

MILL ROAD/MARSH ROAD URBAN DESIGN FRAMEWORK PLAN 2017



comhairle chontae na mí
meath county council

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1.0 Introduction

Context and Aims of the Plan

This Urban Design Framework Plan sets out parameters for the future development of the Mill Road/Marsh Road Area Lands, having regard to the existing planning policy framework and specific policies and objectives for the UDFP set out in the Local Area Plan for the Southern Environs of Drogheda which is the statutory plan for the area in addition to the Meath County Development Plan.

The Local Area Plan for the Southern Environs of Drogheda 2009-2015 states that the lands at Mill Rd/Marsh Rd have been zoned under the Local Area Plan, however future development is subject to an Urban Design Framework Plan and is qualified by the Order of Priority as contained in Variation No. 2 of the County Development Plan 2013-2019.

The Urban Design Framework Plan is being progressed to fulfil the requirements of the LAP to ensure the proper planning and sustainable development of the area.

The Framework Plan aims to provide guidance for the coherent development of a significant area of strategic undeveloped land at Mill Road/Marsh Road.

2.0 Mill Road/ Marsh Road Area Analysis

Location

The Mill Road/Marsh Road Area is located in Co Meath within the southern environs of Drogheda and approximately 2km south east of Drogheda Town Centre.

The Mill Road/Marsh Road lands are predominantly greenfield and in agricultural use; of particular note are the orchards in the area. The Stameen River runs south west to north east through the framework plan lands. A number of one-off houses are located along Mill Road. Drogheda Grammar School, Gaelscoil an Bhradáin Feasa and Le Cheile Educate Together National School are also located in the area.

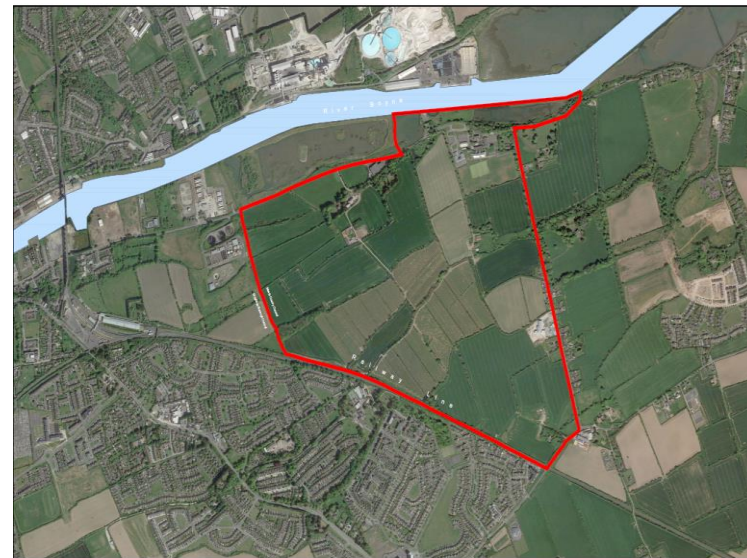


Figure 2.1 Site Location

The Local Area Plan has defined the area as being bounded to the west by the existing town boundary, to the north by the Marsh Road and River Boyne and to the south by the Dublin Rail line with a total overall area of approximately 180 hectares. To the east, the area stretches toward the Mill Road, which is a key link between the Colpe Cross Area and the Marsh Road.

Strategic Context

The subject lands are strategically located southeast of Drogheda Town Centre and along the Belfast – Dublin rail line, the River Boyne and within the M1 corridor. The lands are also within a 30-minute drive of Dublin Airport. McBride Train Station is located approximately 900m west of the Plan lands. The R132 is approximately 850m south west of the plan lands and provides access to the M1 and is served by a number of bus services.

The Local Area Plan for the Southern Environs of Drogheda 2009-2015 has recognised the strategic importance of the area noting it is one of only two large land banks in the LAP area which remain undeveloped. Consequently, the LAP has included a specific objective requiring the provision of an Urban Design Framework Plan for the area prior to development.

The Mill Road/Marsh Road area was also identified as a Strategic Land Reserve under the Planning Strategy for the Greater Drogheda Area which was jointly carried out by Drogheda Borough Council, Meath County Council and Louth County Council in 2007.

Land Ownership

The framework plan lands are divided up between a number of different land owners as shown in Figure 2.2 below and in Appendix 1.

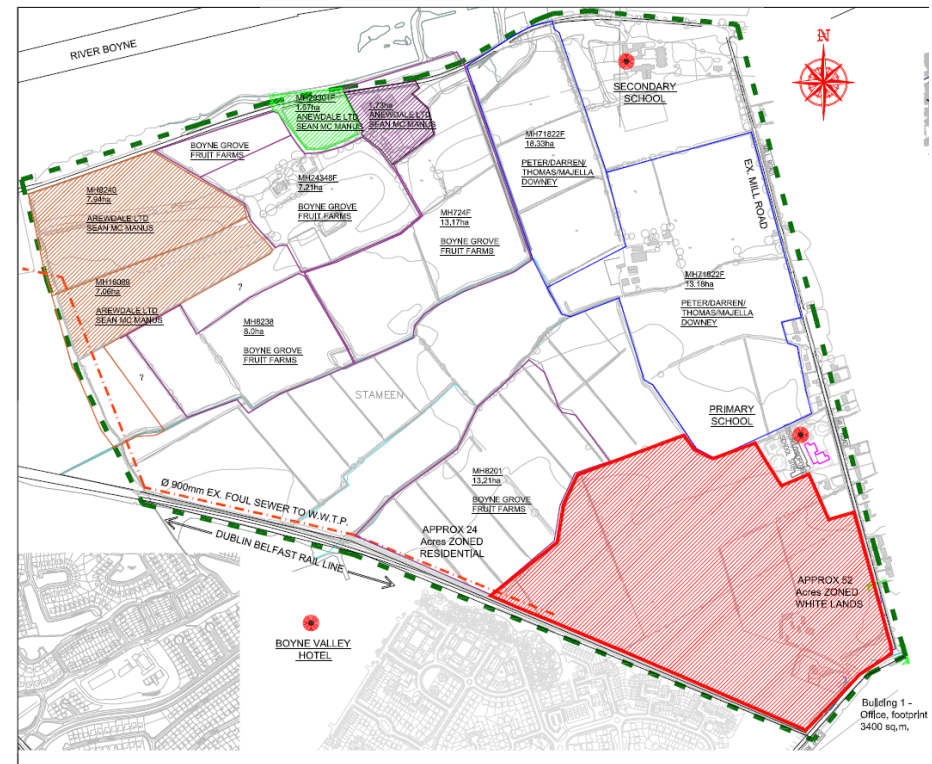


Figure 2.2 Land Ownership

Land Use

Land Use in the Mill Road/Marsh Road area is predominantly agricultural with a large area containing orchards. Residential development in the plan area consists of one-off housing and also ribbon type along Mill Road with approximately 30 dwellings. There are educational institutions in the north east of the plan area and on Mill Road.

There are some industrial land uses along Marsh Road in the northern extent of the plan area. Two Seveso sites border the plan area in the north west off Marsh Road. The Drogheda Waste Water Treatment Plant bounds the north-west corner of the plan lands.

The framework plan envisages a mixed-use district with areas of residential, enterprise and employment, recreational/amenity areas and social, community and educational facilities.

Environmental Designations

There are a number of environmental designations located to the north of the framework plan lands associated with the River Boyne, and there is some overlap between designations and the north-east of the framework plan lands. These designations are discussed below.



Figure 2.3 Environmental Designations

Special Areas of Conservation (SAC)

Boyne Coast and Estuary SAC

The site synopsis states the Boyne Coast and Estuary SAC 'is a coastal site which includes most of the tidal sections of the River Boyne, intertidal sand- and mudflats, saltmarshes, marginal grassland, and the stretch of coast from Bettystown to Termonfeckin that includes the Mornington and Baltray sand dune systems'.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive;

- Estuaries
- Tidal Mudflats and Sandflats
- Annual vegetation of drift lines
- Salicornia Mud
- Atlantic Salt Meadows
- Embryonic Shifting Dunes
- Marram Dunes (White Dunes)
- Fixed Dunes (Grey Dunes)

River Boyne And River Blackwater SAC

The site synopsis states *'This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth'*.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive;

- Alkaline Fens
- Alluvial Forests
- River Lamprey (*Lampetra fluviatilis*)
- Atlantic Salmon (*Salmo salar*)
- Otter (*Lutra lutra*)

Special Protection Areas (SPA)

Boyne Estuary SPA

The site synopsis states *'This moderately-sized coastal site is situated west of Drogheda on the border of Counties Louth and Meath. The site comprises most of the estuary of the Boyne River, a substantial river which drains a large catchment'*.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Shelduck, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Black-tailed Godwit, Redshank, Turnstone and Little Tern.

Cultural Heritage

There is one protected structure within the plan area located within the grounds of Drogheda Grammar School. The structure is listed as MH021-100 Eden View - The Grammar School and described as;

'A two-storey, seven-bay house, with shallow stone pediment above the centre bay'.

There are a number of sites and monuments in the immediate area as shown in Figure 2.4 below.



Figure 2.4 Sites and Monuments within Plan Area and Environs

SMR No.	Class	Townland	ITM Easting	ITM Northing
ME020-006----	Church	STAGRENNAN	711319	775312
ME020-006001-	Graveyard	STAGRENNAN	711319	775308
ME020-043001-	Enclosure	COLP WEST	711911	774412
ME020-043002-	Enclosure	COLP WEST	711911	774412
ME020-043003-	Enclosure	COLP WEST	711911	774412
ME020-043004-	Enclosure	COLP WEST	711911	774412
ME020-043005-	Enclosure	COLP WEST	711911	774412
ME020-043006-	Ringfort - rath	COLP WEST	711911	774412
ME020-043007-	Excavation - misc	COLP WEST	711911	774412
ME020-043008-	Excavation - misc	COLP WEST	711911	774412
ME020-043009-	Burial	COLP WEST	711911	774412
ME020-043010-	Kiln - corn-drying	COLP WEST	711911	774412
ME020-043011-	Souterrain	COLP WEST	711911	774412
ME021-011001-	Burial	COLP WEST	712167	774698
ME021-011002-	Enclosure	COLP WEST	712167	774698
ME021-015----	Mill - unclassified	STAMEEN	712217	775257
ME021-016----	Fulacht fia	COLP WEST	712197	774827

Table 2.1 Sites and Monuments within Plan Area and Environs

The vicinity of Colpe Village has shown the area was an important early medieval centre, whilst also exposing a largely unrecognised prehistoric heritage, particularly a Bronze Age Landscape

Neighbourhood and Community Facilities

As an area characterised predominantly by agricultural activity and small pockets of residential development, there are limited existing social and community facilities in the area. The section below details the existing facilities in the area, while Section 4 provides an assessment of the future requirements for services in the area.

In the Mill Road/Marsh Road Area, there are 2 primary schools and one post primary school.

Drogheda Grammar School is located on Mornington Road, Drogheda and is a co-educational, multi-denominational boarding and day school sited on 18 acres.

The Local Area Plan for the Southern Environs of Drogheda 2009-2015 provides the following enrolment figures for the school from 2008/2009 to 2012/2013.

Enrolment 2008/2009	Enrolment 2009/2010	Enrolment 2010/2011	Enrolment 2011/2012	Enrolment 2012/2013
277	267	263	237	253

Information obtained from the Department of Education and Skills states that total enrolment in the school for 2016/2017 (enrolment as of 30th September 2016) was 330 with 129 girls and 174 boys.

Gaelscoil an Bhradáin Feasa is located on Mill Road, Drogheda and is a multi-denominational primary level Gaelscoil. The Local Area Plan for the Southern Environs of Drogheda 2009-2015

provides the following enrolment figures for the school from 2008/2009 to 2012/2013.

Enrolment 2008/2009	Enrolment 2009/2010	Enrolment 2010/2011	Enrolment 2011/2012	Enrolment 2012/2013
85	136	199	265	319

Information obtained from the Department of Education and Skills states that total enrolment in the school for 2016/2017 (enrolment as of 30th September 2016) was 455 with 228 girls and 227 boys.

Le Chéile Educate Together National School is located on Mornington Road, Drogheda and is a multi-denominational primary school for boys and girls.

Information obtained from the Department of Education and Skills states that total enrolment in the school for 2016/2017 (enrolment as of 30th September 2016) was 432 with 172 girls and 260 boys.

The LAP notes the requirement for a community hall to be provided and suggests a proposed new school building (located beside the neighbourhood centre) should double up as providing for a community hall for the area during out-of school hours.

Infrastructure and Services

Rail

Mc Bride Station on the Belfast- Dublin rail line is accessed via the R132 and is situated approximately 1 km from the plan lands. There are currently 32 services from Dublin to Drogheda, 10 of which extend northbound to Dundalk per weekday and 33 services travelling southbound to Dublin from Mc Bride Station primarily serving commuter travel requirements.

Mc Bride Station also serves the Dublin – Belfast services with 7 trains stopping at Drogheda in each direction per weekday



Figure 2.5 McBride Train Station

Bus

The bus station in Drogheda is located at the junction of Donore Road and John Street. Currently, there are approximately 200 national and regional services serving this station each day which provides a good level of service to the residents of Drogheda, however these services do not link to the train station on the Dublin Road which currently leads to a lack of integration and interchange between these transport modes.

While the current location of Drogheda bus station is quite distant from the Study Area, a significant number of bus services serve the R132 with stops provided in the vicinity of Colpe Cross some 1.2km from the southern extent of the Study area.

Road Network

Existing road access to the Mill Road/Marsh Road lands is provided via the Marsh Road (R150), which runs along the northern boundary of the lands. Marsh Road is a single carriageway regional road connecting Mornington in the east to Drogheda Town. The R150 varies from a wide road with a constant alignment in the vicinity of the western extent of the lands to a narrow road with a changing alignment in the vicinity of Mill Road.

Mill Road, a third-class local road bounds the lands to the east. The Mill Road itself is a low grade rural road with restricted width, poor quality alignment, low strength pavement and numerous existing dwellings accessing onto it.

Colpe Road is a local road which provided access to the lands from the south and connects with the R132 in the west and the

R150 at Donacarney in the east. Colpe Road is a single carriageway road with a carriageway width of approximately 7 metres.

Cycling

There are currently little or no cycle facilities within Drogheda and along roads surrounding the framework plan lands (Marsh Road, Mill Road and Colpe Road). Cyclists are compromised by relatively high traffic volumes and inadequate cycle facilities.

Pedestrians

The lands are currently poorly served in terms of pedestrian facilities and linkages. There are currently limited dedicated pedestrian facilities along the roads serving the plan area.

Foul Water Drainage

There is limited existing drainage infrastructure available, apart from trunk sewers adjacent to the western boundary of the lands. There is a 900mm diameter foul trunk sewer running along the southern boundary of the plan lands, adjacent to the Dublin-Belfast railway line, and continues in a northerly direction along the western boundary of the plan lands before discharging to the Drogheda Waste Water Treatment Plant, which bounds the north west corner of the lands. This trunk sewer drains Park Gate residential development and adjoining lands east of the Stameen River and south of the railway line.

The Bryanstown trunk sewer (375mm diameter) drains the Bryanstown area of Drogheda, to the south of the railway line and the west of the Stameen River. This sewer runs in parallel to the 900mm diameter trunk sewer along the western boundary of the lands, before discharging to Drogheda Wastewater Treatment Plant.

There is a 250mm rising main on Marsh Road, which discharges to Drogheda Wastewater Treatment Plant.

Surface Water Drainage

The Stameen River bisects the framework plan lands. It begins life as the 'Bog Stream' and divides the townlands of Bryanstown and Beymore to the west. As it crosses the Drogheda Environs it becomes the Lagavoreen which passes south west to north east across the framework lands. Given the current topography a significant portion of the surface water runoff from the framework plan lands currently contributes to the flow of the river.

The discharge point for the Stameen River is into the Boyne Estuary at Mornington Marsh.

Water Supply

Water in the Drogheda Area is generally extracted from the River Boyne at Roughgrange, Co Meath and pumped to the treatment plant at Staleen. The water for the East Meath area is supplied via Kiltrough Tower.

There are existing 150mm diameter watermains on Marsh Road, Mill Road and Colp Road. It is anticipated that local infrastructure will require upgrading to supply the plan lands.

Gas

There is a 250mm diameter steel gas main running through the study area. This pipe enters the site at a point approximately midway along the northern boundary, and crosses under the Dublin/Belfast Railway at a point about 70 meters from intersection of the railway and Colpe Road. To prevent the sterilisation of developable land this trunk main may be diverted to follow the new mill road alignment subject to agreement with Bord Gais Networks.

Further to this gas main crossing the study area, there is also a 180mm Polyethylene gas main running up the length of Mill Road, the eastern boundary of the study area. This pipe is laid in the western road verge. A second 180mm gas main is laid in the northern verge of Marsh Road. This pipe runs along the western half of the Marsh Road boundary.

Electricity

There is a 10kV overhead ESB network above the study area. The main cable over the study area runs southwards from the quarry, and connects to a second cable which cuts across the southeastern corner of the study area, just north of Fortfields House.

There is also a line connecting to the main cable at the quarry which runs follows Marsh Road for the length of the study area. Overhead lines run from these main cables to the buildings in the area. In the far northwestern corner of the study area is a 10kV/LV underground cable.

This cable starts where the overhead cable in Marsh Roads terminates but does not intrude much into the subject lands.

Communications Infrastructure

There are underground cables on the site boundary in the northwest corner of the study area. These cables are in Marsh Road and do not encroach into the study area. Overhead cables run from the boundary of the study area to the farmhouses and other buildings on the site.

Further telecoms ducts appear to exist on the Colpe/Bettystown Road to the south east corner of the site. There are no further underground cables within the study area.

3.0 Statutory and Policy Framework Context

National Planning Context

Ireland 2040 – Our Plan, Draft National Planning Framework (2017)

The Draft National Planning Framework (Ireland 2040 – Our Plan) was published on the 26th September 2017. The plan will guide national, regional and local planning opportunities throughout our Republic together with investment decisions for at least the next two decades.

It is stated that the NPF together with the 10-year Capital investment Plan will set the context for each of Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies taking account of and coordinating local authority County and City Development Plans in a manner that will ensure national, regional and local plans align.

The ultimate objectives of the NPF are to:

- Guide the future development of Ireland, taking into account a projected 1 million increase in our population, the need to create 660,000 additional jobs to achieve full employment and a need for 550,000 more homes by 2040;
- Of the 1 million extra people, 25% is planned for Dublin, recognised as our key international and global city of scale and principal economic driver, 25% across the other four cities combined (Cork, Limerick, Galway and Waterford), enabling all four to grow their population and jobs by 50-

60%, and become cities of greater scale, i.e. growing by twice as much as they did over the previous 25 years to 2016, and

- The remaining 50% of growth to occur in key regional centres, towns, villages and rural areas, to be determined in the forthcoming Regional Spatial and Economic Strategies (RSEs).
- Enable people to live closer to where they work, moving away from the current unsustainable trends of increased commuting;
- Regenerate rural Ireland by promoting environmentally sustainable growth patterns;
- Plan for and implement a better distribution of regional growth, in terms of jobs and prosperity;
- Transform settlements of all sizes through imaginative urban regeneration and bring life / jobs back into cities, towns and villages;
- Coordinate delivery of infrastructure and services in tandem with growth, through joined up NPF/Capital Plan and consistent sectoral plans, which will help to manage this growth and tackle congestion and quality of life issues in Dublin and elsewhere.

In relation to Irelands town outside the main cities the draft plan states:

'Some of Ireland's towns outside the main cities also straddle different local authorities leading to a proliferation of individual plans. In order to enhance the co-ordination of development in such cases, the preparation of joint urban area plans for towns and their environs with a combined population of 15,000 people or more and joint local area plans for towns and their environs with a combined population of 5,000 people or more will be required. This necessitates the strengthening of current Local Area Plan (LAP) legislation. When finalised, joint urban and joint local area plans for combined functional areas will be adopted by each relevant local authority. Enhanced co-operation in the preparation of joint urban/ local area plans will ensure consistent approaches to planning without changes to existing county boundaries'.

This policy is stated in National Policy Objective 64 which states: *'Provision will be made for urban area plans and their environs with a population of more than 15,000 people. Provision will also be made for joint urban/local area plans where a town and environs lies within the combined functional area of more than one local authority'.*

Boundary Review Committee Report

A report from the Drogheda Boundary Review Committee was published on the 16th February 2017. The Committee recommended that no change be made to the existing boundary, adding however that *'the process of planned and structured cooperation between the two local authorities for the future planning and delivery of services in the greater Drogheda area be*

immediately accelerated to deliver sustainable development for Drogheda'.

Specifically, the Boundary Review Committee recommends that the two local authorities, Meath County Council and Louth County Council work together to produce:

- A unified vision for Drogheda;
- A Joint Local Area Plan for the Greater Drogheda Area incorporating this vision in a comprehensive strategy for the sustainable development of Drogheda, including social, cultural, environmental and economic development. This may necessitate variations to the existing County Development Plans as a Local Area Plan may not contravene its parent Development Plan;
- A joint retail strategy for the town for Drogheda;
- A joint initiative to improve community cohesion and further develop an identity of belonging to Drogheda for all citizens while retaining current county allegiances as part of the above process;
- A report detailing the results of a comprehensive review of service delivery of all local authority services and functions analysed. This will lead to the preparation of a Service Delivery Plan;
- An analysis of services delivered by other bodies, e.g. IDA, Enterprise Ireland, HSE, including recommendations to Government for delivery on a whole of town basis where deemed appropriate.

The Boundary Review Committee recommendation for a Joint Local Area Plan for the Greater Drogheda Area implies an overarching LAP which covers all lands within the Greater

Drogheda Area including the framework plan lands referred to in this UDFP. Therefore, this UDFP must be flexible to account for the potential new planning policy framework and objectives which may arise from such an LAP.

Local Planning Policy Context

Meath County Development Plan 2013-2019 including Variations

The Meath County Development Plan provides the overall statutory framework for the development of County Meath. The Meath County Development Plan 2013-2019 identifies Drogheda Environs as a Large Growth Town I in its settlement hierarchy.

SS OBJ 8 states it is an objective of Meath County Council '*to develop Navan and the Drogheda Environs as the primary development centres in Meath and to ensure that the settlements grow in a manner that is balanced, self sufficient and supports a compact urban form and the integration of land use and transport*'.

Large Growth Towns – Drogheda Environs

These towns are the primary centres for population growth and economic development in the county. The plan recommends that the majority of the projected additional population and households in the County will be allocated to identified strategic centres such as Drogheda.

The county development plan notes that the large growth towns represent key destinations in the GDA and should be promoted

as 'economically active towns supporting the surrounding area and maximising their location on multi modal corridors'.

The Large Growth towns of Drogheda Environs and Navan should accommodate significant new investment in transport, in economic and commercial activity and in housing.

The CDP anticipates the requirement to accommodate an ultimate population of 50,000 persons Drogheda Environs to achieve critical mass.

Drogheda is identified in the RPGs as a primary economic growth town within County Meath and the CDP notes that these towns are to be the main centres of economic activity in the county.

The CDP also highlights the importance of economic development in these towns as a crucial measure to encourage growth and prevent the towns becoming dormitory towns for the metropolitan area of the GDA.

In particular, development should allow for the integration of land use and transport and the holistic and balanced expansion of the towns.

Variation No. 2 - Order of Priority

The adoption of Variation No. 2 of the Meath County Development Plan (2013-2019) in May 2014, has resulted in the 29 no. previous Local Area Plans being replaced with Written Statements and Land Use Zoning Objective Maps for these settlement centres in a new Volume 5 of the County Development Plan.

The land use zoning objectives contained within Volume 5 of the County Development Plan (as varied) now effectively replaces the land use zoning objectives contained in the individual Local Area Plans for these centres.

Variation No. 2 effectively implemented the household allocation requirements of the Core Strategy for these centres with an Order of Priority Phasing Arrangement for Residential Zoned Lands.

Volume 5 of the County Development Plan 2013-2019 sets out a written statement and development objectives for centres in County Meath. This Volume was incorporated as Variation no. 2 of the County Development Plan which was adopted on the 19th of May 2014. The County Development Plan states the written statement in Volume 5 shall take precedence over any appendices or maps.

The lands identified with an A2 “New Residential” land use zoning objective but qualified as “Residential Phase II”. There are a number of residential phase II zonings within the Mill Road/Marsh Road UDFP area.

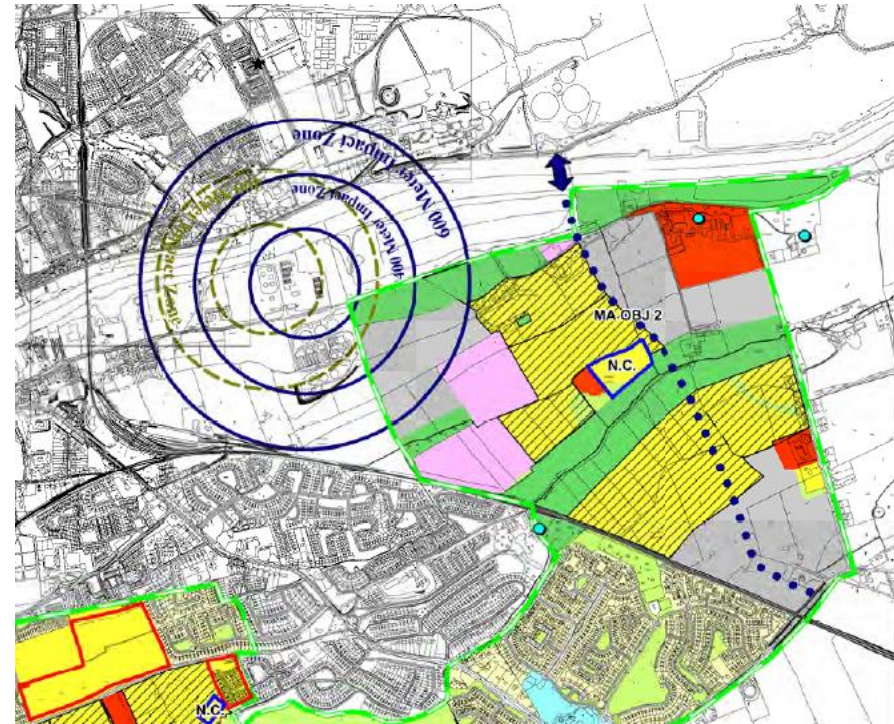


Figure 3.1 Meath County Development Plan 2013-2019 Drogheda Southern Environs - Land Use Zoning Map

Variation No. 3

The key purpose of Variation No. 3 of the County Development Plan was to align the County Development Plan with the key tenets of the Economic Development Strategy for County Meath 2014 – 2022 as they relate to statutory land use planning.

In relation to white lands Variation No.3 states; *‘These are strategic lands and their designation is to allow for a long term, integrated approach to the taken to the expansion of an urban area. Should the Planning Authority be satisfied that a project*

proposed for lands with a white land designation would assist with the implementation of the Economic Strategy, these lands can be released for development during the plan period’.

Seveso Sites

The CDP lists two Seveso sites in Drogheda which interact with the framework plan area; they are the Flogas Ire. Ltd and Maxol Ltd sites located on Marsh Road. The Flogas Ltd Seveso site extends approximately 400m into the north-west corner of the framework plan area. The Maxol site has been decommissioned and is no longer in use.

Name of Company	Seveso Location	Seveso Tier	Consultation Radius Distance from Facility	County
Grassland Fertilizers Limited	The Pound Road, Slane	Lower Tier Site	700 metres	Meath
Irish Industrial Explosives Limited	Clonagh, Enfield	Upper Tier Site	1000 metres	Meath
Marsh Oil Products Limited	Marsh Road, Drogheda	Lower Tier Site	400 metres	Louth
Flogas Ire. Ltd	Marsh Road, Drogheda	Upper Tier Site	600 metres	Louth
Mallinckrodt Medical Imaging	Damastown Industrial Estate, Mullhuddart	Upper Tier Site	1,000 metres	Fingal
Aestellas Ireland Co. Ltd	Damestown Road, Damastown Industrial Park, Mullhuddart	Lower Tier Site	1,000 metres	Fingal
Contract & General Warehousing Limited	Westpoint Business Park, Navan Road, Mullhuddart	Upper Tier Site	700 metres	Fingal

Table 3.1 List of Seveso Sites in County Meath or Sites where Consultation Distances extend into County Meath

Local Area Plan for the Southern Environs of Drogheda 2009-2015 (Expired)

Mill Road/Marsh Road Area

Overview

The Local Area Plan has defined the area as being bounded to the west by the existing town boundary, to the north by the Marsh Road and River Boyne and to the south by the Dublin Rail line.

To the east, the area stretches toward the Mill Road, which is a key link between the Colpe Cross Area and the Marsh Road.

The LAP notes that the area is generally in agricultural use and a number of small streams traverse the lands in an east-west direction. A string of one-off houses are located along the Mill Road. Drogheda Grammar School, Gaelscoil an Bhradáin Feasa and Le Cheile Educate Together National School are also located in the area.

The Planning Strategy for the Greater Drogheda Area identified a strategic land reserve in the area generally referred to as the Mill Road/ Marsh Road district. This objective was further transposed into the Meath County Development Plan, 2007– 2013 by identifying the area as capable of providing new residential communities

The LAP notes the Mill Road/Marsh Road Area as one of two large land banks in the overall LAP area which are undeveloped.

The Mill Road/Marsh Road area was identified as a Strategic Land Reserve under the Planning Strategy for the Greater Drogheda Area which was jointly carried out by Drogheda Borough Council, Meath County Council and Louth County Council in 2007. This area extends to approximately 170 hectares.

The Mill Road/Marsh Road Area is identified as a character area within the LAP, in addition to Rathmullan Area, Donore Road Area, Duleek/Platin Road Corridor, Bryanstown Cross Route, Colpe Cross Area and Bryanstown Area.

Requirement for Urban Design Framework Plan

The Local Area Plan for the Southern Environs of Drogheda 2009-2015 states that the lands at Mill Rd Marsh Rd have been zoned under the Local Area Plan, however future development is subject to an Urban Design Framework Plan and is qualified by the Order of Priority as contained in Variation No. 2 of the County Development Plan 2013-2019.

Design Parameters

The Framework Plan for Mill Rd/ Marsh Rd needs to be developed in accordance with the built form recommendations as set out in the Planning Strategy for the Greater Drogheda Area and the qualitative criteria set out under the Meath County Development Plan 2013-2019 as well as best practice in planning and design of new urban communities.

Particular regard has also needs to be had to the guidelines 'Quality Housing for Sustainable Communities and the accompanying 'Urban Design Manual – A best Practice Guide'

published by the Department of the Environment, Heritage and Local Government.

The greenfield nature of the lands necessitates a comprehensive approach to the future development of the lands which should draw on best design practice.

The design brief within the LAP provides the following points specific to the UDFP area:

- The perimeter block shall be used as the basic urban form which will help to define streets and public spaces.
- Urban blocks should look outwards towards the street and the street itself should act as an urban stage between public and private realms.
- The framework plan should provide for an interconnecting network of streets, urban spaces and parks making a lively and safe public realm.
- A range of building types should be provided to create a varied urban environment and a sustainable mix of uses providing all essential facilities locally and within walking distance.
- The framework plan needs to ensure that the linear park is overlooked and an urban edge is created onto the park from surrounding areas, development should not turn its back on the park.
- The new distributor road (link street) should be designed as boulevard with active frontages, off-street facilities for pedestrians and cyclists and mature planting.
- The neighbourhood centre and school site should be integrated in terms of how buildings relate to each other and create active street

For the employment areas which areas adjacent to residential zoned lands it will be important to adopt sensitive design parameters which take cognisance of the contrasting needs of both land uses and provide appropriate buffers and design interventions in the transition areas between zonings.

The design of the employment zones should provide a good quality working physical environment, which does not adversely impact on surrounding receptors.

Accordingly, for the enterprise and employment zones in the west of the UDFP area where the lands are proximate to residential zoned lands and the high amenity areas it will be necessary to provide a substantial buffer, to mitigate noise and visual intrusion.

The buffer area should be mounded so as to screen and to protect the amenities of existing properties. The landscaping along these boundaries should incorporate native species planting.

The employment zones including buildings, public realm and landscaping should be of high architectural and design quality.

Relevant criteria from the Urban Design Manual which should be addressed in future residential development within the plan area include;

- Context: How does the development respond to its surroundings?
- Connections: How well is the new neighbourhood / site connected?

- Variety: How does the development promote a good mix of activities?
- Public Realm: How safe, secure and enjoyable are the public areas?

Zoning

There are a number of land use zonings within the Mill Road/Marsh Road Urban Design Framework Plan Area. These include White Lands, High Amenity, Enterprise and Employment and Community, Social and Educational zonings.



Figure 3.2 Mill Road/Marsh Road Urban Design Framework Plan - Land Use Zoning Map

➤ Residential

The LAP states that a total of 51.1 hectares of land has been zoned A2 'New Residential Communities'. This area could accommodate 2,200 households on the basis of 43 units per hectare. This in turn, would equate to a population of approximately 6,380 persons

➤ White Lands

The LAP notes that a portion of the lands at Mill Rd/ Marsh Rd have been identified as White Lands. These lands are identified as providing for a strategic land reserve to ensure the consolidation of future development in the Drogheda Environs.

The zoning description for the White Lands states the objective is to *'protect strategic lands from inappropriate forms of development which would impede the orderly expansion of a strategic urban centre'*

In relation to the White Lands which are located adjacent the Drogheda Sewage Treatment Plant, the LAP notes that the implications of the location of these lands adjacent the sewage plant need to be taken into account and an adequate buffer needs to be provided.

➤ High Amenity

The LAP notes that the zoning applied in the area has taken cognisance of the sensitivity of the Boyne River in terms of natural and heritage protection objectives and has therefore include an

extensive belt of H1 'High Amenity' zoned lands to act as a buffer between the river and future development areas.

The zoning description for the High Amenity area states the objective is to *'to protect and improve areas of high amenity'*.

➤ Enterprise and Employment

The zoning objective E2 'General Enterprise' seeks *'to provide for the creation of enterprise and facilitate opportunities for employment through industrial, manufacturing, distribution, warehousing and other general employment/enterprise uses in a good quality physical environment'*.

The LAP notes that the identification of lands to facilitate employment creation and enterprise constitute a significant land use in the Mill Road/Marsh Road character area and notes that there is a large parcel of land in the centre of this character area along with an existing development off the Marsh Road which have been identified.

➤ Community, Social and Educational

The zoning objective G1 Community Infrastructure seeks *'To provide for necessary community, social and educational facilities'*.

Key Objectives

The Local Area Plan notes that an assessment for the future provision of services shall also be carried out as part of the Urban Design Framework Plan for the Mill Road/ Marsh Road area.

The Local Area Plan also notes that the UDFP should contain an indication of the requirements in terms of amenity and recreation requirements, community facilities, retail facilities, education and childcare facilities and other essential facilities which would be required to serve the residential communities within the Mill Road/Marsh Road UDFP area.

A neighbourhood centre should be provided for the Mill Road/Marsh Road Area on lands identified on the land use zoning map.



Figure 3.3 Reference Image – Neighbourhood Centre

It is proposed that pedestrian facilities along the Mill Road are provided to provide a link to the new neighbourhood centre.

There is a proposed link street to serve the Mill Road / Marsh Road area identified in the transportation objectives but no alignment has yet been confirmed.

A linear park has been identified along the existing stream to provide for the amenity of future residents. Further detail for the form and function of the other open space zoned for the area needs to be contained in the Framework Plan. Generally, open space should be provided in the form of Urban Parks which are landscaped to a high standard and need to provide for both active and passive recreation space.

One appropriately sized school shall be provided on the lands indicated and zoned G1 'Community Infrastructure' land use zoning objective.

It is proposed that the provision of the new school building (located beside the neighbourhood centre) should double up as providing for a community hall for the area which can be used during out-of school hours.

Objective SWD7 of Section 5 of the Local Area Plan (Development Framework) states that any future planning applications lodged with respect to area bounded by Mill Road / Marsh Road / Dublin Belfast rail line shall be accompanied by an appropriately detailed Flood Risk Assessment. The Flood Risk Assessment shall clearly assess flood risks, management measures and demonstrate compliance with the "The Planning

System and Flood Risk Management Guidelines for Planning Authorities” (November 2009).

The Flood Risk Assessment shall consider the Sequential Approach within the subject site and would typically involve allocating water compatible development within Flood Zones A and Zone B. Buildings should be sited at an appropriate finished floor level, which should be above the 1 in 100-year flood level, with an allowance for freeboard and climate change.

Objective SWD9 of Section 5 of the Local Area Plan (Development Framework) states that the Framework Plan required pursuant to objective MMA1 in the Drogheda Local Area Plan for the area bounded by Mill Road / Marsh Road / Dublin Belfast rail line shall determine the overall roads layout for this area supported by an appropriately detailed Traffic Impact Assessment which shall demonstrate the capacity in the wider road network from the R132 in Drogheda and Colpe Cross. During the environmental assessment of alignments of overall roads layout for this area, a Justification Test will need to be applied if alignments interact with Flood Zone A/B.

A detailed Flood Risk Assessment will be required to manage the risk and to demonstrate there will be no impact on adjacent lands. The detailed design of the roads layout shall also be subject to an Appropriate Assessment pursuant to the Habitats Directive.

It will be necessary to provide for an adequate buffer around the existing sewage treatment plant and the implications of the plant needs to be taken into account in any future consideration of the White Lands which are located adjacent.

The provision of a local bus route to service the Framework Plan lands is essential to the success of the new development area. This bus route needs to connect the Mill Rd / Marsh Road Area with both the town centre and the rail station in Drogheda.

Specific Development Objectives

The Local Area Plan contained a number of specific local objectives for the Mill Road/Marsh Road Area.

Specific Development Objectives contained within the LAP relevant to the Mill Road/Marsh Road Area are as follows;

Objective DE5 - To upgrade the Mill Road and Marsh Road to provide for pedestrian footpaths and to provide on street cycle tracks along the entirety of these roads. Further to this, a transport study should be carried out to ascertain the appropriate size, specification and location of a new river crossing to link the proposed distributor road with the proposed Northern Port Access Route provided on the Northside of Drogheda in Co. Louth (in line with the recommendations of the Planning Strategy for the Greater Drogheda Area).

Objective DE6 - To provide for a link road through the Mill Road/ Marsh Road District providing access to the lands and functioning as a local distributor road.

Proposals to comply with the objectives contained within the CDP and the LAP are discussed in Section 4: The Framework Plan.

Economic Impact Study

An economic impact assessment of a major employment development proposal on a section of lands within the Mill Road-Marsh Road Urban Design Framework Plan Area has been prepared by PMCA Economic Consulting.

The assessment notes that the proposed development would lead to the creation of 1,500 high quality (E1-type) full-time equivalent jobs and most of the 1,500 new FTEs would be active in professional services, including internationally-traded services like those in IFS State Street and Coca-Cola, thus giving the area clustering benefits in respect of high value-added services activities. The assessment estimates that the 1,500 direct FTEs from the proposed development would in turn stimulate the creation or sustenance of over 2,200 additional FTEs elsewhere in the economy through indirect or supply chain effects and induced effects reflecting the proposal's impact on consumer demand, implying over 3,700 FTEs in total.

Transport Study

In compliance with Objective SWD9 of the LAP a transport study by DBFL has been completed for the framework plan lands which sets out the key transportation proposals for the area.

The study notes the policy context for the lands sets out the need to promote the sustainable development of walking, cycling, public transport and other more sustainable forms of transport as an alternative to the private car and to facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for

economic development in an environmentally sustainable manner.

The Transport Study sets out the following transportation objectives:

- 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.
- To provide where possible, segregated pedestrian and cyclist routes especially where they would facilitate more direct, safer and pleasant alternative routes to those of the private car.
- To promote land use planning measures which facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transport.
- To promote and facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.

The study sets out a clear hierarchy of integrated streets for universal movement to include pedestrians, cyclists, public transport and vehicular Traffic. To encourage more sustainable travel patterns and safer streets, pedestrians are placed at the top of the user hierarchy and private motor vehicles considered last.

A framework of connected streets for the movement of pedestrians, cyclists and vehicles is proposed for the framework plan lands. The planned network provides for movement at a local level within the lands and at wider levels extending from the Lands towards surrounding areas. This simple structure will ensure that development is permeable, legible and offers a choice of routes depending on the type of journey.

Specific transportation proposals are outlined in Section 4 below.

4.0 The Framework Plan

Concept/ Vision

The vision for the overall lands is for a vibrant sustainable mixed-use urban quarter which is well connected to public transport particularly Drogheda Train Station and community infrastructure, is accessible from Drogheda Town Centre, the Southern Environs and the wider hinterland of East Meath, and provides a high quality residential and employment environment to deliver on the significant economic development and employment potential of the area.

It will be important to capitalise on the strategic location of the lands and exploit the economic and employment development opportunities afforded by the location and existing infrastructure, as a catalyst for the overall development of the area.

Key ecological and landscape features such as the River Boyne, the existing stream and the extensive mature trees and hedgerows in the area will be integrated sensitively into the development of the area through appropriate buffers between development areas and the amenity zoned lands and the provision of a linear park along the existing stream.

The new residential communities will benefit from a range of new and existing community and social infrastructure including a neighbourhood centre, primary school including community hall, secondary school, a new bus route, new linkages and connectivity to the train station and a new bridge link north across the River Boyne.

Key Development Objectives

Land Use

A mixed-use quarter to include employment, commercial, residential, retail, leisure and amenity uses.



Figure 4.1 Drogheda and the River Boyne



Figure 4.2 River Boyne

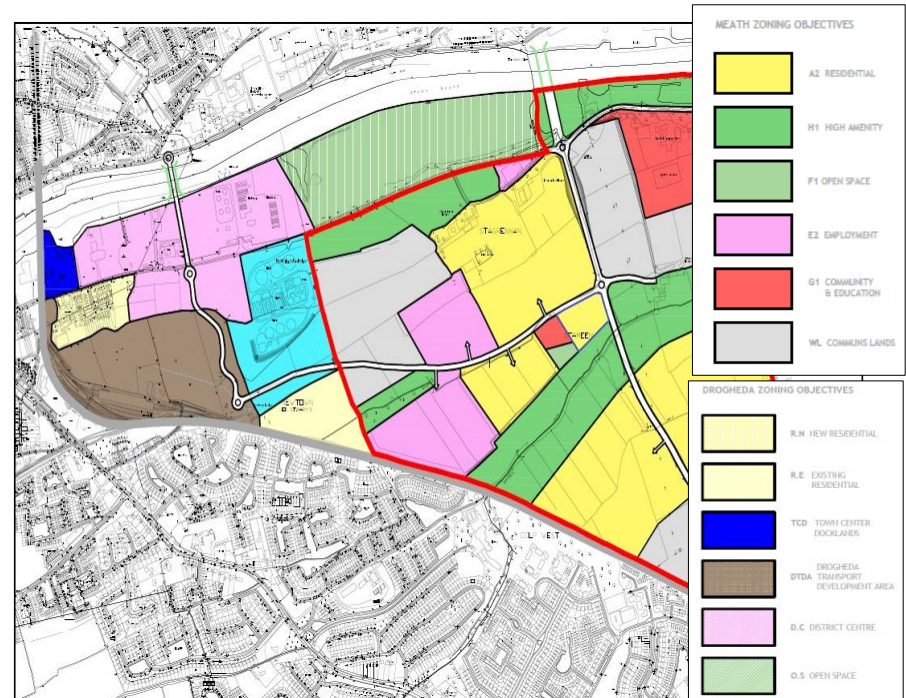


Figure 4.3 Land Use Zonings and Context

Employment

The nearby Southgate Centre, where Coca-Cola International Services currently employs 300 FTEs (full time equivalents) is one of the primary employers in the region.

The other major foreign direct investment employer in the Drogheda Southern Environs LAP area is IFS State Street, which employs similar numbers of FTEs at the Drogheda IDA Business & Technology Park. Both companies together account for about 40% of all FDI employment in County Meath, illustrating the strategic importance of the LAP area.

The Economic Development Strategy for County Meath 2014-2022 has the goal of more high quality E1-type employment in the County, and aims to attract a greater share of FDI coming into the country.

Therefore, employment zoned lands should aim to provide high quality office and commercial type development in order to cater for this demand.

The potential of the employment zoned lands is considered to be strong given their location within in close proximity to the M1 Motorway, proximity and access to Drogheda and services, and the demonstration effect due to existing major employment at Southgate Centre.

Residential

Encourage a high standard of architectural design in the new residential developments with particular emphasis on compliance with the Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009) which promote permeability and connectivity to key nodes such as public transport infrastructure, town and neighbourhood centres, amenity areas and employment zones.

Encourage higher residential densities in close proximity to high quality public transport infrastructure and neighbourhood centres.

Community, Social and Educational

A neighbourhood centre should be provided for the Mill Road/Marsh Road Area on lands identified on the land use zoning map. The size and function of this centre shall be determined by the Framework Plan in line with a detailed assessment of the retail planning context and existing and planned retail provision in the wider vicinity. The provision of this neighbourhood centre shall serve the local retail catchment and local residents. The purpose of the neighbourhood centre is to serve the future residential communities and accordingly they shall not be considered until the adjoining residentially zoned lands have been identified for release.

The LAP states that one appropriately sized school shall be provided on the lands indicated and zoned G1 'Community Infrastructure' land use zoning objective. A school has been constructed on the Mill Road - Gaelscoil an Bhradáin Feasa. The LAP states that the school building should provide for a community hall facility for the area which can be used during out-of school hours also.

Infrastructure and Transport

The primary road infrastructure objective is to provide for a link street through the Mill Road/ Marsh Road District providing access to the lands. It is to function as a link street.

Key sustainable transport objectives are to provide a segregated pedestrian and cycle link from the Mill Road/ Marsh Road Area to

Drogheda train station and to upgrade Mill Road and Marsh Road to provide for pedestrian footpaths and to provide on street cycle tracks along the entirety of these roads. The LAP proposes that pedestrian facilities along the Mill Road should provide a link to the new neighbourhood centre at Colpe Cross.

Objective SWD9 of Section 5 of the Local Area Plan (Development Framework) states that the Framework Plan shall determine the overall roads layout for this area supported by a Traffic Impact Assessment.

It will be necessary to provide for an adequate buffer around the existing sewage treatment plant and the implications of the plant needs to be taken into account in any future consideration of the White Lands which are located adjacent.

Objective SWD7 of Section 5 of the Local Area Plan (Development Framework) states that any future planning applications lodged with respect to area bounded by Mill Road / Marsh Road / Dublin Belfast rail line shall be accompanied by an appropriately detailed Flood Risk Assessment.

Amenity

A linear park has been identified along the existing stream to provide for the amenity of future residents. Further detail for the form and function of the other open space zoned for the area needs to be contained in the Framework Plan. Generally, open space should be provided in the form of Urban Parks which are landscaped to a high standard and need to provide for both active and passive recreation space.

White Lands – Potential Land Uses

It is considered that the white lands in the north west of the UDFP area could be suitable for Enterprise and Employment or residential uses.

It is considered that the white lands in the north east would be suitable for educational and residential development as they are located adjacent to the existing school and social and community zonings and in close proximity to the proposed neighbourhood centre.

It is considered that the white lands in the south would be suitable for employment and residential development.

Services Assessment

As noted in the LAP, successful communities require a wide range of local services and facilities. These include employment, recreational, commercial, childcare, educational and health. All services should be readily accessible from residential areas by safe, convenient and direct walking routes.

The key development objectives section above outlines a range of social, community and infrastructural services prescribed by the Local Area Plan.

This section provides an assessment of the future requirement for additional services in the Mill Road/ Marsh Rd Area.

Childcare

It is considered that, based on the quantum of residential development that can potentially be accommodated within the Mill Road/Marsh Road Area, a number of appropriately sized childcare facilities will be required.

The childcare facilities will require to be integrated into residential developments and comply with the requirements of the Childcare Guidelines and the County Development Plan.

It is considered that the neighbourhood centre and sites adjacent or integrated with existing schools would be additional appropriate locations for future childcare facilities.

Recreational/Amenity

In addition to the proposed linear park, the Mill Road/Marsh Road area will require open space, neighbourhood parks and formal recreation and play facilities.

It is considered that a number of full size playing pitches will be required to serve the future residential populations and the linear park is likely to be the most appropriate location given its central position within the framework plan lands and proximity to the neighbourhood centre. The provision of dedicated areas for play within the linear park including NEAPS ('Neighbourhood Equipped Areas for Play') is considered important to ensure activity and vibrancy within the Park.

Local or neighbourhood parks will also be required in the residential areas to the north and south of the linear park, to be located centrally within the residential areas to provide appropriate outdoor amenity space within close proximity to homes. The Local Parks should incorporate informal kickabout areas and smaller play facilities such as LEAPs (Local Equipped Areas for Play).

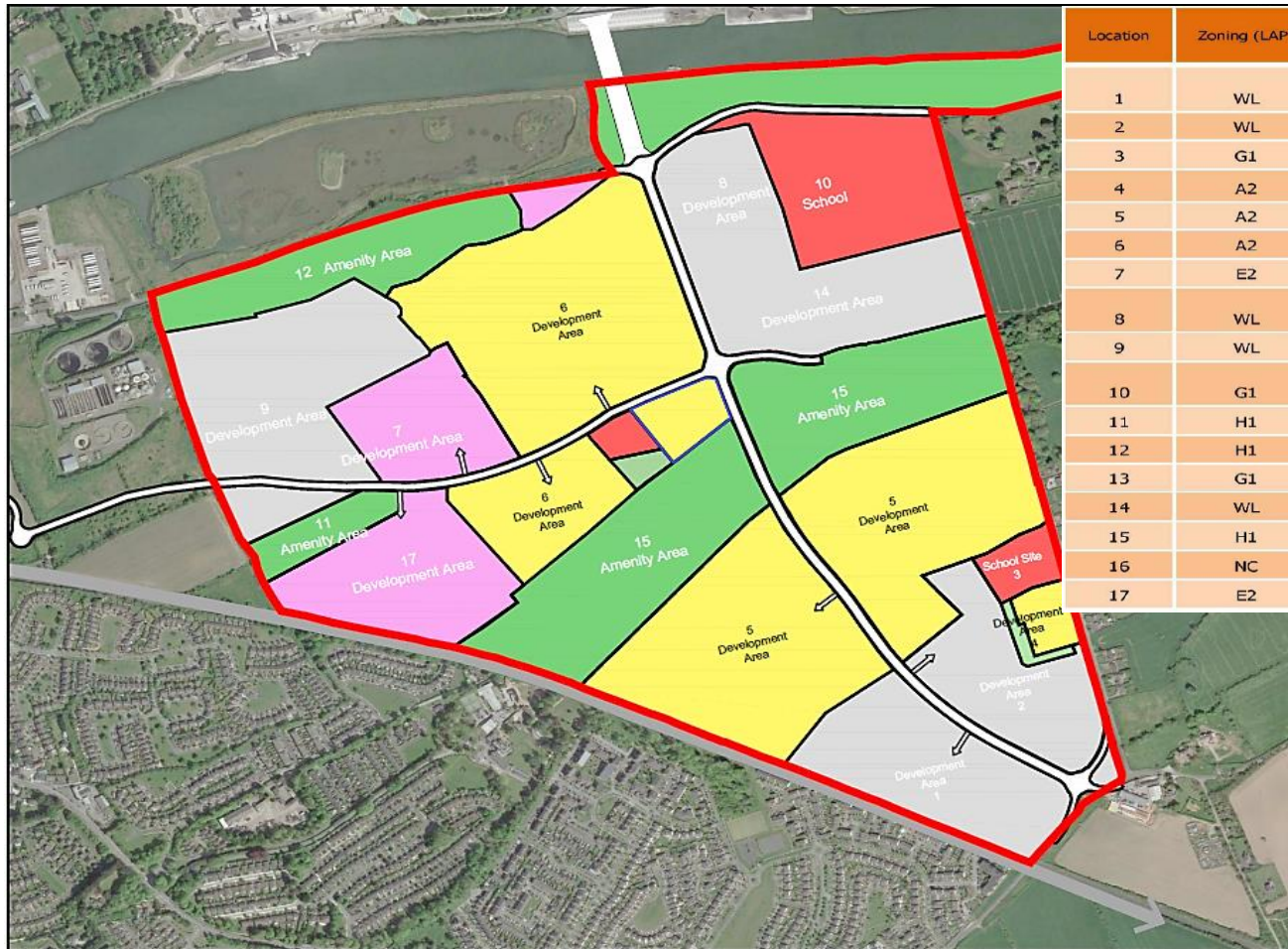
Health

It is considered that the Mill Road/Marsh Road Area will accommodate sufficient density and population quantum to justify the provision of a Health Care Centre which will be a standalone premises with multiple consulting rooms which may cover a variety of health disciplines, in line with CDP requirements.

Education

It is considered that the existing educational provision of 2 primary schools and one post primary school is sufficient in the short-medium term to serve the initial phases of residential development. Given the long-term potential projected population of circa 6,000 residents, additional educational facilities or significant expansion of existing facilities will be required.

Development Area



The framework plan lands have been divided up into 17 development areas for the purposes of this Urban Design Framework Plan, according to location, zoning, characteristics and potential for development.

Each planning application prepared for a development area should include a masterplan stating how the scheme complies the principles of the Urban Design Framework Plan. Masterplans should consider and demonstrate the development potential of the development area within which their application is located.

Masterplans should demonstrate that any individual application will not negatively impact the ability of adjacent landowners to maximise their development potential in accordance with county development plan or local area plan objectives.

The number and corresponding zoning designation is show in the insert table.

Figure 4.4 Development Areas

Masterplans and development applications proposed should not be so laid out as to prevent or preclude access to adjacent third-party lands, or hinder future development of adjacent lands.

The identification of development areas, with the requirement for further masterplanning will provide the flexibility required, whilst ensuring balanced development and achievement of the county development plan and local area plan objectives for the overall area.

Enterprise and Employment – Development Areas 7 and 17

The zoning objective E2 'General Enterprise' seeks *'to provide for the creation of enterprise and facilitate opportunities for employment through industrial, manufacturing, distribution, warehousing and other general employment/enterprise uses in a good quality physical environment'*.

The LAP notes that the identification of lands to facilitate employment creation and enterprise constitute a significant land use in the Mill Road/Marsh Road character area and notes that there is a large parcel of land in the centre of this character area along with an existing development off the Marsh Road which have been identified



Figure 4.5 Development Areas 7 and 17

Access to the E2 zoned lands could be obtained from the Marsh Rd.

Residential Areas – Development Areas 4, 5 and 6

The LAP states that a total of 51.1 hectares of land has been zoned A2 'New Residential Communities' but qualified as Phase II. This area could accommodate 1,788 households on the basis of 35 units per hectare.

The proposed link street runs through the middle of the plan lands and is a major organising element which informs the masterplanning of the framework plan lands.

The residential area in the south of the plan lands is bisected by the new link street offering the opportunity to create two distinct residential character areas adjacent to the linear park to the north. Therefore, it is proposed that development area 5 will contain two distinctive character areas to the west and east of the link street

Each area will have linkages to the linear park and the link street, a proportionate amount of infrastructure/roads and a mix of residential typologies. Physical connections between the two residential areas will be encouraged and an accessible network of streets, cycleways and footpaths will be critical to establishing a clear and legible framework of movement within the framework plan lands.

The residential areas in the north (development area 6) have the potential to accommodate higher densities close to the neighbourhood centre and adjacent to the link street and connection to Drogheda Train Station.

The new residential communities will benefit from a range of new and existing community and social infrastructure including a neighbourhood centre, primary school including community hall, secondary school, a new bus route, new linkages and connectivity to the train station and a new bridge link north across the River Boyne.



Figure 4.6 Development Areas 4, 5 and 6

Community, Social and Educational - Development Areas 3 and 10



Figure 4.7 Development Areas 3 and 10

A neighbourhood centre will be provided for the Mill Road/Marsh Road Area on lands identified on the land use zoning map. The LAP requires that the framework plan shall determine the size and function of the neighbourhood centre and therefore the following guidelines are set out:

- It is considered that the neighbourhood centre will serve a local retail demand in the immediate catchment area and will not compete with existing retail provision in Drogheda or the Southgate Centre.
- In line with development plan policies a childcare facility of an appropriate size and scale should be provided in the neighbourhood centre.
- Children's play areas and playgrounds should be incorporated into design proposals for the neighbourhood centre.
- The purpose of the neighbourhood centre is to serve the future residential communities and a joint retail strategy is also forthcoming. Accordingly, the neighbourhood centre shall not be considered until the adjoining residentially zoned lands have been identified for release. The

neighbourhood centre will have to demonstrate compliance with the prevailing retail strategy at the time of making the application.

The LAP states that one appropriately sized school shall be provided on the lands indicated and zoned G1 'Community Infrastructure' land use zoning objective. A school has been constructed on the Mill Road - Gaelscoil an Bhradáin Feasa. The LAP states that the school building should provide for a community hall facility for the area which can be used during out-of school hours also.

Linear Park and Amenity Areas – Development Areas 15 ,11, 12

The linear park and amenity areas will be overlooked to provide passive surveillance and an urban edge will be created onto the park from surrounding areas in line with the design requirements of the LAP.



Figure 4.8 Development Area 15



Figure 4.9 Reference Image – Linear Park

The adjacent residential developments north and south of the Linear Park will engage and interact with the park and development will not turn its back on the park.

UDFP POL1: Accessibility to and through the park will be priority design criteria. Connectivity with the surrounding development areas especially residential areas is a policy objective of this framework plan.

White Lands - Development Areas 1,2,8,9 and 14

White Lands – Strategic Land Reserve. The land use is not determined, but should be developed in accordance with development plan policies, and any individual application on such lands would need to be accompanied by an appropriate justification.



Figure 4.10 Development Areas 1 and 2

Urban Design Strategy

The UDFP lands should be developed in accordance with Section 28 guidelines, particularly DMURS (Design Manual for Urban Roads and Streets) and Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (2009) and the accompanying design manual. The Urban Design Manual specifies 12 Criteria that encapsulates the range of design considerations for residential development.

Proposals within the UDFP lands should have regard to the 12 criteria listed which are; Context, Connections, Inclusivity, Variety, Efficiency, Distinctiveness, Layout, Public Realm, Adaptability, Privacy and Amenity, Parking, Detailed Design.

The key principles to be implemented in new development within the UDFP lands are:

1. Inclusive Design

Inclusive design is defined as that which meets the needs of all users, regardless of age, gender, race or sensory and mobility abilities. In its broadest sense, it also means creating places that can be enjoyed by people from all cultural and socio-economic backgrounds.

2. Distinctiveness

The Urban Design Manual notes that *'each successful neighbourhood will have its own raison d'être that makes people choose to live there over other places'*.

It is important the UDFP lands are developed in a way that allows a distinctive character to form which is identifiable as a neighbourhood rather than a sprawling settlement emerging from Drogheda. Key proposals such as the linear park and neighbourhood centre will contribute to the distinctiveness of the area and its sense of place.

Density

The residential zoned lands in the UDFP area are listed as sites 7 and 8 in the LAP with specified densities of 43 units per hectare.

A lower density of residential development may be appropriate in the southern residential lands as these lands are further removed

from the neighbourhood centre and the proposed direct link to McBride Train Station.

Transportation Proposals

The key transportation proposals for the development of the Mill Road/Marsh Road Plan Lands are:

- ❖ The delivery of the Link Street connecting Colpe Road and Marsh Road as well as tying into the existing Mill Road.
- ❖ The delivery of a Link Street running east – west across the Plan Lands is proposed to provide a link to the future DDTA.
- ❖ Vehicle access to the Gaelscoil an Bhradain Feasa will be provided via the new Mill Road/Marsh Road Link Street which will in turn result in a traffic calming feature along the Mill Road. Pedestrian and cycle access to the Gaelscoil will continue to be provided via the Mill Road.
- ❖ Upgrade the Mill Road and Marsh Road to provide for pedestrian footpaths and to provide on street cycle tracks along the entirety of these roads.
- ❖ Provide a segregated pedestrian and cycle link from the Mill Road/ Marsh Road Area to Drogheda train station.

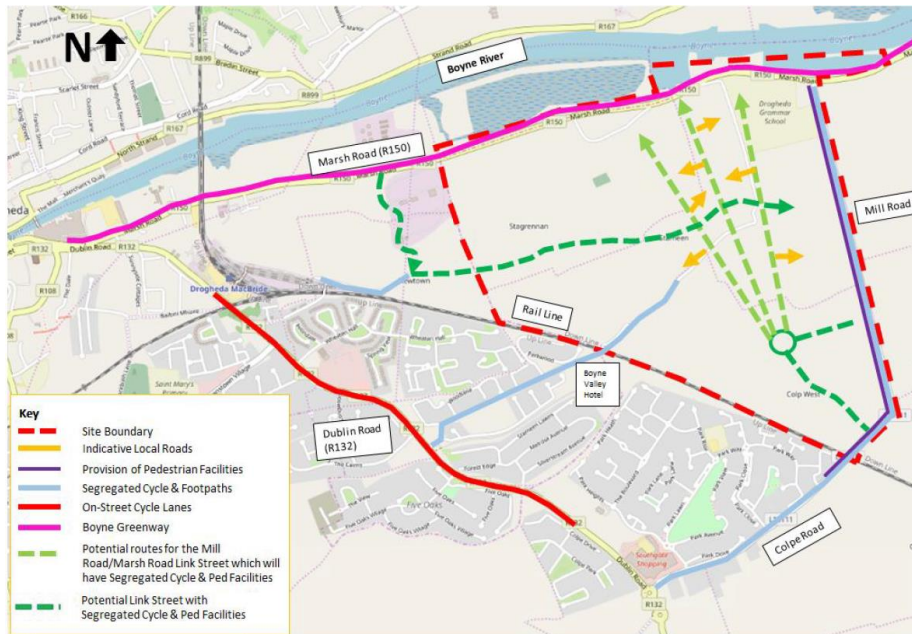


Figure 4.11 Transport Proposals

New Link Street

A new link street will be created linking Colpe Road with Marsh Road. The new street will be designed with;

- active frontages,
- off-street facilities for pedestrians and cyclists and
- mature planting.

The proposed link street will connect the plan area to the road network north and south and provide for internal movement within the area. A link off this road will connect to the train station to the

west and the neighbourhood centre will sit at the intersection of these two routes.



**Figure 4.12 Reference Image
– New link street**

Objective DE7 - To provide a segregated pedestrian and cycle link from the Mill Road/ Marsh Road Area to Drogheda train station.

A segregated cycle link provided from the Mill Road/Marsh Road Area to Drogheda train station will be provided in line with Objective DE7.



Figure 4.13 Reference Image - pedestrian and cycle link

River Crossing

The Local Area Plan (LAP) for the Southern Environs of Drogheda proposes a bridge crossing over the River Boyne to link the proposed link street with the proposed Northern Port Access Route provided on the Northside of Drogheda in Co. Louth (in line with the recommendations of the Planning Strategy for the Greater Drogheda Area). Proposed river crossings east of the Boyne Viaduct are also indicated in other policy documents for the area with some variations in the exact location indicated.

UDFP POL2: Having regard to the river crossing options indicated in previous policy documents, the UDFP provides for flexibility in this regard and will not predetermine the location of the river crossing.

- Drogheda Development Plan 2011 – 2017

The Drogheda Borough Development Plan indicates a location for a proposed bridge crossing approximately 420m east of the Boyne Viaduct.

