Comhairle Chontae Dhún Laoghaire–Ráth an Dúin

Dún Laoghaire-Rathdown County Council

Taking In Charge Development Standards Guidance Document

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Table of Contents

1.0 Introduction

This document outlines the current development standards accepted by Dun Laoghaire-Rathdown County Council. Developers and designers who follow these guidelines within their developments will ensure both an efficient and timely taking in charge process, where their development is conditioned to be taken in charge. Privately managed developments such as Apartment and duplex developments must also meet these guidelines or alternatively a higher standard in order to progress a return of bond. When residential developments are taken in charge or alternatively completed in line with these guidelines the relevant bonds are released as per the granted planning permission. It is the intention of the Council to process the taken in charge of residential developments or return of bond as expeditiously as possible upon receipt of a valid request to do so.

This document replaces the Councils previous development standards dated April 2016. The main focus of this document is to take into account recent changes such as the Dún Laoghaire-Rathdown Development Plan, TII Standards, NTA Standards, Health and Safety legislation, Irish Water procedures among other relevant publications. Various stakeholders and departments within Dún Laoghaire-Rathdown County Council were involved in the preparation of this document.

This document should be read in conjunction with the Councils current "Taking in Charge Policy adopted by the members in May 2022" and will be updated from time to time as required in accordance with best practice and to align with other approved policies or development standards accepted of the Council. Therefore, designers and developers should refer to the current version of this document prior to construction works and during the construction process, which will remain available as a live document to view on the County Council's website at:

http://www.dlrcoco.ie/aboutus/councildepartments/planning/findit/buildingcontrol/

"Note: The design and construction of buildings is regulated under the Building Control Acts 1990 to 2014, in order to ensure the safety of people within the built environment. Building Regulations generally apply to the buildings. While this document is focused on site development works such as the external common areas of developments."

2.0 Water Services Section Requirements

2.1 Introduction:

Dun Laoghaire-Rathdown Water Services' Section is responsible for all Surface Water infrastructure which is ratified through the Council's Taking in Charge process.

2.2 Prior To Commencement of Development:

Note that consultation with the County Council's Drainage Planning section is advised through the pre-planning process in order to agree layouts and measures being put forward.

2.3 Compliance with Planning Permission

It's the applicant's responsibility to ensure they have adhered to the site specific Planning Conditions to the satisfaction of the Planning Authority for Drainage. For An Bord Pleanála permissions the requirements of the Planning Authority for Drainage are deemed to be the conditions/proposed conditions set out in the Chief Executive's report on the application.

Where a condition of a planning permission requires a developer to submit or agree details of the drainage systems with the Planning Authority, compliance should be discussed and agreed with the Water Services Section before a formal compliance submission is made to the Planning Authority.

In advance of commencement of works, any proposed changes to the approved drainage layout should be discussed and agreed with the Water Services Section before a formal compliance submission to the Planning Authority.

The applicant is responsible for ensuring the constructability of their outlet proposal, especially in terms of legality/ownership and where conflict with other utilities may arise.

2.4 Standards/ Guidance Documents

Prior to detailed design, the Developer should familiarise themselves with Policies and Construction standards available from the Local Authority and referenced bodies, *as applicable on the planning decision date.*

These include, but are not restricted to;

- **GDSDS - Regional Drainage Study**
- **Greater Dublin Regional Code of Practice for Drainage Works**
- **Guidelines for Road Drainage Second Edition – March 2022**
- **DLRCC's Stormwater Management Policy (Appendix 7.1 DLRCC Development Plan 2022-2028)**
- **DLRCC's Surface Water Drainage Guidance Notes**
- **CIRIA SuDS manual C753**
- **CIRIA C768 Guidance on the Construction of SuDS**
- **Appendix 16 (Strategic Flood Risk Assessment) of the DLRCC Development Plan 2022-2028**
- **DOEHLG – Recommendations for Site Development Work For Housing Areas**
- **Cherrywood SDZ**
- **Local Area Plans (Glenamuck, Kilternan, Ballyogan…. etc)**

Particular attention should be given to the Stormwater Management Policy document and the current County Development Plan in which DLRCC's approach to matters such as Flood Risk Management, Pollution, Climate Change, SuDS, Green Roofs, Pumping, Culverting, etc, are clearly set out.

Applicants must submit a post-construction maintenance specification and schedule for the proposed drainage system, including SuDS measures and attenuation system, to the Council for approval. This maintenance specification and schedule must be included in the Safety File for the Taking in Charge process.

The Surface Water design shall be such that a minimum design life is achieved of 60 years for pipework and structures, 25 years for mechanical and electrical plant and 15 years for information, communication and telemetry (ICT) plant.

The suitability of products, components or fittings used in the construction of Surface Water systems can be demonstrated by appropriate use of a product bearing CE marking in accordance with the EU Construction Products Regulations (No. 305/2011 –CPR).

Surface Water services should not be located under any proposed building or structure. No building should be constructed over the line of a Surface Water Sewer, in accordance with the Water Services Act.

Site Layout:

Drainage infrastructure must be located wholly within/under lands that will be put forward as part of the Taking in Charge process. Should layout changes be required post grant of permission where any part of the proposed drainage infrastructure will no longer be located within/under lands for Taking in Charge, the Developer must engage with the Local Authority and/or Irish Water, as required, and provide written confirmation that the Local Authority and/or Irish Water is satisfied that their respective wayleave requirements have been met in advance of undertaking any proposed changes.

2.5 Construction Stage

NB:

- **Greater Dublin Regional Code of Practice for Drainage Works**
- **DLRCC's Surface Water Drainage Guidance Notes**
- **CIRIA C768 Guidance on the Construction of SuDS**
- **Appendix 16 (Strategic Flood Risk Assessment) of the Dun Laoghaire-Rathdown County Development Plan 2022-2028**

Before excavation of groundworks, the Developer should engage with the Water Services' section to arrange a site meeting. This will enable the Developer to familiarize themselves with the requirements of the Local Authority, in order to achieve connection and the potential Taking in Charge.

At this meeting, ***the Developer must provide a set of Construction drawings and should also submit these to the Building Control Management System (BCMS) system.***

Water Services will furnish a copy of DLRCC's 'Surface Water Drainage Guidance Notes' which outline the necessary materials, layouts and standards required.

Note that alterations to layout, attenuation measures or materials during the construction process may require Compliance, so the Developer is advised that written agreement with the Local Authority is obtained prior to implementing these changes.

For all underground attenuation measures, it will be the responsibility of the Developer to furnish video or detailed photographic documentation of the installation process. For above ground measures, such as Ponds, Detention basins and large Swales, the Developer must provide certification from a Chartered, Civil Engineer or Surveyor to verify that the required storage volumes for these measures have been achieved.

For access and maintenance purposes, no ducts, pipelines and/or cables shall be laid within 1m of the outside of a Surface Water sewer, or within 1.5m of said pipes deeper than 2.0m. In no circumstances shall a utility provider install services through a manhole or sewer. Any utility crossing a SW sewer is to have a minimum clearance distance of 300mm from the outside of the sewer.

Testing of Sewers

The developer shall carry out testing of the Surface Water sewers during construction and certification of strength, pressure and air tests, on both gravity and pressure systems are required from a Chartered Civil Engineer. The testing may be monitored by County Council staff, either from Building Control or Water Services. The developer shall make good any defective section of sewer as directed by the County Council.

NOTE: Standards of Construction for Development Works in Private Areas

The standards of construction required for development works in private areas are the same as those for areas which are to be taken in charge. These standards should take into consideration potential future maintenance costs which will be the responsibility of the management company.

2.6 Connection Stage

NB: DLRCC's Surface Water Drainage Guidance Notes and Surface Water Connection Application Form

Note that under Section 61 (1) (a) of the Water Services Act 2007, it is illegal for any individual or company to make a direct connection to the Drainage system without prior approval in writing from the Local Authority.

Prior to Surface Water connection to the public system, the applicant or his agent, will certify that the attenuation system, including the flow control device, has been installed according to the agreed planning application layout and conditions, and set to the maximum permitted discharge limit. This shall include detailed photo or video documentation of the installation process, and certification from who installed the system. The Penstock must also be installed at this stage. The Surface Water system should be cleaned and CCTV footage of the cleaned system together with an appropriate Surface Water layout drawing should be submitted to Water Services. This is to prevent construction material from entering the public system post connection.

The applicant shall then facilitate a site inspection from Water Services and will proceed to connection stage if the inspection was deemed satisfactory.

The applicant applies for a Surface Water connection by downloading the form from the DLRCC website.

The applicant must also contact the Council's Transportation section (Roadwork's Control) in order to obtain the necessary licencing for carrying out road works in a public area. These are facilitated through the Road Management Office (RMO) system

Connections are facilitated through DLRCC's Water Services' Operations section. Upon invoice payment and satisfactory completion of above stipulations, a site visit from the local Drainage Inspector will instigate connection process. The Operation's crew will perform the connection. In some instances, the Operations section may allow the developer to make the connection under the supervision of the Inspector.

2.7 Taking in Charge Stage

Application Requirement for Taking in Charge

The Water Services section will be responsible for all Surface Water infrastructure taken into the Council's charge and the transfer of Foul and Water Supply assets to Irish Water, as set out by DECLG Circular PL5/2014. This may exclude 'Developer Provided Water Services Infrastructure', such as stand-alone wells, Water treatment plants, and Wastewater treatment plants that are not connected directly to the public Water or Wastewater infrastructure.

For Surface Water Infrastructure

The Developer is required to provide the following documentation in order to support the assessment of the constructed Surface Water Infrastructure and Sustainable Drainage Systems (SUDS).

- Detailed "as-constructed" drawings shall be provided in hard copy and digital format. Location and layout plans, longitudinal sections and details should show the Surface Water network, including all attenuation measures, pipe diameters, grades and materials, gully locations and associated connections, direction of flows, manhole locations and associated levels. Plan scales should be in common use, i.e. 1:500, 1:1000, or 1:2500 as appropriate.
- Drawings are to be submitted in AutoCAD compatible (.dwg/.dxf), or shapefile (.shp) format with the Surface Water infrastructure shown on a separate layer. Layout plans shall be prepared with standard legends and symbols (as per section 5 GDSDS). The drawings are to be geo-coordinated with manhole coordinates to **Ordnance Survey Irish National Grid, ING** (accuracy +/- 100mm) and all levels related to OSI Malin Head Datum (accuracy +/- 30mm). In relation to heighting, it should clearly be stated whether conventional levelling or GPS methodology was used.
- A drawing clearly showing the areas to be offered by the Developer to the County Council for Taking in Charge. This should outline the roads, footpaths and public open spaces being offered, together with any wayleave areas
- Above ground SuDS measures shall also be highlighted with cross sectional levels shown every 20m to an accuracy of +/- 50mm.
- All SuDS, Attenuation and Pollution prevention measures, such as Flow Control devices, Penstocks, Petrol Interceptors….etc , should be accompanied with their serial numbers (where applicable), specification, relevant Irish, EU or UK certifications and maintenance manuals/schedules.
- Certified results from the Chartered Engineer of strength, pressure and air tests carried out on gravity and pressure drainage systems.
- Confirmation by a Chartered Engineer that the Works have been installed in accordance with the design submitted and agreed with the Planning Authority.
- A visual inspection of manholes must be carried out by the Chartered Engineer and report supplied.

- Certification from a Chartered Engineer that suitable manhole covers have been installed according to the load bearing capacities of their locations
- A full CCTV and manhole survey is to be carried out prior to the Taking in Charge process, by a registered surveying contractor procured by the Applicant/Contractor/Developer.
- CCTV and manhole survey information should be submitted in accordance with current Water Research Centre (WRc) specifications
- Sewer Condition Classification Format for each survey shall be undertaken in accordance with the WRc Manual for Sewer Condition Classification (MSCC) 5th Edition and the Sewer Condition Scoring Scheme will be in accordance with the Sewerage Risk Management (SRM) Manual 5 produced by WRc.
- All personnel involved in the classification shall have completed relevant training and achieved successful accreditation. Evidence of appropriate training and qualifications shall be provided upon request.
- Calibration of Equipment – all plant and equipment used during surveys shall be maintained and calibrated in accordance with the manufacturer's requirements. Calibration certificates shall be made available when requested
- CCTV Recording – recordings shall show a continuous record of data displayed at suitable speeds in order to ensure all details are captured by the DVD recording.
- Digital colour photographs shall be taken at the following points in all surveys: Service connections, protruding pipework, defective connections and junctions, debris, cracks, fractures, broken pipes, deformation, open joints, displaced joints and at the point where the survey is required to be abandoned. These photographs shall be of sufficient quality to enable clear interpretation of the defect on a screen
- The final reports are to be submitted in hard copy format accompanied by the footage on CD or DVD format together with a drawing, identifying manhole referencing, that is consistent with the submitted 'As Constructed' drawings
- Report is to be certified by the Applicant's Consultant Engineer, stating that a quality control regime has been implemented, with the result that no defects exist in either the pipelines or manholes
- It is the responsibility of the Contractor/Developer to ensure that all appropriate licences and permits in relation to surface water management and discharges are in place, including EPA discharge licences where relevant
- A Safety File is to be provided, in accordance with current Safety, Health and Welfare at work (Construction) Regulations.
- **Where necessary**, the applicant shall submit to the Planning Authority for its written agreement a Stage 3 Completion Stage Stormwater Audit to ensure the SuDS measures were installed and working as designed, no misconnections have taken place and that damage has not occurred to any of the stormwater drainage infrastructure during construction. A report shall, be issued to the Planning Authority and any necessary recommendations carried out, unless agreed otherwise with the Planning Authority. This stage may require the installation of flow monitors and/or dye testing; the extent of monitoring will depend on the findings of the audit.
- Any Wayleave Agreements and related drawings required to enable the County Council to maintain public services which are to be taken in charge and which are laid in private areas. The Developer shall indicate restrictions, if any,

imposed on the use or development of land within a Wayleave that have been or are to be imposed on the owners or occupiers of land within such Wayleave. All such wayleaves must be incorporated in the Title Deeds of the private properties concerned. Written confirmation that this has been complied with shall be furnished by the developer to the Building Control Section (See section below)

- The Developer or their Chartered Engineer must certify that there is no Foul waste water discharging into the Surface Water system. A Surface Water sample may be requested by the Local Authority's Water Pollution Control section demonstrating this.

Surface Water Pumping Stations

In exceptional circumstances, where the pumping of Surface Water has been considered and approved by Water Services at Planning Stage and the proposal has met all the criteria set out in the Stormwater Management Policy, the following information must be furnished for Taking in Charge stage.

- As-constructed drawings and specifications to include type and size of the three pumps arrangement, wiring diagrams for control panel and switch gear, telemetry system and lifting equipment, including certification of same
- Detailed storage drawings
- Reports associated with supervision and commissioning of installation, including Warranty documentation
- Provide operation and maintenance manuals including performance curves and power ratings
- MPRN and Account holder details from electricity supplier
- Actual or estimated annual consumption from electricity bill
- Drawing showing provision for pump failure and associated flood routing

Inspections and remedial works

During the construction period, the County Council will carry out inspections on residential developments to be taken in charge. On completion, the developer must satisfy the County Council that the development has been carried out and completed in accordance with the planning permission and any conditions to which the permission is subject. Also, that the Surface Water development works have been designed and constructed in accordance with the guidance in this document and are performing satisfactorily.

On receipt of an application form and accompanying documentation, which should include photographic evidence, the County Council will carry out additional inspections on the Surface Water within the development and may require further tests to be carried out. Following this, if necessary, a list of any outstanding and remedial works necessary to bring the Surface Water works up to the required standards will be sent to the developer.

Then, on receipt of written and photographic evidence that these remedial works have been completed, the Council will re-inspect the development to ensure that they meet the required standards.

Enforcement

To avoid the necessity to make a claim on the bond/security, the County Council may pursue early enforcement action under the Planning and Development Acts. Should such a situation arise, the County Council will notify the developer of the Planning conditions which have not been complied with, together with details of the issues to be addressed, and a time period within which they are to be completed. Further non-compliance will result in legal action being taken by the County Council.

In relation to Surface Water, should a developer fail to construct, complete, make good and maintain the Surface Water works in a satisfactory manner, the County Council reserves right to carry out any work, which in the opinion of the County Council is necessary, and to recover the cost from either the developer or from the bond/security.

2.8 Wayleaves

Note: If at all possible, the need to locate or route the main public services such as Surface Water drainage systems through private lands or areas not being put forward for Taking in Charge, should be avoided.

Wayleaves for Surface Water services located or routed through private areas or lands not to be Taken in Charge are required by the County Council to facilitate access by the County Council for future maintenance of these public services.

Drawings showing proposed Wayleaves in an agreed format, together with completed Wayleave Agreement Forms, should be submitted for approval to the Building Control Section prior to construction commencing on site. **Refer to Appendix B** for details of acceptable Wayleave Agreement Forms. All such Wayleaves must be incorporated in the Title Deeds of the private properties concerned, in favour of the Council. Written confirmation that this has been complied with, shall be furnished by the developer to the Building Control Section. **The development will not be Taken in Charge and the Bond monies will not be released until all Wayleaves have been registered and submitted.**

In general, Wayleaves for pipelines shall have a minimum width of **6** metres, and the drawings should show the location, type and size of the services to be Taken in Charge within the private areas.

3.0: Water Services Wastewater and Water Supply Requirements

3.1 Introduction:

Where Developers did not enter into a 'Self-Lay Agreement' with Irish Water (where commencement occurred before late 2017 or early 2018), submissions in relation to Foul drainage and Water Supply are required through the following process.

Circular PL 5/2014 issued by this Department clarified the agreement of the Memorandum of Understanding (MoU) between Irish Water and the Planning Authorities. This clarified Planning Authority procedures for Taking in Charge residential developments with Water Services' infrastructure (public watermains and foul water sewers within the meaning of the Water Services Act 2007) connected to the Irish Water network followed by transfer of the Water Services infrastructure on the development by Order to Irish Water.

The Council will comply to the terms of the Memorandum of Understanding as agreed with the CCMA. This relates specifically to older developments where Water Service infrastructure has not been vested to Irish Water. They will initially be Taken into Charge by the Planning Authority pursuant to Section 180 of the Planning and Development Act 2000 as amended and the Water Services Legislation provides that they will subsequently be transferred to Irish Water.

This process is completed utilizing the MOU Schedules 1 & 2. Developers should make themselves fully aware of the requirements outlined in these documents which include As-constructed drawings, CCTV surveys, Wayleaves and third-party certification.
These older developments will be categorized as A: Satisfactorily completed or B: Not satisfactorily completed.

(Refer to Appendix C for Schedules 1 & 2)

NB:

The assets may exclude 'Developer Provided Water Services Infrastructure', such as stand-alone Wells, Water treatment plants, Wastewater treatment plants, that are not connected directly to the public Water or Wastewater infrastructure.

Assets will only include those that were to be put forward for Taking in Charge at Planning stage.

All Water supply and Drainage works would have been designed and constructed to the requirements of the relevant Code of Practice, Standard Details, and any additional requirements of the Local Authority at that time. Only Water and Drainage infrastructure which has been constructed to the required standard shall be recommended to Irish Water for handover.

Return of Bond:

In relation to Return of Bond applications for developments that have not entered into an agreement with Irish Water or no evidence of a Self-Lay Agreement can be produced for the Water distribution systems and Foul sewer systems. a Conformance Certificate from Irish Water for both these systems relating to the development must be produced by the developer, to indicate that the Water Services have been completed to the satisfaction of Irish Water.

3.2 Application requirements for Taking in Charge Water and Wastewater Assets

Water Infrastructure:

- All Watermains, Fire Hydrants, Sluice, Scour, Air and Pressure Reduction/Sustaining Valves, Bulk Meters and Water Service Control units are to be located in public footpath or roadway, insofar as possible. A separate stopcock or shut-off valve shall be fitted within each house. Fire hydrants should not be located in parking areas.
- New Watermains and connections are only permitted after the Local Authority are satisfied that they are laid and tested in accordance with specification, and that pressure (1.5 times working pressure), Chlorination and Bacteriological tests have been carried out and these are certified by a Chartered Engineer. The Developer shall furnish a certificate that the build has been carried out in accordance with the latest revision of these requirements.
- The water service connection to each property e.g. house, shall be taken in charge to within 225mm outside of the boundary of private property, and a stopcock / water service control unit should be located just outside this point.
- Detailed "as-constructed" drawings shall be provided in hard copy and digital copy. Location and layout plans, longitudinal sections and details should show the works, water supply system and development in full. Plan scales should be in common use, i.e. 1:500, 1:1000, or 1:2500 as appropriate. Drawings are to be submitted in AutoCAD compatible (.dwg/dxf) format, with the water infrastructure shown on a separate layer.
- Locations of all Watermains, Fire Hydrants, Sluice, Scour, Air and Pressure Reduction/Sustaining Valves, Bulk Meters and Water Service Control units are to be clearly indicated on the drawings and the route, diameter, material and class of water pipelines also shown. It should be clear as to what each sluice valve isolates.
- All Drawings to be geo-coordinated & scaled to **the Ordnance Survey Irish National Grid** and all levels related to fixed Ordnance Survey Datum (Malin Head). Locations of Meters, Valves, Hydrants and associated ancillaries are to be coordinated to an accuracy of +/- 100mm
- Indicate details of Bulk Meter type (electronic or mechanical) and bypass arrangements if applicable
- Certification from a qualified Engineer that all Water services have required depths of cover
- Layout plans shall be prepared with standard legends and symbols as required by Irish Water's Drawing Standard
- Confirmation by a Consultant Engineer of compliance with the Building Regulations and the Building Control (Amendment) Regulations, in particular to ensure water plumbing systems compliance and that there's no risk of backflow contamination
- The depth of the Sluice Valve cap shall be within 350mm of the finished ground level and no valve spindle shall be greater than 600mm below ground level. All sluice valves shall be ANTI-CLOCKWISE CLOSING.
- The depth of the Hydrant valve and fitting shall be constructed within 350mm of the finished ground level.
- Indicator plates shall clearly identify Hydrant, Air valve, Sluice Valve, washout Hydrant, Meter, Pressure Reducing/Sustaining Valve and Scour Valve locations. The plates shall be mounted on marker posts at the back of footpaths or on the boundary wall of the public thoroughfare nearest to the hydrant or valve. Indicator plates and

baseboard plates shall comply with BS 3251, with hydrant plates of fixed black letter H on a canary yellow background (colour reference 309 to BS 381C).

- Indicator plates for air valves, sluice valves, scour valves, washout hydrant, pressure reducing/sustaining valves, meters and bulk meters shall also comply with BS 3251 with fixed black letters (AV, SV, ScV, WO, PRV/PSV, Me and BM respectively) on a white background. Marker plates shall be metal and shall be fixed with stainless steel non-retractable screws.
- Marker posts shall be of concrete construction, complying with IS EN 206, to conform to IS 162. They shall be set 450mm deep in a 0.06 m3 support base of C25/30 concrete, 20 mm aggregate size.
- A Safety File is to be provided, in accordance with current Health and Welfare at Work (Construction) Regulations.
- Any Wayleave Agreements and related drawings required to enable Irish Water to maintain the new Water network and that access to Wayleaves for inspection and maintenance has been provided for, and that such access shall be kept free of any new development. The Developer shall indicate restrictions, if any, imposed on the use or development of land within a Wayleave that have been or are to be imposed on the owners or occupiers of land within such Wayleaves.

Water Pumping Stations

- Construction details for Pumping Station
- As-constructed drawings and specifications to include type and size of the pumping arrangement, wiring diagrams for control panel and switch gear, telemetry system and lifting equipment, including certification of same.
- Reports associated with supervision and commissioning of installation, including Warranty documentation.
- Provide operation and maintenance manuals including performance curves and power ratings.
- MPRN and Account holder details from electricity supplier
- Actual or estimated annual consumption from electricity bill

Foul Drainage Infrastructure

The Developer is required to provide the following documentation in order to support the assessment of the constructed Foul Water Infrastructure:

- Detailed "as-constructed" drawings shall be provided in hard copy and digital format. Location and layout plans, longitudinal sections and details should show the Foul Water network, including all pipe diameters, grades and materials, gully locations and associated connections, direction of flows, manhole locations and associated levels. Plan scales should be in common use, i.e. 1:500, 1:1000, or 1:2500 as appropriate.
- Drawings are to be submitted in AutoCAD compatible (.dwg/.dxf), or shapefile (.shp) format with the Foul Water infrastructure shown on a separate layer. Layout plans shall be prepared with standard legends and symbols. The drawings are to be geo-coordinated with manhole coordinates to **the Ordnance Survey Irish National Grid, ING** (accuracy +/- 100mm) and all levels related to OSI Malin Head Datum (accuracy +/- 30mm). In relation to heighting, it

should clearly be stated whether conventional levelling or GPS methodology was used.

- Certified results from the Chartered Engineer of strength, pressure and air tests carried out on gravity and pressure drainage systems.
- Confirmation by a Chartered Engineer that the Works have been installed in accordance with the design submitted and agreed with the Planning Authority.
- A visual inspection of manholes must be carried out by the Chartered Engineer and report supplied.
- Certification from a Chartered Engineer that suitable manhole covers have been installed according to the load bearing capacities of their locations
- Confirmation by a Chartered Engineer that the Works has been installed in accordance with the design submitted and agreed with the Planning authority. Visual inspection completion results of manholes must be carried by the Chartered Engineer.
- A full CCTV and manhole survey is to be carried out prior to the Taking in Charge process, by a registered Surveying contractor procured by the Applicant/Contractor/Developer.
- The drawings should indicate the location and route of all connections from sewers to individual properties
- Certification from a Chartered Engineer that suitable manhole covers have been installed according to the load bearing capacities of their locations
- CCTV and manhole survey information should be submitted in accordance with current Water Research Centre (WRc) specifications
- Sewer Condition Classification Format for each survey shall be undertaken in accordance with the WRc Manual for Sewer Condition Classification (MSCC) 5th Edition and the Sewer Condition Scoring Scheme will be in accordance with the Sewerage Risk Management (SRM) Manual 5 produced by WRc.
- All personnel involved in the classification shall have completed relevant training and achieved successful accreditation. Evidence of appropriate training and qualifications shall be provided upon request.
- Calibration of Equipment – all plant and equipment used during surveys shall be maintained and calibrated in accordance with the manufacturer's requirements. Calibration certificates shall be made available when requested
- CCTV Recording – recordings shall show a continuous record of data displayed at suitable speeds in order to ensure all details are captured by the DVD recording.
- Digital colour photographs shall be taken at the following points in all surveys: Service connections, protruding pipework, defective connections and junctions, debris, cracks, fractures, broken pipes, deformation, open joints, displaced joints and at the point where the survey is required to be abandoned. These photographs shall be of sufficient quality to enable clear interpretation of the defect on a screen
- The final reports are to be submitted in hard copy format accompanied by the footage on CD or DVD format together with a drawing, identifying manhole referencing, that is consistent with the submitted 'As Constructed' drawings
- Report is to be certified by the Applicant's Consultant Engineer, stating that a quality control regime has been implemented with the result that no defects exist in either the pipelines or manholes

- A Safety File is to be provided, in accordance with current Safety, Health and Welfare at Work (Construction) Regulations.
- Any Wayleave Agreements and related drawings required to enable Irish Water to maintain the new Foul network and that access to Wayleaves for inspection and maintenance has been provided for, and that such access shall be kept free of any development. The Developer shall indicate restrictions, if any, imposed on the use or development of land within a Wayleave that have been or are to be imposed on the owners or occupiers of land within such Wayleave. All such Wayleaves must be incorporated in the Title Deeds of the private properties concerned. Written confirmation that this has been complied with shall be furnished by the Developer to the Building Control Section

Foul Water Pumping Stations

- As-constructed drawings and specifications to include type and size of the three pumps arrangement, wiring diagrams for control panel and switch gear, telemetry system and lifting equipment, including certification of same
- Detailed storage drawings
- Reports associated with supervision and commissioning of installation, including Warranty documentation
- Provide operation and maintenance manuals including performance curves and power ratings
- MPRN and Account holder details from electricity supplier
- Actual or estimated annual consumption from electricity bill
- Where necessary, the pump failure arrangement shall be clearly detailed in an accompanying report, showing clearly, the proximity to local Watercourses and Surface Water systems

4.0: Transportation Planning Guidelines

4.1 General Requirements:

All developments must be completed in accordance with the granted planning permission and planning conditions. This document provides a guidance on the standards required for all proposed developments within the administration boundary of the Council. All developments whether to be taken in charge or those that will remain private are required to meet the same criteria as outlined within this document as a minimum standard. Developments can be completed to a higher standard than any standards specified within this document.

It is of benefit to applicants, and the Council, for consultation to be had regarding proposed development prior to their lodgement as planning applications. Under the provisions of Section 247 of the Planning Act, 2000, as amended, a prospective applicant shall have consulted with the Planning Authority in respect of the development that comprises:

- Residential development of more than 10 housing units.
- Non-residential development of more than 1,000 square metres gross floor space.
- Other development as may be prescribed in legislation.

Details with regard to applying for a pre-application consultation can be found at https://www.dlrcoco.ie/en/planning/planning-applications/pre-planningconsultations.

The Council will facilitate the protection of all National routes from frontage access and to minimise the number of junctions in accordance with TII's Policy and the Department of Environment, Community and Local Government's 'Spatial Planning and National Roads Guidelines for Planning Authorities' (2012).

It is a Policy Objective to require Traffic and Transport Assessments and/or Road Safety Audits for major developments – in accordance with the TII's 'Traffic and Transport Assessment Guidelines' (2014) - to assess the traffic impacts on the surrounding road network and provide measures to mitigate any adverse impacts - all in accordance with best practice guidelines.

An Area Based Transport Assessment (ABTA) may be required. In the case of a Masterplan, an ABTA will be undertaken by the Developer, in conjunction with the Planning Authority, See NTA publications Area Based Transport Assessment (ABTA) Guidance Notes (also under reference number PE-PDV-02046, in TII Publications). The intended effect of ABTA is to ensure that the assessment of transport demand and its associated impact plays a central role in informing the development proposals. This should include consideration of the overall scale of the development as well as the mix of land uses, location, density, phasing and design / delivery of supporting transport infrastructure and services (across all modes of transport).

The transport Infrastructure refers generally to roads, footpaths, verges, car parking, cycle facilities and the associated infrastructure. Transport Infrastructure shall be designed in accordance with best practice guidelines and will consider the needs of all road users.

Where infrastructure is to be taken in charge, it shall be taken in conjunction with water mains, sewers, drains and open spaces. No piece of transport infrastructure shall be taken in charge unless all associated underground infrastructure is inspected and passed in advance, i.e. all utility services are inspected, tested, passed and fully operational for the existing development and future associated developments.

All transport infrastructure shall be designed and constructed in accordance with the appropriate edition of the standards and documents listed below in force at the time of construction including the documents referred within this document.

4.2 Dún Laoghaire-Rathdown County Development Plan:

Of particular note within the Development Plan for transport requirements refer to Chapter 5 - Transport and Mobility and Chapter 12 - Development Management.

Chapter 5 - Transport and Mobility:

The Development plan highlights the importance of sustainable transport by recognising that a holistic approach to transport is required with the aim to reduce dependency on the private car in favour of walking, cycling and public transport.

Proposed developments should be designed taking into account the demand management approach which focuses on moving people from the private car to more sustainable modes. Developments should provide attractive high-quality fully segregated inclusive and connected walking and cycling networks with direct routes to local destinations and public transport hubs. Improve permeability for the pedestrian and cyclist to travel at ease.

All new development, and changes of use, must demonstrate how they can provide improved linkages to-and-from the County Cycle Network.

Inclusiveness and accessibility will be key considerations in the design of all facilities for pedestrians, cyclists and public transport passengers, including people with disabilities. All developments shall be in accordance with Technical Guidance Document M of the Building Regulations 2010 and shall meet the accessibility requirements contained within the Design Manual for Urban Roads and Streets (DMURS), National Cycle Manual and County Development Plan

A Universal design access should be implemented which places human diversity at the heart of the design process so that buildings and environments can be designed to meet the needs of all users. It therefore covers all persons regardless of their age or size and those who have any particular physical, sensory, mental health or intellectual ability or disability.

