Planning and Engineering Report: M11-J16 (Ashford) Park & Ride

Author: National Transport Authority

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Park & Ride Development Office

Document Control Sheet

Project Name: Park & Ride Development Office

Report Title: Planning and Engineering Report: M11-J16 (Ashford) Park & Ride

Issue No.	Issue Status	Date	Prepared by	Checked by
1st	DRAFT	05/06/2024	IR	BD
2nd	DRAFT	18/10/2023	IR	BD
3rd	FINAL	24/10/2024	IR	BD

1 INTRODUCTION

The NTA Park & Ride Development Office (PRDO), established in February 2020, is responsible for the delivery of key Park & Ride sites for the NTA, Local Authorities and other transportation agencies in the Greater Dublin Area and Regional Cities by providing full-time specialist resources on these projects.

The PRDO published the GDA Park & Ride Strategy Report, which identifies 13 strategic locations for the provision of new Park & Ride facilities in the Greater Dublin Area including one at M11-J16 (Ashford).

This report documents the background and need for the facility, the proposed works to be undertaken, and the basis for the design of the proposed facility.

2 BACKGROUND

There is a significant number of people living in regional towns, rural hinterlands, and to a lesser extent; in the metropolitan area who do not have ease of access to high-quality public transport by walking or cycling. This can be due to their physical distance to high-quality public transport networks, limited pedestrian, and cyclist facilities (particularly in rural areas), or due to reduced mobility (e.g., elderly or mobility impaired).

Appropriately located and designed Park & Ride facilities can enable these people to access public transport and enhance their transport options to a wide range of destinations in a sustainable manner.

Park & Ride can intercept car trips where people are reliant on a private car at an early viable point in their journey thereby reducing the distances travelled by private cars with a corresponding reduction in carbon emissions and congestion.

The provision of high-quality Park & Ride facilities will enhance the accessibility of public transport to a wider catchment of people. This will increase the usage of public transport in the future in line with the GDA Transport Strategy objectives and protect the investment in existing and new public transport schemes.

Junction-16 is located 52 km south of Dublin City on the M11/N11 radial corridor. This corridor connects Dublin City to Rosslare Port and is of strategic importance nationally. This is emphasised through its inclusion in the Trans-European Transport Network (TEN-T) comprehensive road network. Therefore, it is imperative that it functions efficiently, particularly in facilitating the movement of goods and services. However, there is currently insufficient capacity along a section of this route between the Glen of the Downs (i.e., just north of Junction 7) and Dublin City to cater for existing demand during peak periods. Thus, the N11/M11 is subject to heavy congestion during these times.

Most trips using the N11/M11 corridor during peak times are taken by single occupancy car commuters. These road users occupy a high proportion of road space per person compared with the equivalent space occupied per person travelling on Public Transport.

This location was identified in the GDA Park & Ride Strategy as an intervention point on the N11/M11 corridor for transferring a portion of these single-occupancy car trips to Public Transport.

3 PURPOSE OF THE SCHEME

The number of commuters travelling by car to various key destination zones in Dublin City using the N11/M11 from areas that are currently lacking easy access to high-quality Public Transport services demonstrates the need to develop a network of Park & Ride facilities with good Public Transport services to the City. The overall objectives of these strategic Park & Rides are-

- To maximise the opportunities provided by on-going investment in public transport infrastructure and

services, particularly in relation to the commencement of service of new public transport projects.

- To provide the appropriate type and scale of Park and Ride at the right locations, with connectivity to the road and public transport networks and design that supports integration with the surrounding walking and cycling network.
- Reduce reliance on the private car, reduce distances travelled by car and ensure Park and Ride facilitates greater use of sustainable modes.
- Deliver an enhanced customer experience through safe, secure, and user-friendly facilities that consider opportunities for interchange and to address barriers to public transport use.

It is projected that there will be a substantial increase in public transport demand between 2021 and 2042 with significant population increases forecasted along the corridor and planned road capacity improvements of the M11. The demand for Park & Ride will further increase as the public transportation mode share increases to accommodate the expected increase in trips to 2042.

Strategically placed Park & Ride will enable this wider catchment to access high-quality public transport options and, in facilitating this, will help reduce road congestion along the corridor.

Travel Demand Analysis and a review of the current Public Transport services on the M11 corridor conducted by the Park & Ride Development Office concluded that intervention through strategic Park & Ride facilities would be most effective in the vicinity of three separate locations on the M11, including at Junctions 6, 11 and, 16.

The objective of this scheme is to provide the appropriate type and scale of Park & Ride at Junction-16, with connectivity to the road and existing public transport networks with a design that supports integration with the surrounding walking and cycling network.