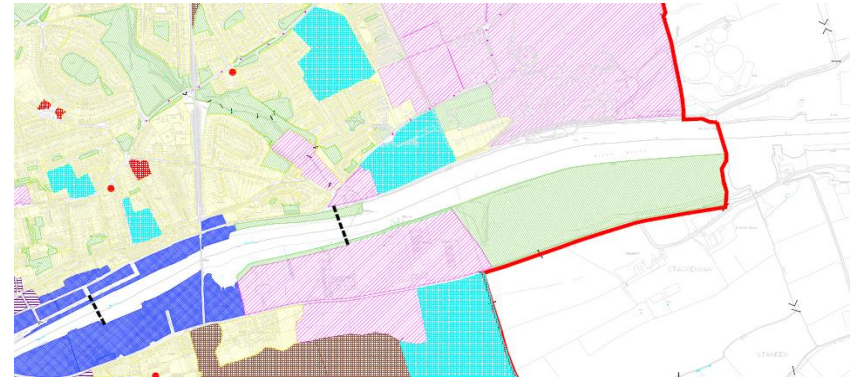


Figure 4.14 Drogheda Development Plan 2011 – 2017

The proposed bridge is listed in the plan as an Economic Infrastructural Development Priority and it is stated that the infrastructural priorities have been identified as being necessary to secure the continued economic development of Drogheda. The description states;

'Bridge at Greenhills linking the Southern Environs of Meath with the Port Access Northern Cross Route (PANCR).'

It is also listed as a strategic road objective.

- Local Area Plan for the Southern Environs of Drogheda 2009-2015

The Local Area Plan for the Southern Environs of Drogheda 2009-2015 provides a 'indicative location of new river crossing' north of the framework plan lands as indicated below.

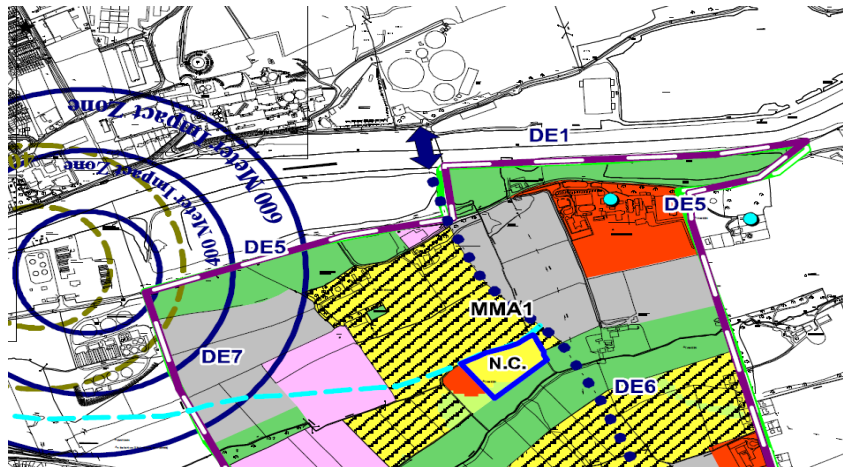


Figure 4.15 Local Area Plan for the Southern Environs of Drogheda 2009-2015

- Planning Strategy for the Greater Drogheda Area 2007

The Planning Strategy for the Greater Drogheda Area 2007 indicates a location for a potential new bridge crossing in the preferred scenario map shown above. The potential new bridge is indicated to link with the Northern Port Access Road north of the River Boyne.

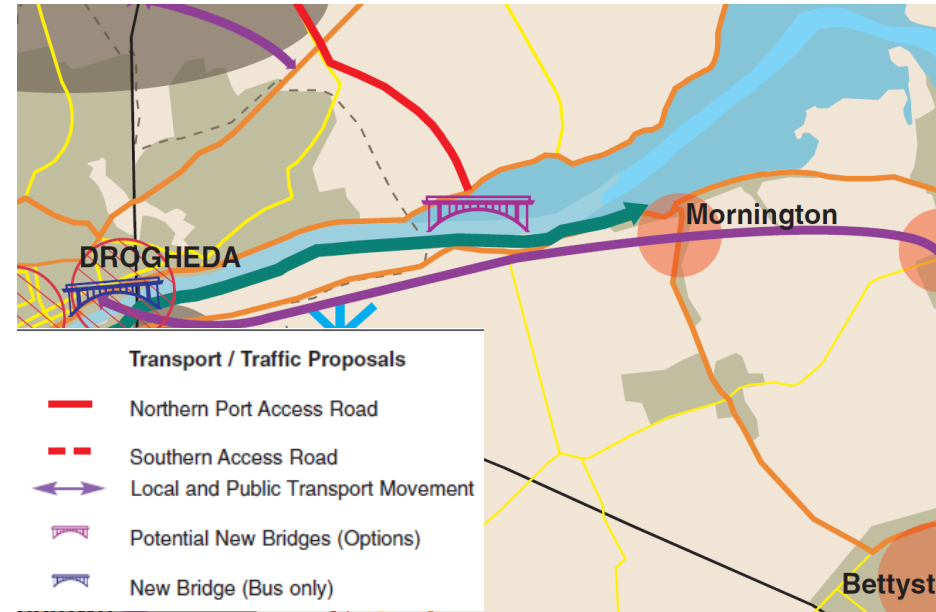


Figure 4.16 Planning Strategy for the Greater Drogheda Area 2007 - Preferred Scenario Map

Section 6.2.8 of the Strategy discusses this potential new river crossing stating; *'the delivery of the Northern Port Access Road, which is a short-term requirement of the North Environs Masterplan, may transform actual movement patterns in that area and beyond. A possible future strategic road crossing of the Boyne to the east of the Railway Viaduct should also remain a policy option.'*

It is important to review the actual roll out of development within the zoned landbanks on an ongoing basis and to monitor emerging patterns of travel demand to ensure that final decisions on the location of additional cross river bridge capacity will be made on the evidence then available of movement desire lines'.

- Drogheda Transportation Study 2006

The Drogheda Transportation Study 2006 indicates a potential link road and bridge to the east of the Framework Plan lands as shown in Figure 4.16 below.



Figure 4.17 Drogheda Transportation Study 2006

- North Drogheda Environs Local Area Plan 2004

The North Drogheda Environs Local Area Plan does not indicate a location for a new bridge river crossing east of the Boyne Viaduct.



Figure 4.18 North Drogheda Environs Local Area Plan

The proposals within the framework plan will not pre-determine or the route of a new river crossing as indicated in the policy documents referred to.

The proposed link street within the framework plan lands has a reasonable degree of flexibility (Figure 4.19) in the north where it would interact with a future potential river crossing.

The link street proposed is therefore flexible enough to accommodate the various proposed options for the river crossing in policy documents to date.

For the purposes of this framework plan the southern section of the proposed link street has followed the route indicated in the Local Area Plan for the Southern Environs of Drogheda.

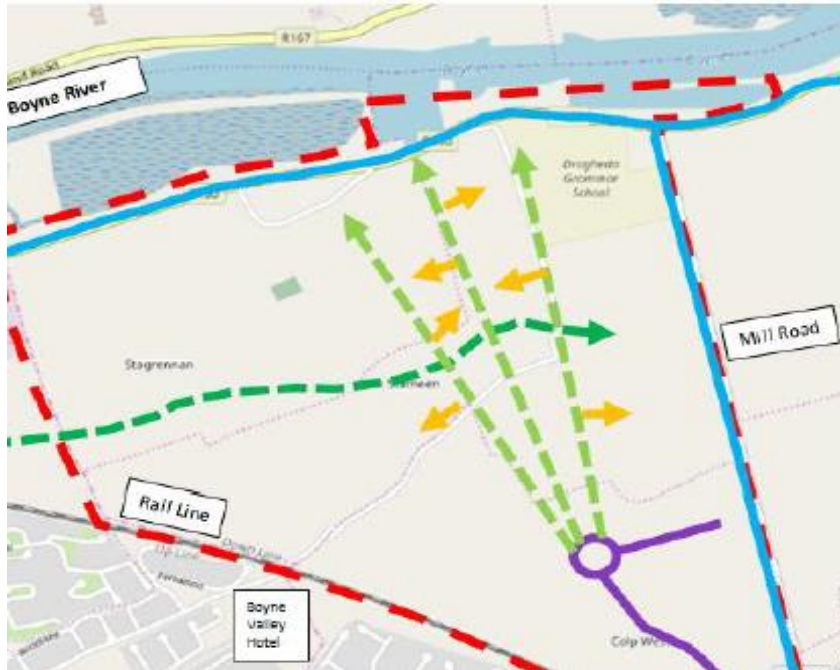


Figure 4.19 Potential Link Street Routes (light green)

Link Street

The Local Area Plan (LAP) for the Southern Environs of Drogheda proposes to provide a link street through the Mill Road / Marsh

UDFP POL 3: To calm vehicular traffic and promote pedestrian and cyclist activity and safety, streets should be designed as self-regulating integrated spaces with narrowed carriageway, wide footpaths and carefully considered cycle lanes/tracks that are designed in accordance with the Design Manual for Urban Roads and Streets (DMURS) and the National Cycle Manual (2011).

Road District providing access to the lands. It will function as a link street. The link street referred to above is one of the key transportation provisions within the framework plan lands; connecting Colpe Road in the south with Marsh Road in the north.

As detailed above, the proposed street network for the Mill Road/Marsh Road Lands will not preclude the eventual location of the proposed river crossing.

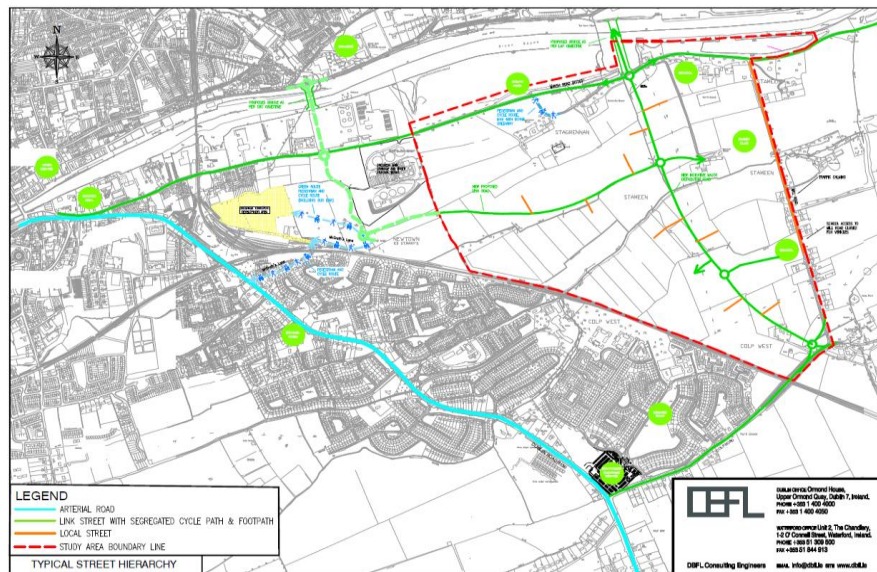
A further key transportation proposal is the provision of a link street running east – west across the plan lands that would provide a direct multi-modal link from the Mill Road to the “Drogheda Transportation Development Area” (DTDA) as identified in the Drogheda Transportation Study.



Figure 4.20 Existing and Future Transport Infrastructure (Source: DBFL)

It is envisaged that this strategically zoned area will house a significant expansion of the McBride Station. Access from the South Drogheda Environs to this potential Public Transport Interchange is therefore dependant on the enablement of Mill Road/Marsh Road link street.

In order to prevent the overuse of movement corridors and reduce traffic congestion especially along the Main Link Streets, a choice of vehicular routes in the form of Local Link Streets and Local Streets between neighbourhood blocks and local community facilities will be developed.



**Figure 4.21 Typical Street Hierarchy for the Plan Lands
(Source: DBFL)**

The exact location of Local Streets and Link Street are to be determined as and when the design of the individual plots of land are developed.

Utilities and Services Strategy

Utilities

A Utilities Strategy Drawing prepared by DBFL is included in Appendix 3 and in Figure 4.22 below.

All residential and commercial developments within the framework plan lands will be connected to the national gas network. It will be necessary to upgrade the network as necessary in consultation with Bord Gais.

Future infrastructure by ESB include a 38kV Substation in Bettystown and a site has been identified in IDA owned lands for a 110kV sub station, from which the UDFP lands will be served.

Foul Drainage Strategy

The existing 900mm diameter trunk foul sewer would drain a significant portion of the plan lands to the west of the proposed link street. The remainder of the lands would drain via a proposed foul trunk sewer along the link street which would discharge to a foul pumping station adjacent to the roundabout at the junction of the link street with Marsh Road.

Collector sewers from east and west of the link street would collect foul water from sub-catchments within the plan lands and discharge to the trunk sewer.

The foul pumping station is strategically located to accommodate foul water from the lands outside of the catchment of the existing 900mm diameter trunk sewer. Foul Flows would be pumped to Drogheda Wastewater Treatment Plant for treatment and disposal.

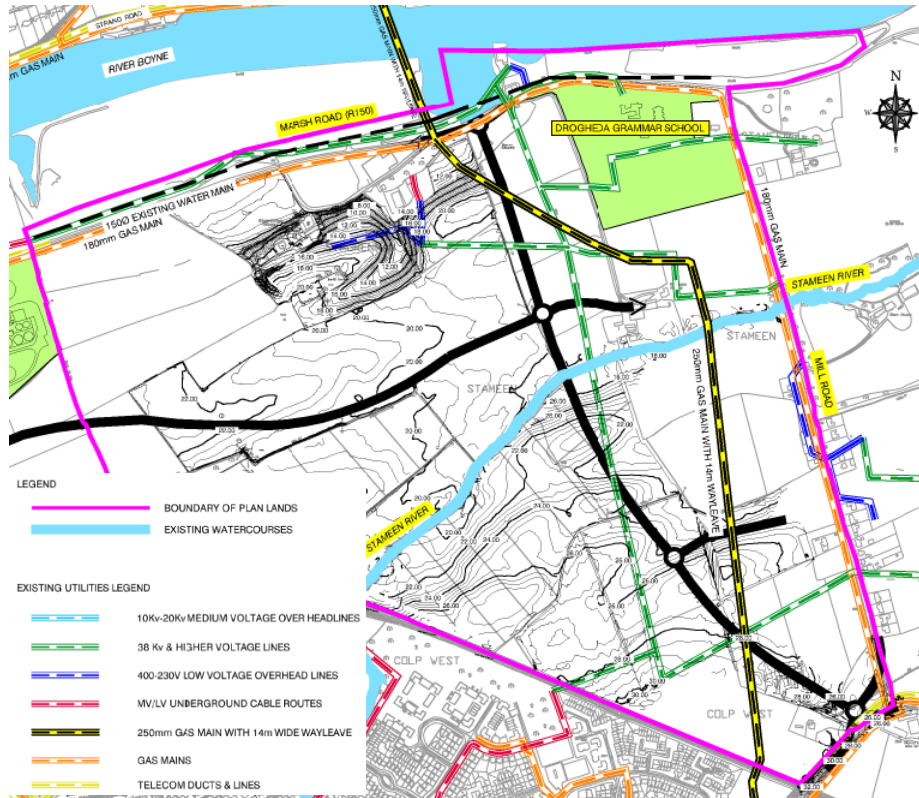


Figure 4.22 Utilities Strategy (Source: DBFL)

Surface Water Drainage Strategy/ SUDS

There are two primary surface water discharge points identified to accommodate surface water runoff from the lands. These include the River Boyne to the north and the Stameen River which bisects the framework plan lands.

In general, surface water runoff from the framework plan lands will be attenuated and stored at source and will discharge to a suitable outfall point, as identified above.

Attenuated surface water runoff from the proposed link street will primarily discharge to the River Boyne to the north. Surface water storage would be provided in the form of detention basins located adjacent to the link street. A short section of the proposed link street adjacent to Colp Road to the east will discharge to an existing ditch system to the east of the lands. Collector surface water sewers will collect attenuated surface water runoff from sub-catchments within the plan lands and discharge via the surface water outfall sewer along the link street.

The quality of the run off should be maintained at present levels. The quantity of surface water runoff from the lands should be maintained to Qbar or existing greenfield runoff in accordance with the requirement of Meath County Development Plan 2013-2019, and the Local Area Plan for the Southern Environs of Drogheda 2009-2015.

Sustainable Urban Drainage Systems (SUDs) will be incorporated into the surface water drainage design, at source for the framework plan lands, in accordance with Meath County

Development Plan 2013-2019, and the Local Area Plan for the Southern Environs of Drogheda 2009-2015.

It is anticipated that the development of the Framework Plan lands will not impact on Mornington Marsh (SAC), if surface water runoff from the plan lands is managed in accordance with the proposed surface water drainage strategy

Water Supply

The Local Area Plan for the Southern Environs of Drogheda, 2009-2015 states that *“The Preliminary Report for the new East Meath, South in July 2009, indicated that to meet projected future needs it would be essential to maximise the use of existing sources together with the development of new ones. Future demands will be met through the conjunctive use of both surface and groundwater sources.*

While the existing Boyne abstraction at Roughgrange will be maintained as a primary source, the potential for additional abstraction from the Boyne is limited. The Preliminary Report recommends therefore, that potential yield from groundwater sources to serve East Meath should be developed.

The East Meath, Drogheda and South Louth Water Supply Scheme will cater for the water services needs of East Meath, Drogheda and South Louth up to at least the year 2030. This will include the development of substantial ground water sources in the East Meath Area to meet the projected water supply needs of East Meath and the Meath environs of Drogheda”.

Investigations were undertaken on behalf of Meath County Council in an attempt to uncover potential water sources. This led to the identification of a regionally important aquifer that was capable of producing sufficient raw water quantities to supply east Meath, south Louth and the south Drogheda Environs. A follow up assessment on behalf of the framework plan land owners to determine the potential for ground water abstraction at the subject site also identified substantial groundwater supplies capable of serving the area under consideration.

A 200mm diameter watermain is proposed along the link street which will connect to the existing 150mm diameter watermain on Marsh Road. The 200mm diameter watermain will be extended to the proposed upgraded 200mm diameter watermain on Dublin Road.

Development of the framework plan lands should seek to reduce the water demand for the lands by utilising the principles of water conservation and management as presented the Local Area Plan for the Southern Environs of Drogheda, 2009-2015.

These measures would include the following:

- Pressure and Flow Regulation on Fittings;
- Appropriately sized meters;
- Low Flush Toilets
- Prohibition of direct feeds to heating and appliances;
- Apartments to include end use recycling.

Flood Risk

A Strategic Flood Risk Assessment has been prepared for the framework plan lands. The section below provides a summary of the conclusions of the assessment.

The assessment notes that main sources of fluvial flood risk in the area are from the River Boyne / Boyne Estuary to the north of the plan lands, the Irish Sea approximately 3.8km east of the lands, and the Stameen River which traverses the centre of the lands. The plan lands are indicated as being within Flood Zone 'A' adjacent to the northern boundary with Marsh Road. This is due to fluvial flooding from the River Boyne and tidal flooding from the Irish Sea and Boyne Estuary.

Flood Zones 'A' and 'B' are also indicated along the route of the Stameen River which some out of bank flooding is indicated.

Flood Zones 'A' and 'B' within the framework plan lands correspond with land use zoning H1 for the lands, i.e. "to protect and improve areas of high amenity". The assessment concludes that this *'type of land use zoning is deemed to be water compatible development and is appropriate for this type of flood zoning and passes the FRM Guidelines Sequential Test'*.

The assessment also concludes that *'residential, commercial and educational zoning is generally within Flood Zone 'C' and therefore the development is appropriate for its zoning and passes the FRM Guidelines Sequential Test'*.

The proposed foul pumping station (which will collect foul flows from the majority of the framework plan lands and pump to the

Drogheda Waste Water Treatment Plant for treatment and disposal) will be located adjacent to the proposed link street tie-in with Marsh Road. The pumping station will be located within Flood Zone 'C'. This type of development may be classed as highly vulnerable development and is appropriate to this flood zone.

The Main Link Street which would connect Marsh Road with Colpe Road would be located in Flood Zone 'A' at the proposed tie-in with Marsh Road. The provision of this road is an objective of the Local Area Plan for the Southern Environs of Drogheda., and is a key infrastructure link to enable the development of the framework plan lands. The assessment notes that the development of the link street passes the justification test. As a result, the Strategic Flood Risk Assessment considers the proposed link street junction to be appropriate for the subject site and compatible with the sites flood category.

Surface water runoff from the lands should be managed in accordance with the requirements of the GDSDS, the Local Area Plan for the Southern Environs of Meath 2009-2015 and the Meath County Development Plan.

The assessment recommends that future development of the lands should provide attenuation and storage of surface water run-off in accordance with the Greater Dublin Strategic Drainage Strategy (GDSDS) and should ensure that there is no increased risk of flooding in the surrounding area during the 1% AEP ((Annual Exceedance Probability) with climate change and 0.1% AEP events when compared to present day. The development of the plan lands would not increase flow rates in the Stameen River or the River Boyne.

The assessment recommends that development of the lands should ensure a development strategy to retain all existing streams and flow paths through the lands. Surface water attenuation, storage and SUDs would be provided for at source, within each development sub catchment.

5.0 Implementation

The framework plan will promote the implementation of development in a rational and sequential approach to ensure that essential facilities (such as road infrastructure, water, drainage etc.) are secured and in place concurrent with proposed development projects.

The proposed lands will be developed on a phased basis and within individual planning applications.

Phase 1 of development in the plan area is likely to be employment development in the southern section of the plan area

This will be accompanied by completion of a first phase of the new link street through the plan area which will provide accessibility from Colpe Road to the first phase of development. This is considered the primary piece of physical infrastructure necessary to unlock the potential of the framework plan lands and consequently the implementation of development that supports this infrastructure should be prioritised. This new link street is also expected to have significant benefits for movement and sustainable travel in the wider area beyond the boundaries of the framework plan lands, particularly with its potential alignment with the Northern Port Access Route and new river crossing.

It is envisaged the further phasing of development will follow a logical approach tied to the construction of key infrastructure elements in the plan area, particularly the road network and water infrastructure. Economic drivers will also be key factors in the delivery of development in the area.

It is envisaged that the proposed linear park will be developed in tandem with the surrounding residential areas north and south of the proposed park to ensure surveillance and overlooking of the park and to ensure a sufficient population is in place to generate vibrancy and interaction with the park and its facilities.

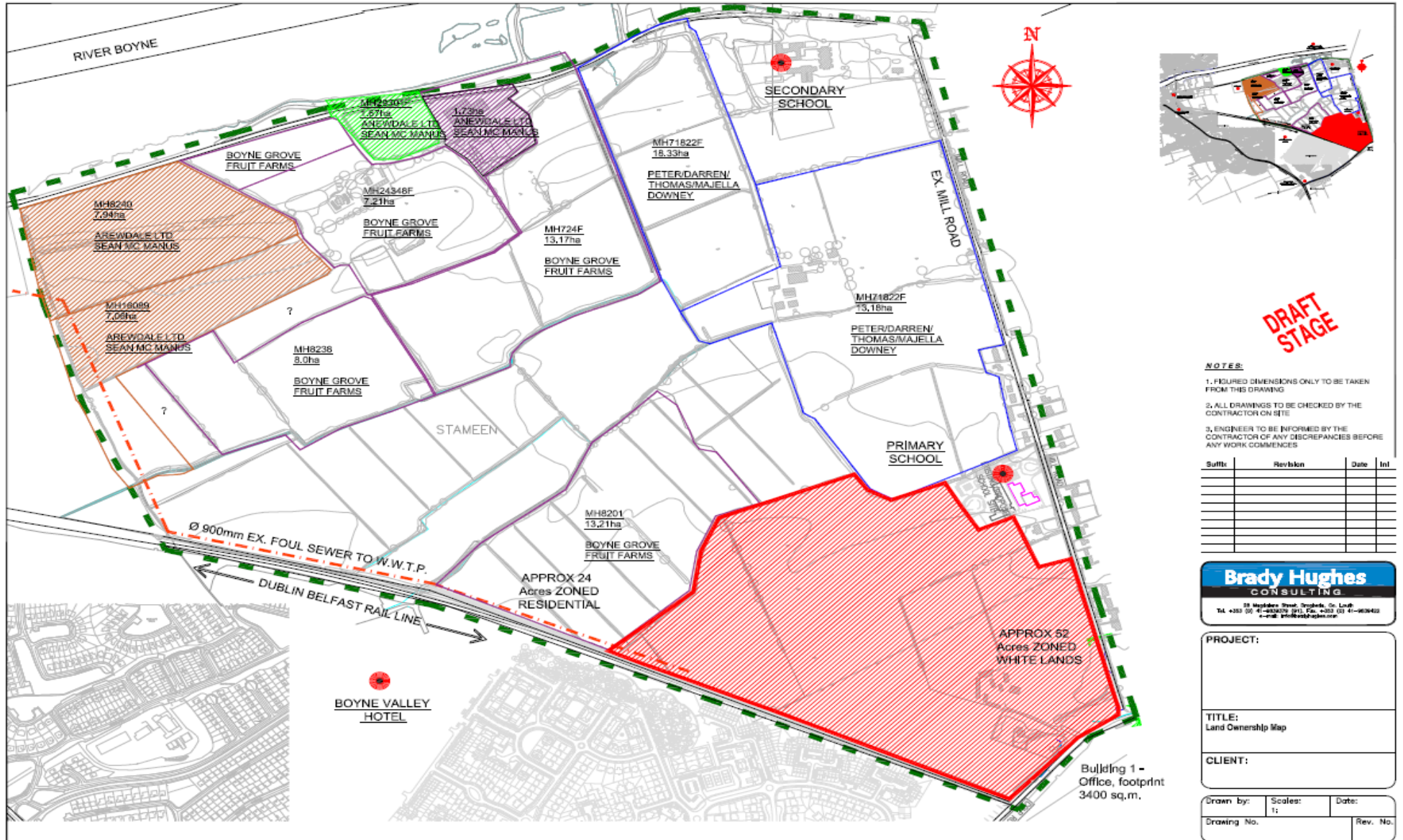
The recently published NPF notes a projected 1 million increase in our population, the need to create 660,000 additional jobs to achieve full employment and a need for 550,000 more homes by 2040. Of the 1 million extra people, 25% is planned for Dublin, recognised as our key international and global city of scale and principal economic driver, 25% across the other four cities combined (Cork, Limerick, Galway and Waterford), enabling all four to grow their population and jobs by 50-60%, and become cities of greater scale, i.e. growing by twice as much as they did over the previous 25 years to 2016. The remaining 50% of growth is to occur in key regional centres such as Drogheda and other towns, villages and rural areas, to be determined in the forthcoming Regional Spatial and Economic Strategies (RSEs).

The requirement to accommodate a substantial population increase and address the current housing shortage necessitates a flexible approach in regards to implementation of development within the framework plan lands; subject at all times to an overall vision for the area outlined in this plan.

Phasing therefore should be carefully considered in light of prevailing market conditions and capacity of the area to absorb the proposed volume of development, and provide the necessary social, community and infrastructural services in tandem with residential development.

APPENDIX 1

LAND OWNERSHIP MAP



- NOTES:**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
 3. ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES

Suffix	Revision	Date	Int

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 e-mail: info@bradyhughes.com

PROJECT:

TITLE:
Land Ownership Map

CLIENT:

Drawn by:	Scales:	Date:
	1:	
Drawing No.	Rev. No.	

Building 1 - Office, footprint 3400 sq.m.

APPENDIX 2

PLANNING POLICY COMPLIANCE AUDIT

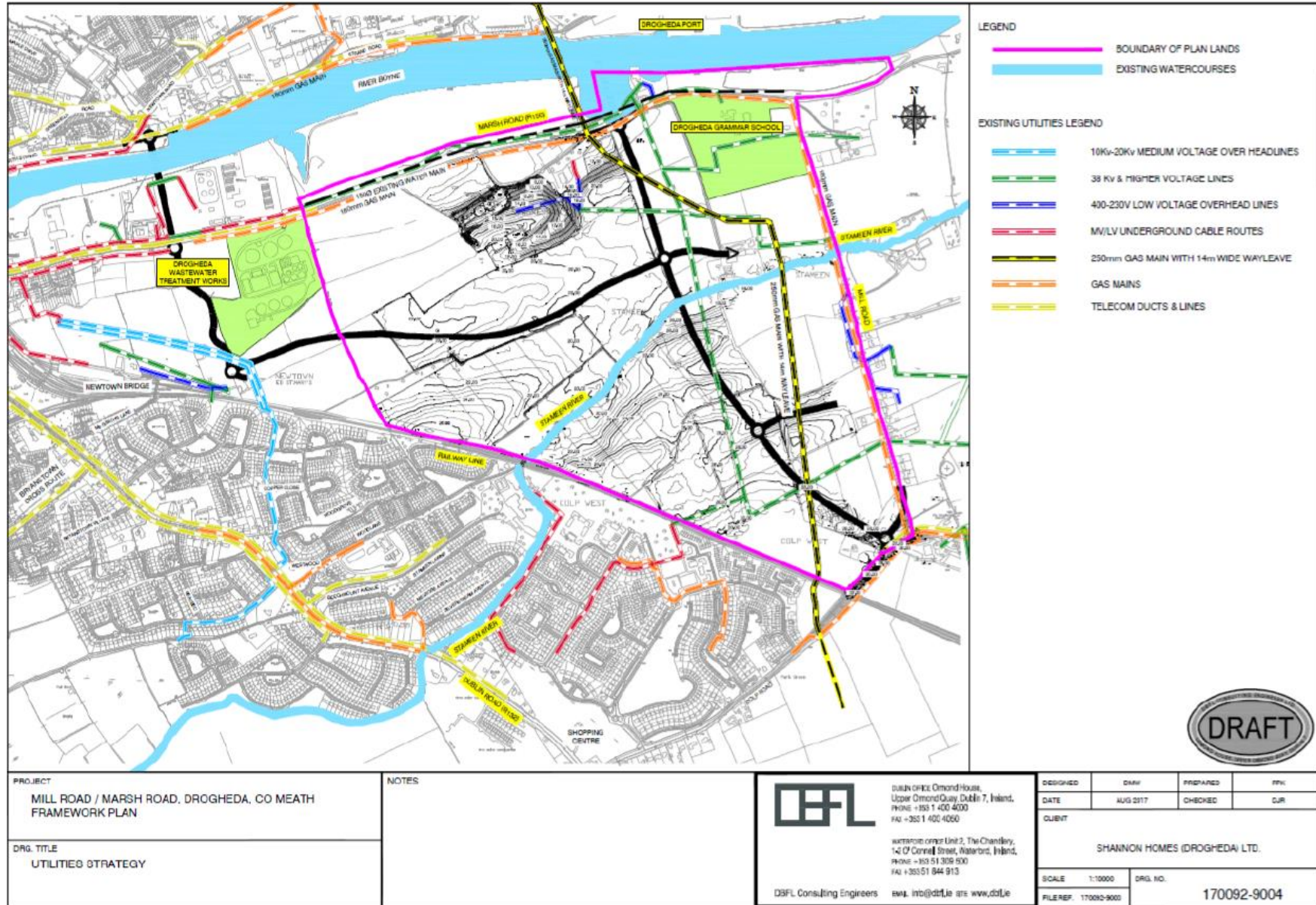
Policy Document	Policies and Objectives	Response
Meath County Development Plan 2013–2019, Volume 5 - Written Statement & Development Objectives for Urban Centres - Drogheda Southern Environs	Strategic Policy - SP 1 - To operate an Order of Priority for the release of residential lands in compliance with the requirements of CS OBJ 6 of the County Development Plan as follows: i) The lands identified with an A2 'New Residential' land use zoning objective corresponds with the requirements of Table 2.4 Housing Allocation & Zoned Land Requirements in Volume I of this County Development Plan and are available for residential development within the life of this Development Plan. ii) The lands identified with an A2 'New Residential' land use zoning objective but qualified as 'Residential Phase II (Post 2019)' are not available for residential development within the life of this Development Plan.	Noted
	Major Objective - MA OBJ 2 - To provide for a link road through the Mill Road/ Marsh Road District providing access to the lands and functioning as a local distributor road.	Included in Transport Proposals
	FR POL 3. Any future planning applications lodged with respect to area bounded by Mill Road / Marsh Road / Dublin Belfast rail line shall be accompanied by an appropriately detailed Flood Risk Assessment. The Flood Risk Assessment shall clearly assess flood risks, management measures and demonstrate compliance with the "The Planning System and Flood Risk Management Guidelines for Planning Authorities" (November 2009). The Flood Risk Assessment shall consider the Sequential Approach within the subject site and would typically involve allocating water compatible development within Floo Zones A and Zone B. Buildings should be sited at an appropriate finished floor level, which should be above the 1 in 100 year flood level, with an allowance for freeboard and climate change.	A Strategic Flood Risk Assessment has been carried out for the future development of lands within Mill Road / Marsh Road Framework Plan Area. Future planning applications lodged with respect to the area bounded by Mill Road / Marsh Road / Dublin Belfast rail line should be accompanied by Flood Risk Assessments.
Local Area Plan for the Southern Environs of Drogheda 2009-2015	Objective DE5 - To upgrade the Mill Road and Marsh Road to provide for pedestrian footpaths and to provide on street cycle tracks along the entirety of these roads.	Included in Transport Proposals
	Objective DE6 - To provide for a link road through the Mill Road/ Marsh Road District providing access to the lands and functioning as a local distributor road.	Included in Transport Proposals
	Objective DE7 - To provide a segregated pedestrian and cycle link from the Mill Road/ Marsh Road Area to Drogheda train station.	Included in Transport Proposals

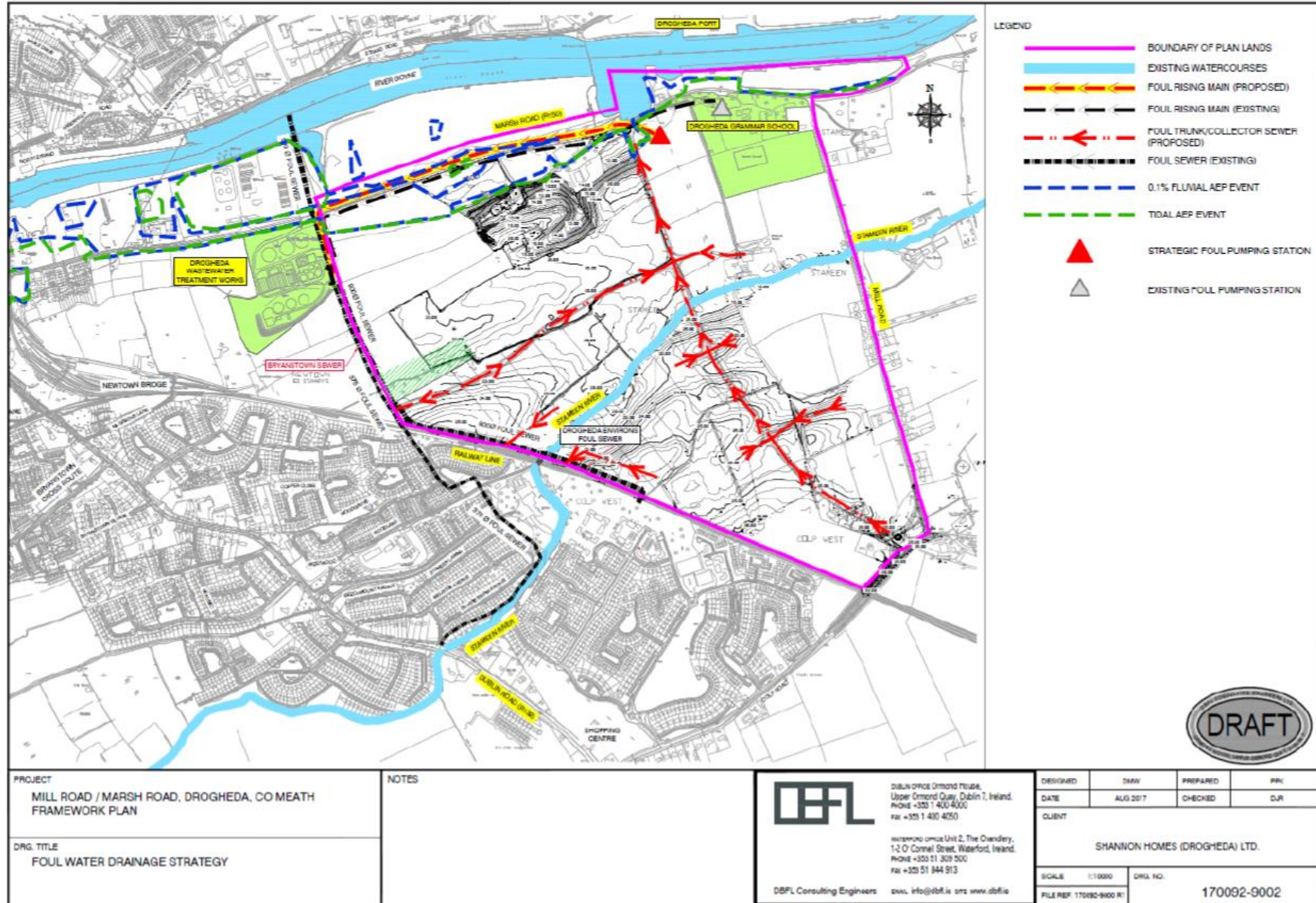
	<p>Objective SWD7 - Any future planning applications lodged with respect to area bounded by Mill Road / Marsh Road / Dublin Belfast rail line shall be accompanied by an appropriately detailed Flood Risk Assessment. The Flood Risk Assessment shall clearly assess flood risks, management measures and demonstrate compliance with the “The Planning System and Flood Risk Management Guidelines for Planning Authorities” (November 2009). The Flood Risk Assessment shall consider the Sequential Approach within the subject site and would typically involve allocating water compatible development within Flood Zones A and Zone B. Buildings should be sited at an appropriate finished floor level, which should be above the 1 in 100 year flood level, with an allowance for freeboard and climate change.</p>	<p>A Strategic Flood Risk Assessment has been carried out for the future development of lands within Mill Road / Marsh Road Framework Plan Area.</p> <p>Future planning applications lodged with respect to the area bounded by Mill Road / Marsh Road / Dublin Belfast rail line should be accompanied by Flood Risk Assessments.</p>
	<p>Objective SWD9 - The Framework Plan required pursuant to objective MMA1 in the Drogheda Local Area Plan for the area bounded by Mill Road / Marsh Road / Dublin Belfast rail line shall determine the overall roads layout for this area supported by an appropriately detailed Traffic Impact Assessment which shall demonstrate the capacity in the wider road network from the R132 in Drogheda and Colpe Cross. During the environmental assessment of alignments of overall roads layout for this area, a Justification Test will need to be applied if alignments interact with Flood Zone A/B. A detailed Flood Risk Assessment will be required to manage the risk and to demonstrate there will be no impact on adjacent lands. The detailed design of the roads layout shall also be subject to as Appropriate Assessment pursuant to the Habitats Directive.</p>	<p>A Transport Study has been prepared for the area bounded by Mill Road / Marsh Road / Dublin Belfast rail line.</p> <p>A Strategic Flood Risk Assessment has been carried out for the future development of lands within Mill Road / Marsh Road Framework Plan Area.</p>
	<p>Objective MMA1 - The Mill Rd/ Marsh Rd Area shall be developed in accordance with an approved Urban Design Framework Plan to safeguard the proper and sustainable development of the area. The Plan needs to be developed in line with the requirements set out in Section 6.7 of the Local Area Plan, other relevant objectives contained in this LAP and cognisant of the Order of Priority for the release of residentially zoned lands as contained in the County Development Plan, 2013-2019, as varied.</p>	<p>Urban Design Framework Plan prepared, noting LAP and CDP requirements</p>
	<p>Objective MMA2 - The delivery of adequate infrastructure services is a prerequisite to the development of the Mill Rd/ Marsh Rd Area. In all instances, priority will be afforded to the development of employment and community services</p>	<p>Infrastructure and Services proposed in line with LAP and best practice.</p>

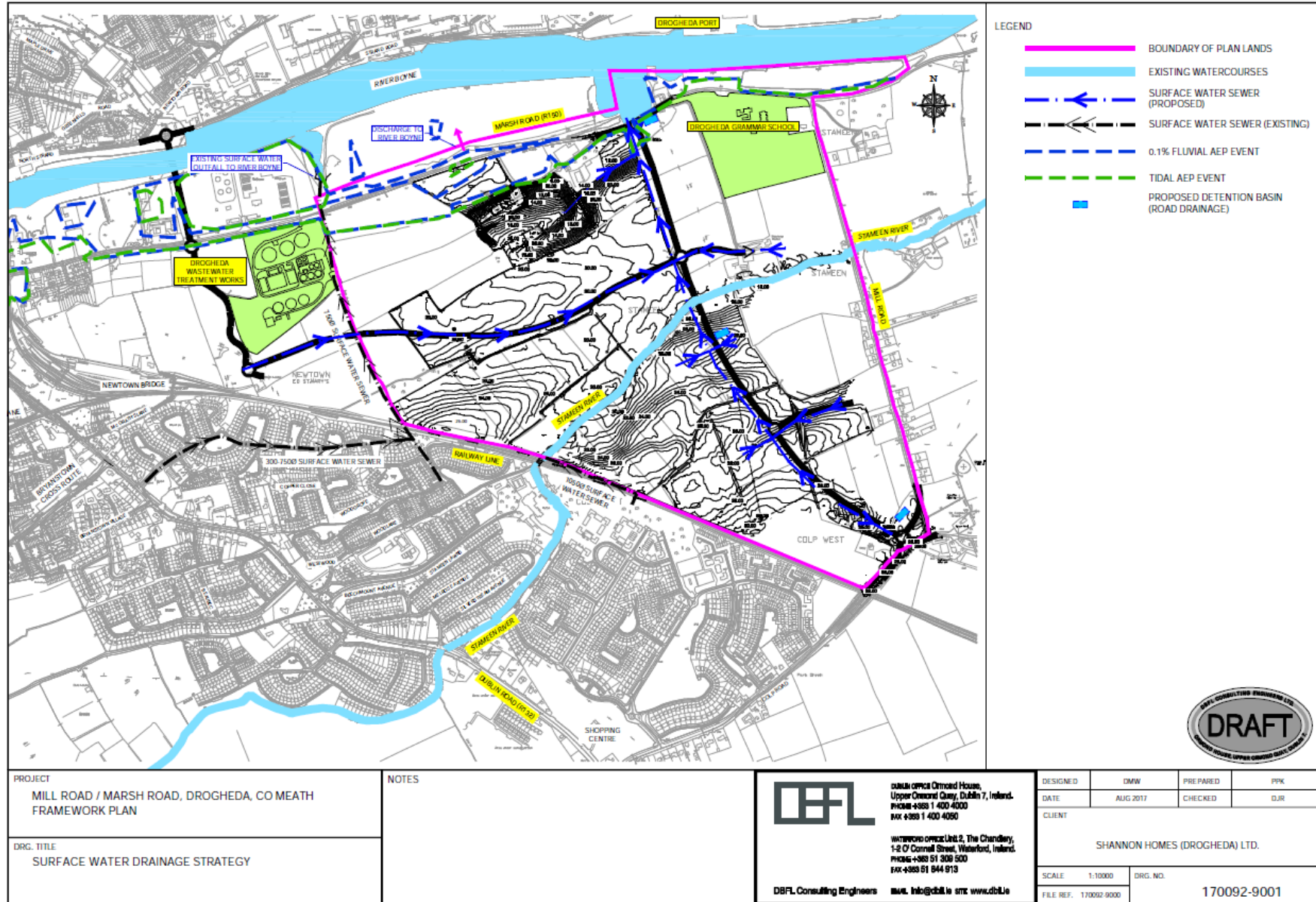
	<p>Objective MMA3 - Future considerations of the lands adjacent the Drogheda Sewage Treatment Plant shall provide for an adequate buffer zone both to provide for a possible extension of the plant and to safeguard future development adjacent the plant from obnoxious smells and other potential side-effects.</p>	<p>Lands adjacent to the plant are zoned Amenity Area and White Lands and land uses for these lands have not been specified by this UDFP. The plan notes the buffer zone as a requirement for these lands.</p>
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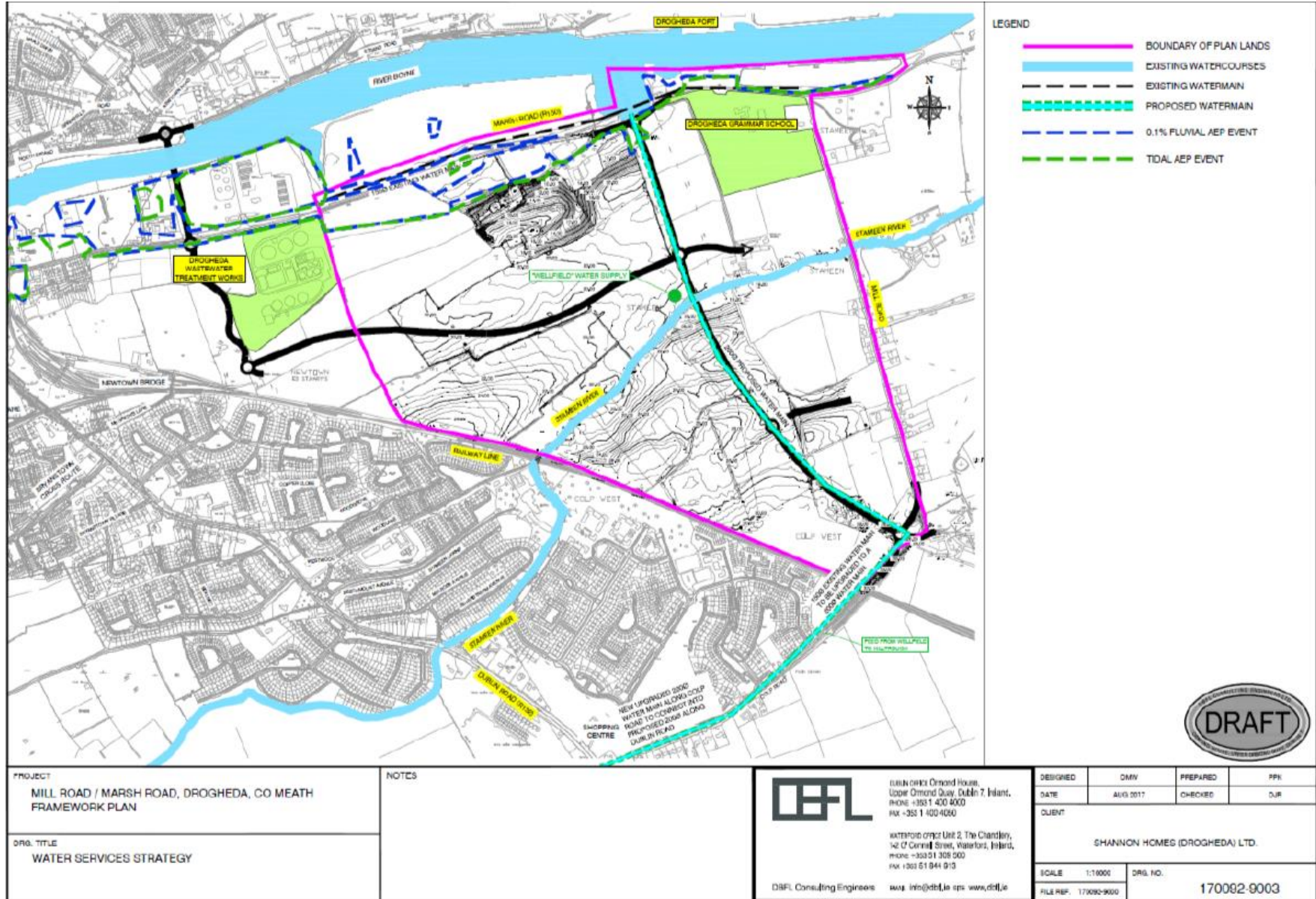
APPENDIX 3

UTILITIES AND SERVICES

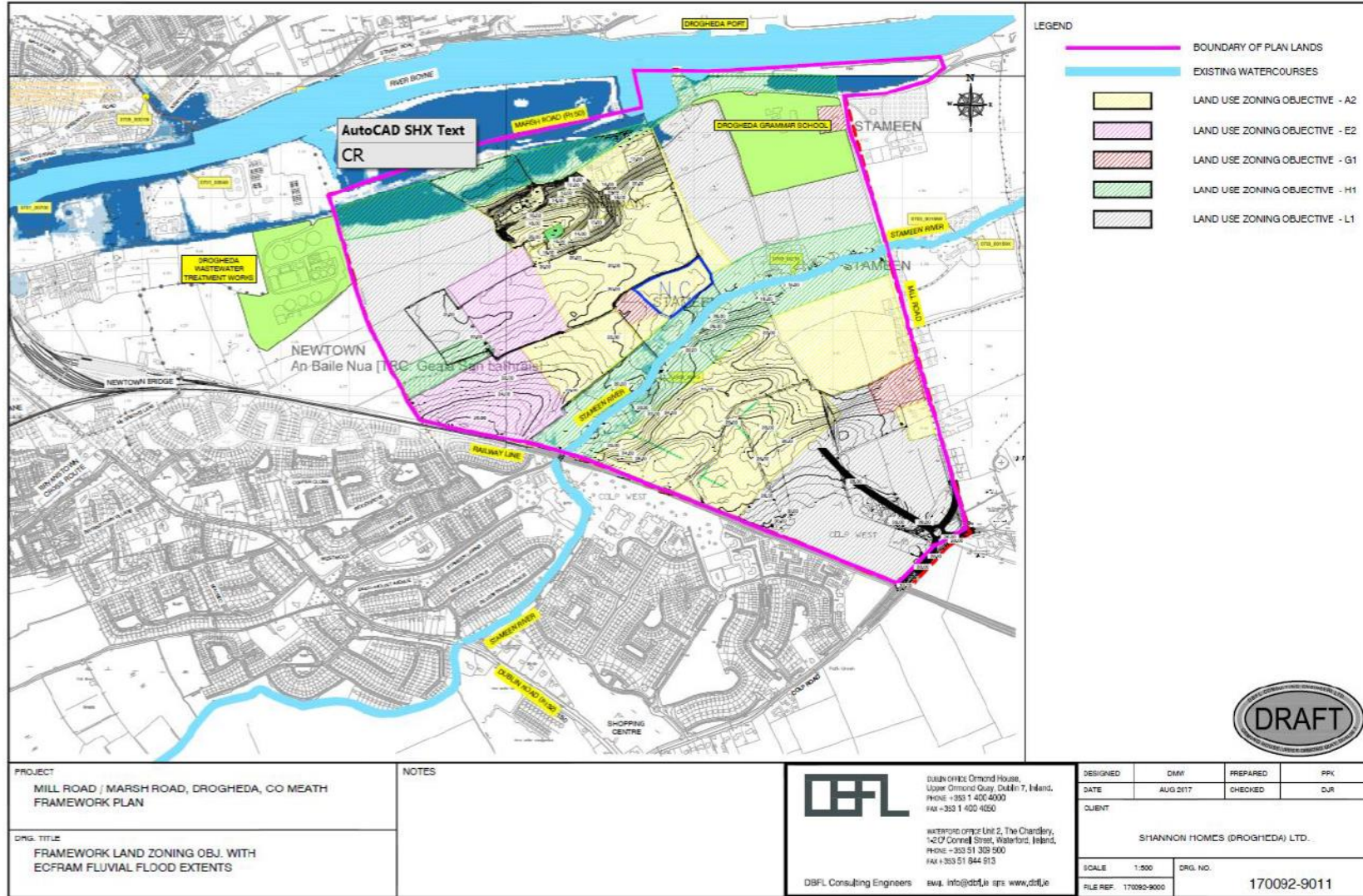


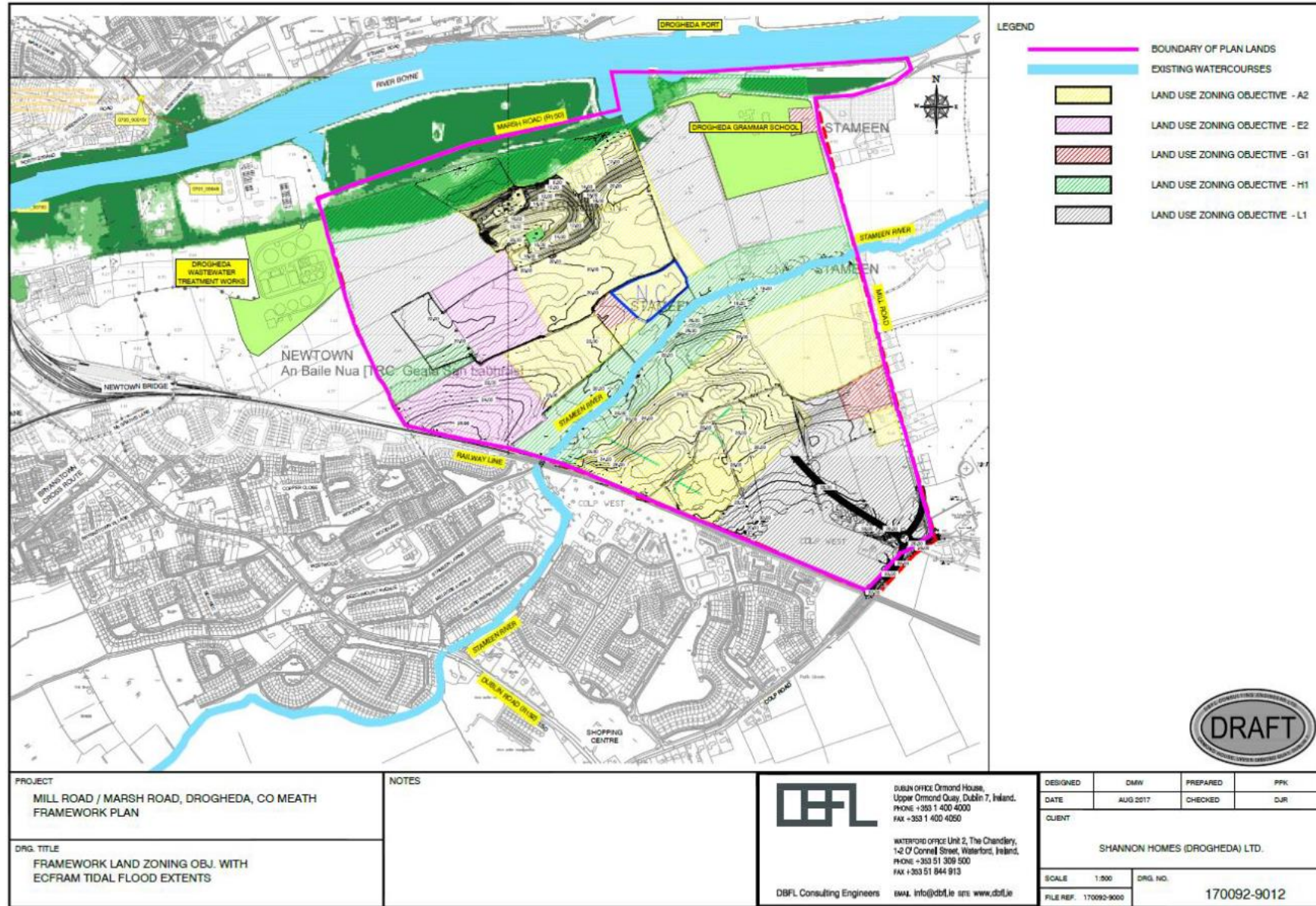






APPENDIX 4
FLOOD RISK MAPPING





Private & Confidential

ECONOMIC IMPACT ASSESSMENT OF THE PROPOSED MILL ROAD ENTERPRISE PARK, DROGHEDA SOUTHERN ENVIRONS, CO. MEATH

Prepared for the Consideration of

Meath County Council



By

Dr. Pat McCloughan
Managing Director, PMCA Economic Consulting

PMCA ECONOMIC CONSULTING

25 July 2017

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Executive Summary

This report is prepared by PMCA Economic Consulting on behalf of Shannon Homes. It provides an economic impact assessment of a major employment development proposal on lands owned by the developer in the Mill Road-Marsh Road Character area within the Drogheda Southern Environs Local Area Plan area in County Meath, which would result in the delivery of 120,000 ft² of high quality office space and an access road in a campus-style setting close to the Southgate Centre and Grangerath.

The new development would lead to the creation of 1,500 high quality (E1-type) full-time equivalent jobs, thereby building on the success of the Southgate Centre, where Coca-Cola International Services currently employs 300 FTEs. The other major foreign direct investment employer in the Drogheda Southern Environs LAP area is IFS State Street, which contributes around the same number of FTEs at the Drogheda IDA Business & Technology Park. Both companies together account for about 40% of all FDI employment in County Meath, illustrating the strategic importance of the LAP area.

Most of the 1,500 new FTEs in the proposed development would be active in professional services, including internationally-traded services like those in IFS State Street and Coca-Cola, thus giving the area clustering benefits in respect of high value added services activities. It is estimated that the 1,500 *direct* FTEs from the proposed development would in turn stimulate the creation or sustenance of over 2,200 additional FTEs elsewhere in the economy through *indirect* or supply chain effects and *induced* effects reflecting the proposal's impact on consumer demand, implying over 3,700 FTEs in total. It is further estimated that gross value added per FTE in the new development would be greater than that in the State, and even greater than that in the relatively affluent NUTS 2 Southern & Eastern Region, and in the NUTS 3 Mid-East Region.

The economic rationale for the proposed development is clear. The Economic Development Strategy for County Meath 2014-2022 (which was integrated into the Meath County Development Plan 2013-2019 by unanimous decision of the Elected Members of the Council in May 2016) aims to facilitate more high quality employment in the County, including Meath getting a greater share of FDI coming into the country. The proposed development would make a substantial difference in this regard and would also contribute towards addressing the high rate of outbound commuting from the LAP area and the County, by presenting a significant number of new employment opportunities closer to where people live in Meath.

The proposed development would address the main missing piece in Drogheda seeking to attract more inward investment, namely the availability of high quality advance office space on a large scale for single or multiple tenancy, which in turn would serve to give the Council, and IDA Ireland, something concrete to show potential investors. The present time provides a particularly important opportunity for promoting economic development in the greater Drogheda area and in County Meath, given bi-location trends by existing FDI companies in Ireland, which have seen a number of high-profile companies based in Dublin moving to additional premises outside the capital to meet their growth needs. Coupled with the FDI opportunities presented by Brexit, which is resulting in increased interest in Ireland as an attractive host location in the EU and eurozone, the proposed development would be an important strategic asset for Drogheda and for Meath in securing more inward investment in the coming years.

The lands on which the proposed development would occur are currently zoned as White Lands, or strategic reserve lands. Variation No. 3 of the Meath CDP provides that economic development can occur in any part of the County subject to a case being made. This report finds that there is a strong case for the proposal – both the economic impact and the economic rationale are strong. High quality residential and supporting services will also be important for promoting the proposal for employment use.

Disclaimer: This report is the responsibility of PMCA Economic Consulting. By virtue of preparing the report or otherwise in connection with the study, PMCA will not assume any responsibility or have any liability to any third parties.

Glossary of Abbreviations and Acronyms

<i>A fortiori</i>	Latin term meaning ‘from the stronger’ – in economics, the phrase is commonly used to refer to reasoning based on evidence/practice (compare with <i>a priori</i>).
<i>A priori</i>	Latin term meaning ‘from first principles’ – in economics, what an economist would expect to find in empirical data analysis from economic principles and/or prior experience <u>before</u> conducting the empirical analysis. Reasoning based on principles/theory (compare with <i>a fortiori</i>).
B2 (Zoning)	Land-use zoning objective under the Meath CDP 2013-2019: <i>“To provide for the development of a retail warehouse park”</i> .
BMW Region	Border, Midland and Western Region (NUTS 2 Region of Ireland)
C1 (Zoning)	Land-use zoning objective under the Meath CDP 2013-2019: <i>“To provide for and facilitate mixed residential and business uses”</i> .
CAGR	Compound annual growth rate.
CDP	County Development Plan.
CSO	Central Statistics Office.
<i>De novo</i>	Latin term meaning ‘from new’.
DJEI	Department of Jobs, Enterprise and Innovation.
E1 (Zoning)	Economic/employment land-use zoning objective under the Meath CDP 2013-2019: <i>“To facilitate opportunities for high technology and major campus style office based employment within high quality and accessible locations”</i> .
E2 (Zoning)	Economic/employment land-use zoning objective under the Meath CDP 2013-2019: <i>“To provide for the creation of enterprise and facilitate opportunities for employment through industrial, manufacturing, distribution, warehousing and other general employment/enterprise uses in a good quality physical environment”</i> .
E3 (Zoning)	Economic/employment land-use zoning objective under the Meath CDP 2013-2019: <i>“To facilitate logistics, warehousing, distribution and supply chain management inclusive of related industry facilities which require good access to the major road network”</i> .
Economic impact multiplier	Economic multipliers permit estimation of the knock-on economic impacts associated with a direct stimulus or economic activity, such as a new investment or development. Economic impact multipliers are estimated using a country’s or region’s input-output and supply and use tables, which show in large-scale matrix form the interactions among all sectors of an economy. In Ireland, the tables pertain to the national economy. From the tables and other relevant information, one can estimate output, gross value added, employment and income multipliers, which can be Type I and Type II multipliers (see Type I and Type II multipliers).
ED	Electoral Division.
EI	Enterprise Ireland (State enterprise agency with the remit of supporting the growth of indigenous enterprises through exporting and market diversification).
EMEA	Europe, Middle East and Africa.
EMRA	Eastern and Midland Regional Assembly.
EU	European Union.

Glossary of Abbreviations and Acronyms

FDI	Foreign direct investment.
ft²	Square feet.
FTE	Full-time equivalent (employment/jobs).
GDA	Greater Dublin Area.
GDP	Gross domestic product (the standard economic measure of a country's income or size of its economy).
GVA	Gross value added.
IB	International Baccalaureate (second-level educational qualification equivalent to the Leaving Certificate qualification and popular among ex-pats living and/or working in overseas host locations).
IDA/IDA Ireland	Industrial Development Authority (State enterprise agency with the remit of assisting foreign direct investment or FDI in Ireland).
IMF	International Monetary Fund.
Indirect effects	Indirect effects refer to the knock-on economic impacts in intermediate production (along the supply chain). Compare with induced effects.
Induced effects	Induced effects capture the knock-on economic impacts associated with household spending or final demand. Compare with indirect effects.
LAP	Local Area of Plan. The LAP of interest in this report is the Drogheda Southern Environs LAP as provided for under Variation No. 2 of the Meath CDP 2013-2019 (19 May 2014).
LEO	Local Enterprise Office. The LEOs were formed in 2014 from the former County and City Enterprise Boards and have responsibility for supporting micro enterprises (employing fewer than 10 employees). They work closely with local authorities and also with Enterprise Ireland to ensure the onward progression of successful growth into export markets.
LQ	Locational quotient.
m²	Square metres.
Mid-East Region	NUTS 3 Region of Ireland, within which the proposed development would occur (comprising Counties Meath, Kildare and Wicklow).
NUTS	Nomenclature of EU territorial units for statistics and regional policy purposes.
OECD	Organisation for Economic Cooperation and Development.
PMCA	PMCA Economic Consulting.
POWCAR	Place of Work Census of Anonymised Records (conducted in 2006) and comparable with POWSCAR 2011 and 2016.
POWSCAR	Place of Work, School or College Census of Anonymised Records (conducted in 2011 and 2016) and comparable with POWCAR 2006.
QE	Quantitative easing.
QNHS	Quarterly National Household Survey (CSO data).
RPGs	Regional Planning Guidelines.
RSES	Regional Spatial and Economic Strategy.
S&E Region	Southern and Eastern Region (NUTS 2 Region of Ireland), within which the proposed development would occur.
SPA	Strategic Planning Area (part of the new regional structures, like the EMRA).
State	Ireland or the Republic of Ireland.
<i>Supra</i>	Latin citation term referring to 'above'.
SWOT	Strengths, Weaknesses, Opportunities and Threats.