DMURS makes recommendations in relation to cul-de-sacs (they should not dominate residential layouts). There should be a shared priority ‘homezones’ taking into account both pedestrian and traffic safety.

Within DMURS under section 3.3 refers to Permeability and Legibility and the movement towards more integrated and sustainable forms of development will result in a shift away from dendritic street layouts to highly connected networks which maximise permeability, particularly for pedestrians and cyclists. When designing new street networks designers should implement solutions that support the development of sustainable communities. In general, such networks should:

- be based on layouts where all streets lead to other streets, limiting the use of cul-de-sacs that provide no through access.
- maximise the number of walkable / cycle routes between destinations.

Maximising the connections within a site will allow the street network to also evolve over time to meet local accessibility needs. This will limit the use of cul-de-sacs that do not allow through accessibility for all users. Note cul-de-sacs when greater than ***20m*** must meet strict criteria within Section 5 of the 2017 Part B of the Building Regulations for dwelling houses.

Chapter 12 – Development Management:

In all development proposals, particularly high-density residential development, it is the aim of the Planning Authority to promote a high level of amenity and quality design, and to protect and complement existing amenities and character, in the interests of sustainable and orderly development.

The road layout of new residential, commercial, and/or mixed-use developments shall be designed in accordance with DMURS which seeks to create self-enforcing 30km/h zones.

Bi-lingual and Irish-language signs will be mandatory on name plates for all residential developments, further details are available from Appendix 10 of the Taking In Charge Policy.

Chapter 12 specifies that for Road and Footpath requirements, the Council's 'Taking in Charge Policy Document' and 'The Design Manual for Urban Roads and Streets', (DMURS), 2019, will generally apply.

Section 12.3.8.1 specifies that the proposed construction of new building structures directly onto the boundary with the public realm (including footpaths/open space/roads etc), is not

acceptable and it will be required that all developments be set within the existing boundary site and shall not form the boundary wall.

Section 12.8.7.2 specifies details of all existing and proposed boundary treatments, including vehicular entrance details should be submitted as part of any planning application.

The Council will seek to deliver the user hierarchy as set out in the DMURS section 2.2.2, for projects/works in terms of the development management process as shown in the figure below.

Figure 5.3: *User Hierarchy (Source: DMURS, 2019)*

Fig 4.1: User Hierarchy (DMURS, 2019)

4.3 Chapter 12 - Car Parking Standards:

For both residential and non-residential car parking, 4% of car parking provision shall be suitable for use by disabled persons. (Note for buildings, including apartment buildings, The Building Regulations under TGD Part M require at least 5% of the total number of spaces should be disabled designated car parking spaces, with a minimum provision of at least one such space). The number of required car parking spaces will depend on the location of a proposed development. Table 12.6 within the Development Management Section provides

guidance based on the land use and car park zone as shown within the following table for residential developments:

Land Use		Zone 1 MTC Areas and Blackrock	Zone 2 Near Public Transport	Zone 3 Remainder of County (non-rural)	Zone 4 Rural
Houses:	Criterion	Maximum	Standard	Standard	Standard
House 1 bed	unit	1	1	1	Case by case
House 2 bed	unit	1	1	1	Case by case
House 3 bed or more	unit	1	2	2	Case by case
Apartments and Sheltered Housing:					
Apt 1 bed	unit	1	1	1*	Case by Case
Apt 2 bed	unit	1	1	1*	Case by Case
Apt 3 bed +	unit	1	2	2*	Case by Case

Electrical Vehicle Charge points within car park spaces: Residential multi-unit developments both new buildings and buildings undergoing major renovations (with private car spaces including visitor car parking spaces) - a minimum of one car parking space per five car parking spaces should be equipped with one fully functional EV Charging Point. Ducting for every parking space shall also be provided from the appropriate electrical distribution board (further excavations should not be needed).

(Note it is a requirement under the Draft Part L Building Regulations for all new dwellings with a car parking space located within the curtilage of the dwelling house, electric vehicle recharging infrastructure should be provided for the future installation of an electric vehicle recharging point.)

A minimum of one third of front garden areas should be maintained in grass or landscaped in the interest of urban greening and SUDS. Each driveway, parking and hardstanding area shall be constructed in accordance with SuDS and include measures to prevent drainage from the driveway entering onto the public road.

For vehicle entrances into a single residential dwelling, the maximum width of an entrance is 3.5 metres. For a shared entrance for two residential dwellings, this may be increased to a maximum width of 4 metres. Dished kerbs shall be provided at junctions, and vehicular entrances, to facilitate people with ease of movement. Adequate visibility should be achieved and demonstrated.

Electronic or automatic gates are not acceptable in terms of road safety unless the entrance is set back from the back of the footway, to avoid the roadway or footway being obstructed by a vehicle while the gate is opening. In general, outward opening gates will not be considered acceptable.

4.4 Shared Surfaces:

DMURS make recommendations in relation to cul-de-sacs (they should not dominate residential layouts); shared priority 'homezones' and pedestrian and traffic safety.

The design of developments should consider the street hierarchy where shared surfacing can only be accessed through typical housing neighbourhood roads. A design speed reduction to the traffic user should be considered prior to proceeding onto a shared surface. The national cycle manual also provides guidance on when shared facilities are appropriate.

PEDESTRIAN PRIORITY VEHICLE PRIORITY

FUNCTION	CENTRE	N'HOOD	SUBURBAN	BUSINESS/ INDUSTRIAL	RURAL FRINGE
ARTERIAL	30-40 KM/H	40-50 KM/H	40-50 KM/H	50-60 KM/H	60-80 KM/H
LINK	30 KM/H	30-50 KM/H	30-50 KM/H	50-60 KM/H	60-80 KM/H
LOCAL	10-30 KM/H	10-30 KM/H	10-30 KM/H	30-50 KM/H	60 KM/H

CONTEXT

Table 4.1: Design speed selection matrix indicating the links between place, movement and speed that need to be taken into account in order to achieve effective and balanced design solutions.

Local Authorities may introduce advisory speed limits of 10-20km/where it is proposed that vehicles, pedestrians and cyclists share the main carriageway.

The key condition for the design of any shared surface is that drivers, upon entering the street, recognise that they are in a shared space and react by driving very slowly (i.e. 10–20 km/h or less). To ensure this, designers should:

- Use a variety of materials and finishes that indicate that the carriageway is an extension of the pedestrian domain.

- Avoid raised kerb lines. Any kerb line should be fully embedded within the street surface.
- Minimise the width of the vehicular carriageway and/or corner radii.

DMURS defines a Shared Surface Street as 'a street where pedestrians, cyclists and vehicles share the main carriageway and where pedestrians have priority of movement over other uses.'

Shared surface streets can be very intimidating for impaired users. Visually-impaired users in particular usually rely on kerb lines to navigate streets. To assist navigation and movement through shared spaces, designers should apply design measures such as

- Sections of tactile paving that direct movement along the street or across spaces
- The creation of distinct zones that delineate pedestrian only space from shared space
- Flush kerbs, drainage lines and/or sections of tactile paving to assist guide dogs and indicate movement from a pedestrian only space to a shared carriageway.
- The use of frequent crossing points, vertical and horizontal deflection to reduce traffic speed.

The total ***carriageway width*** on Local streets where a shared surface is provided should not exceed 4.8m. In addition to this a footway of 1.5m minimum width should be provided.
The use of materials and finishes is one of the most defining elements of a street, particularly where it is used to define the levels of segregation and integration within a street.

The material palette can define space, calm traffic and improve legibility, reducing the need for barriers, signage and line marking in favour of texture and colour. Materials can be used to enhance the value of place and produce more attractive and cost-effective streets.

When choosing surface materials, designers should:

- Apply a hierarchical approach to the application of materials. Altering the palette according to the street hierarchy and/or importance of place will assist in way finding.
- Use of contrasting materials and textures to inform pedestrians of changes to the function of space (i.e. to demarcate verges, footway, strips, cycle paths and driveways)

and in particular to guide the visually impaired (see DMURS Section 4.3.4 Pedestrianised and Shared Surfaces).

- Use robust surfaces and/or changes in colour around Transitional Zones to alert drivers of changing driving conditions.
- Verges that act as refuge zones allowing pedestrians to step on and off the carriageway to let cars pass.
- ***Note all manhole covers and frames (including road gullies and utility covers) must comply with EN124 as Class D400 as a minimum standard within Carriageways of roads (including shared surfaces and pedestrian streets), hard shoulders and parking areas, for all areas that are accessible by all types of road vehicles***.
- The location of public lighting should be within the pedestrian footway.
- Footways should be protected from traffic through design such as the use of landscaping and street furniture.

The use of standard materials, such as black macadam/asphalt should generally be confined to streets with moderate design speeds (i.e. 40-60km/h). Appendix 10 of the taking in charge policy provides some guidance on some minimum acceptable materials.

Where low design speeds (i.e. 30km/h) are desirable changes in the colour or texture of the carriageway should be used periodically, such as at crossings or at strategic locations, such as Focal Points.

Where shared carriageways are proposed (i.e. 10-20 km/h) changes in colour and texture should be applied to the full length of the street.

Where a shared surface is proposed a raised kerb should not be used. Designers may consider embedding a kerb line or drainage channel into the carriageway to indicate an area of pedestrian refuge. This is particularly important for visually-impaired users who feel less comfortable on shared surfaces and also require a kerb line for navigation.

For areas with an embedded kerb a guidance path surface should be implemented to guide visually impaired people along a route when the traditional clues, such as a property line or kerb edge, are not available. It can also be used to guide people around obstacles, for example

street furniture in a pedestrianised area. The surface has may be designed so that people can be guided along the route either by walking on the tactile surface or by maintaining contact with a long cane.

The profile of the guidance path surface comprises a series of raised, flat-topped bars running in the direction of pedestrian travel. It is recommended that the guidance path be in a contrasting colour to the surrounding area so as to assist partially sighted people. It should not be red which is restricted to the blister surface type at controlled crossings. The use of tactile surfaces alongside a shared surface should be of a robust design for traffic loading on occasions.

In accordance with DMURS section 4.4.9 for On-Street Parking and Loading There are a number of measures that should be used by designers to ensure that parking and loading areas are well designed including the following:

- To reduce the visual impact of parking the number of parking spaces per bay should generally be limited to three parallel spaces (including loading areas) and six perpendicular spaces
- Perpendicular parking should generally be restricted to one side of the street to encourage a greater sense of enclosure and ensure that parking does not dominate the streetscape
- To reinforce narrower carriageways (particularly when spaces are empty) each parking/loading bay should be finished so that it is clearly distinguishable from the main carriageway
- The first priority of designers should be to improve facilities for pedestrian and cyclists, prior to the addition of on-street parking.
- The standard length of a space should be 6m (parallel spaces)

4.5 Emergency Access Requirements within the Development Plan:

Section 12.4.13 requires in some circumstances for large-scale developments, which could result in a significant level of peak and/ or off-peak travel, and residential developments greater than 300 units shall provide for duplicate access or other means approved by the Planning

Authority for emergency use/access. This shall also allow access for pedestrians and cyclists. The Councils Transportation Section will ascertain whether an additional access is required. This will be dealt with on a case-by-case basis through the pre-planning process.

Section 12.4.9 states that large cul-de-sacs shall not be provided within underground car park layouts. Provision shall be made for an emergency access to underground car parks and, where more than 300 parking spaces are being provided, a second vehicular access point to an underground car park is required.

4.6 Cycle Standards:

Dún Laoghaire-Rathdown County Council 2018 Standards for Cycle Parking and associated Cycling Facilities for New Developments:

Cycle parking needs to be a key consideration when planning a new development. Through the planning process, high quality cycle parking should be regarded as an integral part of a scheme, an essential part of the attraction of a development and never just an add-on to meet minimum policy requirements. The cycle parking provided must be capable of being used by all members of the community at all life stages and abilities. Access to cycle parking should be at least as convenient as access to car parking.

On larger development sites: Cycle parking should be distributed throughout the site rather than concentrated in one area. Cycle stands should be located in secure private or indoor spaces or in visible, well-lit places that have high levels of natural surveillance. Cycle stands should not be obstructed by landscaping or planting

Headroom: A minimum of 2.4m headroom should be provided wherever cyclists can be expected to be riding their bikes. This includes access to and from cycle parking areas in multi-storey or underground car parks

The preferred type of cycle parking stand is commonly known as the ‘Sheffield’ cycle stand. This is usually made of a single metal tube bent to form a stand which will support a bike and permit locking of both the frame and front and rear wheels to the stand with stands to be set in concrete (preferred) or bolted as shown in Figure 9.1 below.

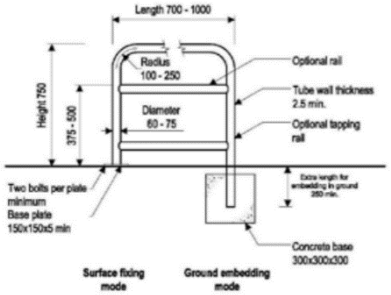


Figure 9.1: Sheffield Cycle stand detail

Cycle stands shall be Grade 316 Stainless Steel. They shall be robust and resistant to corrosion and should be placed at least 1.0m apart (1.2m preferred) to provide ready access for all users and types of bike. The main layout dimensions are set out in Figure 9.2 and table 9.1.

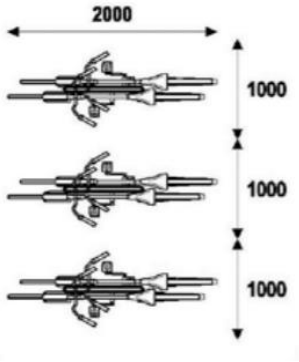


Fig 9.2 Min cycle park footprint

Cargo Bicycles/ tricycles require a larger footprint of about 3.5m x 2m.

Table 9.1: Cycle parking layout dimensions:

	Preferred (mm)	Min mm	Comments (see notes below)
Distances to other cycle stands:			
- Parallel - Parallel but 45° to kerb line/wall	1200 1500	1000 -	Placing stands too close together will make inserting bikes difficult at busy times and will reduce capacity instead of increasing it
- Adjacent stand (in line) - To create aisle	2500 4000	2000 3500	Reducing aisle width to increase capacity will create difficult user conditions that deter use
Cycle Stands parallel to:			
Wall or boundary - Parking both sides - On one side only - Footpath in between	900 300 2250	600 - 1750	Bikes should not obstruct footpaths
Kerb/carriageway edge (distance from kerb face)	900		May be reduced to 600 where parking takes place only on footway side (unlikely)
Cycle Stands at right angles to:			
Wall or boundary - In front of stand	1000	-	Placing the stand too close to a wall may prevent it from providing adequate for the bike
Kerb/carriageway edge	1500	-	Allows small margin for non-centralised parking of bikes against stand
Cycle Stands at 45° to:			
Kerb/carriageway edge	1250	-	Allows small margin for non-centralised parking of bikes against stand

The quality and quantity of cycle parking provision in apartments and housing developments should encourage residents to adopt cycling as the preferred mode of travel for short trips.

Cycle parking should always be placed as close as possible to the main entry/exit points. Cycle parking should not be sited where it will obstruct passing pedestrians or vehicles and be sited, if possible, away from the pedestrian desire line, e.g. between other pieces of street furniture. Short term parking for visitors should be covered. Section 4.4.2 states a minimum of 50% of short term cycle parking and all long term cycle parking should be covered. Short stay cycle parking should be designed for ease of use of the general public and visitors to a development. Stacked cycle parking is not recommended as many cyclists find such facilities difficult to use.

Table 9.2 on the next page outlines the minimum standards (sum of both short-stay and long-stay) of cycle parking provision that will be sought for residential developments within Dún Laoghaire-Rathdown County Council.

Table 9.2: Cycle Parking for Residential Development:

Residential Development type	1 short stay (visitor) parking space per: (Minimum of 2 spaces)	1 long stay parking space per: (Minimum of 2 spaces)
Apartments, Flats, Sheltered housing	5 units	1 unit
Houses - 2 bed dwelling	5 units	1 unit
Houses - 3+ bed dwelling	5 units	1 unit
Sheltered housing	5 units	1 unit
Student Accommodation	5 bedrooms	2 bedrooms

The following should be noted when providing cycle parking for residential areas:

Private houses: Cycle parking should preferably be provided within the footprint of the dwelling but should ***not require the bike to be brought through the house***. Where no private or communal garage is provided, bikes should be stored in private garages, a shed in the garden or secure communal cycle parking compounds. Wall bars or rings are acceptable at the front of a house for short term parking.

Apartments and office buildings: Bike parking should not be provided within individual apartments, offices, stairwells or balconies. Secure, covered communal parking should be provided at ground floor level as close as possible to the main entrances. Small apartment blocks may be best served by the provision of secure cages assigned to individual dwellings within a communal area at ground level or the provision of store rooms/lockers close to entrances with internal and external accesses.

Communal parking: Where cycle parking cannot be provided within the footprint of the dwelling, secure common communal cycle parking containing Sheffield stands must be provided

Where cycle parking cannot be conveniently incorporated within the development, the developer will be required to pay a financial contribution per cycle parking stand in line with the County Development Plan. This financial contribution is required to provide alternative on-street cycle parking provision in the vicinity of the development

For more information refer to the following document:
https://www.dlrcoco.ie/sites/default/files/atoms/files/dlr_cycle_parking_standards_0.pdf

New cycle tracks or cycle lanes, or upgrades to cycle routes, shall be designed in accordance with the 'National Cycle Manual' (as updated) and should have a minimum Quality of Service Level B.

Gradients general: The gradients of development roads and access routes within development sites should be in accordance with the National Cycle Manual. Cycle stands should not be sited sideways on sloping ground greater gradient than 2 degrees.

Gradients at ramps: Any access ramps used by cyclists should not exceed 7% with radiused transitions at the top and bottom of the slope. This may result in a need for separate access arrangements for cyclists. In all other respects, gradients should be in accordance with the National Cycle Manual. Access ramps shared with motor vehicles should include a separate lane clearly marked for the use of cyclists.

4.7 Footpath Widths:

Narrow footpaths squeeze pedestrians together and do not leave sufficient room for people to pass, these should be avoided. ***Footways***: Minimum footway widths are based on the space needed for two wheelchairs to pass each other (1.8m). For locations likely to have moderate to high pedestrian activity wider footways are recommended.

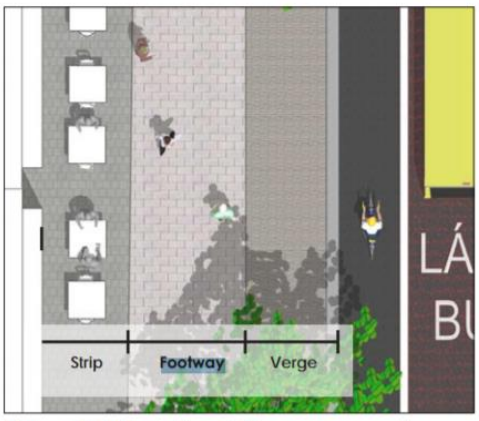


Figure 4.32: Illustration of the area generally thought of as the footpath. This area should be viewed and designed as three areas of activity.

As per DMURS figure 4.32 Footways do not include stripe or verges.

Footway: this is the main area along which people walk.

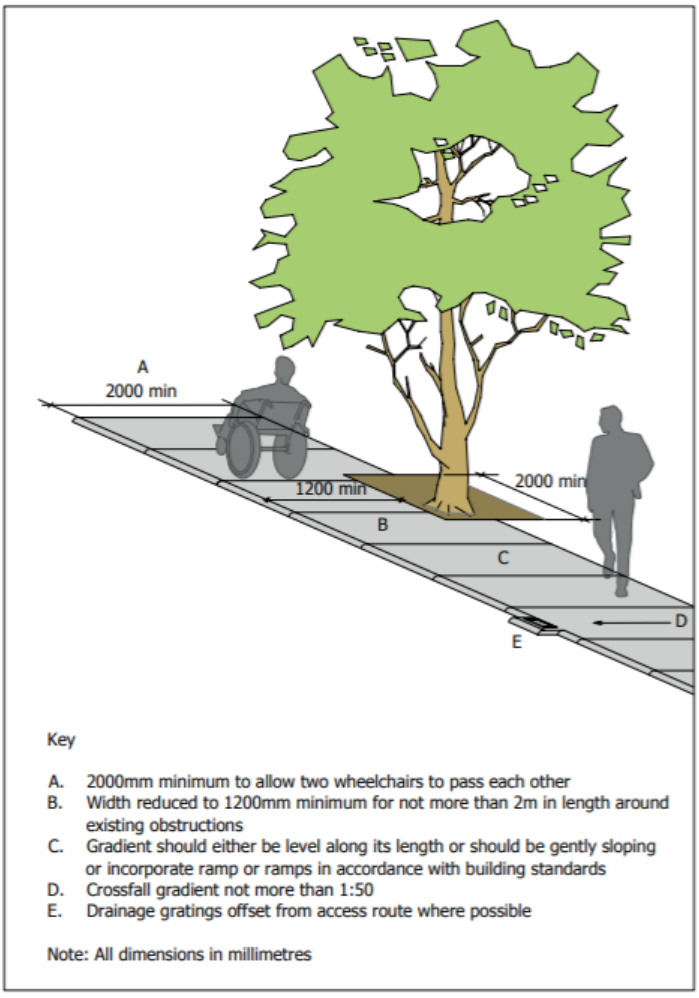
Verges: These provide a buffer between pedestrians and the vehicle carriageway and provide space for street furniture and street trees as well as overflow space for pedestrian movement.

Strips: These spaces, provided directly to the front of a building, may be occupied by activities generally associated with retail/commercial uses such as stalls or outdoor seating. Strips may be incorporated into the private space of a dwelling.

The 'Building For Everyone A Universal Design Approach' publication 'External Environment and Approach' requires the following:

A clear width of 2000mm is recommended for an access route to enable people to walk alongside each other and for two wheelchair users or parents with strollers to pass comfortably. The width should be increased where there is simultaneous use by a large number of people.

Where the clear width of an access route is constricted, such as by existing trees or walls, the width may be reduced to 1200mm for a distance not exceeding 2000mm. A 1200mm wide path is too narrow for people to pass each other, so passing places should be provided either side of the constricted section as shown within the figure on the following page.



Key

A. 2000mm minimum to allow two wheelchairs to pass each other
B. Width reduced to 1200mm minimum for not more than 2m in length around existing obstructions
C. Gradient should either be level along its length or should be gently sloping or incorporate ramp or ramps in accordance with building standards
D. Crossfall gradient not more than 1:50
E. Drainage gratings offset from access route where possible

Note: All dimensions in millimetres

In densely populated areas and along busier streets, additional width must be provided to allow people to pass each other in larger groups.

In this regard:
The width of footways should increase from Suburbs (lower activity), to Neighbourhood (moderate activity) and to Centres (higher activity) and as development densities increase.

The width of footways should increase according to function from Local (lower activity), Link (moderate activity), to Arterial streets (moderate to higher activity) as connectivity levels increase.

The footway should be maintained at a consistent width between junctions and should not be narrowed to accommodate turning vehicles.

Figure 4.34 illustrates the space needed for pedestrians to comfortably pass each other with reference to the anticipated levels of activity within a street.

These standards should be used to formulate the minimum footway widths.

The diagram outlines footway widths depending on pedestrian activity.

A minimum crossing width is also provided and verge widths.

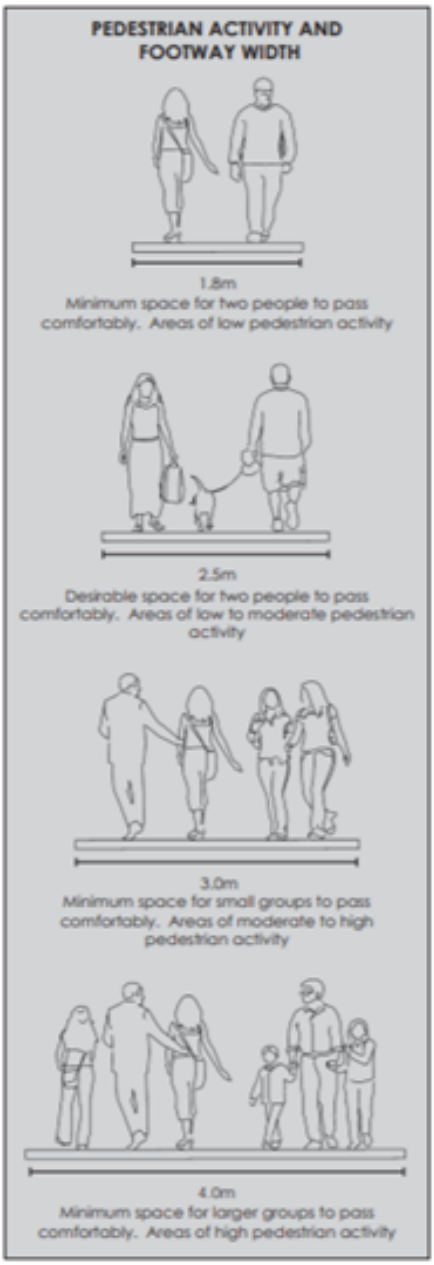


Figure 4.34: Diagram showing the amount of space needed for pedestrians to pass each other with regard to pedestrian activity levels.

The Technical Guidance Document Part M also provides guidance on minimum access routes depending on either for dwellings or buildings: **For Buildings the Access route:** The minimum clear width (between walls, upstands or kerbs) should be 1500 mm; Passing places are not required if the access route is a minimum width of 1800 mm.

4.8 Crossing Points:

Crossings are one of the most important aspects of street design as it is at this location that most interactions between pedestrians, cyclists and motor vehicles occur. Well designed and frequently provided crossings are critical to the balancing of movement priorities. The design of crossings, and the frequency at which they are provided, will have a significant impact on pedestrian/ cyclist mobility and comfort and the flow of vehicular traffic.

Designers should ensure that the design of vehicle crossovers clearly indicate that it should be clear that pedestrians and cyclists have priority over vehicles. There should be no change in level to the pedestrian footway and no use of asphalt (which would incorrectly indicate vehicular priority across a footpath) although colour/material contrast may be appropriate at some locations. Continuous path and cycle facilities across side roads in now a requirement of the development plan

Crossings are referred to as controlled, such as signalised crossings or uncontrolled. Uncontrolled crossings include less formal types such as courtesy crossings and/or those identified by a drop kerb.

Courtesy crossings, which are generally defined by a change in material and/ or vertical deflection (see Section 4.4.7 Horizontal and Vertical Deflections), allow pedestrians to informally assert a degree of priority over drivers. They may be used in lower speed environments where formal crossing facilities are not required to assist in making such environments self-regulating.

The location and frequency of crossings should align with key desire lines and be provided at regular intervals ie:

- Provide pedestrian crossing facilities at junctions and on each arm of the junction
- Minimise corner radii so that crossing points are located closer to corners on pedestrian desire lines.
- Locate mid-block crossings at strategic locations where pedestrians are likely to cross, such as adjacent to bus stops and Focal Points, or to coincide with traffic calming measures on longer straights.

Where design speeds are low and movements by larger vehicles are infrequent, such as on Local streets, a maximum corner radii of 1-3m should be applied.

Safety concerns regarding pedestrian crossings should also be viewed in the context of pedestrian behaviour.

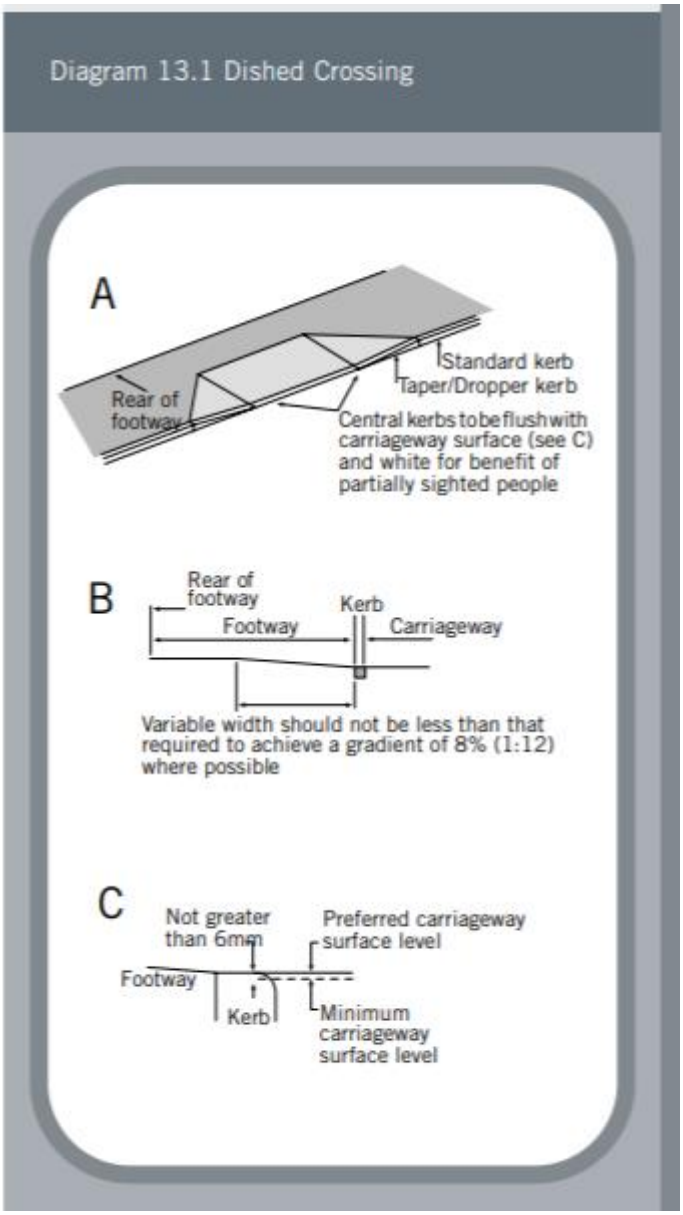
When determining the design of crossings designers should refer to Section 7.16 of the Traffic Signs Manual (2019) for road marking details, Section 6, 12 and 13 of the Traffic Management Guidelines, section 4.3 of DMURS which contains maximum and minimum design specifications for pedestrian crossings. Section 4.7 of the National Cycle Manual provides additional guidance.

The minimum width of all pedestrian crossings should be 2m.

Table Crossings: The minimum length of level section of a table crossing should be 2m (to allow a pedestrian to cross). The height of a raised table should generally correspond with that of the adjoining kerb (dished to 60 or 75mm or ***100mm max)***. Where buses operate the maximum height should be 75mm to reduce passenger discomfort. Designs should feature kerb heights reduced and undished crossing points to between 75-60mm (**ideally 75mm**) to allow for a raised crossing to be flush with the kerb line. The footway levels leading to the crossing point should gradually transition prior to the reduction in kerb height at a gradient of 1-20 or less (i.e. ideally 1-40 to avoid noticeable local dishing) in compliant with TGD Part M Access Routes. Diagrams 6.34 and 6.36 from the Traffic Management Guidelines, 4.41 from DMURS and 7.53 from the Traffic Signs provides good guidance.

Dished crossings: These should be provided at both controlled and uncontrolled crossing points where no table crossing is provided. The crossings should be ramped or dished at a slope of 1 in 20 where possible. In many urban locations this is not possible so a compromise of 1 in 12 is a more practical maximum slope (see Diagram 13.1). The upstand between the dropped kerb and the road is an important issue for wheelchair users. Even relatively small upstands can cause the front wheels of wheelchairs to turn and present users with difficulties. Ideally the road surface should be level with the kerb at the dished crossing, but the maximum upstand

should be 6mm. Appropriate tactile paving should also be provided at all crossing point as per the Traffic Management Guidelines table 13.1.



The construction of transport infrastructure shall address and include for the needs of vulnerable, mobility impaired and disabled road users. For example, there shall be no steps in footpath construction, appropriate tactile paving shall be used at junctions, and kerb heights shall be to the appropriate standard. Table 13.1 from the Traffic Management Guidelines provides guidance in relation to tactile paving requirements.