As a strategic Park & Ride, this facility aims to intercept motorway car traffic that originates in catchment areas further south of this location (Example: Arklow, Gorey, Enniscorthy, Wexford etc.) and transfer them to a bus suitable for their destination at the facility.

4 PLANNING CONTEXT

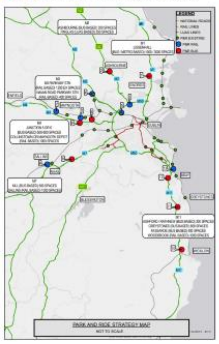
4.1 *Greater Dublin Area Transport Strategy 2022-2042*

The proposed Park & Ride facility has been developed in accordance with the policy set forth in the GDA Transport Strategy:

Measure INT4 – Park & Ride:

It is the intention of the NTA to secure the development of a network of regional level bus and rail based Park and Ride facilities in the GDA at appropriate locations where the national road network meets, or is in close proximity to, high capacity bus and rail services.

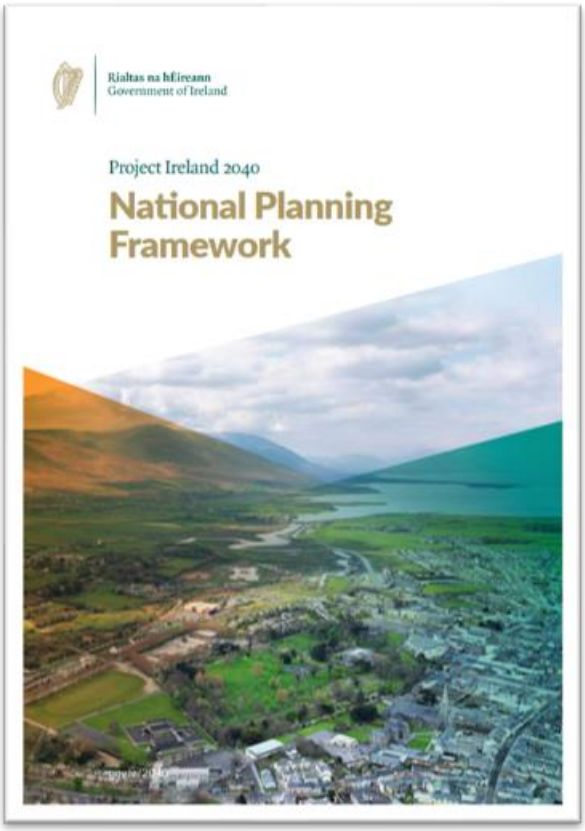
Figure 9.1: Park and Ride Strategy for the GDA



Corridor	Number	Type of P&R	Location	Nearest Junction	Indicative No. of Spaces
A (M1/N1)	1	Bus/Metro	Lissenhall	Junction 4	1000/3000
B(i) (M2/N2)	2	Bus	Ashbourne	Junction 3	350
	3	Luas	Luas Finglas	Junction 1	350
B(ii) (M3/N3)	4	Rail	M3 Parkway Station	Junction 5	1200
	5	Rail	Navan Road Parkway Station	Junction 1	400
C (M4/N4)	6	Bus	Junction 5 OR Junction 6	Junction 5/6	500-600
	7	Rail	Collinstown OR Maynooth Depot	Junction 6/7a	1000 (500 initially)
D (M3/N7)	8	Bus	Kill	Junction 6	500
	9	Rail	Sallins	Junction 9	1000
F (M11/N11)	10	Bus	Ashford/ Rathnew	Junction 16	200
	11	Bus	Greystones	Junction 11	600
	12	Bus	Fassaroe	Junction 7	400
	13	Rail	Woodbrook	Junction 5	1000

4.2 *Project Ireland 2040 – National Planning Framework*

The development of the proposed Park & Ride facility complies with the following policy set down in the Project Ireland 2040 – National Planning Framework:



National Strategic Outcome 4:

Sustainable Mobility - Public Transport: Expand attractive public transport alternatives to car transport to reduce congestion and emissions and enable the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner.

Deliver the key public transport objectives of the Transport Strategy for the Greater Dublin Area 2016-2035 by investing in projects such as New Metro Link, DART Expansion Programme, BusConnects in Dublin and key bus-based projects in the other cities and towns.

4.3 *Wicklow County Development Plan 2022-2028*

The development of the proposed Park & Ride facility complies with the following policy set down in Wicklow County Development Plan 2022-2028:

CPO 11.29: To support tourist/visitor park and ride facilities at appropriate locations that will facilitate access to upland amenity areas as may be identified in the Glendalough and Wicklow Mountains National Park Masterplan, or by strategies / plans of the Wicklow Outdoor Recreation Committee, Wicklow Tourism or other tourism agencies.

