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N51 Park and Ride Facility Planning Report



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1 Introduction

Clifton Scannell Emerson Associates (CSEA) has been appointed by Meath County Council (MCC) to deliver the 'Navan Town Scheme – Navan 2030' project (the Project) which considers the regeneration of Navan town centre through a number of public realm, access, movement, public transport and traffic management measures and assessments.

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

2 Background

The existing regional bus routes through Navan were assessed in 2015 by Meath County Council in consultation with Bus Eireann. During that consultation process, changes to the existing bus routes and timetables for Navan were proposed, including the provision of a proposed new regional bus service for the Navan area. The new bus service for Navan, operating with a high frequency service (every 20 minutes), is proposed to depart from and terminate at Navan Town.

The wider project being considered included the following objectives:

- Relocate the bus stops from Market Square to Kennedy Road in line with the provision of a central, integrated, sustainable transport system.
- Encourage greater use of sustainable modes of transport in Navan including walking, cycling, bus and taxi use and discourage reliance on private cars.
- Improve access to sustainable transport modes and provide an integrated network of sustainable transport measures.

Following the consideration of the proposed new service for Navan, the following objectives were also considered for the project:

- Ensure that buses are not 'standing' on Kennedy Road between periods of operation.
- Provide a terminating location for buses outside of the town centre.

As a result of the consultation process, and the ongoing wider investigation into transport needs in Navan, the potential for benefits associated with the provision of a park and ride bus facility were identified. A park and ride bus facility was considered not only to assist in meeting the above objectives, but also to meet the wider objectives of the town's transport needs.

3 Purpose of the Park and Ride Facility

The proposed facility will provide an edge of town set down and layover facility for public Bus Services. This facility will ensure that the dwell time for buses within the commercial Town Centre Environs is minimised to that necessary to allow passengers to board and alight Buses. The need to provide such a facility was identified during the Public Consultation Phase of the development of the Navan 2030 – Navan Town Scheme.

Data for the 2016 Census available from the Central Statistics Office indicate that 36% of those commuting to work, school or college have a journey time more than half an hour. In addition CSO Data for 2016 confirmed that 2,505 people commuted to Dublin and of these people 77% (1,942) commuted to Dublin by Car and 16% (405) by Bus.

In recent years improved Bus Services to Dublin by Bus Eireann have seen a threefold increase in passenger numbers. Thus, indicating that there is a latent demand for improved public transport services and infrastructure within Navan.

To successfully encourage a mode shift from private vehicle to public transport the following must be provided:

- Efficient, reliable and frequent bus services.
- A high standard of supporting infrastructure which includes the provision of long stay parking services for commuters from Navan to utilise regional transport.

To cater to those who wish to use a private vehicle to access Bus services it is also important to meet long stay parking needs. The need for a long stay car park is also coupled with the need for an appropriate termination / waiting location for regional buses between services.

4 Planning Context

The development of a Park and Ride facility for public bus transport was identified in the Navan 2030 public realm action plan for the town. Navan, a commuter town, is served by a high frequency public bus service provided by Bus Eireann which primarily serves bus routes to/from Dublin and Cavan town.

The provision of a dedicated park and ride facility for Navan has been identified under Meath County Council's Parking Strategy, as detailed in the Navan Development Plan 2009 to 2015, which states the following:

"The provision of dedicated park and ride facilities will also be encouraged in the town", Section 7.7 of the Navan Development Plan 2009 to 2015 (page 197).

4.1 Project Ireland 2040 – National Planning Framework

The development of the proposed park and ride facility complies with the following policies set down in the Project Ireland 2040 – National Planning Framework:

National Policy Objective 30: Local planning, housing, transport/accessibility and leisure policies will be developed with a focus on meeting the needs and opportunities of an ageing population along with the inclusion of specific projections, supported by clear proposals in respect of ageing communities as part of the core strategy of city and county development plans.

Specifically the proposed development contributes to meeting the following National Strategic Outcomes;

National Strategic Outcome 1: Compact Growth – Urban Regeneration and Development: Improve accessibility to and between centres of mass and scale and better integration with their surrounding areas.

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.

4.2 Meath County Development Plan 2013 to 2019

The development of the proposed park and ride facility complies with the following policies set down in the Meath County Development Plan 2013 to 2019:

TRAN SP 2: To promote the sustainable development of walking, cycling, public transport and other more sustainable forms of transport as an alternative to the private car, together with the development of the necessary infrastructure and promotion of the initiatives contained within 'Smarter Travel, A Sustainable Transport Future 2009 – 2020'.