TABLE 13.1 DETAILS OF TACTILE LAYOUTS AT CROSSING POINTS

Use	Colour	Shape	Width of blister paving
Controlled crossing facility	Red	Varies (see below)	
1. On footways at either side of road		L shape	Stem 1200mm wide kerbside 800mm/ 1200mm at inset[a] or 1200mm at in-line[b]
2. On central islands (refuges)		Kerbside	800mm wide at each side if greater than 2m wide or full width if less than 2m wide
Uncontrolled crossing point	Grey or Buff	Varies (see below)	
3. On footways at either side of road		Kerbside	800mm wide at inset[a] crossing point 1200mm wide at in-line[b] crossing point
4. On central islands (refuges)		Kerbside	800mm wide at each side if greater than 2m wide or full width if less than 2m wide

Diagram 6.34 Cross section of 75mm high flat-top ramp

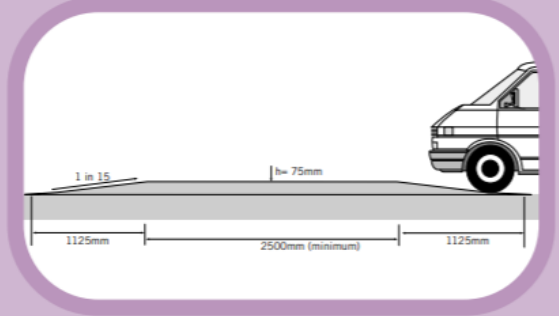
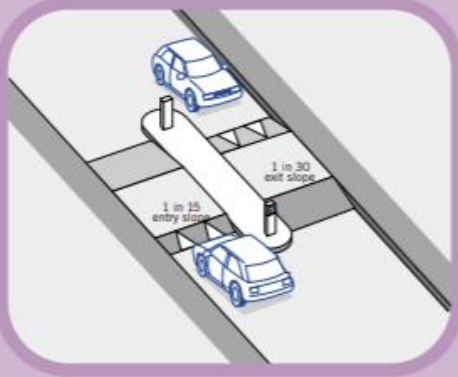


Diagram 6.36 75mm high flat top ramp with different entry/exit gradients



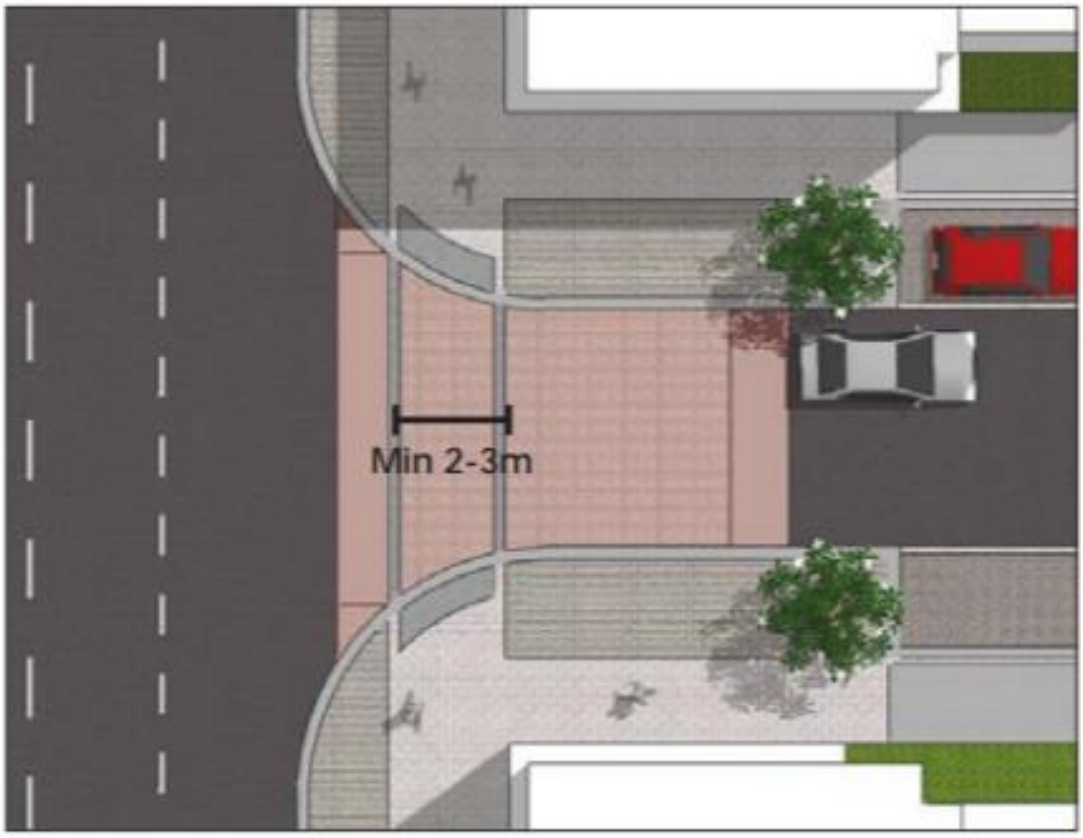


Figure 4.41: Standard crossing widths to be used in most circumstances across the main carriageway of Access or Link streets and across side junctions with Local streets.

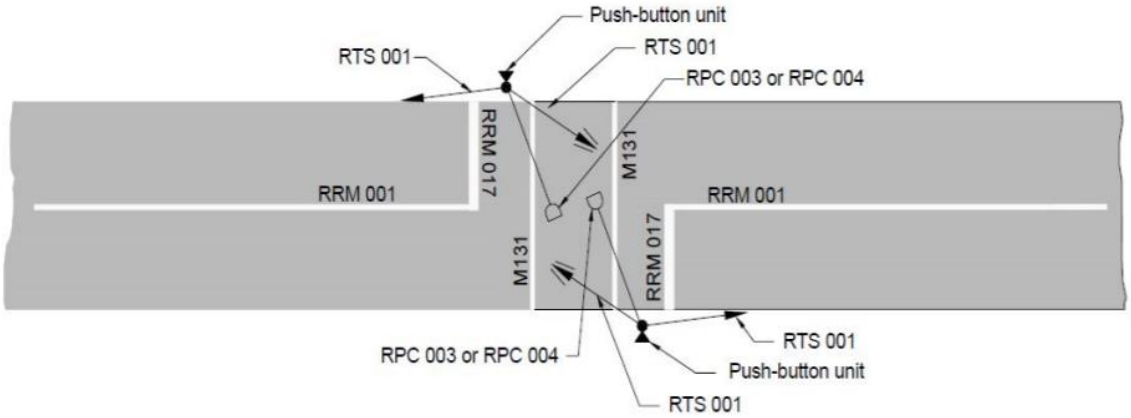


Figure 7.53:
Signalised Pedestrian Crossing

4.9 The following documents provide acceptable design guidance:

Traffic Signs Manual (2019):

All road markings and traffic signs must be designed and completed in accordance with the requirements of this document. Any signage on public roads or footways shall not cause an obstruction to any road user and sightlines should be in accordance with the requirements in DMURS.

https://www.trafficsigns.ie/current-traffic-signs-manual

Design Manual for Urban Roads and Streets, Department of Transport, Tourism and Sport (2019) https://www.dmurs.ie/:

Transport Infrastructure Ireland (TII) Publications (Standards) which includes the NRA Design Manual for Roads and Bridges (NRA DMRB) and Manual of Contract Documents for Road Works (NRA MCDRW).

Building for Everyone, National Disability Authority

Traffic Management Guidelines:

The purpose of the Traffic Management Guidelines manual is to provide guidance on a variety of issues including traffic planning, traffic calming and management, incorporation of speed restraint measures in new residential designs and the provision of suitably designed facilities for public transport users and for vulnerable road users such as cyclists, motorcyclists and pedestrians (including those with mobility/sensory impairments). It also focuses on how these issues must be examined and implemented in the context of overall transportation and land use policies.

Guidance on the use of Tactile Paving Surfaces (Scottish DETR):

Tactile paving surfaces can be used to convey important information to visually impaired pedestrians about their environment, for example, hazard warning, directional guidance, or the presence of an amenity. Research has determined that visually impaired people can reliably detect, distinguish and remember a limited number of different tactile paving surfaces and the distinct meanings assigned to them.

The use of blister paving as a warning device at controlled and uncontrolled pedestrian crossing points is now well established. The Guidance on the use of tactile paving DETR publication provides guidance and information on the use of a number of additional types of tactile surface to give warning of potential hazards and for amenity purposes.

Boundary Walls:

Boundary walls abutting existing public roads, footpaths and public realm or those proposed at planning stage shall be designed to ensure the stability of such structures and the safety of all road users of the public realm is maintained. The design of any such structures shall be undertaken by a suitably qualified professional, e.g. a Consultant Engineer, with an appropriate level of professional indemnity insurance.

4.10 Road Safety & Place Making:

The Council's 'Road Safety Plan 2015-2020' contains an Action Plan to reduce collisions and casualties based on implementation of 'Education, Engineering, Enforcement and Evaluation' measures.

Road Safety Audits shall be undertaken for all developments that result in the provision of new transport infrastructure, or where there is a change to an existing layout as a result of a new development. Exceptions shall only be permitted by prior written agreement the Council.

Where Road Safety Audits are undertaken, they shall be carried out in compliance with the relevant TII Standards, any recommended actions shall be implemented to the satisfaction of the Council at the Developer's expense. Completed Road Safety Audits including the remedial actions implemented shall be submitted to the Council prior to taken in charge or alternatively during the live time of the planning permission.

To ensure that the needs of all road users are considered, a Quality Audit may be required for major developments that impact on the road network and for all new road and traffic schemes. This should be carried out in accordance with DMURS and best UK practice.

The Design Manual for Urban Roads and Streets Quality Audits generally consist of a number of individual and overlapping audits that may include: an audit of visual quality; a review of how the street is/may be used by the community; a road safety audit, including a risk assessment; an access audit; a walking audit; a cycle audit; a non-motorised user audit; a community street audit (in existing streets); and a place check audit.

A street design audit was added as an additional audit type in the DMURS Guidance in 2019. It can be submitted as a component of a Quality Audit (for larger projects) or as a stand-alone audit process for smaller projects, the emphasis is on placemaking and promoting the multidisciplinary aspects of successful street design. This is an auditing tool that can be used to ensure that the that the four major aspects of street design as set out in DMURS: Connectivity, Self-Regulating Street Environment, Pedestrian and Cycling Environment, and Visual Quality are appropriately taken into account.

Potential applicants for planning permission should engage in pre-planning discussions to ascertain which audits, if any, should be submitted with the application.

All transport infrastructure shall be designed and constructed in accordance with the latest online edition of the standards and documents listed below or referenced within this document in effect at the time of commencement:

- Transport Infrastructure Ireland (TII) Publications (Standards) which includes the NRA Design Manual for Roads and Bridges (NRA DMRB) and Manual of Contract Documents for Road Works (NRA MCDRW) www.tiipublications.ie
- TII Publications (Technical) including Pedestrian Crossing Specification & Guidance - www.tiipublications.ie
- Design Manual for Urban Roads and Streets, Department of Transport, Tourism and Sport www.dmurs.ie
- National Cycle Manual, National Transport Authority www.cyclemanual.ie
- Permeability Best Practice Guide, National Transport Authority https://www.nationaltransport.ie/planning-and-investment/strategic-planning/guidance-documents/
- Traffic Signs Manual, Department of Transport, Tourism and Sport www.trafficsigns.ie
- Building for Everyone, National Disability Authority www.nda.ie
- Dún Laoghaire-Rathdown County Council Standards for Cycle Parking and associated Cycling Facilities for New Developments (January 2018) www.dlrcoco.ie

Any deviation from the above standards and documents within the design or construction stage of a development shall only be permitted by prior written agreement with the Council.

5.0: Traffic and Transport Infrastructure

5.1 General Requirements:

Traffic and Transport Infrastructure refers generally to roads, footpaths, cycling facilities, bus lanes, car parking, and associated infrastructure. This document outlined the requirements related to the taking in charge of traffic and transport infrastructure. All such infrastructure shall be taken in charge in conjunction with water mains, sewers, drains and open spaces.

Traffic and transport infrastructure encompass all infrastructures that are associated with the provision of vehicular and sustainable modes of traffic. This includes but is not limited to the following:

- Road infrastructure
- Walking and cycling infrastructure
- Traffic signal junctions and associated equipment's (including SCATS
- junctions)
- Traffic CCTV cameras and associated equipment
- Traffic calming measures and traffic restrictions
- Traffic signage and road markings, as per the DTTaS Traffic Signs Manual
- Cycle and scooter parking,
- Vehicle activated signs (speed display, flashing signs, warning signs) and
- associated equipment
- All types of fibre and traffic ducting and chambers.
- Parking Infrastructure

5.2 Guidelines and standards

All traffic and transport infrastructure shall be designed and constructed in accordance with the latest online edition of the standards and documents listed below in effect at the time of commencement:

• Transport Infrastructure Ireland (TII) Publications (Standards) which includes the NRA Design Manual for Roads and Bridges (NRA DMRB) and Manual of Contract Documents for Road Works (NRA MCDRW) www.tiipublications.ie

• TII Publications (Technical) including Pedestrian Crossing Specification & Guidance - www.tiipublications.iements

• Design Manual for Urban Roads and Streets, Department of Transport, Tourism and Sport www.dmurs.ie

• National Cycle Manual, National Transport Authority www.cyclemanual.ie

• Traffic Signs Manual, Department of Transport, Tourism and Sport www.trafficsigns.ie

• Building for Everyone, National Disability Authority www.nda.ie

• Traffic Signal Control Equipment CCTV and Fibre Specification, Dublin City Council

• Developers Standards for Cycle Parking and associated Cycling Facilities for New Developments Dún Laoghaire-Rathdown County Council" (January 2018) www.dlrcoco.ie

Any deviation from the above standards and documents shall only be permitted by prior written agreement with the Senior Engineer, Traffic & Road Safety Section (herein to include any nominee of the Senior Engineer).

5.3 Traffic Control Equipment

All Traffic Control Equipment Infrastructure shall be constructed and maintained in accordance with the requirements of the Senior Engineer, Traffic & Road Safety Section. This shall include meeting any requirements of Dublin City Council for SCATS junctions.

5.4 Traffic Control Ducting requirements

Traffic Control Ducting requirements for interconnectivity of traffic signals and facilitating CCTV camera installations: Prior to work commencing on the installation of all ducting, traffic CCTV camera installations, CCTV cameras, fibre ducting, interconnected traffic signals and traffic signals, all details regarding specification, layout and location are to be agreed with the Senior Engineer, Traffic & Road Safety Section.

5.5 Traffic Ducting & Chamber Specification

Ducting:

Traffic ducting requirements along the routes shall consist of:

- 2No. traffic ducts, Diameter 100/110mm (nominally referred to as a 110mm duct) uPVC, Green in colour for Communications, Orange in colour for traffic signals at junctions, single wall ducting. To be provided along the road, in the footpath or verge where possible.
- Ducts to be stamped "Traffic" in 9mm high white lettering along the outside at intervals not exceeding 1m, at 0, 120, 240 degrees around the duct.

- Impact resistant, impervious to water and sufficiently flexible to accommodate undulations in the trench.
- When installed shall be properly jointed or sleeved to provide a continuous smooth internal bore with the printed words "Traffic" uppermost.
- Ducts bends to be slow radius, no greater than 11.25 degrees unless otherwise agreed with the Senior Engineer, Traffic & Road Safety Section.
- Duct fittings and accessories to be provided in accordance with the manufacturer"s requirements, such as end caps, couplers, sleeves etc.
- Ducts shall be brushed, mandrelled and roped.
- Where damage has occurred to an in-situ length of duct that cannot be removed/replaced, a proprietary duct repair kit shall be used. Installation of the Repair kit to be witnessed by the Senior Engineers nominated person.
- All ducting is to be terminated in a junction box (Approved JB4 or JB4a).
- Where this is not possible/practical and ducting is terminated without a junction box, agreement must be reached with the Senior Engineer, Traffic & Road Safety Section and the coordinates of the ducting termination points are to be issued to the Traffic Section in AutoCAD format.
- Proving and Testing of Ducts should be carried out on complete duct lengths i.e. from chamber to chamber.

Chambers:

- Chambers are to be placed at no more than 200m intervals, in the footpath or verge unless otherwise agreed with the Senior Engineer, Traffic & Road Safety Section.
- Chambers are to be JB4"s consistent with the overall projects or with minimum internal size 914mmx445mm in Straight lines/runs. For change in direction and at the foot of transmission cabinet and traffic controller locations, chambers consistent with the project are to be used or with minimum internal size 910mmx910mm, unless otherwise agreed with the Senior Engineer, Traffic & Road Safety Section.
- Chambers are to be placed at either side of a road crossing.
- Any chambers consisting of more than 14 ducts should be upgraded to a JB4a
- All junction boxes to be provided with covers stamped "Traffic"

- All chamber covers and frames should be Grade D400 in Carriageway and C250 in Verge/footpaths.
- Where it is necessary to provide chambers in the carriageway, these chambers are to be placed out of the wheel track as per the Guidelines for Managing Openings in Public Roads aka „Purple Book" unless otherwise agreed with the Senior Engineer, Traffic Section and the Area Engineer, Road Maintenance Section.
- All Chambers are to be installed to ensure none or limited water ingress and measures put in place to ensure water can egress from the base of the chamber to prevent water ponding.
- Digital as built drawings of the infrastructure above to be provided in an AutoCAD format to the Senior Engineer, Traffic & Road Safety Section.

Traffic Interconnectivity and Control Requirements

During the project planning stage, discussion should consider specific locations for CCTV equipment, to include, but not limited to:

- CCTV locations,
- Transmissions cabinets, Traffic controller, ESB mini pillar locations, foundations, configurations and associated chamber requirements.
- Power supply
- Chamber placement (preferably off carriageway to minimise disruption due to future access/requirement for licences)
- Requirements to sub-duct (4 No. 32mm diameter sub-ducts in 1No. 110mm duct)
- Requirements for loop detection locations and loop boxes

5.6 Cycle Parking Requirements

Cycle Parking standards and requirements are set out in the Council documents 'Developers Standards for Cycle Parking and associated Cycling Facilities for New Developments Dún Laoghaire-Rathdown County Council' – Dated January 2018 (and any updates). Stainless steel Sheffield type cycle stands or toasters stands are preferred and spacing and layout requirements are set out in the document.

5.7 Taking in Charge

This document outlined the requirements related to the taking in charge of traffic and transport infrastructure. All such infrastructure shall be taken in charge in conjunction with water mains, sewers, drains and open spaces.

For developments where Dún Laoghaire-Rathdown County Council will be taking responsibility for future maintenance, the project Safety File including inter alia digital As Built construction and utilities drawings (to include traffic, ducting, fibre and CCTV infrastructure), maintenance procedures, certification of materials and construction materials used, shall be provided to and validated by Dún Laoghaire-Rathdown County Council in advance of the taking in charge process. No transport infrastructure shall be taken in charge without the Safety File being provided and validated by Dún Laoghaire- Rathdown County Council.

No piece of traffic transport infrastructure shall be taken in charge unless all associated underground infrastructure is inspected and passed in advance, i.e. all utility services are inspected, tested, passed and fully operational for the existing development and future associated developments. Certificates are to be provided to the Senior Engineer, Traffic & Road Safety Section by their inclusion in the Safety File.

All Traffic Control Equipment Infrastructure Certification shall be provided and verified by a suitably qualified professional with an appropriate level of professional indemnity. The minimum level of professional indemnity for any project will depend on the scale and type of development but in general shall not be less than €2,500,000, the exact level of which shall be agreed in writing with Dún Laoghaire-Rathdown County Council.

Boundary walls abutting existing public footpaths and roads or those roads and footpaths that are to be taken into charge by the Council shall be designed to ensure the stability of such structures and the safety of all road users of the public realm is maintained. The design of any such structures shall be undertaken by a suitably qualified professional, e.g. a Chartered Engineer, with an appropriate level of professional indemnity insurance, as agreed with Dún Laoghaire-Rathdown County Council.

Road Safety Audits shall be undertaken for all developments that result in the provision of new transport infrastructure, or where there is a change to an existing layout as a result of a new development. Exceptions shall only be permitted by prior written agreement with Dún Laoghaire-Rathdown County Council. Where Road Safety Audits are undertaken, they shall be carried out in compliance with TII Standards, any recommended actions shall be

implemented to the satisfaction of the Council at the Developer‟s expense, and any exception reports shall be provided to Dún Laoghaire- Rathdown County Council for approval.

Queries and submissions at all stages of the Planning Process regarding the above can be addressed to the Senior Engineer, Traffic & Road Safety Section.

6.0: Roads Minimum Standards

6.1 General requirements:

All Developments must be completed in accordance with the granted planning permission and planning conditions. This document outlines the minimum requirements required by the Council for developments to be taken in charge. Not withstanding this, developments that will remain private will also have to meet the Councils standards as a minimum. All developments can be completed to a higher standard than the standards specified within this document.

It is the responsibility of the contractor to obtain all licences, permits, permissions etc, required for the commencement and completion of the works in accordance with the appropriate Planning and Roads Acts. Surplus and waste material shall be disposed of in accordance with waste legislation.

All developments carrying out works near a public road must have an approved road opening licence through Road Management Office Maproad Roadworks Licensing system. Attached to this licence will be a number of standard conditions which must be adhered to. There are also a number of specific conditions that can be attached to any licence if they are deemed relevant. A road opening licence also requires the relevant insurances to be in place prior to works. A breach of any of these conditions may result in the closure of the site by the Council.

All trench reinstatement to be in accordance with the 2017 DTTAS publication "Guidelines for Managing Openings in Public Road".

Appendix D outlines the minimum requirements of various layers for roads and footpaths.

All road markings and traffic signs must be completed in accordance with the Department of the Environments Traffic Signs Manual (2019): https://www.trafficsigns.ie/current-traffic-signs-manual

6.2 Traffic Signs:

Traffic Signs shall also comply with TS4 2012: Guidelines, Certification Scheme and Specification for the Construction of Traffic Signs, issued by the Department of the Transport, Tourism & Sport (DoTTS), 2012.

All posts used shall be galvanised steel posts and shall be in accordance with TS4 2012: Guidelines, Certification Scheme and Specification for the Construction of Traffic Signs, issued by the Department of the Transport, Tourism & Sport (DoTTS), 2012.

6.3 Road Markings:

The road markings shall be completed using reflectorised thermoplastic screed road marking materials. All markings shall be applied to the road surface at a minimum thickness of 4mm ± 0.5mm. The quality and workmanship for road markings must be in accordance with IS EN 1436. The material is to be a thermoplastic screed in accordance with IS EN 1871. Solid glass beads are to be applied to the surface of the screed in compliance with Clause 1211.

The quality of the material and the workmanship shall comply with the requirements of all relevant European Standards including EN 1423, EN 1424, En 1436 and EN 1871. Any aspects of the work and materials not covered by the European Standard shall comply with the specification as set out below:

Existing verges where overgrowth extends onto edge of carriageway must be cleared, removed of overgrowth, girt and dirt prior to preparation and laying of lining. The developer shall remove all loose debris, mud and all other materials likely to affect adhesion between the thermoplastic road marking material and the road surface.

For reflectorised markings solid glass beads, 400 g/m^2 to 500 g/m^2, shall be applied by pressure concurrently with the laying of the line with sufficient velocity to ensure retention in the surface of the line. The solid glass beads so sprayed shall give uniform cover and immediate reflectivity over the whole surface of the marking. (On screed applied markings where pressure application is not practicable, gravity application will be permitted). Solid glass beads which are to be applied to the surface of the markings are in addition to the solid glass bead content incorporated within the body of the mix for reflectorised markings.

The developer shall not carry out any work when the weather conditions or the road conditions (e.g. dampness, dust, cold) are such that the quality of the work might be adversely affected. In particular, application of markings shall not be carried out when the road temperature is less than 5^0C.

Drainage gaps shall be provided on all continuous markings where surface water crosses the marking. These gaps shall be no longer than 50mm, and shall be spaced at intervals not exceeding 5m.

Skid Resistance:
50 B.P.N, when measured by the British portable pendulum apparatus.
or
SRT>50, in accordance with Annex D of IS EN 1436:2007
For Transverse Yellow Bar Markings Class S5
SRT>65, in accordance with Annex D of IS EN 1436:2007

6.4 Bituminous Sprays:

All surfaces shall be clean and free from dust, detritus and water prior to application of any bituminous spray.
Bituminous sprays should be cooked and cured prior to trafficking vehicles except in exceptional circumstances. No other construction traffic should be allowed on areas with bituminous spray applied. Public traffic is not allowed on areas with bituminous spray applied except in emergency or exceptional circumstances.

A polymer modified bond coat to Clause 920 shall be sprayed onto ***all surfaces including HBM and other bitumen layers prior to laying all bituminous products to improve adhesion between layers*** and increase the permeability of the underlying layer. When using an emulsion, after application it shall be allowed to break fully (i.e. turn from brown to black) before the asphalt is laid, unless it is applied by a paver with an integral spray-bar.

The specified rate of spread for bond coats shall be 0.35kg/m2 of residual binder. Residual binder is the amount of binder left after evaporation of the water content of the emulsion.

Application shall be carried out with a calibrated mechanical binder distributor. For small areas application may be carried out with a hand-held sprayer with the agreement of the Employer's Representative. Supply and apply polymer Modified Bituminous Tack coat to IS EN 13108.

6.5 Road Cores:

A report on the road cores taken at the locations agreed with the County Council must be submitted to the local authority at the expense of the developer prior to the snagging of a development to be considered to be taken in charge, unless alternatively arrangements are agreed with Building Control.

6.6 Gully Chamber and connection requirements:

The gullies and connections shall be cleaned out using a jetter or similar suitable equipment and each gully connection should have a CCTV survey conducted with a report submitted prior to a development been taken in charge.

Road gullies in accordance with I.S. EN124 and BS7903 within the existing road pavement with a minimum strength class of D400. (Cavanagh Foundry **Hippo Dual** or equivalent in terms of standard, size and capacity) Supplier's certificates of compliance with this standard shall be provided when requested by Dun Laoghaire Rathdown County Council. All new gully pots shall be precast concrete to CC-SDC-00510 and shall comply with BS5911-6, all gully connections shall be encased in concrete.

The Gullies shall be located and hinged at right angles to the road edge, so that they close in the direction of the traffic. Gully gratings shall comply with ISEN124 sub clauses 10 to 16 of Clause 507 and have cycle friendly gratings. The gully grating should be maximum 25mm from the kerb and 5mm to 10mm below the road level. Gully grating should be set on one course of engineering brick and the depth from the gullies. Gully gratings shall have a minimum clear waterway area of 90,000mm^2. Gully pots to be provided in accordance with TII Specification of Road Works series 500 and the TII Publication Spacing of Road Gullies DN-DNG-03067 within the existing road pavement and provide a 150mm surface water piping with connections from the gullies to the existing surface water network.

Note: Lockable gullies, round gully pots, plastic gully pots or block-built gullies are not acceptable.

Gully Chamber and Manhole Mastic surround requirements:

All Ironworks shall be reinstated with mastic surrounds in accordance with CC-PAV-04012 (https://www.tiipublications.ie/library/CC-PAV-04012-01.pdf) as follows:

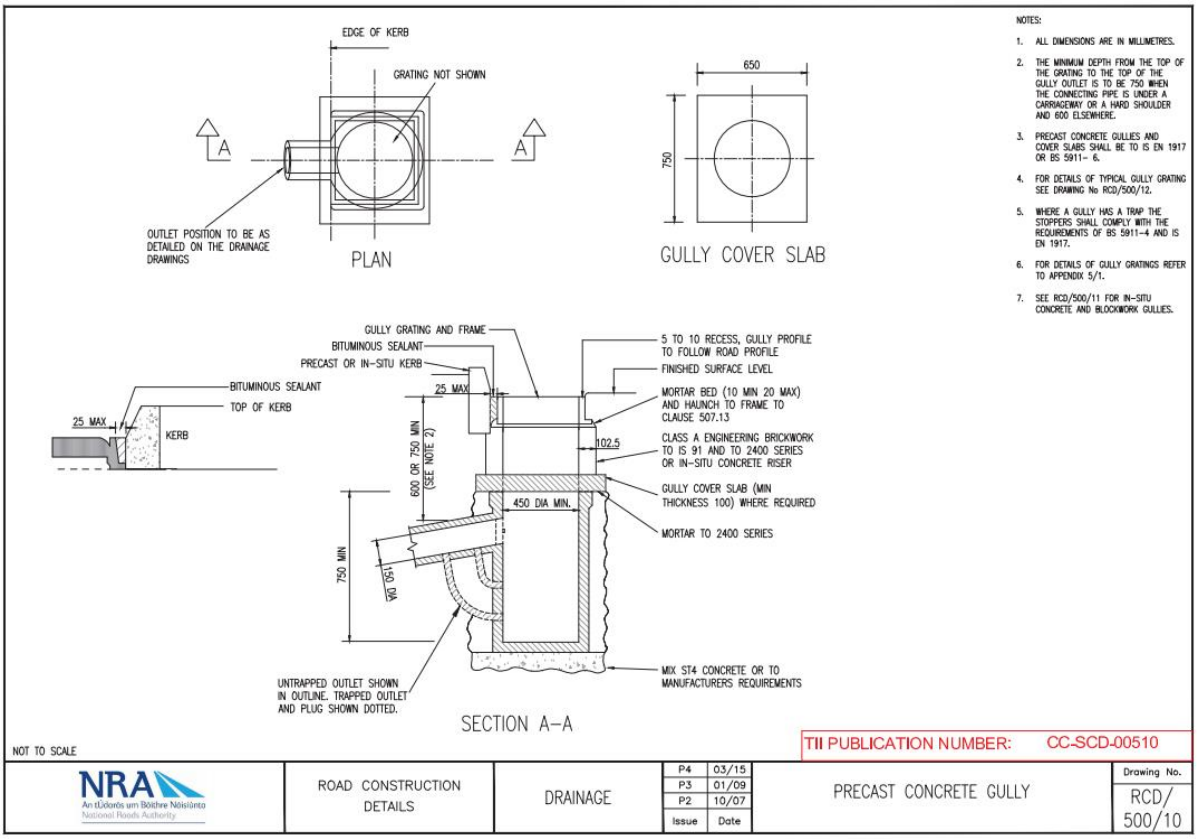
i. Where they are in the ***wheel tracks*** of a lane;

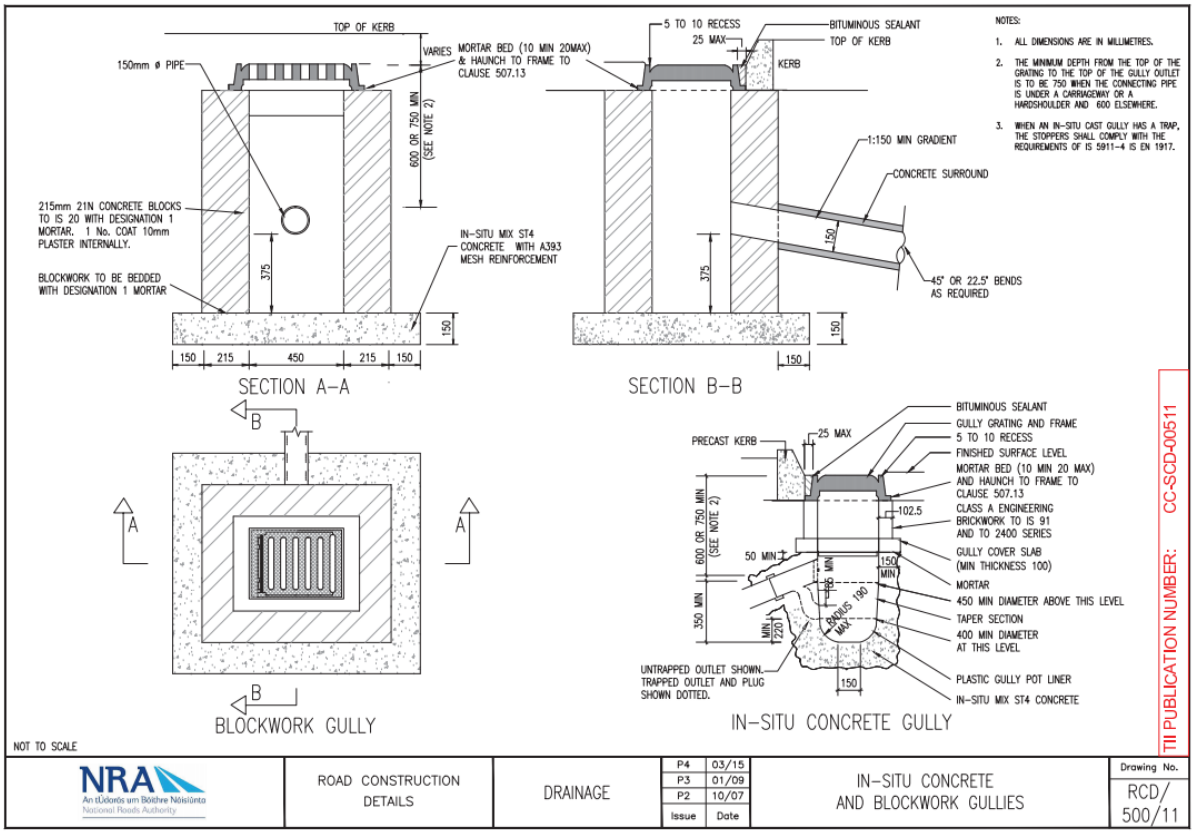
ii. Gullies in the vicinity of ***bus stops*** i.e., approximately 5 no. gullies on either side of a bus stop;

iii. Where the ***existing ironworks*** are in ***poor condition***; and

iv. At any other location identified by the ***Area Engineer*** of Building Control.