Sustainable Transportation:

12.2.2 Park & Ride Facilities

The purpose of a 'Park and Ride' facility is to encourage car commuters to drive or cycle to a specific location with a car and secure bicycle park close to a high-quality public transport service and to transfer to public transport, thereby reducing congestion and promoting public transport. Park and Ride sites often use valuable land adjacent to high-capacity public transport stations/stops which might be better used to provide intensive development, and therefore careful consideration will be given to ensure optimal locations, at the edge of or just outside town centres, that are attractive to users and developed for such use. The NTA has established a dedicated Park and Ride design office. Wicklow County Council is working with the NTA to determine locations for park and ride facilities along primary routes such as the M11/N11.

CPO 12.1: Through coordinated land-use and transport planning, to reduce the demand for vehicular travel and journey lengths by facilitating initiatives like carpooling and park and ride.

CPO 12.21: To promote the development of transport interchanges and 'nodes' where a number of transports.

types can interchange with ease. In particular:

- *to facilitate the development of park and ride facilities at appropriate locations along strategic transport corridors which will be identified through the carrying out of required coordinated, plan-led transport studies and consultation with the appropriate transport agencies and/or Regional Authority.*

CPO 16.28: To encourage carpooling and facilitate park and ride facilities for public transport.

4.3.1 Ashford Town Plan

The development of the proposed Park & Ride facility complies with the following policy set down in Ashford Town Plan 2022-2028:

ASH10: To reserve lands zoned PU 'Public Utility' at Rosanna Upper for the development of a park-and-ride facility.

A plot of land just southwest of the field where the current development is proposed was designated for this objective. However, during the site assessment, this field scored poorly compared to other site options in terms of Engineering and Environmental criteria (Hydrology, Noise-Vibration, Archaeology). This is due to the presence of the Conroe Stream along its southern boundary, a tributary of the Newrath Stream, which drains eastwards into the Murrough Wetlands SAC and SPA, posing a potential risk of pollution to the stream catchment. The presence of housing clusters along its western boundary could also result in noise, vibration, and air quality impacts on the residents. Considering these aspects the proposed Park & Ride development on this field was ruled out.

5 SCHEME DESIGN DETAILS

5.1 *Location*

The proposed Park & Ride facility is located west of Junction-16 on N11, 1.3 Km east of Ashford village. The site is positioned close (circa 180m) to the motorway and is easily accessible from the N11 via Junction-16 and R772.

The proposed site location is shown in Drawing: 20_008L-CSE-GEN-XX-DR-C-2001

5.2 *Site Constraints*

There are no major constraints associated with this site except the following-

- The planned access junction for the Park & Ride is situated 75 meters to the west of the western roundabout of the interchange. The TII junction design guidance discourages proposal of any new priority junctions or direct access points on minor roads within a 90-meter radius of a roundabout or priority junction on national roads. However, this limitation can be relaxed to 50 meters on Regional and Local roads.
- A medium pressure gas distribution main runs under the verge along interchange northbound off-slip and the western roundabout. Subsequently, the alignment of the mains moves under the carriageway at the front of the Park & Ride site and extends further towards west. Initial investigation has indicated that the proposed works will not have any significant impact on this.
- A non-intrusive geophysical survey has highlighted potential archaeological areas within the site. These findings will undergo further archaeological testing in later stages of the project to confirm their extent of nature.
- The existing stormwater drainage network along R772 features an outfall leading to the culvert at Varty River, located 600 meters north Junction-16. Varty River ultimately discharges into the Murrough Wetlands to east, an area designated as a Special Area of Conservation (SAC) and Special Protection Area (SPA). There is a potential risk of establishing a direct hydrological connection to the SAC & SPA if the proposed drainage network of the Park & Ride is linked to the existing drainage network on the R772. Hence, the stormwater runoff has been proposed to retain on-site to facilitate infiltration into the ground.

5.3 *Details of the Scheme*

5.3.1 Overview

The proposed Park & Ride facility will consist of the following:

- A new car parking area with a total of 210 car parking spaces, including 13 no. mobility impaired parking spaces and 21 no. e-car charging spaces.
- New bus standing area with a dedicated turning circle, 2 new bus bays and 2 passenger shelters.
- New set-down areas and taxi ranks with dedicated access.
- Hardstanding area for bike shelter and lockers.

The Proposed Layout of the Park & Ride facility is detailed in drawing: 20_008L - CSE - GEN - XX - DR - C – 2200.