Type I multiplier	Economic impact multiplier allowing estimation of the indirect economic impacts from a given direct impact (e.g. employment or gross value added). Indirect effects refer to the knock-on economic impacts in intermediate production (along the supply chain). Compare with Type II multiplier.
Type II multiplier	Economic impact multiplier allowing estimation of both the indirect and the induced economic impacts from a given direct impact (e.g. employment or gross value added). Indirect effects refer to the knock-on economic impacts in intermediate production (along the supply chain), while induced effects capture the knock-on economic impacts associated with household spending or final demand. Type II multipliers are larger in magnitude than Type I multipliers.
Údarás	Údarás na Gaeltachta (State enterprise agency with the remit of supporting the growth of indigenous enterprises in the Gaeltacht regions of the State).
UK	United Kingdom.
Via	Latin term meaning ‘by way of’ or ‘through’.
Vis-à-vis	French term meaning ‘relative to’ or ‘compared with’ etc.
White Lands (WL) Zoning	Land-use zoning objective under the Meath CDP 2013-2019 (including potentially economic/employment lands): <i>“To protect strategic lands from inappropriate forms of development which would impede the orderly expansion of a strategic urban centre”</i> .
WTO	World Trade Organisation.

1 Introduction

1.1 Purpose of the Report and Overview

This report is prepared for the consideration of Meath County Council by Dr. Pat McCloughan, Managing Director of PMCA Economic Consulting. It provides an economic impact assessment of the proposed development of a strategic employment uses site and access road on lands at Mill Road/Marsh Road within the Drogheda Southern Environs Local Area Plan (LAP) area in County Meath.

The proposed development is a private sector initiative aimed at delivering high quality office space catering for E1 and related (knowledge-oriented) employment on a large-scale, with 120,000 square feet (ft²) of office space planned on Shannon Homes lands. It aims to meet demand in the investment market by providing high quality, fully serviced workspace on a ready-to-go/advance premises basis at a time when enquiries for such space are strong – partly due to the economic recovery and partly as a result of Brexit, and in part too because of the efforts of IDA Ireland to win more foreign direct investment in the wake of the heightened international uncertainty and intensifying competition for FDI, linked with Brexit and other international developments in the US and Europe.

However, there is currently a lack of workspace for large-scale professional services in the greater Drogheda area. The types of employment envisaged for the proposed development include knowledge-oriented services (IT, financial services, fin-tech/payments etc.) by FDI companies and/or indigenous (Irish-owned) enterprises, and/or public sector activities (health, education, administration etc.).

Accordingly, the proposed development would fill a gap in the office/commercial premises market locally and be consistent with the Economic Development Strategy for County Meath 2014-2022, which has been integrated into the Meath County Development Plan (CDP) 2013-2019 through Variation No. 3 – made by unanimous decision of the Elected Members of Meath County Council on 26 May 2016.

The Economic Development Strategy sets the goal of facilitating more employment *within* County Meath, thereby addressing the high rate of outward commuting from the County, which works against sustainable development because commuters have less time to devote to their local communities. Commuting will continue to be a fact of life in Meath but the Economic Development Strategy plans that more high quality job opportunities will be created in Meath, thereby enabling more residents to work closer to where they live and allowing greater time for community interaction and social capital building.

The Economic Development Strategy observes that a lot of the private (non-public sector) employment in Meath occurs in traditional sectors, like mining and quarrying, engineering and furniture manufacturing, and food processing. While these sectors are an important part of the local economy, they are also at relatively high risk from Brexit due to their reliance on the UK market. On the other hand, there has been comparably little FDI in Meath, compared with elsewhere in the State, and the proportion of all employment in the County accounted for by knowledge-oriented services (IT, financial and professional services etc.) has been comparatively low (whether foreign-owned or indigenous).

The Economic Development Strategy aims to rectify the situation by broadening the jobs base of the local economy towards a greater share of valued added employment, commensurate with the skills of those at work and living in Meath, but many of whom commute to work outside the County (mainly to Dublin).

Since the launch of the Economic Development Strategy, Meath County Council has helped to facilitate significant new inward investment in the County (for example, the Facebook, Shire and Avoca/Aramark announcements in the south of the County). These are very welcome wins for Meath.

However, such is the deficit in FDI, and of knowledge-oriented services more generally, in the mix of all employment in the County (whether foreign- or domestically-owned) that the efforts towards winning more inward investment and high quality employment will need to be maintained or even enhanced in the coming years and beyond.

The overriding economic context of the proposed development is the need to broaden the local economy of Meath towards professional services and related activities gaining a greater share of all employment in the County: at Census 2011, just 12% of all employment in Meath was accounted for by such activities, compared with 19% for the State and almost 30% for Dublin (the corresponding figures for Census 2016 are not yet available at the time of preparing this report – according to the Central Statistics Office (CSO), they will become available in late July 2017, at the earliest).¹

In view of these facts, the economic rationale for the proposed development is strong because it will offer potential investors high quality office/commercial workspace on a large-scale in a cost-competitive location, outside of, but connected to, the capital, at a time when such critically important employment-enabling infrastructure is in demand in Drogheda, which sits at the top of the Economic Hierarchy in County Meath (as a Large Growth Town I, along with Navan, in the Meath CDP 2013-2019).

The importance of facilitating growth of knowledge-oriented activities in Ireland – most likely in urban centres in the eastern part of the country – is highlighted in a recent media article, where the writer observes and envisages that:

*“In an increasingly urbanised and inter-connected world of international trade, Ireland will need to continue to excel at our specialisation. Internationally traded goods and services account for more than four-fifths of our income, our taxes, our prosperity. Our indigenous sector, dominated by the food and agri-business sector, accounts for less than a fifth, and this proportion is in constant decline”.*²

The writer of that article goes on to make the comment that the *“economic activities that fuel our prosperity are, and will increasingly be, drawn to eastern Ireland as a successful city-region”*.

While that view may in time prove to be true, it is important to ensure that the eastern region does not become synonymous with a narrow geographical view based on the Dublin Region (comprising the four local authority areas making up the capital), but also includes the wider eastern seaboard, encompassing Meath and other counties, which will enhance the area’s, and the country’s, overall competitiveness as a business and investment location.

As well as the economic rationale for the proposed development, the report also considers:

- The suitability of the lands for the proposed development relative to;
 - The other lands zoned as White Lands (WL) in the Mill Road-Marsh Road Character area, besides the subject lands (they together constitute all of the lands zoned WL in the Drogheda Southern Environs LAP area); and
 - The employment-zoned lands in the Drogheda Southern Environs LAP area, including those in the Mill Road-Marsh Road Character area as well as elsewhere in the LAP area.
- The types of economic activity capable of being sustained on the proposed development lands and the likely quantum of employment (full-time equivalents, FTEs); and
- The key economic impacts, incorporating the *knock-on* as well as the *direct* economic impacts.

¹ *Infra* footnote 4.

² ‘Our future is urban and eastern – we must accept that’, Conor Skehan, *Sunday Independent*, 21 May 2017.

1.2 Background to the Proposed Development

The developer behind the proposal, Shannon Homes, is in ownership of the subject lands (approximately 52 acres), currently zoned WL under the Drogheda Southern Environs LAP. This designation seeks to protect lands from “*inappropriate forms of development which would impede the orderly expansion of a strategic urban centre*”. The developer believes that there is no prospect of the proposed development being inappropriate in this manner. On the contrary, it is felt by the developer that the proposal is wholly consistent with the Economic Development Strategy and the Meath CDP 2013-2019, and the Meath Local Economic and Community Plan (LECP), whose Economic Element reflects the Economic Development Strategy and whose Community Element is specified to be consistent with the Economic Element, which is to say that both are centred on the goal of facilitating more high quality employment in the County in support of vibrant, inclusive and sustainable community development.

To give independent assessment of the proposed development, the developer, through Brady Hughes Consulting (consultant engineers for the developer), has commissioned this report from PMCA Economic Consulting, a firm with extensive professional experience and knowledge of the local area and with economic development in Meath, and with a track record of carrying out economic impact assessments as part of planning applications.

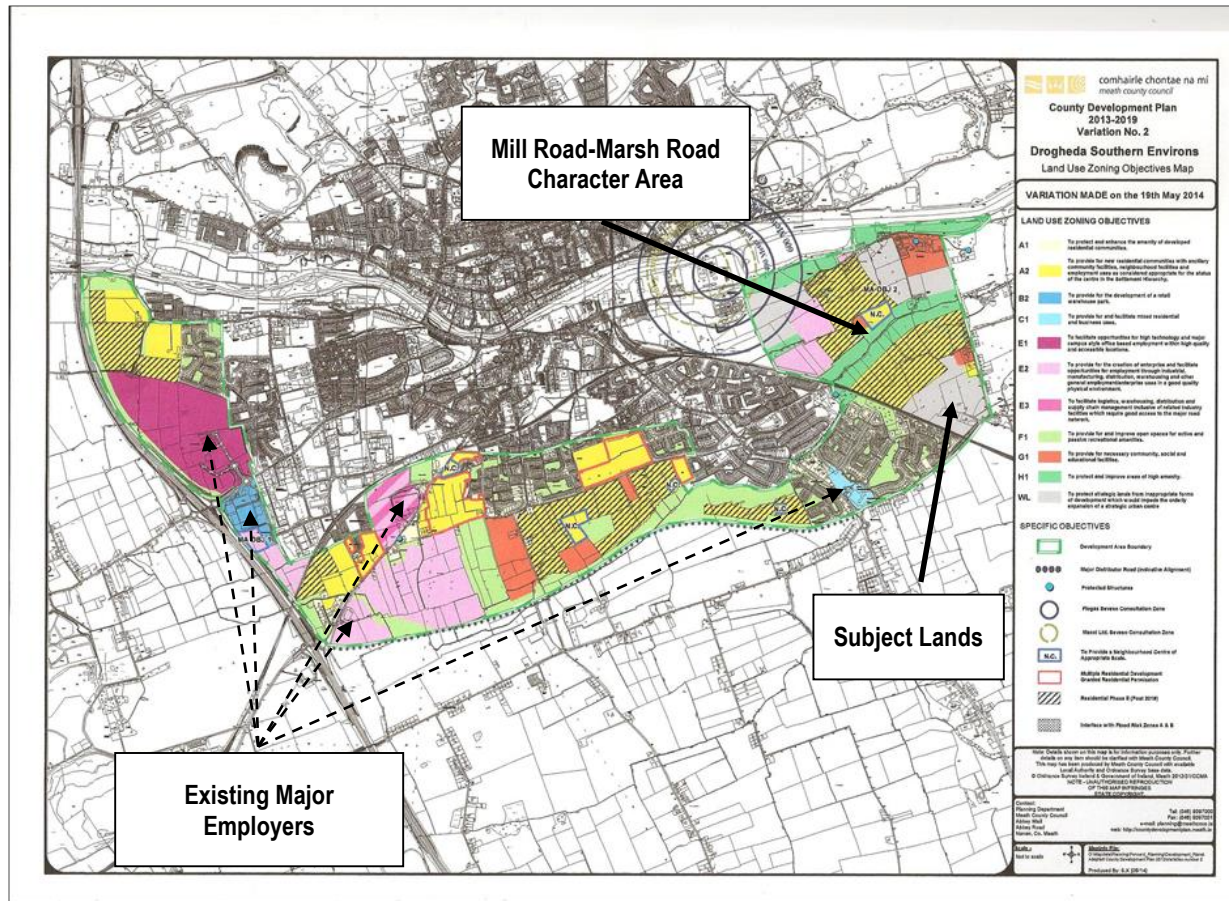
It is also worth observing here that Variation No. 3 of the Meath CDP, which has integrated the Economic Development Strategy into the County Plan, provides that economic/employment development can occur in any part of the County, subject to a case being made. This report considers both the economic rationale and the economic impact of the proposed development, and comes to the conclusion that the case is a strong one. It is also relevant to note that the proposed development would dovetail with and support other economic initiatives for the greater Drogheda area, including the goal to locate a new payments hub/centre in the town and its environs, in support of the initiatives currently underway to develop the M1 Payments Corridor for the functional region. In addition, in seeking to promote the proposed project to prospective tenants, it will also be important to ensure high quality residential offerings and services in the vicinity of the proposal.

The subject lands are identified in the Drogheda Southern Environs LAP map in Figure 1.1 overleaf. They are located adjacent to the Grangerath/Southgate development at the southern tip of the Mill Road/Marsh Road Character area. To the south-east, the lands border Colpe Road, which connects to the R132 at Southgate and thence to the M1 Motorway about 10km to the south (approximately 10 minutes of drive-time); to the east, the lands border the Mill Road; to the west is the Dublin-Belfast Rail Line, which separates the lands from the Grangerath residential development; and about a kilometre to the north is the Marsh Road, which connects the East Meath settlement of Mornington with Drogheda and in the immediate vicinity are included Drogheda Grammar School and the HQ of Drogheda Port Company.

The Mill Road/Marsh Road Character area is therefore one having significant economic development potential, owing to its favourable location close to the M1 Motorway (just 10 minutes away in a toll-free manner), its proximity to McBride Rail Station (albeit without a direct connection currently but that is envisaged as part of the overall plan in respect of the proposed development) and the availability of high quality skills, in the immediate area of the LAP area and East Meath, the greater Drogheda area (Louth and Meath parts) and regionally in the context of the (proposed) EMRA (Eastern and Midland Regional Assembly) area, which would also benefit from the economic impact of the proposed development.³

³ A map showing the new EMRA Region and the new regional planning structures proposed for the country is given in the Annex of Supplementary Information at the end of the report (Figure A1, p. 45).

Figure 1.1: Drogheda Southern Environs LAP Map showing the Subject Lands and Sites of Current Major Employers



Source: Meath County Council Map; PMCA Economic Consulting overlays.

Note: The major employers shown are (L-to-R); IFS State Street, Drogheda Retail Park, Boyne Valley Foods, Boann Distillery and Southgate Centre.

1.3 Economic Rationale for the Proposed Project

1.3.1 Low Jobs-to-Population Ratio Locally and in County Meath

The subject lands occur in a part of County Meath that has grown very rapidly over the past decade. However, as with the County overall, population has dominated employment, so that the jobs-to-population ratio in the area under consideration has been, and remains, very low in comparison with the country as a whole. At Census 2011, there were 38,822 jobs in Meath. With a population of 184,135, the jobs/pop ratio for the County in that year was just 21%. The corresponding figure for the State was much higher at 40%. The jobs/pop ratio in the St. Mary's Electoral Division (the ED in which the subject lands are located) was even lower than that for County Meath in 2011, namely 13% versus the aforementioned 21% for the County. With the final population figures under Census 2016 recently published by the CSO (but not the employment figures in counties or EDs), it is estimated that the jobs/pop ratio in the St. Mary's ED remained at 13% in 2016, was 22% in County Meath and 43% in the State. The very low jobs/pop ratios in the area under consideration and in County Meath reflect the extent of outbound commuting, where it is estimated that over 80% of those at work in the Drogheda Southern Environs LAP area commuted to work from outside their place of residence in 2011 and 2016 (mainly to Dublin).⁴

The very low jobs/pop ratios locally and in Meath, which reflect the high incidence of outward commuting, are unlikely to be sustainable – as well as leading to loss of economic impact, they are costly to local communities and also to the local authority with responsibility for the provision of services locally and across the County (commuting is also costly to the environment because about three-quarters of all commuters travel by private car and just one-in-ten use public transport – although the latest Census 2016 data reveal that the situation is improving, albeit from a low base).⁵

The various costs associated with long-range outward commuting (economic, social and environmental) in turn highlights the importance of re-balancing development towards economic/employment growth locally and in Meath, as provided for in the Economic Development Strategy and the Meath CDP 2013-2019, and likely in the forthcoming Meath CDP for 2019-2025.

Drogheda is designated as a Large Growth Town I in the Regional Planning Guidelines for the Greater Dublin Area 2010-2020, which set the regional context for the proposed development. Drogheda (Southern Environs) is designated in this way in the current Meath CDP 2013-2019 and ranks jointly with Navan (the County Town of Meath) at the top of the Economic Hierarchy of the County.

⁴ The official data on the number of jobs in EDs and counties, and commuting patterns, come from special work carried out by the CSO at Census time known as POWSCAR (Place of Work, School or College Census of Anonymised Records) (in 2006, it was known as POWCAR – Place of Work Census of Anonymised Records). According to the CSO, the results of POWSCAR 2016 will become available in late July 2017 (at the earliest). The POWCAR/POWSCAR data are not publicly available and released on a limited basis. During 2006-2011, PMCA analysis of the POWSCAR and POWCAR data show relatively rapid growth in employment locally in the area of interest and in County Meath more widely, but from a very low base, where the data analysis also reveals that outward commuting was the highest in the country, outside of Dublin (where the rate of commuting between the local authority areas making up the capital are expected to be high in any event). These facts are reflected in the very low jobs/pop ratio in the area of interest and Meath more generally, to which the Economic Development Strategy seeks to address. The facts therefore highlight the local policy objective of creating more employment opportunities in Meath, not least high quality employment opportunities, within which the area of interest is strategically positioned and capable of assisting in the goal of employment development.

⁵ The recently-released CSO data from Census 2016 on sustainable development indicators are available [here](#).

Given the economic need for greater employment locally – but the absence of suitable office space for large-scale, high quality employment in Drogheda – and the town’s status in the RPGs and the Meath CDP, and its strategic positioning in the heart of the Dublin-Belfast Corridor, with multi-modal transport links proximate to the subject lands, the proposed development has a strong rationale *a priori* and *a fortiori*.

Also shown in Figure 1.1 above are the major employers currently in the Drogheda Southern Environs LAP area. From west to east, they are:

- **IFS State Street** – internationally-traded services (E1 employment) in the Drogheda IDA Business & Technology Park (this employer has been at the park since 2006 when the park was opened but to date is the only tenant in the park, albeit a very important one with approximately 300 high quality FTEs) (apart from the IFS State Street Building, there are no other buildings or advance units in the IDA Park and no plans to develop any new buildings; nor does the access road linking the IFS State Street building with the Donore Road into and out of Drogheda run through the rest of the IDA Park, meaning that extra road infrastructure would need to be delivered to accommodate any new company coming into the site);⁶
- **Drogheda Retail Park** – principally retailing (B2 employment) but the park also includes Beacon Hospital Drogheda, which provides consultant medical services, including dialysis (E1) (albeit on a relatively small scale as a satellite of the Dublin-based Beacon Hospital);
- **Boyne Valley Foods** – E2/E3 employment (distribution hub but also including the company’s HQ with operations and marketing staff) (the substantial Platin Road facility was completed in 1997, with 43 employees on a headcount basis, growing to in the region of 130-150 today);
- **Boann Distillery and Visitor Centre** – E2 employment but also encompassing a visitor centre with retailing and thus in keeping with the tourism potential of the Boyne Valley (potential employment of up to 100 people when the facility is fully up-and-running);
- **Southgate Centre** – C1 employment in the retail part of the facility but also including substantial E1 employment with Coca-Cola International Services (internationally-traded services) in which there are around 300 FTEs in high quality employment.

Thus, the Drogheda Southern Environs LAP area includes two major FDI companies – IFS State Street and Coca-Cola International Services – which together account for about 40% of all FTEs in IDA Ireland client companies in Meath currently. This illustrates the strategic importance of the LAP area to economic development in the County, and the prospects for further employment growth in that part of the LAP area in which the subject lands for the proposed development occur, 10 minutes from the M1 Motorway and demonstrating the area’s ability to accommodate large-scale FDI activity (internationally-traded services).

Such is the impact of FDI in the Drogheda Southern Environs LAP area that the proportion of all employment in the area accounted for by IT and professional services was 22% in 2011, compared with 12% for County Meath and 14% in Navan, and 19% for the State.⁷

⁶ The IDA Business & Technology Park in Navan also has spare capacity but has many more tenants than the Drogheda facility. Existing tenants in Navan include: Welch Allyn Medical Devices; ARIA Assistance Group; Allied Driving Instructors; Generali International and Generali PanEurope; Garda Headquarters Directorate and Meath Garda Division; Lir Chocolates; BT Communications Ireland; Timoney Technology Limited; and Buvinda House (which will become the new HQ of Meath County Council).

⁷ Based on analysis of the POWSCAR 2011 data (*supra* footnote 4) and including domestically-owned as well FDI employment. The 22% proportion for the Drogheda Southern Environs LAP area would have been even higher had the POWSCAR data included the employment due to Coca-Cola International Services, which came into the Southgate Centre in October of that year, after 12 April 2011 (Census Day 2011).

Previous to commencing operations at Southgate in October 2011, Coca-Cola International Services operated from the M1 Retail Park on the other side of Drogheda (in County Louth) but was drawn to the then new Southgate facility given its location and other attributes, not to mention the large-scale office space available at the time.

The developer behind the Southgate Centre, who played a key role in facilitating Coca-Cola to re-locate from the M1 Retail Park to the Drogheda Southern Environs area, is also behind the proposed development at the Mill Road WL lands (subject lands).⁸

1.4 Building on the Success of the Drogheda Southern Environs in Meath

The proposal to develop the subject lands has emerged from the demonstrated success of the Southgate Centre and the latent demand for cost-competitive and well-located employment sites in the vicinity of Dublin. Key enablers of the site include: proximity to skills (both locally and in the context of the Greater Dublin Area), access to major infrastructure, including the M1 Motorway and Dublin Airport, and a proven track record (as manifest in the success of the Southgate Centre to date).

The proposed development is consistent with the Meath CDP 2013-2019 as varied (incorporating the actions and targets set out in the Economic Development Strategy) in the following ways:

- It would facilitate further major employment in the Drogheda Southern Environs LAP area, and thus in County Meath, by offering high quality advance office space for E1-type employment in a favourably located and accessible location;
- It would enable Meath to enhance its offering in respect of the goal of facilitating more FDI into the County with the availability of ready-to-go/advance large-scale office space for inward investors – in 2011, just 3% of all employment in Meath was accounted for by FDI firms (IDA Ireland client companies), as opposed to 8% in the State and one of the targets in the Economic Development Strategy is to close the gap between Meath and the country as a whole in this regard (according to PMCA analysis of more recent data, from the Department of Jobs, Enterprise and Innovation (DJEI), the gap against Meath widened to 6 percentage points in 2015);
- It would address a long-standing issue for Drogheda (Louth as well as Meath parts) in having a lack of developed workspace for large-scale professional services activities;
- The proposed development would contribute to the objective of the Economic Development Strategy of facilitating more knowledge-oriented services employment in the County – in 2011, only 12% of all employment within Meath was accounted for by IT and professional services, compared with 19% in the State and almost 30% in Dublin;
- The proposed development would help to address the very high rate of outward commuting from the Drogheda Southern Environs LAP area, where it is estimated that 86% of those living there and at work did so outside of County Meath in 2011;

⁸ The story of another FDI company's move within (the Louth part of) Drogheda is also indicative of the latent demand for ready-to-go office space for knowledge-oriented employment. Yaptone first came to Drogheda at the turn of the decade. In 2014, the firm moved into the Mill Enterprise Centre in Drogheda (when the Mill opened). As the company grew, it needed more space – but quickly. The company trawled around the town, and beyond, seeking suitable office space for an envisaged 100 FTEs before it eventually decided to set up in refurbished offices in the M1 Retail Park in the northern environs of the town (ironically enough, from where Coca-Cola International Services left in moving to the Southgate Centre in late 2011). This example illustrates the importance of having suitable, large-scale premises to accommodate the needs of rapidly growing companies or new investors (otherwise the risk is that jobs will re-locate, or potential new investors will look, elsewhere).

- Along with Navan, the Drogheda Southern Environs is at the top of the Economic Hierarchy of County Meath and the proposed development would be in keeping with this designation, which recognises the economic significance of the area in the heart of the M1 Corridor – along with Navan, it is designated as a Large Growth Town I in the RPGs for the GDA 2010-2022 as well as in the Meath CDP 2013-2019;
- The subject lands are located away from the interchanges along with M1 Motorway (Junctions 8 and 9) and are strategically located close to major transport infrastructure (namely McBride Rail Station and within 10 minutes of the M1 Motorway in a toll-free manner and in turn within 20 minutes of Dublin Airport);
- The proposal would be consistent with the Meath CDP, and the Economic Development Strategy, where it calls for the Council to consider and facilitate sustainable development proposals from developers/wealth creators capable of creating new high quality employment opportunities in the County.

Overall, when all things are considered, the proposed development on the subject lands has a strong economic rationale in the context of regional and local economic development policy and planning, and would bring much-needed additional capacity for office space in the greater Drogheda area, complementing, rather than directly competing with, the existing economic development sites in the Louth and Meath parts. Given the international economic recovery now underway, and the potential for Ireland to attract more FDI in the wake of Brexit, it is critically important that there is an adequate supply of high quality office space catering for knowledge-oriented activities in the strategically important Drogheda Southern Environs LAP area to meet the evident market demand. The proposed development is timely, relevant and significant in this regard.

2 Market Drivers of the Proposed Development

2.1 Introduction

This section considers the market drivers for the proposed development, including the extent of demand from prospective investors seeking new opportunities in view of Brexit and the trend towards bi-location in Ireland by expanding FDI companies in the country. The section concludes with a SWOT analysis of the relevant LAP area.

2.2 Market Drivers – Demand-Side and Supply-Side

2.2.1 Demand-Side: Economic Prospects – Ireland and Internationally

2.2.1.1 *Upward Prospects for the International Economy*

While Ireland has recovered strongly from the economic crisis (the fall in unemployment has been much higher than originally anticipated when the Troika exited the country at the end of 2013), the rest of the advanced world is now starting to show signs of sustained recovery, leading to upward revisions of growth prospects.⁹ In addition, there is now a general consensus that the historically low interest rate environment is coming to an end and that there will be a reversal of quantitative easing in the US and Europe; although it is expected that the roll-back on QE will be slower in the EU, owing to the diversity of economic performance among EU Member States and the underlying issues concerning the sustainability of the euro and the wider ‘European Project’, not least given the challenges posed by Brexit. The US is already embarked on ‘monetary normalisation’ and rates have already been raised.

The significance of the switch in the interest rate cycle from historically low to rising rates is that it will stimulate the savings-investment process, enhance banks’ balance sheets and the functioning of the banking system. In the context of this report, it will imply that more funds will become available for investment purposes, other things being equal (and assuming appropriate regulation of bank lending and avoidance of the practices that led to the banking crisis in 2008).

But the coming to end of the low interest rate environment will bring costs as well as benefits, and the costs could be significant for households in Ireland, given that household gross debt exceeded household gross disposable income by 55% in the final quarter of 2016.¹⁰

According to the IMF’s latest Global Economic Outlook (April 2017), global economic activity is picking up with a long-awaited cyclical recovery in investment, manufacturing, and trade. The IMF expects world growth to rise from 3.1% in 2016 to 3.5% in 2017, and to 3.6% in 2018. Stronger activity, expectations of more robust global demand, reduced deflationary pressures, and optimistic financial markets are all upside developments.

⁹ The Troika comprises the European Commission, the European Central Bank and the International Monetary Fund (IMF). In advance of the exit of the Troika from Ireland in December 2013, PMCA assisted the Department of Finance in preparing the Medium-Term Economic Strategy for Ireland 2014-2020, which was published on the day the Troika left the country (15 December 2013).

¹⁰ Based on recent data on Irish households from the Organisation for Economic Cooperation and Development (OECD) (accessible [here](#)).

But the IMF warns that structural impediments to a stronger recovery and a balance of risks that remains tilted to the downside, especially over the medium-term (within 5 years), remain important challenges. Among the risks are pressure for inward-looking policies – protectionism – as a (politically-driven) ‘solution’ to competitiveness challenges and rising inequality, when the reality is that protectionism works against productivity and sustainable global growth in the longer-term, however attractive it might appear to some groups in the nearer-term.¹¹

Like the OECD and the World Trade Organisation (WTO), the IMF is (appropriately enough) advocating policies towards multilateralism (to counter the risk of protectionism and engender international stability), trade and investment (including FDI).

2.2.1.2 Strong Recovery in Ireland to Continue but Competition for FDI to Heat Up

The recovery in Ireland has pre-dated that in other advanced countries and the country’s emergence from recession, which was particularly severe, illustrates its capability to recover quickly, in turn reflecting the importance of trade and investment to Ireland’s economic performance.

Thus, in 2015, real economic growth was over 26% in Ireland, which was put down to a statistical discrepancy over the recording of FDI in the national accounts. Last year, according to IMF’s World Economic Outlook (April 2017), real growth in Ireland was 5.2% and that organisation predicts real growth easing to 3.5% this year, 3.2% next year and averaging in the region of 3% per year during 2019–2022.

For the first time since 2008, employment exceeded 2 million in 2016 and the IMF expects the number of people at work in Ireland to continue growing towards full employment by the end of the decade.

In view of the unprecedented spike in the real growth rate in 2015, and calls to examine the country’s corporate tax rate, but more seriously the Apple Case that the European Commission is taking against Ireland and that company, threats are on the horizon in respect of Ireland’s corporation tax rate. While the State has, and will continue to have, sovereignty over the rate of corporation tax, the *relative* position against that in other countries, including the UK, may change in the coming years – not by Ireland being forced to raise its rate but rather by other countries lowering their rates, in which case Ireland’s corporation tax rate advantage, which has driven FDI into the country over many years, along with other positive attributes of the Irish economy, will erode *vis-à-vis* other countries in time.

A particular case in point is the UK. Post-Brexit, the UK will no longer be bound by State aid rules (set by the EU) and it will have the freedom to lower its corporation tax rate towards, or even below, the Irish rate (depending on the outcomes of the Article 50 negotiation process in respect of Brexit). Should this possibility obtain, the UK, and the regions within the country, including NI and Scotland, will become more formidable competitors to Ireland for FDI, even if they are no longer part of the EU Single Market.

The IDA are acutely aware of these risks to Ireland’s FDI position and are working to mitigate the risks, by seeking to win investment from new inward investors, existing FDI companies and to attract FDI firms currently in the UK but looking to other EU counties for new homes in order to remain part of the Single Market (before the UK might retaliate by lowering its corporation tax rate).

¹¹ In a leader article in The Economist ‘In praise of quinoa’ (11 March 2017), the magazine comments on protectionism risks as follows: “*Rather than sniping snootily about Donald Trump’s taste for well-done steaks slathered in ketchup, liberals should worry about the administration’s plans to erect trade barriers and possibly start a trade war. That would make the world poorer and hungrier*”. So far so good, while the risk remains, it has yet to materialise.

2.2.1.3 But Brexit the Main Economic Concern

Undoubtedly Brexit presents as the biggest economic risk to Ireland now and in the coming years. The risk to employment in Meath is considered to be significant, given the importance of agri-food and other traditional industries in the employment base of the County, where the sectors concerned are reliant to a large extent on the UK market.

This in turn points to the need to diversify and broaden the composition of employment in County Meath, by facilitating more knowledge-oriented professional services jobs in Meath, through FDI and/or Irish-owned companies setting up or growing in the County.¹²

The proposed development by Shannon Homes is considered to be significant in the context of the Drogheda Southern Environs LAP area, and of Meath more widely, in this regard.

Box 2.1: Brief Summary of the IMF's Recent External Review of the Irish Economy and the Risk from Brexit

According to the IMF's latest external review of the Irish economy (12 May 2017), economic prospects are positive but external risks are high and none is more significant than Brexit:

"Brexit represents the most pressing and far-reaching challenge for Ireland. While the impact to date has been modest, the overall effects over the medium term are expected to be negative and significant. Risks are most acute for traditional sectors that depend on trade with the UK, with potentially sizable consequences for activity and employment outside of the main urban centers. The special issues related to the border with Northern Ireland have also been recognized. The authorities are actively engaging with partners in the UK and across Europe, and working domestically to develop a set of measures to respond. Ensuring timely and well-targeted action will be key."

*"At the same time, ongoing changes in **corporate taxation at the international level** and discussion of further reforms in the US and the EU contribute to uncertainty given the sizable role of multinationals in the economy and their substantial contribution to the tax base. This further reinforces the need for a broad tax base, large fiscal buffers, and continuing efforts to reinforce the dynamism of the domestic economy."*

*"More broadly, uncertainty related to **calls for a retreat from global integration** is particularly relevant for Ireland given the open nature of the economy, further reinforcing the importance of strengthening economic resiliency."*

Source: 'Ireland: Staff Concluding Statement of the 2017 Article IV Consultation' by the IMF (12 May 2017).

On 5 July 2017, IDA Ireland published its half-year results 2017, where the agency reported that Brexit continues to represent both an opportunity and challenge for IDA Ireland and its client companies. The agency has been in discussions with potential investors for over a year with the majority of the engagement being with financial services companies, which is noteworthy in the context of this study.¹³

¹² The (negative) effects of Brexit on the Irish economy are already beginning to manifest themselves in data on tourism. According to the latest information from the CSO (14 June 2017), the number of trips to Ireland from people resident in Great Britain (the single largest market for Irish tourism measured in this way) fell by 6.5% during Jan-March 2016 to Jan-March 2017, which has been put down in part to the weakening of sterling against the euro. The CSO data are available [here](#). There is also some concern that cross-border shopping trips to NI are increasing in view of the weakening of sterling against the euro following the recent election result in the UK, which will see a hung parliament and a weakened Conservative Party majority, with reliance on the support of the Democratic Unionist Party, which supports Brexit. However, the evidence that retail sector in Ireland is suffering due to Brexit is, at this stage, anecdotal and remains to be established in fact.

¹³ The IDA's report is available [here](#).

2.2.2 Demand Side: the Market for FDI

2.2.2.1 Importance of FDI to Ireland and Opportunities for Ireland and Meath Specifically

FDI has been central to Ireland's model of economic development since the outward reforms of the late 1950s. It has acted as a catalyst for higher-order economic development, bringing activities into the country that otherwise would not have occurred but for the State support to attract FDI. While direct employment in FDI companies accounts for a small proportion of overall employment (about 10%), the economic impacts of FDI are disproportionately large in terms of gross value added (GVA), which reflects the high rate of productivity in these firms and their contribution to exports and innovation (higher-order economic functions in host locations). In addition, FDI subsidiaries in host locations endure for significantly longer than other forms of enterprise, which is not surprising because multinational enterprises have unique competitive advantages and the decision to 'go multinational' by locating production in an overseas location is a means of extending their advantages internationally.

Manifestation of Ireland's success as a host location for FDI is its share of the stock of all inward investment in the world compared with the relative size of its economy. According to data published by the OECD on 27 April 2017, Ireland's share of all net inward FDI in the world was 3% in 2015, or 7.5 times its share of world GDP (gross domestic product). Ireland's 3% share was just half that of the UK's share, whereas the UK economy is more than 10 times the size of the Irish economy.

The net inward FDI figure for Ireland in 2015 (US\$866,243m, Table 2.1) represents more than a doubling of the corresponding figure in 2012 (US\$383,201m) (126% growth), whereas the corresponding growth rates for the UK and the OECD countries (which include the EU Member States and the US) were -2% and 12% respectively. While the 2015 figure for Ireland has since proved to be a something of a statistical aberration, the country's underlying/trend share of global net inward FDI is still exceptionally large compared with the relative size of its economy.

Table 2.1: Stock of Net Inward Foreign Direct Investment in Ireland and the UK (2015)

Recipient	Net Inward FDI (2015)		
	US\$m	% of World	% Composition
Ireland	866,243	3%	
<i>From which:</i>			
US	399,308		46%
EU28	340,110		39%
UK	40,238		5%
Asia	13,020		2%
Other	73,567		8%
UK	1,554,363	6%	
<i>From which:</i>			
EU28	680,544		44%
US	432,993		28%
Asia	123,020		8%
Ireland	23,520		2%
Other	294,286		19%

*Source: OECD FDI flows and positions/stocks data (15 April 2017), PMCA Economic Consulting analysis.
Note: 2015 is the latest year of the OECD data (non-forecast).*

The main inward investors in Ireland and the UK are firms from the US and the rest of the EU. The US investment and other non-EU investment in the UK is expected to decline post-Brexit as these particular investors seek to maintain their presence in the EU. This is an opportunity for Ireland, and for Meath in particular. The IDA are currently working to exploit this source of possible new investment as the Article 50 process in respect of Brexit gets underway, along with its pipeline of regular FDI.

The largest source of inward FDI into the UK is from companies whose home countries are in the EU28 (44% in 2015, compared with 28% from the US) (these companies include Irish firms). This source of FDI into the UK may remain or even grow post-Brexit. Generally speaking, trade and FDI tend to be substitutes, and as trade between the UK and the EU becomes more expensive post-Brexit, one may expect to see more inward investment to the UK from the EU, and correspondingly more outward investment from the UK to the EU, which may present an opportunity for Ireland and for Meath in particular. IDA Ireland are also aware of, and acting on, this opportunity, along with its other promotional activities.

2.2.2.2 Opportunities for FDI into Ireland and Meath in particular

Summing up the discussion so far, the opportunities for FDI into Ireland and for Meath in particular are three-fold as follows:

- Continued FDI growth as in the pre-Brexit environment – which for the country generally and Meath in particular means more FDI from the main home countries (US and the EU) and for Meath means building on the recent successes of Facebook, Shire and Avoca/Aramark;
- Capture a share of the anticipated increase in outward FDI from the UK into other parts of the EU seeking a production base in the EU to mitigate the likely increased cost of trade between the UK and the EU (examples of this form of FDI are Morgan Stanley’s plans to re-locate a significant amount of jobs to Ireland/Dublin and similar announcements by major UK-based law firms looking for bases in the EU); and
- Capture a share of US and non-EU FDI that would have been considering the UK pre-Brexit but are now looking at other EU countries in the wake of Brexit.

In short, the potential opportunities for FDI into Ireland, and to Meath in particular, within which the Drogheda Southern Environs LAP area, have expanded or been enhanced following Brexit. But by the same token, competition from other host locations is intensifying and will likely escalate.

Dublin is best-placed to win the lion’s share of the FDI opportunities – both the long-term opportunities and the new opportunities from Brexit. The other main urban centres (Cork, Limerick and Galway) may be well-placed too but they are located away from the capital and from major, national infrastructure (Dublin Airport in particular). On the other hand, given its favourable location close to Dublin and connectivity through transport infrastructure, there is an opportunity for Meath to capture further FDI, in addition to the recent successes of Facebook, Shire and Avoca/Aramark, by promoting itself as a cost-competitive location in the GDA.

Bi-Location Opportunities for Meath and the Drogheda Southern Environs in the County

A particularly relevant opportunity for County Meath, and specifically the Drogheda Southern Environs LAP area, is to capture a higher share of the trend towards ‘bi-location’, where existing inward investors in Ireland (chiefly in Dublin) are expanding rapidly and in need of additional office space to accommodate their growth. Given bottlenecks in Dublin for the past number of years, a number of FDI companies based in the capital have been opening extra office capacity in the regions – hence the phrase ‘bi-location’.

Having high quality, full-serviced advance office space for such demand, just 10 minutes from the M1 Motorway (toll-free) and being less than half-an-hour from Dublin Airport are major selling points for the Drogheda Southern Environs. In fact, such advantages are important for all FDI opportunities currently presenting themselves for Ireland.

Recent examples of bi-location include:

- Google – whose head office in Ireland/Europe is in Barrow Street close to Dublin City Centre but (even with the significant expansion of its Barrow Street base) the company has opened additional office buildings in East Point Business Park to the north of the city;
- Facebook – in addition to its office buildings in Grand Canal Square has recently signed for a 100,000 ft² building in East Wall, north of the Liffey;
- Northern Trust – this financial services firm has its main office in Dublin but its expansion in recent years has been in Limerick;
- SAP – this software firm’s EMEA (Europe, Middle East and Africa) HQ is based in Citywest with its most recent expansion focused on Galway;
- State Street – this financial services company has its main office in Ireland in the South Docklands area of Dublin but has recently grown in Kilkenny (IFS State Street is the sole occupant of the IDA Business & Technology Park in Drogheda, which is in the Drogheda Southern Environs LAP area) (Figure 1.1, p. 4);
- UnitedHealth Group (UHG) – head office in Spencer Dock but expanding operations in Letterkenny (an example of bi-location in a large regional town outside the capital);
- Cisco – office in Dublin and Galway.

These and other case-studies highlight the importance of having ready-to-go, high quality office accommodation to facilitate the expansion of multinational enterprises already present in Ireland, particularly in Dublin. The property crash from 2008 meant that new office supply in Dublin has been tight for a number of years now, hence the growth in the incidence of bi-location that has seen FDI firms open additional facilities outside the capital to accommodate their expansion.¹⁴

PMCA considers that the proposed development on the subject lands in the Drogheda Southern Environs LAP area would significantly augment the attractiveness of this strategically important part of Meath in respect of enabling bi-location from existing multinationals in Ireland or *de novo* investment by new FDI firms entering the Irish market.

IDA Ireland is mindful of the opportunities for more FDI to Ireland stemming from Brexit and the State agency is proactively working on them currently. It is also conscious of ensuring that the regions outside of the main FDI centres (Dublin and Cork-Limerick-Galway) are promoted to facilitate balanced regional development from an FDI perspective (while accepting the reality that Dublin will continue to dominate as the main area of interest among investors, where it is expected that the capital region will secure about half of all new FDI announcements in the years ahead).

Nonetheless the State agency is also looking at ways of promoting other part of the country, outside of Dublin and Cork-Limerick-Galway, to help secure the country overall winning more FDI in the current environment. The proposed development would be a significant asset in that regard.

¹⁴ Bi-location as outlined here should not be confused with data centre activities. Bi-location is about accommodating similar or the same functions as exist in the head/main offices of FDI firms in host locations, whereas data centres are additional activities geared towards very large electronic data storage and security, requiring very large sites.

2.2.2.3 FDI and Indigenous Employment in County Meath – Performance to Date (including the FDI Deficit in Meath and Recent Uplifts in the South of the County)

What is already known from the Economic Development Strategy 2014-2022 is that the density of FDI employment (clients of IDA Ireland) in County Meath is relatively low but the density of larger indigenous firm employment (clients of Enterprise Ireland and Údarás na Gaeltachta, predominantly the former State agency) is comparably high in Meath. The details are outlined and illustrated presently, beginning with employment trends in larger Irish-owned companies in the County before moving on to FDI jobs.

Employment in Larger Indigenous Enterprises – Clients of EI and Údarás

In 2011, there were 4,519 people employed on a permanent full-time basis in client companies of EI and Údarás in County Meath (made up of 4,362 in EI client companies and 157 in Údarás client companies), meaning that 12% of all persons employed in Meath in that year were working in client companies of EI and Údarás, these being larger Irish-owned companies, many of which were/are active in exporting to markets abroad (including the UK). The corresponding proportion for the State was 8%, meaning that Meath had a relatively favourable position in respect of employment in larger Irish-owned firms.

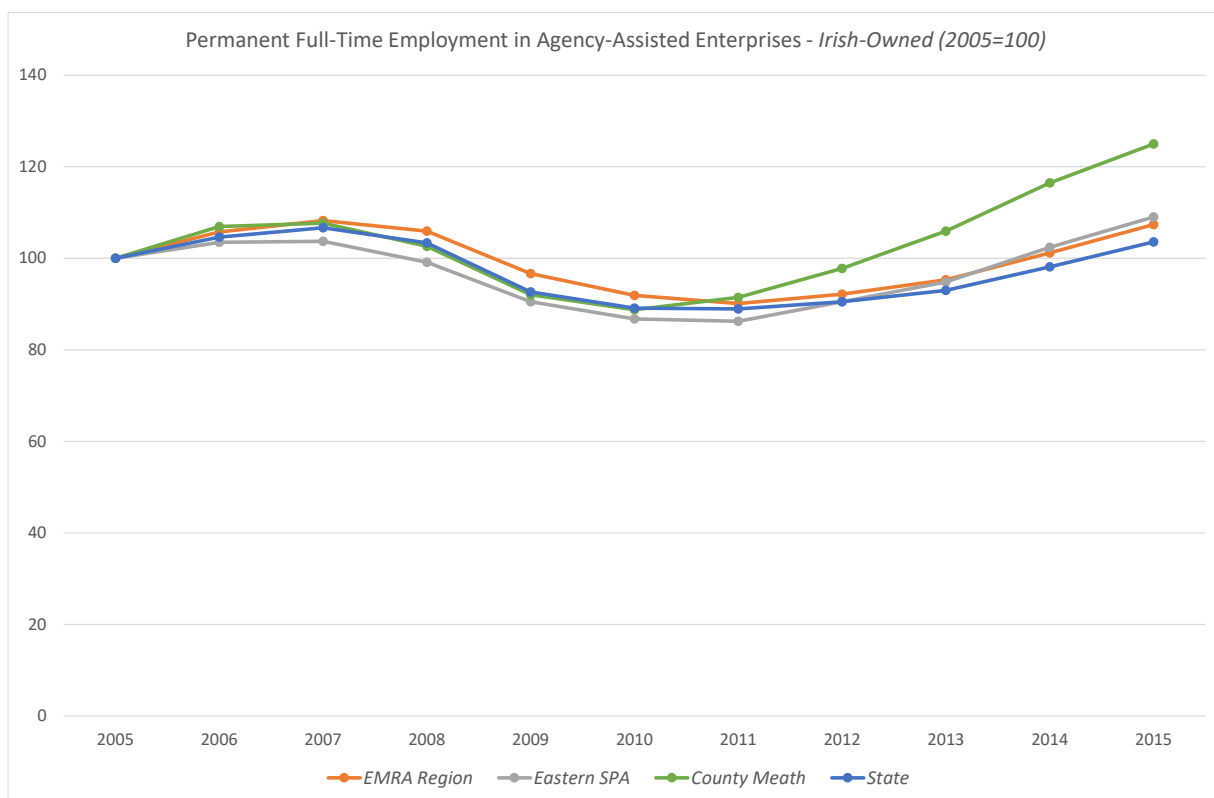
One of the targets set in the Economic Development Strategy is to maintain or widen the gap in favour of Meath compared with the country as whole in respect of the density of employment in agency-assisted (EI and Údarás) Irish-owned enterprises between 2011 (the baseline situation) and 2022 (the end year of the Economic Development Strategy). So far, this particular target is on course to be met.

According to data obtained from the DJEI at the time of preparing this report in June 2017, the number of permanent full-time jobs in agency-assisted indigenous firms in Meath (clients of EI and Údarás) grew to 6,175 in 2015 (representing appreciably strong growth of 37% on the 2011 figure) (the 2015 figure consisted of 5,939 jobs in EI client companies and 239 in Údarás client companies). The 6,175 jobs meant that the proportion of all employment in Meath accounted for jobs in EI and Údarás client firms in 2015 was 15% (the estimate of 42,237 jobs in total in the County in that year is based on the assumption that employment grew at the same rate as that in the country as a whole during the period, which may be a conservative assumption because employment growth during 2006-2011 was higher in Meath compared with the State). The corresponding proportion for the State was 9%, meaning that the gap in favour of Meath has widened from 4 percentage points in 2011 to 6 points in 2015, implying that the target specified in the Economic Development Strategy is on track to be achieved.

The facts show the extent to which larger indigenous firm employment is relatively strong in Meath; although much of this employment is in traditional manufacturing industries and therefore at risk from the potentially negative effects of Brexit.

Figure 2.1 below shows that the growth in employment in agency-assisted Irish-owned enterprises (clients of EI and Údarás) in Meath has out-paced that in other parts of the country since 2010, namely the new EMRA Region, which includes the Dublin Region, and the Eastern SPA within the EMRA Region, which consists of Louth, Kildare and Wicklow as well as Meath, and the State as a whole. Employment in these companies grew in the pre-crisis period of 2005-2007, then declined markedly during the crisis years (2008-2010) but has recovered since 2011, where the recovery in employment has been strongest in County Meath.

Figure 2.1: Trends in Employment in Agency-Assisted Irish-Owned Enterprises (Clients of Enterprise Ireland and Údarás na Gaeltachta) in County Meath and Other Parts of Ireland (2005-2015)



Source: DJEI data; PMCA Economic Consulting analysis.

Note: 2015 is the latest year of the DJEI data.

As noteworthy as the growth in employment in agency-assisted Irish-owned enterprises has been in County Meath, it is also a fact that much of the employment reflected in the statistics and chart above in regard to the County occurs in traditional industries, like food processing, engineering works, mining and quarrying and in furniture making. These industries tend to be reliant on the UK and thus are exposed to the risks from Brexit. This leads to the question as to the sustainability of the positive trend for Meath in the chart above – how bad could Brexit potentially be for such employment in Meath?

Let us assume that all of the 6,175 jobs in the EI and Údarás client companies in Meath (2015) export to the UK and therefore are at risk from Brexit. In the event of a sustained 10% devaluation of sterling against the euro due to Brexit, it is estimated that up to about 250 of these jobs could be at risk in the County (based on econometric analysis conducted by PMCA previously).¹⁵ What is more, the knock-on economic impact of these possible job losses could prove significant for the County, given the mix of employment towards traditional activities and the degree to which the employment is embedded in the local economy.

¹⁵ See the PMCA Economic Commentary Article [here](#).

The estimate of a possible loss of 250 jobs in the County due to currency effects from Brexit could be even higher when other sectors/activities outside the remit of the State agencies in question (EI and Údarás) are taken into account (for example, the hits that tourism and retailing/wholesaling, which are also important to the local economy of Meath, might take due to a sustained weaker pound in the wake of Brexit).

Employment in FDI Firms – Clients of IDA Ireland

In 2011, there were 1,086 people employed on a permanent full-time basis in client companies of IDA Ireland in County Meath, according to recent data from the DJEI, which goes up to 2015. Those jobs represented less than 3% (2.8%) of all employment in the County in 2011, well below the corresponding proportion of 7.4% for the country as a whole in that year.

One of the targets set out in the Economic Development Strategy is to bridge the gap between the two proportions by facilitating more FDI employment in the County by 2022. However, in contrast to the situation with EI and Údarás client companies, as shown above, the gap against Meath has widened since 2011, meaning that the FDI deficit in the County has deteriorated (however, the most recent data are for 2015 and do not reflect the recent FDI jobs announcements for Meath in the form of the Facebook, Shire and Aramark/Avoca, which will be coming into effect in the next few years).

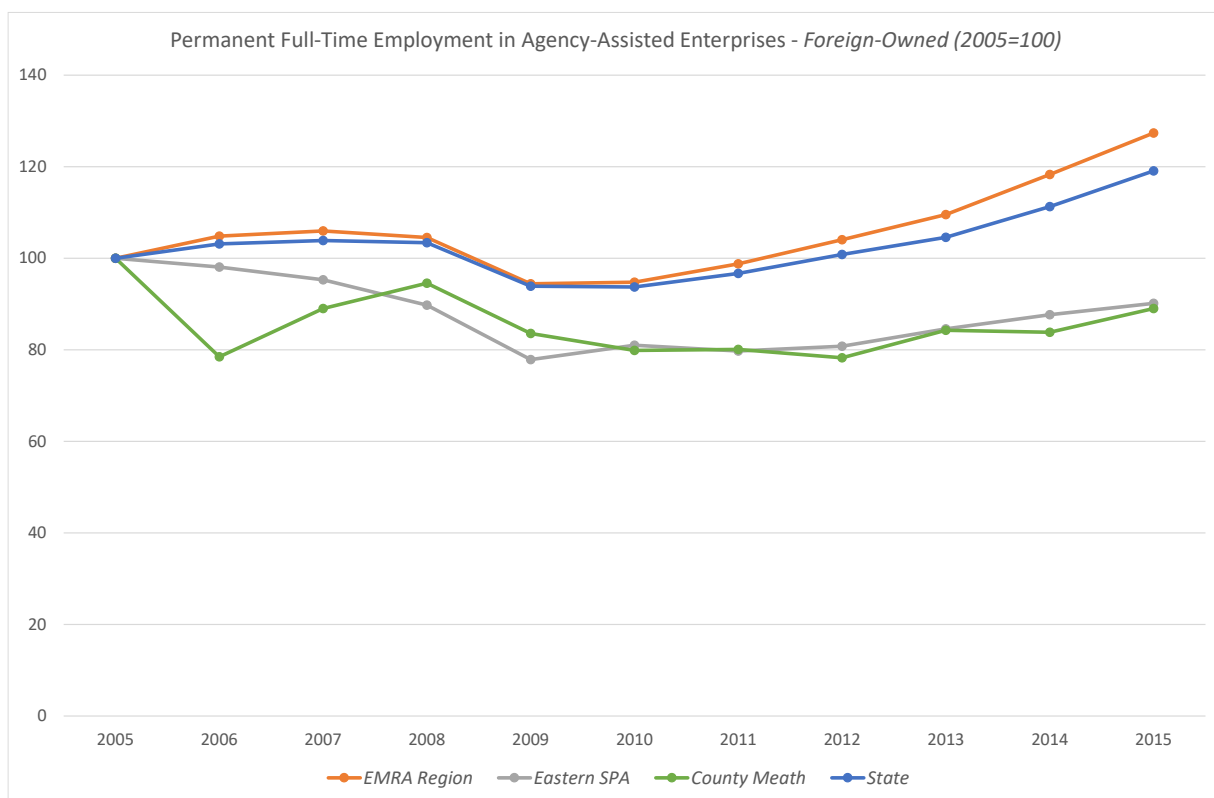
According to the data from the DJEI at the time of preparing this report, the number of permanent full-time jobs in agency-assisted foreign-owned firms in Meath (clients of IDA Ireland) grew to 1,207 in 2015, meaning that 2.9% of all employment in the County in that year was taken up by clients of the inward investment agency. The corresponding proportion for the State was 8.6%, meaning that the gap against Meath in respect of the density of FDI employment *vis-à-vis* the State has widened from 4.6 percentage points in 2011 to 5.7 points in 2015.

Because these figures do not include the recent FDI wins for the County, following the launch of the Economic Development Strategy, it is too early to be decisive on the FDI target, other than to note that the FDI potential of the proposed development is likely to assume critical importance for Meath in the coming years, should it gain permission to commence.

Figure 2.2 overleaf illustrates the FDI deficit in County Meath compared with elsewhere in the country but the graph also shows an upward trend in FDI employment since 2012, which is encouraging for the future and the FDI target specified in the Economic Development Strategy. Note that the upward trend for Meath since 2012 does not include the positive IDA Ireland announcements recently in regard to Facebook, Shire and Aramark/Avoca in the County, which will help with the FDI target specified in the Economic Development Strategy.

The importance of the proposed development for Drogheda and County Meath in this regard cannot be emphasised enough.

Figure 2.2: Trends in Employment in Agency-Assisted Foreign-Owned Enterprises (Clients of IDA Ireland) in County Meath and Other Parts of Ireland (2005-2015)



Source: DJEI data; PMCA Economic Consulting analysis.

Note: 2015 is the latest year of the DJEI data.

Employment in Micro Enterprises – Clients of Meath LEO (Local Enterprise Office)

Meath LEO and other LEOs around the country came into effect on 15 April 2014, with the remit of working in partnership with their respective local authorities and with Enterprise Ireland to promote entrepreneurship and help scale small businesses. The LEOs cater in particular for micro enterprises or very small businesses with less than 10 employees. The objectives of the LEOs are to assist their clients in various ways, including sign-posting them to the most appropriate business supports available, including towards EI in respect of LEO clients making the transition to export markets (which will become even more important in the post-Brexit environment).

Since the coming into effect of the LEOs in 2014 (they replaced the former County and City Enterprise Boards), the DJEI has conducted annual surveys of the LEOs to gain knowledge on their client numbers, gross jobs and net job gains. While the new information assembled by the Department is a welcome development, in helping to provide a standardised picture across the country, the data are survey-based and should be treated with caution (the same caveat also applies to the DJEI data underlying Figure 2.1-Figure 2.2).

Table 2.2: Gross Jobs and Net Job Gains in Meath LEO and Other LEOs in the State (2014-2016)

Location	Gross Jobs (FT & PT) per LEO Client				Net Job Gains (FT & PT)		
	2014	2015	2016	% Change	2015	2016	% Change
EMRA Region	4.9	4.7	4.8	-3.2%	1,433	1,448	1.0%
Eastern SPA	4.7	4.5	4.7	-1.1%	445	430	-3.4%
County Meath	4.5	4.3	4.5	0.0%	156	85	-45.5%
State	5.2	5.0	5.1	-2.2%	3,533	3,679	4.1%

Source: DJEI data; PMCA Economic Consulting analysis.

Note: 2016 is the latest year of the DJEI data.

In terms of gross jobs per LEO client (which includes both full-time and part-time jobs), there was no change in the ratio in Meath since the surveys were conducted in 2014, which is relatively good because the other collections of counties and the State overall witnessed contraction in respect of this particular employment metric. However, since the Department started to collect data on net job gains in 2015, the number fell markedly in Meath, from 156 in that year to 85 in 2016 (a decline of 46%).

While the DJEI data on LEO jobs are of relevance here, unlike the other DJEI data underpinning Figure 2.1 and Figure 2.2 above, which is based on the Annual Employment Survey, it is too early to discern or infer a trend in the LEO-related employment data (prior to the LEOs coming into effect in 2014, different County and City Enterprise Boards kept different records of employment data and so the change towards a standardised system since that year is welcome, although there is always room for improvement).

2.2.3 Other Demand-Side Factors in respect of the Proposed Project

In addition to the latent demand by investors for suitable, high quality, large-scale office space in the Drogheda Southern Environs LAP area, the other main demand-side driver of the proposed development comes from people living in the area but who currently commute to work outside of their place of residence, predominantly to Dublin. Many of the outward commuters would consider changing to work locally if the right opportunities became available closer to home (this feature of the local labour market was well-aired in the consultations by PMCA with external stakeholders when preparing the Economic Development Strategy for County Meath 2014-2022; and it was also referred to in the Indecon strategy for economic development of the greater Drogheda area prepared for Louth County Council and the then Drogheda Borough Council in March 2009).¹⁶

¹⁶ At page 253 of the Indecon report, it is stated: “our discussions with stakeholders suggest that if the appropriate jobs were to become available in the Study Area, commuters would be likely to seriously consider them... During the course of our consultations, we also spoke to some people who had made the transition from commuting to Dublin to finding alternative employment in Drogheda and they indicated that the creation of extra time for living was the main benefit (even if in some cases the move resulted in a nominal salary cut)”. On page 254, Indecon remarks that: “Overall, less commuting and more high quality job retention within the Study Area is likely to enhance the quality of life for residents and make Drogheda and its Hinterland more economically and socially sustainable”.

2.2.4 Supply-Side Factors

The other supply-side factors enabling the proposed development – to which it would contribute by making the Drogheda Southern Environs LAP area even more attractive to investors – are manifold as follows:

- Link to McBride Rail Station as part of the Framework Plan for the proposed project – the proposed link would serve to enhance the skills pool in respect of the proposal, which would be attractive to new tenants, namely by facilitating workers from both the north (e.g. Dundalk) and the south (e.g. Fingal and Dublin) to commute to work into the proposed development;
- The success of the Southgate Centre nearby – this would act to mark out the LAP area as a successful business and investment location in the southern environs of Drogheda, thereby serving to attract the attention of further inward investors and IDA Ireland;
- Large skills or talent pool available locally and regionally in the context of the GDA/EMRA Region, where it is estimated that over 1 million workers are living within one hour of Drogheda;
- Proximity to national and international markets by virtue of the area's favourable location to the capital and major transport infrastructure (10 minutes from the M1 Motorway in a toll-free manner, and less than half an hour from Dublin Airport);
- Other services locally in the area – primary and secondary schools, range of residential accommodation (existing, under development at the present time and anticipated as the recovery gains momentum), retailing, hotels and restaurants etc;
- On-site services – energy (electricity and gas), high-speed broadband, water and waste-water;
- Greenfield site, with the subject lands under the single ownership of Shannon Homes;
- Quality of life – urban/rural mix, sports and societies locally, coastal area, favourable location to travel northwards as well as south.

2.3 Summary – SWOT Analysis of the Subject Lands for the Proposed Development

Rounding up this section of the report is a SWOT analysis overleaf of the subject lands for the proposed development for increased high quality employment in the Drogheda Southern Environs LAP Area, consistent with the Economic Development Strategy for County Meath, which has been incorporated into the Meath CDP 2013-2019 through Variation No. 3 (made by unanimous decision of the Elected Members of Meath County Council on 26 May 2016) and which underpins the Meath LECP.

It is seen that the identified strengths out-number the weaknesses, which would be addressed to a large extent through the proposed development to the point where the identified weaknesses would no longer be significant. The opportunities are informed from existing plans and policies, including the Economic Development Strategy and the Meath LECP, and plans to facilitate a payments corridor in the NE Region (under the Regional Action Plan for Jobs 2015-2017), which would be aided by the proposed development. The main risks are external (Brexit and protectionism) but it should also be recognised that some of the rhetoric emanating from the UK and the US in respect of the external threats would merely inflict self-harm in the medium- and long-term, and so the threats are unlikely to be sustainable (apart from the possibility of the UK seeking to become a more formidable competitor for FDI, which is possible when it leaves the EU).

Box 2.2: SWOT Analysis of the Subject Lands for the Proposed Development for Increased High Quality Employment Development in the Drogheda Southern Environs LAP Area

<p>Strengths</p> <ul style="list-style-type: none"> • Favourable location on the Dublin side of Drogheda, Leinster’s largest town in Census 2016 • Proximity to the McBride Rail Station, the M1 Motorway (10 min) and Dublin Airport (25 min) • Young and growing population, with strong educational attainment • Commuter base with strong educational attainment and work experience • Regional skills/talent pool of over 1 million • Proven track record of FDI/E1-type employment (Coca-Cola International Services in the nearby Southgate Centre, developed by Shannon Homes) • Cost-competitive location in comparison with Dublin • Drogheda’s range of services, retailing, leisure and entertainment facilities • Primary and secondary schools in the East Meath area, including recently upgraded facilities 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Lack of office accommodation for high quality services employment (but this would be addressed by the proposed development) • Availability of executive-style housing on a large-scale (which would be addressed by the residential opportunities in the zoned lands in the Mill Rd-Marsh Rd Character area) • Absence of international schools (offering the International Baccalaureate qualification, which may be attractive for senior executives in FDI companies) (while this is unlikely to be significant given the success of the Southgate Centre nearby, there might be an opportunity for such educational supply on other lands within the Mill Rd-Marsh Rd Character area)
<p>Opportunities</p> <ul style="list-style-type: none"> • Potential to deliver high quality office space on a large-scale for knowledge-oriented services employment on a substantial scale, complementing existing employment in the Drogheda Southern Environs LAP area and the greater Drogheda area more widely (Louth and Meath parts) • Opportunity to make Drogheda an attractive location for bi-location FDI employment, taking the pressure of the capital by offering a competitive alternative location to facilitate company growth • Potential to support and enhance clustering of economic activities in Drogheda, including internationally-traded services and payments etc. 	<p>Threats</p> <ul style="list-style-type: none"> • Competition for FDI from other locations in other countries (the UK is expected to become a more formidable competitor for FDI in the coming years, including NI and Scotland) • FDI repatriation to the US (Trump plans) • Competition for FDI from Dublin (but see bi-location opportunities) • Competition for FDI from other locations in Ireland (Dundalk and Letterkenny in the Border Region, Galway and Limerick as major FDI locations, and Athlone and Waterford with advance buildings) • Economic downturn from Brexit and other international events/uncertainty

Source: PMCA Economic Consulting analysis.

3 Deliverability of the Subject Lands

3.1 Introduction

This section provides a qualitative assessment of the deliverability of the subject lands for large-scale, high quality employment purposes *vis-à-vis* the other lands in the Drogheda Southern Environs LAP area with the potential or possibility of accommodating new employment.

As well as the subject lands, the other lands considered are as follows (see the map in Figure 1.1, p. 4):

- The other lands zoned as WL in the Mill Road-Marsh Road Character area, besides the subject lands (note that all of the WL-zoned lands in the Drogheda Southern Environs LAP area occur in the Mill Road-Marsh Rd Character area); and
- The employment-zoned lands in the LAP area, including those in the Mill Road-Marsh Road Character area as well as in the west of the LAP area.

3.2 Assessment of the Subject Lands in the Context of the Drogheda Southern Environs LAP

3.2.1 Other WL-Zoned Lands in the Mill Road-Marsh Road Character Area

The assessment of the suitability and deliverability of the subject lands for the proposed development relative to the other lands zoned as WL under the Drogheda Southern Environs LAP area is presented in matrix form in Table 3.1 overleaf, with the criteria comprising current zoning objectives, existing usage, potential for employment development, appropriateness for giving choice of investment location, constraints and overall deliverability for employment.

Given the nature of the employment envisaged on the subject lands, which is to say high quality (E1-type) professional services employment on a large scale, PMCA considers that the proposed development on the subject lands would not be in competition with any possible future development of the other WL-zoned lands in the Mill Road-Marsh Road Character area.