Road Gully Drawings:

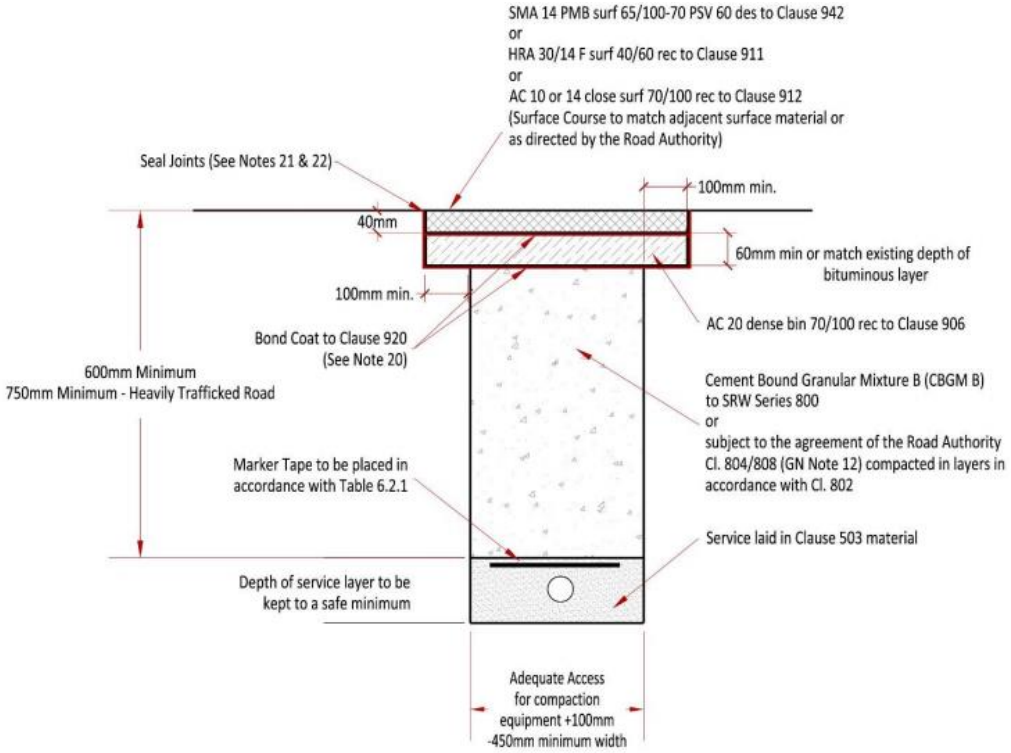




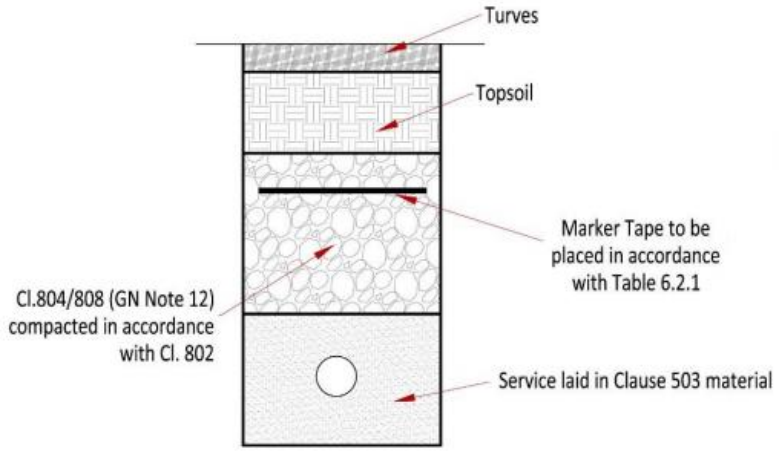
6.7 Road Openings:

Where installing new services on the existing road refer to DTTAS publication of Guidelines for Managing Openings in Public Roads. In particular the requirements for Compaction, Joints, Bonding and Joint Sealing. Works must be completed in accordance with General Reinstatement Notes GN1 and the relevant Standard Drawing Number i.e: SD7. Unless an alternative detail is specified or agreed in writing with an Area Engineer in Building Control.

- Roadways: Transverse Openings Standard Drawing Number 7,



- Grass Verges, Medians, Fields and Lawns; Standard Drawing SD14



TRENCH DETAIL IN GRASS MARGINS

6.8 Geotextiles:

The use of Geotextiles must be preapproved by a Building Control or Roads Maintenance Area Engineer. The developer must submit the required certificates including samples of the proposed use of any geotextile materials. Geotextiles used for separating earthworks materials shall comply with BS8006 & EN965.

6.9 Roadside Concrete Kerbs:

Concrete kerbs shall be in-situ, extruded or similar approved by Building Control, and shall be constructed as per drawing and standard detail RCD/700/2. Precast Kerbs are not acceptable.

At traffic islands the kerbing is to be constructed to the dimensions and details shown on the drawings series 1100.

The height of kerbs above the carriageway shall vary. Kerbs adjacent to the roadway shall be 125mm above road surface to the details shown on the drawings. Dropped kerbs at driveways shall be 25mm above road surface. Transition between dropped kerbs at driveways and full kerb height shall be over 1m.

In locations where the proposed kerb is to tie into an existing kerb of a different height there will be a transition between the two different heights of kerb which shall be provided over 5m or as agreed with a Building Control Engineer.

6.10 Tactile Paving Slabs:

Tactile paving slabs shall be used in the vicinity of dropped kerbs at crossing points provided to facilitate pedestrians when crossing public roads. Paving slabs shall comply with the UK Department of Transport Disability Unit Guidelines 1/91 for Module Type F and shall be 400 x 400 x 50mm thick and colours are to be buff for uncontrolled junction and red for controlled junction. The slabs shall be laid on a layer of clean sharp sand complying with BS 882 grading C or M, 50mm thick. The sand layer shall be laid on 200mm thickness of sub base to Clause 804.

6.11 Residential Developments Name plates:

It is a Policy Objective of the Development Plan that the naming of streets and residential estates shall reflect local place names or local people of note, heritage, language or topographical features as appropriate, and shall incorporate old place names from the locality as much as possible. The applicant/developer should ensure that the chosen place name for a new residential development is appropriate relative to its location, and is not already in use within the County.

Language:

Bi-lingual and Irish-language signs is mandatory. Only one line of text is to be used per language in normal circumstances. The street name in Irish should appear above the street name in English. The Place names Data base web site "Logainm.ie" provides a translating service for street names to be included on street name plates. At the bottom of the site page under "resources" you will find a link to where all requests should be made logainm@dcu.ie. Once the translations have been obtained, they must be forwarded for approval to the Council to confirm if the translation is appropriate for the proposed location. A location map and a list of the proposed street names in Irish along with their equivalent in English must be submitted. For additional information refer to the Traffic Signs Manual.

Text:

The Irish and English text shall be centred on the sign. All text shall be in upper case capitals and in Roman alphabet print in accordance with The Official Languages Act, 2003 (where both English and Irish language names must be displayed with equal prominence – neither text is to be in italic letters). The Irish text shall be placed above the corresponding English.

The form of alphabet and lettering size in use on street nameplates in the Council administrative area is 'Roman" with an upper-case letter height of 63.5mm. Condensing allows street nameplates to be of a practicable size while accommodating both Irish and English Text. The condensing factor should be the same for both Irish and English Text i.e. the spacing between the letters in both languages should be the same.

Material:

The material for street nameplates must be suitable for fixing to road boundary walls at a high and low level or to a suitable free-standing frame. The nameplate is to be tough, durable, non-brittle, non-corrosive, vandal resistant, cast aluminum alloy, complying with LM4 (BS EN 1706:2020) - Aluminum Casting Alloy cast.

Size:

Street nameplates shall be rectangular in shape and 250mm in height. Street nameplates shall range in length from a minimum of 500mm. Standard lengths are 800/1000/1200/1500mm. The total length of the sign shall be determined by the street name in either English or Irish, whichever is longer.

Colour:

The street nameplate background is to be 'Moss Green' RAL 6005 with a raised border and lettering of 'Signal White' RAL 9003. All paint is to be stove enamelled. Colours shall have a high degree of durability, non-fade quality and resistance to weather and hard usage.

Colour variations are not permitted. The 'Recommendations for the Design of Street Nameplates' (Department of Transport UK Circular 3/93) recommends that text on nameplates should provide a high contrast ratio with their background. 'The use of colour combinations with low contrast, for example bronze or brown lettering on green backgrounds, will result in poor legibility, especially under street lighting'. Street nameplates are commonly viewed at an angle due to their location and it is therefore important that the lettering contrasts with the background in order that it is legible.

Supplementary Information:

Where the street name changes at a point other than at a junction both names should be displayed at the point of change on separate nameplates which are adjacent to each other. An arrow should be included to indicate to which part of the street the names refer. House numbers and directional arrows should be included on street nameplates within housing estates in cases where the same name is to be used for estate roads with more than one spur.

Locating Street Nameplates:

All Nameplates must be in accordance with the sign location details contained within the traffic signs manual. The location of street nameplates is to be agreed with the Area Engineer.

Bilingual nameplates shall be erected at:
(a) Each side of the entrance to the estate from the existing Public Road.
(b) At each end of all internal estate roads and at the beginning of each cul-de-sac.
(c) At Tee junctions on access roads an additional nameplate shall be provided as required by Building Control Section.

Street nameplates should be fixed as near as practicable to street corners, so as to be legible by drivers and pedestrians. The nameplate should be positioned to ensure that vehicles and pedestrians that are entering a street for the first time can read the nameplate.

Street nameplates should be mounted so that the upper edge of the plate is approximately 0.75-0.90 metres above the ground at locations where they are unlikely to be obscured by pedestrians or vehicles. Street nameplates should be wall mounted at approximately 2.5 metres above the ground at locations where visibility of the nameplate is impaired. Nameplates should never be lower than 0.6 metres or higher than 3.6 metres.

Where possible, name plates should be fixed so that they will be illuminated by light from street lighting, especially at important junctions, provided they remain visible to vehicles on the main carriageway.

7.0: Parks and Landscape Services Development Guidelines

7.1 General:

The purpose of this document is to provide specific guidance for developers and their consultants, especially Landscape, Arboricultural and Ecology consultants, based on statutory guidance and the Council's Development standards (CDP –County Development Plan 2022-2028), in respect of Green Infrastructure, Open Space and Play Provision, Trees and Landscape, the document also outlines procedures for Taking in Charge of Residential Developments.

The scope of the guidance is commercial, industrial, educational, institutional, residential and sports/recreational infrastructure/facilities.

Compliance with Guidance

Developers and their agents should study this document prior to preparing and submitting development proposals, which must comply with the guidance document. Proposed developments that do not adequately meet the requirements set out in the guidance document may not be granted planning permission or compliances on foot of a permission.

Taking-in-Charge

Taking-in-charge is a separate process from compliance with the development standards. **Developers should note that, whether a development is to be Taken in Charge or not, the standards outlined in the guidance document are the minimum acceptable standards that apply.** The Council will require an equal or higher standard of landscape development for private developments which are to be maintained by Private Management Companies.

Placemaking - the key areas

There are several components that contribute to successful and sustainable placemaking in a development context. These are as follows: -

- Provision of Open Space and Play Opportunities
- Landscape Design Rationale
- Site Features and Habitats (trees, hedgerows, boundaries etc.)

7.2 County Development Plan 2022 - 2028

Built developments include a range of development and land use types and are typically residential, educational, commercial and relating to sports infrastructure/facilities. The most common type of development is residential. The planning policies contained within:
Chapter 9: Open Space, Parks and Recreation and
Chapter 12: Development Management
of the **County Development Plan (CDP 2022-2028)** are key to the criteria set out within this document.
A core aim of land-use planning is to ensure that new residential developments offer a high quality living environment for residents, both in terms of the standard of individual dwelling units and in terms of the overall layout and appearance of streets and outdoor spaces.

Chapter 12 Development Management – Policy Context

CDP 2022-2028 addresses the practical application of the policies in respect of landscape development of built developments in Dún Laoghaire-Rathdown. Developers and their agents/design teams and specialist consultants should be familiar with the following principles, policies.

- Planning Process
- Open Spaces
- Sensitive Landscapes and Site Features
- High Amenity Landscapes, Views and Prospects
- Tree and Hedgerow Preservation
- Telecommunications Antennae and Structures
- Wind Energy
- Water Sports and Development

Of particular concern, in terms of landscape development is the following topics:

- Trees and Hedgerows
- Ecology and Biodiversity
- Provision of Parks and Open Spaces
- Play and Recreation

Section 12.7 Green Infrastructure and Biodiversity

Green Infrastructure is a planned network of natural and semi-natural areas with other environmental features designed and managed to offer a wide range of ecosystems services. Green Infrastructure includes nature conservation areas, rivers, floodplains, wetlands, treelines, woodlands, coast, gardens, opens spaces and parks. Linked together these networks of green areas can provide multiple benefits in the form of supporting a green economy, improving quality of life, protecting biodiversity and enhancing the ecosystems to deliver services such as disaster risk reduction, water purification, air quality, space for recreation and climate change and adaptation.

Where a proposed development impacts on a site known, or likely, to be a breeding or nesting site of a species listed in Habitats Regulations a derogation licence, issued by the National Parks and Wildlife Service (NPWS), which is part of the Heritage Division of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs will be required in advance of any works being carried out.

Developers/Applicants should be advised of this possibility at pre-planning stage and advised to consult with the National Parks and Wildlife Service (NPWS), Licensing and Development Applications Unit, prior to making a planning application.

Where a proposed development results in a loss of or impact on existing trees or on a wildlife corridor, potentially resulting in an adverse impact on dependant flora and fauna, developers/applicants shall undertake an Ecological Impact Assessments and provide mitigation measures.

Any development proposals for sites designated as, or immediately adjacent to, a pNHA, SPA or SAC shall be accompanied by an EIS and/or Appropriate Assessment and shall be referred to the NPWS. Regard shall be had to 'Guidance for Local – Authorities Appropriate Assessment of Plans and Projects in Ireland' (DEHLG) (2009).

In the event of a proposed development impacting on a site known, or likely, to be a breeding or resting site of a species listed in Habitats Regulations a derogation license, as per Article 16 of the Habitats Directive issued by the NPWS, will be required in advance of permission.

Planning applications for development, which may impact on European sites should be screened for Appropriate Assessment and accompanied by a Natura Impact Statement if required.

A precautionary approach should be taken to all proposals in environmentally sensitive areas and/or to sites that may be in use by, or contain, protected species.

Section 12.8 Open Space and recreation:

Open Space is categorised for Residential Development. There are three categories of open space: public open space, communal open space, and private open space. This is provided or conditioned by way of a grant of planning permission, to serve the needs of the local population, and is categorised in table 12.7 as shown below:

Table 12.7 *Categories of Open Space for Residential Development*

Open Space Category:	Classification:
Public Open Space	Public open space is defined as being generally freely available and accessible to the public, and in the case of certain residential developments has, or is intended to be, 'taken-in-charge' by the Local Authority. In all new residential development schemes, there should be some appropriate provision made for public open space within the site. In all instances where public open space is not provided a contribution under Section 48 will be required for the short fall.
Communal Open Space	Communal open space is for the use of a set group of residents within the development only and would ordinarily be maintained by a Management Company i.e. is privately owned. This would be typical of apartment - type residential developments and can be gated/ located adjacent to one/two specific apartment blocks for their exclusive semi-private use. It can also apply to some housing schemes.
Private Open Space	Private open space normally refers to balconies and/or private gardens, which are the responsibility of, and only accessible to, the individual resident.

Permeability may be required for pedestrians and cyclist across open space.

Public Open Space can be taken in charge. Both Communal and Private open spaces will be privately managed. Applicants for all new developments are encouraged to engage with the Planning Authority at preplanning stage to discuss the public, communal and private Open Space requirements for specific sites and uses.

The following will not normally be considered as part of any Open Space provision:
Car/bus parking.
Bin/fuel stores.
Bicycle parking structures.
ESB substations or other service infrastructure.
Underground flood attenuation tanks.

All applications for residential schemes (including Built to Rent) should include a clear written schedule and colour coded drawing with public, private and communal open space provision identified. The written schedule shall include the County Development Plan requirements, the proposed provision and full details of any short fall.

All residential schemes must provide a minimum provision of public open space in accordance with the table 12.9 below, which has regard to the content of the Section 28 Guidelines 'Sustainable Residential Development in Urban Areas' (2009).

Table 12.8 *Public Open Space Requirements for residential developments*

Location:	Public Open Space Standards (minimum):
Residential Development in new residential communities as shown in the Core strategy – figure 2.9.	15% (of site area)
Residential Development in the existing built up area.	15% (of site area)
Institutional and Redevelopment of SNI use	25% (of site area)

To qualify as public open space the area must be designed and located to be publicly accessible and useable by all in the County; generally free from attenuation measures; and capable of being taken in charge (i.e. must accord with the Council policy on taking in charge of open spaces).

Public open spaces should be overlooked and designed to ensure that potential for antisocial behaviour is minimised through passive surveillance. The open space should be visible from, and accessible to, the maximum number of dwellings/units within the proposed scheme. Inaccessible, hidden or otherwise back-land open space, and narrow linear strips of open space will not be acceptable.

Age friendly measures should also be incorporated into the design of public open space, such as the provision of suitable benches at appropriate intervals.

'Sustainable Residential Development in Urban Areas - Guidelines for Planning Authorities' provides detailed guidance on the provision of open space for new residential developments while the 'Retail Design Manual' (2012) provides guiding principles on how landscaping and open spaces can assist improved public realm and promote attractive retailing centre.

7.3 Site Features and Habitats

Habitats Survey and Ecological Assessment:

On larger sites and where there is evidence of existing natural and/or semi-natural habitat(s), the Council will require the applicant to submit a habitats survey and ecological assessment, prepared qualified ecologist and in accordance with 'Guidance for Preliminary Ecological Appraisal' (April 2013, CIEEM) or such other guidance document(s) that the Council may cite. Depending on the nature and character of the habitat(s) the consulting ecologist may be required to retain the services of specialist, sub-consultants, as for example a Bat Ecologist, an Aquatic Ecologist, or a small mammal's expert.

Trees and Hedgerows:

Existing, mature trees can be significant assets to new developments: they add a sense of place, maturity and beauty, provide valuable screening, shelter and privacy, support wildlife and biodiversity. Within built developments, retention of existing trees is often desirable and achievable, subject to Arboricultural assessment, impacts and feasibility studies. However, trees can be lost because of the impacts of construction activities associated with developments. Others are lost because of their Arboricultural condition or inappropriate location and others because of a lack of suitable protection and inadequate consideration of integration and retention.

Activities that kill or harm trees include: root severance, compaction of soil around roots, flooding, altering water table, changing soil levels, machinery damage and harmful substances (e.g. oils, petrol, cement) is of great importance that none of these activities occurs within a tree's Root Protection Area (RPA), as defined/ calculated by methodology described in BS 5837: 2012 Trees in relation to design. demolition and construction -recommendations.

It is essential to conserve trees where appropriate and prudent. It is also essential that tree planting is an integral part of urban design and that the provision of sustainable tree pits and trenches is given equal consideration (i.e. underground service locations). Trees may be the only organic living part of the streetscape. They contribute in many ways to humanising the space, enhancing the environment and minimising the impacts of climate change. Where existing trees are removed, new compensatory tree planting should be provided by the developer.

Where hedgerows are located on conditioned public open space, pruning works shall only be carried out outside of nesting season (1st March to the first of 31st of August) as per Section 40 of the Wildlife Act 1976, as amended by Section 46 of the Wildlife (Amendment) Act 2000.

7.4 Best Practice Standards

Where there are trees and/or hedgerows either within the site or on adjoining boundaries (trees growing on adjacent site(s) of the site, the Council will require a detailed Tree Report to be submitted at both Pre-planning and planning application stages. The Tree Report shall describe the results of a detailed Tree Survey and Arboricultural Impacts/Implications Assessment that must have been carried out in accordance with the British Standard BS 5837 and will only be accepted if carried out by a suitably qualified Arborist/Arboricultural consultant.

The Planning Application requires a full tree report including the following information:

1. **Tree Survey Plan:** all trees and hedges on and adjacent to the subject site (i.e. within falling distance thereof) shall be accurately plotted, tagged and shown on a scaled drawing {1:500@A1) of a topographical survey of the site

2. **Tree Survey Schedule:** a summary of the surveyed trees and hedges, giving a breakdown of their tag nos., species, size, age, condition and life expectancy.

3. **Arboricultural Impact Assessment:** a thorough, detailed and realistic analysis and assessment of the likely impacts of the proposed development on the surveyed trees and hedges; along with a summary table of the tree population and quantification of impacts/losses etc. (total number surveyed and total numbers/ percentage to be retained and felled respectively).

4. **Design Iteration-** Adjustments to Proposed Site Layout, subsequent to and arising from the Impacts Assessment, the applicants shall demonstrate in their submission that they has sufficiently explored and investigated layout alternatives, to achieve an optimal solution that meets DLR's Tree Strategy and its Development Plan standards in respect of tree preservation and tree retentions.

5. **Tree Constraints Plan:** a scaled site plan (1:500@A1) showing the impacts of all surveyed trees, shown clearly in relation to the proposed site layout of the proposed development.

6. **Tree Protection Plan**: a scaled site plan (1:500@A1) of the proposed development, clearly showing and distinguishing (by colour coding) those trees and hedges to be retained and

protected and those to be removed ; showing alignments of Tree Protection Fencing and areas to be excluded from construction activities and compound(s), site office(s), plant, equipment and materials storage.

7. **Arboricultural Method Statement:** clear and practically achievable measures to be used during the construction period, for the protection and management of all trees and hedges that are to be retained, as shown in the Tree Protection Plan.

8. **Competence:** Arborist's name, Arboricultural qualifications and contact details.

9. **Date** that the survey was carried out (surveys older than 12 months are unacceptable).
The Council expects that all submitted applications shall be based on a robust investigation of the feasibility and prudence of maximum tree retention and preservation, in accordance with its tree policies and objectives. Therefore, the applicant shall ensure that its proposed site layout plan and related documents, are the result of adequately explored and investigated alternatives, to achieve an optimal tree conservation solution. This is necessary to meets DLR's Tree Strategy and County Development Plan tree standards.
If mature tree(s) require tree surgery or felling, the tree must be assessed for its potential to support roosting bats. A qualified ecologist must carry out these assessments.

7.5 Tree Bonds

Tree bond Requirements:

Where trees and hedgerows are to be retained, the Council may require a developer to lodge a tree bond. This relates to trees and hedgerows that are most likely to be impacted upon by the development, trees relatively close to existing and proposed buildings and/or structures; and trees that are of amenity, cultural, educational or scientific value.

The purpose of the Bond is to act as insurance against damage to the retained trees or hedgerow, thereby maintaining tree cover on the site. The Bond will be used to cover the loss of amenity and cost(s) of necessary trees works and/or replacement (compensatory) tree planting, arising from any damage(s) or loss(-es) caused by the developer during construction period for the permitted development.

Dlr as planning authority may sequester all or part of the Bond in the event of such damage(s) or loss(-es).

Release of Tree Bonds:

After practical completion and the allocated time set out in the planning permission the developer submits to Dlr Planning, an Arboricultural Assessment Report and Certificate. The Certificate shall state that all recommended tree works have been fully undertaken; and that the retained trees are in good condition and don't present any imminent public hazard.

The Tree Bond shall not be released until the Report, Certificate and any remedial works have been undertaken, to the satisfaction of Dlr Parks and Landscape Services.

7.6 Landscape Design and Maintenance Proposals in accordance with Chapter 12 of the Development Plan:

Development Management:

In accordance with Chapter 12 of the Development Plan, it is of benefit to applicants, and the Council, for consultation to be had regarding proposed development prior to their lodgement as planning applications. Under the provisions of Section 247 of the Planning Act, 2000, as amended, a prospective applicant shall have consulted with the Planning Authority in respect of the development that comprises:

- Residential development of more than 10 housing units.
- Non-residential development of more than 1,000 square metres gross floor space.
- Other development as may be prescribed in legislation.

Details with regard to applying for a pre-application consultation can be found at https://www.dlrcoco.ie/en/planning/planning-applications/pre-planningconsultations.

Landscape Design Rationale and Landscape Proposals:

The ***Development Plan*** requires all planning applications for major developments shall include a Landscape Design Rationale prepared by a qualified Landscape Architect, for the consideration of the Parks and Landscape Services Department. The Rationale shall set out the design concept and justifications behind a set of accompanying landscape proposals. The concept should be based on and embrace, as appropriate, best practices and innovations in quality Placemaking and Universal Design.

Within section 12.8 of the ***Development Plan*** planning applications for 1000+sq.m. commercial development, 10+ residential units, or smaller developments (as deemed appropriate by the Planning Department), should submit a landscape design rationale prepared by a qualified Landscape Architect or other suitably competent landscape professional (as deemed appropriate by the Planning Authority), for the consideration of the Parks and Landscape Services Department.

Proposals shall include a scaled landscape plan(s) with cross-sections, where applicable, showing the layout and hard and soft treatment of all boundaries, features, external areas (including informal and formal play spaces) and greenspaces.

Under section 12.2.6 Applicants should explore the potential for urban greening in developments including:

➢ High quality landscaping (including tree planting), that make use of a diverse range of species of plants – consistent with the All Ireland Pollinator Plan (www.pollinators.ie), site appropriate and irrigated by rainwater.

➢ Incorporating Nature-Based Solutions (NBS) into the design of buildings and layout – living/green walls, living/green and or blue roofs including in the design of small buildings and shelters, other soft Sustainable urban Drainage Systems (SUDS) measures such as swales, rain gardens, using trees for urban cooling and the reduction of wind tunnel effect.

Professional Expertise:

The following policy and best practice approach apply:

➢ For all developments where landscape design is relevant and necessary the applicant shall use the professional services of a consulting qualified Landscape Architect.

➢ The consulting Landscape Architect shall be part of the applicant's Design Team and shall be involved in the team as early as possible, so as to be in a position to advise the team on all aspects of Placemaking/Urban Design and related hard and soft Landscape Design, Provision of Open Space and Play/Active Recreation Opportunities, site layout and site development, ecological / environmental and visual impacts and related issues, thereby ensuring an holistic approach and the formulation of optimal design and maintenance solutions.

➢ For small developments, such as single dwellings and infill residential developments the applicant shall appoint either a consulting qualified Landscape Architect, or a qualified Landscape/Garden Designer, or certifying body that is recognised by Dlr.

➢ Landscape proposals prepared by other than a suitably qualified and competent Landscape Architects or qualified Landscape / Garden Designers will not be accepted.

Agreeing the Landscape Proposals

Agreeing the landscape proposals is a two-stage process. The first stage is optional, that is at the discretion of the applicant, insofar as it would involve pre-planning consultation (pre-submission discussions) by the applicant's consulting Landscape Architect with Dlr Parks and Landscape Services prior to the submission of a planning application. This is advisable as it is

a more efficient use of time and resources, providing clarity on proposals and requirements and crucially, removing the need or reducing the likelihood of a request for Further Information (F.I) and thereby benefiting both the applicant and the planning authority.

The second stage is the actual submission of the application and associated documentation. In the interests of efficiency and efficacy, it is much preferable if detailed landscape proposals are submitted at this stage, rather than in response to an F.I request or in response to a planning condition.

Stage 1: Pre-submission Consultation

The information to be provided should include the following:

Site Survey/Analysis with map:

➢ This plan should detail the existing features/attributes of the site including topography, levels, boundaries, views/vistas, all existing buildings/ structures, existing vegetation and trees, any identified or potential wildlife habitat, existing footpaths and rights of way, all services and service access including surface drainage.

➢ Ecologists should carry out an ecological assessment to identify the presence of, or potential for, habitats and species of nature conservation importance. The assessment will inform the development design and must include recommendations for avoidance/ mitigation measures and monitoring that will ensure the conservation of biodiversity features during and following development work.

Landscape Concept Plan

➢ Based on the site analysis, alternative concept proposals for the design and layout of the open space, including the relationship with existing open space in the area, should be provided.

Outline Plan

➢ A preferred option should be sufficiently detailed to provide a substantive proposal for the open space which will include for all ground modelling, boundary treatments and construction works including any drainage/storm water attenuation proposals.

➢ In particular, where the proposed development involves a significant loss of existing vegetation, especially of any mature trees, the Council will require appropriate quantities and types of replacement planting, including possibly the use of semi-mature trees specimens, where the Council considers this necessary in the interests of establishing immediate benefits.

➢ In addition, surface water outfalls to watercourses and other such structures shall be appropriately designed to complement the character of the site.

➢ Structures such as refuse stores, sub-stations, ESB cabinets and mini pillars etc. will not, under normal circumstances, be permitted on public open space. If, however locating such elements in open space is unavoidable for logistical, practical or other justifiable reason, this shall be agreed in writing with Dlr Parks and Landscape Services, preferably prior to submission of a planning application or at application stage (Stage 2 – see below). Assessment and decision-making of any such proposed locations shall be on a case-by-case basis. Also, if and when such locations may be agreed, Dlr Parks and Landscape Services may require appropriate screening of refuse stores, sub-stations, ESB cabinets and mini pillars etc., as part of the landscape design for the proposed development.

Stage 2: Planning Application:

The applicant shall submit a Landscape Design Rationale together with comprehensive and detailed landscape proposals, all prepared by a qualified Landscape Architect, for the consideration of Dlr Parks and Landscape Services. Such proposals shall include the following:

➢ A scaled landscape plan with cross- sections, where appropriate, showing the layout and hard and soft treatment of all boundaries, features, external areas and green spaces. All landscaped plans to include grassed areas, suitable tree types, biodiversity areas, and highlight highly landscaped areas.

➢ Landscape Specifications for materials, workmanship and maintenance

➢ Details of hard landscape proposals, where applicable, for boundaries, (walls, fences, screens), lighting, seating, kerbing, edging, surfacing and water features.

➢ Details of soft landscape proposals are to include detailed planting plans and planting schedules, stating species/varieties, quantities, sizes, root ball presentation and spacings.

➢ The applicant shall agree a timescale for implementation of all proposals with Dlr Parks and Landscape Services, including the specified landscape maintenance operations. The landscape plan shall be accompanied by a timescale for its implementation as well as a minimum *18-month* post-Practical Completion landscape maintenance period and concurrent defects liability clause.

➢ Regard should also be had to Policy Objective OSR14: Play Facilities and Nature Based Play.

7.7 Landscape Works

Areas designated for public open space purposes should be fenced off prior to the commencement of any development works on site and should not be used for site compounds etc. unless otherwise agreed with the Council. Staging of construction works should be programmed to minimise disturbance and compaction of grounds planned as future public open space. Special attention should be paid to ensure that barriers around the public open space remain rigid and complete throughout the development works.