The proposed bus turning circle will be 7 metres wide and 60 metres long, sufficient in length to safely accommodate 2 coaches. The proposed facility will also include 2 bus shelters as part of the bus stop stand area.

The parking area can be accessed at the northern end of the proposed site from the new internal access road. A separate egress point will be located at the southwest edge of the car park, circa 40m north of the new access junction.

5.3.2 *Vehicular Access to the site*

It is proposed to develop the existing site access on R772 into a standard all-movement priority junction for the Park & Ride facility.

A new 50m long and 3m wide right-turning lane will be built on R772 as part of the proposed junction by realigning the existing eastbound lane towards north to facilitate the local widening. Additionally, the entry to the existing eastern roundabout is proposed to be realigned towards the north to seamlessly integrate with the new road widening proposal.

Details of the proposals are shown in drawing: 20_008L - CSE - GEN - XX - DR - C – 2200.

The proposed new access junction will be built in line with the requirements of Section 5.6.4 of the Geometric Design of Junctions published by Transport Infrastructure Ireland (Ref. No. DN-GEO-03060).

Two relaxations from standards have been incorporated into the design of this access junction, as detailed in Appendix B.

A full Traffic Impact Assessment for the proposed scheme has been completed and it concludes that the proposed scheme will have a low impact on the existing and projected traffic movements of the local road network.

5.3.3 *Cycle and Pedestrian Infrastructure*

New active travel connections (pedestrian) with a new uncontrolled crossing facility have been proposed on R772 linking the existing infrastructure to the Park & Ride as part of the junction improvement.

20 no. bicycle parking Sheffield stands, and 20 no. bike lockers will also be provided within the site to facilitate cyclists wishing to avail this facility.

5.3.4 *Public Lighting and Closed-Circuit Television (CCTV)*

The proposed facility will be illuminated by a new public lighting system to enhance the safety of the users.

A new CCTV system will also be installed at the bus stop area and throughout the car parking area in order to enhance the personal safety of the users and provide security for parked vehicles and Bicycles.

5.3.5 *Electric Vehicle Charging*

The proposed scheme shall provide 21 no. parking and charging points for Electric Vehicles.

This represents ~10% of the total parking capacity of the facility which is in line with the recommendation set out in the Wicklow County Development Plan 2022-2028.

In addition, 20 no. standard parking spaces (~10%) will be futureproofed with ducting etc. to facilitate easy conversion to EV parking in the future.

5.3.6 *Provision for Parking for the Mobility Impaired*

The proposed scheme shall provide 11 no. parking spaces for mobility-impaired users which represents ~5% of the total parking capacity of the facility. One (1 no.) of these spaces will be equipped with electric vehicle charging capability.

5.3.7 *Proposed Surface Water Drainage*

To comply with GDSDS guidelines and Sustainable Urban Drainage Systems (SUDs) principles, the proposed surface water management strategy predominantly utilises permeable asphalt across all parking bay areas, including the aisles. This approach promotes stormwater infiltration into the underlying ground, thereby reducing surface runoff and mitigating flood risk.

In areas where impermeable surfaces are necessary, such as the access road and the bus turning area, a network of gullies will be

installed to direct surface water runoff to designated infiltration zones, either through raingardens or permeable asphalt areas.

The Stormcell system will be proposed at key locations throughout the site, particularly where permeable paving may be inadequate for handling excess runoff during extreme storm events or may become obstructed. This system will temporarily store stormwater, allowing for controlled infiltration back into the ground without the need for connection to the existing surface water network along the R772, ensuring compliance with local drainage requirements while upholding sustainable water management practices.

By integrating the Stormcell system with other drainage solutions—including permeable asphalt, raingardens, and infiltration trenches—the surface water management strategy will promote sustainable drainage while providing a robust contingency for stormwater management during extreme weather conditions. This hybrid approach will ensure long-term system performance, even in cases where the permeable pavement may be compromised.

For further details, please refer to drawing 20_008L-CSE-GEN-XX-DR-C-2510.

5.3.8 Proposed Foul Drainage

There is no existing foul water infrastructure in the vicinity of the site and so, the proposed 1 No. toilet within the scheme will be treated via a Puraflo Wastewater Treatment System or equivalent.

No industrial-specific wastewater flow will be generated from the development.

For further details, please refer to drawing 20_008L-CSE-GEN-XX-DR-C-2510.

5.3.9 Micro Generation (Solar Panels)

Solar panels are a highly effective and sustainable source of renewable energy.