TRAN SP 3: To provide for the efficient movement of goods and people in the interest of commerce and enterprise.

TRAN SP 9: To promote a high quality, sustainable and integrated transport system and to work with agencies involved, directly or indirectly, in the provision of transport services.

TRAN SP 12: To work with the NTA and public transport operators to improve public transport infrastructure and services in the county.

TRAN SP 13: To ensure that the design and planning of transport infrastructure and services accords with the principles of sustainable safety, in order that the widest spectrum of needs, including pedestrians, cyclists and those with differing levels of ability are taken into account.

4.3 Navan Development Plan 2009 to 2015

The development of the proposed park and ride facility complies with the following policies set down in the Navan Development Plan 2009 to 2015:

INF POL 6: To provide for the future transportation needs of Navan and environs in a sustainable manner which provides for different transport needs.

INF POL 20: To promote the policies set out in the National Cycle Policy Framework.

INF POL 25: To extend, re-route and create new bus routes to meet travel demands and reduce trip times.

INF POL 28: To promote and give priority to environmentally sound modes of transport, such as bus, cycling, walking.

Specifically the proposed development contributes to meeting the following Development Plan Objectives:

INF OBJ 13: To improve accessibility and facilities for people with mobility impairments and/or disabilities.

5 Park and Ride Design

5.1 Location

In order to provide a service that will be appealing to the end users there are a number of criteria which should be fulfilled by a park and ride service as identified by the Traffic Management Guidelines (2003). In accordance with these guidelines the Park and Ride should 'be located on the fringe of congested areas close to the main national or regional routes with good access'.

The proposed park and ride facility is located circa. 500 metres to the west of Navan town centre. It will be located on the N51 national secondary route with a direct connection to the M3 National Primary Route and will be located within 200 metres of the R147 Kells Road which is a regionally important route.

The proximity of the proposed facility to the "Andy Connolly" Roundabout allows Buses to turn to make return journeys along the R147.

The proposed site location is identified on Drawing 18_090F-CSE-GEN-XX-DR-C-2201.

5.2 Site Constraints

The proposed site is located along a busy stretch of the N51 national secondary route, a two way single carriageway with an AADT of 16,650.

St. Patrick's Classical School is located immediately to the northeast and east of the proposed facility, which includes an existing vehicular entrance on to the N51 adjacent to the northern boundary of the site.

The existing intersection between the N51 and the R161 is located circa. 120 metres to the southwest of the proposed facility. Planning permission was granted by Meath County Council for the upgrade of this non-signalised intersection to a fully signalised junction as part of the construction of the residential development at Moatlands. Reference is made to Planning Ref. No's. NA151301 and NA181543.

5.3 Proposed Park and Ride Facility

5.3.1 Overview:

The proposed park and ride facility will consist of the following:

- A new offline bus bay along the southbound lane of the N51 capable of accommodating up to 4 large coaches.
- Two new bus shelters and a new bus stand area.
- A new car parking area capable of accommodating a total of 181 car parking spaces, including 4 no. mobility impaired parking spaces and 18 no. e-car charging spaces.

The Proposed Layout of the N51 Park and Ride Facility is detailed on Drawing 18_090F-CSE-GEN-XX-DR-C-2201.

The proposed bus bay will be 4 metres wide and 85 metres long, sufficient in length to safely accommodate 4 large coaches. The proposed park and ride facility will include the installation of 2 new cantilevered bus shelters adjacent to the new bus bays. The bus shelters will be located as part of the bus stop stand area.

The proposed car parking area will be accessed by a new vehicular two way access located at the southern end of the proposed site and 3 no. pedestrian walkways accessed from the footway along the N51. Each pedestrian walkway will facilitate mobility impaired access in line with the requirements of the Design Manual for Urban Road and Streets (DMURS).

5.3.2 Vehicular Access to the Proposed Car Park:

It is proposed to introduce a new direct access for the proposed car park from the N51 National Secondary road. The N51 has a posted speed limit of 60 kilometres per hour at this location.

The proposed access junction arrangement has been designed in compliance with TII Publication DN-GEO-3060 Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated and compact separated junctions). As the N51 AADT is more than 10,000 vehicles and the Park and Ride Entrance is predicted to have more than 300 vehicles but less than 1500 vehicles per day the junction arrangement has been designed as a ghost island. The ghost island incorporates a 10m long turning length and a 25m deceleration length (as the down gradient is less than 4%).