Open Space Sitting:

Open space should be situated in locations where there is passive surveillance to enable people feel safe. Open space should be generally located in the centre of the development with no hidden corners. Open space should have good access links for pedestrians and cycling. Open space provision to include active and passive activities and be an inclusive area for a wide variety of people.

Development of Open Spaces:

All development works should ideally be carried out during the summer when weather conditions are suitable, and the potential for damage to soil structure is minimised. All such works should be carried out under the supervision of the landscape consultant. In general, all gradients in grassed areas shall not be greater than 1:4. However, in some instances the applicant can outline in the planning application if there is a particular reason that a gradient may be higher than 1:4 for if example play opportunities.

Topsoil Compaction and Storage:

In circumstances where the Council has permitted public open space to be used as a location for a site compound or for the storage of topsoil/spoil etc., all excess material shall be removed from the open space, prior to the commencement of basic development works, to achieve specified/agreed levels. Any excess topsoil to be removed from the site is subject to agreement with the Council. The developer will be obliged to store any topsoil to be used in future public open space in accordance with the requirements of the Council. Existing topsoil is to be viewed as a resource to be valued and managed in accordance with biodiversity and sustainable development practices.

Where the dumping of spoil or rubbish has taken place on the open space and soil compaction has occurred, the developer shall arrange to have the area in question deep ripped, prior to top soiling and seeding.

Where it is suspected that unauthorised dumping of spoil or rubbish has taken place, the developer may be required by the Council to dig a number of trial pits on the open space. Any extraneous materials shall be removed from the site and the open space reinstated to the satisfaction of the Council. Any removal of soil is subject to national waste management legislation.

The Council may require testing of material to be used as topsoil on any future public open spaces, at the cost of the developer, to ensure quality control. Any import of topsoil is subject to national legislation and the Council may request information from the developer about the source of any imported materials, and may reject such materials, to be used in future public open spaces to protect public health.

Topsoil Depth, Drainage and Seeding:

All areas to be grassed on public open space should be provided with an adequate layer of good quality topsoil on the surface. In general, a minimum depth of 300mm of topsoil freely draining subsoil is acceptable as per British Standards 3882:2015 Specification for Topsoil. All surface stones from 10mm to 50mm in dimension should be removed from the surface.

Grass areas in open space should be free draining with quality topsoil. Where drainage works are required they shall be constructed in accordance with British Standards 4428:1989 Code of Practice for General Landscape Operations Section 3.

Seeding operations shall be carried out during appropriate weather conditions using a grass seed mix agreed between the landscape consultant and the Council. Seeding should be carried out at a rate of 150 kg/h to 200 kg/h for machines seeding large areas of open space. All seeding of grass should be in line with British Standards 4428:1989 Code of Practice for General Landscape Operations. Seeded areas must be maintained to ensure proper establishment of grass before the area can be taken in charge. This is to include a minimum of 6 cuts with arisings removed. Any areas of settlement should be levelled, and any stones or other deleterious materials arising removed from the surface. If ponding, cracking or other indicators of compaction are evident these issues should be rectified to the Area Engineers within Building Control satisfaction prior to taking in charge.

Wildflower Meadow within Developments:

Wildflower seeding should be conducted at the appropriate time and weather conditions. The application of wildflowers should be completed as per guidance of http://www.wildflowers.ie. The developer should have a long-term maintenance plan ensuring longevity for wildflower meadow. Pathways through the wildflower meadow can be cut to encourage pedestrians to make it user friendly.

Tree, Shrubs and Planting:

Shrub & tree planting should be planted to form focal points at the entrance and throughout the estate/development. In general plants/trees included in planting scheme should be pollinator friendly as proposed in All Ireland Pollinator Plan 2015-2020. Where appropriate native trees/plants should be utilised. All trees, shrubs and planting shall be planted must be as per the landscape plan agreed by the Council and the appointed landscape architect at planning stage. Street trees should be planted to reduce the harsh urban effect of the development. Trees that are to be planted in the street scape shall be planted into constructed tree pits with constructed root soil, followed by a capping of a porous material. The species of street tree chosen should reflect the size of the grass verge and quality/depth of soil into which the tree is to be planted.

All planting schemes undertaken as part of development should include the provision for bulb planting. In general, bulbs will be planted in drifts to complement areas of shrub planting or under areas of woodland or groups of mature trees. Bulbs included in planting scheme shall be pollinator friendly, further details of pollinator friendly bulbs can be found on the All Ireland Pollinator Plan 2015-2020.

Boundary Walls and Railings:

Boundary treatment is an essential element of any landscape plan. Where it is proposed to use a railing and low wall to define areas of public open space, the information to be provided to the Council shall include detailed drawings and measurements of the proposed boundary, the finish proposed for the wall (i.e. whether it is to be of stone, brick, dashed etc.), and confirmation that the proposed wall and railing complies with the relevant European and Irish standards and current legal requirements ie the NSAI standard SR 325:2013 and that they were designed in accordance with the recommendation for the design of Masonry Structures in

Ireland to Eurocode 6. Certification of Boundary Walls is required within Appendix 1 of this document from a Consultant Engineer with Professional Indemnity Insurance.

The specification shall also show the proposed finish for the railing to be used. In general, railings should be galvanised and powder-coated unless otherwise agreed.

Detailed specifications will also be required where a boundary is to consist of a wall on its own, a railing on its own, a retaining wall or where steps are required to rationalise changes in level. Drawings should always include the bedding pattern and capping style for stone walls and the number and location of steps where proposed. Where possible stone walls should be constructed using local stone with horizontal bedding.

7.8 Provision for Play and Recreation

Play Rationale

In line with the national children's play policy '*Ready Steady Play'* the applicant shall provide suitable play opportunities for the future child population within the proposed development. These should, ideally, permeate and be incorporate and related to the Landscape Design Proposals for the proposed development. The applicant shall submit an *Indicative Play Plan and Report*, describing play rationale, types of play, age groups catered for and the space(s) where these are to be located.

Applicants are advised that the Council does not always expect or require fully or partly-equipped play spaces, in that informal non-equipped design solutions may, if imaginatively and practically conceived (e.g. taking advantage of site features), but suitable and adequate to meet children's play needs.

Applicants may be required, where appropriate (large residential developments) to submit a comprehensive and detailed *Play Layout Plan*, along with the *Play Rationale*, for the consideration of Dlr Parks and Landscape Services.

The applicant should bear in mind that the Council's policy is that all new development should provide adequate and appropriate play opportunities for children and teenagers of all ages. In that light, it is worth remembering that not all such provision needs to include play equipment and/or fixed facilities or structures. For example, a creative and imaginative design approach to landform and earthworks can results in inventive and fulfilling play experiences.

The applicant shall submit details of all play equipment, and safety surface, along with specifications and proof that all equipment conforms to European Standards ***EN 1176-1-11*** and ***EN 1177*** *Playground equipment and surfacing*. Post installation certification by the Royal Society for the Prevention of Accidents (R.O.S.P.A) will also be a requirement.

Certification for playgrounds and play equipment to include a recent annual inspection report and all issues identified resolved. Standard for playgrounds to be conditioned outdoor play area

inspectors are to be fully qualified to the necessary levels by the RPII (Register of Play Inspectors International).

Playgrounds are inspected and assessed to a number of different standards, including: Playground Equipment & Surfacing - EN 1176 & EN 1177, MUGA's (Multi Use Games Areas) - BS EN 15312 - Free Access Multi Sports, Skate Parks: BS EN 14974 - Roller Sports Equipment, Outdoor Fitness Equipment – BS EN 16630, Parkour Equipment – BS EN 16899.

7.9 Guidance and Best Practice Standards

Developers and their agents are expected to take due account of the following statutory and non-statutory policies, guidelines and standards, paying special attention to those clauses dealing with Green Infrastructure, Urban Design/Placemaking Open Space and Play Provision, Trees and Woodlands, Ecology and Landscape Design/Maintenance.

➢ Urban Design Manual (Department of Environment, 2009).

➢ *Residential Development in Urban Areas. Department of Environment (2009)*

➢ *Guidance for Preliminary Ecological Appraisal. April 2013. Chartered Institute of Ecology and Environmental Management, www.cieem.net)*

➢ *Play policy. Ready, Steady, Play. (2019) Irish Government, Dublin.*

➢ *All Ireland Pollinator Plan 2015-2020*

➢ *BS 8545. Young Trees: From the Nursery to Independence in the Landscape* recommendations

➢ *BS 5837: 2012 Trees in relation to design, demolition and construction – recommendations*

➢ BS 3998:2010 Recommendations for Tree Work

➢ *BS 3936 - 1:1992 Nursery Stock. Trees & Shrubs*

➢ *BS 3936 - 9:1987 Nursery Stock. Bulbs, Corms & Tubers*

➢ *BS 3882:2015 Specification for topsoil*

➢ *BS 4428:1989 Code of Practice for general landscape operations (excluding hard surfaces)*

➢ *BS 4043:1989 – Recommendations for Transplanting Root-Balled Trees.*

➢ *BS 7370-4:1993 – Grounds maintenance. Recommendations for maintenance of soft landscape (other than amenity turf*

➢ *Guidance Notes 4 – Visual Amenity Valuation of Trees and Woodlands (The Helliwell System 2008) Arboricultural Association*

7.10 Taking-in-Charge

Post-Practical Completion:

Prior to any request to the Council to take in charge, the developer shall maintain all public open space for a minimum 18-month period after the Practical Completion of all landscape works, as certified by the developer's Landscape Consultant.

Snag List:

The developer's Landscape Consultant will be responsible for the preparation of a comprehensive and detailed snag-list and the list shall be agreed with Dlr Parks & Landscape Services. The snag list shall set out all those outstanding items that are required to complete the open space and all hard and soft landscape works.
On satisfactory completion of the open space and landscape works, Dlr Parks & Landscape Services - in collaboration with the Council's Building Control Section - will carry out a final inspection of those areas to be Taken-in-Charge.

Once all outstanding matters, have been fully completed to the satisfaction of Parks+ Landscape Services, and in accordance with the relevant planning conditions pertaining to trees, open space, play, landscape works and maintenance, the Council will finalise the Taking-in-Charge process.

7.11 Land Transfer Requirements, Documents and As Constructed Drawings:

It is a preference of the Council that Public Open Spaces in excess of 0.25 acres be requested to be legally transferred in title to the Council prior to Taken in Charge a development at the expense of the developer in order for the Council to maintain same. However, a Deed of dedication is a minimum requirement. Open Spaces that are smaller than 0.25 acres may also be requested to be legally transferred by the Council depending on the adjacent land uses. Appendix E of this document provides a draft deed of transfer as a template for this process.

The developer should submit an as-constructed digital drawings, completed to Land Registry requirements, outlining in colour the area to be Taken-in-Charge and showing clearly all the services therein. Such drawings shall be in accordance with the requirements of the Council's Building Control Section.

- The area(s) of the open space to be Taken-in-Charge shall be clearly outlined on the as-constructed drawings. The areas of open spaces shall be stated in sq. metres or hectares, as appropriate. Procedure for Transfer of title of open space lands to Council in accordance with Planning Act 2000.
- An accurate map to Land Registry Requirements (i.e. Ordnance Survey map to scale of 1;1000) with lands to be dedicated or transferred outlined in red thereon, also associated Folio numbers to be written on this map.
- Evidence of the Vendor's title i.e. copies of Land Registry Folio or copy of Deeds if unregistered land etc.,
- A separate letter of confirmation that the lands being dedicated / transferred as outlined on the maps are contained within the relevant folios and/ or Deeds.
- Draft Deed of dedication as per appendix E of this document (with proof of ownership and folio numbers attached)
- As Constructed Drawings (showing all services – particularly where they traverse the open spaces)

7.12 Web Resources

- http://www.pps.org: Project for Public Spaces – Placemaking NGO, New York USA
- http://greenspacescotland.org.uk/:Glasgow-based NGO
- http://universaldesign.ie/ : Centre for Universal Design, National Disability Authority, Dublin
- http://www.universaldesign.com: USA-based private philanthropic effort by
- http://www.udconsultants.com
- http://www.asla.org/sites/: American Society of Landscape Architects.
- http://www.asla.org/sustainablelandscapes/index.html:
- http://iflaonline.org/International Federation of Landscape Architects (IFLA).
- http://www.irishlandscapeinstitute.com: representative body for Landscape Architecture in Ireland.
- http://www.glda.ie: representative body for qualified garden and landscape designers in Ireland

8.0: Public Lighting in Residential and Industrial Areas: Guidance Document – January 2022:

8.1 General Information:

8.1.1 Introduction:

This guide is for use by developers undertaking either public or private developments to assist them in providing adequate lighting to the standards of Dun Laoghaire-Rathdown County Council. It sets out the general requirements for all such developments. Where special circumstances apply that require deviation from this document these shall be clearly agreed in writing with the public lighting section of Dun Laoghaire-Rathdown County Council in advance of any work commencing on site. For new Developments that will require external lighting, regardless of whether or not it is to be taken in charge, it is recommended that the Developer makes contact with the Public Lighting section prior to commencement of construction.

8.1.2 Health and Safety Requirements

The attention of the Developer is drawn to the obligations arising under the Safety, Health and Welfare at Work Act 2005 or latest approved version.

Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2012 or latest approved version. Safety, Health and Welfare at Work (Construction) regulations 2013 or latest approved version.

8.1.2 New Development Works

On satisfactory completion of the development the Council will if requested take in charge the public lighting installation subject to any conditions, which may be imposed. However, should the developer fail to construct, complete, make good and maintain the works in a satisfactory manner the Council reserve right to carry out any works, which in the opinion of the Council are necessary, and to recover the cost from either the developer or the development bond.

Electronic file versions in Autocad, Reality Lighting or pdf shall be submitted showing the public lighting installation, wiring diagrams, lux contours and any other relevant documentation to support the maintenance of the public lighting installation. Note: Lighting Designs in Lighting Reality format are preferable for reviewing lighting submissions that include relevant associated drawings and lantern ie files, or long format reports with masking hidden.

8.1.4 Existing Roads

Where the development involves the construction of a local road, which will form a junction with an existing public road, the developer shall be liable for any costs which the Council or the developer may incur in upgrading or providing public lighting to light the junction so created, ideally to BS5489-1, EN13201-2015 or the latest NSAI (National Standards Authority of Ireland) versions approved, where in the opinion of the Council such work will be necessary in the interests of public safety.

Where new public lighting is replacing existing public lighting, the existing public lighting shall be kept operational until the new lighting is operational.

8.1.5 Temporary Lighting

Any alterations to existing public lighting should be agreed with the Public Lighting Section in advance. Temporary Lighting must be provided and operational before any existing lighting is obstructed or removed. Refer to: National Rules for Electrical Installations, I.S. 10101:2020 Part 740 for temporary electrical installations.

8.2 Procedures Prior to Taking in Charge

8.2.1 Compliance with Planning Permission

The works must be carried out in accordance with the Planning Permission/Approval, in accordance with any subsequent drawings submitted and agreed by the Public Lighting Section and in accordance with this guide. For roads that will be taken in charge by the Council independent.

8.2.2 Approved Public Lighting Drawings

The developer will not make any alteration in the drawings submitted and so agreed, without the written permission of the Public Lighting Section.

The road and walkway lighting that is to be taken in charge is to be placed away from privately owned land. Any lighting columns or other associated furniture that is directly adjacent to privately owned land should have a concrete surround of 300mm to allow for ease of access and maintenance. This area is also to be taken in charge, see Appendix H Figure H9.

8.2.3 Consultation with Public Lighting Section

The developer should consult with the Public Lighting Section at the earliest opportunity, prior to commencing any works on site. Where existing lighting will need to be moved to allow for access to the site (permanent or temporary) and/or be impacted by proximity to the final development, example of column position being within the scaffolding of the development, then consultation with the Public Lighting Section prior to the completion of the development design is required. All costs associated with moving/removing of existing lighting will be borne in full by the developer.

8.2.4 Commissioning of Public Lighting

On completion of each section of the public lighting installation the developer shall furnish ESB Networks (ESBN) and a copy to the DLRCC Public Lighting Section with: -

- the relevant ETCI (Electro – Technical Council of Ireland) certificate
- a location map on which the relevant lights, cable runs and mini pillars are clearly marked

In cases where the developer enters into an agreement with the Public Lighting Section for the maintenance of the lighting system prior to taking in charge, the developer shall pay the required connection fee per electrical circuit directly to the Public Lighting Section to cover the E.S.B. charges. In all other cases the developer should deal directly with the E.S.B. in relation to the public lighting connection. In this instance, the developer should notify Public

Lighting Section on the number of light columns connected by the E.S.B. together with details of the lantern wattage.

8.2.5 Commissioning of Public Lighting – TIC of lighting ahead of roads

Where so requested the Council will take responsibility for the energy and routine maintenance* costs prior to taking the development in charge subject to the developer entering into a written agreement with the Council covering recoupment of any costs incurred by the Council prior to the formal taking in charge. A copy of the relevant agreement is set out in Appendix G. Where such agreement has been entered into the developer shall submit the relevant ETCI certificate, together with a location map and a cheque covering the connection cost, to the public lighting section of the Council.

** Routine Maintenance is defined as patrols, replacement of spent lamps, fuses etc. and cleaning of visors. Non-Routine Maintenance is defined as all other works not covered by routine maintenance e.g. damaged columns, lanterns, cables, photocells and resetting of skewed columns*.

8.2.6 Procedures for Taking in Charge

8.2.6.1 General Site Inspection

Following inspection by the Council and the carrying out of any tests required by the Council, the developer shall be issued with a written notification of any works which the Council consider necessary to bring the development to the required standard. All such works shall be carried out by an approved Public Lighting Contractor employed by the developer and all costs involved shall be borne by the developer.

8.2.6.2 Public Lighting Operating Costs

Dun Laoghaire-Rathdown County Council will only accept responsibility for the energy and maintenance costs associated with the development when the developer has satisfied the Council that the public lighting installation has been constructed in accordance with this document and the development has been formally taken in charge by the Council.

8.2.6.3 Taking in Charge of Public Lighting System

Applications to the Council to have works formally taken in charge shall be made through the Building Control section of Dun Laoghaire-Rathdown County Council.

At this stage the developer shall be presented with a written notification of any additional works required by the Council to take the development in charge together with a bill for all costs incurred by the Council as a result of any defects which will have come to light subsequent to the council taking over the maintenance of the installation.
All correspondence with the Council relating to the formal taking in charge of the development shall be addressed to the Building Control Section of the Council.

8.2.6.4 Lighting Schemes and Systems that will *not* be Taken-In-Charge by the Public Lighting Section

The following lighting systems will not be taken-in-charge by the Public Lighting Section and shall not be connected to the lighting schemes that are to be taken-in-charge.

- Bollards – Lighting columns under the minimum height mentioned in these guidelines will be deemed to be bollards.
- Uplighters – lighting designed to allow light above the horizontal will not be taken-in-charge
- Wall mounted lighting with power cables not surface mounted – where road and/or footpath lighting needs to be wall mounted and where the electric cables for them are not surface mounted in steel ducts, they will not be taken-in-charge due to the inability to replace any cabling, ducting and/or other connections without damage to the wall itself.
- Handrail lighting – these will not be taken-in-charge
- Stick lighting – lighting designed to allow light above the horizontal will not be taken-in-charge
- Ground mounted lighting - lighting designed to allow light above the horizontal will not be taken-in-charge
- Catenary lighting – lighting suspended on cables between columns or wall mounted supports.

- Lighting that is not directly required to light the footpaths, walkways or roads – lighting that is used for sparkle or to light non-TIC areas, example area is building entrances, trees, etc.
- Additional non-lighting technologies – CCTV or other technologies not related to lighting will not be taken-in-charge and will not be accepted as connected to the lighting electric supply and/or the lighting columns.

8.3 Design

8.3.1 Standards

All works shall comply with latest editions of the relevant standards.

In particular the works shall be designed to take full account of the following documents: -

- Code of Practice for the design of road lighting BS5489-1:2013, EN13201-2015 or the latest Approved versions.
- Latest approved National Rules for Electrical Installations (published by NSAI) –latest approved I.S.10101.

8.3.2 Junctions and Turning Bays

The developer shall take particular care to ensure that all junctions and turning bays are well lit to standard. Typical public light standard position are shown in Figure H7, Appendix H**.**

8.3.3 Minimum Requirements

For roads and developments, a road layout with accompanying public lighting design – pole location, height, setback from kerb edge, lantern type, wattage, cable and fusing circuitry, lux contour diagrams (to 1 lux with no masking) etc., are to be provided. The existing public lighting for the entrance and exit into the new development is to be accounted for in the design, this is to ensure that the lighting at the junction is to the correct lighting standards for road/development type and as agreed with the public lighting section prior to final design. Landscaping drawings for planned tree locations should also be included to allow for colocation and light blocking issues. Road sections that are to be taken in charge are to be clearly marked in the drawings. Note: Column setback from the kerb edge must be approximately 750mm at a minimum and preferably at 1,000mm from kerb edge.

8.3.4 Cycle ways

In the case of cycle ways, the public lighting columns shall in general be located so as to provide a minimum clearance of 1,000mm between the face of the columns and the edges of the cycle track. Solar clocks should be used to control the lights so as to enable carrying out of day patrols. The lighting is to be the relevant lighting standards including the ILP Technical Report Number 23 "Lighting of Cycle Tracks".

8.3.5 Areas un-accessible to hoists or trucks

Areas that are un-accessible for maintenance with a hoist truck such as pathways in parks, narrow laneways in estates etc., are to have raising and lowering columns installed to facilitate maintenance. Abacus or equivalent subject to approval by DLRCC. Areas will also be deemed un-accessible if the surface that the hoist truck will use to access the lighting column is not stable or clear of mud in all weather conditions and at all times of the year.

8.3.6 Special Areas

Special requirements apply to the design of lighting for shared surfaces and heritage areas and the lighting of all such areas shall be specifically designed in close consultation with the Public Lighting Section of the Council

8.4 Specification

8.4.1 Introduction

8.4.1.1 Developers Responsibilities

The Public Lighting Section of Dun Laoghaire-Rathdown County Council is the official lighting authority for housing estates, industrial and commercial developments in Dun Laoghaire-Rathdown County. All lighting schemes in housing, industrial or commercial developments carried out by developers or their contractors within the county shall comply with the requirements of and be approved by this section.

In the case of all developments, including those taken in charge, the developer shall be responsible for: -

- The design of the installation;
- Arranging the connection of the electrical supply;
- Paying any connection charges;
- All work necessary to maintain the installation pre taking in charge;
- Paying the energy costs of the installation pre taking in charge;

8.4.1.2 Taking in Charge

Dun Laoghaire-Rathdown County Council shall only become responsible for the energy and maintenance costs after a development has been formally taken in charge by the Council, no refunding or back payments will be made on foot of delays in transferring the account due to delays in providing the required information to the Public Lighting Section.

8.4.1.3 Electrical Contractor

All electrical work must be carried out by a competent public lighting contractor with previous experience of carrying out an equivalent public lighting installation.

8.4.2 Lighting Levels

For all new schemes and developments to be taken in charge, the appropriate light levels must be achieved and approved with the Public Lighting section **before** construction commences.

8.4.3 Luminance Levels (L)

Luminance is the intensity of light emitted from a surface per unit area in a given direction and is measured in candelas per square metre (cd/m2). This measure will be used for development of Primary, Traffic and higher level road types. M lighting class.

8.4.4 Illuminance Levels (E)

Illuminance is the total luminous flux incident on a surface per unit area. The surface can be horizontal, vertical etc. and is measured in lux (lx). This measure will be used for development of secondary, residential and lower level road types. P lighting class. The lowest lighting class acceptable for any installation is a P4 lighting class with a 1 lux minimum for all required surfaces.

8.4.5 Standards

The installed lighting shall meet BS5489-1, EN13201-2015 or the latest approved versions. Designs shall include the report from the software design package Lighting Design or equivalent showing adherence to the standards.

The guidance notes on the reduction of obtrusive light, The ILP, should also be used to minimise obtrusive light and light pollution.

8.4.6 Lanterns

Lanterns where unless otherwise approved are to be LEDs with the following specifications:

--Electronic driver with LED white light not greater than 4,000k or less then 3,000k

--Design life LM80 for greater than 15 years using TM21-11 test methods

--Driver current not greater than 750mA

--Impact resistance rating: >IK08

--IP rating >IP65

Colour coding stickers/painting shall be placed on the underside of lanterns to identify the total wattage (lamp and gear). There shall be no moving parts, extractor fans are not permitted in the lanterns.

8.4.6.1 General

The lanterns shall comply with the requirements of BS 4533 Section 102, Luminaries, Standard and Specification (or equivalent).

8.4.6.2 Construction

The lantern shall consist of pressure die-cast aluminium outside where feasible. Where applicable, the lower portion of the lantern, if glazed, shall consist of a single piece bowl hinged to the canopy by stainless steel hinges and secured by one or more quick action stainless steel toggle fasteners. The lantern shall be of a suitably robust construction so as to be vandal resistant.

The bowl shall be made of an ultraviolet stabilised polycarbonate, which is specially toughened so as to be vandal resistant, or toughened glass. The lantern shall be sealed to minimum IP 65, dust tight and jet proof. The control gear compartment shall be sealed to minimum IP 54.

8.4.6.3 Threshold Increment

Threshold increment shall be as EN13201 standards. (TI) is the measure of loss of visibility due to disability glare from obtrusive light installations. Refer to: ILP Guidance Notes for the Reduction of Obtrusive Light.

8.4.6.4 Control

Switching of the street lighting shall be made by solid-state photoelectric switches, each light being individual controlled, as manufactured by SELC or approved equivalent. A 5-amp tumbler switch surface mounted type tested to the BS 3676, (or equivalent). Specification for switches for household and similar fixed electrical installations shall be provided in the base compartment of the lighting column for daytime testing by short-circuiting the photoelectric switch.

The photocell shall be controlled to a 35lux/18lux light level setting.

Installations installed in parks and areas where a night patrol is not feasible shall be controlled by a solar clock to facilitate day time patrol inspections.

8.4.6.5 Control Gear

Energy efficient, DALI compatible electronic control gear is to be used for lanterns.

8.5 Columns and Bracket Arms, Surface Mounted Lighting

8.5.1 Construction

Lighting columns and brackets shall generally: -

- be constructed of tubular or tapered octagonal steel;
- meet the EN 40 Lighting Column standard, Part 1 to 9, as applicable
- be of minimum column or bracket wall thickness 3 mm;
- be protected against corrosion by hot dip galvanising to BS 729 or equivalent, (Specification for hot dipped galvanised coatings on iron and steel articles);
- Comply with BS 5649 or equivalent, (Specification for materials and welding requirements).
- Plastic type columns are not maintainable and thus are not acceptable

Non-column lighting installations:

- **Bollard and stick** type lighting pose safety problems, are difficult to maintain and are **not recommended**. Low voltage fed bollard lighting is acceptable for private developments where the bollard is of very robust construction and a deep rooted concrete type installation greater than 0.4m) but will **not** be taken-in-charge.
- Surface mounted lighting LEDs pose safety problems, are difficult to maintain and are **not recommended** and will not be taken-in-charge.

The column root shall be bitumen coated. The bitumen shall extend to 250mm above ground level.

All octagonal columns are to be fabricated with longitudinal welding only. All tubular columns must incorporate a bracket and/or lantern anti-rotational device.

8.5.2 Compartment Doors

Except where specified otherwise, columns shall be flush fitted compartment doors at a height of 1.5m to centre of opening above ground level.

The door opening shall

- have a welded in frame with all round weather strip;
- Be positioned on the side away from the direction of the traffic.

A flat steel door secured by 2 no. triangular screws is to be fitted (M8 Course Thread). The doors and openings shall be consistent to ensure interchangeability. The door and opening shall be as shown on Figures H5 and H6 within Appendix H.

8.5.3 Base-Board

A treated, fire resistant baseboard is to be fitted in each column. The clearance between the baseboard and the inside face of the door when fitted is to be not less than 130mm.

8.5.4 Wiring

A cable entry of 150mm x 75mm is to be provided in the column root, 300mm below ground level and in line with the door opening, as shown on Figures H1 and H4, Appendix H.

The internal wiring for 6 & 8 metre columns shall be 2.5mm^2 stranded PVC/PVC cable. Each lantern is to be individually fused using a 6 amp MCB fuse.

Switches for testing purposes shall be installed, either horizontally or vertically, in each public lighting column. These switches shall be so wired as to override the photoelectric cell during daylight hours see section 3.3.4. Incoming and outgoing cables at the minipillar shall be terminated in three 63-amp BICC type link blocks. See Figures H1 and H2, Appendix H for details.

Neutral blocks shall be provided for all 3 phase installations. For single phase installations neutral blocks or looping in blocks shall be BICC 63 amp type or approved equivalent and shall be fully insulated and solidly mounted on the baseboard. They shall have serrated inner surfaces on the cable terminal blocks to provide adequate gripping of the conductors. The metal terminal block shall be fixed to the back of the plastic housing to prevent it falling out when the cover is removed.

A main earth terminal shall be mounted on the baseboard to which the following shall be connected: -

- 2.5mm^2 PVC cable from lantern earth terminal;
- 6mm^2 PVC cable from the earth terminal on the column. A crimped lug shall be used for the connection to the column;

The outer sheath of the incoming and/or outgoing service cables shall be connected to the main earth terminal on the column and auxiliary mini pillar baseboard.

8.5.5 Cable Chambers

Cable chambers shall be provided to intercept road crossing ducts and broken duct runs at any angle to each other. Cable chambers shall also be located at circuit split locations.

8.5.6 Equipotential bonding

If control gear is located in the base of the column, separate equipotential bonding conductors should connect all extraneous conductive parts etc. Bonding conductors should have the same cross-sectional area as those of the live conductors.

Metal structures, fences etc. in the vicinity of a mini-pillar need not be bonded to the electrical installation.

8.5.7 Brackets

The removable bracket arms for the columns shall be of steel construction and protected against corrosion by hot dip galvanising to EN 40: Part 4.

8.6 Auxiliary Mini Section Pillar (also called lighting or micro- pillar)

8.6.1 General

All lights are to be supplied from auxiliary mini section pillars located no closer than 2m from the ESB mini section pillars. Minipillars are to be installed in public and accessible areas. For internal wiring arrangement see Figure H2, Appendix H.

8.6.2 Circuits

Recommended not more than 6 lights shall be supplied from any one circuit and not more than 4 circuits shall be taken from any one auxiliary mini section pillar. Cable size between each lighting column shall be no less than 6mm^2. Cable should be sized not to exceed 4% volt drop of 230 /400 Volts. No more than 9.2 volts for single phase circuits and no more than 16 volts for three phase circuits.

8.6.3 Fuses

All outgoing circuits shall be individually fused by means of a 20-amp HRC cutout type, capable of accommodating cable sizes from 2.6mm^2 up to 16mm^2. The fuses shall be rated 16kA minimum rupturing capacity and shall comply with BS 1361 (or equivalent) Specification for cartridge fuses for A.C. circuits in domestic and similar premises. The terminals of the cut-out shall be of the grooved bore type. Where there is more than one

outgoing service cable a main circuit fuse shall also be provided. It shall be rated at 40-amps and shall otherwise be identical to the individual circuit fuses.

8.6.4 Earth Terminal

A main earthing terminal shall also be provided, and all components shall be solidly secured to the baseboard. The metallic sheath of all cables in the pillar shall be connected to the earth terminal and wrapped to minimise deterioration. The baseboard shall be approximately 20mm thick.

8.6.5 Construction

The overall dimensions of the auxiliary mini section pillar shall be 900mm x 150mm x 150mm. Extension plates measuring 300mm deep shall be fitted at the bottom to ensure firm concreting into the ground. Ground level shall be clearly marked.

The pillar shall be vented and shall be fitted with a simple lift-out door. The lock operating section of the key shall have a triangular head. The mini section pillar shall be as shown on Figure H8, Appendix H.

The main shell shall be 3mm thick steel, with the door and bottom plate being 2mm thick. The pillar shall be galvanised to BS 729, (or equivalent).

8.6.6 Earthing

All auxiliary mini pillars irrespective of what type of service cable used shall be earthed using an earth rod and the supply neutralised.