The potential use of solar PV panels has been reviewed, including car parking facilities both domestically and internationally. Consultations with industry specialists have been conducted, and assessments have been carried out to understand the specific needs of the site. It is noted that the power demand on-site for operating the Park and Ride facility is limited, with the majority of electricity usage expected to be for charging private vehicles.

Investing in and integrating solar panels into the Park & Ride facility would require some more body of work to ensure that the power generated by on-site solar PV systems is efficiently managed, stored, and utilised, or alternatively, fed back into the grid. This complex operational model would necessitate the procurement of a partner for delivery, operation, and maintenance, potentially delaying the facility's delivery.

The NTA Park & Ride Development Office will continue to engage with industry specialists to explore the possibility of a viable model for incorporating (retrofitting) solar PV at this facility into the future.

5.3.10 Utility Connections (Including Relocation)

A medium pressure gas distribution main, existing surface water drainage pipes and a few unknown ducts (possibly public lighting ducts) are present within the redline boundary of the scheme on R772 immediately south of the site. However, after conducting our initial investigation, it has been determined that the proposed scheme will not have any significant impact on these existing utilities.

A new substation will be required to power the various electrical equipment within site. The location of a building to accommodate the substation and the switch room has been shown in drawing 20_008L-CSE-GEN-XX-DR-C-2200.

5.3.11 Bus Services at the facility

It is anticipated that the proposed facility will be served by existing bus services, such as Wexford Bus 740/740a and Bus Éireann X2, which currently operate relatively close to the site. This could be achieved by rerouting the services and adding a stop at the facility.

Preliminary assessments have been conducted regarding service frequency, available passenger capacity, and anticipated passenger demand at the proposed location. Additionally, internal consultation is ongoing within the NTA to explore and advance this proposal. Further details will be made available in the near future.

5.3.12 Operation of the facility

The business model for the operation and maintenance of the Park & Ride facility is currently under development. It is anticipated that a parking fee will be charged at the facility, along with a standard bus fare consistent with the current fare structure. The day-to-day operation and maintenance of the facility will be managed by an appointed maintenance contractor or operating partner.

Internal consultation is ongoing within the NTA to agree the preferred approach on all aspects of the operation and maintenance of the facility. Further details will be available in the near future.

6 FLOOD RISK ASSESSMENT

We have assessed the available information and inspected the site and its environment. The proposed development is not deemed to be at any significant risk of flooding which is mainly attributable to the local topography and therefore a stage 2 assessment in not required in relation to this site. The proposed works are unlikely to raise significant flooding issues and do not obstruct existing flow paths. The surface water discharge from the site will be infiltrated into the ground and so, does not adversely affect or increase the flood risk to adjacent or downstream sites.

Please refer to Appendix A for the full report.

Appendix A- Flood Risk Assessment: M11-J16 (Ashford) Park & Ride

Author: National Transport Authority

Date: 9th October 2024

Park & Ride Development Office

Document Control Sheet

Project Name: Ashford Park & Ride

Project Number: 20_008L

Report Title: Flood Risk Assessment

Filename: R20_008L_001

Issue No.	Issue Status	Date	Prepared by	Checked by
1st	FINAL	09/10/2024	RC	BD

1.1 Introduction/Scope of Report

This report is prepared in accordance with the requirements of the Department of the Environment Publication "The Planning System and Flood Risk Management guidelines for Planning Authorities (FRMG) published in November 2009. The scope of this assessment is a review of flood risks which may affect the proposed development and/or the effect or increase flood risk to adjacent properties resulting from the proposed development.

Flood risk is the product of likelihood of flooding and the consequences of flooding. The likelihood of flooding is assessed with regard to historical data and with a view to expected flood levels where they may impact on the proposed development. The consequences of flooding relate to the impact on the prospective occupants of the proposed development and any associated material assets located at the property.

1.2 Site Location:

The site is located on the Northern side of the R772, off Junction 16 of the N11. The site grid reference is E727976 N696260 to Irish Traverse Mercator.