Any possible future employment on the WL-zoned lands to the north-west of the subject lands is likely to be of an industrial/manufacturing nature, given the proximity of the other WL-zoned lands to existing sites of heavy industry (which are also in Seveso consultation zones), namely the Flogas and Maxol facilities on either side of the Marsh Road nearby to the other lands in the LAP area zoned as WL.

On the other hand, the WL-zoned lands to the north of the subject lands – which are located next to two educational facilities (namely Le Chéile/Educate Together Primary School and Drogheda Grammar School) and to a crèche and the headquarters of Drogheda Port Company – may have the potential to accommodate additional employment reflecting that envisaged on the subject lands. As indicated in the SWOT analysis shown in Box 2.2 (p. 21), one of the issues of the subject lands (and of the greater Drogheda area and of Counties Louth and Meath more widely) is the absence of a secondary school offering the International Baccalaureate (IB), which can be important to senior executives of FDI companies in host locations – Drogheda Grammar School currently caters for many overseas nationals living and working in the Drogheda area and there might be an opportunity for further educational developments on the WL-zoned lands adjacent to that school (as outlined in the International Financial Services 2020 Action Plan 2017 (p. 16), Ireland is currently considering its international schooling provision in light of the higher demand from overseas executives now looking at moving to the country).

Table 3.1: Assessment of the Suitability and Deliverability of the Subject Lands – Compared with the Other WL-Zoned Lands in the Mill Road-Marsh Road Character Area

Site/Lands	Current Zoning Objectives	Existing Usage	Potential for Employment Development	Appropriateness for Giving Choice of Investment Location	Constraints	Overall Deliverability for Employment
Subject lands	WL	Greenfield	Strong - given location within 10 min of the M1 Motorway, proximity and access to Drogheda and services, and the demonstration effect due to existing major employment at Southgate.	Strong - given location and access to local services and proximity to the M1 Motorway and major national infrastructure (Dublin Airport) and existing FDI and other employment locally (Southgate Centre).	Constraints currently relate to transport access from the Colpe Road and the Mill Road. However, the constraints would be surmounted by the access road as part of the proposed development, which in turn would open up the Mill Rd-Marsh Rd Character area as a major economic asset.	The subject lands are being proposed for major employment development by a developer with a proven track record of economic development in the local area.
White Lands to the north-west of the subject lands within the Mill Rd-Marsh Rd Character area	WL	Greenfield	Low-moderate - the WL lands are adjacent to two large sites of heavy industry (which are also Seveso consultation zones) which may constrain their development to industrial-type activity.	Competition between the lands and the subject lands for the proposed development is minimal.	Access from the R150/Marsh Rd and the presence of the industrial/Seveso zones in close proximity.	Low-moderate, yet with the possibility of industrial activity as opposed to high quality services employment on the subject lands.
White Lands to the north of the subject lands within the Mill Rd-Marsh Rd Character area	WL	Greenfield	Low-moderate - these lands are adjacent to two schools (a primary and a secondary school) and to other employment nearby (creche and the HQ of Drogheda Port Company) and may have employment potential connected to these activities or to the proposed development (suggestion of a possible educational facility which may enhance the area in respect of high quality employment).	These lands may provide additional choice for employment usage in the coming years if the proposed development proceeds and the Mill Rd-Marsh Rd Character area is opened up to employment development, in which case the lands would complement the subject lands.	The WL-zoned lands could in time be accessible from the Marsh Rd/R150 or from the Mill Rd, or as part of further employment development of the subject lands.	Moderate, but possibly complementing the high quality services employment envisaged of the subject lands given its location beside two educational facilities and other services employment nearby.

Source: PMCA Economic Consulting analysis.

Note: All of the lands zoned as WL in the Drogheda Southern Environs LAP area occur in the Mill Road-Marsh Road Character area (see also Figure 1.1, p. 4).

3.2.2 Employment-Zoned Lands in the Drogheda Southern Environs LAP Area

The assessment of the suitability and deliverability of the subject lands compared with the lands zoned for employment usage in the Drogheda Southern Environs LAP area is given in Table 3.2.

None of the other lands are considered to be in competition with the subject lands. In particular, the non-IDA employment lands are zoned E2 or E2/E3 as opposed to the E1-type employment envisaged in the proposed development. The IDA lands have significant spare capacity but suffer from an absence of advance high quality office accommodation for the purposes of high-end (E1-type) employment.

Table 3.2: Assessment of the Suitability and Deliverability of the Subject Lands – Compared with the Employment-Zoned Lands in the Drogheda Southern Environs LAP Area

Site/Lands	Current Zoning Objectives	Existing Usage	Potential for Employment Development	Appropriateness for Giving Choice of Investment Location	Constraints	Overall Deliverability for Employment
Subject lands	WL	Greenfield	Strong - given location within 10 min of the M1 Motorway, proximity and access to Drogheda and services, and the demonstration effect due to existing major employment at Southgate.	Strong - given location and access to local services and proximity to the M1 Motorway and major national infrastructure (Dublin Airport) and existing FDI and other employment locally (Southgate Centre).	Constraints currently relate to transport access from the Colpe Road and the Mill Road. However, the constraints would be surmounted by the access road as part of the the proposed development, which in turn would open up the Mill Rd-Marsh Rd Character area as a major economic asset.	The subject lands are being proposed for major employment development by a developer with a proven track record of economic development in the local area.
Employment lands to the north-west of the subject lands within the Mill Rd-Marsh Rd Character area	E2 - industrial, manufacturing, distribution and other general employment.	Greenfield	Moderate - general employment activities in line with the current zoning.	The type of employment on these lands would complement rather than compete with that envisaged on the subject lands.	Access from the Marsh Rd/R150.	Moderate, but possibly complementing the high quality services employment envisaged of the subject lands.
Drogheda IDA Business & Technology Park	E1 - high-technology, campus-style employment in high quality office accommodation	Largely greenfield (unoccupied sites) with the exception of IFS Slate Street, which has been there since 2006.	Low. The high level of spare capacity at the Drogheda IDA lands has been an issue for a long time and the absence of an advance building is considered to be a shortcoming of the park for its intended purpose.	Strong in principle. However, in practice, the absence of advance office accommodation renders the prospects for further investment low.	None in principle. However, the unused lands in the park are now unappealing given the intended purposes of the site. In comparison, the IDA Business & Technology Park in Navan is well-maintained and attractively laid out, and benefits from multiple tenants (the same is also true of other IDA Business & Technology Parks outside of Dublin, Cork, Limerick and Galway, with which the Drogheda park competes).	Low-moderate. The main drawback is the absence of advance, high-quality office accommodation that would be attractive to the IDA and potential client companies.
Employment lands adjacent to the Drogheda Retail Park	E2 - industrial, manufacturing, distribution and other general employment.	Greenfield	Moderate - given the success of the Drogheda Retail Park in the Meath part of the town. Likely retailing/wholesaling, in keeping with the overall economic character of the area, including the Donore Rd area of Drogheda.	Strong in principle - for retailing, wholesaling, logistics/distribution and/or light industry in line with the economic character of that part of Drogheda.	None apparent.	Moderate-strong, in economic activities different to the E1-type employment envisaged of the proposed development in the subject lands.
Employment lands adjacent to Boyne Valley Foods	E2-E3	Major warehouse and operations centre of BV Foods and greenfield lands.	To accommodate further growth in warehousing/logistics in respect of BV Foods.	Strong - to accommodate expansion of the existing activities on the lands.	None apparent.	Moderate-strong with continued economic recovery.
Employment lands to the south of the Boyne Valley Foods site	E2 - industrial, manufacturing, distribution and other general employment.	Boann Distillery and Visitor Centre plus predominantly greenfield lands.	Moderate - given continued economic recovery in line with the overall economic character of that part of the LAP area (retailing/wholesaling/distribution, possibly light manufacturing).	Strong - to accommodate expansion of the existing activities on the lands.	Road access.	Moderate-strong with continued economic recovery.

Source: PMCA Economic Consulting analysis.

3.2.3 Neighbouring Lands under the Remit of Louth County Council

Looking again at the planning map for the Drogheda Southern Environs LAP area (Figure 1.1, p. 4), to the immediate west of the Mill Road-Marsh Road Character area in Meath are lands in Drogheda under the remit of Louth County Council. By reference to the Drogheda Development Plan 2011-2017 made by Louth County Council, the lands are zoned (under Louth County Council but contiguous with the Mill Road-Marsh Road Character area (under Meath County Council)) in the following ways:¹⁷

- Open space and recreational (OS) – *“To provide for and/or improve open space and recreational amenities”*;
- Employment generating zone (EGZ) – *“To provide for the development of business and employment generating business activity, which is primarily manufacturing, service-orientated and whose retail output is ancillary to the primary use”*;
- Drogheda Transport Development Area (DTDA) – *“To protect and expand the existing transport hub around the train station and facilitate the development of public transport facilities including residential, retail and office development”*;
- Civic, Community and Institutional (CCI) – *“To provide and protect necessary community, recreational and educational facilities”*;
- Residential New (RN) – *“To provide for new residential communities and community facilities and to protect existing residential development”*; and
- Residential existing (RE) – *“To protect and/or improve the amenity of developed residential communities”*.

Noteworthy in the context of this report is that the zonings by Louth County Council are not inconsistent with the proposed development in the subject lands in the Drogheda Southern Environs LAP area, and the transport hub/McBride Rail Station will be an asset for the whole area (in the Louth and Meath parts of the town).

3.3 Summary

The proposed development will address the key missing link in Drogheda getting more inward investment, namely the absence of high quality office accommodation amenable to EI-type employment. This issue is considered to be significant in curtailing the growth of the IDA Business & Technology Park in Drogheda, which has not seen any new tenants in addition to IFS State Street which commenced operations in the park in 2006. It is considered that the proposed development on the subject lands would complement rather than compete with the other WL-zoned and employment-zoned lands in the Drogheda Southern Environs LAP area and would also be in line with the zonings of the contiguous part of the town under the remit of Louth County Council as provided for in the Drogheda Development Plan 2011-2017. In addition, the subject lands are located away from the interchanges along with M1 Motorway (Junctions 8 and 9) and are strategically located close to major transport infrastructure (namely McBride Rail Station and within 10 minutes of the M1 Motorway in a toll-free manner and in turn within 25 minutes of Dublin Airport).

¹⁷ The planning map is reproduced in the Annex of Supplementary Information at the end of this report – Figure A2, p. 46. The map was produced in 2011 by the then Drogheda Borough Council, which was subsumed into Louth County Council in 2014 under the local authority reform process, which saw the abolition of the Drogheda Borough Council and other borough and town councils in the country at that time. Superimposed on the map is the subject lands and the location of the contiguous lands in the Louth part of Drogheda referred to here.

4 Estimated Economic Impacts

4.1 Introduction

Having assessed the relative deliverability of the subject lands as positive (compared with the other WL-zoned lands and the employment-zoned lands in the Drogheda Southern Environs LAP area), we now present the estimated economic impacts of the proposed development, with the focus on employment and gross value added (GVA). To set the scene, we first consider the baseline situation in terms of the number of jobs and the composition of employment in the area in which the proposed development would occur.

4.2 Baseline Employment and Gross Value Added (GVA) Performance

4.2.1 Data Availability

Official, CSO data are available on the employment and GVA economic impact variables. GVA is generally defined as the value of production or output less the value of intermediate consumption and captures the contribution to gross domestic product (GDP) made by an individual producer, industry or sector. GVA is a monetary economic variable, while employment is a real economic variable and in the assessment of the economic impact of the proposed development below employment is measured in FTEs (full-time equivalent jobs) and GVA is measured in €m or captured as GVA per FTE (€), which in turn provides information on the likely quality or added value of the jobs stemming from the proposal.

In terms of GVA, the available CSO data cover the country as a whole (the State) and are also available at more geographically disaggregated levels, namely the NUTS 2 Regions (of interest here is the Southern & Eastern Region within which the proposed development would occur) and the NUTS 3 Regions (in particular, the Mid-East Region, which includes Counties Kildare and Wicklow as well as County Meath). GVA data are not available at more disaggregated levels (County or ED – Electoral Division). Working with the official data that are available from the CSO, we establish the baseline situation in terms of GVA per person employed in each of the (NUTS 1) State, the NUTS 2 Southern & Eastern Region and the NUTS 3 Mid-East Region, which we then compare with the estimated GVA per person employed in respect of the proposed development to establish the added value of the proposal compared with elsewhere in the country.¹⁸

¹⁸ Note that the CSO data do not pertain to the (proposed) new EMRA Region or the SPAs within the EMRA Region (see Figure A1, p. 45, which provides a map of the new structures). The EU NUTS classification (Nomenclature of territorial units for statistics) is a hierarchical system for dividing up the economic territory of the EU for the purposes of: the collection, development and harmonisation of European regional statistics; socio-economic analyses of the regions (NUTS 1-3); and framing of EU regional policies (predominantly defined at NUTS 2 level – e.g. the BMW Region in Ireland). Ireland or the State is NUTS 1 level. The current NUTS 2013 classification is valid from 1 January 2015 and in Ireland comprises the two NUTS 2 Regions and the 8 NUTS 3 Regions (further information from the EU is available [here](#)).

Turning to the employment economic impact variable, official CSO data are available at more geographically disaggregated levels compared with the GVA economic impact variable – employment data are available at county and ED levels (i.e. the number of jobs within specific counties and EDs within counties). The latter data are from the aforementioned POWSCAR 2011, which was conducted as part of Census 2011 (and POWCAR 2006, which was part of Census 2006).¹⁹ At the time of preparing this report in June 2017, POWSCAR 2016 has yet to be made available by the CSO – it is expected that POWSCAR 2016 will become available in late July 2017 (at the earliest), according to the CSO’s publication schedule.²⁰

4.2.2 Baseline Employment

The baseline employment situation in the ED in which the subject lands occur in County Meath, namely the St. Mary’s ED, as well as in wider geographical delineations, is shown in Table 4.1, which contains a lot of relevant information (including for the subsequent economic impact analysis) and is outlined overleaf.

Table 4.1: Population and Employment Trends in the Electoral Divisions of the Greater Drogheda Area, Counties Louth and Meath and the State in 2006, 2011 and 2016

Location	Population				Employment			Employment/Population (%)		
	2006	2011	2016	% Change (2006-16)	2006	2011	2016	2006	2011	2016
Louth										
1. Fair Gate (Drogheda Borough) (ED 001)	9,783	9,806	10,424	6.6%	6,075	5,704	6,299	62.1%	58.2%	60.4%
2. St. Laurence Gate (Drogheda Borough) (ED 002)	3,801	4,004	4,068	7.0%	595	774	855	15.7%	19.3%	21.0%
3. West Gate (Drogheda Borough) (ED 003)	5,899	6,042	6,305	6.9%	849	1,353	1,494	14.4%	22.4%	23.7%
4. St. Mary’s (Drogheda Borough) (ED 047)	6,030	6,563	6,859	13.7%	2,152	1,771	1,956	35.7%	27.0%	28.5%
5. St. Peter’s (Drogheda Borough in part) (ED 041)	7,482	9,151	9,721	29.9%	1,557	1,846	2,039	20.8%	20.2%	21.0%
6. Monasterboice (ED 039)	1,164	1,342	1,373	18.0%	176	125	138	15.1%	9.3%	10.1%
7. Termonfeckin (ED 042)	2,575	3,294	3,545	37.7%	420	390	431	16.3%	11.8%	12.1%
8. Mullary (ED 040)	1,528	1,723	1,757	15.0%	166	190	210	10.9%	11.0%	11.9%
Meath										
9. St. Mary’s (ED 047)	9,044	10,769	11,864	31.2%	919	1,363	1,505	10.2%	12.7%	12.7%
10. Julianstown (ED 045)	8,289	9,606	10,176	22.8%	785	1,100	1,215	9.5%	11.5%	11.9%
11. Stamullin (ED 048)	3,844	4,696	5,009	30.3%	390	807	891	10.1%	17.2%	17.8%
12. Ardath (ED 043)	1,873	1,911	1,949	4.1%	149	277	306	8.0%	14.5%	15.7%
13. Duleek (ED 044)	4,366	5,177	5,565	27.5%	689	807	891	15.8%	15.6%	16.0%
14. Mellifont (ED 046)	523	561	541	3.4%	109	87	96	20.8%	15.5%	17.8%
Drogheda and its Hinterland (Drogheda LEA, Louth) (1-8)	38,262	41,925	44,052	15.1%	11,990	12,153	13,422	31.3%	29.0%	30.5%
Drogheda and its Hinterland (Meath) (9-14)	27,939	32,720	35,104	25.6%	3,041	4,441	4,905	10.9%	13.6%	14.0%
Drogheda and its Hinterland (Louth and Meath) (1-14)	66,201	74,645	79,156	19.6%	15,031	16,594	18,326	22.7%	22.2%	23.2%
Co. Louth	111,267	122,897	128,884	15.8%	32,663	32,809	36,234	29.4%	26.7%	28.1%
Co. Meath	162,831	184,135	195,044	19.8%	33,176	38,822	42,874	20.4%	21.1%	22.0%
State	4,239,848	4,588,252	4,761,865	12.3%	2,054,000	1,849,000	2,042,000	48.4%	40.3%	42.9%

Source: CSO Census and POWCAR/POWSCAR (population and employment data); IMF (World Economic Outlook database, April 2017) (employment for the State); PMCA Economic Consulting analysis.

Note: The population figures are all final data; the employment figure for the State in 2016 is an IMF estimate (April 2017); the employment figures for Counties Louth and Meath, and for the Louth and Meath EDs making up the greater Drogheda area in 2016, are all estimated on the assumption that employment grew in line with the State during 2011-2016 (namely by 10.4% cumulatively or 2% on a compound average growth rate (CAGR) basis).

¹⁹ *Supra* footnote 4.

²⁰ Note also that POWSCAR 2011 and POWCAR 2006 are not publicly available and only accessible on a limited basis from the CSO (*supra* footnote 4). The same is expected of POWSCAR 2016.

To give context to the baseline employment situation, the analysis of population, employment and the employment-to-population ratio presented in Table 4.1 above is prepared showing EDs in the greater Drogheda area (Louth and Meath parts) plus Counties Louth and Meath, and the State. Of particular interest is the employment/population ratio in the St. Mary's ED in Meath, where the proposed development would occur, compared with the corresponding ratios in Louth and Meath, and especially with the country as a whole (owing to the high rate of outbound commuting from Louth and Meath, particularly the latter). The significance of the employment/population ratio in studies of this type is that it yields information on the sustainability of development in local areas and counties, from an economic development perspective.

Beginning with the situation in the country as a whole, the population of the State grew by 12.3% during the past decade (2006-2016). In 2006, the employment/population ratio was 48.4%, which was comparably high and reflected the fact that the Irish economy was operating at full employment in that year (albeit in the midst of an unsustainable economic boom at the time). Following the property and banking crisis from 2008, the employment/population ratio for the country as a whole fell markedly to 40.3% in 2011, but has since risen as the national economy has recovered (to 43%).

Turning next to County Meath, its population grew by almost 20% between 2006 and 2016. However, the dominance of population over employment is reflected in the very low employment/population ratios, at about half those in the State in 2006, 2011 and 2016, reflecting the outbound commuting from the County.

A low employment/population ratio is also evident in County Louth. While the ratio in Louth is higher than that in Meath, the ratio in Meath has nonetheless grown consistently over the last three Censuses. However, the employment/population ratio in Meath is growing from a very low base and the number of jobs in the County relative to its population still has a very long way to go in terms of catching up with the country as a whole, which in turn emphasises the importance of employment-oriented developments in County Meath, giving further impetus to the economic rationale for the proposed development.

In the St. Mary's ED in Meath, in which the Drogheda Southern Environs LAP area is located, it is seen from Table 4.1 above that this is the largest ED in the greater Drogheda area (both Louth and Meath parts, as delineated here) in population terms. The St. Mary's ED has seen substantial population growth of over 31% between 2006 and 2016. On the other hand, while employment in the St. Mary's ED has also increased, the employment/population ratio in that ED has remained very low over the Census years (even lower than that for County Meath, which, as already discussed, is very low compared with the State).

The challenge or rather the opportunity is to facilitate further employment growth in strategically important EDs like the St. Mary's ED in County Meath (on the southern environs of Drogheda and favourably located next to the M1 Motorway and other important national infrastructure).

This further demonstrates the importance or economic rationale of employment-oriented development initiatives like the proposed development under consideration.

It is emphasised here that the population figures in Table 4.1 are all finalised data from the CSO. On the other hand, the employment figures for 2016 are estimates and it is important to outline how they have been derived. The employment figure of 2.042 million for the State in 2016 is an IMF estimate – the latest available according to its revised World Economic Outlook of April 2017. The employment figures for Counties Louth and Meath, and for the Louth and Meath EDs making up the greater Drogheda area in 2016 (as delineated), are estimated on the assumption that employment in each and every case grew at the same rate as that for the State during 2011-2016, namely by 10.4% cumulatively or by 2% on a compound average growth rate (CAGR) basis – this may be a conservative assumption (for example, employment in the St. Mary's ED in Meath grew by 48% cumulatively or by 8% during 2006-2011).

In Table 4.2 below are shown the number of jobs within the main settlement areas of County Meath and the patterns and rates of inbound and outbound commuting in each case in 2011, based on analysis of POWSCAR 2011.²¹

Beginning with County Meath, the total number of jobs in 2011 (38,822) comprised 28,449 jobs held by people resident in the County and 10,373 jobs held by people living outside the County (inbound commuters). This meant an inbound commuter rate in that year of 27%. In addition, there were 32,942 jobs held by County Meath residents working outside the County in 2011, implying an outbound commuter rate of 54% (which, it turns out, was the highest outbound commuter rate of any local authority area outside of the Dublin Region in that year, where the outbound commuter rates were below 60% and thus not much higher compared with the rate in Meath).

The big challenge or opportunity for Meath is to facilitate more employment within the County, to ensure more economic impact locally. This goal bestrides the Economic Development Strategy, along with the complementary goal of ensuring a greater proportion of high quality, knowledge-oriented services employment, to which we turn below.

In regard to the area of interest, it is seen that the outbound commuter rate was especially large in the Drogheda Southern Environs LAP area in 2011 (well over 80%). However, the 845 jobs attributed to the area in that year do not include the employment due to Coca-Cola International Services, which commenced operations in the Southgate Centre in October 2011, after Census Day 2011 (10 April 2011).

Table 4.2: Number of Jobs in the Main Settlement Areas of County Meath and Rates of Outbound and Inbound Commuting (2011)

Settlement Area	No. Persons Employed in Settlement Area by Place of Residence				Commuting		
	Settlement Area		Outside County		Oubound		Inbound Commuter Rate
	Settlement Area	Other County Meath	Meath (Inbound Commuters)	Total	Oubound Commuters	Rate (from Meath)	
Navan	3,985	3,555	1,486	9,026	3,402	31.1%	16.5%
Trim	870	977	291	2,138	1,091	37.1%	13.6%
Kells	464	557	365	1,386	537	34.5%	26.3%
Ashbourne	647	392	400	1,439	3,190	75.4%	27.8%
Dunshaughlin	256	509	264	1,029	867	53.1%	25.7%
Ratoath	371	312	181	864	2,561	78.9%	20.9%
Drogheda (South)	177	141	527	845	2,020	86.4%	62.4%
Dunboyne	392	302	469	1,163	2,309	76.9%	40.3%
Clonee	36	80	183	299	306	72.5%	61.2%
Total	7,198	6,825	4,166	18,189	16,283	53.7%	22.9%
Meath Total		28,449	10,373	38,822	32,942	53.7%	26.7%

Source: CSO (POWSCAR 2011); PMCA Economic Consulting analysis.

Note: At the time of preparing this report (June 2017), the CSO POWSCAR 2016 data were not available. The settlement areas do not include the wider environs of the towns.

²¹ At the time of preparing this report in June 2017, POWSCAR 2016 is not available from the CSO (when it does become available, it will be on a limited, non-publicly available basis *via* application to the CSO, as with past incarnations of POWSCAR/POWCAR). We do not report employment estimates for 2016 in this table or in the next series of tables dealing with employment in the main settlement areas of Meath (Table 4.3-Table 4.4).

In Table 4.3 we show the percentage composition of employment in the main settlement areas of Meath and also the corresponding figures for the State, the Dublin Region (four local authority areas) and the Mid-East Region (Counties Kildare and Wicklow as well as Meath) in 2011.²²

Of particular interest is the contribution to total employment of the (CSO-defined) sector “*information and communication, financial, real estate, professional, administration and support service activities*”. In Census 2011, this important knowledge-oriented services sector (market or private sector) accounted for just 12% of all employment in County Meath, compared with 19% for each of the State and the Mid-East Region, and almost 30% in the Dublin Region (hence the red shading of the cell for County Meath). However, in the Drogheda Southern Environs LAP area, the proportion of such employment was comparably high (22%) and would have been even higher had the jobs due to Coca-Cola International Services, which came into the Southgate Centre in October 2011, been included in the CSO data (based on Census Day 12 April 2011).

The 22% proportion in the area of interest demonstrates the capacity of the area to accommodate such high quality employment. The challenge or opportunity is to facilitate the growth of the 22% proportion.

Table 4.3: Percentage Composition of Employment by Economic Sector in the Main Settlement Areas of County Meath, County Meath, the State, the Dublin Region and the Mid-East Region (2011)

Economic Sector	Navan	Trim	Kells	Ash.	Duns.	Ratoath	Drogheda	Meath	State	Dublin	Mid-East
							(South)			Region	Region
Agricultural, forestry & fishing	0.6%	0.8%	0.9%	0.4%	0.8%	0.8%	1.8%	9.4%	4.5%	0.0%	3.1%
Manufacturing, mining and quarrying, electricity, gas, water supply and waste management	9.6%	9.7%	7.6%	5.2%	5.1%	2.9%	4.7%	13.2%	12.9%	7.4%	12.6%
Construction	1.6%	1.5%	2.3%	3.1%	7.2%	3.4%	3.3%	4.1%	5.9%	3.9%	6.7%
Wholesale, retail trade, transportation and storage, accommodation and food service activities	28.8%	34.9%	27.8%	42.8%	29.9%	30.0%	48.0%	29.4%	26.8%	27.4%	26.4%
Information and communication, financial, real estate, professional, administration and support service activities	13.8%	11.7%	12.1%	17.1%	16.3%	11.9%	21.5%	11.5%	18.5%	28.7%	19.3%
Public administration and defence; compulsory social security	11.3%	9.1%	10.4%	4.1%	6.0%	0.7%	0.1%	5.4%	5.4%	5.5%	5.2%
Education, human Health and social work activities	28.4%	25.1%	31.5%	19.9%	27.0%	41.6%	16.6%	20.4%	20.6%	21.0%	20.4%
Other service activities	5.1%	6.0%	6.9%	5.4%	6.2%	7.3%	1.5%	5.0%	5.2%	6.1%	6.2%
Not stated	0.8%	1.1%	0.6%	1.9%	1.5%	1.5%	2.4%	1.7%	0.2%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CSO (POWSCAR 2011 and QNHS 2011 for the State, Dublin and the Mid-East Region); PMCA Economic Consulting analysis.

Note: At the time of preparing this report (June 2017), the CSO POWSCAR 2016 data were not available. The analysis shown in this table is based on the employment figures in Table A1, p. 47.

²² The corresponding table showing the levels of employment by economic sector is shown in Table A1 (p. 48). Dunboyne and Clonee have been excluded for the table (simply for reasons of space).

Another way to illustrate the relatively high density of knowledge-oriented, market-led private sector services employment in the Drogheda Southern Environs LAP area in Census 2011 is by reference to the locational quotient (LQ), which expresses the percentage employment contribution by economic sector compared with the State (an LQ greater than unity suggests comparative/competitive advantage).

As shown in the analysis of LQs presented in Table 4.4, the LQ for the (CSO-defined) “*information and communication, financial, real estate, professional, administration and support service activities*” sector was 1.16 in 2011, indicating that relative employment in that sector was 16% greater than the corresponding figure for the country as a whole (in the Dublin Region, the LQ for the sector in question was 1.55, illustrating the extent to which high quality knowledge-oriented services employment is concentrated in the Dublin Region).²³

Table 4.4: Composition of Employment by Economic Sector in the Main Settlement Areas of County Meath, County Meath, the State, the Dublin Region and the Mid-East Region (2011) – Locational Quotients compared with the State

Economic Sector	Navan	Trim	Kells	Ash.	Duns.	Ratoath	Drogheda	Meath	State	Dublin	Mid-East
							(South)			Region	Region
Agricultural, forestry & fishing	0.14	0.19	0.19	0.09	0.17	0.18	0.40	2.10	1.00	0.00	0.69
Manufacturing, mining and quarrying, electricity, gas, water supply and waste management	0.74	0.75	0.59	0.40	0.39	0.22	0.37	1.02	1.00	0.57	0.98
Construction	0.27	0.26	0.39	0.53	1.22	0.57	0.56	0.70	1.00	0.66	1.15
Wholesale, retail trade, transportation and storage, accommodation and food service activities	1.08	1.30	1.04	1.60	1.12	1.12	1.79	1.10	1.00	1.02	0.99
Information and communication, financial, real estate, professional, administration and support service activities	0.74	0.63	0.65	0.92	0.88	0.64	1.16	0.62	1.00	1.55	1.04
Public administration and defence; compulsory social security	2.09	1.69	1.93	0.76	1.12	0.13	0.02	1.01	1.00	1.03	0.97
Education, human Health and social work activities	1.38	1.22	1.53	0.96	1.31	2.01	0.80	0.99	1.00	1.02	0.99
Other service activities	0.98	1.17	1.34	1.05	1.20	1.41	0.30	0.96	1.00	1.18	1.19
Not stated	4.09	5.45	2.80	9.45	7.08	7.31	11.50	8.30	1.00	0.00	0.00

Source: CSO (POWSCAR 2011 and QNHS 2011 for the State, the Dublin Region and the Mid-East Region); PMCA Economic Consulting analysis.

Note: At the time of preparing this report (June 2017), the CSO POWSCAR 2016 data were not available. The analysis shown in this table is based on Table 4.3, which in turn is based on the employment figures in Table A1, p. 47.

²³ It will also be noticed from Table 4.4 that retailing, wholesaling, transport and logistics, and accommodation and food service activities has a very high LQ value in the Drogheda Southern Environs LAP area (see also Table 4.3, which shows that almost 50% of all employment in the LAP area was accounted for by this particular sector in Census 2011).

4.2.3 Baseline GVA

Figures on GVA per person employed or at work in the State, the NUTS 2 Southern & Eastern (S&E) Region and the NUTS 3 Mid-East Region in 2014 (latest year for which the CSO data are available and NUTS 3 is the most disaggregated geographical delineation) are shown in Table 4.5 (the statistics incorporate all sectors of the Irish economy and include foreign-owned as well as indigenously-owned enterprises as well as the public sector).

The figures shown below will be used to compare with the estimated GVA per person at work in respect of the proposed development later in this section of the report.

Countrywide, GVA per person at work was €100,499 in 2014. This figure appears large when set against average earnings, which is less than half the figure; but one must be mindful that the figure includes the effects of multinational enterprises (FDI) in Ireland, which are especially productive and/or generate considerable turnover and book large profits in the country. What is relevant here are the relative GVA per person at work figures for the regions shown, where it is seen that the largest is in the NUTS 2 S&E Region, which reflects the effect of the FDI in the Dublin Region, and that in Cork and Limerick too. On the other hand, GVA per person at work is lowest in the NUTS 3 Mid-East Region (which is part of the NUTS 2 S&E Region), and reflects the relatively low FDI services employment in that NUTS 3 Region, not least in County Meath.

The challenge or opportunity for County Meath is to enhance GVA per person at work and this can be achieved through facilitating more knowledge-oriented services employment in the County, including from FDI firms. Later in this section, we will derive an estimate of GVA per person employed/at work in respect of the proposed development on the Shannon Homes lands, with which we can compare with the figures in Table 4.5 here.

Table 4.5: Gross Value Added per Person Employed or at Work in Ireland and Selected Regions within Ireland of Relevance to the Proposed Development (2014)

<u>GVA per Person Employed/at Work</u>	<u>€</u>
State	€100,499
NUTS 2 Southern & Eastern Region	€113,074
NUTS 3 Mid-East Region	€69,670

Source: CSO (output and value added data); PMCA Economic Consulting analysis.

Note: The latest year to which the CSO data pertain is 2014. GVA is GVA at market prices.

4.2.4 Summary of the Economic Baseline

The key facts in regard to the baseline economic performance of County Meath and the Drogheda Southern Environs LAP area in which the proposed development would occur are summarised as follows:

- Employment
 - Population has far out-paced employment over the past decade, as reflected in the very low jobs/population ratio in Meath (estimated at 22% versus 43% for the State in 2016),
 - The ratio is even lower in the St. Mary's ED in Meath, within which the proposed development would occur (employment/population ratio estimated at 13% in 2016)

- The very low employment-to-population ratio in Meath and locally in the Drogheda Southern Environs LAP area reflects the extent of outward commuting, which has been estimated at 54% for the County (the highest rate of any local authority outside of the Dublin Region in Census 2011) and at 86% in the LAP area in question (the highest rate among the main settlements in County Meath in that year)
- The very low jobs/population ratios in Meath are unlikely to be sustainable in the long-term given the costs on commuters and community development within the County
- Addressing the high outbound commuting from Meath by enabling more job creation within the County is one of the key goals of the Economic Development Strategy for County Meath 2014-2022, which plans on raising employment within the County by 7,500 between 2011 and 2022 – a realistic and achievable aim and one that would be aided to an appreciably large extent through the proposed development
- Another key objective of the Economic Development Strategy concerns the nature of the employment growth, where the aim is to create more high quality knowledge-oriented services employment (mainly market-led or private sector) in the County by 2022²⁴
- In 2011, such employment accounted for only 12% of all jobs in County Meath, compared with 19% in the State, and in the Mid-East Region, and almost 30% in the Dublin Region
- The challenge or opportunity is to raise the 12% proportion towards the level of the State;
- This can be achieved (at least in principle) because many of the almost 33,000 outbound commuters from the County were employed in professional services in 2011, as shown in the Economic Development Strategy
- In the Drogheda Southern Environs LAP area, the corresponding proportion was 22% in 2011, which is likely to be even higher today because the 2011 figure did not include the positive impact of the FDI employment at the Southgate Centre (from October of that year, after Census Day of 12 April 2011) (*via* Coca-Cola International Services)
- The 22% proportion in respect of professional/knowledge-oriented services in the LAP area in question demonstrates the area's ability to accommodate such employment, including more FDI employment
- The proposed development would help to overcome what is considered to be the main impediment to more FDI in the Drogheda area currently, namely the lack of large-scale, high quality workspace
- GVA
 - GVA per person employed or at work is likely to be lower in County Meath compared with the NUTS 3 Mid-East Region, the NUTS 2 S&E Region and the (NUTS 1) State, reflecting the paucity of high value services employment, including FDI, in the County.
 - The proposed development has the potential to impact very positively on GVA/person.

²⁴ Further illustration of the fact that the local labour market in Meath is characterised by relatively low knowledge-oriented, professional services employment comes from consideration of the educational attainment of the three categories of workers outlined here – the people who both live and work in the County, the inbound commuters and the outbound commuters. Of the 28,449 people who both lived and worked in the County in 2011, 7,081 or 25% had third-level or higher educational attainment (compared with 38% for the State). The corresponding proportions for the inbound and outbound commuters were 37% and 41%. The relatively low educational attainment of the people working in the County reflects the traditional nature of the employment base there (facts here based on analysis of POWSCAR 2011).

4.3 Economic Activities Relevant to the Proposed Development

It is envisaged that the proposed development on the Shannon Homes lands, comprising 120,000 ft² of high quality office space, would be capable of accommodating 1,500 FTEs when completed (by the end of the period spanning the Economic Development Strategy for County Meath, namely 2022, it is assumed for the purposes of this report).

In terms of the composition of the 1,500 new jobs, the majority would be in market-led, private sector professional services (in the aforementioned “*information and communication, financial, real estate, professional, administration and support service activities*”), composed of foreign-owned and Irish-owned employment. The remaining (minority) of the new jobs would be in non-market, public sector services employment. Manufacturing employment (high-tech or traditional) is not envisaged. The composition of the new jobs would be similar to that in the Southgate Centre, which is to say predominantly private sector services and some public sector services employment), but on a larger scale.

More specifically, it is envisaged that the proposed development would accommodate three sectors of services employment with the following percentage splits and FTEs (per annum):

- *Private sector professional services* – 50% and 750 FTEs;
- *Other private sector professional Services* – 25% and 375 FTEs;
- *Public sector services* – 25% and 375 FTEs.

Further details of the specific economic activities within the three sectors are given in Table 4.6.

Table 4.6: Details of the Specific Activities of Employment in the Proposed Development

Sector	Specific Activities (NACE Rev 2, CSO)
Private Sector Professional Services	<ul style="list-style-type: none"> √ Publishing, film and broadcasting √ Telecommunications services √ Computer consultancy; data processing √ Financial intermediation services √ Insurance, reinsurance and pension funding √ Other financial activities √ Real estate services √ Legal and accounting services; mgt consultancy √ Architectural and engineering services √ Scientific research and development services √ Advertising and market research services √ Other professional, scientific services
Other Private Sector Professional Services	<ul style="list-style-type: none"> √ Rental and leasing services √ Employment services √ Travel and tourism service activities √ Security, office & business support services
Public Sector Services	<ul style="list-style-type: none"> √ Public administration √ Education services √ Human health and social work services

Source: PMCA Economic Consulting analysis.
Note: The private sector FTEs would include both FDI and Irish-owned employment.

The specific activities in the table above, which PMCA considers are capable of being accommodated on an appreciably large-scale on the subject lands, are self-explanatory in terms of their functions, with the distinction between the first category (private sector professional services) and the second category (other private sector professional Services) is that the former consist of core professional services while the latter comprise professional services of a supportive or administrative nature; although this does not necessarily mean that the knock-on economic impacts of the former will exceed the latter.

4.4 Direct Employment and GVA Impacts

4.4.1 Direct Employment Impact

Generally speaking the direct employment impact refers to the number of FTEs directly attributable to a proposed project, without also adding in the knock-on employment impacts (which, as explained below, are derived by applying estimated economic multipliers to the direct employment impacts).

The direct employment impacts of the proposed development are summarised in Table 4.7, which is based on the aforementioned 50%-25%-25% distribution of the 1,500 FTEs in respect of the three broad categories of services employment that would be catered for by the proposal. It is not necessary to split out any further the 750, 375 and 375 FTEs by the specific activities shown in the preceding table (too much guess work would be involved, without knowing the identities of the new tenants of the proposed development, which would ultimately be determined by the commercial real estate market).

In addition, the private sector FTEs would include both FDI and Irish-owned employment; but it is not necessary to split these out because the official CSO data underlying the economic impact multipliers, which are applied to the direct employment impacts to yield the knock-on employment impacts and thus the total employment impacts subsequently in this section of the report, embody both FDI and Irish-owned employment.

<u>Employment Impact (Direct)</u>	<u>FTEs</u>
Proposed Development <i>within which</i>	1,500
Private Sector Professional Services	750
Other Private Sector Professional Services	375
Public Sector Services	375

Source: PMCA Economic Consulting analysis.

The envisaged 1,500 new direct jobs for the area by 2022 are both ambitious but achievable, and they would have a substantial impact on employment in the Drogheda Southern Environs LAP area and in County Meath.

It has been estimated earlier that there were 1,505 jobs in the St. Mary's ED in Meath (the ED in which the proposed development would occur) and 42,874 jobs in County Meath overall, based on the assumption that employment in these geographical areas grew at the same rate as in the country as a whole during 2011-2016, namely by 2% per annum on average (Table 4.1, p. 27).

Maintaining this growth rate assumption – which is in line with Government’s (Department of Finance’s) current projections, adjusted for the risks of Brexit and other international uncertainty – it is estimated that employment in the St. Mary’s ED in Meath would grow to almost 1,700 by 2022, while the corresponding figure for County Meath is 48,299, representing an increase of 9,477 on the employment level in 2011, meaning that the target to increase employment in the County by 7,500 between 2011 and 2022, as specified in the Economic Development Strategy, would be met ahead of schedule (by 2020, with employment in that year estimated at 7,597).

These projections do not include the direct employment contribution of the proposed project, which would see a further 1,500 jobs in the St. Mary’s ED and in County Meath, not to mention additional new employment and strengthened existing employment from the knock-on economic impacts of the proposal. These are outlined below.

Accordingly, the direct employment impact of the proposed development would be substantial, and the high quality nature of the jobs envisaged under the proposal would have the added benefit of broadening the employment base of the County, commensurate with the local and wider skills/talent pool within and around Co. Meath and in line with the Economic Development Strategy and the Meath CDP 2013-2019.

4.4.2 Direct GVA Impact

The direct GVA impact of the proposed development is shown in Table 4.8, which reveals that the direct GVA impact would be €179m, contributed to mostly from the direct GVA impact of the main private sector professional services sector.

GVA Impact (Direct)	€m
Proposed Development <i>within which</i>	179
Private Sector Professional Services	115
Other Private Sector Professional Services	43
Public Sector Services	20

Source: PMCA Economic Consulting analysis.

To understand how these estimates have been derived, and to give some more context to their meaning, we examine the key metric of GVA per person employed or at work attributed to the proposal, with which we can compare GVA per person at work across all economic activities in the State, the S&E Region (NUTS 2) and the Mid-East Region (NUTS 3), which we derived earlier in Table 4.5 (p. 32).

First, for the specific activities underpinning the *private sector professional services* category of employment in the proposed development shown in Table 4.6 above (p. 34), we know from other CSO data on GVA that GVA in respect of all the specific activities making up this category totalled €48,194m in 2014 and from further CSO data (on employment in the sectors of the Irish economy) that total employment in the specific activities was 313,700 in 2016 (i.e. total employment in the sectors of information and communication (J), financial, insurance and real estate activities (K,L) and professional, scientific and technical activities (M)). This leads to the estimate of €153,631 in respect of GVA per person employed/at work in the *private sector professional services* in the State.

Second, the corresponding estimate for GVA per person employed/at work regarding the employment category *other private sector professional services* is €115,303, based on the CSO figure of €7,610m for total GVA in respect of the specific activities making up this employment category and corresponding employment of 66,000 from the CSO employment data (for the sector administrative and support service activities (N)).

Lastly, the corresponding estimate for GVA per person employed/at work pertaining to the third category public sector services is €54,636, which is based on the CSO figure of €27,422m for total GVA in respect of the specific activities making up this employment category and corresponding employment of 501,900 from the CSO employment data (for the sectors public administration and defence, compulsory social security (O), education (P) and human health and social work activities (Q)).²⁵

Taking the three derived GVA per person employed/at work estimates and weighting them by the sectors' respective shares of the 1,500 FTEs in the proposed development leads us to the estimate of €119,300 for GVA per person employed/at work in the proposed development.

The composition of this GVA per FTE estimate (€119,300, which, as explained, is a weighted average) is shown in Table 4.9, where we also compare the estimate with GVA per person employed or at work (among all economic activities) in the State (€100,499), the NUTS 2 S&E Region (€113,074) and the NUTS 3 Region (€69,670) (these figures were shown previously in Table 4.5, p. 32).

According to the analysis conducted here, the proposed development on the subject lands would yield greater GVA per person employed or at work compared with elsewhere in the State on average, illustrating the high quality (E1-type) nature of the proposed development.

Table 4.9: Direct Gross Value Added (GVA) per Person Employed/at Work Impact of the Proposed Development compared with Elsewhere in the State (All Employment Activities)

<u>GVA per Person Employed/at Work (Direct)</u>	<u>€</u>	<u>% of Proposed Development</u>
Proposed Development <i>within which</i>	€119,300	100%
Private Sector Professional Services	€153,631	
Other Private Sector Professional Services	€115,303	
Public Sector Services	€54,636	
State	€100,499	84%
NUTS 2 Southern & Eastern Region	€113,074	95%
NUTS 3 Mid-East Region	€69,670	58%

Source: PMCA Economic Consulting analysis.

²⁵ These three sectors may include some private sector employment (e.g. private educational institutions) but they are predominantly public sector and the derived impacts are taken to be representative of public sector impacts (direct).

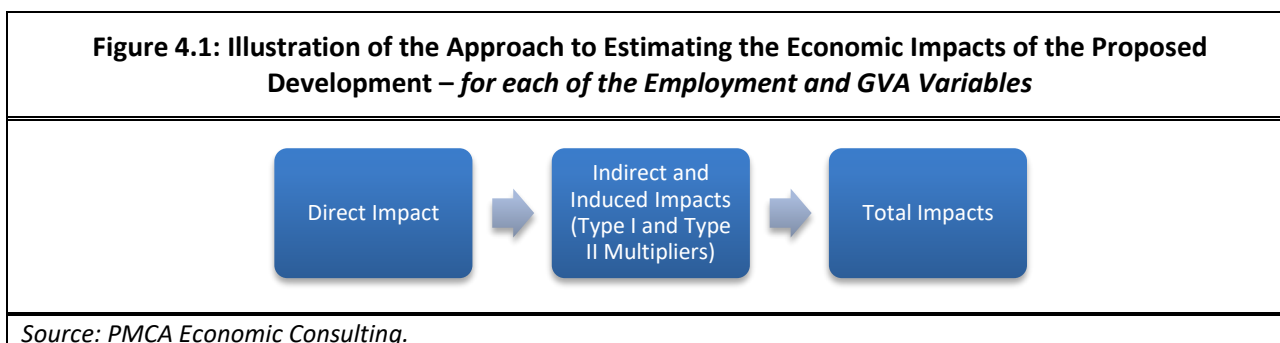
Multiplying the estimated GVA per FTE of the respective sectors in the proposed development by the respective FTEs envisaged (i.e. €153,631 by 750 FTEs for the private sector professional services sector, €115,631 by the 375 FTEs in the other private sector professional services sector and €54,636 by the 375 FTEs in the public sector services category) leads to the corresponding aggregates of €115m, €43m and €20m per annum and the overall total of €179m in GVA from the proposed developed each year, as shown in Table 4.8 above.

4.5 Estimated Total Economic Impacts of the Proposed Development

4.5.1 Approach to Economic Impact Assessment

For each of the two economic impact variables – namely employment (FTEs) and GVA (€m) – the following economic impact analysis begins by taking the direct economic impacts to which are applied estimated economic impact multipliers to derive the total economic impacts, comprising both the direct and the knock-on economic impacts in each case. To ensure a comprehensive assessment of the knock-on economic impacts, we apply Type II economic impact multipliers – specifically Type II employment multipliers to get the knock-on impacts from the direct employment impacts of the proposed development and Type II GVA multipliers in respect of the GVA economic impact variable.

Type II multipliers are generally speaking the broadest economic impact multipliers and capture both indirect and induced effects – the former refer to knock-on economic impacts occurring in intermediate production (supply chain effects) and the latter to knock-on economic impacts at household/consumer level (final demand). In contrast, Type I multipliers are limited to indirect effects (but Type I multipliers are nevertheless of use in showing indirect effects).



PMCA has a library of estimated Type I and Type II economic impact multipliers for all 50+ sectors of the Irish economy, which include the specific services of relevance to the proposed development. Each multiplier has been estimated by PMCA using special, official data from the CSO – it is not possible to accurately estimate economic impact multipliers using other data (the other estimated economic impact multipliers in the PMCA library are output and income multipliers as well as the employment and GVA multipliers).

The particular CSO data in question (enabling estimation of Type I and Type II economic impact multipliers) are input-output and supply and use tables, which are published by the CSO every 4 or so years, reflecting the effort needed to compile the data. The latest such data for Ireland are for 2011 (they were published by the CSO in December 2014). The next tranche of data enabling estimation of Type I and II economic impact multipliers will be published by the CSO in 2018 and will pertain to 2015 (according to the CSO).

In the tables of data published for 2011, the CSO also published estimates of Type I output multipliers for each of the 50+ sectors in the data. PMCA independently confirmed the CSO's estimates, before proceeding to estimate the other three forms of Type I multiplier plus all four forms of Type II multiplier for the sectors.

Two observations concerning the economic impact multipliers and their application in studies of this nature are made presently.

First, the multipliers are national in scope, as opposed to regional or local, owing to the fact that the underlying CSO input-output and supply and use tables are for the national economy. That said, in any given part of the country where an economic stimulus or investment project is implemented, the knock-on or indirect and induced effects are most likely to be felt to the greatest extent close to where they occur, namely within the local area in question. In the context of this report, this means that the total economic impacts of the proposed project (both the direct and knock-on impacts) are likely to be felt to the greatest extent in the greater Drogheda area (see the delineation by EDs given in Table 4.1, p. 27), thereby benefitting mostly the people/residents and businesses in both the Louth and Meath parts of Drogheda (Drogheda and its wider hinterland). This is not to say that areas outside of the greater Drogheda area will not benefit accordingly – on the contrary County Meath will be a major beneficiary of the project through commercial rates to Meath County Council and it is envisaged that many people resident in the rest of the County will gain by becoming employed in the new offices, some or many of which may switch from employment in Dublin to come back and work closer to their place of residence.

Secondly, since the latest available multipliers (estimated using the most robust official data available) pertain to 2011, when Ireland was still in recession/crisis, under the watch of the Troika, the estimated knock-on economic impacts applied in this report may under-estimate the total economic impact of the proposed development compared with the 'normal' performance of the Irish economy (it is expected that the 2015 multipliers will be higher on average compared with the 2011 multipliers used here when the underlying CSO data for 2015 become available in 2018). However, rather than artificially or subjectively adjust the multipliers based on the 2011 data upwards – which would be an inadvisable and error-prone thing to do, statistically speaking – we maintain the robustly estimated multipliers for 2011 (the latest data enabling estimation of the multipliers at the present time) to derive the knock-on economic impacts of the already-determined direct employment and GVA impacts as presented above (Table 4.7-Table 4.8 above) (with the proviso that the total economic impacts here may be under-estimated).

4.5.2 Estimated Economic Impact Multipliers

The estimated economic impact multipliers used for calculating the knock-on economic impacts (indirect and induced effects) associated with the direct economic impacts are shown in Table 4.10 below. Shown for each of the three broad sectors – private sector professional services, other private sector professional services and public sector services – are the specific activities making up the broad sectors. The employment and GVA multipliers are the averages of the corresponding Type II multipliers for each of the specific activities.

For example, it is seen that the greatest knock-on employment and GVA impacts are in the public sector services, where each direct FTE job due to the proposed development would be associated with on average the creation or sustenance of an additional 2.2 FTEs elsewhere in the economy (both the indirect and induced effects) and where each €1m in GVA due to the proposal would stimulate an additional €1.3m more widely in the economy (the greater knock-on economic impacts associated with the public sector is consistent with other research/estimates and reflects the reliance of the public sector on other sectors of the national economy).

Table 4.10: Estimated Economic Impact Multipliers for Calculating the Knock-On Economic Impacts of the Proposed Development

Sector	Specific Activities (NACE Rev 2, CSO)	Economic Impacts - Average Type II Employment and Type II GVA Multipliers							
		Employment Impact (FTEs)				GVA Impact (€m)			
		Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Private Sector Professional Services	√ Publishing, film and broadcasting	1.0000	1.6040	0.3655	1.9695	1.0000	1.7349	0.2446	1.9795
	√ Telecommunications services								
	√ Computer consultancy; data processing								
	√ Financial intermediation services								
	√ Insurance, reinsurance and pension funding								
	√ Other financial activities								
	√ Real estate services								
	√ Legal and accounting services; mgt consultancy								
	√ Architectural and engineering services								
	√ Scientific research and development services								
√ Advertising and market research services									
√ Other professional, scientific services									
Other Private Sector Professional Services	√ Rental and leasing services	1.0000	2.1873	0.5900	2.7773	1.0000	1.8800	0.3948	2.2748
	√ Employment services								
	√ Travel and tourism service activities								
	√ Security, office & business support services								
Public Sector Services	√ Public administration	1.0000	2.4721	0.7353	3.2073	1.0000	1.8571	0.4920	2.3491
	√ Education services								
	√ Human health and social work services								

Source: CSO input-output and supply/use tables (2011) published Dec 2014; PMCA Economic Consulting analysis.

Note: The underlying CSO data enabling estimation of Type I and II economic impact multipliers for each of 50+ sectors of the Irish economy are the latest available at the time of preparing this report in June 2017. The next CSO input-output and supply and use data will be published in 2018 and will be for the year 2015.

4.5.3 Estimated Employment and GVA Impacts

The full economic impact estimates of the proposed development are shown overleaf in Table 4.11, where given are the estimated employment impacts (FTEs), showing the direct, indirect, induced and total impacts, and the corresponding estimates in respect of GVA (€) (also shown at the end of the table are the estimated economic impacts in regard to GVA per FTE). The largest of the knock-on economic impacts are the indirect effects, which show the significance of the intermediate supply chain or business-to-business effects.

According to the analysis, the 1,500 FTEs due directly to the proposed development in the subject lands will result in the creation or sustenance of an additional 2,221 FTEs elsewhere in the economy. The greatest knock-on employment impact will be due to the 375 public sector jobs, which it is estimated will give rise to the creation or sustenance of an extra 828 FTEs in the economy, reflecting the reliance/usage of the public sector on other sectors in the economy.

Turning to GVA, or the impact of the proposed project on national income, the €179m in GVA directly attributable to the proposal will in turn give rise to an estimated even greater €196m in GVA elsewhere in the economy, with the greatest knock-on GVA impacts occurring from the private sector activities making up the proposed development.

GVA per FTE directly from the proposed development is estimated at €119,300, which is 19% greater than GVA per person employed/at work across all sectors in the State, 6% higher compared with the same metric in the NUTS 2 S&E Region and 71% bigger *vis-à-vis* the NUTS 3 Mid-East Region (Table 4.9, p. 37).

The GVA per FTE estimates compared with the State, the NUTS 2 S&E Region and the NUTS 3 Mid-East Region illustrate the high quality nature of the employment and economic activities envisaged for the proposed development, where the overall GVA per FTE directly due to the project is estimated to lead to knock-on GVA per FTE of over €100,000 throughout the rest of the economy.

Economic Impact Variable & Sector	Estimated Economic Impacts (Per Annum)				
	Direct	Knock-On			Total: Direct & Knock-On
		Indirect	Induced	Indirect & Induced	
Employment (FTEs)	1,500	1,450	771	2,221	3,721
Private Sector Professional Services	750	453	274	727	1,477
Other Private Sector Professional Services	375	445	221	666	1,041
Public Sector Services	375	552	276	828	1,203
Gross Value Added (GVA) (€m)	179	140	55	196	375
Private Sector Professional Services	115	85	28	113	228
Other Private Sector Professional Services	43	38	17	55	98
Public Sector Services	20	18	10	28	48
Gross Value Added (GVA) per FTE (€)	119,300	96,731	71,761	88,064	100,655
Private Sector Professional Services	153,631	186,922	102,810	155,215	154,411
Other Private Sector Professional Services	115,303	85,457	77,161	82,703	94,441
Public Sector Services	54,636	31,810	36,563	33,393	40,017

Source: CSO data; PMCA Economic Consulting analysis.

4.5.4 Geographical Extent of the Economic Impacts

Because the economic impact multipliers applied to the direct employment and GVA impacts are based on official CSO input-output and supply and use tables for all sectors across the Irish economy, the geographical extent of the total economic impacts presented in Table 4.11 are national in scope. However, while in principle this is true, in practice the greatest economic impacts will be felt in the greater Drogheda area and in Counties Meath and Louth, and Fingal, which are contiguous to the epicentre of the proposed development.

Of particular importance for Meath County Council are the 1,500 new jobs that will be created in the Drogheda Southern Environs LAP area within the Council's administrative area, which will have substantial knock-on employment and added value benefits for other businesses, and consumers, in the local administrative area. In addition, the new direct jobs due to the proposed development will have a significant effect in widening the economic base of employment within the County, in line with the objectives of the Economic Development Strategy for County Meath 2014-2022, which it to say facilitating more high quality professional services (E1-type) employment within the County, including FDI as well as jobs in Irish-owned enterprises. The effects of the proposed development on the percentage composition of employment in Meath are outlined overleaf.

4.5.5 Displacement

In all economic developments, there will inevitably be an element of displacement, in which the new jobs directly attributable to a proposed project will displace existing jobs in a location. However, it is impossible to accurately estimate what the degree of displacement will be in any given project and the proposed development under consideration here is no different.

Of more significance is that a very large number of new employment opportunities will be created as a direct result of the proposal. The new opportunities will give outbound commuters living in the local area or more widely in County Meath the chance to re-locate their place of work closer to where they live.

Accordingly, County Meath generally and Meath County Council in particular will be among those to benefit most significantly from the economic impacts of the proposed development.

4.6 Projected Composition of Employment in 2022

We now turn to the projected composition of employment in the Drogheda Southern Environs LAP area and County Meath as a whole in 2022, and in particular to the percentage of all employment in each location due to the identified sector *“information and communication, financial, real estate, professional, administration and support service activities”*.

It is recalled from earlier (Table 4.3, p. 30) that this key sector accounted for 12% of all employment in County Meath in 2011, compared with 19% for the State, 19% in the Mid-East Region and almost 30% in the Dublin Region; the corresponding proportion in the Drogheda Southern Environs LAP area was reasonably high in that year at 22%.

Among the key objectives of the Economic Development Strategy for County Meath 2014-2022 is to not only grow employment within the County but also to enhance the quality of jobs therein, by increasing employment in the aforementioned key sector, so that the gap between Meath and other parts of the country is reduced.

The proposed development in the Drogheda Southern Environs LAP area, which will result in the creation of 1,500 new jobs in that part of County Meath, will take the County very far in meeting this important goal of the Economic Development Strategy, even if not all of the jobs are in place by 2022.

Recalling Table 4.3 on page 30, there were 182 jobs in the sector in question in Census 2011 and it was noted that this figure does not include the jobs due to Coca-Cola International Services, which commenced operations from the Southgate Centre in the LAP area in October of that year, after Census Day (12 April 2011). Adding in these jobs (300 FTEs) and including other significant employment developments, as well as taking into account the general growth in employment (in line with the national economy), implies that the proportion of all projected employment in County Meath in 2022 will be in the region of 18% by 2022 (which will be very good news for the County because it is very likely, in PMCA’s view, that the 7,500 additional jobs on the level in 2011 will be met by that year).

The other significant employment developments (in addition to the 1,500 high quality jobs due to the proposed development) include (by are not limited to): 100 manufacturing and services jobs in the Boann Distillery and Visitor Centre in the LAP area; 400 jobs in respect of the Shire facility in Dunboyne; and 400 jobs due to the Facebook data centre and the Aramark (owners of Avoca) services centre in the same part of the County (all FTEs). Of course, these are only some of the jobs developments underway or that will come about in the coming years to the year 2022 but the illustrative uplifts in employment also illustrate the scale and impact of the envisaged 1,500 FTEs associated with the proposed development.

The exact percentage share of the “*information and communication, financial, real estate, professional, administration and support service activities*” sector will only be known at the time (in Census 2021 or Census 2026) but it can be said with a high degree of confidence that the 1,500 FTEs due directly to the proposed development will have the capacity to transform the local economy of County Meath, as well as that of the greater Drogheda area. Even if half or fewer of the 1,500 FTEs envisaged from the proposal eventuate by 2022, the direct and knock-on economic impacts will still be substantial.

4.7 Travel and Transport Implications

While this report is primarily concerned with the economic impacts of the proposed development, we can also comment briefly on the likely travel and transport implication of the new development, which will be substantial.

Based on POWSCAR 2011, and work carried out by Maynooth University in advance of the Economic Development Strategy for County Meath 2014-2022, the commuter flow from within Meath to work in the Drogheda Southern Environs LAP area is very low with only a small catchment area in the immediate hinterland. Many of the (845) jobs located within this area in 2011 were in fact filled by workers from the northern half of Drogheda settlement area in County Louth, according to the Maynooth University study (p. 47).

In respect of the very large flow of outbound commuters from the greater Drogheda area (as delineated earlier in this report, Table 4.1, p. 27), where it is estimated that well over 10,000 people commute out of the area to work each day, of which almost 80% travel to Dublin (based on POWCAR 2006 and POWSCAR 2011 – POWSCAR 2016 was not available at the time of preparing this report in June 2017), the predominant form of travel mode is private car with public transport occupying a much smaller share.

If and when the proposed development commences and reaches its economic potential, of 1,500 direct jobs in the subject lands, which we would envisage could be in place by the early years of the next decade, the location of McBride Rail Station and its link into the campus-style development would become very important for ensuring a greater share of public transport. In terms of private car access to the site, the approach roads towards the Colpe and Mill Roads would be important (particularly the R132 from the south and the north (from Drogheda)).

5 Concluding Remarks

The proposed development on the subject lands on Shannon Homes-owned lands is a very significant one. It is also timely and relevant in the context of the various economic development plans underway in County Meath, which are being led by Meath County Council and which have already had large impact in line with what was intended in the Economic Development Strategy 2014-2022. The proposed development would directly address the missing link in achieving more high quality employment in Drogheda and in Meath, namely the availability of high quality office accommodation capable of meeting the demand for such space in the market at the current time.

The direct jobs impact of 1,500 FTEs would be substantial, not just in the immediate area but also for County Meath and in the wider functional region. It would enable many local residents to work closer to where they live, with consequent social and community benefits in addition to the economic impacts set out in this report. In line too with the Economic Development Strategy, it would also serve to broaden the base of employment in the County and make Meath a more attractive and robust part of the country economically.

Annex: Supplementary Information

Figure A1: Map of the (Proposed) Three New Regional Assembly Areas (from 2015) – the EMRA Region in which County Meath is Located comprises three Strategic Planning Areas: Eastern SPA (Kildare, Louth, Meath and Wicklow); Midland SPA (Longford, Laois, Offaly and Westmeath); and Dublin SPA (Four Local Authorities of Dublin)



Source: The Department of Housing, Planning, Community and Local Government.

Note: EMRA's Regional Spatial and Economic Strategy (RSES) will replace the RPGs for the GDA post-2022.

Figure A2: Drogheda Development Plan 2011-2017 Map



Source: Louth County Council (from the website of Louth County Council [here](#)).

Note: The map was produced in 2011 by the then Drogheda Borough Council, which was subsumed into Louth County Council in 2014.

Table A1: Composition of Employment by Economic Sector in the Main Settlement Areas of County Meath, County Meath, the State, the Dublin Region and the Mid-East Region (2011)

Economic Sector	Navan	Trim	Kells	Ash.	Duns.	Ratoath	Drogheda (South)	Meath	Dublin Mid-East		
									State (000)	Region (000)	Region (000)
Agricultural, forestry & fishing	56	18	12	6	8	7	15	2,670	82	0	7
Manufacturing, mining and quarrying, electricity, gas, water supply and waste management	867	207	105	75	52	25	40	3,761	239	40	29
Construction	144	33	32	45	74	29	28	1,165	109	21	15
Wholesale, retail trade, transportation and storage, accommodation and food service activities	2,601	746	385	616	308	259	406	8,356	494	148	60
Information and communication, financial, real estate, professional, administration and support service activities	1,244	251	168	246	168	103	182	3,262	342	155	44
Public administration and defence; compulsory social security	1,017	194	144	59	62	6	1	1,540	99	30	12
Education, human Health and social work activities	2,562	536	436	286	278	359	140	5,798	381	113	46
Other service activities	459	129	96	78	64	63	13	1,411	96	33	14
Not stated	76	24	8	28	15	13	20	486	4	0	0
Total	9,026	2,138	1,386	1,439	1,029	864	845	28,449	1,846	541	226

Source: CSO (POWSCAR 2011 and QNHS 2011 for the State, the Dublin Region and the Mid-East Region); PMCA Economic Consulting analysis.

Note: At the time of preparing this report (June 2017), the CSO POWSCAR 2016 data were not available. The corresponding table showing the percentage composition of employment by economic sector is given in the main body of the report (Table 4.3, p. 30). Note also that the employment figures for the State, the Dublin Region and the Mid-East Region are measured in thousands of jobs (000) as opposed to those in Meath and its main settlement areas, which are in units of jobs. The corresponding analysis of locational quotients is presented in Table 4.4, p. 31.