A main earth terminal shall be mounted on the baseboard to which the following shall be connected: -

- $6mm^2$ PVC cable from the earth terminal on the pillar. A crimped lug shall be used for the connection to the pillar;
- $10mm^2$ PVC cable from the earth electrode;
- $6mm^2$ PVC cable from the neutral link.

An earth electrode shall be installed at all auxiliary mini pillars. This shall: -

- consist of a bare copper or hot-dip galvanised iron pipe or rod;
- be at least 16mm diameter;
- be driven vertically into the soil for a length not less than 1.2m

If problems arise when driving earth rods due to other underground services a horizontal earth electrode as outlined below may be used. This shall consist of either:-

- 4.5m of bare copper or galvanised iron rod of 16mm diameter

Or

- At least 4.5m of bare copper or galvanised steel wire of at least 25mm^2 cross-sectional area buried in the soil at least 500m deep.

The earthing lead shall exit the pillar via the service cable entry opening. The earth electrode connection shall be: -

- enclosed in a galvanised steel box (approx. 100mm^3) with an inspection cover;
- Protected against corrosion by a suitable weatherproof tape, ("DENSO or equivalent").

All to be buried underground after inspection to avoid damage by vandals.

8.6.8 Equipotential bonding

In addition to the earthing guidelines in the above subsection, for mini-pillars unavoidably less than 2m from an ESB supply pillar, the earth terminals on each pillar must be bonded to one another with 10mm^2 copper conductor.

Metal structures, fences etc. in the vicinity of a mini-pillar need not be bonded to the electrical installation.

8.6.7 ESB Unmetered Connection

The Developer must apply to the ESB for an unmetered connection to the Network for all public lighting loads **less** than 2 kVA (Kilovolt-Amperes) from a single supply point. Multiple supply points are acceptable per development to allow for this outcome. The connection agreement will be under the developers name up to the completion of the TIC process when they will be transferred to the council. For contracts in the Councils name but where the development has been fully tendered out for construction, the electricity supply for the development will remain in the contractor's name until the full snags and TIC have been completed.

8.6.8 ESB Metered Connection

The Developer must apply to the ESB for a metered connection to the Network for all public lighting loads **above** than 2 kVA (Kilovolt-Amperes) on a single supply point. The connection agreement will be under the developers name up to the completion of the TIC process when they will be transferred to the council. For contracts in the Councils name but where the development has been fully tendered out for construction, the electricity supply for the development will remain in the contractor's name until the full snags and TIC have been completed.

8.6.9 Multiple device types from the same supply point.

No technology, other than for lighting the roads and/or footpaths, will be accepted on the same circuit and/or supply point as the lighting. This includes any traffic/pedestrian lights, security lighting, CCTV or other devices.

8.7 Installation

8.7.1 General

All work shall be in accordance with: -

- the latest edition of the NSAI's National Rules for Electrical Installations;
- The Code of Practice for the Erection of Street Lighting Equipment issued by the Association of Street Lighting Contractors.

8.7.2 Column Installation

No trees should be installed where the canopy maximum extents is within 3m of an existing, or proposed, PL column. When installing trees, an assumption of 80% of all light blocked from the light should be used when evaluating the lighting design and tree placement in the landscaping design.

Columns shall be 6 meters or greater in height. The excavation shall be 600mm in diameter and shall be 1m deep for 6m columns to 1.3m deep for 8m columns see figure H5, Appendix H. Columns shall be erected exactly vertical in a safe and workman-like fashion using a crane or suitable hoist.

The installation shall be carried out in 3 stages as follows: -

- **Binding concrete** – 600mm diameter excavation shall be filled with concrete to a depth of 50mm.
- **Concrete surround** – the column shall be installed at the centre of the excavation and concrete to a depth of 150mm below the service cable entry slot shall be placed into the excavation. Care shall be taken to ensure that the concrete does not cover this entry slot.
- **Service cable** – the final 1m of incoming and outgoing service cable up to the entry slot shall be protected by 50mm flexible hydrodare piping, which shall extend 30mm into the column. The cable shall be kept level with the bottom of the entry slot to avoid damage due to column settlement. See Figure H4, Appendix H**.**

The concrete used shall be in accordance with the Department of the Environment Specification for Road Works, Clause 1502, and Concrete for Ancillary Purposes (Class E). Holes shall be pumped free of any water before being filled with concrete.

Installed columns shall comply in general **with Table 8-2:**

Table 8-2 – Column Details

Mounting Height	**Column Base**	Shaft **(for tubular columns)**	**Planting Depth**	**Outreach Bracket**
6 metre	140mm O.D.	76mm O.D.	1 metre	0 to 1 metre
8 metre	168mm O.D.	68mm O.D.	1.3 metre	0 to 1.5 metre

Note:

For column setback from kerb please see table 2 in the latest NSAI approved BS5489 -1 document.

On busy road sections where feasible the columns should be placed behind the footpath/cyclepath to minimise the potential of vehicle impact.

Columns shall be installed in accordance with the details shown on

Figure H5, Appendix H**.**

8.7.3 Ducting

Reference:

- "Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads, Department of the Environment, Heritage and Local Government", 2002 or latest approved. "Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads, Second Edition (Rev 1) April 2017 or latest approved.
- DLRCC Directions for Road Works Control November 2008 or latest approved.

Ducting to be installed in public areas to facilitate maintenance. Underground cables must be protected by enclosing them in concrete pipe, or polythene pipe ducting of high density to IS 135 Class B, or other pipe coloured red having a high resistance to impact. In any case the minimum standard acceptable is EN 50086-2-4 with a 750 Newton load rating for 5%

deflection. The ducting shall be laid at a depth of 0.6m below finished ground level and warning marker tape installed over the ducting as per NSAI I.S.10101.

The cable ducts shall be **RED in colour** (Cables between the ESB supply mini-pillar and the Public Lighting mini-pillar shall run in 125mm diameter ducting or as specified by ESB Networks) and **stamped with the legend 'Public Lighting Duct',** the initials PL or other acceptable markings to clearly distinguish them from ducts for any domestic power supply company.

Ducts shall be laid in fully coupled unbroken lengths at the appropriate depths specified in I.S. 10101. Blue polypropylene rope should be used as a draw wire.

Minimum depth of 600mm cover required for urban footways, grass margins, pedestrian ways, laneways, and gateway entrances. Minimum depth of 750mm is required at road crossings or in carriageways.

In residential developments ducts run in verges and footpaths are nominal 100mm diameter red duct stamped public lighting. A spare 100 mm. duct shall be laid across all driveway aprons. At road crossings cables shall be run in 100 mm. diameter PVC duct. A spare 100mm duct shall also be provided. Ducts between the ESB supply minipillar and the public lighting mini-pillar shall run in a 50mm solid wall red ESB duct or as specified by ESBN.

Yellow Electrical Hazard warning tape must be laid on top of sand along the length of ducting, approximately 300mm below finished ground level with the words "Caution Electric Cable Below" printed in black.

8.7.4 Overhead conductors

Overhead conductors should have a vertical clearance of at least 5m above the ground. Greater clearances may be necessary for thoroughfares such as roads, railways and waterways.

Overhead conductors should have cross-sectional area of at least $6mm^2$ and should be suitable for catenary installation.

The ESB must be consulted if overhead conductors are adjacent to ESB overhead lines. Clearance is needed for columns erected within 35m of ESB overhead lines.

Cable or wire under ESB high voltage lines should be laid underground.

8.7.5 Surface wiring on columns

Cables fixed externally to columns require additional mechanical protection such as metal tubing within 3m of the ground.

8.7.6 Surface wiring on Buildings

Cables fixed externally to buildings require additional mechanical protection within 3m of ground level and must be approved by public lighting.

8.7.7 Cable

In general for single-phase circuits two-core cable with separate earth return path shall be used. Cables shall be 3 x 6mm^2 NYCY type to VDE specification 0271/5 or appropriate gauge or 3 x 6mm^2 PVC/SWA/PVC or XLPE/SWA/PVC.

Cable joints are not permitted. Cables shall be looped from column to column on each circuit. If faults develop on service cables before commissioning, the section of cable involved shall be replaced. Repairs using cable joints are not acceptable.

8.7.8 Column Numbering

Columns shall be numbered, as previously agreed with the public lighting section of the Council. Columns will be numbered using Council approved stickers. Black 50mm stickers on a white square background extended a minimum of 3mm outside the number. The white background shall wrap completely around the column and overlap itself for security of bonding if the column is painted. Numbers shall face towards the kerb and on-coming traffic and shall be at the height agreed with the Council.

8.7.9 Traffic Management

Appropriate Traffic Management measures must take place in compliance with Chapter 8 of the Traffic Signs Manual. Traffic Management should be set up by competent persons that hold a valid Sign, Lighting and Guarding CSCS card. Road Opening Licences are required for works on all Public Roads in DLR County Council and a permit must be held on site. Road Opening Licences T2 / T5 etc. can be applied for via online application on www.MapRoadLicencing.ie. It is the responsibility of the Developer to ensure that Traffic Management Plans are in place.

8.7.10 Electric Vehicle Charging Installations

Shall have a separate electric supply and ducting to the lighting circuits and fall under Electric Vehicles in Residential and Industrial Areas Guidelines 2021.

9.0: Safety File Requirements

9.1 General Information:

Under the Safety, Health and Welfare at Work Construction Regulations 2013 a Safety File prepared and completed in accordance with regulations 13 and 21 of SI No 291 of 2013 must be submitted to the Planning Authority, on completion of a development with any request for the development to be taken in charge.

The Safety File is prepared and certified by the competent Project Supervisor Design Process and is handed over to the developer on completion. The PSDP must hold professional indemnity insurance. The fully completed safety file shall be submitted to the Dún Laoghaire-Rathdown County Council as part of the taken in charge process in a pdf digital format only.

Regulation 13 of SI no. 291 of 2013 places an obligation on the PSDP to prepare a Safety File. The Safety File must contain "relevant health and safety information to be taken into account during any subsequent construction work following completion of the project". The Safety File is intended to have an almost indefinite lifespan.

The safety file need not include areas that will not be taken in charge and these areas will remain under the control of a management company. A layout plan shall be submitted clearly indicating the locations which will be taken in charge.

The contents of Safety File shall include (but not be limited to):

- As construction drawings, specifications and bills of quantities, used and produced throughout the construction process.
- Details of the road and footpath makeup including types and depths of materials.
- A Road Safety Audit in compliance with DMURS and the relevant TII standards should be submitted for major developments that impact the road network for all new road and traffic schemes.
- Maintenance procedures, schedules and requirements for all structures such as drainage systems such as Hydrobreaks, Penstocks, Pumps, Attenuation systems or SuDs infrastructure and wastewater infrastructure.
- The Key Risk Assessment and Method statements for maintenance of all features (in particular SUDS features.)

- An operational and maintenance/management (short term and long-term maintenance/management) plan for attenuation areas and other SUDS systems in the development including those in private spaces serving the development which discharge into the public / council network
- Maintenance manuals and, where required, certificates produced by specialist contractors.
- Details of the equipment and maintenance facilities within any structure such as pumping stations.
- Details of the location, depths and nature of utilities and services such as Gas Networks, ESB Networks, telephone services, cable television, broadband services etc.
- Location of Hydrants with respect to units (ie between 6 – 46m), results of pressure tests on watermains etc… including all emergency and fire-fighting systems.
- Confirmation of compliance with a Fire Safety Officer Report for the water distribution system.
- Indicator plates shall clearly identify hydrant, air valve, scour valve, washout hydrant, meter, pressure reducing/sustaining valve and sluice valve locations. The plates shall be mounted on marker posts at the back of footpaths or on the boundary wall of the public thoroughfare nearest to the hydrant or valve. Indicator plates and baseboard plates shall comply with BS 3251, with hydrant plates of fixed black letter H on a canary yellow background (colour reference 309 to BS 381C).
- Details of all particular risks and any hazards which may be present or hazards which may not be obvious.
- All Warranties / Guarantees, Commissioning certs, Certification for structures such as Public Lighting Columns, SuDs Systems, Hydrobrakes, Attenuation systems, pump systems, wastewater systems etc...
- Structural certification for retaining structures or high boundary walls.
- A copy of the Conformance Certificate from Irish Water for both the water distribution systems and the foul sewer systems. Where developments have been completed without Evidence of a Self Lay Agreement or Irish Water Lay agreement in place and a copy of the Conformance Certificate from Irish Water cannot be submitted additional documentation will be required.
- Public Lighting - ETCI Certification for the cabling and lighting installations and certification from a Civil Engineering consultant that adequate construction of the columns, micro-pillars and ducting depts have been achieved in accordance with the requirements of this taken in charge policy and the ESB's Housing Schemes Guidebook. A layout drawing showing the location of the public lighting system shall indicate the locations of the public lighting columns, micro-pillars, mini pillars and cable ducting, together with appropriate wiring diagrams. The drawings shall also clearly indicate how the public lighting system in private areas is segregated

from the system in areas to be taken in charge. Any other relevant documentation to support the maintenance of the public lighting installation should be provided.

- Appropriate records, manuals, specifications warranties and maintenance agreements to enable the roads, public lighting, sewers, drainage systems, water mains and open spaces to be maintained to an appropriate standard in the future. Copies of relevant Irish, UK or EU Agreement Certs (or equivalent) for all SuDS systems/devices should be included.
- Provision of Operation and Maintenance Manuals for water pumping plant (if such provided) including full pump details, performance curves and power ratings, etc., and all warranty documentation for the installed equipment as well as drawings of the pump station.
- Provision of Operation and Maintenance Manuals for any wastewater pumping plant (if such provided) including full pump details, performance curves and power ratings, etc., and all warranty documentation for the installed equipment as well as drawings of the pump station demonstrating the Area Classification of the pump station or otherwise the absence of zoning
- Under Part D of the Second Schedule to the Building Regulations, building work to which the Regulations apply must be carried out with proper materials and in a workmanlike manner. The materials used in the development and the methods of construction used should be fit for the end purpose intended.
- The suitability of products, components, fittings or products used in the construction of a development can be demonstrated by appropriate use of a product bearing CE marking in accordance with the EU Construction Products Regulations (No. 305/2011 –CPR). It is in the developer's interest to carry out all background/site investigations and ensure that all products used are certified by the competent authority

Confirmation by a Chartered Engineer of compliance with the Building Regulations and the Building Control (Amendment) Regulations, in particular evidence of compliance with the Building Regulations to ensure water plumbing systems compliance and no risk of backflow contamination.

- Safety File for the complete estate/development, certified by the Project Supervisor

The below is a sample safety file layout which may prove helpful:

SAMPLE SAFETY FILE TEMPLATE

Item	Description	Where Applicable required by:
1.0	**Section 1.0: General Information**	
1.1	**Project Directory**	
1.2	**General Description of Works**	
1.3	**General Design criteria- Engineering Specifications**	
1.4	**General details of the Construction Methods used**	
1.5	**Full contact details of the contractors & sub-contractors used & the area of work carried out on the project.**	
2.0	**Section 2.0: Drawings**	
2.1	**Schedule of Drawings/ As built drawing layout**	
2.2	**A complete set of final construction drawings including Architectural, Mechanical, Electrical, IT, Fire Certificate drawings, etc. (If required)**	
2.3	**A complete set of final /as built drawings including exact location of installed utilities services, E.S.B, Telecom, gas, Sewer, water mains, fowl water drainage, SUDS features etc.**	
2.4	**Confirmation that works completed as per final drawings & test certificates.**	
2.5	**Utilities/ Services reports & drawings/ layouts.**	
3.0	**Section 3.0; Construction Materials**	
3.1	**List of principle suppliers, manufacturers used for this project along with full contact details**	
3.2	**Manufacturers product information including data sheets & manufacturers recommendations for cleaning/repairing & maintenance. Originals of any product brochures required.**	

4.0	**Section 4.0 Substances Hazardous to Health**	
	Schedule of SDS. Safety Data Sheets for any product used that may be of a harmful nature & encountered during cleaning, maintenance or demolition of the project works.	
5.0	**Section 5.0: Test & Commissioning Certificates**	
5.1	**Schedules & copies of all installation, commissioning & test certificates & reports required in the specification, including electrical, mechanical, IT & Drainage systems.**	
5.2	**Fire Safety Compliance certificates.**	
5.3	**Practical Completion certificate.**	
6.0	**Section 6: Plant & equipment Maintenance Information**	
6.1	**Schedule of plant & equipment installed including catalogue numbers, the supplier's name/contact details including 24-hour emergency callout numbers etc. Equipment declaration of conformity.**	
6.2	**Schedules & copies of all guarantees, warranties & maintenance agreements offered by subcontractors & manufacturers for products, services equipment etc.**	
6.3	**Suggested maintenance procedures and frequency for all items on the project including mechanical, electrical including public lighting, SUDS features and petrol interceptors.**	
6.4	**Emergency procedures, including telephone numbers for emergency services/utilities.**	
6.5	**O&M Manuals outlining maintenance procedures & operating procedures for Plant & Equipment installed as part of any structure. Electrical & mechanical installations, equipment declarations of conformity, electrical installations, drawings (existing layouts, engineers& architects drawings & calculations, air conditioning reports etc.**	

6.6	**Facilities/Equipment requiring inspections& certification, electrical inspections& certificates, compliance certificates,**	
7.0	**Section 7.0 Health & Safety Documents**	
7.1	**Asbestos related documentation C1 form, Building Clearance certificates if relevant.**	
7.2	**Environmental documentation such as waste removal details.**	
7.3	**Residual risk as obtained from risk assessment & which affect future maintenance.**	
7.4	**Emergency procedures, including telephone numbers for emergency services/ utilities.**	

Appendix A: Taking In Charge Application Form, Certification and Checklist June 2022

Dun Laoghaire-Rathdown County Council

Application Form for Taking in Charge and/or Release of Bond/Security

Development Name and Address: _____

_____

Developer's Name and Address: _____

_____

Mobile Number: _____

Consultants Name and Address: _____

_____

Mobile Number: _____

No of Dwellings (Houses and Apts/Duplexs): _____

Planning Enforcement Reference (write n/a if not applicable): _____

RBN: _____

Details of Bond/Security Lodged: _____

Development
Contribution Details:_____

Receipt Numbers: _____

Connection Fee Ref No's:_____

Document Checklist submitted with this Application:

Indicate below whether the required drawing and documents are attached.

COMPLETED APPLICATION FORM	Y/N
PROPOSED AREA FOR TAKING IN CHARGE Drawing indicating area offered for taken in charge as per Appendix J sample drawings.	Y/N
COMPLETED SAFETY FILE: Completed Safety File as per Chapter 9 including appropriate records, manuals, specifications and maintenance agreement to enable the roads, public lighting and EV Charge Points, sewers, attenuation measures, pollution control (Petrol Interceptors, etc), water mains and open spaces to be maintained to an appropriate standard in the future, together with copies of relevant Irish, UK or EU Agreement Certs (or equivalent) for all SuDS systems/devices. If a Hydro-brake flow control system has been installed, detail must be supplied including the relevant serial number.	Y/N
ROADS: A report on the road cores taken at the locations agreed with the County Council to be submitted highlighting core locations, depths and test results, or an alternative method of recording the depth of pavement to be agreed with the Area Engineer. All Road Gullies and Gully Pots should be cleaned out prior to the development being taken in charge.	Y/N
GENERAL DRAWINGS: The Applicant must submit detailed "as-constructed" drawings attached, in both hard-copy and approved digital format, of the roads, surface water sewers, drainage systems, foul water sewers, systems and water distribution systems in compliance with Chapters 2 and 3. Detailed "as-constructed" drawings attached, in both hard-copy and approved digital format, of the roads, public lighting, water mains and open spaces. SharePoint or alternatively Dropbox may be used as an option.	Y/N

SURFACE WATER: Drawings showing details of the drainage prepared to the format shown in Section 5 of the Greater Dublin Regional Code of Practice for Drainage as detailed within Chapter 2 of this policy. Confirmation that Chapter 2 requirements have been satisfied. Certificate from the developer's Consulting Engineer stating that all Surface Water drainage works, including Attenuation, have been constructed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works and DLRCoCo Taking in Charge Development Standards Chapter 2.	Y/N
FOUL SEWER SYSTEMS AND WATER DISTRIBUTION A copy of the Conformance Certificate from Irish Water for both the water distribution systems and the foul sewer systems relating to the development. This will provide evidence of a "Self Lay Agreement or Irish Water Lay agreement" in place from Irish Water. ***Alternatively:*** Confirmation that Chapter 3 requirements have been satisfied. The Applicant must submit detailed "as-constructed" drawings attached, in both hard-copy and approved digital format, of the roads, surface water sewers, drainage systems, foul water sewers, systems and water distribution systems in compliance with Chapter 3. All Water Service Sewers and Water distribution systems works are to be constructed in accordance with the standard details noted in DLRCoCo Taking in Charge Development Standards Chapter 3. A full water Audit Report is to be conducted at the expense of the applicant and all leaks and issues identified repaired at the expense of the applicant. On completion of the repairs certification for the Water Distribution system shall be submitted to the Council.	Y/N
CCTV SURVEY: A (post repair) CCTV survey of the foul (If not vested to Irish Water) and surface water sewers/drains, both in hard-copy and digital format, carried out by an approved contractor, together with a report on the findings from the developer's Engineer.	Y/N

PUBLIC LIGHTING AND EV CHARGING UNITS Drawings showing details of the public lighting and EV Charging system indicating the locations of the public lighting columns, EV Charging Units, mini-pillars, micro-pillars and cable ducting, together with appropriate wiring diagrams and other relevant documentation to support the maintenance of the public lighting installation, EV Charging Units, including relevant ETCI and Civils Certification for the ducting, cabling and lighting installations. The drawings should clearly indicate how the public lighting system and EV Charge Units in private areas is segregated from the system in areas to be taken in charge. All public lighting and EV Charge Points are to be certified and constructed in accordance with the standard details noted in DLRCoCo Taking in Charge Development Standards Chapter 8. Confirmation that Chapter 8 requirements have been satisfied. Energy bills to be provided to allow for change of ownership for payments of electricity.	Y/N
WAYLEAVES: Wayleave Agreements and Drawings must be submitted for any sections of **Drainage Systems, Water Distribution systems, EV Charging Units, or Public Lighting Installations** laid in private properties and being offered for Taking in Charge by the County Council. (**NOTE**: In respect of Water Supply, New Foul Drainage pipes (or existing Combined drainage pipes), new Wayleaves **must be submitted in favour of Irish Water** and not the Local Authority). Surface Water Drainage Wayleaves (**to be submitted in favour of DLRCoCo**) Refer to Appendix B for a template of the Wayleave Agreement Form. All such wayleaves must be incorporated in the Title Deeds of the private properties concerned. Written confirmation that this has been complied with shall be furnished by the developer to the Building Control Section.	Y/N

COMPLETED DEED OF DEDICATION AND LAND TRANSFER OF PUBLIC OPEN SPACE A copy of the Deed of Dedication and Land Transfer Agreements for public open spaces, completed at the expense of the developer. Confirmation that Chapter 7 requirements have been satisfied.	Y/N
CERTIFICATES OF COMPLIANCE Fully Completed Certificates of Compliance in relation to roads, footpaths, boundary walls, public lighting, EV Charge points, sewers, drainage systems, open spaces must be completed by the relevant Consultant Engineers as contained within this application form. Professional Indemnity Insurance Certificates shall be submitted for the certifying Consultant Engineer.	Y/N
FIRE SAFETY: Confirmation of compliance with a Fire Safety Officer Report for the water distribution system shall be submitted to the Council as part of a Taking in Charge Application Form. This shall include a Fire Hydrant Report. Test results are to be duly certified by a competent engineer showing output in litres per minute from all fire hydrants in the development. No domestic property within a development shall be more than **46m** from a hydrant. Hydrant details and locations are the subject of approval of the relevant Fire Authority. This requirement may take account of dead-end or wash-out hydrants. A hydrant shall not be closer than 6m to a property. Fire hydrants should not be supplied from Water Mains of less than 100mm internal diameter. The depth of the hydrant cap shall be located at most 350mm from the finished ground level. All hydrants shall be ANTI-CLOCKWISE OPENING. Hydrants can be provided either on line or off line depending on the site requirements	Y/N

As Constructed Drawings:

Completed by: _____

_____

Qualifications:_____

List below any additional drawings and documents submitted:

_____

_____

_____

_____

_____

_____

_____

_____

If some or all of the development works are being offered to the County Council for Taking in Charge, provide details of these:

Roads (length, width, Area, make up):_____

_____

Paths (length, width, Area, type, make up): _____

_____

Public Lighting (No, type, micropillars, EV Charge Points): _____

_____

Open Spaces (Area, Landscaped Areas): _____

_____

Sewers (Surface water sewers length, drainage systems, foul sewer lengths, no of manholes): _____

_____

Water Mains (length, no of valves and hydrants, meters and Irish Water Status): _____

_____

Certificates Of Compliance:

Site Development Works Planning Compliance:

I confirm that the development referred to above has been completed:-

(a) In accordance with the Planning permissions pertaining to this development. Planning Reference No:- _____

and all conditions attached thereto, and

(b) in accordance with the following subsequent permission(s) granted and the conditions attached varying the parent permission (where applicable)

Subsequent Planning Reference Nos: _____

Name (Block Capitals) _____**Date:**_____

Signed by Consultant Engineer: _____

Qualifications: _____

Professional Indemnity Insurance up to €2,000,000 attached

_____ **Y/N**

Site Development Works Building Regulations Compliance:

I confirm that the development referred to above has been completed in accordance with the relevant Building Regulations and Building Control (Amendment) Regulations pertaining to this development.

Planning Reference No:- _____ including all associated site development works.

Name (Block Capitals) _____**Date:**_____

Signed by Consultant Engineer: _____

Qualifications: _____

Professional Indemnity Insurance up to €2,000,000 attached

_____ **Y/N**

Site Development Works Standards Compliance:

I confirm that the Footpaths, Roads, Traffic Signs, Road Markings, Sewers, Watermains, Drainage Systems and Water Systems have been designed & constructed in accordance with the standards and requirements set out in the DLRCoCo Taking In Charge Development Standards Guidance Document Chapters 2, 3, 4, 5, 6 and 8 published by the County Council.

Name (Block Capitals) _____**Date:**_____

Signed by Consultant Engineer: _____

Qualifications: _____

Professional Indemnity Insurance up to €2,000,000 attached

_____ **Y/N**

Site Development Works Standards Boundary Compliance:

I confirm that the Boundaries have been designed & constructed in accordance with the standards and requirements set out in the Taking In Charge Development Standards Guidance Document Chapters 6 and 7 published by the County Council and the boundaries comply with the NSAI standard SR 325:2013. The boundaries were designed in accordance with the recommendation for the design of Masonry Structures in Ireland to Eurocode 6.

Name (Block Capitals) _____**Date:**_____

Signed by Consultant Engineer: _____

Qualifications: _____

Professional Indemnity Insurance up to €1,300,000 attached

_____ **Y/N**

Public Lighting Site Development Works Compliance:

I confirm that the Public Lighting Systems and EV Charge Points have been designed & constructed in accordance with the standards and requirements set out in the Taking In Charge Development Standards Guidance Document Chapter 8 published by the County Council and the ESB's Housing Schemes Guidebook.

Name (Block Capitals) _____Date:_____

Signed by Public Lighting Consultant Engineer: _____
Qualifications: _____
Professional Indemnity Insurance up to €1,300,000 attached
_____ Y/N

Landscaped Areas Site Development Works Compliance:

I confirm that the Landscaped Areas and street furniture have been designed, constructed and planted in accordance with the standards and requirements set out within the granted planning permission and the Taking In Charge Development Standards Guidance Document Chapter 7 published by the County Council.

Name (Block Capitals) _____Date:_____

Signed by Consultant Engineer: _____
Qualifications: _____
Professional Indemnity Insurance up to €1,300,000 attached
_____ Y/N

Certificates of Compliance:

I confirm that the above certification relates to the development been requested for taking in charge or alternatively a return of bond request and is a true reflection of the works carried out.

Name (Block Capitals) _____Date:_____

Signed by Developer: _____

For Office Use:

Inspection Report Building Control Section:	Notes/Comment
Signed: (Inspector/Engineer)	Date:-
Recommendation for release of Bond:- Signed:-	Date:-
Managers Order for Release of Bond:-	No.
Date:-	
Bond Returned	Date:-
File Closed	Date:-

Appendix B: Wayleave Instruction Sheet and Template

INSTRUCTION SHEET FOR PREPARING WAYLEAVE AGREEMENTS FOR RESIDENTIAL ESTATES/ DEVELOPMENTS

1. Developer's Name: _____
2. Developer' Address: _____
3. if Developer a Company the Registration number of the Company: _____
4. Development Name:_____
5. Development Location:_____
6. Developers Solicitor Name:_____
7. Developers Solicitor Address:_____
8. Developers solicitor phone number:_____
9. Developers solicitors email address:_____
10. Is there a connection agreement with Irish Water?_____
11. Is this part of a Taking in Charge application?_____
12. has the Developer complied with the Council's requirements for Taking in Charge Policy Guidance?_____
13.have all conditions of the planning permission been complied with?_____

Documents required

14. OSI Map No for entire plot
15. OSI Map for wayleave area with relevant shading
16. Copy Planning Permission:

Services to be included in the Wayleave (please tick relevant services):

a). Public Lighting
b). Foul Sewers
c). Surface Water Sewers
d). Water mains

Information for the Agreement:

a). Is there any consideration in the Agreement?
b). any other particular conditions to be inserted as part of the wayleave?

WAYLEAVE AGREEMENT

This **DEED OF GRANT** made the day of 2021

BETWEEN

A. (Company Number) having its registered office at (hereinafter called "the Grantor" which expression shall when the context so admits or requires includes its successors and Assigns) of the one part

And

DUN LAOGHAIRE-RATHDOWN COUNTY COUNCIL, County Hall, Marine Road, Dun Laoghaire in the County of Dublin (hereinafter called "the Council" which expression shall when the context so admits or requires includes its successors and assigns) of the other part

WHEREAS

A. The Grantor is the owner of the lands (hereinafter referred to as "the Land") more particularly described in the Schedule hereto in fee simple;

B. The Council is a Sanitary Authority for the purposes of the Public Health (Ireland) Act 1878 as amended and extended and is a Water Authority under the Water Services Act 2007 to 2014.

C. Subject to the exceptions and reservations hereinafter contained the Grantor agrees to grant to the Council the easements, rights and privileges hereinafter mentioned and the Council and the Grantor respectively agree to enter into the covenants hereinafter contained.

NOW THIS DEED WITNESSETH AND IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:-

1. Pursuant to the said Agreement and in consideration of compensation in the sum of €1 (One Euro) now paid by the Council to the Grantor (the receipt of which monies the Grantor hereby acknowledges) the Grantor as beneficial owner (and to the intent that the easements, rights and privileges hereby granted shall be appurtenant to all such lands and hereditaments owned and occupied and used by the Council for the purposes of carrying out any of its

duties imposed on the Council by the Public Health (Ireland) Act 1878 as amended and extended and as a Water Authority under the provisions of the Water Services Act 2007 to 2014 and for the time being enforced as are accommodated by the said easements, rights and privileges and every part of such land and hereditament) **HEREBY GRANTS** unto the Council all such wayleave, easements, rights and privileges as shall be necessary or proper or convenient to enable the Council to erect, place, maintain and inspect or to enlarge, renew, cleanse, repair, replace, remove or render unusable a _____ together with all necessary apparatuses ancillary thereto (hereinafter referred to as "the Sewer") on that part of the Land of the Grantor more particularly described in the Schedule hereto and which is hereby reserved for the Wayleave more particularly marked with a broken line on Drawing No. annexed hereto called the "Drawing" which portion of the Grantor's lands for the carrying of Sewage effluent only. It is hereby agreed between the Grantor and the Council that there shall be a general right of access by the Council from the public area across the Grantor's land to the entirety of the Wayleave area.

2. **The Council hereby covenants with the Grantor as follows:-**

2.1 That the Council at its own expense keeps the Sewer in proper repair and condition;

2.2 The Council shall pay and discharge all taxes, rates, duties, charges, assessments and outgoings whatsoever (whether parliamentary, local or of any other description) which are now or may at any time hereafter be assessed, charged or imposed upon or payable in respect of this Wayleave.