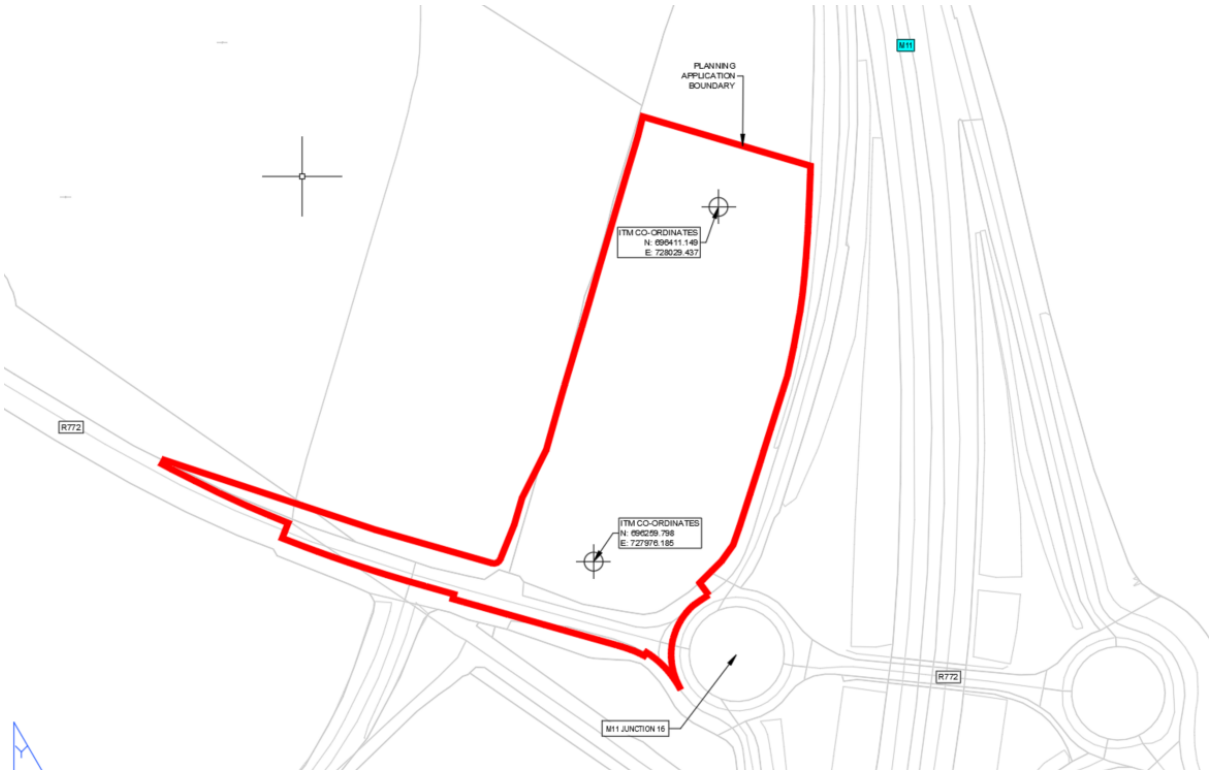


Figure 3.1 – Site Location Map

1.3 Description of the Proposed Development:

The proposed site is a greenfield site, bounded to the south by the R772, on the west by another greenfield site and on the north and east by the M11 Junction 6 slip road.

The proposed development consists of a 210 space Park & Ride facility, including a bus turning area, bike storage and a staff toilet. It is proposed to use permeable asphalt to drain the hardstanding and the staff toilet will be treated with a bio-filtration system, Puraflo or similar. The site is currently undeveloped.

The existing site slopes south to north, with a level difference of approximately 5m from 22.50 AOD to the south of the site to 17.50 AOD to the north (see Appendix 1).

The finished level of the carpark ranges from 23.00 AOD to 17.00 AOD.

1.4 Stage 1 – Flood Risk Identification

The flood risk assessment is undertaken to determine if a flood risk exists for the proposed development and if so to determine the extent of the risk.

1.4.1 Office of Public Works (OPW) Flood hazard Database

Examination of recorded flood events as detailed on floodmaps.ie shows 2 recorded flood events within 2.5km of the site. These flood events are listed on the map report which is attached in Appendix 2. The events are recorded as occurring to the northwest and southeast of the site. The event to the northwest was a single flood event in December 2021. The event to the southeast is the recurring flooding event every 2/3 years, sometimes leaving the road impassable.