The right turning lane width is 3m. This is a relaxation but as the proposed park and ride facility is for private vehicles it shall only be utilised by cars under normal circumstances. The access to the facility will include a height restriction barrier which will enforce the limitation of the type of vehicles utilising the right turning lane.

On the southbound approach to the proposed facility, the existing kerbline will be realigned in order to facilitate the local widening of the carriageway for the right turn lane and the new bus bays

The vehicular access to the site will be constructed at a 2.5% gradient 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).

The proposed access shall meet the visibility requirements set down in DN-GEO-03060 and the Bus bays have been set back from the edge of the traffic lane in order to maintain sight distance when buses are stopped.

A new height restriction barrier with a 2.7-metre-high clearance will be installed at the entrance to the car parking area.

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 regime of the local road Network.

5.3.3 Proposed Cycle and Pedestrian Infrastructure:

The existing segregated cycleway and footway on the eastern side of the N51 will be realigned as part of the proposed works and will be designed in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) in conjunction with the National Cycle Manual guidelines. The proposed cycleway will be 1.5 metres wide with the proposed footway at 1.8 metres wide. The proposed cycleway and footway will be designed to merge with the existing alignment of the footway and cycleway along the N51.

It is proposed to provide 20 no. bicycle parking stands within the park and ride facility to facilitate cyclists wishing to avail of the proposed facility.

A pedestrian access to St. Patrick's Classical School will be provided as part of the facility. This will provide a safe route from the proposed bus stops to the school grounds for students and staff members who avail of the public bus services and will provide a link for cyclists to the public cycling infrastructure.

5.3.4 Emergency Vehicular Access to St. Patrick's Classical School:

An emergency vehicular access will be provided at the rear of the proposed parking area. This will provide an alternative point of access/egress for emergency vehicles if required.

5.3.5 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, the proposed access point to St. Patrick's Classical School and throughout the car parking area in order to enhance the personal safety of the users and provide security for parked vehicles and Bicycles.

5.3.6 Electric Vehicle Charging

The proposed scheme shall provide 18 No. Parking and Charging Points for Electrical Vehicles. This represents 10% of the total provision. In the absence of guidance in the current county Development Plan it is noted that this is compliant with the provision envisaged in the Draft Meath County Development Plan 2020-2026.

5.3.7 Provision for Parking for the Mobility Impaired

The proposed scheme shall provide a total of 6 Parking Spaces for the mobility Impaired. This is excess of the approximately 50% more than the requirement set down in the current Development Plan. The layout of these spaces shall comply with the requirements set down in "Building for Everyone: A Universal Design Approach" as published by the National Disability Authority.

5.4 Proposed Surface Water Drainage

The widening of the carriageway to provide the ghost island entrance junction and the edge of carriageway bus bays shall be served by the existing surface water drainage system.

A separate surface water drainage system will be installed to cater for the proposed car parking area. Surface water will be collected using a network of linear surface water drainage channels through the site. These linear drains shall have Heelguard grills with suitable load capacity for vehicular loading.

The drainage will discharge to two proposed permeable attenuation tanks which shall discharge the collected surface water to ground. These permeable attenuation tanks shall be located midway within the length of the car park and within the northern most portion of the car park which is the low point on the proposed development. In order to prevent the discharge of hydrocarbons into the groundwater system, a petrol and oil interceptor will be installed upstream of each of the proposed permeable attenuation tanks

6 Environmental Assessment of the Park and Ride Facility

6.1 *Appropriate Assessment Screening*

An Appropriate Assessment Screening Report has been completed for the proposed facility, a copy of which is enclosed within the planning submission.

6.2 *Environmental Impact Assessment Screening*

An Environmental Impact Assessment Screening Report has been completed for the proposed facility, a copy of which is enclosed within the planning submission.

7 Archaeological Assessment of the Park and Ride Facility

An Archaeological Assessment Report has been completed for the proposed facility, a copy of which is enclosed within the planning submission.

8 Traffic Impact Assessment of the Park and Ride Facility

A Traffic Impact Assessment Report has been completed for the proposed facility in order to assess the impact of the proposed facility on the N51. A copy of the Traffic Impact Assessment Report is enclosed within the planning submission.

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