2.3 That the Council will not use or exercise any of the easements, rights or privileges hereby granted in such manner as either to cause any unnecessary damage or injury to the Grantor's property or so as unnecessarily to impede the free and uninterrupted access thereto and use thereof by the Grantors;

2.4 If, in the course of using or exercising any of the easements, rights or privileges hereby granted the Council or its servants or agents or workmen do any damage or injury to the Grantor's property the Council will make good such damage or injury in the manner

hereinafter set forth and to the reasonable satisfaction of the Grantor or (if in the opinion of the Grantor it is not practical to make good such damage or injury) the Council will in lieu of making good the same, pay such adequate and proper compensation to the Grantor as may be mutually agreed between the respective parties and in default agreement to be fixed by Arbitration pursuant to Clause 6 hereof;

2.5 The Council hereby covenants with the Grantor that the Council shall at all times indemnify and keep indemnified the Grantor against all actions, proceedings, claims, demands, costs, damages and expenses claimed against, incurred by or payable by the Grantor arising out of any accident, damage or injury (to any person) including persons in the employment of the Grantor or property (including property belonging to the Grantor) arising out of, in respect of or resulting from the user, maintenance, repair, non-repair, extension, diversion, alteration, renewal, removal of the Sewer.

2.6 The Council shall, before commencing any work on the Sewer obtain from competent authorities all necessary licences, permissions, approval of plans and specifications and other things required by Law for the laying and maintaining of the Sewer and shall pay all fees and every other expense payable in respect thereof and shall keep the Grantor indemnified against all such fees, charges and expenses and against all liability arising by reason of such licences, permissions or approvals not being obtained or by reason of such fees, charges and expenses not being paid;

2.7 The construction work shall be carried out in a manner so as to minimise the disruption to the Grantor.

3. **THE GRANTOR HEREBY COVENANTS WITH THE COUNCIL**

The Grantor will not do or permit or suffer to be done in the Grantor's lands anything likely or calculated to:-

3.1 The full free and uninterrupted passage and running of the Sewer.
3.2 Impede the reconstruction of the Sewer or in any way to impede access to the said Sewer.
3.3 Cause damage or injury to the said Sewer and will take all necessary and proper precautions for the prevention of such damage or injury and in particular that the Grantor shall not erect or place on the strip any permanent buildings or structures.

4.

4.1 If at anytime the Council shall desire to remove the said Sewer from the Grantor's property the Council shall before removing the same give six calendar months notice in writing to the Grantor;

4.2 On the expiry of such notice the Council shall either remove the said Sewer and apparatus from the Grantor's land or (if in the opinion of the Council such removal is not practical) shall render same unusable;

4.3 If the Sewer has been removed from the Grantor's land or rendered unusable the Council shall make good to the reasonable satisfaction of the Grantor any damage or injury to the Grantor's property caused by the removal or rendering unusable of the said Sewer and after such damage or injury has been made good as aforesaid, all liabilities imposed on the Council by any covenant or provision herein contained shall cease and be determinable without prejudice to any subsisting liability of the Council in respect of any antecedent breach of any of the covenants on the part of the Council hereinbefore contained.

5. It is mutually agreed between the parties hereto that the within Deed of Grant of Wayleave shall be deemed to be subject to the statutory powers, functions and duties vested in the Council as Sanitary Authority under and by virtue of the provisions of the Public Health (Ireland) Act 1878 as amended or extended and shall be read subject to such powers, functions and duties.

6. In case any dispute or difference shall arise at any time between the parties hereto such dispute or difference shall be referred to Arbitration and the final decision of such person as the parties hereto may agree to appoint as Arbitrator or failing agreement as appointed on the request of either party by the President of the Law Society of Ireland and the decision of such Arbitrator shall be final and binding on the parties. Every reference to Arbitration under this Deed of Grant shall be deemed to be in Arbitration within the meaning of the Arbitration Act 1954 as amended and extended.

7. The Grantor hereby **ASSENTS** to the registration of this Agreement as a burden against the Grantors lands.

IT IS HEREBY CERTIFIED that this instrument is a conveyance or transfer on any occasion not being a sale or mortgage.

IN WITNESS WHEREOF the Grantor has hereto set his hand and the Council has affixed its Common Seal the day and year first herein written:

SCHEDULE

All THAT AND THOSE

PRESENT when the Common Seal of

_____

Was affixed hereto:

PRESENT when the Common Seal of
DUN LAOGHAIRE RATHDOWN COUNTY COUNCIL
was affixed hereto:

_____
Cathaoirleach na Comhairle
Chontae Dhun Laoghaire-Rath an Duin.

_____
Approved Officer

_____
County Council Official,
County Hall, Dun Laoghaire.

Dated day of 2020

Between/

("the Grantor") of the one part

-and-

DUN LAOGHAIRE RATHDOWN COUNTY COUNCIL

("the Council") of the other part

DEED OF GRANT OF WAYLEAVE

Lands at:-

John D. Healy,
County Law Agent,
Dun Laoghaire-Rathdown,
County Council,
County Hall,
Dun Laoghaire,
Co. Dublin.

WpRef: 112,254

Appendix C: MOU Schedule 1 & 2

Schedule 1: To be Competed by the Developer & TIC Section of DLRCoCo and forwarded to Irish Water with recommendations of whether estate is Category A or B, along with the Schedule 2 form which the Water Services Section completed following their assessment of the Water Services infrastructure

Completion Colour Code: Developer

Planning Authority:	Dún Laoghaire-Rathdown County Council					
Developer Name:						
Name of Development/Housing Estate:						
Location of Development:						
Parent Planning Reference No:						
Map Outlining proposed area to be considered for TIC including all relevant						
Planning Permission references:	Attached –	Yes		No		
Site Location Map:	Attached –	Yes		No		
Site Layout:	Attached –	Yes		No		
Number of Houses Constructed:						
Geo References (Site Centroid):						
Length of Roadway (if available):						
Is there a current Bond in Place:		Yes		No		
If Yes:						
Value of the Bond:						
Phase of Bond if relevant:						
Bond type, Cash/Insurance/Other:						
Expiry Date of Bond Claims:						
Name of Financial Institution:						
Comment if applicable:						
Is Enforcement Action an option?		Yes	X	No		
Comments as applicable:						

The following is checked from data/details received on TIC application:

(NB: In the case of a request from the majority of the residents under Section 180, it is unlikely that the following data/detail will be available to the Planning Authority)

Application received from:

Developer:	Yes		No	
Majority of residents:	Yes		No	

Date of receipt of application: _____

As Constructed Site Layout:	Yes		No	
As Constructed Plan & Section Watermain:	Yes		No	
As Constructed Plan & Section Sewers:	Yes		No	
Surveys Wastewater Network:	Yes		No	
Surveys Water Network:	Yes		No	
Test Certificates:	Yes		No	
Wayleaves:	Yes		No	
Engineer/Architects Certificates:	Yes		No	

Overall comments:

_____

_____

_____

Planning recommendation to be completed after return of Schedule 2

Planning Recommendation:

Development Category (reference Section 4 of MoU)	Category A	
	Category B	
Financing Option (reference Section 7 of MoU)	Option 1	
	Option 2	
	Option 3	

Signed: _____

Title: _____

Date: _____

Schedule 2: To be completed jointly by the Developer & DLRCC Water Services

This inspection form is to assess condition and compliance with standards of water services assets for the transfer of assets to Irish Water on conclusion of the taking in charge process. It is a visual survey and unless otherwise indicated no testing of the infrastructure was undertaken.

Completion Colour Code: Developer

Planning Authority: Dún Laoghaire-Rathdown County Council

Planning Ref. No(s) _____

Number of Units: _____

Development Name: _____

Address: _____

_____

Name of Developer: _____

Agent (if applicable): _____

Date of Inspection: _____ Initial: ☐ Follow up: ☐

The table hereunder is a checklist to be utilised to assist in the site inspection and is a measure of the information on water services assets required by Irish Water.

Engineers and Architects Certificates	**Available**			**Comment**
	Yes	**No**	**N/A**	
Copies of submitted certificates				
Copies of submitted reports				
As Constructed Drawings	**Available**			**Number**
	Yes	**No**	**N/A**	
Electronic copy submitted				
Hard Copies				
Site Layout Drawings	**Available**			**Comment**
	Yes	**No**	**N/A**	
Indicate extent of roads and lands to be taken in charge				
Indicates House Numbers where applicable				
Details pre-existing topography, services, water courses etc.				
Existing wayleaves or other burdens on lands				

Watermains	**Available**			**Comment**
	Yes	**No**	**N/A**	
Plan of watermain				*Developer to provide dwg to WS*
Locations of all sluice valves, scour valves, air valves, hydrants, meters, water service control units are clearly indicated				*Developer to provide dwg to WS*
Route, diameter and class of water pipelines indicated				
Indicate details of bulk meter type (electronic or mechanical) and bypass arrangements if applicable				
Inspect depth of water services for adequacy of cover				
Foul Sewers	**Available**			**Comment**
	Yes	**No**	**N/A**	
Plan of sewers				
Longitudinal sections showing gradient of pipeline, pipe diameter and pipe type				
Location of manholes including finished ground/cover level and invert level are identified on plan				
Comment on the grade, standard and condition of all covers and frames				
Indicate location and route of all connections from sewers to individual properties				
Test Certificates	**Available**			**Comment**
	Yes	**No**	**N/A**	
Water pipelines - pressure tests (at 1.5 times working pressure)				
Water Losses (minimum night flow should not exceed 6l/dwelling/hour)				
Sewer pipelines - Air tests to BE EN 1610				

Surveys Water Network	**Available**			**Comment**
	Yes	**No**	**N/A**	
All valves and hydrants to be opened and checked for compliance with standards and dipped to crown of pipe to ascertain adequacy of cover.				
1:10 stop valves to be opened and checked for compliance with specification and depth of cover.				
Surveys Wastewater Network	**Available**			**Comment**
	Yes	**No**	**N/A**	
CCTV Survey-with reports including classification of all defects and defect grading.				
Manhole Survey–visual check on benching, infiltration, cover and biscuit integrity and flushness with surface, accessibility, subsidence, cracking, ponding.				
Dye tests- 1 in 10 premises to be subject to dye test				
Infiltration test- Guideline: Infiltration shall not exceed 0.5 litres/linear metre of pipeline/metre nominal bores over a period of 30 minutes.				
Surveys Surface Water Network	**Available**			**Comment**
	Yes	**No**	**N/A**	
Random check of manholes for presence of foul sewage. (1/10).				
Wayleaves and Easements	**Available**			**Comment**
	Yes	**No**	**N/A**	
Copies of all wayleaves, burdens, land transfers and other document pertinent to development to be submitted.				
Service History	**Available**			**Comment**
	Yes	**No**	**N/A**	
Detail significant watermain leaks / bursts / issues				
Detail significant sewer blockages / bursts / issues				
Flooding risk or potential				

Pumping Stations	Available			Comment
	Yes	No	N/A	
Water Pumping Station				
Wastewater Pumping Station				
As constructed drawings and specifications to include type and size of pumps; wiring diagrams for control panel and switch gear; telemetry system; lifting equipment including certification of same.				
Reports associated with supervision of installation				
Operational Arrangements (Council/Developer/Service Contract)			X	
Performance issues-Where Council have intervened			X	
MPRN and Account Holder Details from electricity account				
Actual or estimated annual consumption from Electricity bill.				

Sketches Attached (optional): Yes ☐ No ☐

Conclusion:

Recommended time frame for execution of water service remedial works: _____

Anticipated costs for remedial works to water service infrastructure: _____

Proceed to take in charge: ☐

or

Works required prior to taking in charge: ☐

Signed: _____ *By Senior Engineer, Water Services*

Grade: Senior Engineer, DLRCoCo WS

Date: June 2022

Note: Please attach copies of all reports, drawings, surveys etc with completed forms.

Appendix D: Roads Minimum Standards Supplementary Table

Pavement Layers					
		Residential		Commercial/Arterial Route	Regional
Bound layers		**Cul de sac - Home Zone**	**Spine Rd - Heavily Trafficked**	**Industrial Estates/Link roads**	**AADT > 3000 vehicles**
Surface course (Single course)	Minimum compacted thickness:	**40mm**	**40mm**	**40mm**	**40mm**
	Chip size range:	10mm	10mm or 14mm	10mm or 14mm	10mm or 14mm
	Material name:	SMA surf (IS EN 13108-5)	SMA surf (IS EN 13108-5)	SMA surf (IS EN 13108-5)	SMA surf (IS EN 13108-5)
	Alternatively:		HRA (IS EN 13108-4)	HRA (IS EN 13108-4)	HRA (IS EN 13108-4)
Binder course (Single course)	Minimum compacted thickness:	**100mm**	**60mm**	**60mm**	**60mm**
	Chip size range:	20mm	20mm	20mm	20mm
	Material:	AC 20 dense bin (IS 13108-1)	AC 20 dense bin (IS 13108-1)	AC 20 dense bin (IS 13108-1)	AC 20 dense bin (IS 13108-1)
Base course (Single or double course)	Minimum compacted thickness:		**80mm**	**120mm**	**220mm** (2 layers)
	Chip size range:		32mm	32mm	32mm
	Material name:		AC 32 dense base (IS 13108-1)	AC 32 dense base (IS 13108-1)	AC 32 dense base (IS 13108-1)
	Minimum bituminous thickness:	**140mm**	**180mm**	**220mm**	**320mm**

Pavement Layers - Continued					
		Residential		Commercial/Arterial Route	Regional
		(Designer should be cognisant of Figure 4.2 of DN-PAV-03021 Dec 2010)			
Unbound layers					
Sub-base	Minimum compacted thickness:	**150mm**	**150mm**	**150mm**	**150mm**
	Material name:	**Refer to TII publication - Series 800** (Including Clauses 801-804)			
Capping	Compacted thickness:	**Refer to TII publication - DN-PAV-0321** (i.e. CBR, plate compaction, water tables, etc)			
	Material name:	**Refer to TII publication - DN-PAV-0321** (i.e. Class 6F2/6F1, water tables, etc)			

Coloured Surface Course Options					
Surface course (Single course)	Material description	**Black SMA with Red Chip**	**Buff HRA**	**Red HRA**	**All Other Surfacing Types**
	For use on:	**Traffic Calming Ramps**	**Shared Surfacing, DEMURS**	**Shared Surfacing, DEMURS**	**Must be preapproved by an Area Engineer Building Control or Road Maintenance**
	Min compacted thickness:	40mm	40mm	40mm	
	Chip size range:	10mm only	Material Properties to be approved	Material Properties to be approved	
	Min chip PSV value:	55			
	Material name:	SMA surf PMB (IS EN 13108-5)	HRA (IS EN 13108-4)	HRA (IS EN 13108-4)	
	Chip colour:	Red	Buff	Red	
	Aggregate colour ratio:	Chips >4mm: Coloured Aggregate			
	Pigment colour:	n/a			
	Pigment % in mix:	None			
	Binder:	Black			
	After treatment:	None			
	Protected from Traffic:	2hrs min			

Concrete Footpath /Road/Kerbs				
Discription	**Footpath to RCD/1100/3.**	**Dishing to RCD/1100/3.**	**Roads NRA Specification, clauses 1001- 1044**	**Kerbs to standard detail RCD/700/2**
Material description	Concrete 30N20 to NRA Specifcation Clause 1106	Concrete 30N20 to NRA Specifcation Clause 1106	Concrete 40N20 to NRA Specifcation Clause 1106 with 20mm nominal aggregate size	Concrete 30N20 to NRA Specifcation Clause 1106
Depth of Concrete	100mm mim	150mm mim	200mm mim	325mm (125mm above Roadway)
Type of Aggregate	TYPE B to Clause 804 sub-base or Clause 808 if recommended	TYPE B to Clause 804 sub-base or Clause 808 if recommended	TYPE B to Clause 804 sub-base or Clause 808 if recommended	TYPE B to Clause 804 sub-base or Clause 808 if recommended
Minimum compacted thickness of Aggregate	100mm mim	100mm mim	200mm mim	100mm mim
Reinforcing mesh (A393 or similar)	if approved by Employer's Representative	if approved by Employer's Representative	Reinforcing mesh (A393 or similar) supported on 50mm spacers	if approved by Employer's Representative
1000-gauge visqueen for the Prevention of Water loss	if approved by Employer's Representative	if approved by Employer's Representative	separation membrane, using 1000-gauge visqueen	if approved by Employer's Representative

Bay Sizes/ Cuts	5m Long max	4m Long max	The maximum bay width to be 4.2 metres and 6.0 metres in the longitudinal direction	Cut every 5m
Joints	vertical expansion 40m spacings	None	Joints to be constructed in accordance with Clause 1009 & 1010 with joint filler board, preparedand sealed in accordance with Clause 1016 with sealant in accordance with Clause 1017.	none

Notes

1. Any deviation from the requirements above must be approved in advance by DLR Roads Department
2. Design must is be in compliance with current **IS EN 13108 and SR28**
3. Design must be signed off by a certified person
4. Where a subgrade has a CBR lower than 2.5%, it is considered unsuitable for support, and must be 'permanently improved'
5. **DLR require that 2 days advance notice by email is given by the developer to DLR in advance of all bituminous work being carried out (date & approx times included)**
6. Cores will be required post completion to verify laying depths and proper compaction; and shall be taken in accordance to the requirements of BS 594987 Clause 9

5.1.2 Lightly/Heavily Trafficked Roadways and Heavy Duty Locations

The specification used for reinstatement will depend on a number of factors, including (but not limited to) the following as defined in chapter 1:

1.0 Lightly/Heavily Trafficked Roadways whereby in some instances the road authority/TII may wish to designate a roadway.

2.0 Heavy Duty Locations which are roads designated by the road authority and are viewable on the MRL system. They include bus lanes, access to certain industrial areas, certain junctions etc.

Appendix E: Deed Of Dedication Template

Appendix F: Tree Planting Guidance

INTRODUCTION

This guidance doesn't apply to existing trees (policies for existing trees are outlined in the DLR Tree Strategy) but is focused solely on new tree planting.

- To optimise the design and potential benefits of all new Tree Planting
- To minimise future tree-related problems by outlining best practice when planting and maintaining new trees.
- To contribute to the Council's broader strategic goals of increasing the quantity of cover and range of species and verities of the urban and peri-urban forests of the county
- *BS 8545. Young Trees: From the Nursery to Independence in the Landscape* recommendations.

Suitability of location for tree planting

Proprietary planting systems

The use of proprietary planting systems and/or structural soil may enable trees to be planted in confined urban locations that would not otherwise be able to accommodate trees.

Scale of site

There must be enough space for the tree to grow unhindered, allowing for ultimate tree size. Underground space is as important as space above ground.

Spacing

Plant new trees approximately 6-12m apart (depending on species) and do not plant under the shade of existing trees, as this may prevent normal growth and development.

Public lighting

The preferred minimum distance between new tree planting and public lighting is 7.5m. The absolute minimum distance is 5m in the case of trees of small crown habit such as Birch or Sorbus.

Traffic sightlines / road signage / traffic lights

New trees must not obscure sightlines at road or pedestrian junctions and traffic lights.

Overhead cables

If there is an alternative, do not plant directly beneath overhead cables. If there is no alternative, select an appropriate species.

Underground services / utilities

Where manholes or inspection covers are present, consider species selection and whether there is a more suitable location nearby. Scan for services before planting and assume when digging that they are present even where a scan has not indicated this. Refer to *NJUG Guidance for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees* of ***BS5837 Trees in Relation to Design, Demolition and Construction - Recommendations.***

Water mains and sewers

Trees will not normally penetrate or damage intact pipes or drains, particularly those below 600mm depth (*NJUG Guidance for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*), however when it is necessary to plant trees in proximity to sewers, consult with DLRCC Water & Waste Services and give careful consideration to the Species selection.***BS5837 Trees in Relation to Design, Demolition and Construction – Recommendations.***

Existing bus routes and distributor roads

Set new tree planting back from the kerb line and select species of a size and shape that will not interfere with vehicles using the road.

Narrow verges (less than 1m wide)

Do not plant trees on verges less than 1m wide unless there is no reasonable alternative nearby. If there is an open space adjacent to the road, this may be more suitable than a narrow verge. Carefully consider species selection and/or proprietary tree planting systems.

Paths and paving's

Carefully consider species selection or the use of proprietary planting systems when planting less than 1m distance from paths and paving's.

Public nuisance

Do not plant trees where they are likely to cause a future public nuisance e.g. up against gable walls.

Streams, rivers and waterbodies

Give advance notification to the Council's Water & Waste Section when planting trees within 3.0 m distance of existing streams, rivers or other significant watercourses and water bodies.

Built heritage

In many situations, sensitive tree planting can enhance our built heritage. However, in some circumstances it is not appropriate to plant trees, for example where they may screen, obscure, or detract from the special qualities of recognised public heritage features.

Local Biodiversity Plan (LBP) habitats

Do not plant new trees on existing LBP habitats, without seeking ecological advice. LBP habitats include heathland, semi-natural or species-rich grasslands, lowland hay meadows, semi-natural woodland, mixed woodland, scrub and marshes.

Tree pit, Root Barriers and Deflectors

There is no design suitable for all purposes please refer to:

BS 8545. Young Trees: From the Nursery to Independence in the Landscape recommendations.

Selection of tree species

The following document is considered appropriate to providing designers with a choice of approved Tree Planting.

'Tree Species Selection for Green Infrastructure A Guide for Specifiers
written by Dr Andrew Hirons and Dr Henrick Sjoman.'

Planting trees to promote biodiversity and sustainability:

FUTURE PROOFING AGAINST POTENTIAL NEW TREE DISEASES AND PESTS

➢ Avoid monocultures (single or low nos. of genera, species, varieties relative to quantity of plants) as much as possible. Monocultures may only be accepted when part of a wider, more diverse canvas of planting mixes, that include a range of genera, species, varieties.

➢ Use native species and plants of native provenance (island of Ireland) where appropriate as per the *National Biodiversity Plan*. Achieve balance between amenity and wildlife.

➢ Do not plant non-native species in native woodlands without seeking appropriate advice.

➢ Allowing for site scale and design rationale, do not exclude smaller, native trees because of their size.

In open spaces and parks use a mix of large, medium and small trees.

Aims: promote, establish and maintain as diverse a range of genera and species as appropriate and possible to meet the Council's County Development Plan and related policies (e.g. Dlr TREES Strategy and Local Biodiversity Plan) and objectives, in respect of quality design, ecosystems services, biodiversity conservation/enhancement and local heritage.

Appendix G: Agreement to Pay Public Lighting Charges on Estates Not Yet Taken-In Charge

AGREEMENT TO PAY PUBLIC LIGHTING CHARGES ON ESTATES NOT YET TAKEN-IN CHARGE

1. **_____** (hereinafter called "the Developer") agrees to pay **Dun Laoghaire-Rathdown County Council** (hereinafter called "the Council"), the sum €_____ per annum (subject to an annual review as stipulated in paragraph 2 below), payable in quarterly instalments commencing on _____, in respect of Public Lighting operating and routine maintenance costs, for development works known as **"DEF Housing Estate"**, until such time as these development works are formally taken-in-charge by the Council.

2. The agreed sum of €_____ per annum shall be subject to adjustment on each anniversary date, in accordance with the movement of the Consumer Price Index in the intervening period.

3. This agreement shall not in any way diminish the Developer's responsibility to undertake such non-routine maintenance as may be necessary; in order to keep the Public Lighting System in proper operating condition, until such time as the said development works are formally taken-in-charge by the Council.

Routine Maintenance: Patrols, replacement of spent lamps, cleaning of visors, fuses etc.

Non-Routine Maintenance: Damaged cable, lanterns, columns, components, skewed columns inter alia.

Date for Taking in Charge _____

Signed on behalf of Developer _____ Date_____

Signed on behalf of DLRCC _____ Date_____

Appendix H: Public Lighting Internal Arrangement for Mini-Pillar and Column

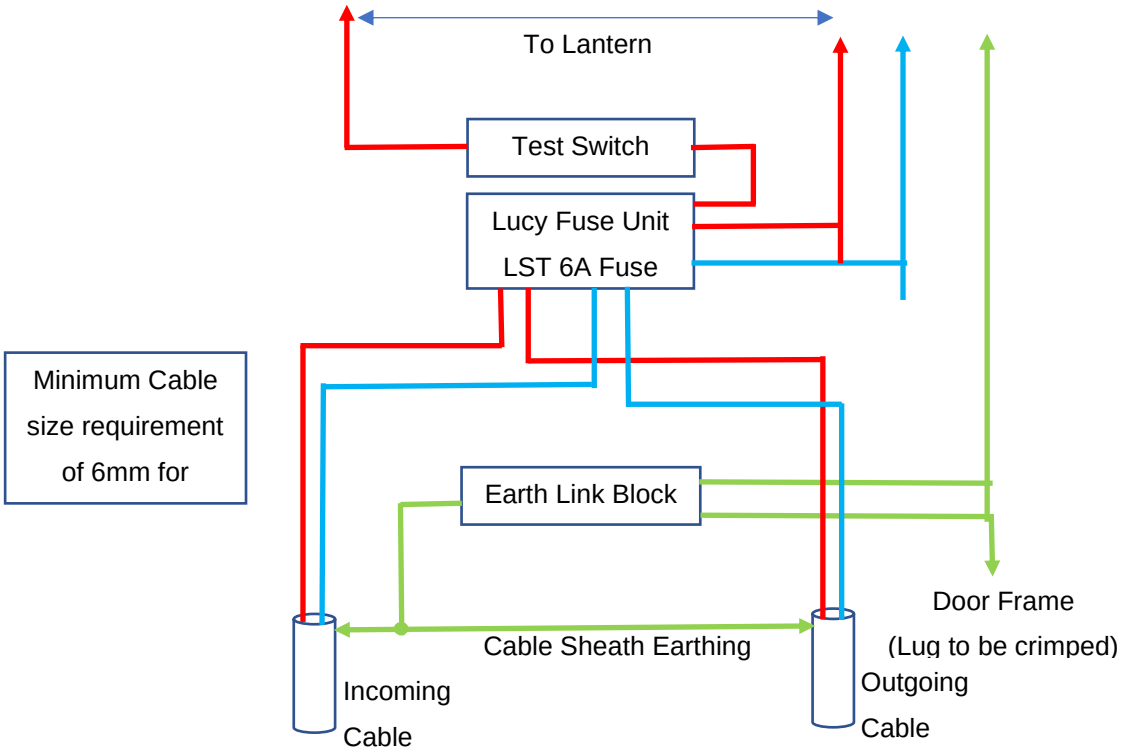


Figure H1: Public Lighting Column (Internal arrangement)

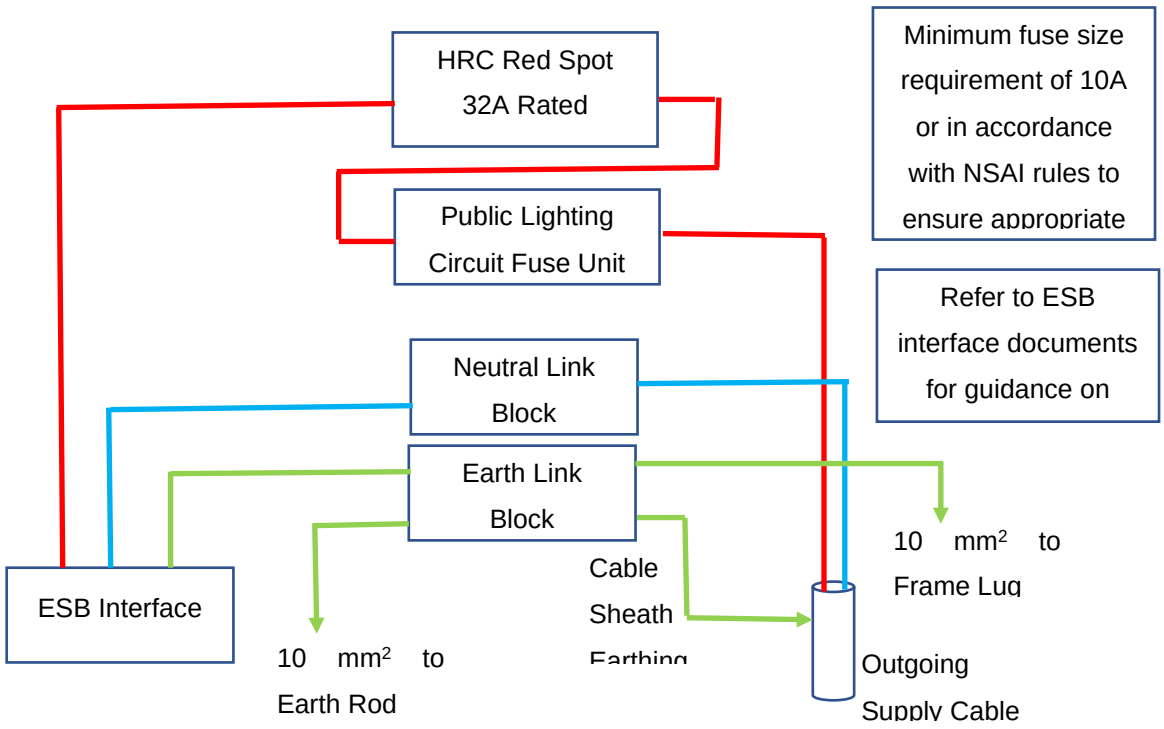
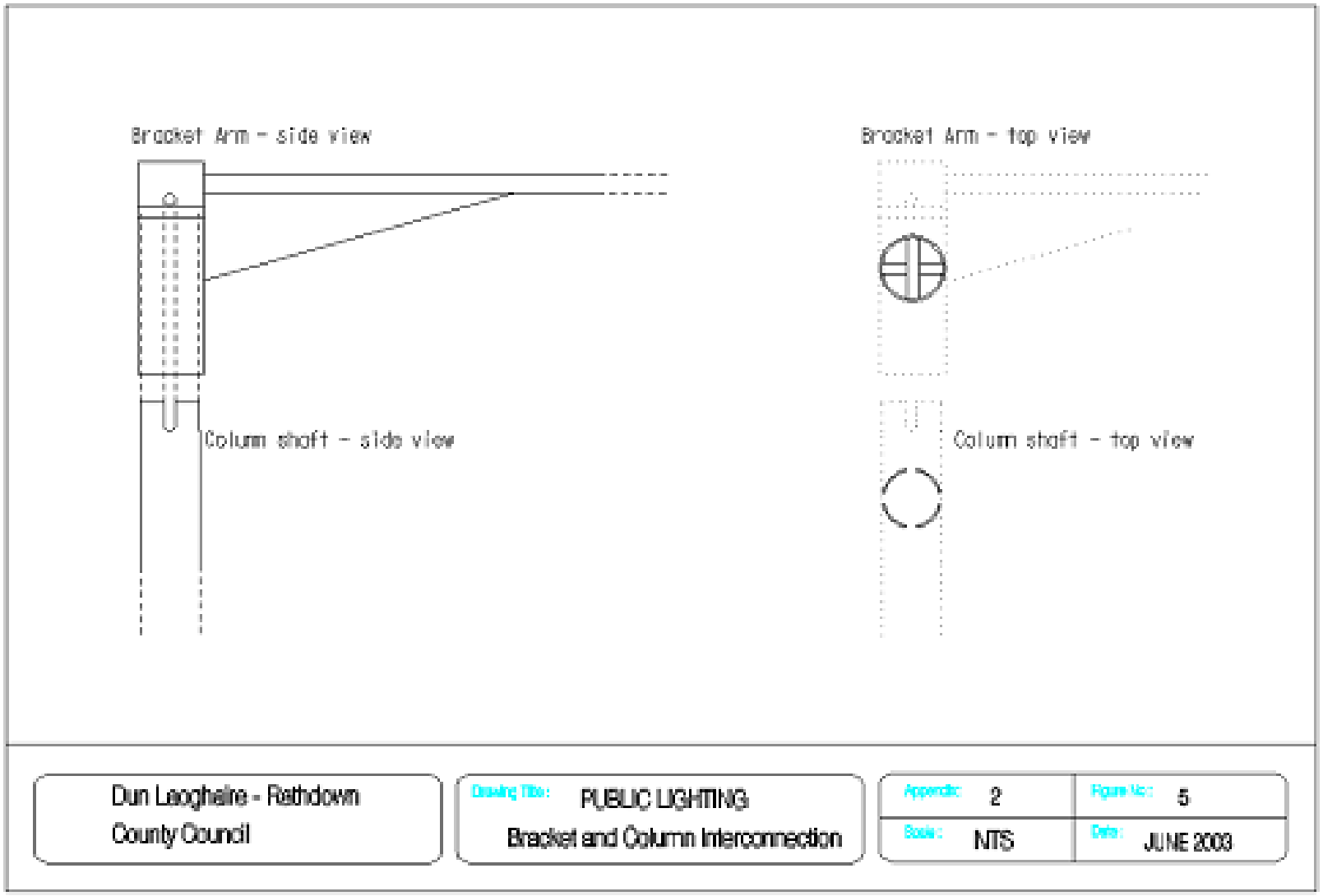
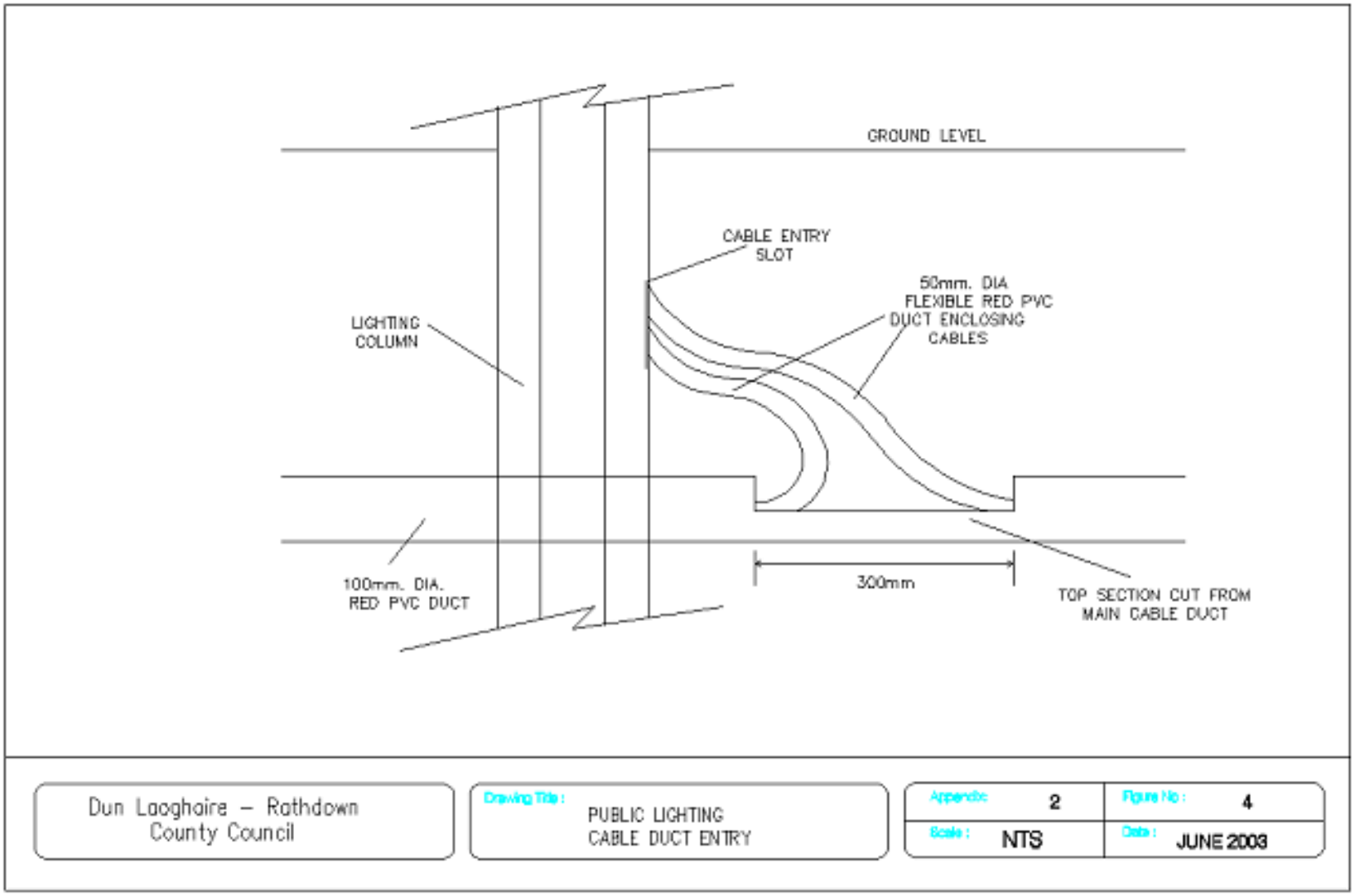