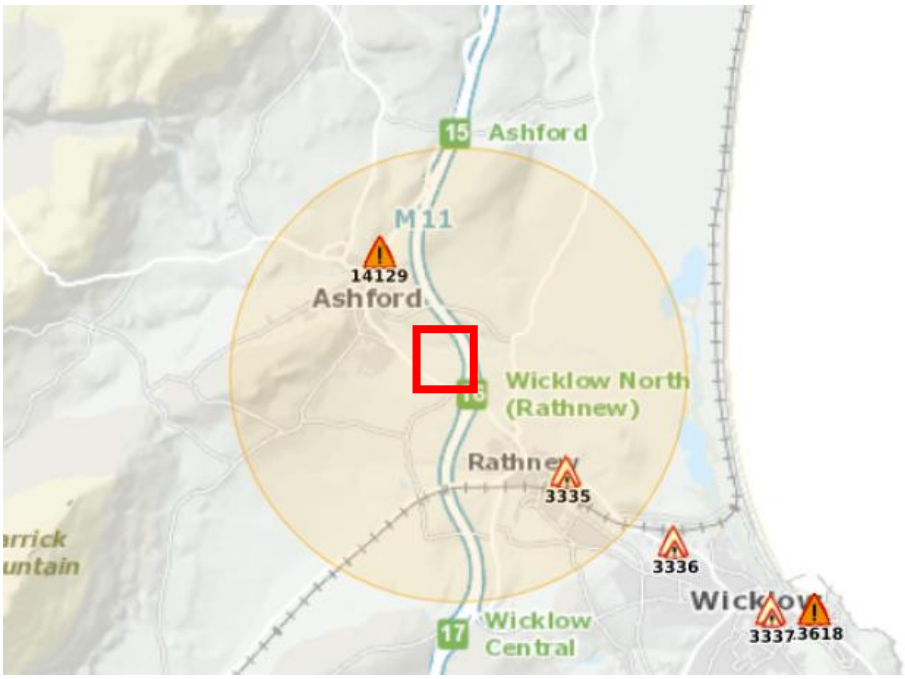


Figure 3.2 - OPW Flood Hazard Map

1.4.2 CFRAM Preliminary Flood Risk Assessment Map

The catchment Flood Risk Assessment and Management (CFRAM) programme is designed to assess and map the country river system to identify areas at risk of significant flooding.

The CFRAM Draft Map for the proposed site does not indicate flooding under the following headings;

- Fluvial
- Pluvial
- Groundwater

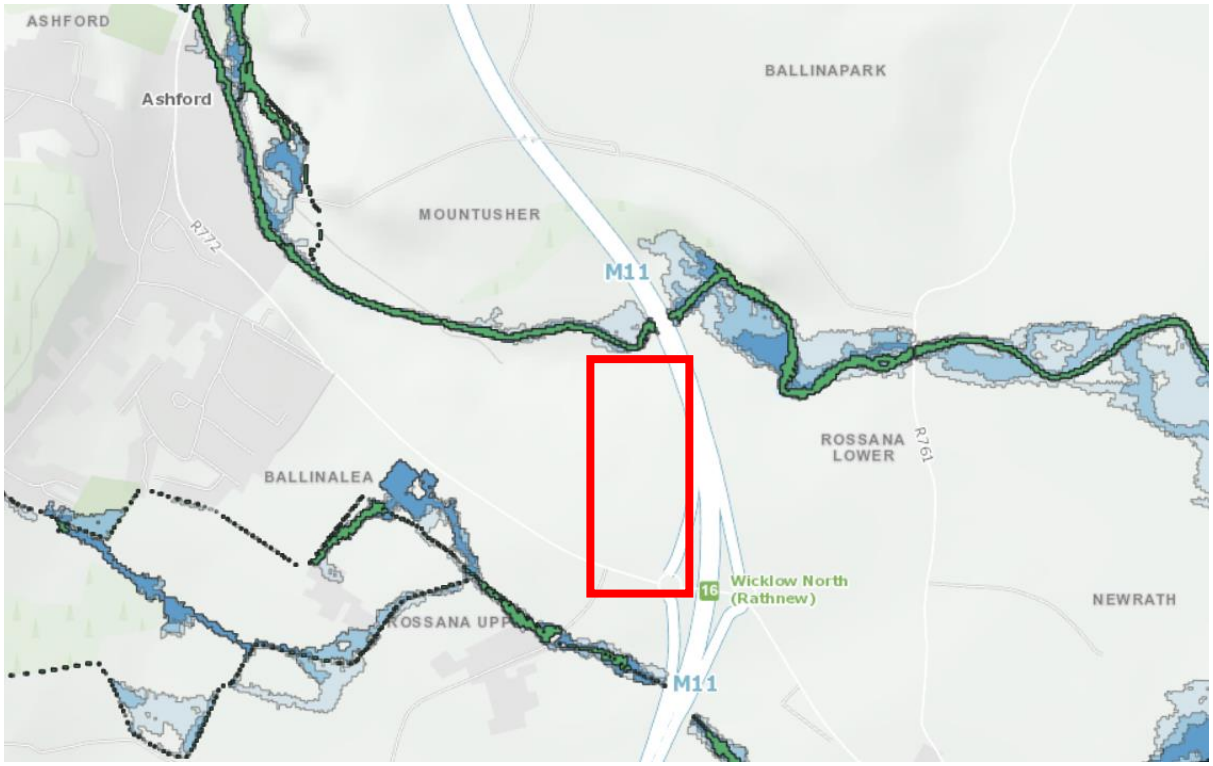


Figure 3.3 – Extract from CFRAM Preliminary Flood Risk Assessment Map

The probability of flooding from rivers and the sea is low (less than 1:1000) for both river and coastal flooding which would be equivalent to Flood Zone C.

