the construction period, especially during heavy rainfall events.

- Dublin City Council and Uisce Eireann will be consulted to approve temporary drainage arrangements and ensure compliance with local standards and environmental regulations.
- Emergency overflow routes will be identified and prepared in case of system failure or extreme weather, to prevent flooding of the road or adjacent properties.

Managing Impact on Foul/Combined Drainage Infrastructure:

- Pre-construction surveys and CCTV inspections will be conducted to locate and assess the foul/combined sewer condition. Physical barriers and controlled excavation methods will be used to prevent damage during construction works.
- No foul water will be permitted to enter surface water systems or excavations. If required, foul discharge from the site will be taken by tankers to a licensed facility in compliance with Uisce Eireann standards.
- Dublin City Council and Uisce Eireann will be consulted to approve temporary drainage arrangements and ensure compliance with local standards and environmental regulations, if required.

Protection of Water Supply Infrastructure

- Any potable water mains in proximity to the works shall be clearly identified and physically protected from mechanical damage and contamination. Temporary water supply diversions shall be coordinated with the relevant utility provider, where necessary.
- Construction activities involving hazardous materials (e.g., fuel, concrete washout, chemicals) shall be kept at a safe distance from potable water infrastructure. Spill kits and containment systems shall be available on-site to respond to any accidental releases. Bunds and impermeable membranes shall be used around storage areas to prevent infiltration into the ground near water mains.
- Regular inspections of protective measures shall be carried out by the Site Supervisor and documented. Any signs of leakage, damage, or contamination shall be reported immediately and addressed in coordination with the utility provider.

13 Biodiversity

Proposed mitigation measures with regard to biodiversity during the construction phase include the following:

- Tree protection measures
- Reduction of noise-related impacts
- Timing of vegetation clearance/building renovation measures
- Small mammal and fauna protection measures
- Invasive Alien Plant Species Management
- Ecological clerk of works for any demolition, tree, and PRF (Potential Roost Features) removal works
- Construction phase lighting regime

These mitigation measures are provided in detail in Section 8.10.2 of the EIAR and are to be incorporated into the detailed Construction Management Plan.

14 Construction Waste Management

The principle of 'Duty of Care' in Waste Management Act 1996 (as amended) states that the waste producer is responsible for waste from the time it is generated through to its legal disposal (including its method of disposal). Waste materials generated by earthworks, demolition and construction activities will be managed according to the Department of the Environment, Heritage and Local Government's 2006 Publication – Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects.

Proposed mitigation measures with regard to construction and demolition waste are detailed in Section 14 of the EIAR and are to be incorporated into the detailed Construction Management Plan.

The following measures are to be implemented during the construction phase in order to reduce the amount of waste produced, manage the wastes generated responsibly and handle waste in such a manner as to minimise the effect on the environment:

- Copies of the final Construction and Demolition Waste Management Plan will be made available to all relevant personnel on site. All site personnel and sub-constructors will be instructed on the objectives of the Construction Waste Management Plan and informed of their responsibilities.
- The nominated Construction and Demolition Waste Manager responsible for implementation of this Construction Waste Management Plan will be identified prior to construction commencement and will arrange for a waste audit of the project once construction has fully commenced on site (and of any facilities to which waste from the project is delivered as required).
- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of non-hazardous waste materials into appropriate categories. All waste material will be stored in skips or other suitable receptacles in a designated area of the site.
- On-site segregation of hazardous waste materials into appropriate categories. Hazardous waste will be separately stored in appropriate lockable containers prior to removal from site by an appropriate waste collection licence holder.
- All wastes segregated at source where possible.
- All waste material will be stored in skips or other suitable receptacles in a designated area of the site.