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19/01/18

Re: Mill Road / Marsh Road Urban Design Framework Plan December 2017
Economic Impact Assessment of the Proposed Mill Road Enterprise Park, December 2017

Dear Mr Hughes,

I refer to the final draft of the above named documents proposed on behalf of Shannon Homes (Drogheda) Ltd for the lands at the Mill Road / Marsh Road Area in the Drogheda Southern Environs, County Meath and received by the Planning Authority on the 12th of December 2017. The Urban Design Framework Plan is a requirement of policy objective MMA1 on page 75 of the Drogheda Environs Local Area Plan 2009 as these lands are to be "developed in accordance with an approved Urban Design Framework Plan to safeguard the proper and sustainable development of the area". It is therefore the purpose of this letter to validate and approve the Urban Design Framework and the Economic Impact Assessment prior to the submission of any application.

The Urban Design Framework Plan Area is strategically located southeast of Drogheda Town Centre along the Belfast – Dublin Rail line, and adjacent to the River Boyne and the M1 corridor. There are a number of land use zonings within the Mill Road / Marsh Road Urban Design Framework Plan Area, including White Lands, High Amenity, Enterprise and Employment. Community and Educational. The Framework Plan reflects the current policy and provides guidance for the coherent development of a significant area of strategic undeveloped land.

The Framework Plan presents an accurate description and outline of current land uses within the area including greenfield sites in agricultural use, one off housing, Educational uses such as Drogheda Grammar School, Gaelscoil an Bhradain Feasa and Le Cheile Educate Together National School. Future development proposals shall be reflective and compatible with existing land uses whilst allowing for organic growth and development of the wider area. Key transport links for vehicles, cyclists and pedestrians are referenced in the Framework Plan and are designed in greater detail in the associated *Transport Study for the Lands at Mill Road / Marsh Road* which has been approved by the Transportation Section of Meath County Council. The Transportation study and the Urban Design Framework Plan seeks to facilitate the provision of the necessary sustainable transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.

Finally it should be noted that the Urban Design Framework Plan represents an indicative layout and proposals for the overall site and with the passing of time, changes in landownership and the local economy, this plan may be amended. It may therefore be viewed as part of an iterative process and can be amended in conjunction with future planning applications on site providing that it remains compliant with all policies and objectives of the Meath County Development Plan 2013-2019 and the Drogheda Environs Local Area Plan 2009 (and any future iteration of these documents)

In summary, we confirm that the submitted documents referred to above have been assessed and are deemed to be acceptable to the Planning Authority and in compliance with relevant requirements. We trust that the foregoing is to your satisfaction.

Billy Joe Padden
Executive Planner

Pat Gallagher
Senior Planner

Project

Lands at Mill Road / Marsh Road, Drogheda

Report Title

TRANSPORTATION STUDY

Date

December 2017

Client

Meath County Council



Document Control

Job Title: Lands at Mill Road / Marsh Road, Drogheda

Job Number: p170092

Report Ref: p170092-Rep-001 Transportation Study Working Draft

Author: Mark Kelly

Reviewed by: Robert Kelly

Date: December 2017

Distribution: Meath County Council
DBFL Consulting Engineers

Revision	Issue Date	Description	Prepared	Reviewed	Approved
1 st Working Draft	11/10/2017	Client Review	MK	RK	DR
2 nd Working Draft	03/11/2017	Client Review	MK	RK	DR
Final	05/12/2017	Submission to Meath County Council	MK	RK	DR

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EXECUTIVE SUMMARY

Study Area

This Transportation Study relates to an area located in the south-eastern environs of Drogheda, in the town lands of Colpe, Colpe West and Stagrennan. The Lands are bounded to the north by the Marsh Road, to the south by the Dublin – Belfast Railway line, to the west by the townland of Newtown and part of Lagavoreen which contains the Drogheda Waste Water Treatment Plant. The eastern boundary comprises Mill Road running in a north south direction linking Marsh Road with Colpe Road.

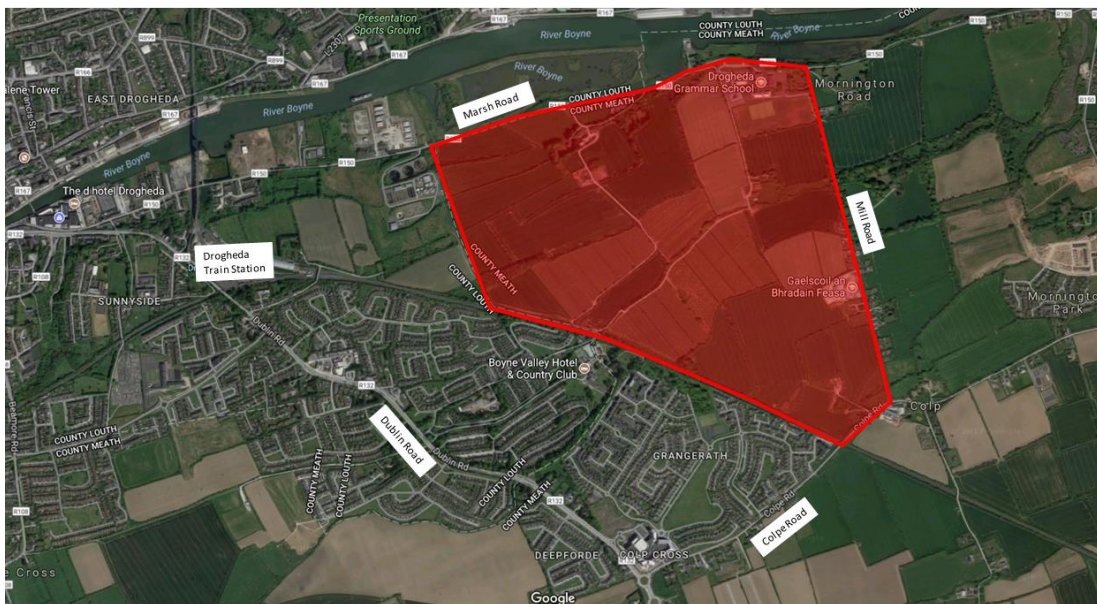


Figure (i): Proposed Scheme Study Area

The Study has been prepared to inform the development of an Urban Framework Plan (UFP) for the Mill Road/Marsh Road Lands and is part of the implementation process set out in the Southern Environs of Drogheda Local Area Plan (LAP).

The future development of the Plan Lands will be dependent on the development of sustainable transport, together with the development of the necessary infrastructure. Provision of segregated pedestrian and cyclist routes would be required, especially where they would facilitate more direct, safer and pleasant alternative routes to those of the private car.

There are currently little or no cycle facilities within Drogheda and along roads surrounding the development (Marsh Road, Mill Road and Colpe Road). Cyclists are compromised by relatively high traffic volumes and inadequate cycle facilities.

Transport Policies & Proposals

The Mill Road/Marsh Road Lands will be developed to align with the specific Southern Environs of Drogheda LAP proposals:

1. Segregated cycle and pedestrian facilities will be provided on the new distributor road that will connect Colpe Road with the Marsh Road / Marsh Road; and
2. Pedestrian facilities and on-street cycle tracks along the Mill Road and Colpe Road to provide a link to the neighbourhood centre at Colpe Cross and a link provided from the Mill Road/Marsh Road Area to Drogheda train station.

Land use planning measures will need to be undertaken to facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transport.

One of the key transportation proposals in this framework plan is the establishment of the Street Network including the delivery of the Link Street connecting Colpe Road and Marsh Road as well as tying into the existing Mill Road. The Local Area Plan (LAP) for the Southern Environs of Drogheda proposes to provide a link street through the Mill Road / Marsh Road District providing access to the lands and functioning as a Link Street. The delivery of the new link street will provide for the local access needs of the Lands.

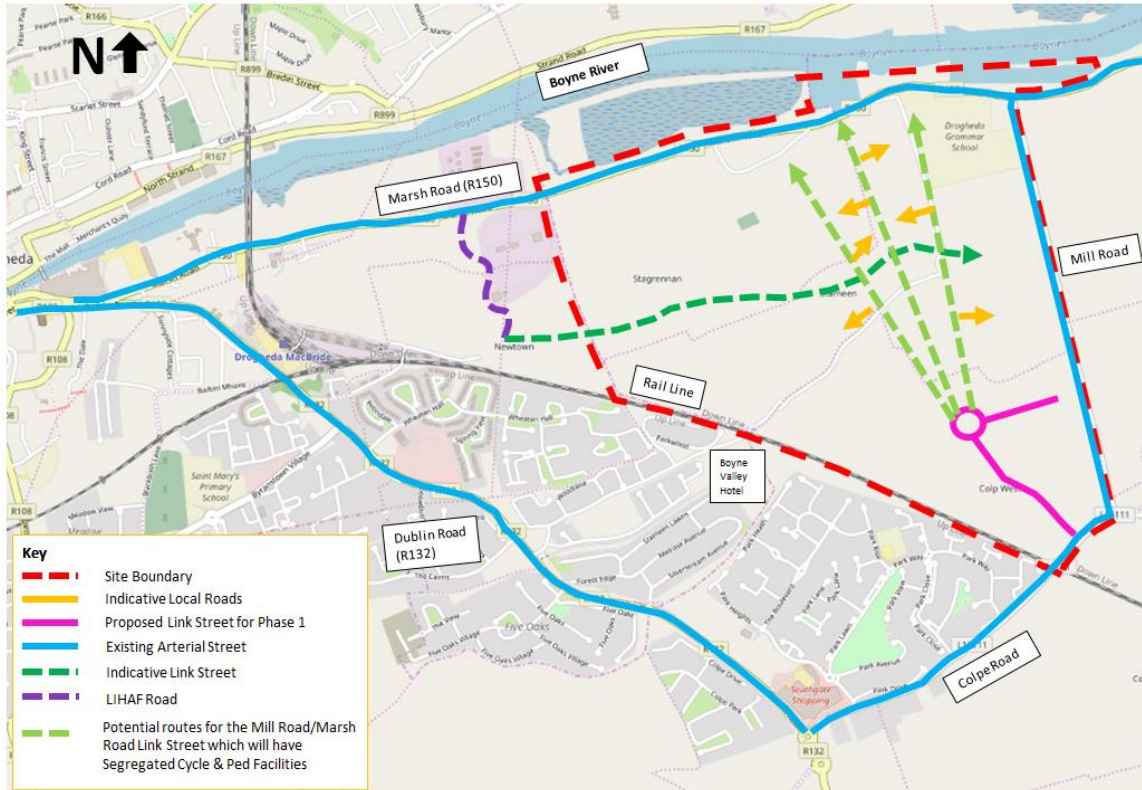


Figure (ii): Typical Street Hierarchy for the Plan Lands

Following on from the provision of the new Link Street connecting Colpe Road and Marsh Road, the framework plan also proposes a link Street running east – west across the Plan Lands that would provide a direct multi-modal link from the Mill Road to the “Drogheda Transportation Development Area” (DTDA) as identified in the Drogheda Transportation Study. It is envisaged that this strategically zoned area will house a significant expansion of the McBride Station which could include new passenger facilities, platforms, Park & Ride facilities and enhanced Bus facilities. Access from the South Drogheda Environs to this potential Public Transport Interchange is therefore dependant on the enablement of Mill Road/Marsh Road Link Street.

Both the Louth County Council Development Plan & the Local Area Plan (LAP) for the Southern Environs of Drogheda propose a bridge crossing over the River Boyne, East of the Railway Viaduct, linking the southern environs of Drogheda with the Port Access Northern Cross Route (PANCR), to “unlock the overall bus transport network for the town and to improve transport links between East Meath and Drogheda town centre”. Whilst

the design and feasibility of this bridge have yet to be explored in detail, the proposed street network for the Mill Road/Marsh Road Lands will not prejudice the eventual location of the proposed bridge. The northern tie in of the proposed Link Street with Marsh Road should remain flexible until such time as the preferred location for the Boyne River crossing has been established.

The Plan Lands shall facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.

Trip Generation & Impact of Proposals

To estimate the potential level of vehicle trips that could be generated by the assumed development scenario assumed for the purpose of this transport assessment reference has been made to the TRICS database.

The assumed development scenario is based on the zoning and directives of the LAP, subject to separate planning applications. The development of the Lands is purely indicative for the purposes of this assessment.

Having determined the volume of trips likely to be generated by the development of the Mill Road / Marsh Road Lands, the impact of the trips were assessed using TRANSYT and ARCADY software modelling packages.

The roundabouts show adequate capacity for the full build out of the Plan Lands for 2035 prior to the introduction of the new bridge crossing. Both Colpe Road/Mill Road Roundabout & Southgate South Roundabout show one arm over capacity in the 2035 design year due to the diversion of traffic following the proposed bridge construction.

Phasing of the Proposed Key Transportation Infrastructure

The exact location of Local Streets and Link Street are to be ultimately determined as and when the design of the individual plots of land are developed. The Phase 1 of the Plan Lands are well positioned in relation to the aforementioned objectives outlined in the LAP. All the existing and proposed roundabouts provide adequate capacity for the design years, with model data being input for High growth scenarios. The increase in pedestrians and cyclists will be catered for via the new Link Street and upgrades to pedestrian and cycle facilities along the Colpe Road and Mill Road.

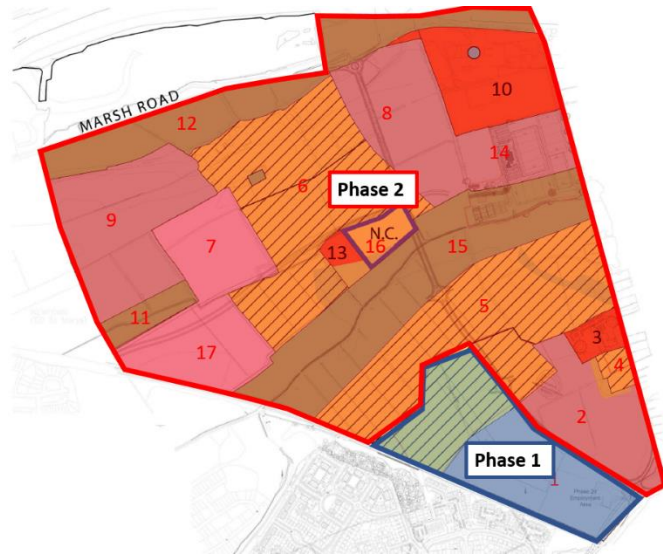


Figure (iii): Phases of the Study Area

The first phase of the development is expected to comprise of a high tech/major campus style offices (approx. 18,000 sqm) and a residential development (200 units) which will be structured around the provision of the following key infrastructure:

- The southern section of the Link Street (approx. 700m) from Colpe Road to the Marsh Road (South to North); to provide access to Gaelscoil an Bhradain Feasa
- Completion of the remaining section of footpath on Colpe Road to link with the footpath which services the neighbourhood facilities and public transport services at Southgate/R132.

Development of the subsequent Phase 2 will require:

- The completion of the Link Street from Colpe Road to the Marsh Road (South to North) and will eventually require the delivery of other transport infrastructure including the Link Street running east – west across the Plan Lands that would provide a link to the proposed Newtown LIHAF Road Scheme.
- The implementation of traffic calming measures on the Mill Road.

The developments in the Phase 2 of the Plan Lands will also undergo individual planning applications and will need to comply with this Transport Study.

The key transportation proposals for the development of the Mill Road/Marsh Road Plan Lands are:

- The delivery of the Link Street connecting Colpe Road and Marsh Road as well as tying into the existing Mill Road.
- The delivery of a Link Street running east – west across the Plan Lands is proposed to provide a link to the future DDTA.
- Vehicle access to the Gaelscoil an Bhradain Feasa will be provided via the new Mill Road/Marsh Road Link Street which will in turn result in a traffic calming feature along the Mill Road. Pedestrian and cycle access to the Gealscoil will continue to be provided via the Mill Road.

Subsequent development of the lands and associated planning infrastructure shall be in accordance with the principles of the Urban Framework Plan and this Transport Study or any subsequent revisions of this Study.

1.0 INTRODUCTION AND BACKGROUND

1.1 Preamble

- 1.1.1 This Transportation Study relates to an area located in the south-eastern environs of Drogheda, in the town lands of Colpe, Colpe West and Stagrennan. The Lands are bounded to the north by the Marsh Road, to the south by the Dublin – Belfast Railway line, to the west by the townland of Newtown and part of Lagavoreen which contains the Drogheda Waste Water Treatment Plant. The eastern boundary comprises Mill Road running in a north south direction linking Marsh Road with Colpe Road.
- 1.1.2 The Study has been prepared to inform the development of an Urban Framework Plan (UFP) for the Mill Road/Marsh Road Lands. The subject lands are currently greenfield, having been zoned for development of a variety of uses including residential, commercial, educational and community uses as set out in the Local Area Plan for the Southern Environs of Drogheda. This report outlines how the area could be developed in a sustainable and coordinated manner, thus reducing the impact of the development area on the surrounding road network and promoting green modes of transport such as walking, cycling and also public transport.
- 1.1.3 The Study sets out an overview of the access and movement strategy for the subject lands which is drawn together from the consideration of the requirements of the site itself, but importantly also recognizes the relationship and requirements of the surrounding Drogheda Urban Area (DUA). The Strategy has been prepared to provide an integrated land-use and transportation framework for a core area of land extending to approximately 180 hectares, and having regard to all immediate surrounding lands, located south east of Drogheda.
- 1.1.4 The Study has been developed with regard to the transport policies and proposals of Meath County Council and Louth County Council as well as current national and regional policy

1.1.5 This Study, and the timely implementation of the proposals outlined within, is critical to ensure that the transport provision in the proximity of the study area is appropriate the level of anticipated future growth and proposed development in the area.

1.2 Report Structure

1.2.1 Following this introductory Section, the remainder of this report is structured as follows:

- Section 2 – The proposed Study Area is described identifying key constraints and opportunities. The transport profile of the study area is also outlined.
- Section 3 – The strategic transport policy which provides the policy framework for the development of the lands in the Study Area is outlined.
- Section 4 – Describes the Transport Proposals for the study area, which include the movement and access strategies for the Lands. The hierarchy of road users is set out as well as the principals of the street hierarchy including proposed public transport routes, walking & cycling routes.
- Section 5 – The anticipated transportation impacts resulting from the development of the lands within the study area are quantified. Mitigation measures to prevent/reduce any impacts area also set out.
- Section 6 – The phasing and delivery of the transport infrastructure upgrades as aligned with the development of the Plan Lands.

2.0 STUDY AREA

2.1 Study Area

2.1.1 The Study Area is located in the south-eastern environs of Drogheda Town Centre, in the town lands of Colpe, Colpe West and Stagrennan, as illustrated in Figure 2.0. The lands are bounded to the north by the Marsh Road, to the south by the Dublin – Belfast Railway line, to the west by the townland of Newtown and part of Lagavoreen which contains the new Drogheda Waste Water Treatment Plant. The eastern boundary comprises Mill Road running in a north south direction linking marsh Road with Colpe Road.

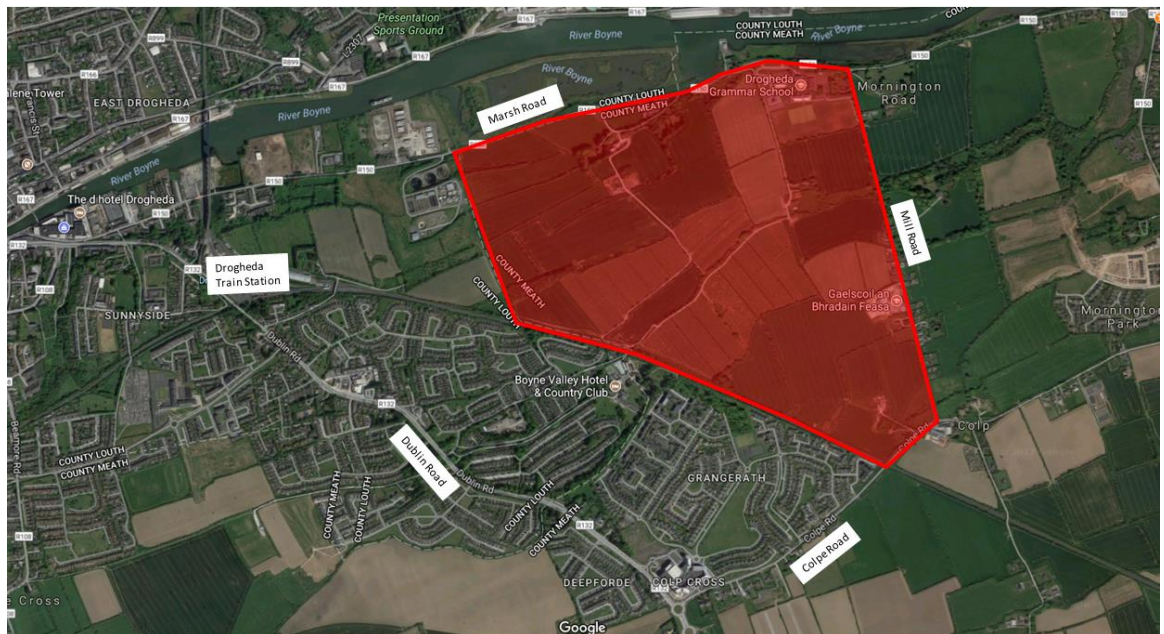


Figure 2.0: Proposed Scheme Study Area

- 2.1.2 The subject lands occupy a strategic location in relation to Drogheda town centre and associated transport linkages such as the R132, bus services and most significantly McBride railway station. These lands are within 1 – 2 Km distance of the Train Station, thus they should be developed to ensure that the walking/cycling catchment area of the train station are maximised.
- 2.1.3 The lands are somewhat remote from Drogheda Bus Station however they are situated 1.2Km from bus services running along the R132 with stops in the vicinity

of Colpe Cross. The D1 bus service also serves Marsh Road along the northern boundary of the Lands and the 910 bus service (Mathews Coaches) serves the Colpe Road.

2.2 Transport Profile

Accessibility levels in Drogheda, in particular to the Railway Station, are actively influenced by a number of notable physical barriers which channel the movement of both people and vehicles along a number of principal 'bridging' links.

The River Boyne, which runs in a west to east direction, segregates the urban area into two distinct northern and southern areas. Whilst the town centre benefits from a number of bridge crossings, no bridging opportunities for pedestrian, cyclists or vehicles are currently available across the eastern environs. In addition the railway line segregates the Mill Road area from the rest of the town and as a result little or no development has taken place in this strategically important area.

The proposals for the subject lands would open up an alternative vehicular, pedestrian and cyclists access into the rail station from the east of the rail line and could potentially alleviate current traffic congestion in Drogheda town, whereby residents to the north of Drogheda town must currently travel through the town centre to access the rail station.

2.3 Opportunities & Constraints (existing infrastructure)

2.3.1 Pedestrians

The lands are currently poorly served in terms of pedestrian facilities and linkages. Along the Marsh Road, Mill Road and Colpe Road (no pedestrian facilities for 400m of 1.2km length of road) there are currently little or no dedicated pedestrian facilities which is a significant constraint at present. Pedestrians are compromised by relatively high traffic volumes and inadequate footpath provisions.

2.3.2 Cycling

Aside from the R132 and Colpe Road (400m section) in the vicinity of Colpe Cross, there are currently no dedicated cycle facilities within Drogheda and along roads surrounding the Study Area (Marsh Road, Mill Road and 750m section of Colpe Road). Cyclists are currently compromised by relatively high traffic volumes and speeds on sections of Marsh Road, Colpe Road and Mill Road.

- 2.3.3 A distance of up to 5km for cycling is generally considered reasonable for people to travel to access places of work, education or other amenities. Considering the location of the lands in relation to these types of facilities and the size of the lands and proposed development mix, whereby live, work and educational facilities are all being provided for, it is suggested that the Mill Road/Marsh Road lands are ideally suited to the promotion of cycling as a valid form of transport for trips both internal to the lands and to Drogheda town centre which is approximately 3-4Km from the Lands.

PUBLIC TRANSPORT PROVISION

2.3.4 Bus Services

- 2.3.5 Drogheda benefits from national, regional and local bus services as provided by private and public sector operators. Bus Eireann provides a number of services linking Drogheda with Dundalk to the north and Dublin to the south where connections can be made to further regional / national services and destinations across the country. The Bus Eireann services are supplemented by a number of private operators with a level of competition that is not typical for other similarly sized towns. Ultimately, this situation is to the benefit of the town's residents and employees. Figure 2.1 represents a schematic of the national and regional bus network that serves Drogheda including Mathews Coaches which travel along the Colpe Road.

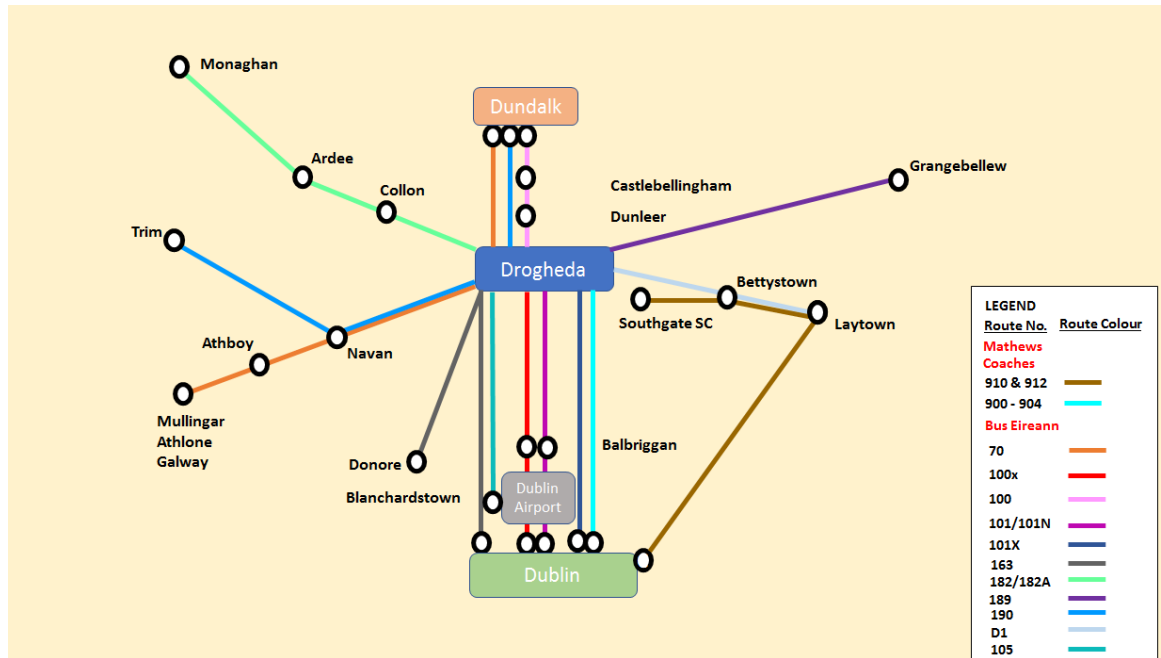


Figure 2.1: National / Regional Bus Network that serves Drogheda.

- 2.3.6 The bus station in Drogheda is located at the junction of Donore Road and John Street. Currently, there are approximately 200 national and regional services serving this station each day, with the local Northside and Southside service also linking to this bus station. The Northside and Southside town services operate between 09:00 and 19:00 at an hourly frequency serving areas such as Brookeville, Moneymore, Marian Park and Rathmullan Road. Overall this provides a good level of service to the residents of Drogheda, however these town services do not link to the train station on the Dublin Road which currently leads to a lack of integration and interchange between these transport modes.
- 2.3.7 While the current location of Drogheda bus station is quite distant from the Study Area, a significant number of bus services serve the R132 with stops provided in the vicinity of Colpe Cross some 1.2km from the southern extent of the Study area.

2.3.8 *Rail Services*

2.3.9 Positioned midway on the main Dundalk (Belfast) / Dublin railway line, Mc Bride Station, is accessed via Dublin Road (R132) and is situated approximately 1 - 2 km from the subject lands. There are currently 32 services from Dublin to Drogheda, 10 of which extend northbound to Dundalk per weekday and 33 services travelling southbound to Dublin from Mc Bride Station primarily serving commuter travel requirements. Mc Bride Station also serves the Dublin – Belfast services with 7 trains stopping at Drogheda in each direction per weekday.



2.3.10 *Existing Road Network*

2.3.11 The existing local road network, surrounding the Study Area is presented in Figure 2.2 below. With the exception of roundabout junctions at Colpe Cross, the remaining junctions in the vicinity of the subject lands are priority arrangements.

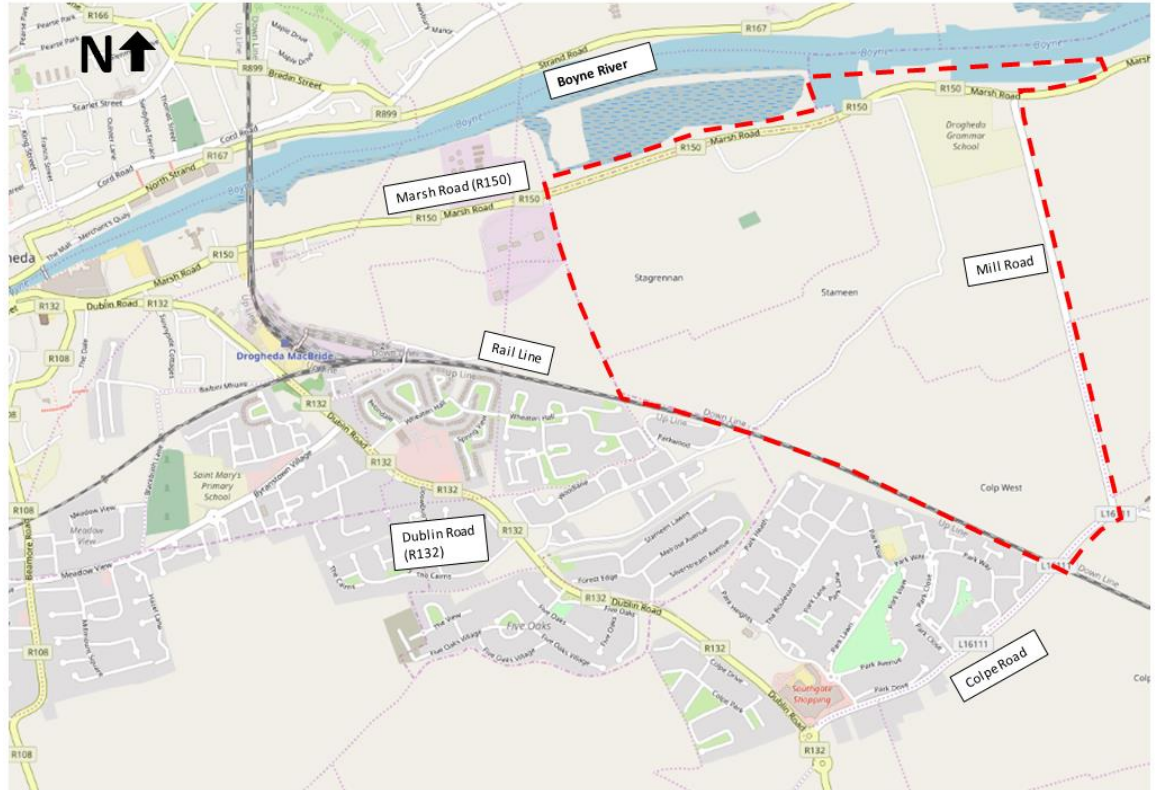


Figure 2.2: Existing Road Network

- 2.3.12 Existing road access to the Mill Road/Marsh Road lands is provided via the Marsh Road (R150), which runs along the northern boundary of the lands. Marsh Road is a single carriageway regional road connecting Mornington in the east to Drogheda Town. The R150 varies from wide road with a constant alignment in the vicinity of the western extent of the lands to a narrow road with a changing alignment in the vicinity of Mill Road.
- 2.3.13 Mill Road, a third-class local road bounds the lands to the east. The Mill Road itself is a low grade rural road with restricted width, poor quality alignment, low strength pavement and numerous existing dwellings accessing onto it.
- 2.3.14 Colpe Road is a local road which provided access to the lands from the south and connects with the R132 in the west and the R150 at Donacarney in the east. Colpe Road is a single carriageway road with a carriageway width of approximately 7 metres.

2.3.15 The lands are well positioned to avail of access via the Major Interurban and Trans European Road Network in the form of the M1 motorway via Platin Road/new indicative Arterial Street as per the LAP (Interchange 8) also Julianstown (Interchange 7) which is approximately 10 km or 10 minutes travel time from the lands without having to negotiate traffic congestion which can be typical within Drogheda Town in peak periods.



2.3.16 The M1 is accessed via the R132 which is the old N1 and connects Dublin to Dundalk. The R132 is a wide single carriageway road for the majority of its length with short sections of dual carriageway in the vicinity of Colpe Cross.

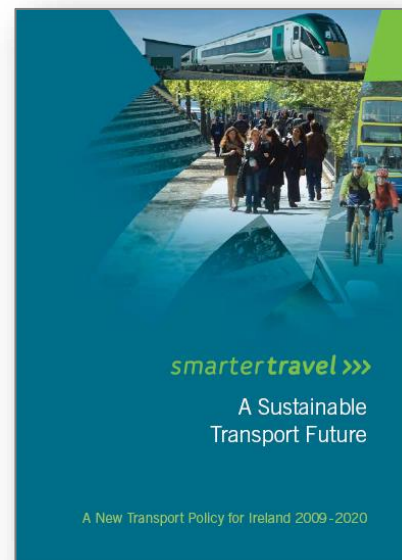
3.0 TRANSPORT PLANNING AND POLICY CONTEXT

3.1 Introduction

3.1.1 This section of the report will provide an overview of the national, regional and local transportation policy relevant to the Study Area. These documents provide the policy framework for the development of the lands in the Study Area. Relevant extracts from the documents are outlined in this section and commentary provided where necessary.

3.2 National Smarter Travel Policy

3.2.1 *Smarter Travel - A Sustainable Transport Future*, was published in February 2009, and represents a new transport policy for Ireland for the period 2009-2020. The policy recognises the vital importance of continued investment in transport to ensure an efficient economy and continued social development, but it also sets out the necessary steps to ensure that people choose more sustainable transport modes such as walking, cycling and public transport.



3.2.2 The policy is a direct response to the fact that continued growth in demand for road transport is not sustainable due to the resulting adverse impacts of increasing congestion levels, local air pollution, contribution to global warming, and the additional negative impacts to health through promoting increasingly sedentary lifestyles.

3.2.3 The following five key goals form the basis of the Smarter Travel policy document:

- Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport.
- Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks.
- Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions.
- Reduce overall travel demand and commuting distances travelled by the private car.
- Improve security of energy supply by reducing dependency on imported fossil fuels.

3.2.4 These aims will be achieved through 49 specific actions listed within the Smarter Travel Policy, which can be broadly grouped into 4 key areas:

- Actions to reduce distance travelled by private car and encourage smarter travel,
- Actions aimed at ensuring that alternatives to the private car are more widely available,
- Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies, and
- Actions aimed at strengthening institutional arrangements.

3.2.5 The Smarter Travel policy also includes for a comprehensive range of supporting 'actions' including mode specific (e.g. walking, cycling and public transport etc.) and behaviour change initiatives which both encourage and provide for sustainable travel practices for all journeys.

3.3 Greater Dublin Area Transport Strategy 2016-2035

3.3.1 The GDA Transport Strategy 2016-2035 outlines transport vision and objectives to *'contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods'*. The current strategy was adopted in April 2016 and incorporates Meath County including the Mill Road/Marsh Road lands. The objectives and recommendations of relevance to the Lands include:

3.3.2 *In advance of the new Metro North being constructed and to accommodate growth in the eastern parts of Corridor A (Drogheda – Balbriggan - Swords – Airport – North Inner City – to Dublin City Centre), it is recommended that the capacity of the Northern Rail line is increased.*

3.3.3 *As part of this Strategy it is intended to implement the DART Expansion Programme, which will provide DART services as far north as Drogheda; to Hazelhatch on the Kildare Line (including a tunnel connection from the Kildare Line to link with the Northern / South-Eastern Line); to Maynooth in the west and to the M3 Parkway. This will deliver a very substantial increase in peak-hour capacity on all lines from Drogheda, Maynooth, Hazelhatch and Greystones (see figure 3.0 below).*

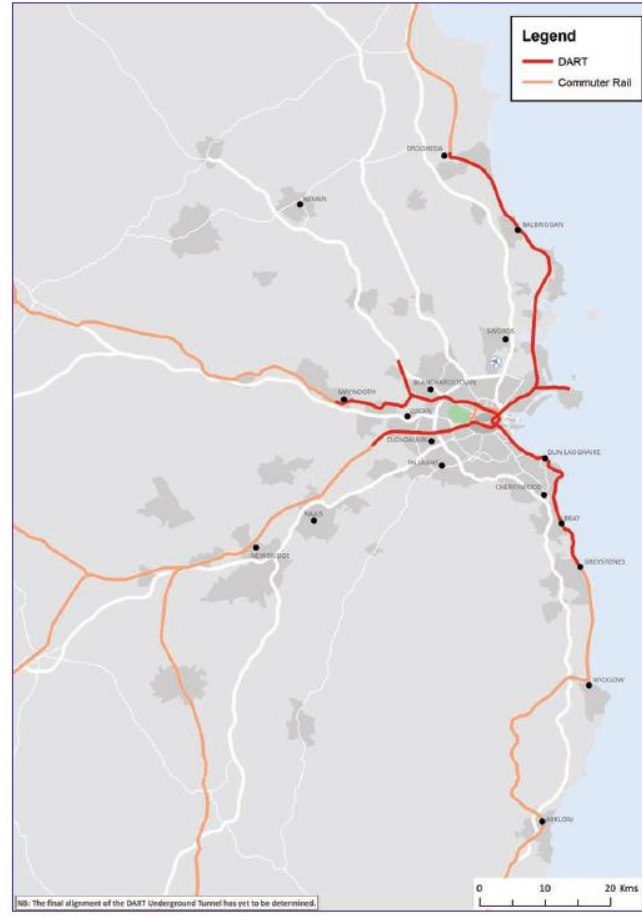


Figure 3.0: 2035 Greater Dublin Area Heavy Rail Network

3.4 Meath County Development Plan – 2013-2019

3.4.1 The aim of the Meath County Development Plan 2013-2019 is to advance the present-day evolution of the county and to create a framework for the coordinated and sustainable economic, social, cultural and environmental development of County Meath.

3.4.2 Some relevant objectives of Meath County Council:

- *To explore the provision of sustainable medium and long-distance walking routes.*
- *To facilitate and encourage the upgrading of existing railway stations.*

- *To facilitate the provision of adequate lands to provide for Park and Ride facilities at appropriate locations in the County. In the event of further growth in the south Drogheda area, the Council will explore the need for park and ride facilities and the reservation of land for this purpose as appropriate.*

3.4.3 Some relevant policies of Meath County Council include:

- *The facilitation of alternative transport modes to the private car, including ... frequent local bus services linking residential areas to District Centres and Designated Towns, and which serve shopping areas, employment areas and other activity centres, and connecting to key transport interchange points.*
- *To ensure the protection of existing roads infrastructure while improving the capacity and safety of the road network to meet future demands.*
- *To provide public transport interchange facilities, including facilities for taxis, at appropriate points on the public transport network, particularly in the main urban centres.*
- *To promote and support the provision of park and ride facilities which improve public transport accessibility without worsening road congestion, or which cause increased car travel distances, at appropriate locations within the county.*

3.4.4 The Development Plan states that an essential element of any integrated transport system is to provide for the needs of cyclists and pedestrians. The increased provision of cycle lanes and safer facilities for pedestrians is identified as a key action in the Government's 'Sustainable Development – A Strategy for Ireland'.

3.5 Louth County Council Development Plan

3.5.1 The Louth County Development Plan 2015-2021 sets out the long-term vision for the development of the County up to 2021 employing the principles of sustainable development in the policies and objectives set out therein.

- 3.5.2 It is a strategic objective of this Development Plan:
- To ensure a more sustainable and integrated concept of development with regard to transportation.
 - To provide a framework for sustainable development through increased use of sustainable transport modes.
- 3.5.3 The Development Plan seeks to achieve and support the aims of national policy; aims of which include maximizing the efficient use of the transport network and improving accessibility to transport.
- 3.5.4 According to the Development Plan, the building of new roads, road improvements schemes and new residential developments, presents opportunities for the provision of pedestrian and cycle routes. Pedestrian and cycle routes provide for a range and choice of transport alternatives and are sustainable modes of transport which promote active and healthy lifestyles within the community.
- 3.5.5 The overall layout of new residential areas should contribute to the efficient and logical movement of buses around the area, and bus routes should be identified and included in proposed layouts.
- 3.5.6 The layouts of new residential developments need to facilitate pedestrian and cycle movements.
- 3.5.7 The Development Plan proposes a bridge crossing at Greenhills linking the southern environs of Drogheda with the Port Access Northern Cross Route East of the railway viaduct.
- 3.5.8 According to the Plan, good quality and safe cycling and walking facilities and their use, particularly in urban areas, can make a valuable contribution to the reduction in traffic congestion and can encourage a shift away from dependency on the use of the private car.

3.5.9 Other Policy objectives of the Development Plan of relevance include:

- *To provide where possible, traffic free pedestrian and cyclist routes especially where they would facilitate more direct, safer and pleasant alternative routes to those of the private car.*
- *To incorporate provision for cycle and pedestrian paths within new road proposals.*
- *To promote the development of cycling by the provision of cycle routes in both rural and urban areas.*
- *To investigate the possibility of developing additional linear cycle routes utilizing existing natural corridors such as riversides.*
- *To ensure that bus routes and adequate services are provided within all new proposals for substantial residential developments.*

3.6 Drogheda Development Plan – 2011-2017

3.6.1 The Drogheda Development Plan (DDP) sets out objectives and policies of Drogheda Borough Council (DBC) for the period 2011 – 2017. The strategic objective of the DDP for Transportation (Strategic Objective 5) is to provide a sustainable transportation system for Drogheda and its Environs to secure the successful integration of land use and for the convenience of the public.

3.6.2 An objective of the Development Plan with regards to transport is to provide an efficient, safe and comprehensive internal mobility network through better traffic management and car parking, greater accessibility to public transport and improved pedestrian and cyclist facilities.

3.6.3 The National Cycle Policy Framework aims to invest in better, safer cycle routes around the country for commuters, leisure cyclists and visitors, and to introduce cycle-friendly routes to schools. The DDP supports the implementation of this government transport policy.

3.6.4 Under the 2005 – 2011 Drogheda Borough Council Development Plan, an area surrounding the station was identified as appropriate for the development of a

Drogheda Transport Development Area. (DTDA) This is a concept based on the promotion of high density mixed use development areas which are defined by their relationship with either existing or proposed public transport networks. The area of the DTDA has been extended eastward towards the Borough boundary. The principles underpinning the previous DTDA remain in place under the current DDP.

- 3.6.5 In the case of Drogheda, Mc Bride Railway Station has been identified in both the Drogheda Transportation Study and the Planning Strategy for the Greater Drogheda Area as being the main public transport hub for the Borough. This transportation hub revolves primarily around the provision of rail services but also attracts significant car borne traffic, cyclists and pedestrians.
- 3.6.6 The Drogheda Development Plan would promote and facilitate the development of the DTDA/Integrated Public Transport Hub (IPTH) at the station and facilitate the development of integrated and coordinated bus and rail services within the Railway Station site, in order to improve the quality of the service to the travelling public. The Plan also recognises that ease of access by all modes of transport to the station site from more distant locations within the Borough and its environs is a pre-requisite for the success of the IPTH. Servicing the station with bus routes would alleviate some pressure on the car park space and increase the potential patronage of the train services.
- 3.6.7 According to the DDP, the council will require that the design, layout and access arrangements for all new developments should enable the public to gain access to public transport facilities by walking and cycling.
- 3.6.8 The DDP calls for the promotion and facilitation of improved bus services and passenger facilities within the Plan area, in conjunction with the appropriate service providers.
- 3.6.9 It is a policy of the DDP to seek the provision of integrated bus and rail services for Drogheda including park and ride facilities at key access points and adjacent to key public transport infrastructure.

3.6.10 The following strategic road scheme is deemed critical by the DDP for the future development of the Borough during and after the lifetime of the plan:

- The construction of a new road from the Marsh Road through the IPTH/DTDA east of the railway station to the Borough Boundary.

3.6.11 The DDP states that it is the policy of the Council, in co-operation with other agencies, bodies and developers, to develop an integrated pedestrian footpath and cycle path network throughout the Plan area.

3.6.12 It is a policy of the Council in co-operation with other agencies, bodies and developers to pursue the development of a core cycle network through the Borough.

3.7 Planning Strategy for Greater Drogheda Area (2007 – 2024)

3.7.1 The aim of the Planning Strategy for the Greater Drogheda Area prepared by Louth County Council is to manage the continuing population growth efficiently and in association with related services provision.

3.7.2 Some of the objectives of the strategy with regards to land use and spatial planning are as follows:

- *To support development patterns that encourage walking and cycling and facilitate thresholds of patronage for public transport.*
- *The delivery of viable and sustainable neighbourhoods, with appropriate social and physical infrastructure implemented in tandem.*

3.7.3 Some of the objectives of the strategy with regards to transportation are as follows:

- *To enhance accessibility to and use of public transport services.*
- *To promote development patterns which will support an improved public transport network and to identify public transport service and infrastructure objectives.*
- *To ensure improved pedestrian facilities and cycle ways within existing and new development areas.*

- *To identify key road infrastructure requirements and to apply a delivery recommendation for those commensurate with the planned residential and economic growth levels.*

3.7.4 The Planning Strategy states that it supports any consequent road network improvements determined as appropriate to serve new development in the Mill Road / Marsh Road District.

3.7.5 The Planning Strategy states that it supports an improved East Meath/Drogheda town bus corridor, eventually connecting to Marsh Road. The Strategy also recommends a new bridge crossing over the river Boyne, East of the Railway Viaduct, with bus priority to *"unlock the overall bus transport network for the town and to improve transport links between East Meath and Drogheda town centre"*.

3.7.6 According to the Planning Strategy, *"Better accessibility to Drogheda Rail Station for all modes is a key aim associated with the delivery of this Strategy, particularly to facilitate the integration of rail and bus services in the town. It is important to provide a more managed bus interchange associated with the rail station as part of the review of the Study Area bus network"*.

3.8 Local Area Plan (LAP) for the Southern Environs of Drogheda

3.8.1 The Local Area Plan sets out the context, goals, objectives and structure for future development of the South Drogheda Environs area including the subject lands.

3.8.2 The Local Area Plan has defined the area as being bounded to the west by the existing Drogheda town boundary, to the north by the Marsh Road and River Boyne and to the south by the Dublin Rail line. To the east, the area stretches toward the Mill Road, which is a key link road between the Colpe Cross Area and the Marsh Road.

3.8.3 The LAP describes the implementation of local bus routes to service the Mill Road/Marsh Road lands as *"essential to the success of the new development area"*. The designated bus routes through the neighbourhoods should connect

the Mill Rd / Marsh Rd Area with both the town centre and the rail station in Drogheda, with bus stop lay-bys provided along the M1 to R132 Link Road. The internal town bus service will have to be expanded to serve the new residential communities emerging in the southern environs.

3.8.4 The LAP outlines that the provision of cycle facilities along the Bryanstown Cross Route, R132 and Platin Road, Marley's Lane, Beamore Road, Rathmullen Road, Mill Road and Marsh Road should be investigated.

3.8.5 It is further proposed by the LAP:

- that pedestrian facilities along the Mill Road are created to provide a link to the new neighbourhood centre at Colpe Cross.

3.8.6 The LAP also sets out the following roads and transportation objectives:

- Meath County Council in conjunction with local authorities shall investigate the feasibility of a future strategic road crossing of the River Boyne, east of the railway viaduct, linking with the Northern Port Access Road.
- To upgrade the Mill Road and Marsh Road to provide on-street cycle tracks along the entirety of these roads.
- To provide for a link road through the Mill Road / Marsh Road District providing access to the lands and functioning as a local distributor road.
- To provide a segregated pedestrian and cycle link from the Mill Road/Marsh Road Area to Drogheda train station.

3.9 East Meath Local Area Plan

- 3.9.1 This LAP was drawn up to provide a framework for the future advancement and evolution of Bettystown-Laytown-Mornington East-Donacarney-Mornington. The ambition of the LAP is to help guide development of these towns and villages in a stable and viable fashion.
- 3.9.2 A key consideration of this LAP is the promotion of walking & cycling and broader Smarter Travel initiatives to reduce car dependency, recognising that challenges exist in addressing deficiencies in the existing pedestrian/cycling network.
- 3.9.3 The LAP states that the Boyne region has the potential to become one of the main development areas for cycling tourism with its numerous tourist attractions.
- 3.9.4 Some key aims of the LAP for transportation and Movement include:
- 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.
 - To promote land use planning measures which facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transport.
 - To promote and facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.

3.10 Drogheda Transportation Study (2006)

- 3.10.1 The Drogheda Transportation Study developed a strategy to address the traffic management requirements of Drogheda Town and Environs. The study focused particularly on the provision of slow mode access to the town centre, on the key access routes and through key road junctions. This implied that, where necessary, recommendations would favour pedestrians and cyclists.

3.10.2 This study focused in particular on all aspects of transport management in the town centre and also on the key radial routes, cross routes and road junctions outside the town centre. This focus ensured that fully connected linkages were developed to and through the town centre whilst also ensuring that the key road links outside the town centre could facilitate all modes of transport making trips to and from the town centre or key destinations such as the railway station and national road network. The study provided a review of traffic management within Drogheda including provisions for pedestrian and cyclist needs, parking requirements, public transport, road network management and a freight strategy. This transport study proposes potential bridge crossings over the Boyne River by the FloGas Ireland to Greenhills and from the Mill Road linking the Southern Environs of Meath with the Port Access Northern Cross Route (PANCR).

3.11 Policy Conclusion

3.11.1 The various studies discussed in the preceding sub-sections set out the transport planning policy context and need to promote the sustainable development of walking, cycling, public transport and other more sustainable forms of transport as an alternative to the private car and to facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.

4.0 TRANSPORT PROPOSALS

4.1.1 This section of the report will provide an overview of the key overarching transportation objectives for this framework and outline the Movement Strategy for the Plan Lands this Transport Study. The future development of the Plan Lands will be dependent on the development of sustainable transport, together with the development of the necessary infrastructure. This section of the report will summarise both the Road User Hierarchy and Street Hierarchy and outline the proposed transport infrastructure and network necessary to fully accommodate existing and future population needs in a sustainable manner.

4.1.2 The key overarching transportation objectives for this framework are the following:

- To promote the development of walking, cycling, public transport and other sustainable forms of transport as an alternative to the private car, together with the development of the necessary infrastructure.
- To provide where possible, segregated pedestrian and cyclist routes especially where they would facilitate more direct, safer and pleasant alternative routes to those of the private car.
- To promote land use planning measures which facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transport
- To promote and facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.

Movement Strategy

- 4.1.3 This Framework Plan seeks to open up the Plan Lands with a clear hierarchy of integrated streets for universal movement to include pedestrians, cyclists, public transport and vehicular Traffic. To encourage more sustainable travel patterns and safer streets, pedestrians will be placed at the top of the user hierarchy and private motor vehicles considered last. This hierarchy informs the development of an integrated street network where the street hierarchy is based on the movement function of arterial, link and local streets, combined with a consideration of the place context of any given part of a street (such as urban centres, neighbourhood areas and suburban areas). This approach lends itself to the creation of a structured and permeable network of streets in a layered approach.
- 4.1.4 The network and hierarchy of streets will help ensure that existing and planned neighbourhood blocks can be linked with each other and with existing and planned facilities and services including public transport as they develop.

Road User Hierarchy

- 4.1.5 The Road User Hierarchy as set out in the Design Manual for Urban Road and Streets (DMURS) (illustrated in Figure 4.0) prioritises sustainable travel modes is to be adopted for the Mill Road/Marsh Road Lands. Walking is the most sustainable mode of transport and prioritising design for pedestrians will help to create a safe, comfortable and attractive pedestrian environment, which in turn will reduce the number of shorter trips taken by private car. Furthermore, as all trips begin and end on foot, all road users benefit from enhanced pedestrian facilities.

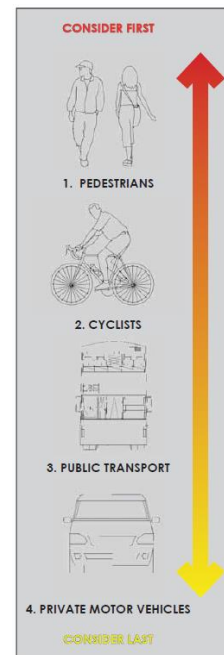


Figure 4.0: User Hierarchy (DMURS)

- 4.1.6 Designing for cyclists will also be given a high priority. Trips by bicycle also have the potential to replace motor vehicles as an alternative means of transport for short to medium range trips.
- 4.1.7 The key issue is one of balance, and the needs of the car will not take priority over the needs of other users or the value of place within the Mill Road/Marsh Road lands. Streets should be designed universally as places that balance the need of users and should perform a number of functions including the movement of pedestrians, cyclists and motor vehicles.

Pedestrian facilities

- 4.1.8 Along the Marsh Road, Mill Road and Colpe Road there are currently little or no pedestrian facilities. Pedestrians are compromised by relatively high traffic volumes and inadequate footpath provisions.
- 4.1.9 According to the LAP for the Southern Environs of Drogheda it proposes to provide:
1. Pedestrian facilities along the Mill Road and Colpe Road to provide a link to the neighbourhood centre at Colpe Cross;
 2. A segregated pedestrian and cycle link from the Mill Road/Marsh Road Area to Drogheda train station (Figure 4.1).
- 4.1.10 A pedestrian / cycle link is proposed between the Plan Lands and the Dublin Road (R132) via the existing railway underpass at the rear of the Boyne Valley Hotel and the Parkwood Development.
- 4.1.11 The Mill Road/Marsh Road Lands will be developed to align with the specific LAP proposals above.



Figure 4.1: Proposed Cycle and Pedestrian Facilities

4.1.12 These routes will be arranged in such a form to be attractive, secure, well lit, of sufficient width etc. The pedestrian facilities will be as direct as practicable in relation to local facilities both within and beyond the development boundary. Routes through and around the development will be both attractive and safe. The principles of defensible space will be adopted at all times.

Cycling

4.1.13 There are currently little or no cycle facilities within Drogheda and along roads surrounding the development (Marsh Road, Mill Road and Colpe Road). Cyclists are compromised by relatively high traffic volumes and inadequate cycle facilities.

4.1.14 According to the LAP for the Southern Environs of Drogheda, it is proposed that

1. Segregated cycle facilities will be provided on the new distributor road that will connect Colpe Road with the Marsh Road / Marsh Road; and

2. On-street cycle tracks are provided on the Mill Road and Marsh Road and a segregated cycle link provided from the Mill Road/Marsh Road Area to Drogheda train station (Figure 4.1).

4.1.15 Following on from the provision of the new Mill Road/Marsh Road Link Street, the framework plan also proposes a Link Street running east – west across the Plan Lands that would provide a direct cycle facility from the Mill Road to the “Drogheda Transportation Development Area” (DTDA) as identified in the Drogheda Transportation Study.

4.1.16 Meath County Council are currently developing proposals for the Boyne Greenway to extend from the existing section to the west at Drogheda at Oldbridge along the Boyne estuary (including Marsh Road) to the east coast at Mornington. “The Drogheda Link” section of the scheme which potentially run from the Ramparts along the R132 to Drogheda Train Station will form part of the overall route and will promote the interlinking of sustainable travel modes by providing a connection to the Train and Bus stations.

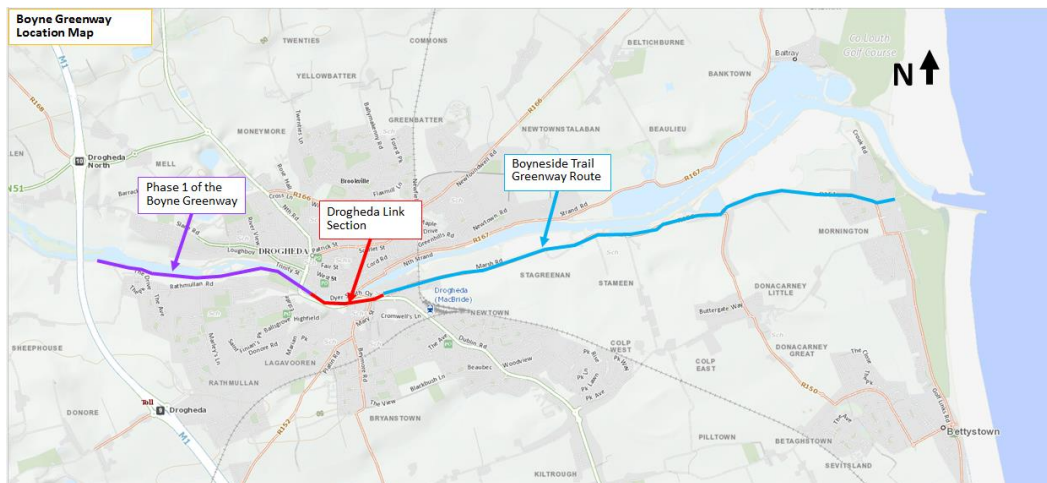


Figure 4.2: Boyne Greenway Location Map

4.1.17 A cycle link is also proposed between the lands and the Dublin Road via the existing railway underpass at the rear of the Boyne Valley Hotel and the Parkwood Development (see figure 4.1).

4.1.18 The Mill Road/Marsh Road Lands will be developed to align with the specific cycling proposals above.

Public Transport

Bus Services

4.1.19 The Drogheda Transportation Study and The Planning Strategy for Greater Drogheda Area (2007 – 2024) recommends extending bus services to the rail station & providing a more managed bus interchange as part of the redevelopment of the station under Drogheda Transport Development Area (DTDA) zoning, in effect creating and integrated public transportation hub (Figure 4.3). This could be achieved as part of this plan.

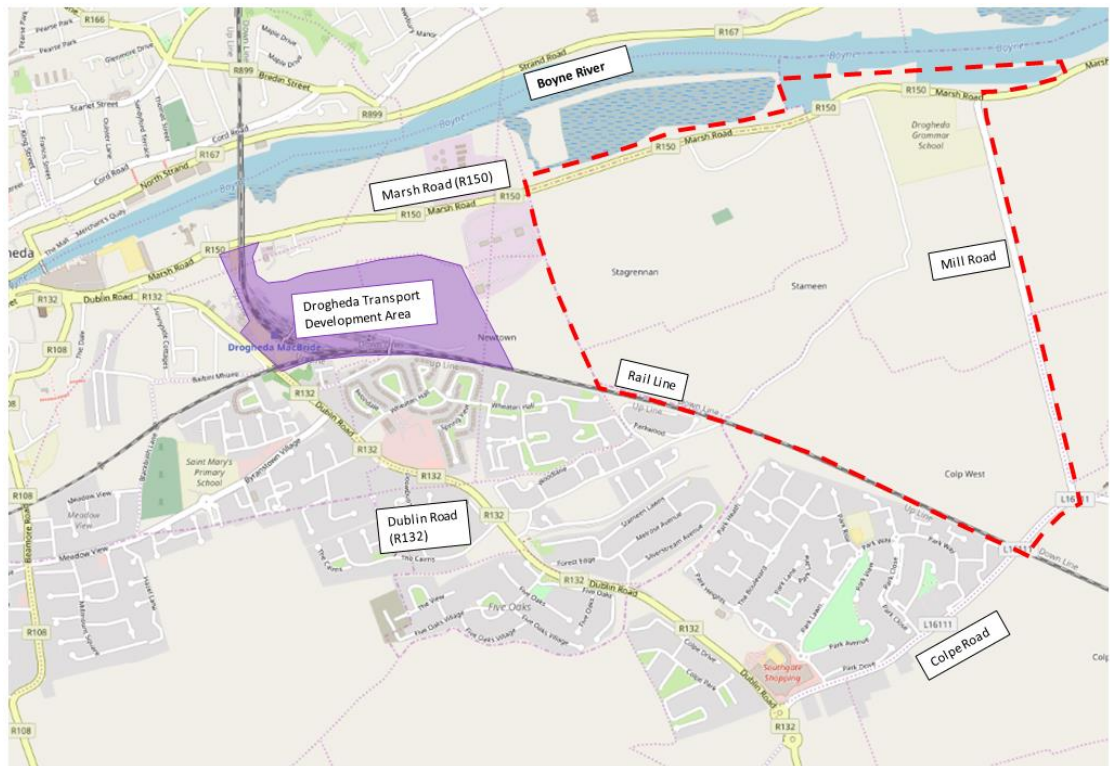


Figure 4.3: Drogheda Transport Development Area

4.1.20 In addition to the national / regional routes, the Drogheda urban area is also currently served by a limited town bus service operated by Bus Eireann & Mathew’s Coaches. The development of the Mill Road Lands and the delivery of

the new Mill Road itself would enable the creation of a sustainable local gyratory bus route serving key nodes such as Scotch Hall, the North Quays, St Marys Bridge, the Dublin Road, Colpe Commercial Centre, Grange Rath and Mill Road. This route would provide an attractive transport mode for people working in Drogheda Town Centre, access to local secondary schools, access to Drogheda Station, access to commercial facilities in the town.

4.1.21 A schematic of a possible future town bus service map is indicated in Figure 4.4 below. This indicates the Train Station as the Public Transport Hub of the town, with all routes arriving and departing from this location, including regional bus services.

4.1.22 The Mill Road/Marsh Road lands will be developed to support the delivery of enhanced bus services and connectivity as well as the construction of an Integrated Transportation Hub.

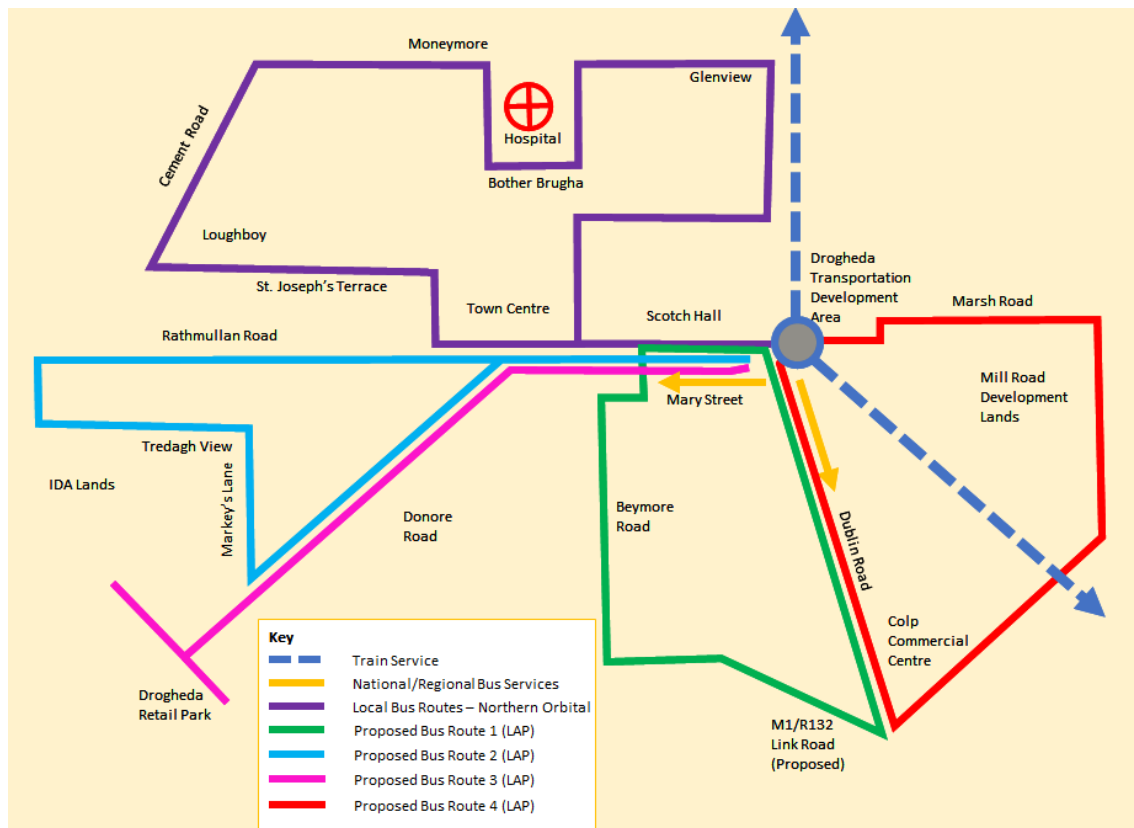


Figure 4.4: Potential Schematic of Town bus service map.