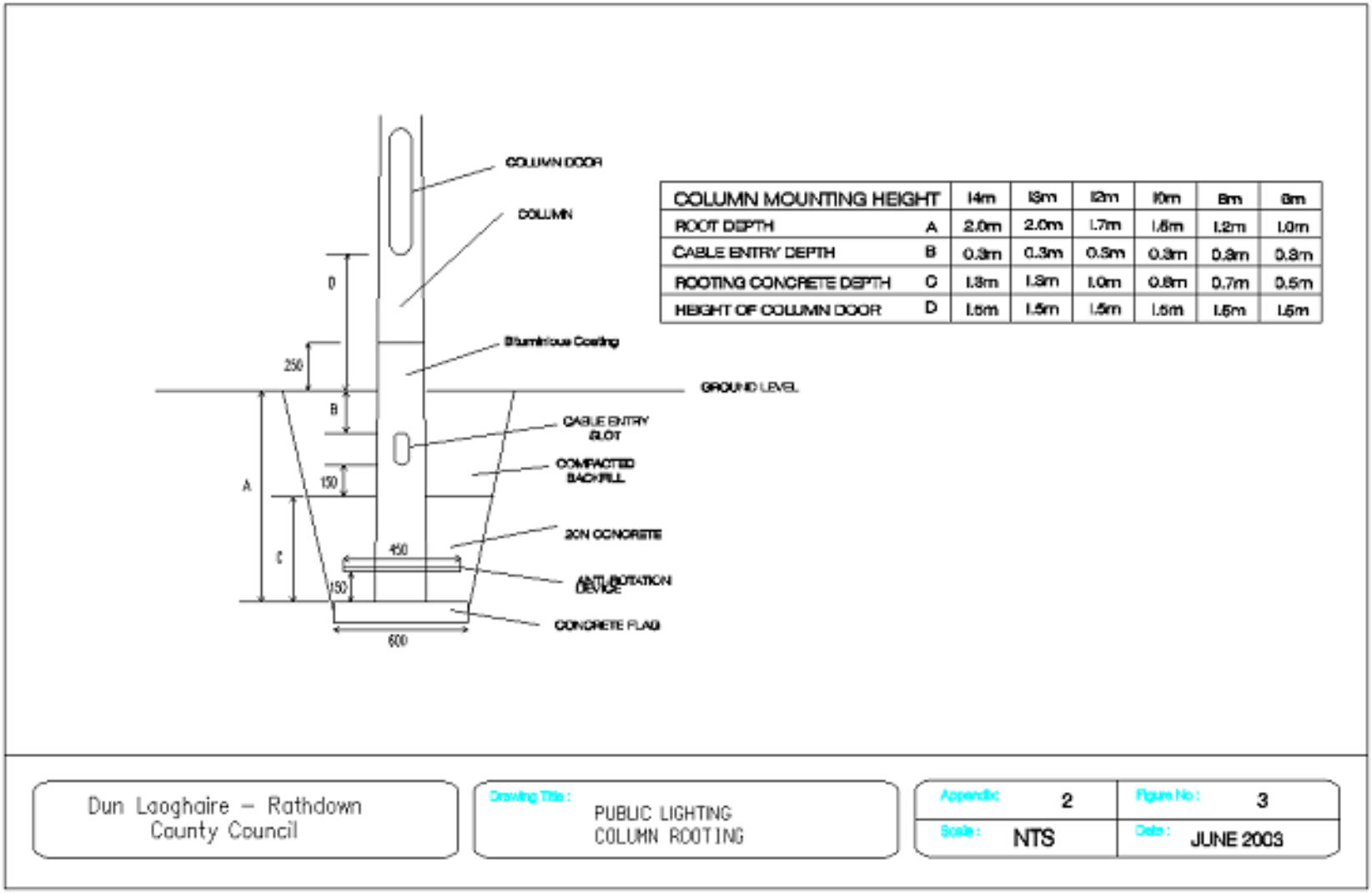
Figure H2: Public Lighting Mini Pillar (Internal arrangement)



Appendix H Figure H3. Bracket and Column Interconnection

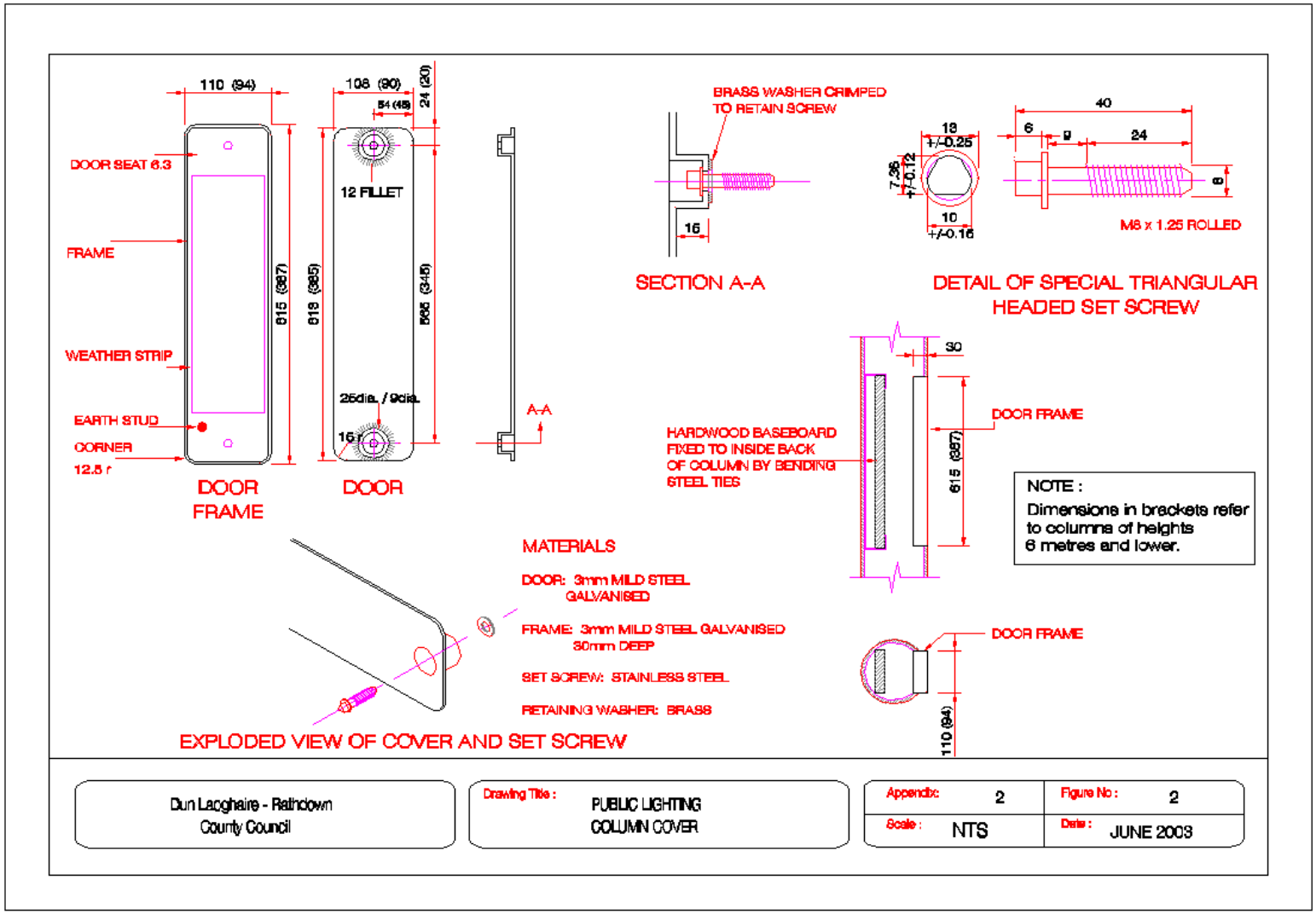


Appendix H Figure H4. Cable Duct Entry

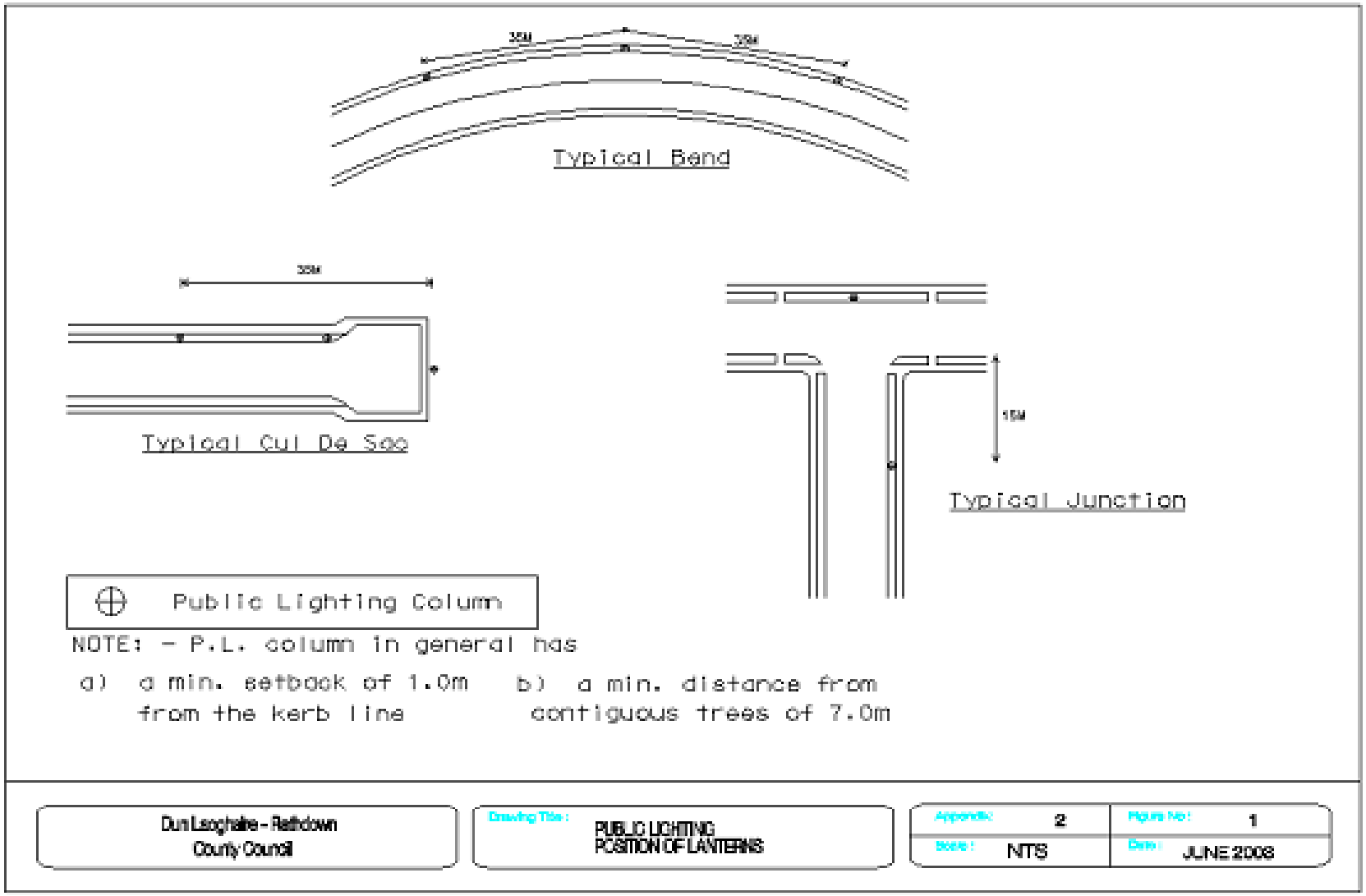


COLUMN MOUNTING HEIGHT		14m	13m	12m	10m	8m	6m
ROOT DEPTH	A	2.0m	2.0m	1.7m	1.6m	1.2m	1.0m
CABLE ENTRY DEPTH	B	0.3m	0.3m	0.3m	0.3m	0.3m	0.3m
ROOTING CONCRETE DEPTH	C	1.8m	1.3m	1.0m	0.8m	0.7m	0.5m
HEIGHT OF COLUMN DOOR	D	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m

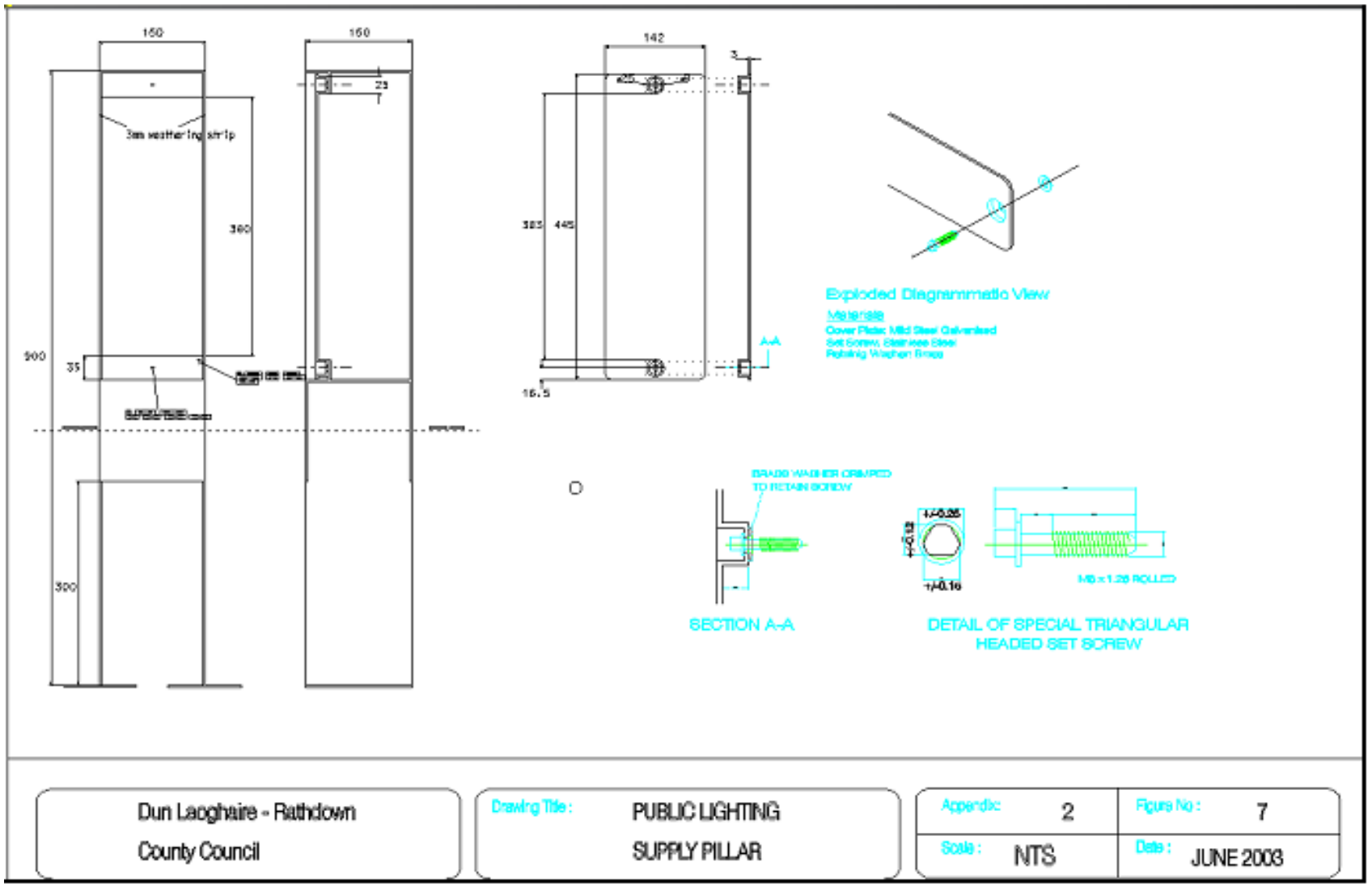
Appendix H Figure H5. Column Rooting



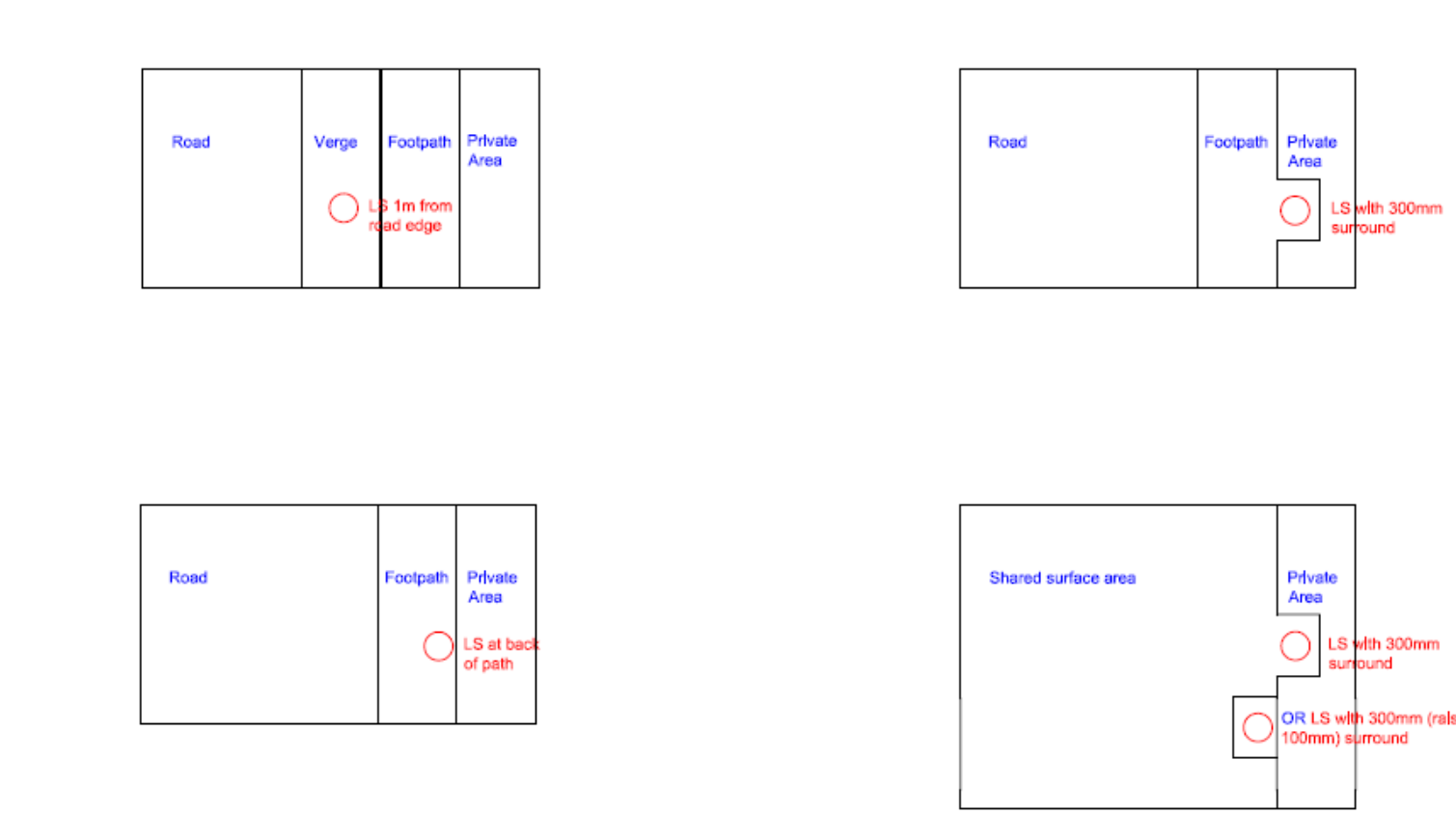
Appendix H Figure H6. Column Cover



Appendix H Figure H7. Position of Lanterns

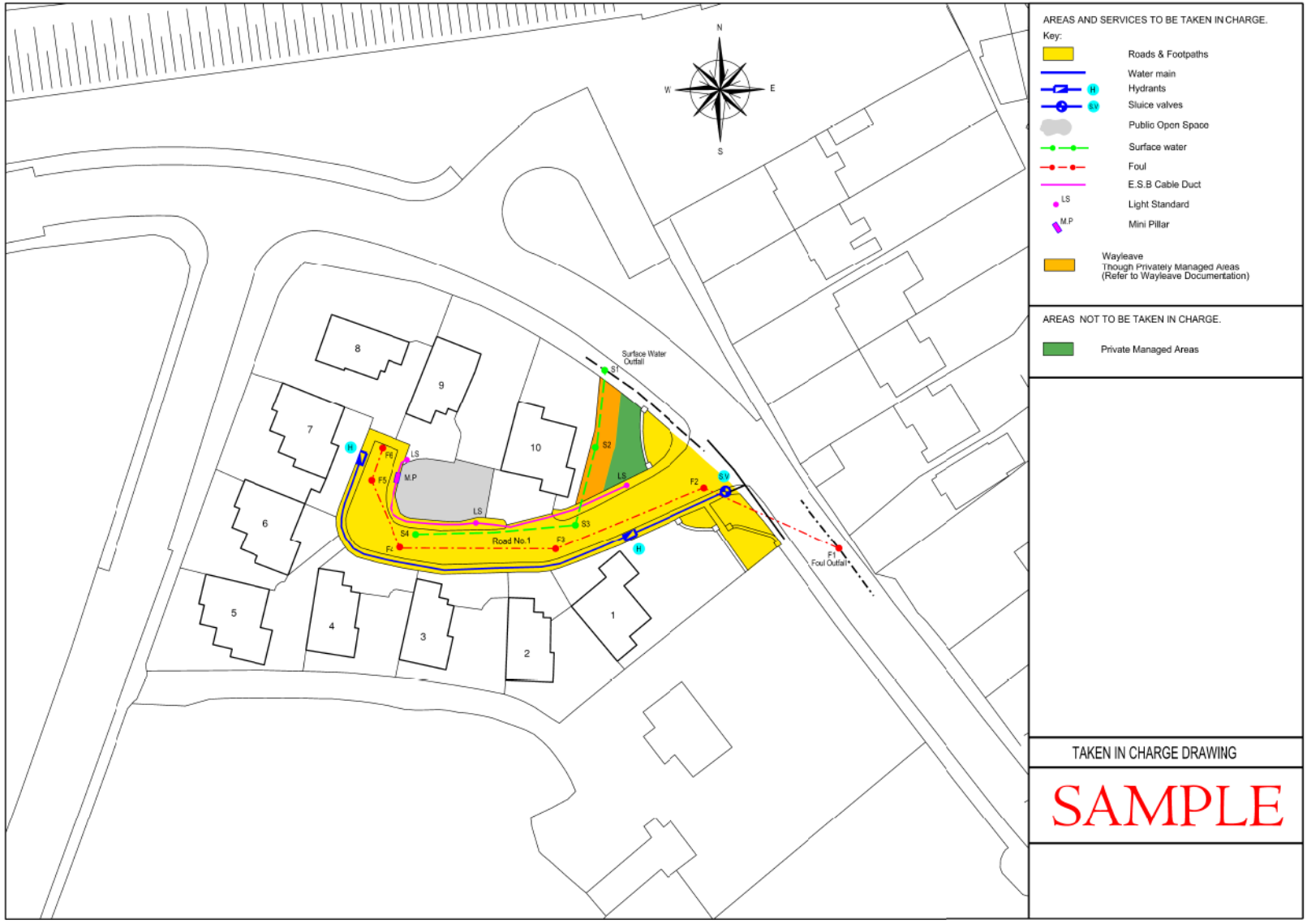


Appendix H Figure H8. Supply Pillar



Appendix H Figure H9 Acceptable column locations for TIC

Appendix J: Standard Template Taking In Charge Drawings


AREAS AND SERVICES TO BE TAKEN IN CHARGE.
Key:
Roads & Footpaths
Water main
Hydrants
Sluice valves
Public Open Space
Surface water
Foul
E.S.B Cable Duct
Light Standard
Mini Pillar
Wayleave
Though Privately Managed Areas
(Refer to Wayleave Documentation)
AREAS NOT TO BE TAKEN IN CHARGE.
Private Managed Areas
TAKEN IN CHARGE DRAWING
SAMPLE
Surface Water Outfall
Road No.1
Foul Outfall
N
S
E
W

Appendix K: Water Services (Drainage Planning) Section Sustainable Drainage System Guidance for Single Dwellings and/or Extensions to Existing Dwellings:

The Dún Laoghaire-Rathdown Development Plan Appendix 7 sets out the following Sustainable Drainage Systems (SuDS) requirements, as a minimum, which apply for a new single house or extensions to an existing property (additional site-specific requirements may also be required):

Sustainable Drain
In accordance with County Development Plan 2022-2028 Section 10.2.2.6 Policy Objective EI6: Sustainable drainage Systems, the proposal must demonstrate that they meet the requirements of the Greater Dublin Strategic Drainage Study (GDSDS) policies in relation to Sustainable Drainage Systems (SuDS). The design must incorporate SuDS measures appropriate to the scale of the proposed development such as soakpits, permeable paving, rainwater harvesting, rain gardens, etc. that minimise flows to the public drainage system and maximises local infiltration potential.
All SuDS measures must be designed in accordance with the relevant industry standards and the recommendations of the SuDs Manual (CIRIA C753).

All SuDS designs must be carried out by a suitably qualified/experienced Chartered Engineer who must be named in the application.

One of the main objectives of SuDS, from a drainage perspective, is to minimise flow of rainwater to the public drainage system.

At a very minimum the SuDS design must incorporate a rain garden (*ground level measure which allows rainwater to infiltrate down through vegetation and subsoil which cleanses and slows the water run off*), soak pit or infiltration trench (*below ground measure which encourages infiltration as an effective means of managing water runoff and aiding groundwater recharge*).

In locations where this is not possible, for reasons that must be clearly demonstrated in the application, the applicant may then propose use of alternative SuDS measures such as designed permeable paving (using grasscrete with gravel, or similar approved in advance). The proposed house or extension roof rainwater shall be discharged to this area. The applicant may also

propose a significant green/blue roof area (*Roofs that are planted to form green roofs which soak up rain and filter out pollutants*).

For larger sites, where space permits, applicants may alternatively propose suitably designed detention areas, swales or oversized tree pits.

Use of water butts are not acceptable as a SuDS measure in isolation.

Hardstanding/Parking Areas
All proposed parking and hardstanding areas must be constructed of a specifically designed permeable paving stone/asphalt system or gravel or drained directly to landscaped areas, in accordance with the requirements of Section 12.4.8 of the County Development Plan 2022-2028.

These hardstanding areas, generally to the front of properties, must be constructed of a specifically designed proprietary permeable paving system or gravel (min depth 200mm), or drained directly to suitably sized and designed landscaped areas. The gravel can be reinforced with plastic or concrete grasscrete type material.

Where the slope of the driveway is down towards the public footpath an interception drain shall be placed at the property boundary to intercept overland flow and direct it back to the permeable paving, gravel or landscaped areas.

New Connections
Prior to submission of the planning application, the applicant must obtain the sewer network records from dlr and assess if a new connection to the public sewer is technically feasible. Slit trenches may be required to determine the exact location and invert levels. The applicant may wish to consult with Municipal Services if a new connection is not self-evident.

Notwithstanding the nearby location of a public surface water sewer the applicant shall assume, in their designs, that no connection may be made to the sewer system as most public sewers have limited capacity for even moderate rain events