- Waste bins, containers, skip containers and storage areas will be clearly labelled with waste types which they should contain including photographs as appropriate.
- The site will be maintained to prevent litter and regular litter picking will take place throughout the site.
- Materials will be ordered on a 'just in time' basis to prevent over supply and site congestion (i.e. to minimise materials stored on site).
- Materials will be correctly stored and handled to minimise the generation of damaged materials.
- Left over materials (e.g. timber off-cuts) shall be re-used on site where possible.
- All waste leaving the site will be recycled, recovered or reused where possible.
- All waste leaving the site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

15 Noise and Vibration

During the works the contractor shall comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration and all construction phase mitigation measures identified in Chapter 13, Noise and Vibration of the EIAR.

In particular, the following practices will be implemented during the construction phase:

- Proposed mitigation measures with regard to noise and vibration are detailed in Section 13 of the EIAR and are to be incorporated into the detailed Construction Management Plan.
- Erection of a barrier (e.g. Standard 2.4m high construction hoarding) to remove direct line of sight between noise source and receiver when construction works are being carried out in proximity to noise sensitive receivers.
- Establishing channels of communication between the contractor, local authority and residents.
- Appointing a site representative responsible for matters relating to noise.
- A noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels.
- Selection of plant with low inherent potential for generation of noise.
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints and implementation of noise reduction measures such as acoustic enclosures.
- Avoid unnecessary revving of engines and switch off plant when idle.
- All vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order. In addition, all diesel engine powered plant shall be fitted with effective air intake silencers.
- All ancillary pneumatic percussive tools shall be fitted with mufflers or silences of the type recommended by the manufacturers, and where commercially available, dampened tools and accessories shall be used.

15.1 Noise Limits

Noise Limits to be applied for the duration of construction works are as set out in the National Roads Authority (NRA) Guidelines for Treatment of Noise and Vibration in National Roads Schemes (summarised below in Table 1) and BS 5228-1:2009+A1:2014 (Code of Practice for Noise Control on Construction and Open Sites).

Table 1 - NRA Guidelines for Maximum Recommended Noise Levels at the Façade of Nearby Dwellings during Construction

Days and Times	LAeq	LAFmax
Monday to Friday (07:00 to 19:00hrs)	70	80
Monday to Friday (19:00 to 22:00hrs)	60	65
Saturday (08:00 to 16:30hrs)	65	75
Sundays and Bank Holidays (08:00 to 16:30hrs)	60	65

BS 5228 applies a noise limit of 70 dBA between 07:00 am and 19:00 pm outside the nearest window of the occupied room closest to the site boundary in suburban areas away from main road traffic and industrial noise.

For the duration of construction works, a daytime noise limit (07:00 am to 19:00 pm) of 70 dBA shall apply (in accordance with the requirements of BS 5228 and the NRA guidelines).

15.2 Vibration Limits

Vibration Limits to be applied for the duration of construction works are as set out in BS 5228-2:2009+A1:2014 (Code of Practice for Vibration Control on Construction and Open Sites) and BS 7385: 1993 (Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration). Allowable vibration during the construction phase is summarised below in Table 2.

Table 2 - Maximum Allowable Vibration Criteria during Construction Phase

Allowable vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration, at a frequency of:-		
Less than 15Hz	15 – 40Hz	40Hz and above
12 mm/s	20 mm/s	50 mm/s

16 Air, Dust and Climate Factors

The Principal Contractor or equivalent must monitor the contractors' performance to ensure that the proposed construction phase mitigation measures are implemented, and that construction impacts, and nuisance are minimised. The following mitigation measures are to be implemented during the construction phase as well as implementing all construction phase mitigation measures identified in EIAR Chapter 12, Air Quality and Climate:

- During working hours, dust control methods shall be monitored as appropriate, depending on the prevailing meteorological conditions.
- The name and contact details of a person to contact regarding air quality and dust issues shall be displayed on the site boundary, this notice board should also include head/regional office contact details.
- Community engagement shall be undertaken before works commence on site explaining the nature and duration of the works to local residents and businesses.
- A complaints register shall be kept on site detailing all telephone calls and letters of complaint received in connection with construction activities, together with details of any remedial actions carried out.
- A speed restriction of 20 km/hr shall be applied as an effective control measure for dust for on-site vehicles using unpaved haul roads.
- Access gates to the site shall be located at least 10m from sensitive receptors.
- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic;
- Debris, sediment, grit etc. captured by road sweeping vehicles is to be disposed off-site at a licensed facility
- Public roads outside the site will be inspected on a daily basis for cleanliness and cleaned as necessary
- Vehicles exiting the site shall make use of a wheel wash facility where appropriate prior to entering onto public roads
- Any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions;
- During periods of very high winds (gales), construction activities likely to generate significant dust emissions should be postponed until the gale has subsided.
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly

dusty activities such as rock blasting or earthworks are necessary during dry or windy periods; and

- Before entrance onto public roads, trucks will be adequately inspected to ensure there is no potential for dust emissions and will be cleaned as necessary.
- It is recommended that dust deposition monitoring be put in place to ensure dust mitigation measures are adequately controlling emissions. Dust monitoring should be conducted using the Bergerhoff method in accordance with the requirements of the German Standard VDI 2119.
- In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.

17 Landscape and Visual Impact

A Landscape and Visual Impact Assessment has been prepared in order to consider the effect of the proposed development on the receiving landscape and visual environment. Proposed construction phase mitigation measures are summarised below:

- Site fencing/hoarding shall be erected to restrict views of the construction activity e.g. standard 2.4m high.
- Establishment of tree protection measures (no-dig construction zones, tree protection fencing and existing hedgerow retention).
- Appointment of an Arborist to oversee all works relevant to trees.
- Monitoring of tree protection measures, e.g. maintenance of protective fencing to the satisfaction of the Arborist.
- Hand dig excavation under supervision of an arborist is required should excavation be necessary in a tree protection area.
- Tree protection fences are to be constructed in accordance with BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".
- A 'Construction Exclusion Zone' notice shall be placed on tree protection fencing at regular intervals.
- Tree Protection Zones are not to be used for car parking, storage of plant, equipment or materials.
- A post construction re-assessment of retained trees shall be carried out.

Regarding visual impact, mitigation measures identified in the EIAR Chapter 9 are to be implemented, including but not limited to erection of site hoarding to restrict views of the construction activity.

18 Site Compound Facilities and Parking

The exact location of the construction compound is to be confirmed in advance of commencement of the works (and agreed with Dublin City Council). The site compound will be located internally within the site and may include several mobilisations/de-mobilisations to facilitate the construction of different elements of the project.

- The construction compound will include adequate welfare facilities such as washrooms, drying rooms, canteen and first aid room as well as foul drainage and potable water supply.
- Foul drainage discharge from the construction compound will be tankered off site to a licensed facility until a connection to the public foul drainage network has been established.
- The construction compound's potable water supply shall be protected from contamination by any construction activities or materials.
- The construction compound will be enclosed by a security fence.
- Access to the compound will be security controlled, and all site visitors will be required to sign in on arrival and sign out on departure.
- A permeable hardstand area will be provided for staff car parking.
- A separate permeable hardstand area will be provided for construction machinery and plant.
- The construction compound will include a designated construction material recycling area
- A series of way finding signage will be provided to direct staff, visitors and deliveries as required.
- All construction materials, debris, temporary hardstands etc. in the vicinity of the site compound will be removed off-site on completion of the works.
- Limited onsite parking will be provided during the construction phase as a large proportion of construction workers will arrive via public transport or shared transport (also refer to Section 7, Traffic and Transportation Plan).