Rail Services

- 4.1.23 The GDA Transport Strategy 2016-2035 outlines plans that the Dublin to Drogheda line will be electrified in the future, upgrading current levels of service to DART standard. This combined with the interconnector between Dublin Connolly and Dublin Heuston will further increase the accessibility of Drogheda and its Environs.
- 4.1.24 As noted previously, McBride Station and the surrounding area has been identified for zoned as the Drogheda Transport Development Area in the Drogheda Borough Development Plan 2011 - 2017. It has also been identified in both the Drogheda Transportation Study and the Planning Strategy for the Greater Drogheda Area as being the main public transport hub for the Borough. This area will house a significant expansion of the station in terms of passenger facilities, providing park & ride facilities, and facilitating the extension of Bus Eireann bus services to the station.
- 4.1.25 The east – west link street proposed within the Plan Lands will provide a direct link for the residents, employees and visitors of the Mill Road/Marsh Road Lands to the proposed transport interchange.
- 4.1.26 The Mill Road/Marsh Road Lands will be developed to align with the various public transport proposals above.

Road Network

Infrastructure Proposals

- 4.1.27 One of the key transportation proposals of the urban framework plan is the establishment of the Street Network including the delivery of the Link Street connecting Colpe Road and Marsh Road as well as tying into the existing Mill Road. An additional Link Street running east – west across the Plan Lands is also proposed to provide a link to the future DDTA.
- 4.1.28 Both the Louth County Council Development Plan & the Local Area Plan (LAP) for the Southern Environs of Drogheda propose a bridge crossing over the river Boyne, East of the Railway Viaduct, linking the southern environs of Drogheda

with the Port Access Northern Cross Route (PANCR), to “unlock the overall bus transport network for the town and to improve transport links between East Meath and Drogheda town centre”. Further to this the Drogheda Development Plan and the Drogheda Transportation Study also identify the bridge crossing in different locations. The comparative locations of the proposed bridge crossings are illustrated below.



Figure 4.5: Possible Bridge Locations as per Policy Documents.

- 4.1.29 Whilst the design and feasibility of this bridge has yet to be explored in detail, the proposed street network for the Mill Road/Marsh Road Lands will not prejudice the eventual location of the proposed bridge. The northern tie in of the proposed Link Street with Marsh Road should remain flexible until such time as the preferred location for the Boyne River crossing has been established.
- 4.1.30 Vehicle access to the Gaelscoil an Bhradain Feasa will be provided via the new Link Street which will in turn result in a traffic calming feature along the Mill Road. Pedestrian and cycle access to the Gaelscoil will continue to be provided via the Mill Road. As mentioned previously, the LAP for the Southern Environs of Drogheda proposes to provide pedestrian and cycle facilities along the Mill Road.

Street Hierarchy

4.1.31 The planned street network for the Mill Road/Marsh Road comprises a hierarchy of integrated streets that set out to promote high levels of permeability for multiple modes of transport especially the more sustainable modes of transport. The street hierarchy is based on the movement function of:

- Arterial Streets;
- Link Streets; and
- Local Streets

4.1.32 Arterial streets have the highest movement function and local streets the lowest, combined with a consideration of the place context of any given part of a street (such as urban centres, neighbourhood areas and suburban areas), which creates a structured and permeable network of streets in a layered approach, see Figure 4.6. Increased permeability results in reduced travel distances and can provide a more even distribution of traffic and reduced congestion as traffic is no longer concentrated on a small number of critical streets or junctions in accordance with the principles of DMURS.

4.1.33 As mentioned above, the streets will be designed universally as places that balance the need of users and should perform a number of functions including the movement of pedestrians, cyclists and motor vehicles. The emphasis placed on the functions of each street will depend on the location and context of the street especially its place within the Street Hierarchy as detailed in Table 4.0 and Table 4.1 below.



Figure 4.6: Illustration of Street Hierarchy

Type	Function	Speed
Arterial Streets	Arterial Streets comprise major routes via which major centres are connected and include orbital or cross metropolitan routes. There are no Arterial Streets proposed within the Plan Lands, however the Plan Lands are bound by following Arterial Roads: Marsh Road (R150) (to the north), Colpe Road (to the south) and the Dublin Road (R132) (to the east).	40 - 50 kph
Link Streets	<p>The main purpose of Link Streets is to connect neighbourhoods and suburbs including local facilities with Arterial Streets and with each other. Link Streets can be described as either Main Link Streets or Local Link Streets.</p> <p>It is envisaged that two new Link Streets will be delivered, one between Colpe Road and Marsh Road and the other running east – west across the Plan Lands to the “Drogheda Transportation Development Area” (DTDA). These streets will connect the Plan Lands to surrounding suburbs, coast and rural areas. Local Link Streets will form a vital linking component between Main Link Streets and Local Streets and will be instrumental in creating a highly accessible and permeable street network.</p>	30 - 40 kph
Local Streets	Local Streets will act as quieter traffic calmed streets and will provide access to neighbourhood blocks, developments and open spaces. These streets will be unlikely to carry high levels of vehicular traffic and a greater emphasis will be placed on pedestrian movement, activity and place making. Some Local Streets may comprise shared surfaces for the integrated movement of vehicles, pedestrians and cyclists.	10 - 30 kph

Table 4.0: Street Hierarchy, Speed and Function

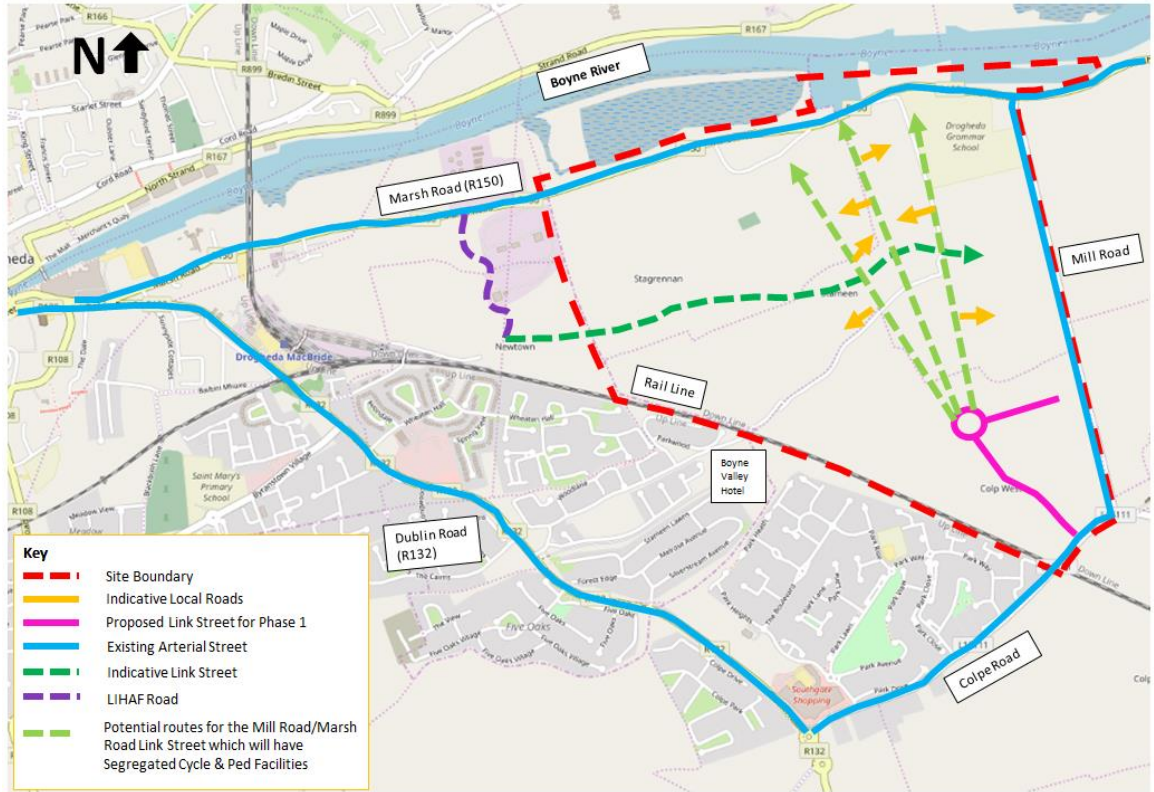


Figure 4.7: Typical Street Hierarchy for the Plan Lands

Street	Activity Level	Min Footpath Width	Max. Carriage Width
Local	Low	1.8 metres	5.0 – 5.5 metres (max. width of 4.8m for shared streets)
Link Streets	Low to moderate	2.5 metres	6.5 – 7.0 metres
Arterial	Moderate to high	3.0 metres	6.5 – 7.0 metres

Table 4.1: Recommended Footpath and Carriageway Widths

4.1.34 As mentioned previously, two new Link Streets are proposed for the Plan Lands (see Figure 4.8):

- Link Street from Colpe Road to the Marsh Road (South to North)
- Link Street running east – west across the Plan Lands that would provide a link to the proposed DDTA.

4.1.35 The exact alignment and location of the Link Streets are to be confirmed following the future development of the Plan Lands and will not prejudice the proposed bridge crossing over the River Boyne.

4.1.36 The Link streets within the Plan Lands will incorporate dedicated bicycle infrastructure with segregated cycle tracks (1.75m wide) designed in accordance with the National Cycle Manual (NCM). Along the lightly trafficked internal Local streets cyclists will share the carriageway with other street users as per the NCM guidance for such situations.

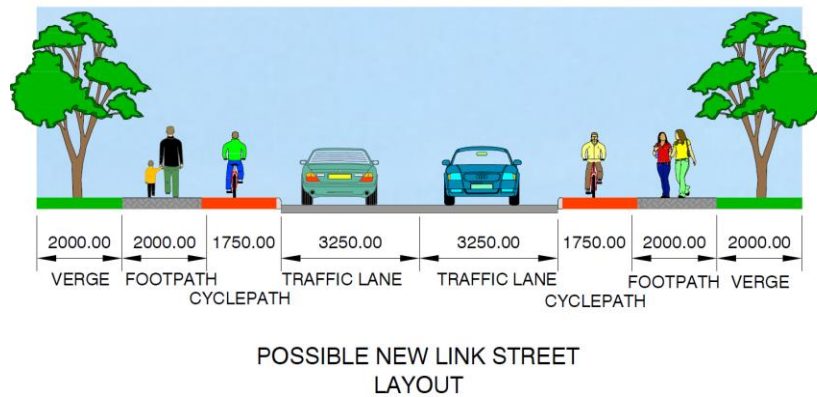


Figure 4.8: Possible new Link Street cross section

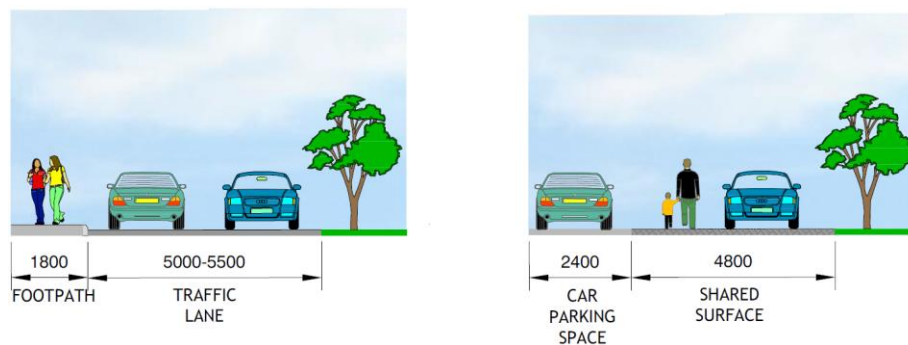


Figure 4.9: Possible new Local Street cross sections

Street Network & Junction Design

4.1.37 The Urban Framework Plan sets out a framework of connected streets for the movement of pedestrians, cyclists and vehicles. The planned network provides for movement at a local level within the Lands and at wider levels extending from the Lands towards surrounding areas. This simple structure will ensure that development is permeable, legible and offers a choice of routes depending on the type of journey.

Street Layout

4.1.38 The movement towards an integrated and sustainable development means a shift away from dendritic street layouts to highly connected networks which maximise permeability, particularly for pedestrians and cyclists. Dendritic networks place heavy restrictions on movement. The use of such networks and the cul-de-sacs that do not allow through access for users should be restricted throughout the proposed network.

4.1.39 The degree to which permeability is provided for different transport modes can be categorised into four types:

- Dendritic Networks which place significant restrictions on movement for all users.
- Open Networks which allow full permeability for all users.
- 3 way Off-Set Networks which contain a large proportion of 3 way junctions.
- Filtered Permeability networks which allow full permeability to some users whilst placing greater restrictions on others.

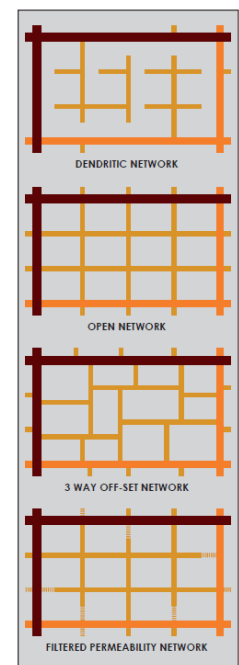


Figure 4.10: Types of Street Networks (DMURS)

4.1.40 The proposed new street network for the Plan Lands will support the development of an Open Network which will place few restrictions on the permeability of users and maximum accessibility. In general, the network will:

- be based on a layout where all streets lead to other streets, limiting the use of cul-de-sacs that provide no through access.
- maximise the number of walkable/cycleable routes between destinations. Maximising the connections within the site to allow the street network to evolve over time to meet local accessibility needs.

4.1.41 This design approach will provide the appropriate balance between the functional requirements of different network users whilst enhancing the sense of place. The implementation of self-regulating streets actively manages movement by offering real modal and route choices in a low speed high quality residential environment. An indicative Street Hierarchy for the Plan Lands is illustrated in Figure 4.7. The exact location of Local Streets and Link Street are to be determined as and when the design of the individual plots of land are developed.

4.1.42 Within the proposed Street Network there shall be a hierarchy of junctions. The junctions shall be categorised as follows:

Primary:

- Key junctions between Arterial and Link Streets.
- Typically, Roundabouts or signal control.

Secondary:

- Intermediate junctions located between primary junctions and link streets providing access to local streets or site accesses.
- Typically, priority controlled/roundabouts.

Tertiary:

- Lower grade junction typically located at intersections between local streets.
- Typically, priority controlled.

5.0 TRANSPORT GENERATION AND DISTRIBUTION

5.1 OVERVIEW

5.1.1 The following paragraphs present the process by which the potential level of trips associated with the proposed development have been generated and subsequently assigned across the local road network.

5.1.2 With the objective of quantifying the existing traffic movements across the local road network both junction turning count surveys and automatic traffic count surveys were undertaken by MHC Traffic Ltd. The surveys were undertaken on Thursday 25th May 2016.

5.1.3 A total of 2 different weekday traffic scenarios are considered within the assessment as follows;

- **Do-Nothing** - baseline network conditions plus committed development,
- **Do-Something** – Considers the post construction situation with the proposed development and committed development in place.

5.1.4 In order to analyse and assess the impact of the proposed development on the surrounding road network, a traffic model of the key junctions was created and analysed for the schemes following Opening and Future Design Years in accordance with TII's Traffic and Transport Assessment Guidelines (2014):

- 2020 Opening Year
- 2025 Future Horizon Year (Opening Year +5 years)
- 2035 Future Horizon Year (Opening Year +15 years)

5.1.5 These scenarios have been assessed for the AM (0830-0930) and PM (1745-1845) peak hours as established by the commissioned traffic surveys.

5.2 DATA COLLECTION

- 5.2.1 As introduced previously both junction turning count surveys and automatic traffic count surveys were undertaken MHC Traffic Ltd.
- 5.2.2 The AM and PM peak period weekday vehicle turning count survey (fully classified junction turning count) was conducted over a six-hour period from 07:00 to 10:00 and from 16:00 to 19:00 on Thursday 25th May 2016 across five junctions (**Figure 5.1**).
- 5.2.3 The surveys established that the local network's AM and PM peak hours occur between 08.30 – 09.30 and 17.45 – 18.45 respectively.
- 5.2.4 The recorded peak hour traffic flows used in the model are presented in **Figure 1** as included within **Appendix A**.



Figure 5.1: Traffic Survey Locations

5.3 TRIP GENERATION

Proposed Development

- 5.3.1 To estimate the potential level of vehicle trips that could be generated by the assumed development scenario assumed for the purpose of this transport assessment reference has been made to the TRICS database. TRICS data is primarily UK based, although a number of Irish sites have recently been included and the number of Irish sites continues to expand.
- 5.3.2 Notwithstanding the above, internal research undertaken by TRICS has shown that there is no direct evidence of trip rate variation by country or region. The use of English, Scottish or Welsh data can be equally applicable to Ireland if users take into account important site selection filtering factors such as levels of population, location type, local public transport provision, and development size and car ownership level, amongst others.
- 5.3.3 Data supplied for inclusion in TRICS undergoes a procedure of validation testing, and there is no evidence from this procedure suggesting that data from Ireland bears any significant fundamental differences to that from the other countries included. Consequently, we consider that TRICS will provide a reasonable indication of traffic generation from the proposed development.
- 5.3.4 The assumed development scenario is based on the zoning and directives of the LAP, subject to separate planning applications. The development of the Lands is purely indicative for the purposes of this assessment.
- 5.3.5 In order to predict the likely mode share associated with trips travelling to / from the assumed development two number approaches have been employed including;
- An analysis of the 2016 Census travel to work / school / college mode share for residential developments on adjacent lands (**Figure 5.2**). The mode share proportions derived from the 2016 Census have been applied to the assumed residential element of the assumed development.

- Mode share proportions predicted by the TRICS database for all non-residential land uses.

5.3.6 **Table 5.1** below presents the predicted trips generated by the assumed development land-uses.

Land Use	Trip Type	AM			PM		
		Arr	Dep	Total	Arr	Dep	Total
New Residential Communities	Person	1045	2099	3143	2295	1344	3639
	Car Driver	473	950	1423	1039	609	1648
	Car Passenger	154	310	464	339	199	538
	Cycle	9	18	27	20	12	31
	Walk	214	429	643	470	275	744
	Public Transport	194	391	585	427	250	677
High Tech / Offices	Person	807	129	936	36	471	507
	Car Driver	592	95	687	27	346	372
	Car Passenger	162	26	188	7	95	102
	Cycle	4	1	5	0	2	3
	Walk	43	7	50	2	25	27
	Public Transport	6	1	7	0	3	4
Primary School	Person	582	456	1039	65	80	145
	Car Driver*	136	106	242	15	19	34
	Car Passenger	191	150	341	21	26	48
	Cycle	8	6	15	1	1	2
	Walk	228	179	407	26	31	57
	Public Transport	19	15	33	2	3	5
Secondary School	Person	495	312	807	98	672	769
	Car Driver*	114	72	186	23	155	178
	Car Passenger	94	59	153	18	127	145
	Cycle	20	12	32	4	27	31
	Walk	210	133	343	41	286	327
	Public Transport	56	36	92	11	77	88
Industrial Estate	Person	331	194	524	63	196	258
	Car Driver	193	113	307	37	114	151
	Car Passenger	118	69	187	22	70	92
	Cycle	3	2	5	1	2	2
	Walk	12	7	19	2	7	10
	Public Transport	4	3	7	1	3	3
Warehousing	Person	39	20	59	9	25	33
	Car Driver	27	14	41	6	17	23
	Car Passenger	4	2	6	1	2	3
	Cycle	1	1	2	0	1	1
	Walk	7	4	10	1	4	6
	Public Transport	0	0	0	0	0	0
Community Centre	Person	82	29	111	95	57	152
	Car Driver	17	6	22	19	11	31
	Car Passenger	14	5	19	16	10	26
	Cycle	0	0	0	0	0	0
	Walk	48	17	65	55	33	89
	Public Transport	4	1	5	4	3	7

Neighbourhood Centre	Person	519	479	1008	602	627	1229
	Car Driver	154	140	294	175	183	358
	Car Passenger	205	192	425	264	259	524
	Cycle	1	1	2	1	1	2
	Walk	248	171	419	283	247	530
	Public Transport	3	3	6	4	3	7

*Includes parent dropping off one child only

**Table 5.1 : Assumed Development of Mill Road / Marsh Road Lands
Trips by Mode of Travel**

5.3.7 **Table 5.2** below presents the predicted trips by Mode of Travel generated during the Future Design Years (2020, 2025 & 2035).

Design Year	Trip Type	AM Peak (0830-0930)			PM Peak (1745-1845)		
		In	Out	2-way	In	Out	2-way
2020 Opening Year	Total Person Trips	1735	1108	2844	612	1004	1616
	Vehicle Trips	857	420	1277	267	532	800
	Car Passenger	410	256	666	105	195	300
	Cycling	19	14	33	6	13	19
	Walking	369	310	679	137	186	324
	PT	80	107	187	96	78	174
2025 Design Year	Total Person Trips	2205	2051	4256	1643	1608	3251
	Vehicle Trips	1070	847	1917	734	806	1540
	Car Passenger	479	395	874	257	284	541
	Cycling	23	22	45	15	18	33
	Walking	465	503	968	348	310	658
	PT	167	283	450	288	191	478
2035 Design Year	Total Person Trips	3900	3718	7628	3262	3471	6733
	Vehicle Trips	1707	1496	3203	1340	1454	2794
	Car Passenger	941	808	1752	656	770	1426
	Cycling	46	41	87	27	46	72
	Walking	919	921	1844	792	861	1654
	PT	286	448	734	449	341	790

**Table 5.2 : Assumed Trips by Mode of Travel for the Future Design
Years (2020, 2025 & 2035)**

5.3.8 A summary of the adopted trip rates and forecast traffic generation of the proposed development is provided in **Table 5.3** below. The trip rates predicted by TRICS have been calculated based on sites within the UK and Ireland with similar geographical and population catchment characteristics as the subject

development. A summary of the main parameters applied within the TRICS database are as follows;

- Areas that are classed as suburban or edge of town
- Population within 1 mile: <25,000
- Population within 5 mile: <125,000
- Weekday surveys

Land Use	AM			PM		
	Arr	Dep	Total	Arr	Dep	Total
New Residential Communities	0.165	0.332	0.497	0.363	0.212	0.575
High Tech / Offices	1.118	0.179	1.296	0.050	0.652	0.702
Primary School	0.132	0.103	0.235	0.015	0.018	0.033
Secondary School	0.095	0.060	0.155	0.019	0.129	0.148
Industrial Estate	0.337	0.197	0.534	0.064	0.199	0.263
Warehousing	0.066	0.035	0.101	0.015	0.042	0.056
Community Centre	0.492	0.171	0.663	0.567	0.341	0.908
Neighbourhood Centre - Retail	5.600	5.084	10.684	6.355	6.640	12.995
Neighbourhood Centre - Creche	3.507	2.998	6.505	0.891	1.524	2.415
Neighbourhood Centre – Café	0.000	0.000	0.000	3.264	2.588	5.852

**Table 5.3 : Assumed Development of Mill Road / Marsh Road Lands
Vehicle Trip Rates**

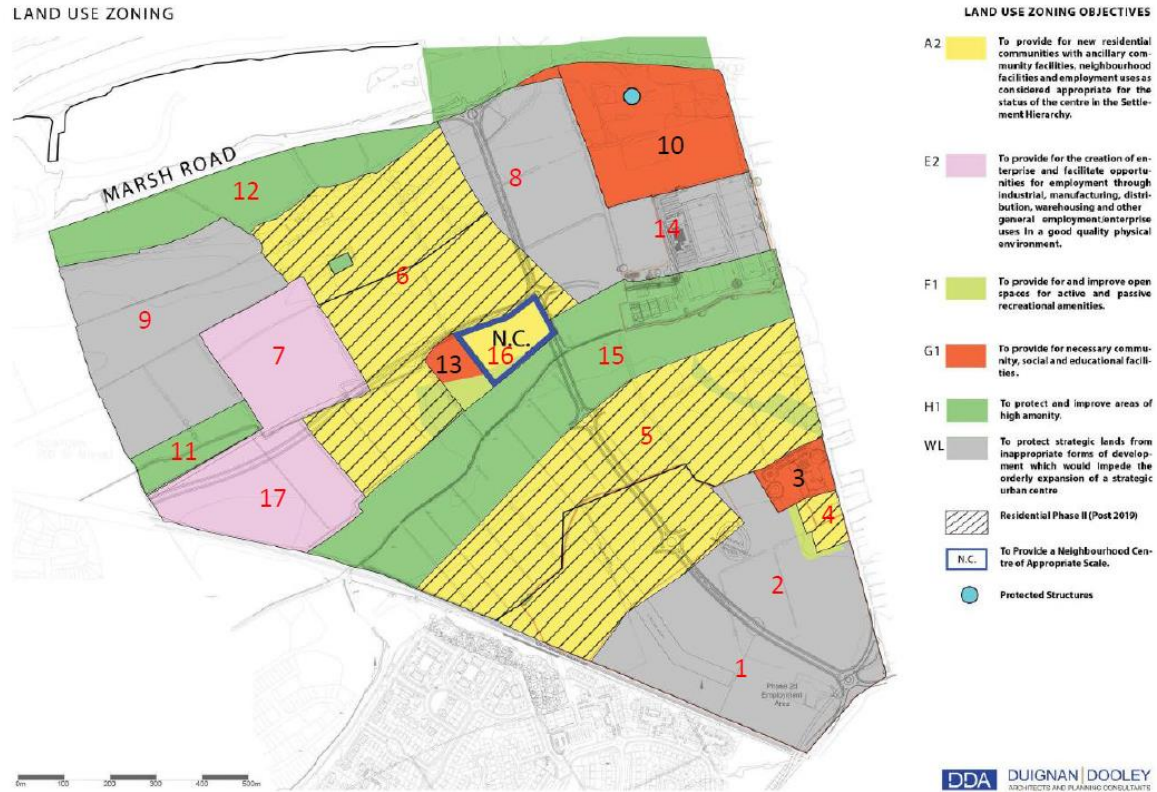


Figure 5.2: The LAP Land User Zoning Objectives and Site Locations

Site	Land Use	Size (GFA) / No. Houses	Trip Rates (per bay)			Traffic Generation (vehicles)		
			Arr	Dep	Total	Arr	Dep	Total
1	High Tech / Offices	53015 sqm	592	95	687	27	346	372
2	New Residential Communities	371	61	123	184	134	79	213
3	Existing Primary School	200*	26	21	47	3	4	7
4	New Residential Communities	36	6	12	18	13	8	21
5	New Residential Communities	200	33	66	99	73	42	115
10a	Existing Primary School	-	-	-	-	-	-	-
10b	Existing Secondary School	-	-	-	-	-	-	-

* 200 additional pupils due to future school expansion

**Table 5.4 : Assumed Development of Mill Road / Marsh Road Lands
Vehicle Trip Generation (2020 Opening Year)**

Site	Land Use	Size (GFA) / No. Houses	Trip Rates (per bay)			Traffic Generation (vehicles)		
			Arr	Dep	Total	Arr	Dep	Total
1	High Tech / Offices	53015 sqm	592	95	687	27	346	372
2	New Residential Communities	371	61	123	184	134	79	213
3	Existing Primary School	200*	26	21	47	3	4	7
4	New Residential Communities	36	6	12	18	13	8	21
5	New Residential Communities	1288	213	427	639	467	273	740
6	New Residential Communities	1137	33	66	99	73	42	115
10a	Existing Primary School	-	-	-	-	-	-	-
10b	Existing Secondary School	-	-	-	-	-	-	-

* 200 additional pupils due to future school expansion

**Table 5.5 : Assumed Development of Mill Road / Marsh Road Lands
Vehicle Trip Generation (2025 Opening Year)**

Site	Land Use	Size (GFA) / No. Houses	Trip Rates (per bay)			Traffic Generation (vehicles)		
			Arr	Dep	Total	Arr	Dep	Total
1	High Tech / Offices	53015 sqm	592	95	687	27	346	372
2	New Residential Communities	371	61	123	184	134	79	213
3	Existing Primary School	200 ¹	26	21	47	3	4	7
4	New Residential Communities	36	6	12	18	13	8	21
5	New Residential Communities	1288	213	427	639	467	273	740
6	New Residential Communities	1137	188	377	565	412	241	653
7	Industrial Estate	28758	97	57	153	18	57	76
8	Secondary School	900	86	54	140	17	116	133
9	Warehousing	40942	27	14	41	6	17	23
10a	Existing Primary School	-	-	-	-	-	-	-
10b	Existing Secondary School	-	-	-	-	-	-	-
13	Community Centre ²	3361	17	6	22	19	11	31
14	New Residential Communities	35	6	12	17	13	7	20
16a	Neighbourhood Centre – Retail ³	7598	149	135	284	169	177	346
16b	Neighbourhood Centre – Creche ⁴	600	5	4	10	1	2	4
16c	Neighbourhood Centre – Cafe ⁵	300	0	0	0	5	4	9

17	Industrial Estate	28743	97	57	153	18	57	76
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1 200 additional pupils due to future school expansion; 2 Assumed 50% New Trips, 50% Internal; 3 Assumed 35% New Trips, 25% Pass-By, 40% Internal; 4 Assumed 25% New Trips, 75% Internal; 5 Assumed 50% Pass-By, 50% Internal

**Table 5.6: Assumed Development of Mill Road / Marsh Road Lands
Vehicle Trip Generation (2035 Opening Year)**

Committed Development

5.3.9 With the objective of providing a robust appraisal this Transport Study has incorporated development proposals for a residential development (Pl. Ref. 17387) on a neighbouring site as committed development (Final Grant July 2017). Trip Rates for this committed development have been predicted by the TRICS database. These third party trip generation rates are presented in **Table 5.7** below.

Land Use	Peak Hour	Trip Rates (per 100m ²)			Traffic Generation (vehicles)		
		Arr	Dep	Total	Arr	Dep	Total
Residential (133 units)	AM	0.165	0.332	0.497	22	44	66
	PM	0.363	0.212	0.575	48	28	76

Table 5.7: Committed Development Vehicle Trip Generation

Vehicle Trip Distribution and Assignment

Vehicle Trip Distribution

5.3.10 The proposed development trips have been distributed and subsequently assigned across the local road network as presented in **Figures 9a to 9i** of **Appendix A**. In order to establish the origin-destination (O-D) of future development trips to / from the subject lands, 15 no. O-D zones have been applied to the assumed geographical catchment areas of the subject development lands. **Figure 5.2** below presents these 15 no. O-D zones relative to the subject development lands.

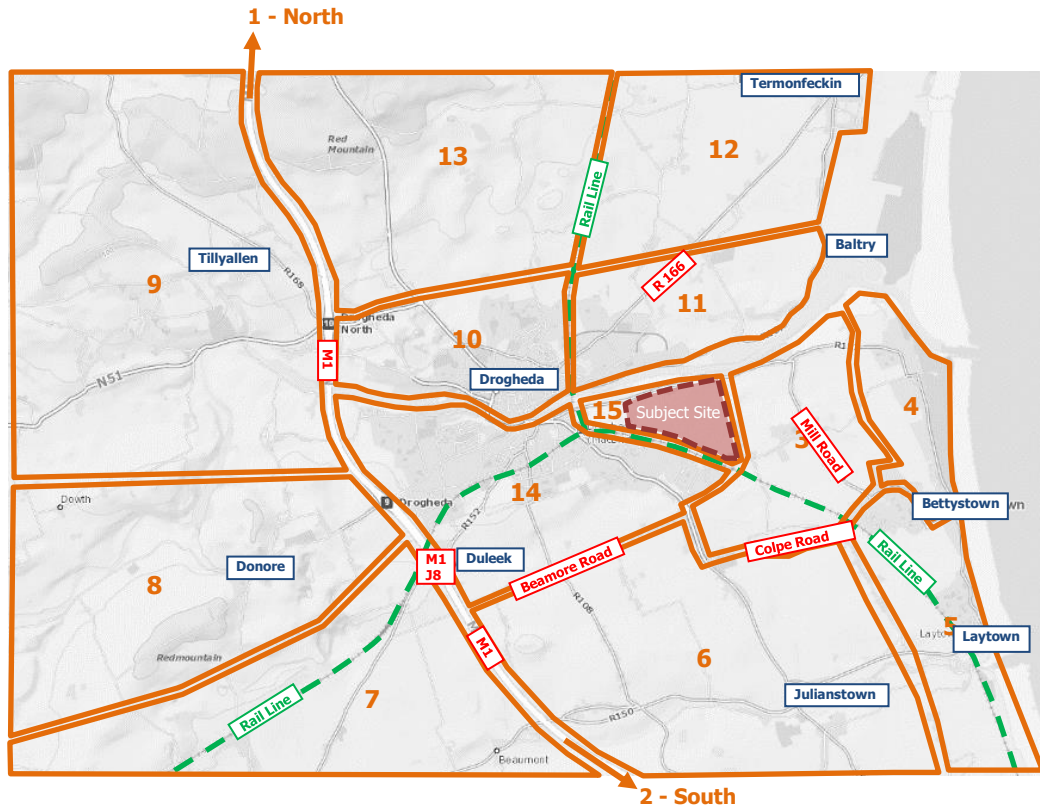


Figure 5.3: Adopted O-D Zones

Vehicle Trip Assignment

5.3.11 Based on the aforementioned O-D zones, a proportion of the predicted development trips have been distributed to each O-D zone. These trips have been assigned to the surrounding road network based on the likely route between the subject site and each O-D zone. The quantum of trips assumed to be generated by each O-D zone has been estimated based on the existing / future population characteristics and employment opportunities within each zone as presented in **Table 5.7** below. **Figures 10a to 10i** of **Appendix A** present the predicted development vehicle trips assigned to the surrounding road network during each Design Year.

OD Zone	Land Use		
	Residential	Education	Employment
1	15.0%	0.0%	12.5%
2	20.0%	0.0%	15.0%
3	0.0%	0.0%	2.5%
4	0.0%	0.0%	2.5%
5	5.0%	0.0%	2.5%
6	5.0%	0.0%	7.5%
7	2.5%	0.0%	2.5%
8	5.0%	0.0%	5.0%
9	5.0%	0.0%	4.0%
10	12.5%	5.0%	12.5%
11	7.5%	5.0%	7.5%
12	0.0%	0.0%	7.5%
13	2.5%	0.0%	7.5%
14	15.0%	15.0%	6.0%
15	5.0%	75.0%	5.0%

Table 5.7 : O-D Zone Trip Distribution by Land-Use Category

Reassignment of Existing Vehicle Trips

5.3.12 As a result of the future proposed road infrastructure, a proportion of existing traffic travelling across the surrounding road network will divert from their current route to alternative routes once this future new road infrastructure is operational. **Figures 4a to 4c, 5a and 5b** of **Appendix A** present the reassigned existing

vehicle trips assumed during each Design Year. A summary of the assumed reassigned trips is as follows;

2020

- Access to the existing Gaelscoil an Bhradain Feasa via new Colpe Road Roundabout junction and the initial section of the proposed new Link Street.

2025

- Access to the existing Gaelscoil an Bhradain Feasa via new Colpe Road Roundabout junction and new Link Street,
- 70% of existing Mill Road traffic (to / from Marsh Road west) reassigns to the new Link Street.

2035

- Access to the existing Gaelscoil an Bhradain Feasa via new Colpe Road Roundabout junction and New Marsh Road accesses,
- 70% of existing Mill Road traffic (to / from Marsh Road west) reassigns to the new Link Street (split evenly between the proposed two new Marsh Road Junctions),
- 15% of existing vehicular traffic travelling to /from the north along the R132 diverts along the new 'Link' Street via the new Colpe Road junction and Marsh Road East junction,
- 30% of existing traffic travelling between Marsh Road and the R167 North Strand will divert via the future new bridge crossing,
- 5% of the R132 Dublin Road traffic will divert via the future R132/M1 'Link' Road.



Figure 5.4: Existing and Future Transport Infrastructure

Future Traffic Growth

5.3.13 Table 5.3.2 within the TII Project Appraisal Guidelines provides Annual National Traffic Growth Factors for the different regions within Ireland. The subject site lies within 'Region 2 – Mid-East with the growth factors as outlined within **Table 5.8** below.

Region	Name	Low Growth				Central Growth				High Growth			
		2013-2030		2030-2050		2013-2030		2030-2050		2013-2030		2030-2050	
		LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
2	Mid-East Kildare Meath Wicklow	1.0109	1.0221	1.0018	1.0135	1.0140	1.0237	1.0048	1.0176	1.0154	1.0242	1.0054	1.0195

Table 5.8 : Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (Extract from Table 5.3.2 PAG)

5.4 IMPACT OF PROPOSALS

- 5.4.1 The Institution of Highways and Transportation document 'Guidelines for Traffic Impact Assessments' states that the impact of a proposed development upon the local road network is considered material when the level of traffic it generates surpasses 10% and 5% on normal and congested networks respectively. When such levels of impact are generated a more detailed assessment should be undertaken to ascertain the specific impact upon the networks operational performance. These same thresholds are reproduced in the TII document entitled *Traffic and Transport Assessment Guidelines (2007)*
- 5.4.2 In accordance with the IHT and TII guidelines we have undertaken an assessment to establish the potential level of impact upon the key junctions of the local road network. To enable this calculation to be undertaken we have based the analysis upon the 2035 Future Design Year scenario. The analysis has demonstrated that the proposed development will generate the following impacts during the AM and PM peak hours in the 2035 Do-Something scenario.

Junction ID	Junction/ Location	2035	
		AM Peak	PM Peak
1	R132 / Beamore Road	31.2%	24.3%
2	R132 / Colpe Road	37.9%	31.0%
3	Colpe Road / Mill Road / Future Site Access	79.9%	103.9%
4	Mill Road / Marsh Road	-36.5%	-24.5%

Table 5.9 : Network Impact (2035 Future Design Year)

- 5.4.3 For the purposes of this analysis, central growth forecasts have been adopted thereby ensuring a robust analysis (i.e. utilising the High Growth rates results in lower development impact).
- 5.4.4 The network impact analysis demonstrates that the subject proposals will generate a significant impact on all junctions in the adopted worst case scenario with the

exception of Junction 4 Mill Road / Marsh Road Junction. Accordingly the operational performance of these junctions have been investigated in greater detail in **Chapter 6**.

6.0 TRANSPORT IMPACTS

Software Overview & Methodology

- 6.1.1 Having determined the volume of trips likely to be generated by the development of the Mill Road / Marsh Road Lands, the impact of the trips will be assessed using a variety of software modelling packages. The operational assessment of the local road network has been undertaken using the Transport Research Laboratory (TRL) computer package TRANSYT for any signal controlled junctions and ARCADY for roundabout junctions.
- 6.1.2 TRANSYT is an off-line computer program for studying everything from isolated road junctions to large signal-coordinated networks. TRANSYT produces optimised signal timings to progress platoons of traffic through a network. It is possible to model priority (non-signal controlled) intersections, including roundabouts within a TRANSYT model, but this is only appropriate where these intersections form part of a larger network comprised of signalised intersections.
- 6.1.3 TRANSYT contains two main components – a traffic model and a signal optimiser (**Figure 6.1**). The traffic model predicts a Performance Index (PI) for a network based on a fixed signal timing plan and set of average traffic flows. The PI is a measure of the overall cost associated with congestion and is a weighted combination of total vehicle delays and stops experienced by traffic within the modelled network. The performance index is the main method of comparing alternative network configurations.

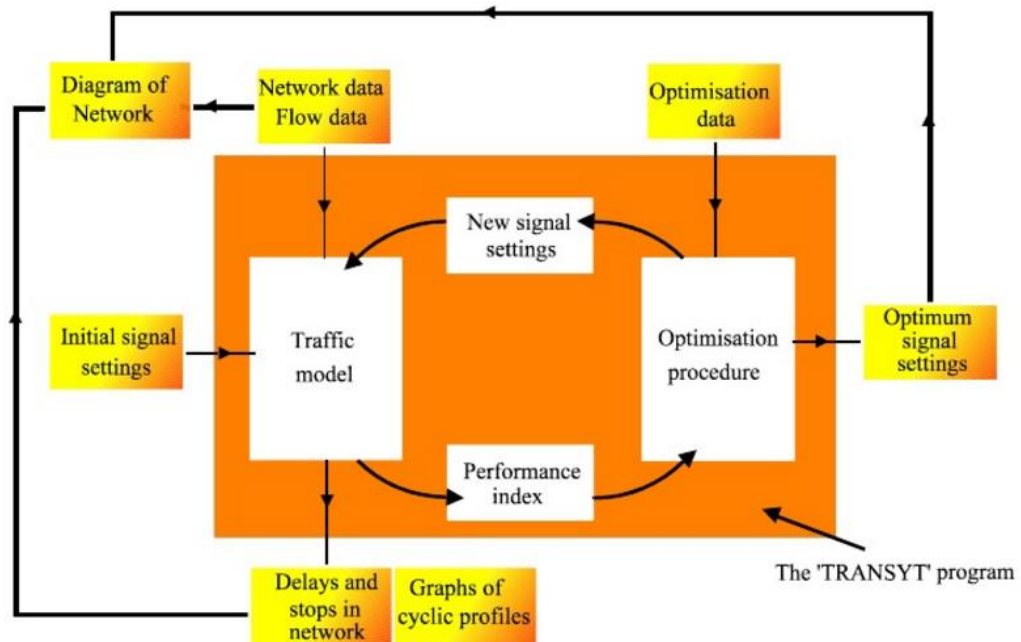


Figure 6.1: The basic structure of the TRANSYT program

- 6.1.4 The approach taken for the TRANSYT model related to this Scheme was to create a simulation in TRANSYT of the relevant sections of the network where signal controlled junctions were necessary within the study area. A base model was formed from the existing junction and network arrangement and then subsequent models of the various proposed options were generated.
- 6.1.5 Any junction modelled as a Roundabout in ARCADY that failed to comply with capacity in a high growth worst case scenario, was modelled as a Signal Controlled Junction in TRANSYT for analysis of traffic impacts on queue lengths and journey delays.
- 6.1.6 The junction was modelled as a signal controlled junction for analysis of capacity, ratio of flow to capacity queue lengths, and delays across all movements of the junction, including a pedestrian phase and adequate intergreen phases to facilitate safety throughout the junction's operation.
- 6.1.7 ARCADY is a computer modelling package that may be used to model roundabout junctions to determine the Ratio of Flow to Capacity (RFC), Queue Lengths and

Delays incurred with respect to flows for a given time period, input in the O-D Matrix for flows. ARCADY capacity for a junction is taken as 0.85 or 85%, and capacity values above this tend to

6.1.8 In order to effectively analyse the road network and traffic impacts completely, four scenarios were modelled in order to give a complete view of the relevant junctions, their operational efficiency, and their performances, with respect to design life. The following design years were analysed for identified AM and PM peaks:

- **2017 Base Flows of network** – Existing road network and surveyed traffic data;
- **2020 Do something** Assumed opening year for initial phase of development on Study Lands, opening of New access to school via preferred Link Street;
- **2025 Do Something** – (Opening Year + 5 years) completion of east – west Link Street and remainder of Plan Lands; and
- **2035 Do Something** – (Opening Year + 15 years) Completion of Link Street between Colpe Road and Marsh Road. It has also been assumed that a new crossing of the River Boyne will be in place at this time.

6.1.9 The traffic generation for each of the scenarios has been outlined in **Chapter 5**. There are several Roundabout Junctions which have been analysed for the impact caused by this scheme in the proximity of the proposed road network. These are as follows below and illustrated in **Figure 6.2**:

- **Junction 1** – Mill Road / Colpe Road Roundabout;
- **Junction 2** – Colpe Road / R132 Dublin Road Roundabout at Southgate Shopping Centre;
- **Junction 3** – R132 Dublin Road / Beamore Road Roundabout at Southgate Shopping Centre; and
- **Junction 4** Marsh Road / Proposed Bridge / Link street Junction;

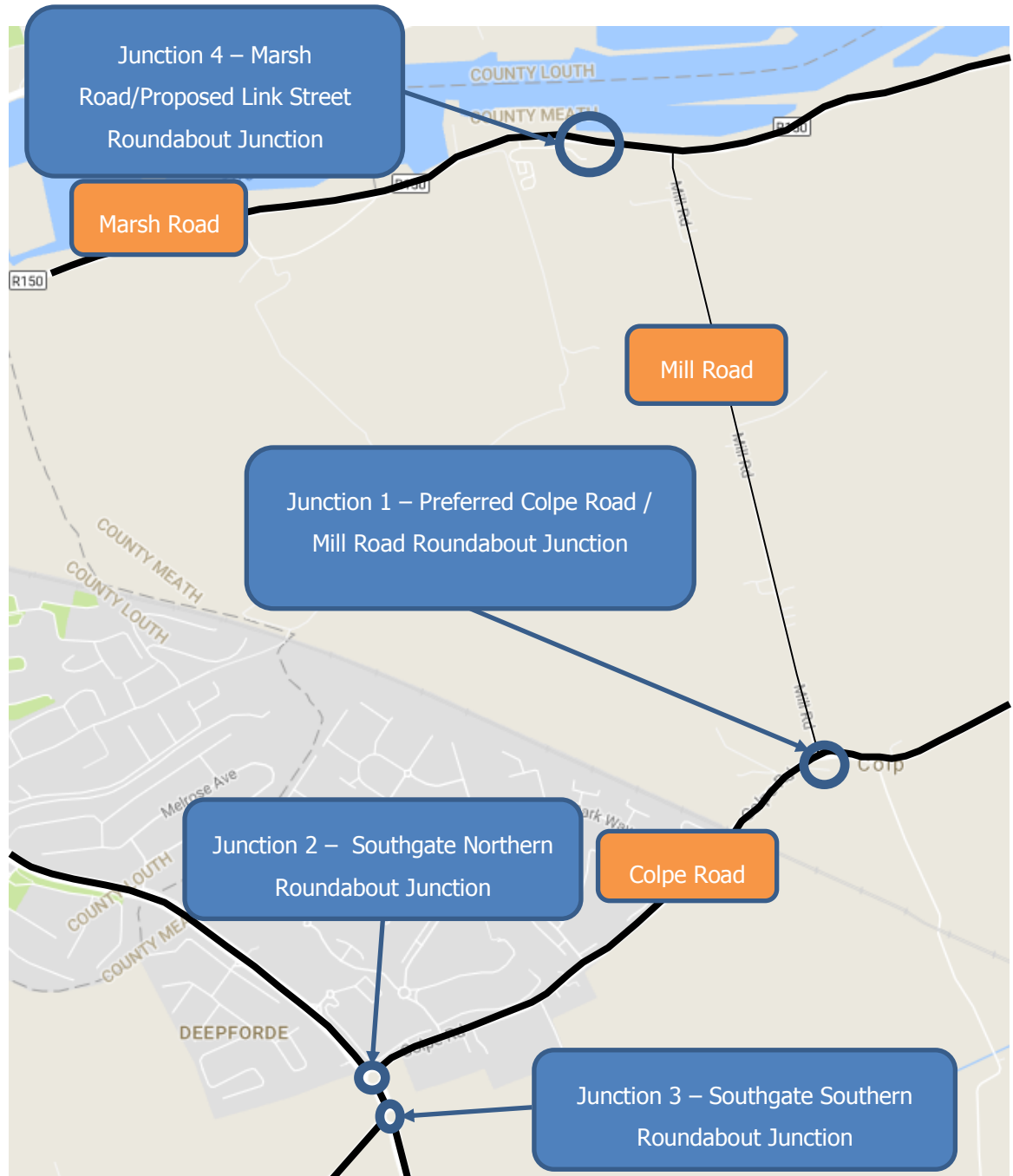


Figure 6.2: Road Network and Surrounding Junctions assessed as part of the Junction analyses

Model Inputs

6.1.10 The following model inputs were utilised in the development of the relevant transport modelling simulations:

- **Traffic Flows** – Sourced from the traffic model which was based on the traffic surveys on 25th May 2017 and Trip Generation, as set out in **Chapter 5**, based on High Growth rates applied to the generated traffic network; and
- **Geometric Dimensions** – DBFL sourced measurements from preliminary drawings of the junctions and also measurements from existing junctions

Results and Interpretation

6.1.11 ARCADY Models for all of the relevant roundabout junctions have been prepared for analysis of the network.

Junction 1 – Proposed Colpe Road/Mill Road Roundabout

6.1.12 The results of the operational assessment of Junction 1, the four-armed roundabout proposed for the junction between Mill Road and Colpe Road during the weekday morning and evening peaks are summarised in **Table 6.1** below. The four arms were labelled as follows within the ARCADY model:

- Arm 1: Colpe Road (East)
- Arm 2: Colpe Road (West)
- Arm 3: New Link Street
- Arm 4: Mill Road

6.1.13 For this roundabout, the junction was modelled to facilitate flares enabling two lanes to enter the roundabout and ensure that traffic flows were optimised, and this junction was operating under capacity. Except for one arm in the AM peak, under High Growth traffic levels, where one arm was over capacity, following the completion of the River Boyne Bridge crossing. The existing roundabout has an Inscribed Circle Diameter of 36m.

- 6.1.14 Redesign for a signal controlled junction may be considered going forward, due to the high flows of traffic entering the roundabout, should the proposed River Boyne Bridge Crossing be completed.
- 6.1.15 The Roundabout Junction between the Colpe Road and Mill Road, which can be seen in **Figure 6.3**, shows adequate capacity up to the 2035 year, where it is over capacity along the Colpe Road western arm for the AM peak only, as capacity is at 94%, as shown in **Table 6.1**. It should be noted that this junction has shown an ability to perform at adequate capacity for all other arms and all other scenarios, and that delays may be expected at an AM peak, which is caused as a result of the diversion of traffic following the proposed bridge construction which is assumed to be opened for the 2035 design year, but not for the 2025 design year.

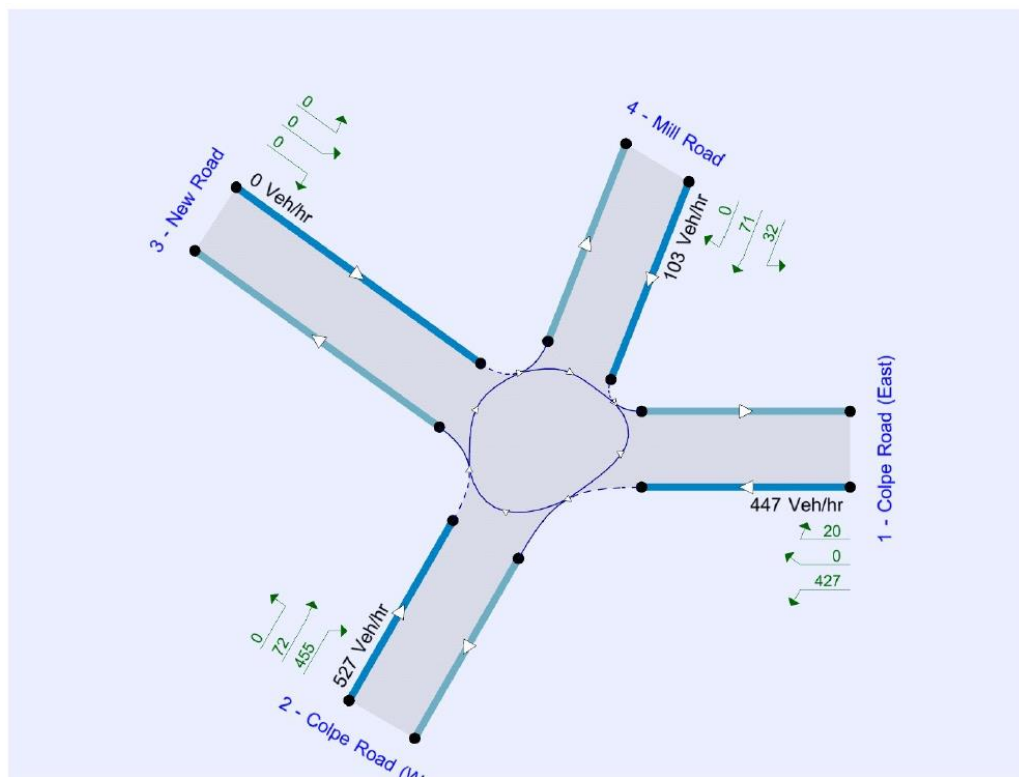


Figure 6.3: Junction 1 roundabout Diagram (ARCADY)

Do Something Scenarios

Year	Scenario	Arm	Queue (PCU)	Delay (s)	RFC
2017 (Base Year)	AM Peak	1- Colpe Rd E	0.6	3.74	0.34
		2 – Colpe Rd W	0.7	3.60	0.37
		3 – New Link	0.0	0.00	0.00
		4 - Mill Rd	0.3	3.47	0.22
	PM Peak	1- Colpe Rd E	0.4	3.12	0.26
		2 – Colpe Rd W	0.4	3.06	0.29
		3 – New Link	0.0	0.00	0.00
		4 - Mill Rd	0.1	3.06	0.07
2020 (Opening Year)	AM Peak	1- Colpe Rd E	1.2	6.97	0.53
		2 – Colpe Rd W	3.1	10.56	0.74
		3 – New Link	0.5	4.29	0.31
		4 - Mill Rd	1.4	7.08	0.57
	PM Peak	1- Colpe Rd E	0.6	4.16	0.34
		2 – Colpe Rd W	0.8	3.97	0.42
		3 – New Link	0.7	4.45	0.39
		4 - Mill Rd	0.3	4.21	0.21
2025 (Opening Year + 5 Years)	AM Peak	1- Colpe Rd E	1.3	7.11	0.55
		2 – Colpe Rd W	2.5	7.67	0.70
		3 – New Link	0.8	4.86	0.43
		4 - Mill Rd	0.6	5.80	0.34
	PM Peak	1- Colpe Rd E	0.7	4.48	0.38
		2 – Colpe Rd W	1.3	4.91	0.55
		3 – New Link	0.6	4.01	0.33
		4 - Mill Rd	0.1	4.27	0.11
2035 (Horizon Year)	AM Peak	1- Colpe Rd E	2.1	9.71	0.66
		2 – Colpe Rd W	12.6	31.59	0.94
		3 – New Link	1.7	7.60	0.61
		4 - Mill Rd	0.4	6.15	0.28
	PM Peak	1- Colpe Rd E	1.0	5.75	0.48
		2 – Colpe Rd W	3.1	8.67	0.74
		3 – New Link	1.2	5.93	0.53
		4 - Mill Rd	0.1	4.96	0.07

Table 6.1: Junction 1 Roundabout ARCADY Results

Junction 2 – Southgate North Roundabout

- 6.1.16 The Roundabout Junction between the Colpe Road and Dublin Road R132 shows adequate capacity up to the 2035 year. Using High Growth traffic flows as part of a conservative assessment, at proposed horizon design Year 2035, this roundabout junction remains below operational capacity, with RFC values of 0.83 being observed along one arm in the PM Peak, the Dublin Road R132 arm, as shown in **Table 6.2**. These results indicate that this junction can adequately support 2035 high growth flows.
- 6.1.17 This junction was modelled with accordance to the existing layout of the roundabout, with an inclusion for the Meath County Council proposed M1 link road modelled in the 2035 scenario.
- 6.1.18 The four arms of the roundabout were labelled as follows within the ARCADY model:
- Arm 1: Colpe Road (East)
 - Arm 2: R132 Dublin Road (South)
 - Arm 3: New M1 – R132 Link Road (West)
 - Arm 4: R132 Dublin Road (North)

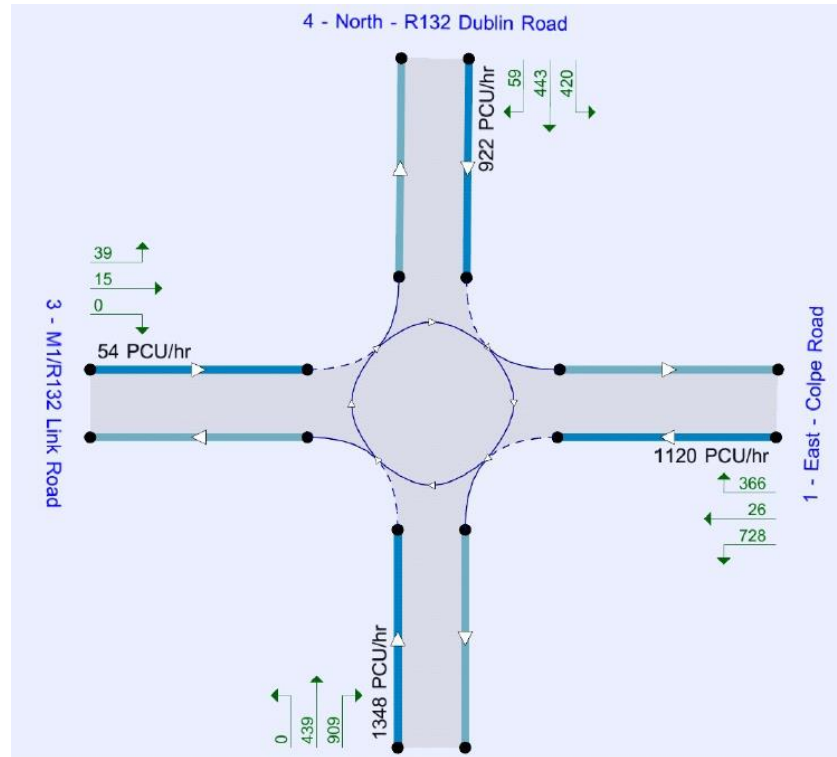


Figure 6.4: Junction 2 Roundabout Diagram

Year	Scenario	Arm	Queue (PCU)	Delay (s)	RFC
2017 (Base Year)	AM Peak	1 – Colpe Rd E	0.6	2.81	0.26
		2 – R132 S	0.7	3.28	0.49
		4 – R132 N	0.7	3.30	0.46
	PM Peak	1 – Colpe Rd E	0.4	2.56	0.26
		2 – R132 S	1.0	3.95	0.49
		4 – R132 N	0.9	3.98	0.46
2020 (Opening Year)	AM Peak	1 – Colpe Rd E	0.9	3.35	0.45
		2 – R132 S	1.2	4.48	0.53
		4 – R132 N	1.1	4.49	0.56
	PM Peak	1 – Colpe Rd E	0.7	3.15	0.39
		2 – R132 S	1.5	5.00	0.58
		4 – R132 N	1.2	4.79	0.52
2025 (Opening Year + 5 Years)	AM Peak	1 – Colpe Rd E	1.4	4.32	0.57
		2 – R132 S	1.6	5.40	0.59
		4 – R132 N	1.4	5.16	0.56

2035 (Horizon Year)	PM Peak	1 – Colpe Rd E	0.9	3.64	0.46
		2 – R132 S	2.6	7.13	0.70
		4 – R132 N	2.0	6.98	0.65
	AM Peak	1 – Colpe Rd E	2.7	6.51	0.71
		2 – R132 S	2.3	7.00	0.68
		3 – M1 Link	0.1	3.02	0.07
		4 – R132 N	1.8	6.72	0.62
	PM Peak	1 – Colpe Rd E	1.6	4.83	0.60
		2 – R132 S	5.2	13.03	0.83
		3 – M1 Link	0.1	3.41	0.05
		4 – R132 N	2.5	9.13	0.70

Table 6.2: Junction 2 Roundabout Table of Results (ARCADY)

Junction 3 – Southgate South Roundabout

6.1.19 The Roundabout Junction between the Dublin Road R132 and Beamore Road operates within capacity up to the 2035 year, but is just over capacity along the Dublin Road R132 south arm, as capacity is at 86%, as shown in **Table 6.3**.

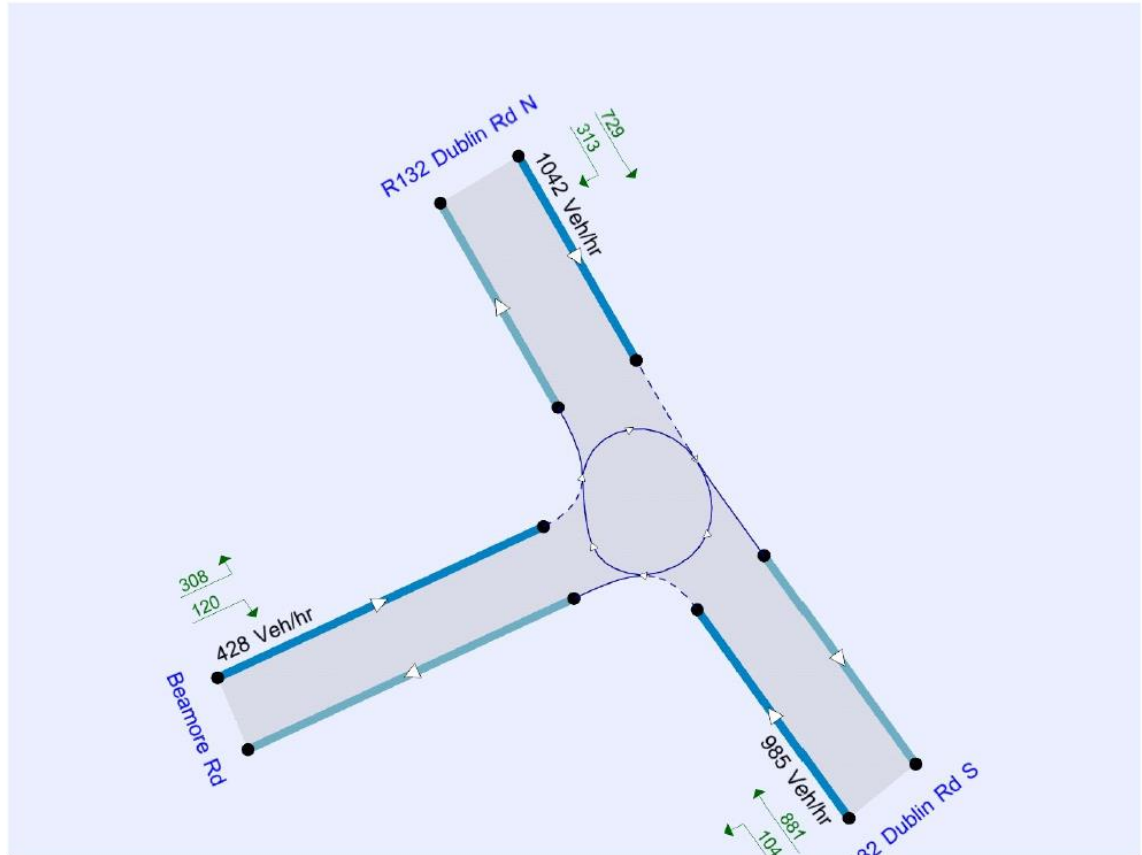


Figure 6.5: Junction 3 roundabout Diagram

6.1.20 The four arms of the roundabout were labelled as follows within the ARCADY model:

- Arm 1: R132 Dublin Road (South)
- Arm 2: Beamore Road
- Arm 3: R132 Dublin Road (North)

Year	Scenario	Arm	Queue (PCU)	Delay (s)	RFC
2017 (Base Year)	AM Peak	1 – R132 S	0.7	4.13	0.41
		2– Beamore Rd	0.3	4.00	0.25
		3 – R132 N	0.9	3.87	0.48
	PM Peak	1 – R132 S	1.0	4.70	0.50
		2– Beamore Rd	0.6	3.53	0.37
		3 – R132 N	0.9	3.82	0.46
2020 (Opening Year)	AM Peak	1 – R132 S	1.3	5.71	0.56
		2– Beamore Rd	0.5	5.14	0.35
		3 – R132 N	1.3	4.71	0.57
	PM Peak	1 – R132 S	1.4	5.87	0.59
		2– Beamore Rd	0.8	6.45	0.45
		3 – R132 N	1.4	4.95	0.58
2025 (Opening Year + 5 Years)	AM Peak	1 – R132 S	1.8	7.05	0.64
		2– Beamore Rd	0.6	5.55	0.36
		3 – R132 N	2.0	6.16	0.67
	PM Peak	1 – R132 S	2.5	8.59	0.72
		2– Beamore Rd	1.1	8.53	0.53
		3 – R132 N	1.9	6.01	0.66
2035 (Horizon Year)	AM Peak	1 – R132 S	3.1	10.53	0.76
		2– Beamore Rd	0.7	6.41	0.40
		3 – R132 N	4.2	10.61	0.81
	PM Peak	1 – R132 S	5.9	17.29	0.86
		2– Beamore Rd	1.8	12.95	0.64
		3 – R132 N	2.9	8.26	0.75

Table 6.3: Junction 3 Roundabout Table of Results (ARCADY)

Junction 4 - Marsh Road/Proposed Link Street Roundabout

- 6.1.21 Junction 4 represents the junction between the Marsh Road and the proposed Link Street. This road is anticipated to be opened for 2035, where it is also possible that a new bridge crossing of the River Boyne will be linked into the 36M ICD roundabout junction. It has been assumed that the bridge crossing would be linked into the junction for the design year of 2035.
- 6.1.22 The data produced from ARCADY analysis has been presented in **Table 6.4** below, and from this Queue Lengths, Delays and Ratio of Flow to Capacity (RFC) may be observed.