1.4.3 Wicklow County Council Drainage Records

A copy of Wicklow County Council Drainage Records is attached in Appendix 3.

1.4.4 Vulnerability Class

The proposed development is categorised as Less Vulnerable Development in accordance with Table 3.1 Classification of vulnerability of different types of development of the OPW document 'Guidelines for Planning Authorities.

1.4.5 Impact of the Proposed Development on the Existing Catchment

The proposed development does not obstruct any existing flow paths and the surface water discharge from the site is restricted to equivalent green field run off thus not impacting or increasing the flood risk within the existing catchment.

1.5 Tabular Assessment of Flood Sources

Flood Source	Pathway	Information Source Consulted	Likelihood	Reason
Storm Surge from Irish Sea	Back-up of Council Drainage	Site Survey	Low	Distance for Sea and height above sea level.
Surface Water	Surcharging system blockage	WCC Records Site Survey As-Builts Site Visits	Low	The topography of the site. The site is incorporating SuDS as part of the surface water drainage design.
Foul Sewer	Surcharging system blockage	Irish Water Records Site Survey As-Builts Site Visits	Low	The site is providing a singular staff toilet, treated with a bio-filtration system. There are no recorded foul sewers within the vicinity of the site.
Ground Water	Surcharging	Site Survey Site Visits	Low	The topography of the site.
Overland Flow	Run off from adjacent fields	Site Survey Site Visits	Low	The location and topography of the site.

1.6 Conclusion

Based on the above, we have assessed the available information and inspected the site and its environment. The proposed development is not deemed to be at any significant risk of flooding which is mainly attributable to the local topography and therefore a stage 2 assessment in not required in relation to this site. The proposed works are unlikely to raise significant flooding issues and do not obstruct existing flow paths. The use of infiltration of the surface water from the site does not adversely affect or increase the flood risk to adjacent or downstream sites.

Appendix B: Deviations / Departures / Relaxation from Standards

DIRECTION	LOCATION	DESIGN ELEMENT	STANDARDS/REQUIRED	TYPE	DESIGN	JUSTIFICATION
Westbound	R772	Clearance to minor road/junction at roundabout or priority junction	90m clearance if the Major Road is a National Road and 50m as a relaxation if the Major Road is a Regional Road, *as per Figure 5.3 of DN-GEO-03060 May 2023*	Relaxation	68m	Design criteria could not be met due to geographical location of the subject field. The new junction has been proposed at the edge of the field's western boundary.
Westbound	R772	Ghost Island Turning Lane Width	Width of a ghost island turning lane shall be 3.5m, but a Relaxation to 3.0m is permissible, as per *Section 5.6.9.3 of DN-GEO-03060 May 2023*	Relaxation	3.0m	3.0 m wide lane has been proposed to optimise tie in with the roundabout and land take to the west of the new junction, for facilitating the accommodation of sightlines.

DESIGN COMPLIANCE CERTIFICATE

Scheme Name: Ashford Bus Park & Ride Scheme

Scheme Location:

The proposed Park & Ride facility is located west of Junction-16 on N11, 1.3 Km east of Ashford village. The site is positioned close (circa 100m) to the motorway and is easily accessible from the N11 via Junction-16 and R772.

I, Indrashis Roy, CERTIFY that reasonable professional skill, care and diligence has been taken by us with a view to securing that the above works have been designed in conformity with the requirements of Department of Transport Circular NGSG 02-2022 and the associated National Table. The following key and relevant design standards and guidelines were utilised and complied with:

The following key and relevant design standards and guidelines were utilised and complied with:

No	No Item
1	DN-GEO-03060-03

I confirm that works which are not in compliance with the appropriate standard or national table have had Relaxations or Departures applied in accordance with the requirements of circular NGSG 02-2022 and are hereby attached to this Certificate

Refer to Appendix B of the Preliminary Design Report which lists the Departures and Derogations from standards. This Schedule of Departures and Derogations is also Appended to this Compliance Certificate.

This certificate shall be retained on file for inspection or submission to the TII, NTA or DoT as required.

Signed: Indrashis Roy Dated: 21/10/2024

Title: Civil Design Engineer

Organisation: Clifton Scannell Emerson Associates/NTA PRDO

Qualification: Bachelor of Engineering, IIEST, India Year: 2012

Qualification: CEng, Engineers Ireland Year: 2022