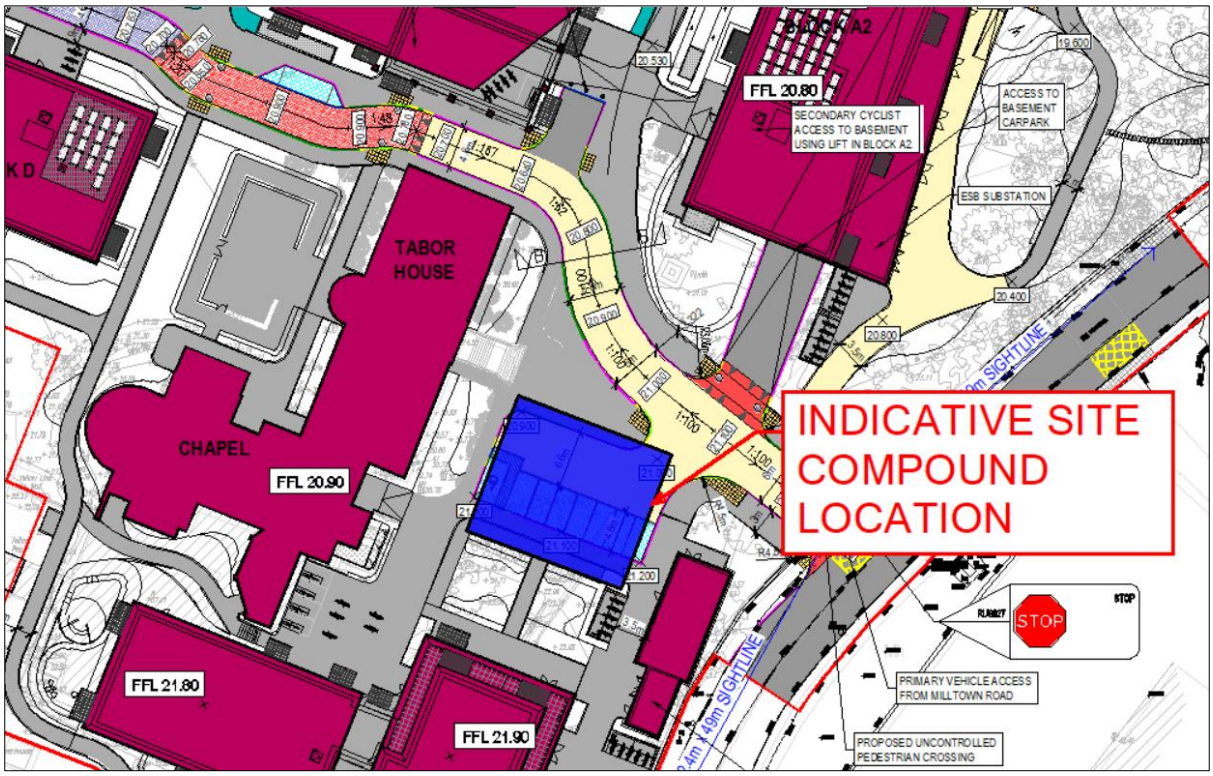

Figure 18-1 Indicative Compound Location

19 Lighting

Light will be switched off during non-working hours where possible and directional lighting will be used during the construction phase. This will minimise spill to any other area forming part of the bats commute.

The specification and colour temperature of light treatments is chosen based on their tolerability by bats. LED luminaires are ideal due to their sharp cut-off, lower intensity, and dimming capability. A warm white spectrum (2700 K – 3000 K) will be used to reduce the blue light component.

20 Material Assets: Site Services

Existing Underground Services

- The location of all existing underground services are to be confirmed by the contractor prior to commencing any works on site.

Existing Overhead Services

- Existing LV overhead lines (public lighting) are located in the vicinity of the proposed site access off Milltown Road and along the site's eastern boundary.
- For works in the vicinity of existing overhead electrical lines refer to ESB's Code of Practice for Avoiding Danger from Overhead Electrical Lines which provides guidance to assist personnel working near overhead electricity lines to manage risk and avoid dangers from electric shock and electrocution.

ENVIRONMENT
ISO 14001:2015
NSAI Certified

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& SAFETY
ISO 45001:2018
NSAI Certified

QUALITY
I.S. EN ISO 9001:2015
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