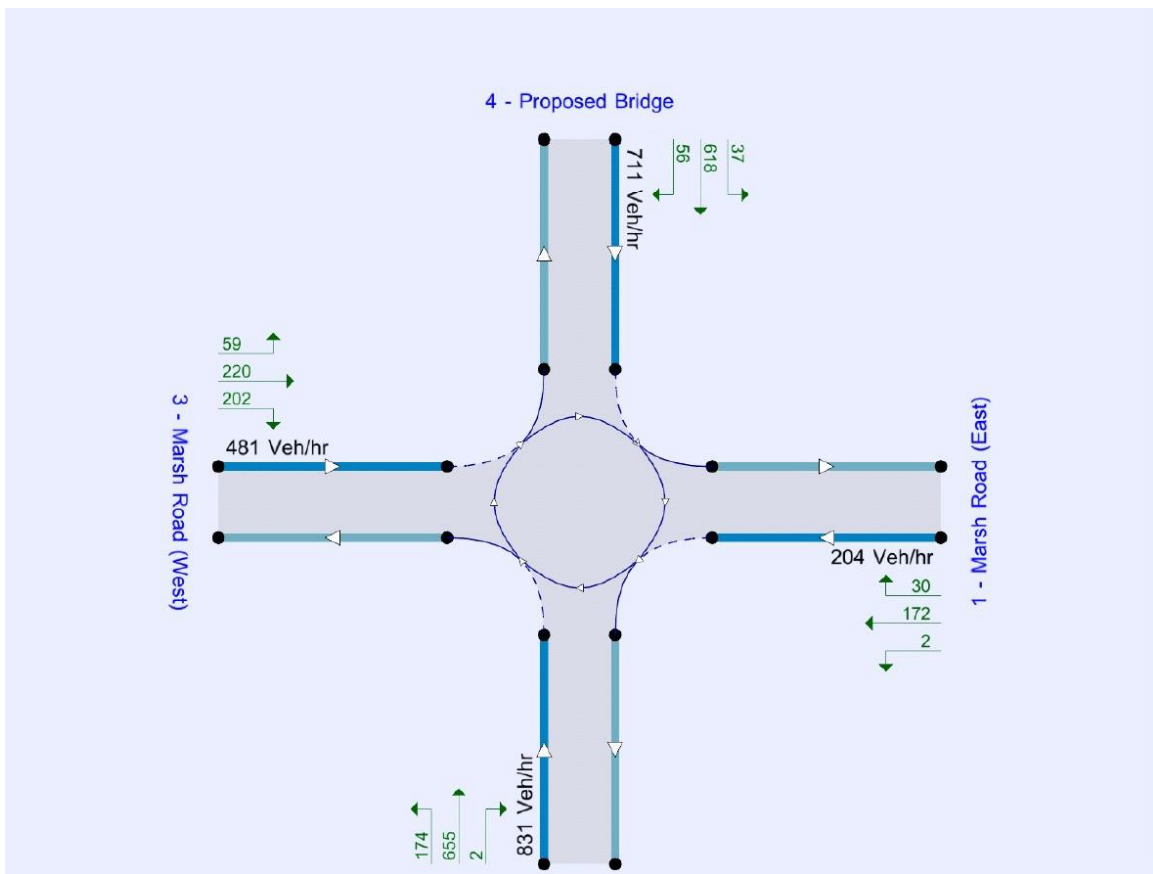


Figure 6.6: Junction 4 Roundabout Diagram

6.1.23 The four arms of the roundabout were labelled as follows within the ARCADY model:

- Arm 1: Marsh Road (East)
- Arm 2: Proposed Link Street (South)
- Arm 3: Marsh Road (West)
- Arm 4: Proposed Bridge (North)

Year	Scenario	Arm	Queue (PCU)	Delay (s)	RFC
2035 (Junction Opening Year)	AM Peak	1- Marsh Rd E	1.2	10.00	0.52
		2- Link Street	3.1	10.54	0.74
		3- Marsh Rd W	1.0	6.80	0.48
		4- Bridge	2.1	8.00	0.66
	PM Peak	1- Marsh Rd E	0.4	6.01	0.27
		2- Link Street	2.0	7.11	0.64
		3- Marsh Rd W	1.2	7.49	0.52
		4- Bridge	1.6	6.92	0.60

Table 6.4: Junction 4 Roundabout Table of Results

6.1.24 The roundabout junction used for this junction is proposed to be opened for the 2035 design year scenario, and all lanes have been modelled to include flares, preventing unnecessary queueing of lanes, and the roundabout junction has an inscribed circle diameter of 36m.

6.1.25 ARCADY results shown above indicate that this proposed roundabout operates within capacity for the 2035 Design year, with a maximum RFC value of 0.74 being generated for the AM Peak.

Summary of Results

- 6.1.27 The above results show that up to the Horizon year of 2035, all roundabouts generally provide adequate capacity, with model data being input for High growth scenarios, to account for the worst possible scenario of traffic rates.
- 6.1.28 For the Horizon year of 2035, Junction 1 – Colpe Road/Mill Road Roundabout is over capacity for the AM Peak on one arm, whilst the rest of the roundabout arms are within capacity. This may be a reason to consider design for a Signal Controlled junction at this location going forward following realisation of the new bridge crossing of the River Boyne.
- 6.1.29 Junction 2 – Southgate North Roundabout results show that for the 2035 horizon year, this junction is approaching capacity, with an RFC value of 83% for high growth traffic data in the PM Peak. This shows that the roundabout is approaching capacity for the High Growth scenario, yet is still operating within capacity.
- 6.1.30 Junction 3 – Southgate South Roundabout results show this junction will operate at capacity for the 2035 Horizon Year, with an RFC value of 86% on one arm for the PM Peak, which is influenced directly by traffic connecting towards the proposed bridge for 2035. The roundabout shows adequate capacity for all other arms other than the PM Peak in the design year of 2035, therefore, this junction should be reevaluated should the bridge crossing be completed.
- 6.1.31 Junction 4 is a possible junction that could connect a proposed bridge crossing the River Boyne with the proposed Link Street and Marsh Road. This junction has been assumed to be completed for the 2035 design year, and as such, operates under capacity for the flows at this design year.

7.0 PHASING & IMPLEMENTATION OF INFRASTRUCTURE UPGRADES

Introduction

7.1.1 This section outlines a Phasing Strategy for the delivery of the infrastructure required to support the development of the Plan Lands.

Phasing Strategy

7.1.2 The Phasing Strategy sets out to ensure that the Plan Lands are developed to help create a sustainable community by linking a level of development to the delivery of transportation infrastructure.

7.1.3 The purpose of phasing is to ensure that such facilities and amenities are provided in a timely manner either prior to or in tandem with the development rather than at the latter stages of development. The timely establishment of the pieces of infrastructure is key to influencing the travel behaviour internal and external to the Lands.

7.1.4 In addition to the delivery of the necessary infrastructure, Travel planning for the Plan Lands will need to be adopted and implemented as part of respective developments. Thus, promoting green modes of transport such as walking, cycling, public transport and thereby ensuring the sustainable use of the infrastructure provided.

7.1.5 For the purpose of the Phasing Strategy & this Transport Study, the Plan Lands have been divided into two phases.

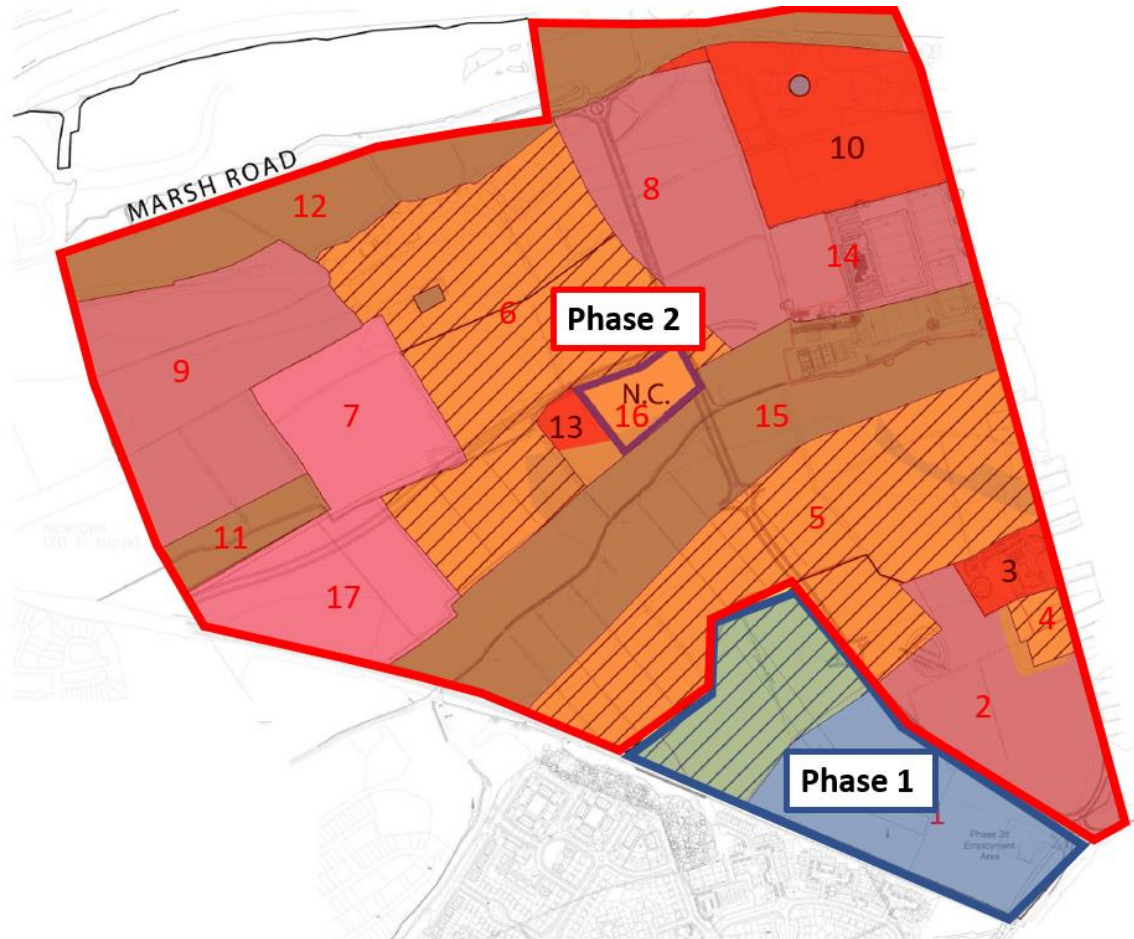


Figure 1.3: Phasing diagram.

Phase 1

The first phase of the development is expected to comprise of a high tech/major campus style offices (approx. 18,000 sqm) and a residential development (200 units) which will be structured around the provision of the following key infrastructure:

infrastructure:

- The southern section of the Link Street (approx. 700m) from Colpe Road to the Marsh Road (South to North); to provide access to Gaelscoil an Bhradain Feasa
- Completion of the remaining section of footpath on Colpe Road to link with the footpath which services the neighbourhood facilities and public transport services at Southgate/R132. The assumed increase in

pedestrians for the future design years which will need to be accommodated for are outlined in table 5.2.

- 7.1.6 These elements together will form a skeletal structure with focal spaces facilitating initial development while allowing incremental development to extend outwards on a planned basis. Early development of residential and employment floorspace is likely to be required to be accompanied by associated development of neighbourhood retail facilities.
- 7.1.7 The early phase of development will require a local public transport service which is integrated with the existing public transport services and the Rail services in particular. This may take the form of an enhancement to existing bus services on the R132 or Colpe Road and shall be developed in consultation with the relevant statutory providers. Therefore, provided the above infrastructure is in place prior to occupation the development of Phase 1 of the Plan Lands will be appropriate from a transportation perspective.

Phase 2

- 7.1.8 Development of the LAP lands within Phase 2 will require the completion of the Link Street from Colpe Road to the Marsh Road (South to North) and will eventually require the delivery of other transport infrastructure including the Link Street running east – west across the Plan Lands that would provide a link to the proposed Newtown LIHAF Road Scheme.
- 7.1.9 The implementation of traffic calming measures on the Mill Road.
- 7.1.10 A green route is proposed to link the LIHAF road to the proposed “Drogheda Transportation Development Area” (DTDA). The delivery of this infrastructure will be planned to facilitate the subsequent phases of development and will be consistent with the overall transport policies and objectives set out in the policy documents as outlined in chapter 3.
- 7.1.11 The Boyne Greenway along the Marsh Road is expected to be operational during the early stages of Phase 2. This will provide the necessary facilities for

pedestrians and cyclists on the Marsh Road where they are compromised by relatively high traffic volumes and inadequate cycle facilities. The assumed increase in pedestrians & cyclists for the future design years is outlined in table 5.2.

- 7.1.12 The Mill Road/Marsh Road lands will be developed to support the delivery of enhanced bus services and connectivity as well as the construction of an Integrated Transportation Hub (DTDA) (see Figure 4.4 which illustrates a schematic of a possible future town bus service map).
- 7.1.13 The exact phasing of the Plan Lands in phase 2 cannot be determined at this stage. The final location of Local Streets and Link Street are to be determined as and when the design of the individual plots of land are developed.
- 7.1.14 Whilst the design and feasibility of the proposed River Boyne bridge crossing has yet to be explored in detail, the proposed street network for the Mill Road/Marsh Road Lands will not prejudice the eventual location of the proposed bridge. The northern tie in of the proposed Link Street with Marsh Road should remain flexible until such time as the preferred location for the Boyne River crossing has been established.
- 7.1.15 The developments in the proposed phase 2 of the Plan Lands will be developed organically and will undergo individual planning applications and will also need to comply with this Transport Study or a subsequent revision of this Study.

Network Analysis/Junction Upgrades

- 7.1.16 The network impact analysis demonstrates that the existing and proposed roundabouts provide adequate capacity for the Horizon year of 2020 for the phase 1 proposals.
- 7.1.17 Similarly, adequate junction capacity is provided for the 2025 Horizon year, which is the full build out of Plan Lands, with the provision of the Link Street running east – west across the Plan Lands that would provide a link to the proposed Newtown LIHAF Link Street.

- 7.1.18 For the Horizon year of 2035, the provision of bridge crossing the Boyne River will generate a significant impact on all junctions in the adopted worst case scenario with the exception of Junction 2 & 4.
- 7.1.19 Both Junction 1 & 3 – Colpe Road/Mill Road Roundabout & Southgate South Roundabout both show one arm over capacity in the 2035 design year, whilst the rest of the roundabout arms are within capacity. The principle cause for these arms to be over capacity is due to the diversion of traffic following the proposed bridge construction. The roundabouts show adequate capacity for the full build out of the Plan Lands for 2035 prior to the introduction of the new bridge crossing.

8.0 CONCLUSIONS

8.1.1 This Transport Study is part of the implementation process set out in the Southern Environs of Drogheda LAP. It satisfies the LAP requirements in that it:

- It is consistent with the land uses and objectives contained in the LAP;
- Identifies likely, early stage phasing and potential later phases; and
- Provides the framework for the provision of key long-term infrastructure for the larger plan area.

8.1.2 The future development of the Plan Lands will be dependent on the development of sustainable transport, together with the development of the necessary infrastructure. Provision of segregated pedestrian and cyclist routes would be required, especially where they would facilitate more direct, safer and pleasant alternative routes to those of the private car.

8.1.3 There are currently little or no cycle facilities within Drogheda and along roads surrounding the development (Marsh Road, Mill Road and Colpe Road). Cyclists are compromised by relatively high traffic volumes and inadequate cycle facilities.

8.1.4 The Mill Road/Marsh Road Lands will be developed to align with the specific Southern Environs of Drogheda LAP proposals:

1. Segregated cycle and pedestrian facilities will be provided on the new distributor road that will connect Colpe Road with the Marsh Road / Marsh Road; and
2. Pedestrian facilities and on-street cycle tracks along the Mill Road and Colpe Road to provide a link to the neighbourhood centre at Colpe Cross and a link provided from the Mill Road/Marsh Road Area to Drogheda train station.

8.1.5 Land use planning measures will need to be undertaken to facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transport.

- 8.1.6 One of the key transportation proposals in this framework plan is the establishment of the Street Network including the delivery of the Link Street connecting Colpe Road and Marsh Road as well as tying into the existing Mill Road. The Local Area Plan (LAP) for the Southern Environs of Drogheda proposes to provide a link street through the Mill Road / Marsh Road District providing access to the lands and functioning as a Link Street. The delivery of the new link street will provide for the local access needs of the Lands.
- 8.1.7 The Link streets within the Plan Lands will incorporate pedestrian facilities with segregated cycle tracks (1.75m wide) designed in accordance with the National Cycle Manual (NCM).
- 8.1.8 Following on from the provision of the new Link Street connecting Colpe Road and Marsh Road, the framework plan also proposes a link road running east – west across the Plan Lands that would provide a direct multi-modal link from the Mill Road to the “Drogheda Transportation Development Area” (DTDA) as identified in the Drogheda Transportation Study. It is envisaged that this strategically zoned area will house a significant expansion of the McBride Station which could include new passenger facilities, platforms, Park & Ride facilities and enhanced Bus facilities. Access from the South Drogheda Environs to this potential Public Transport Interchange is therefore dependant on the enablement of Mill Road/Marsh Road Link Street.
- 8.1.9 Both the Louth County Council Development Plan & the Local Area Plan (LAP) for the Southern Environs of Drogheda propose a bridge crossing over the River Boyne, East of the Railway Viaduct, linking the southern environs of Drogheda with the Port Access Northern Cross Route (PANCR), to “unlock the overall bus transport network for the town and to improve transport links between East Meath and Drogheda town centre”. Whilst the design and feasibility of this bridge have yet to be explored in detail, the proposed street network for the Mill Road/Marsh Road Lands will not prejudice the eventual location of the proposed bridge. The northern tie in of the proposed Link Street with Marsh Road should

remain flexible until such time as the preferred location for the Boyne River crossing has been established.

- 8.1.10 The Plan Lands shall facilitate the provision of the necessary transport infrastructure to fully accommodate existing and future population needs as well as the demand for economic development in an environmentally sustainable manner.
- 8.1.11 The exact location of Local Streets and Link Street are to be ultimately determined as and when the design of the individual plots of land are developed. Phase 1 of the Plan Lands are well positioned in relation to the aforementioned objectives outlined in the LAP. All the existing and proposed roundabouts provide adequate capacity for the design years, with model data being input for High growth scenarios. The increase in pedestrians and cyclists will be cater for via the new Link Street and upgrades to pedestrian and cycle facilities along the Colpe Road and Mill Road.
- 8.1.12 The developments in the subsequent phase 2 of the Plan Lands will also undergo individual planning applications and will need to comply with this Transport Study.
- 8.1.13 The key transportation proposals for the development of the Mill Road/Marsh Road Plan Lands are:
- The delivery of the Link Street connecting Colpe Road and Marsh Road as well as tying into the existing Mill Road.
 - The delivery of a Link Street running east – west across the Plan Lands is proposed to provide a link to the future DDTA.
 - Vehicle access to the Gaelscoil an Bhradain Feasa will be provided via the new Mill Road/Marsh Road Link Street which will in turn result in a traffic calming feature along the Mill Road. Pedestrian and cycle access to the Gaelscoil will continue to be provided via the Mill Road.

- The proposed street network for the Mill Road/Marsh Road Lands will not prejudice the eventual location of the proposed bridge crossing over the River Boyne.

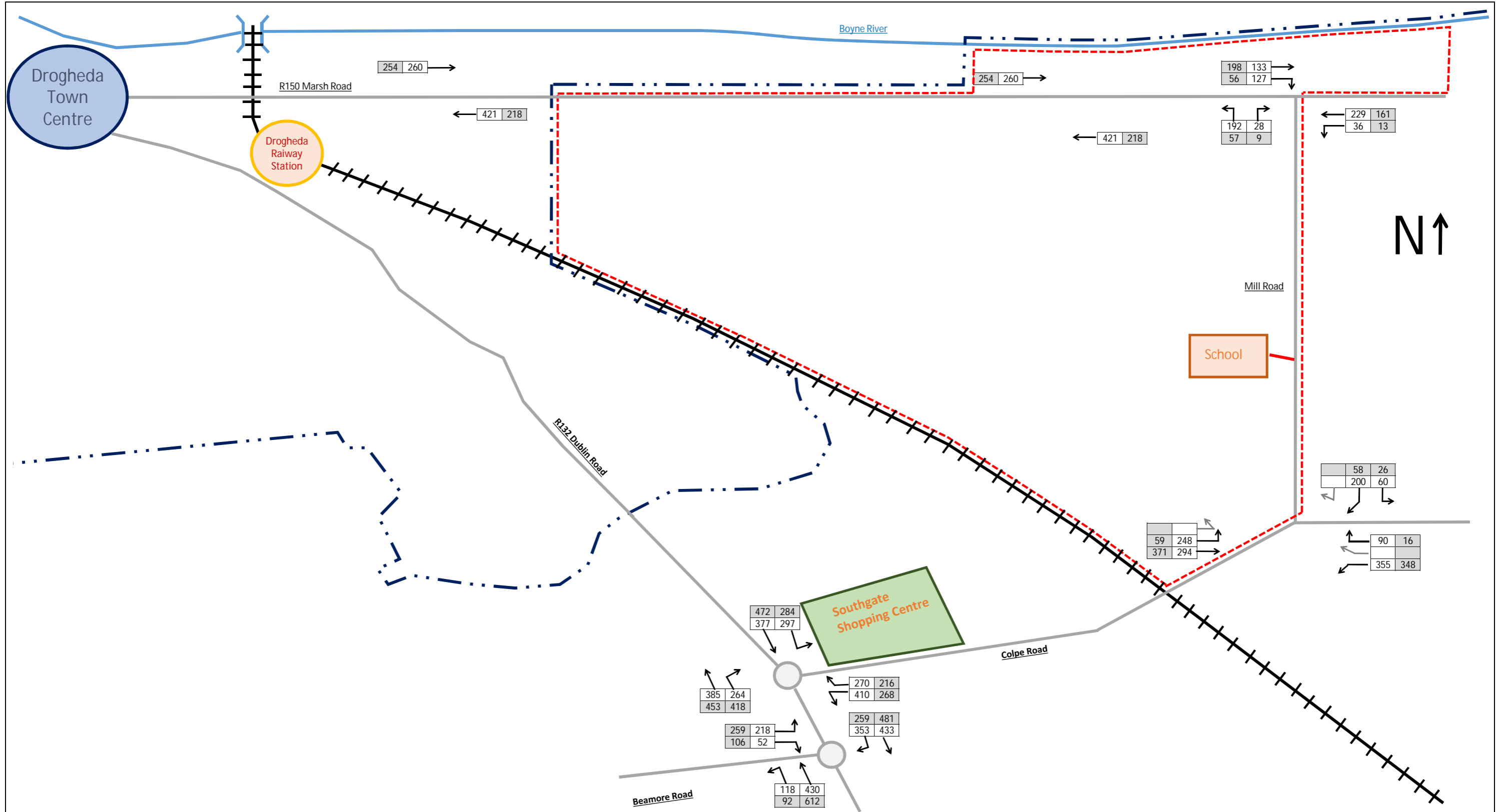
8.1.14 Key elements at the post-masterplan/development management stages will be:

- Continuing investigation, detailed design and specification of infrastructure and development;
- Preparation and submission of development proposals/ planning applications and
- Preparation of adequate transportation assessments which comply with this Study.

8.1.15 Subsequent development of the lands and associated planning infrastructure shall be in accordance with the principles of the Urban Framework Plan and this Transport Study.

APPENDIX A – Traffic Flow Diagrams

Medium Growth



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website: www.dbfl.ie

Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Network Traffic Flows - Vehicles
2017 Base Flows**

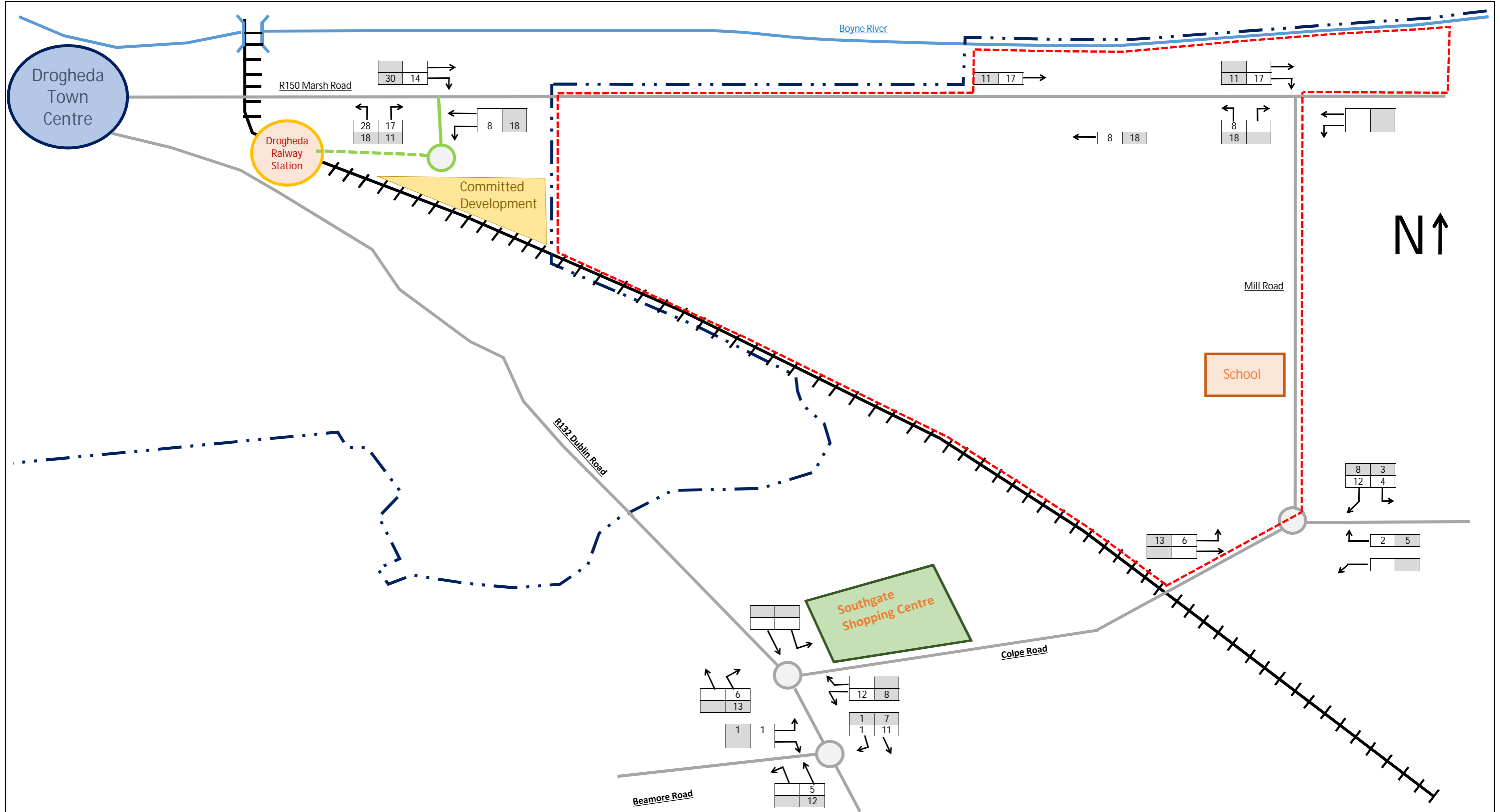
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AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

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DRG. Title :
**Network Traffic Flows - Vehicles
Committed Development Trips 2020 (No Subject Development)**

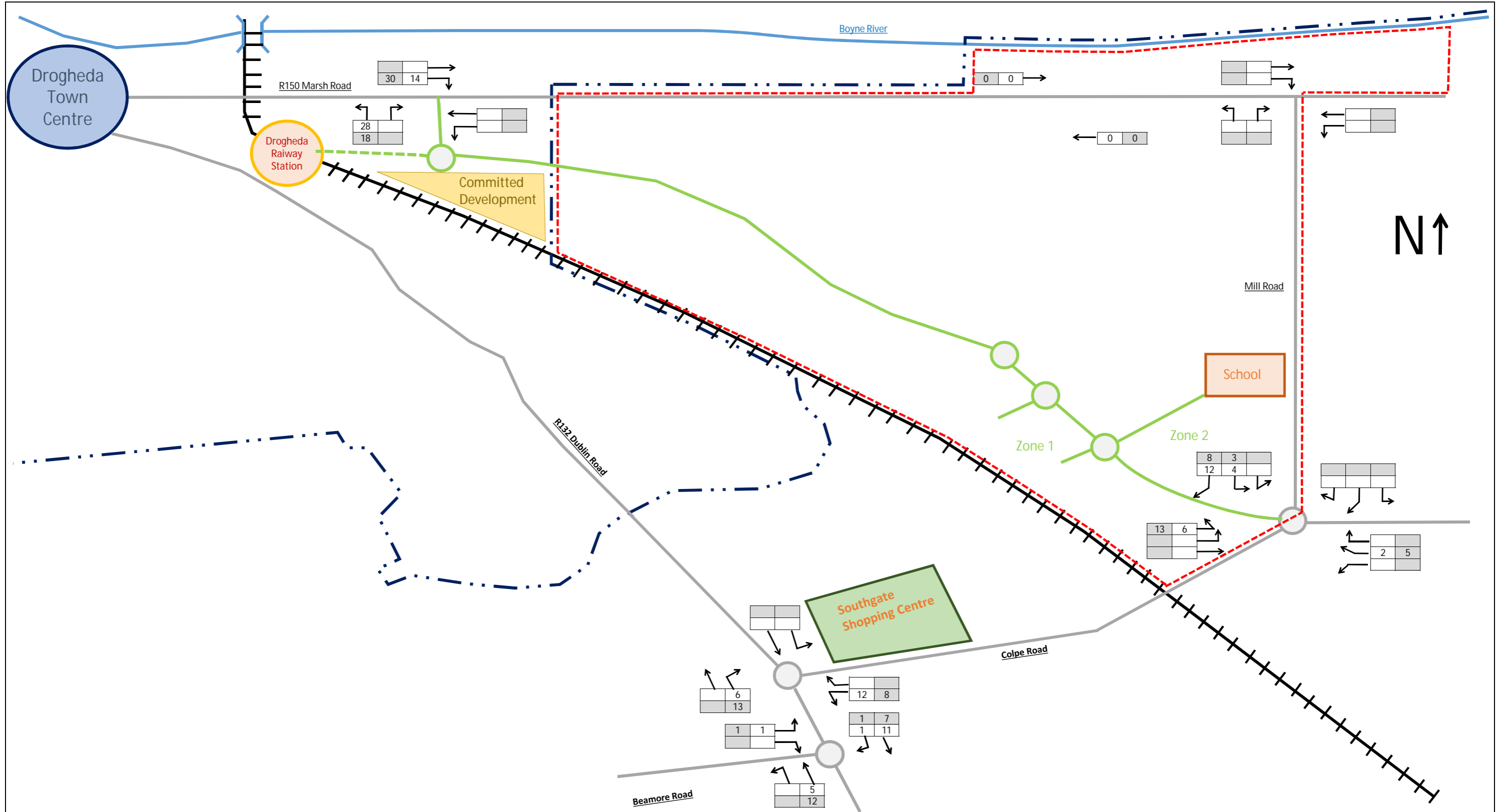
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

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DRG. Title :
**Network Traffic Flows - Vehicles
Committed Development Trips 2025**

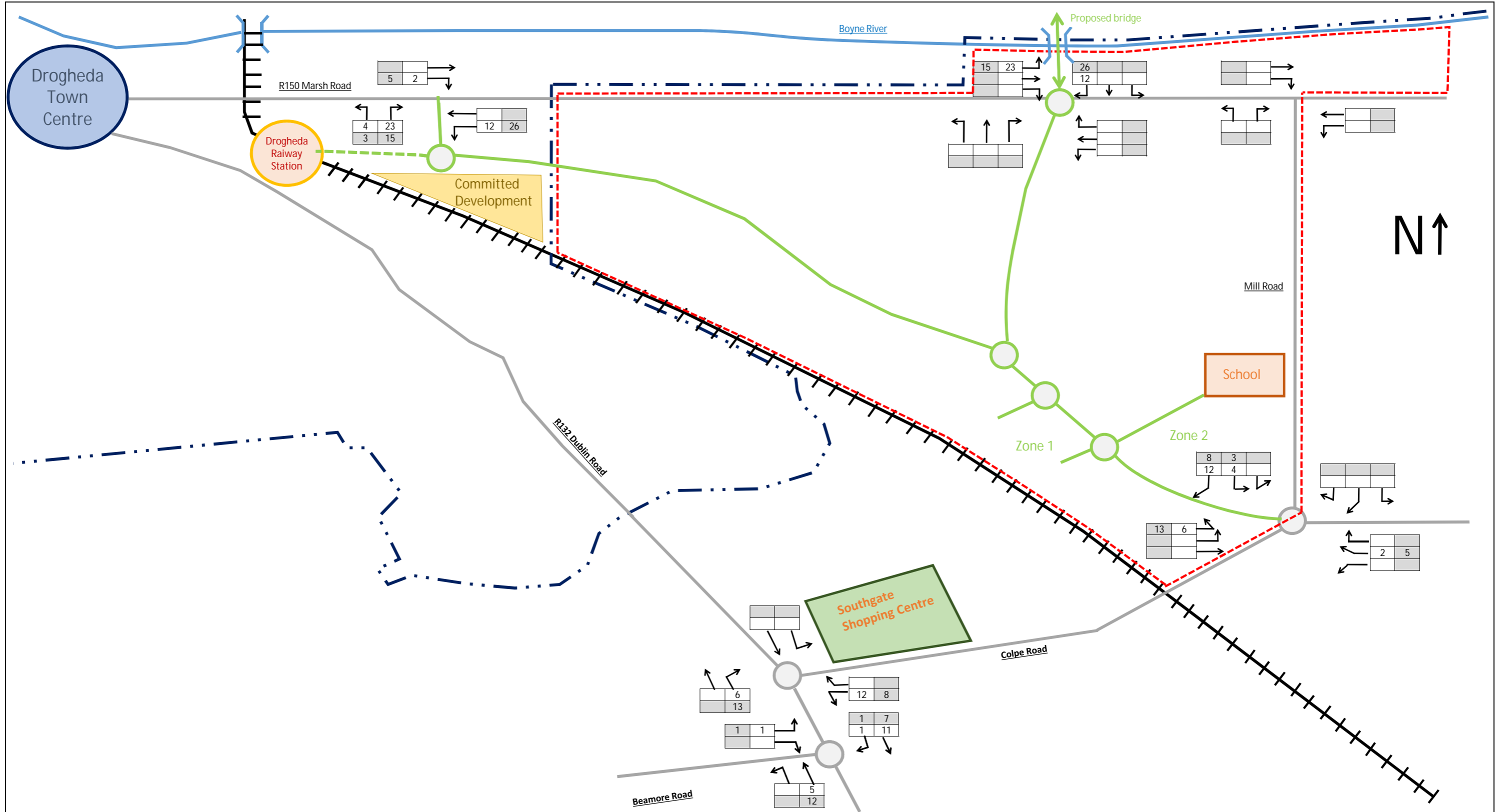
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- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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DRG. Title :
Network Traffic Flows - Vehicles
Committed Development Trips 2035

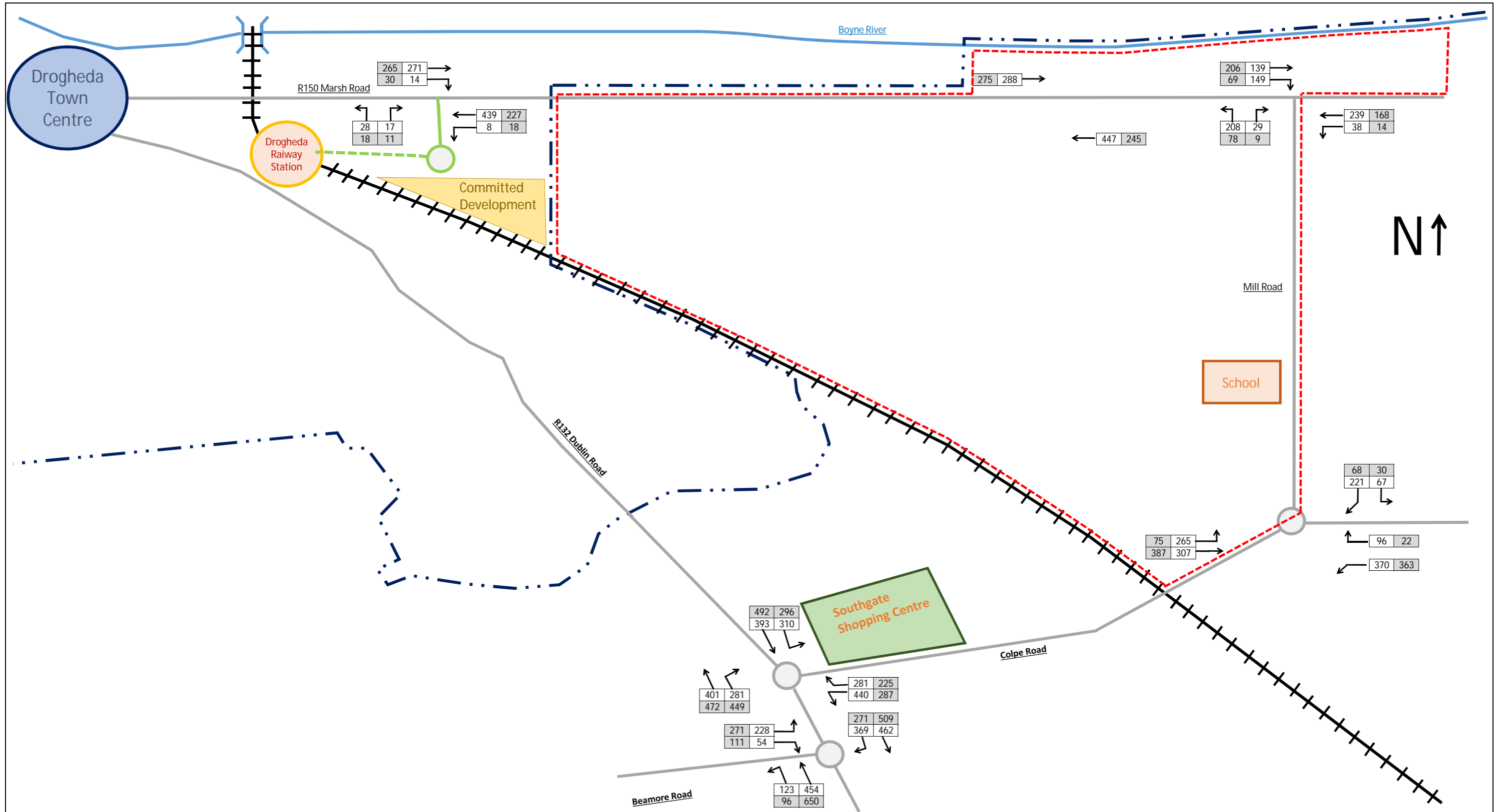
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	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

	Louth Co. Council Boundary Line
	Study Area Boundary Line
	Railway Line

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DRG. Title :
**Network Traffic Flows - Vehicles
2020 Do Nothing**

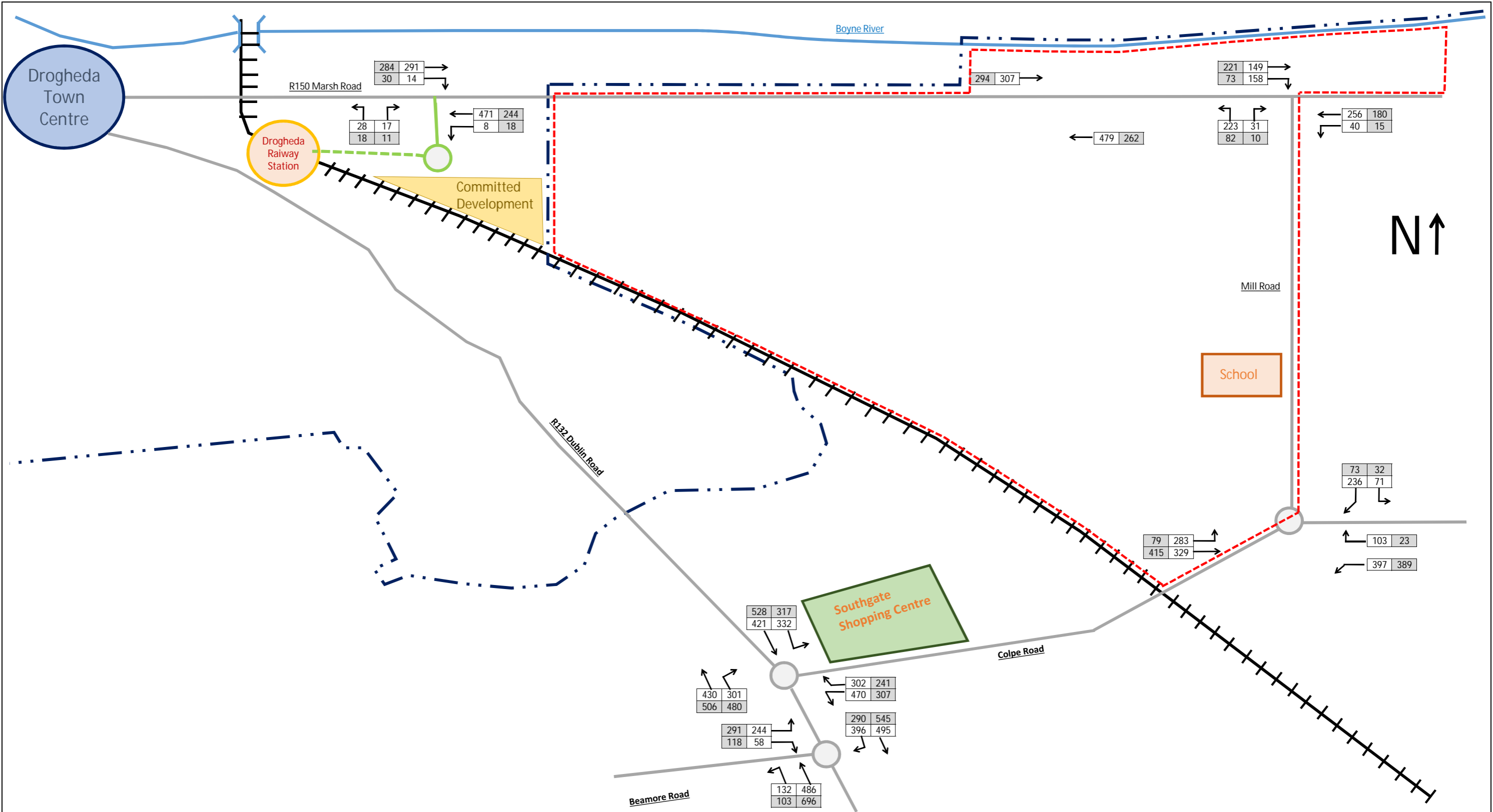
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- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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DRG. Title :
**Network Traffic Flows - Vehicles
2025 Do Nothing**

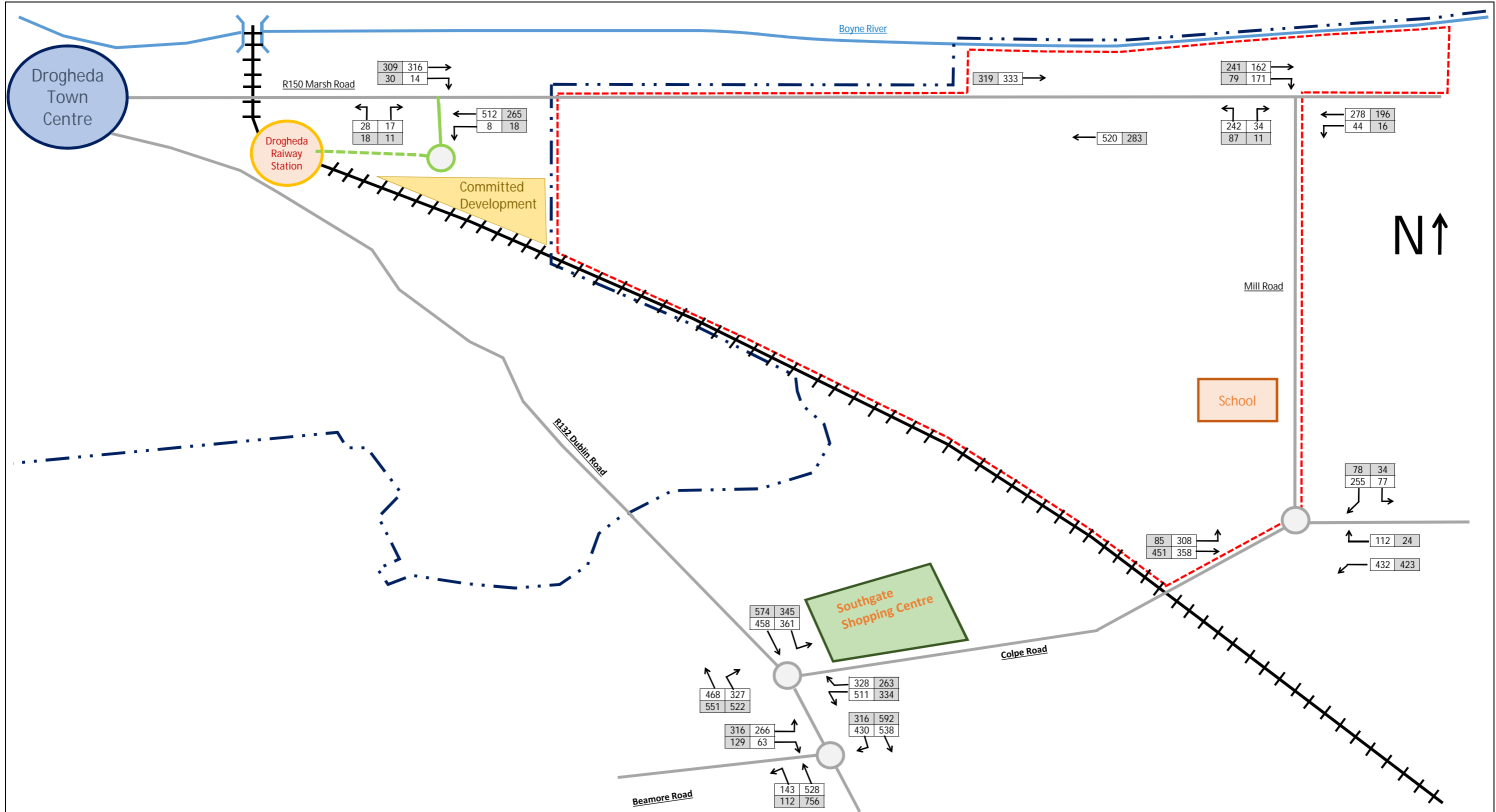
Key:

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- PM Peak Hour (1745 to 1845)

Legend:

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- Study Area Boundary Line
- Railway Line

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DRG. Title :
**Network Traffic Flows - Vehicles
2035 Do Nothing**

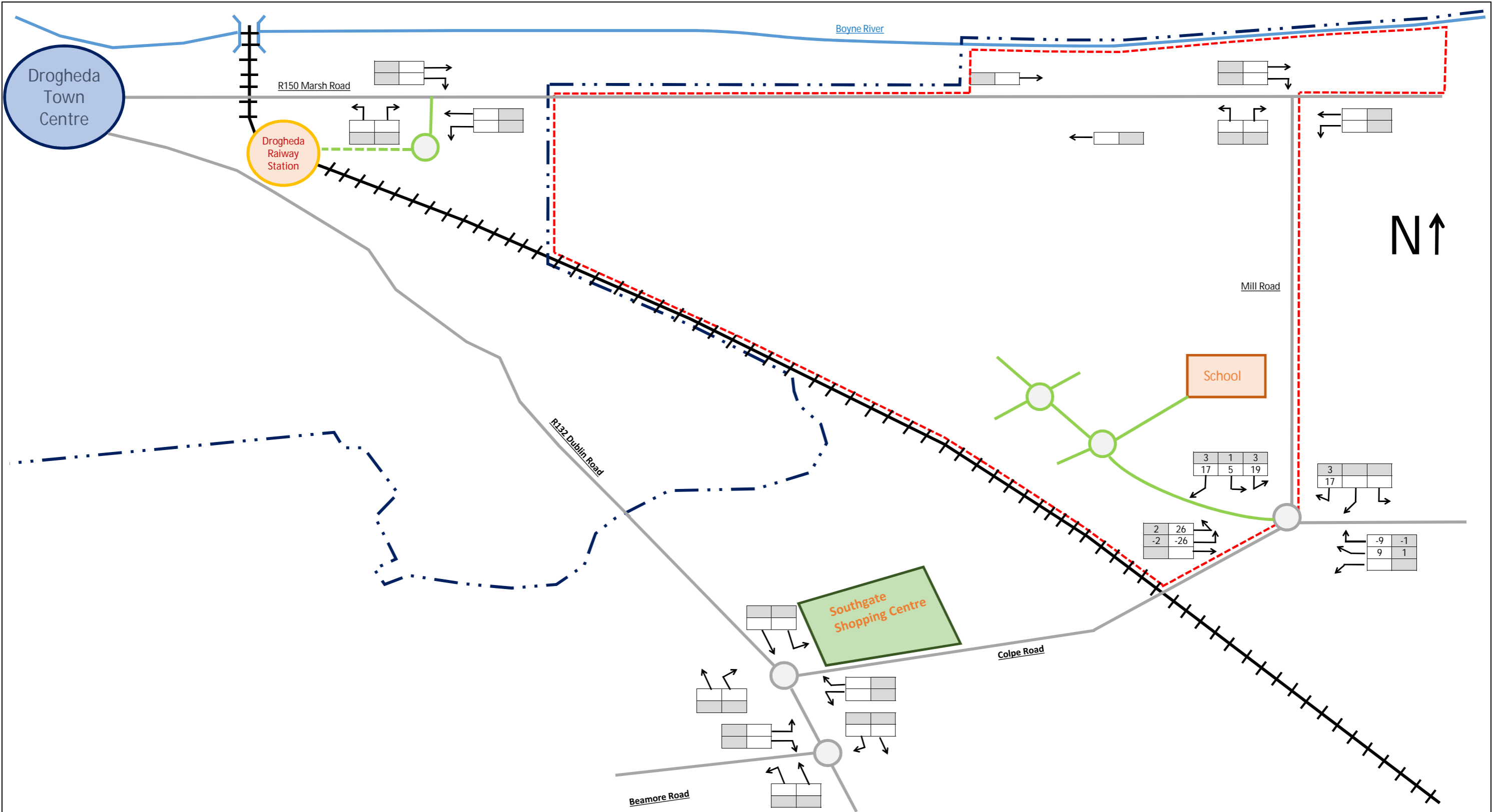
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- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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Project :
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Mill Road / Marsh Road Local Area Plan

DRG. Title :
Diverted Trips
Gaelscoil an Bhradain Feasa Diverted Trips 2020

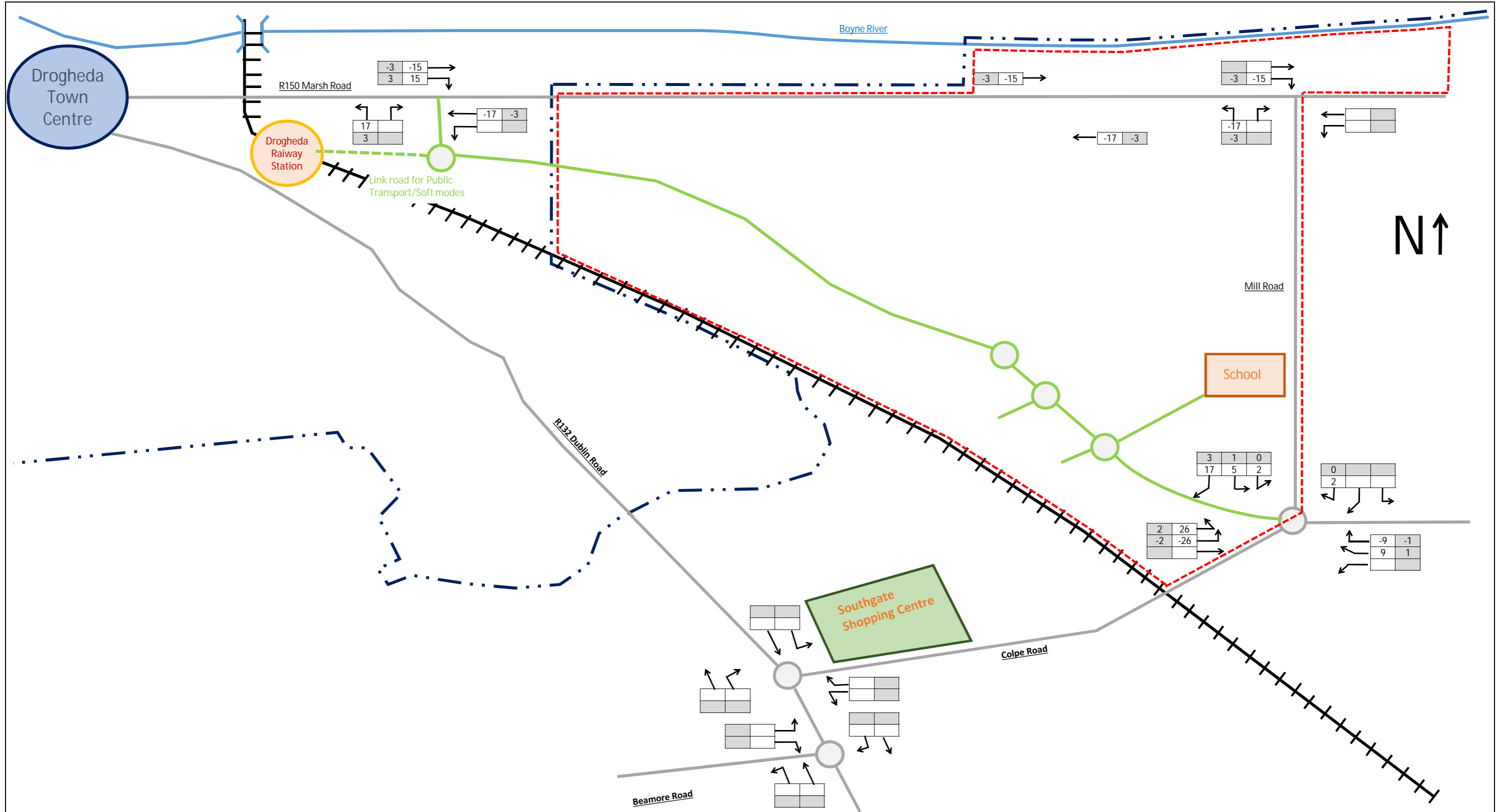
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AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + Railway Line

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Project :
**Local Framework Plan
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DRG. Title :
**Network Traffic Flows - Vehicles
Gaelscoil an Bhradain Feasa Diverted Trips 2025**

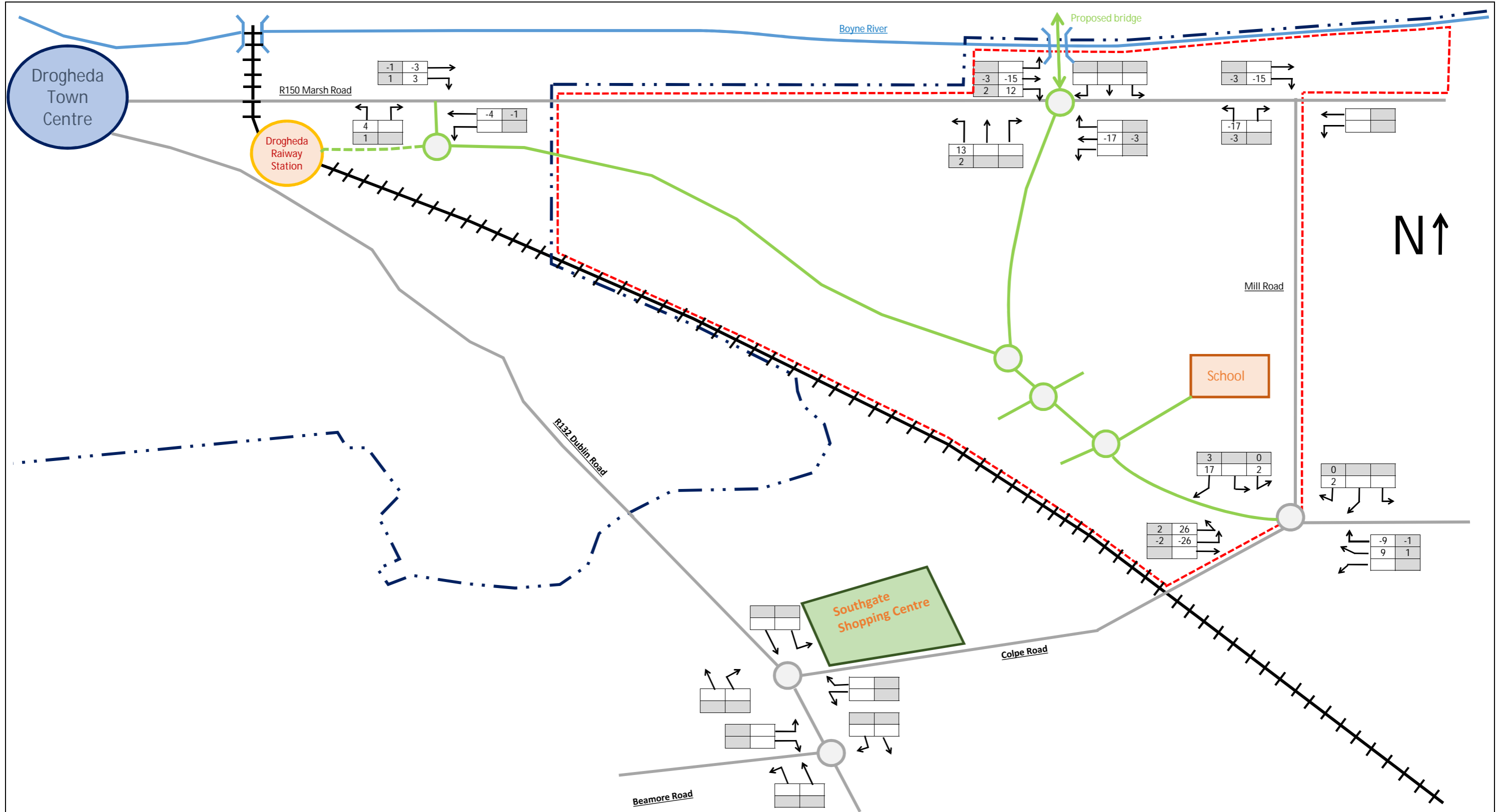
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■	PM Peak Hour (1745 to 1845)

Legend:

- . - . - Louth Co. Council Boundary Line
- - - - Study Area Boundary Line
- + + + + Railway Line

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Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Diverted Trips
Gaelscoil an Bhradain Feasa Diverted Trips 2035**

Key:

AM Peak Hour (0830 to 0930)

PM Peak Hour (1745 to 1845)

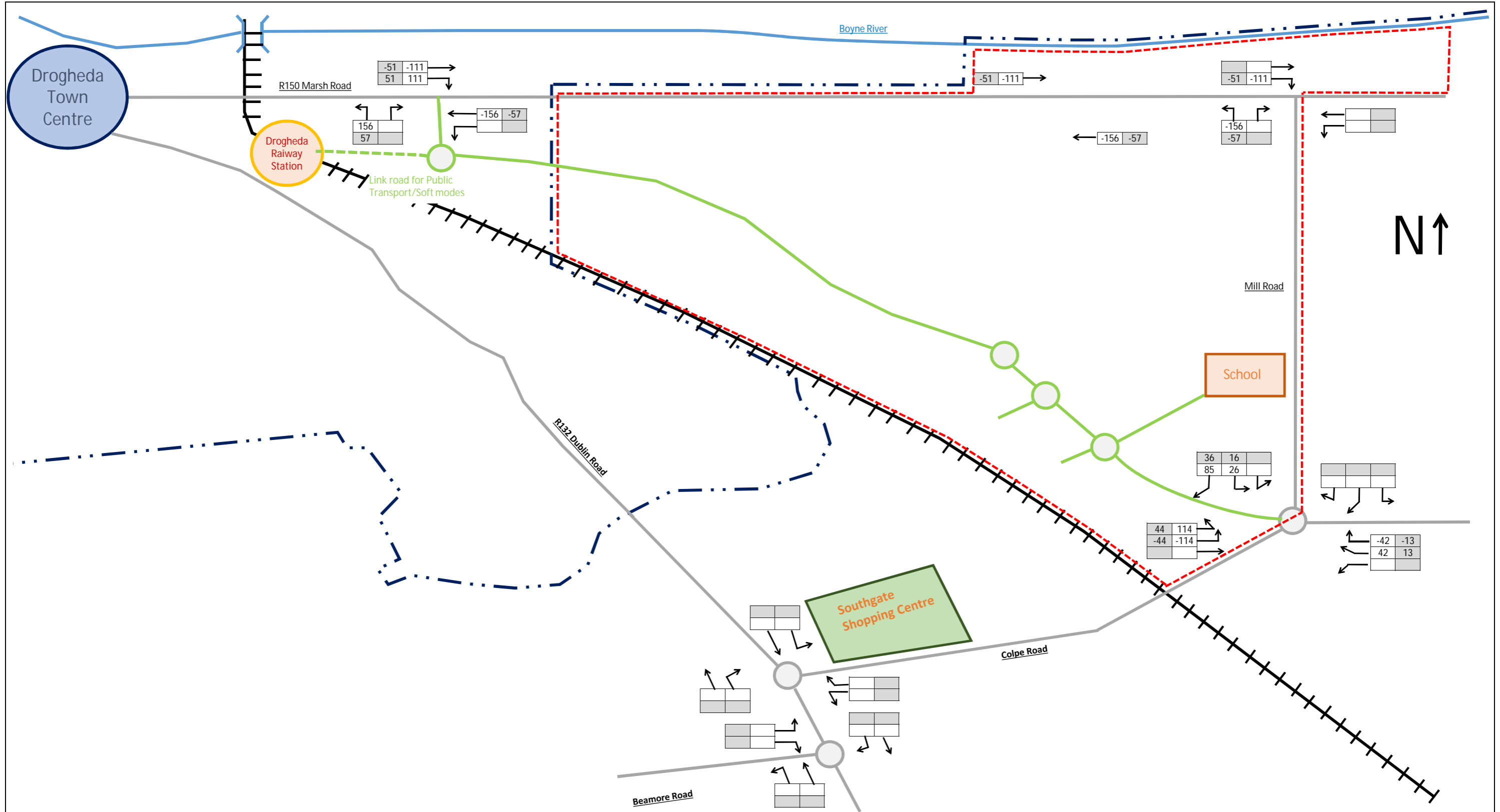
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Louth Co. Council Boundary Line

Study Area Boundary Line

Railway Line

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DRG. Title :
**Diverted Trips
2025 Future Design Year**

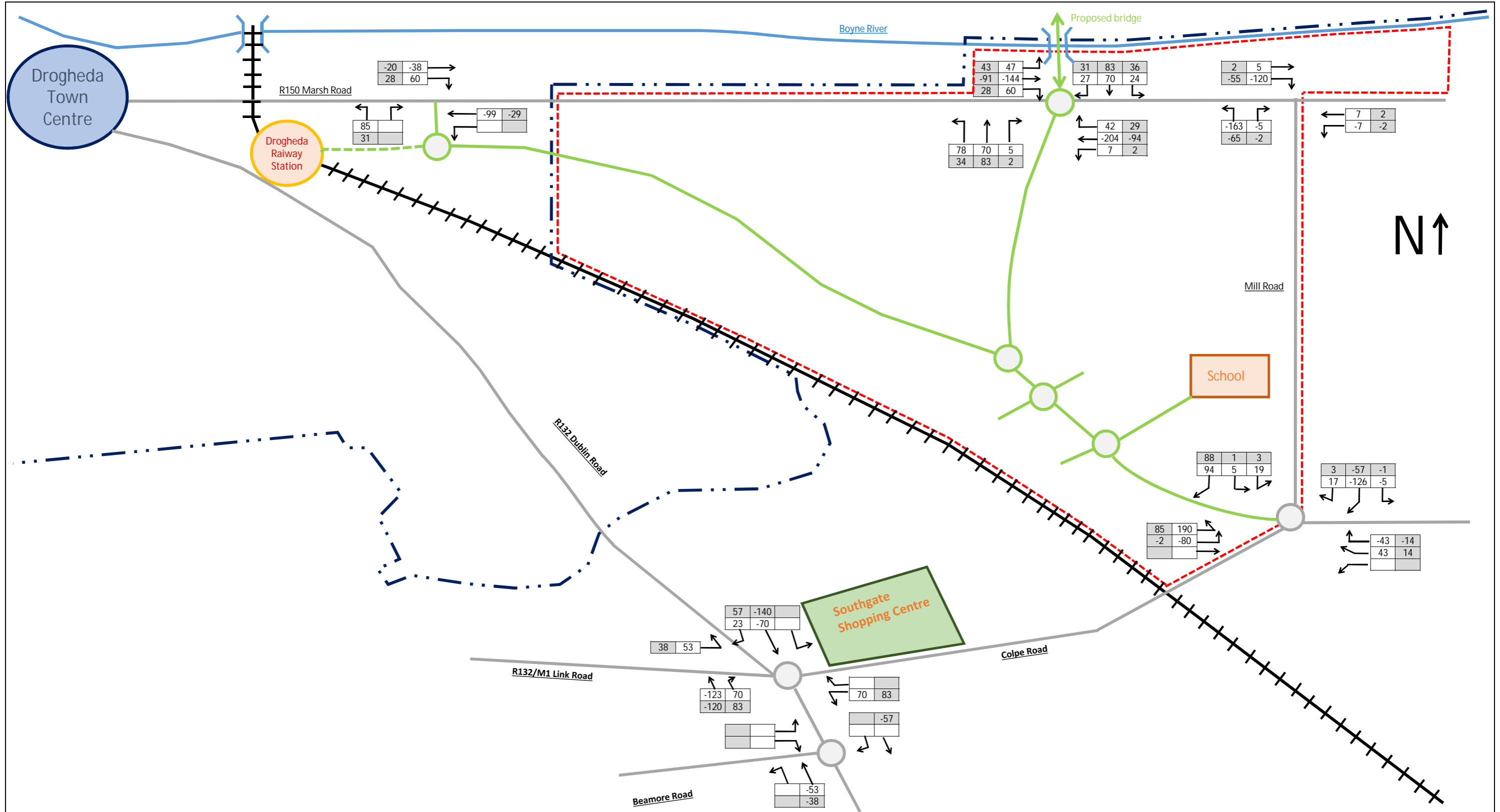
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White Box	AM Peak Hour (0830 to 0930)
Grey Box	PM Peak Hour (1745 to 1845)

Legend:

- . - . - Louth Co. Council Boundary Line
- - - - Study Area Boundary Line
- + + + + Railway Line

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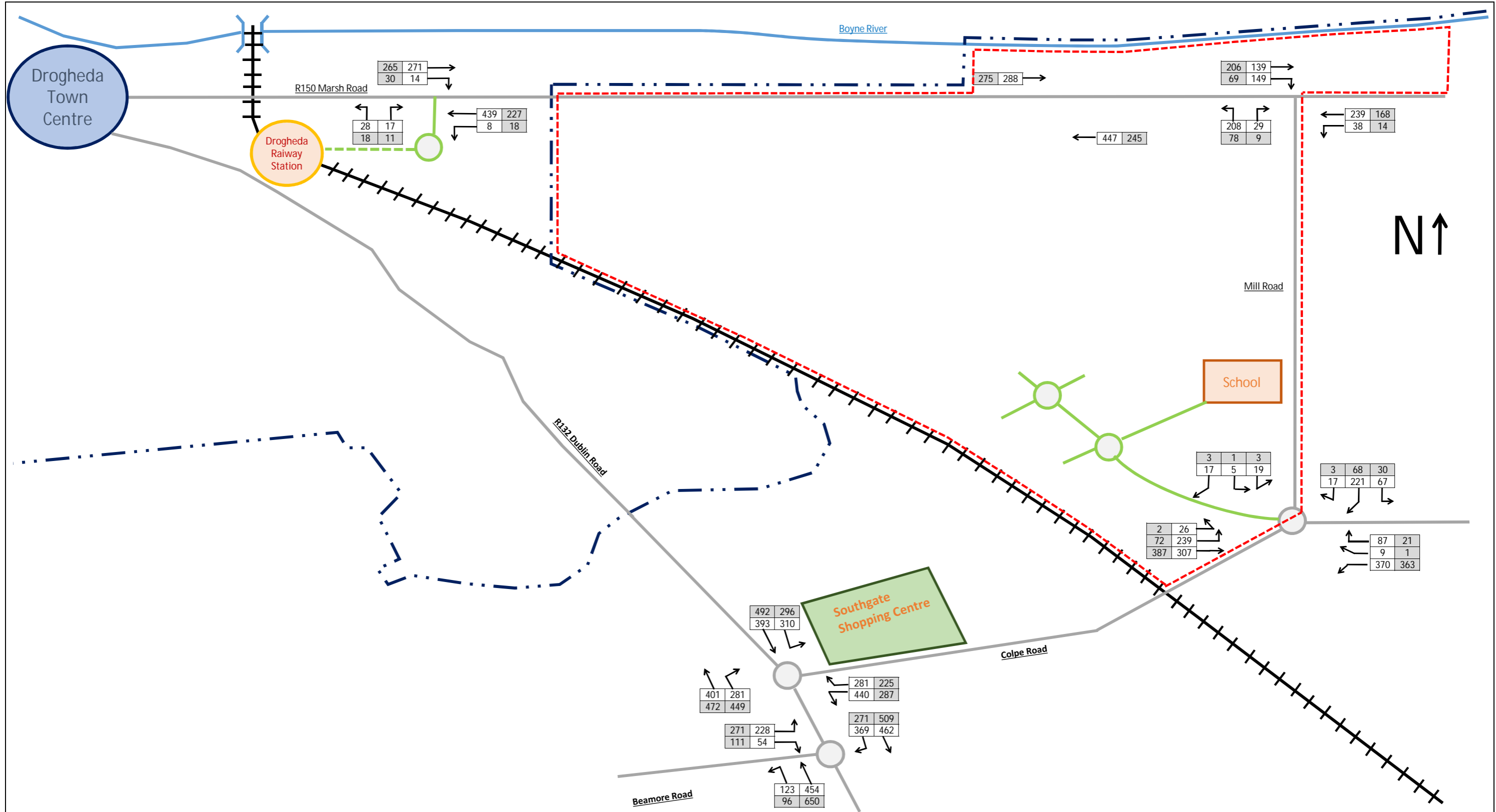
Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Diverted Trips
2035 Future Design Year**

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:
 Louth Co. Council Boundary Line
 Study Area Boundary Line
 Railway Line

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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Network Traffic Flows - Vehicles
2020 Adjusted Base Flows**

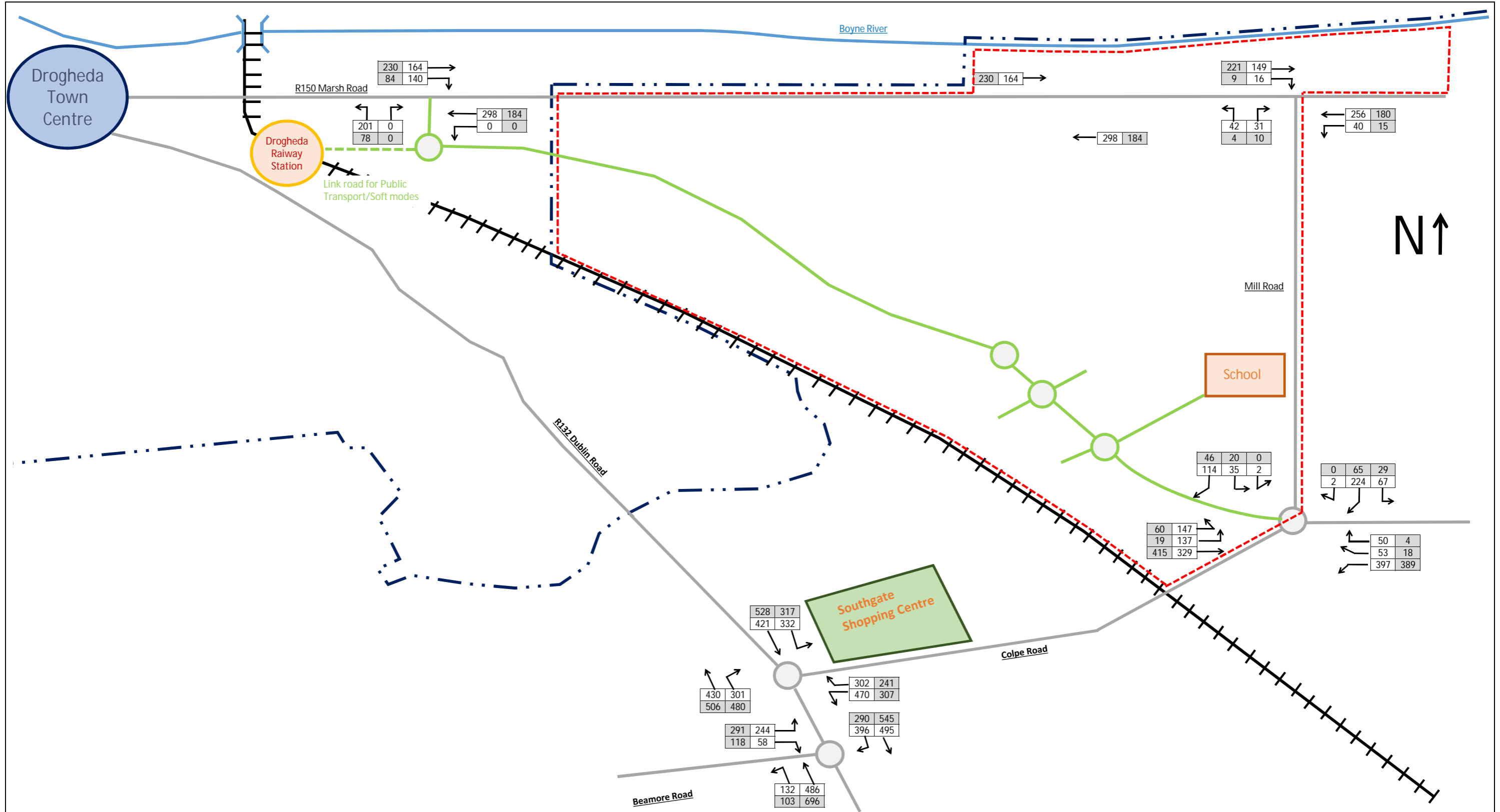
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- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

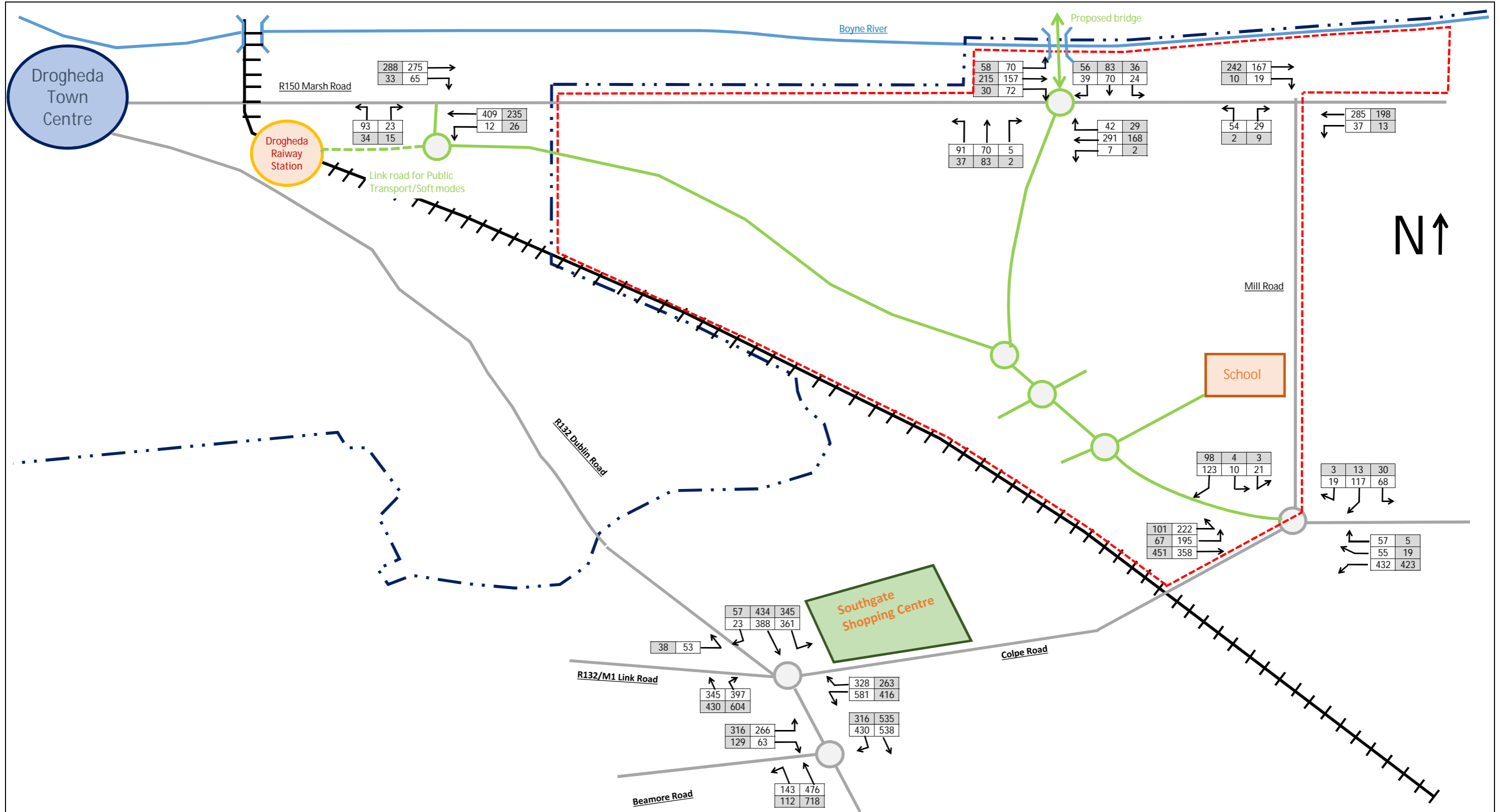
DRG. Title :
**Network Traffic Flows - Vehicles
2025 Adjusted Base Flows**

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:
 Louth Co. Council Boundary Line
 Study Area Boundary Line

 Railway Line

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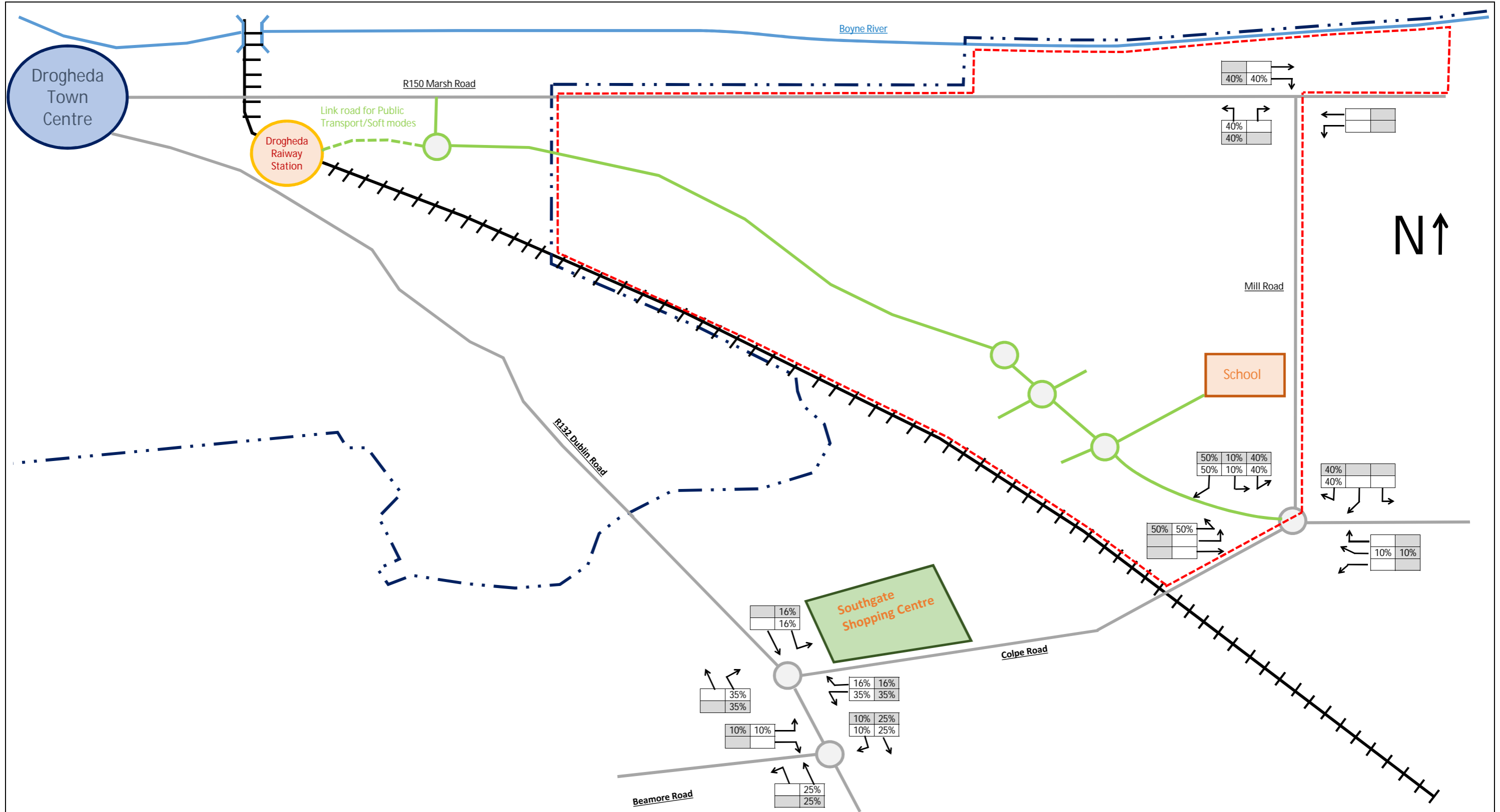
DRG. Title :
Network Traffic Flows - Vehicles
2035 Adjusted Base Flows

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:
 Louth Co. Council Boundary Line
 Study Area Boundary Line

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 Railway Line

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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Opening Year Trip Distribution
Residential Land use**

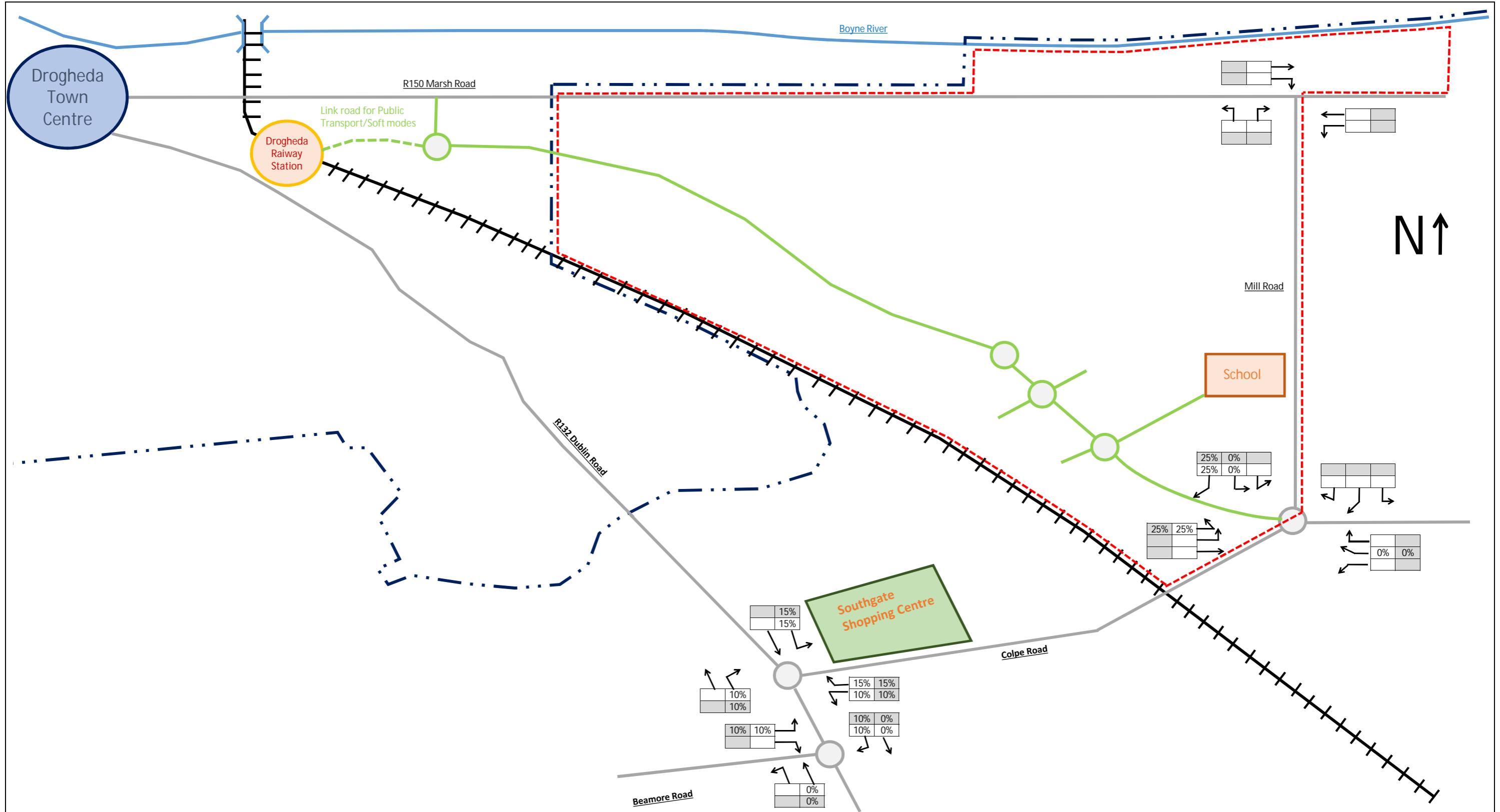
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- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Opening Year Trip Distribution
Educational Land use**

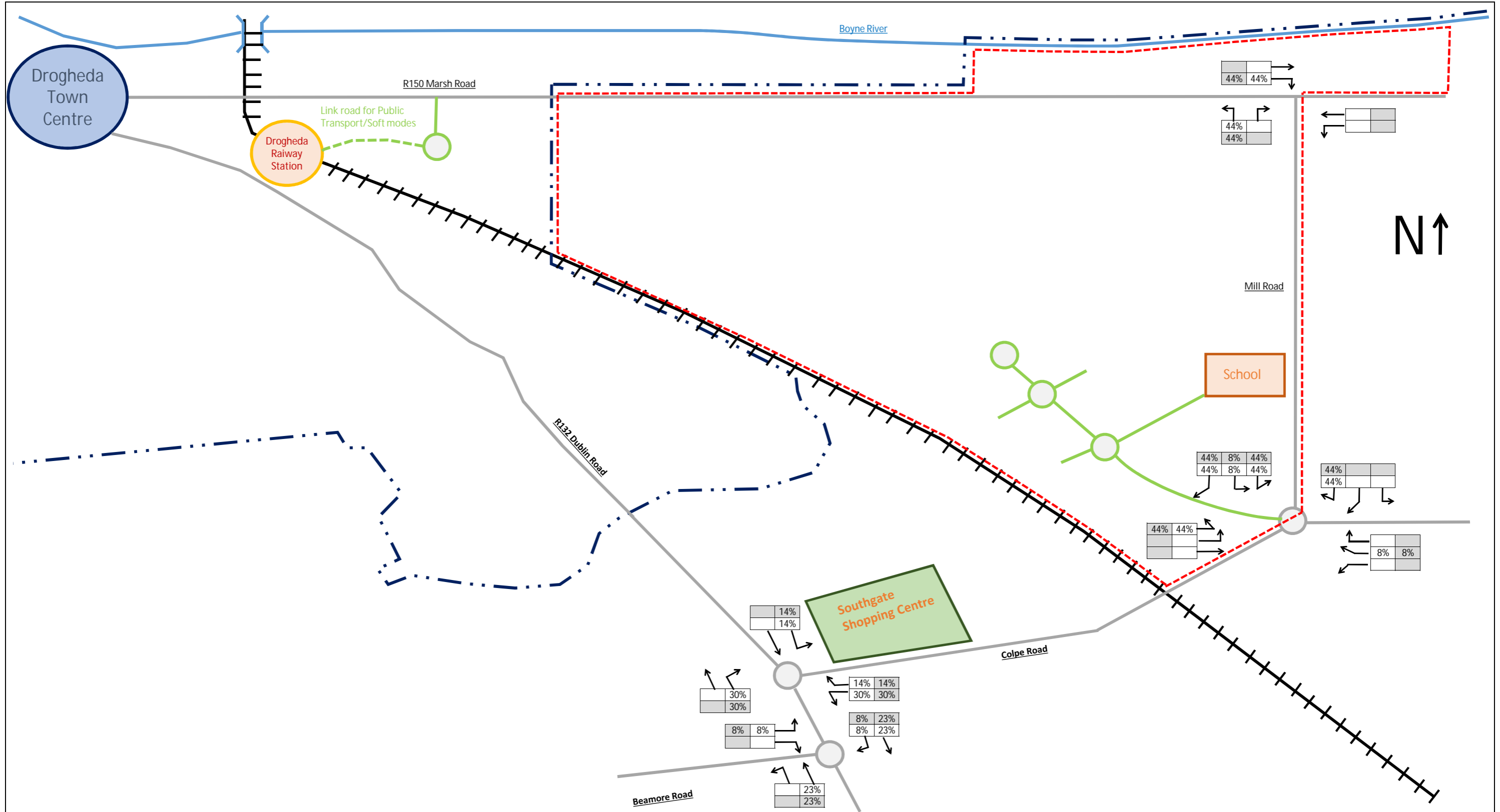
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- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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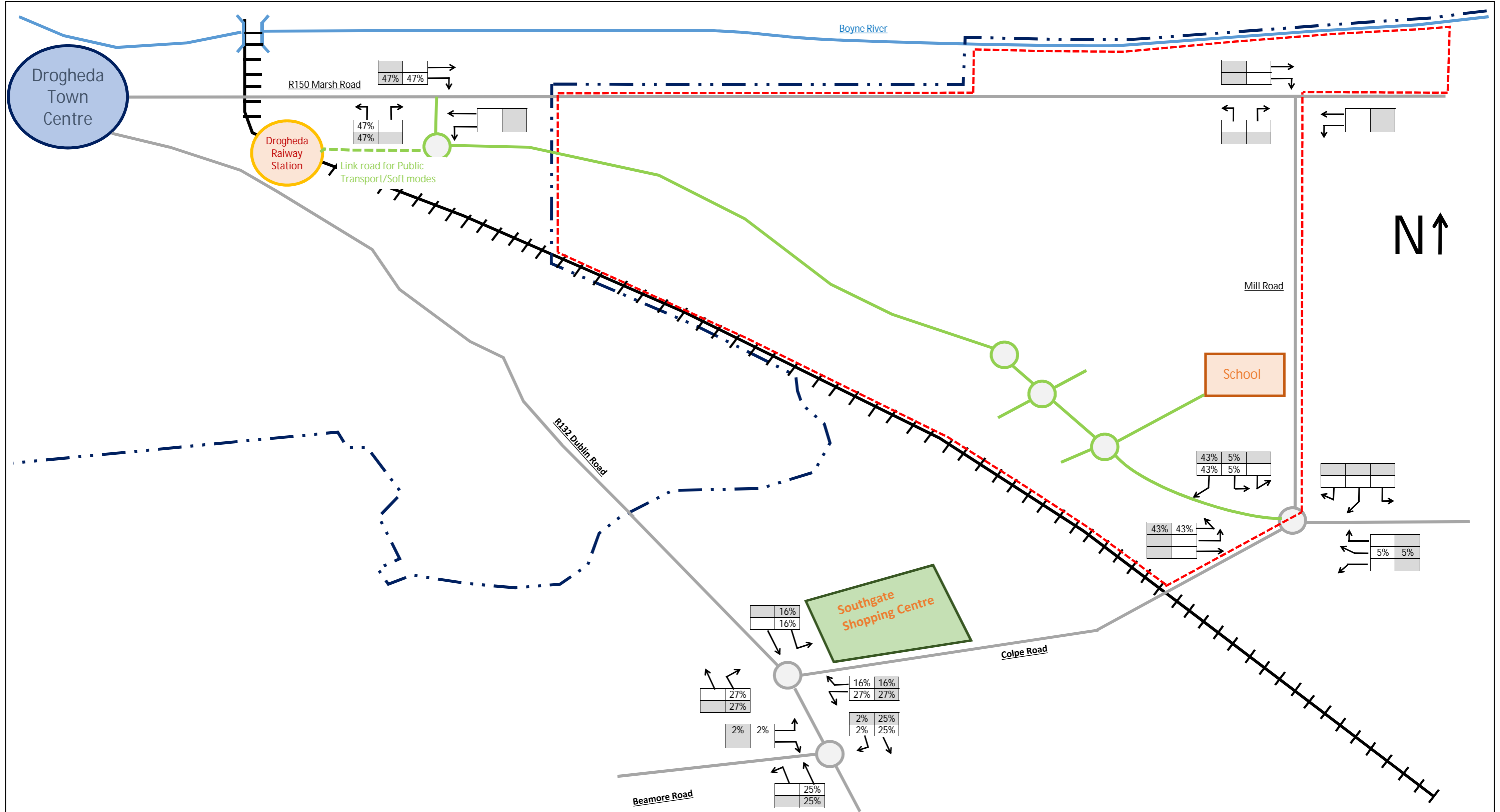
Project :
 Local Framework Plan
 Mill Road / Marsh Road Local Area Plan

DRG. Title :
 2020 Opening Year Trip Distribution
 Employment Land use

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:
 Louth Co. Council Boundary Line
 Study Area Boundary Line
 Railway Line

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DRG. Title :
**2025 Opening Year Trip Distribution
Residential Land use**

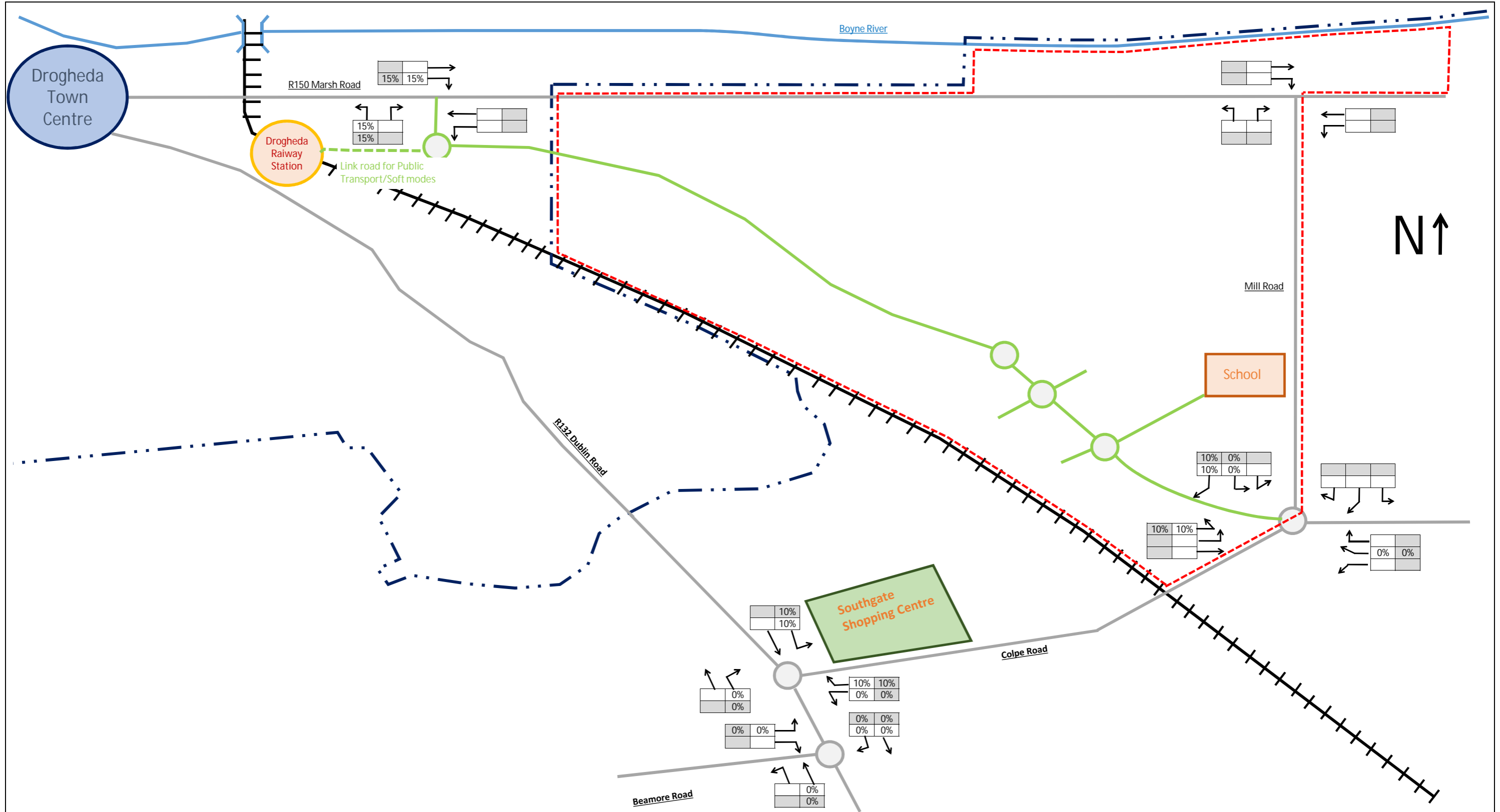
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
- + + + + Railway Line

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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2025 Opening Year Trip Distribution
Educational Land Use**

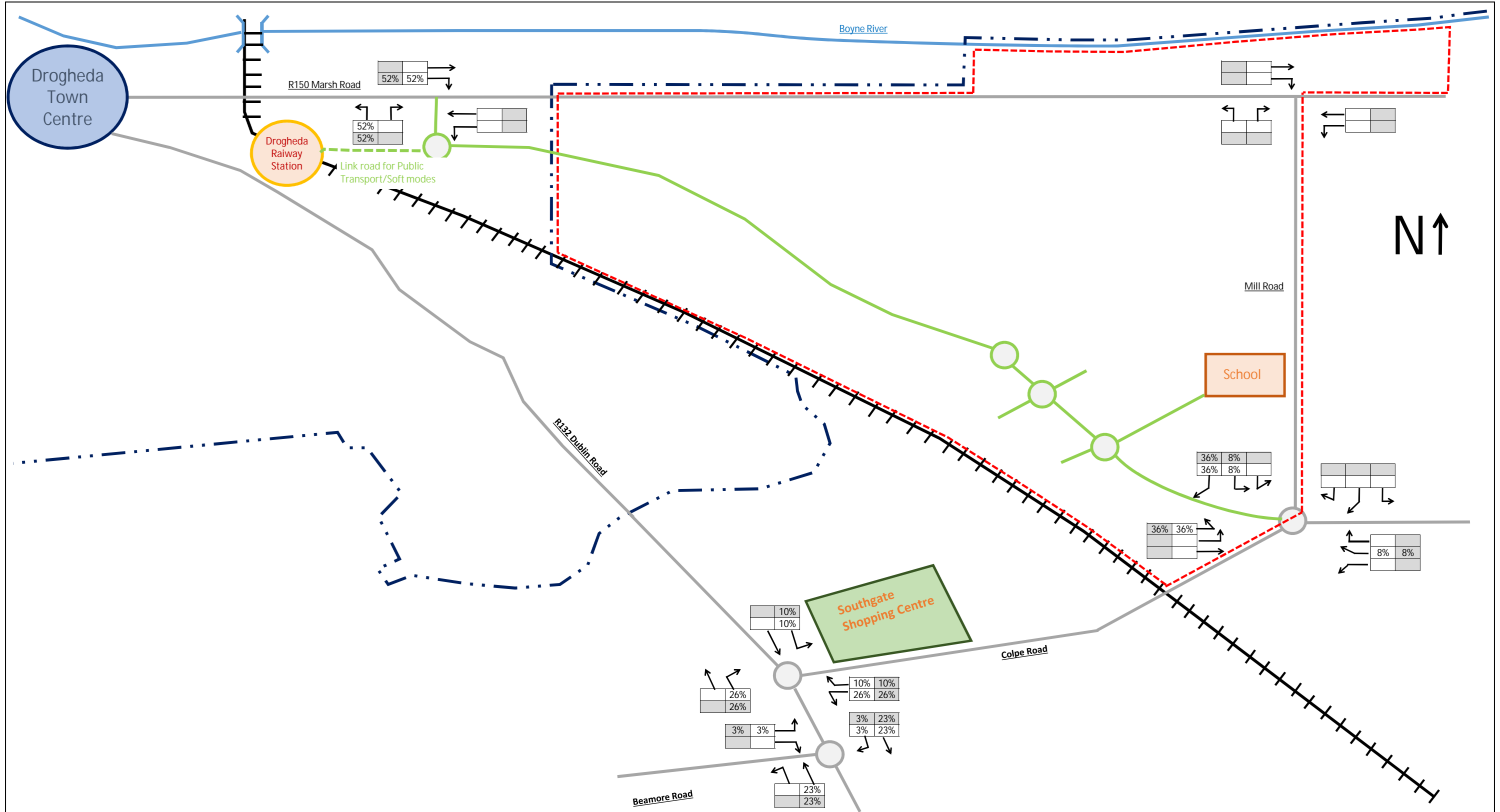
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

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DRG. Title :
**2025 Opening Year Trip Distribution
Employment Land use**

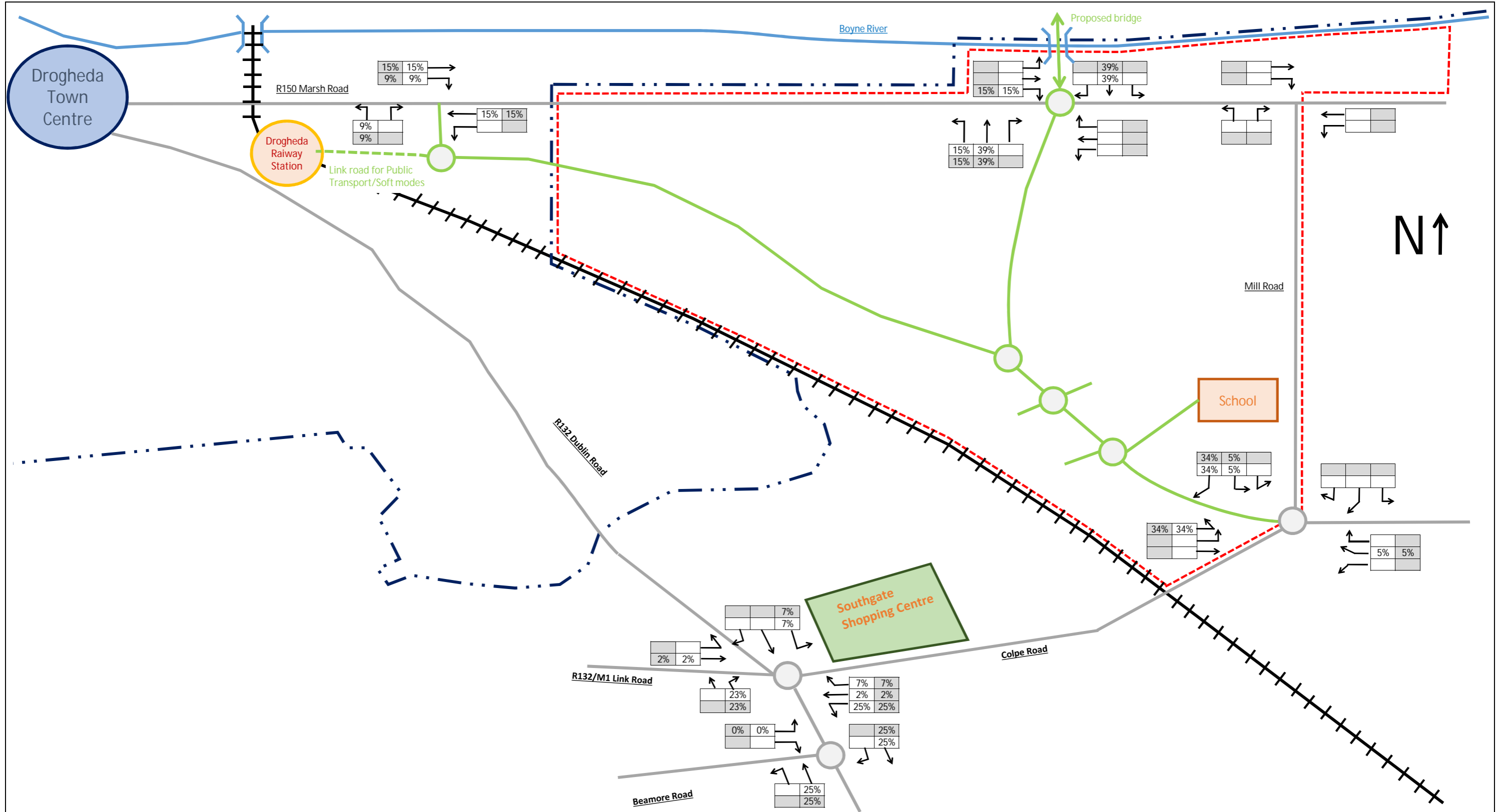
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

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- Study Area Boundary Line
- Railway Line

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Unit 2, The Laundry, 1-2
O'Connell Street, Waterford
phone: +353 51 309 500

email: info@dbfl.ie
website: www.dbfl.ie

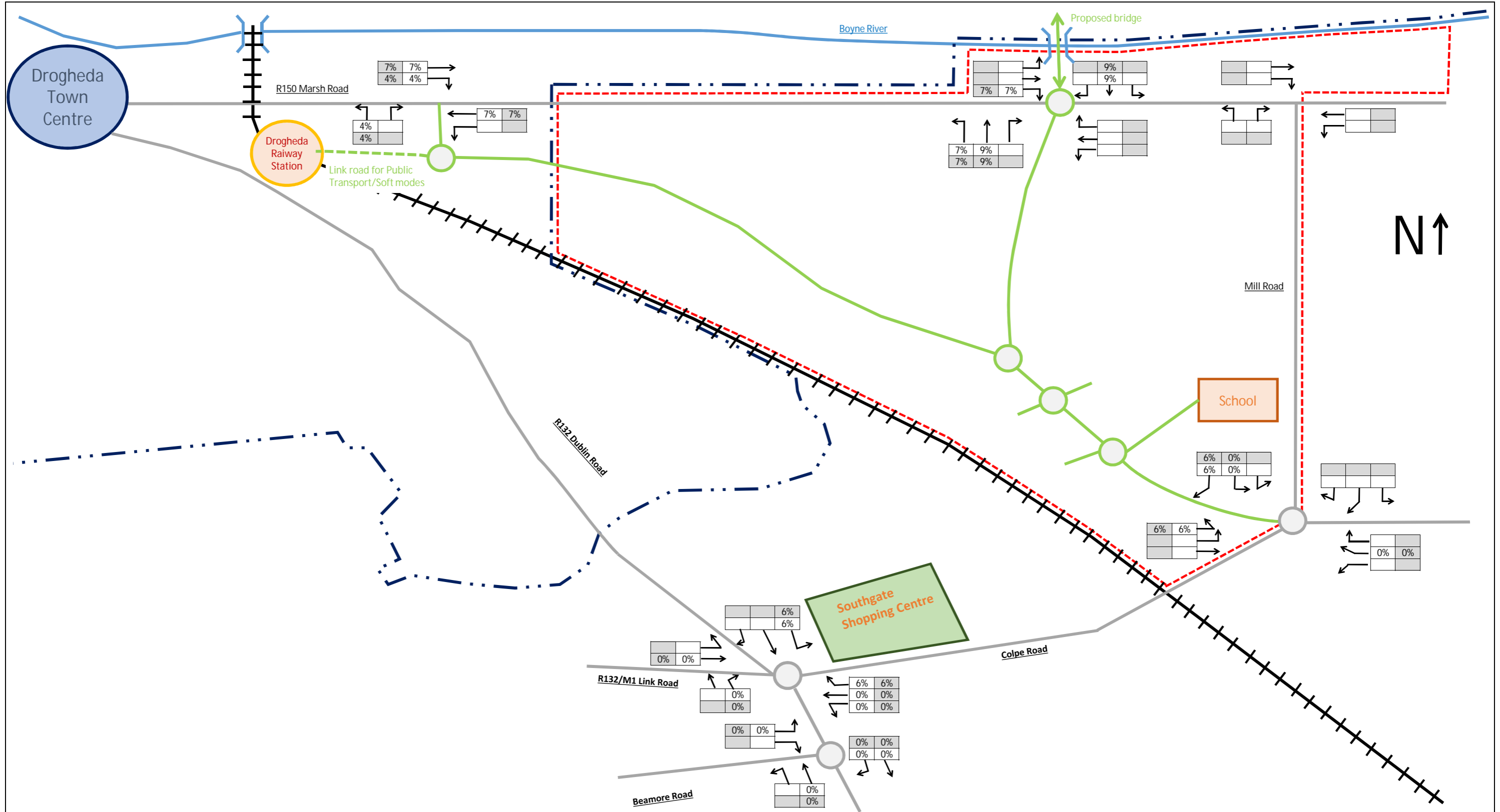
Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Opening Year Trip Distribution
Residential Land use**

Key:
AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:
Louth Co. Council Boundary Line
Study Area Boundary Line
Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	9g		-	



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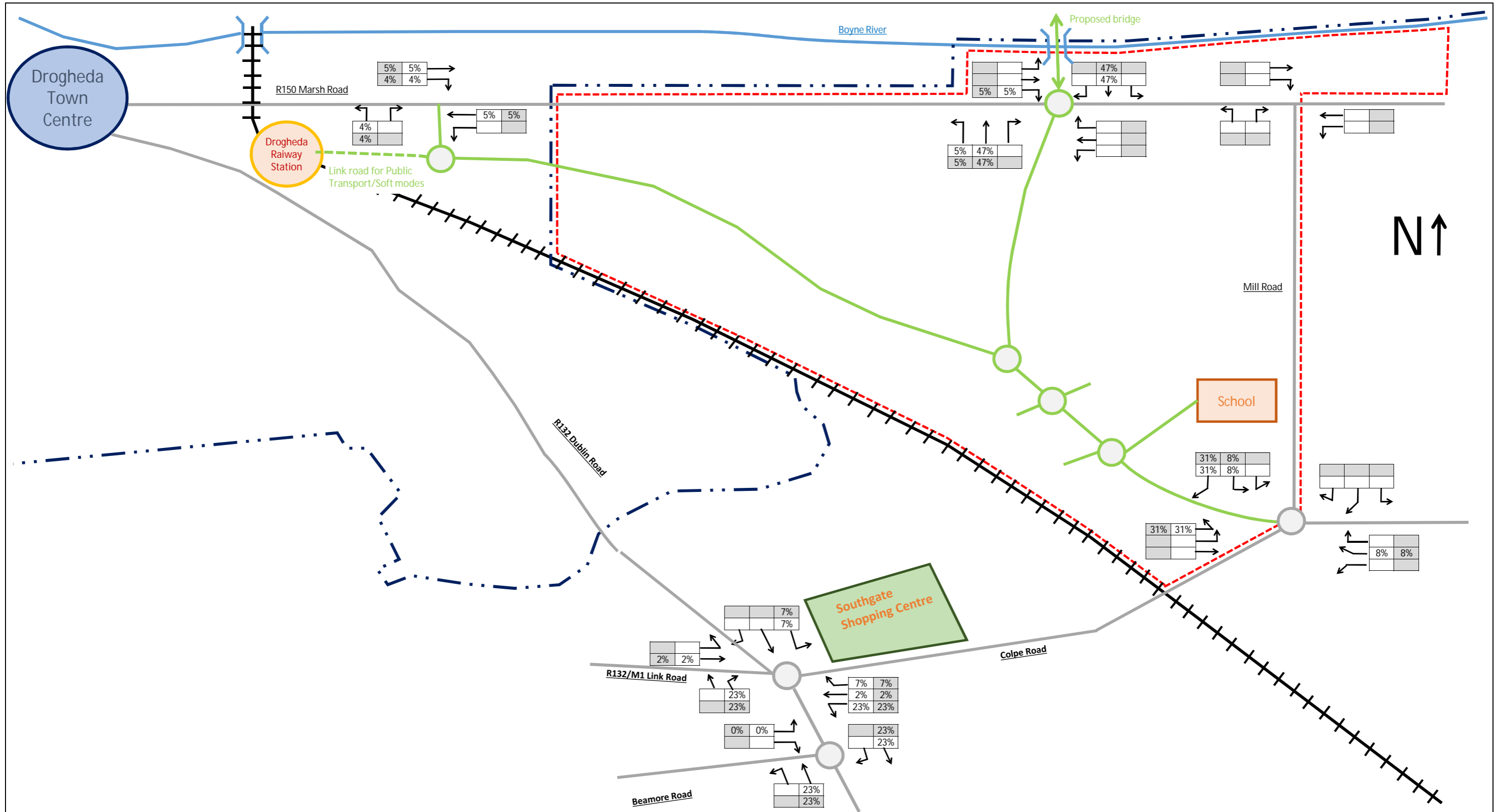
Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Opening Year Trip Distribution
Educational Land use**

Key:
AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:
Louth Co. Council Boundary Line
Study Area Boundary Line
Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	9h		-	



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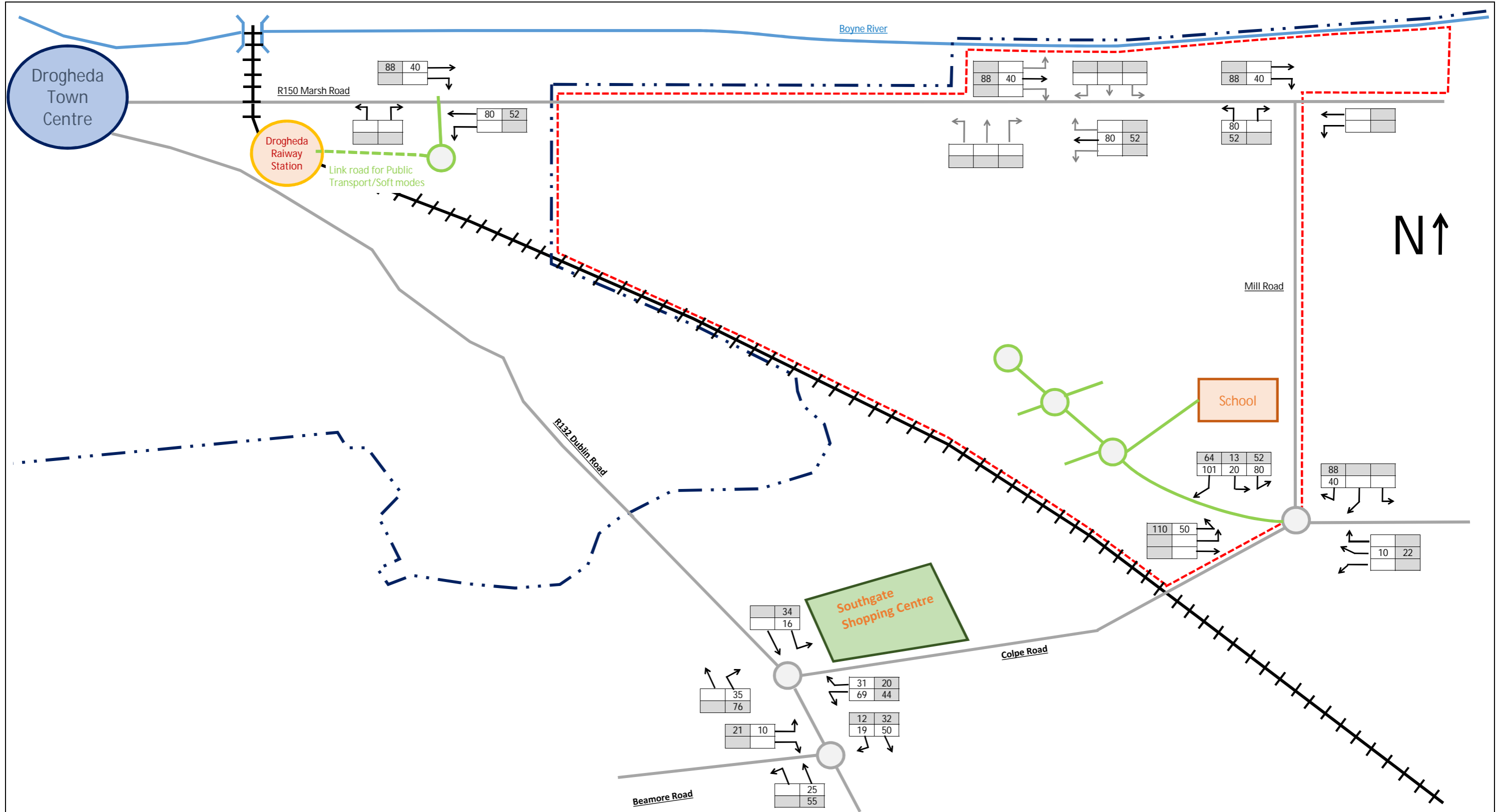
Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2035 Opening Year Trip Distribution
Employment Land use

Dwn: MMK
Ref: G:\2017\p170092\calcs\excel\Traffic Model
Figure: 9j

Key:
AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Date: 23/08/2017
Rev: -



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website: www.dbfl.ie

Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Development Flows
Residential Land Use**

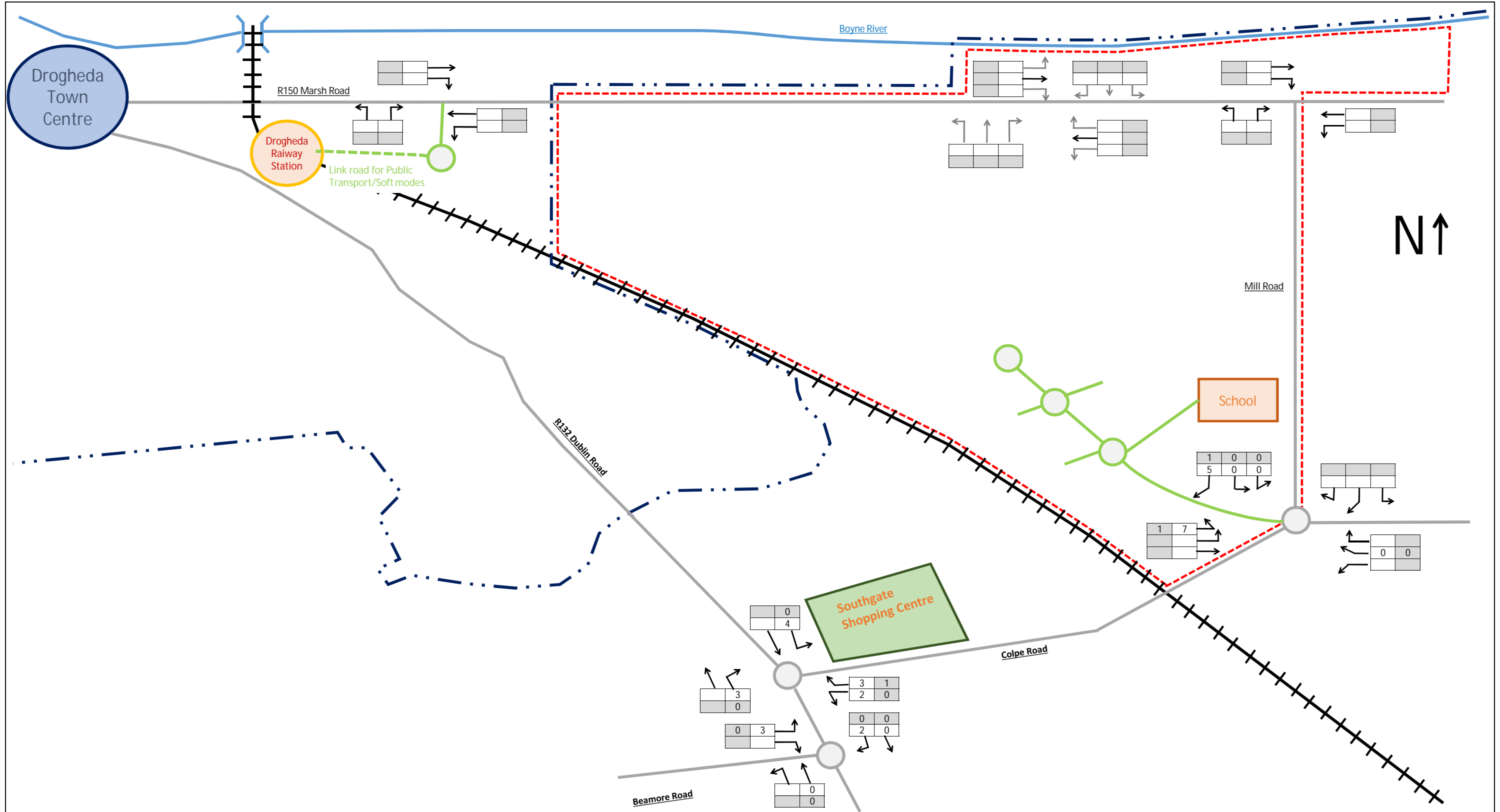
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10a		Rev:	-	



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Development Flows
Educational Land Use**

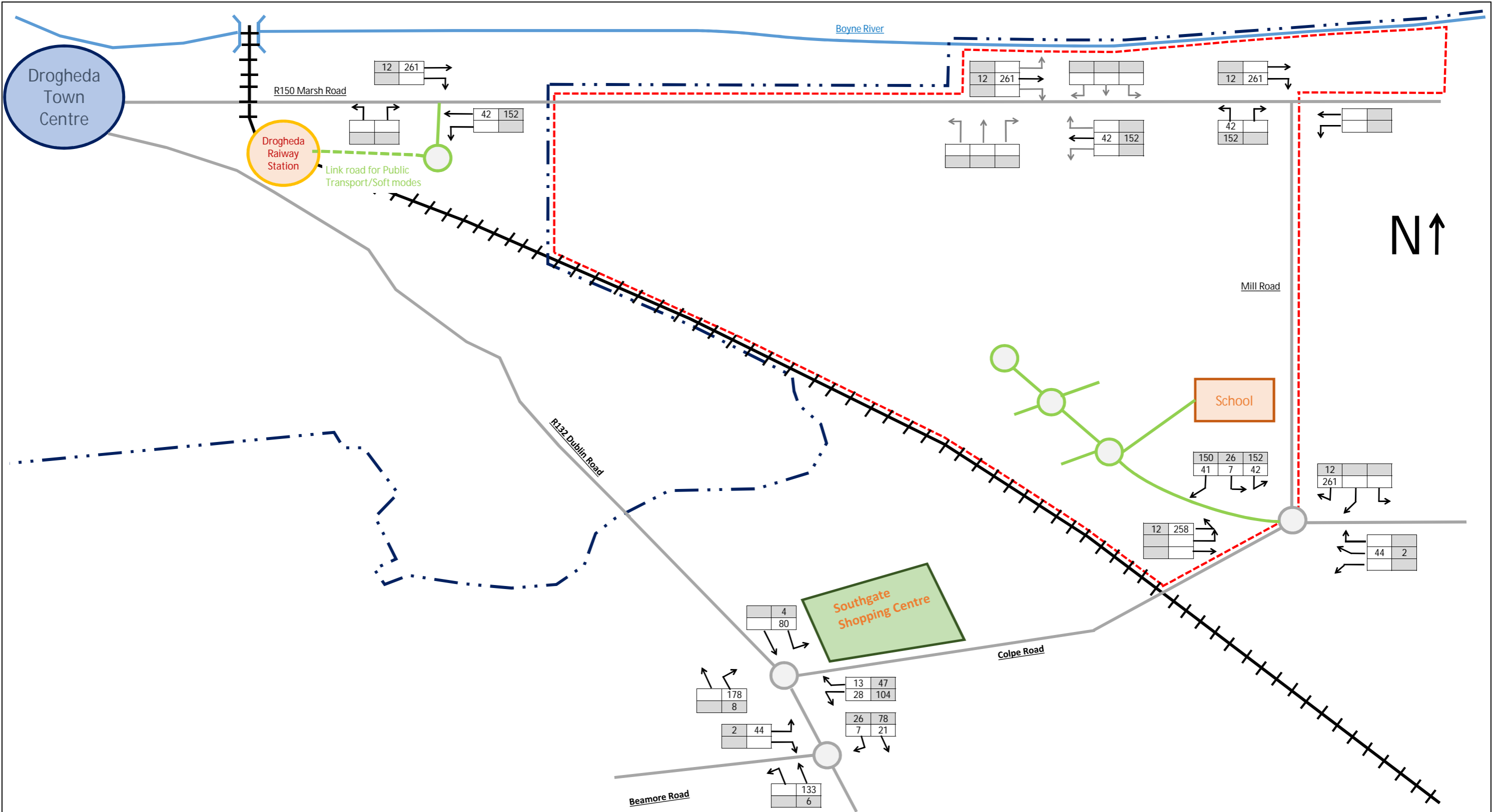
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
- + + + + Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	10b		Rev:	-



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Development Flows
Employment Land Use**

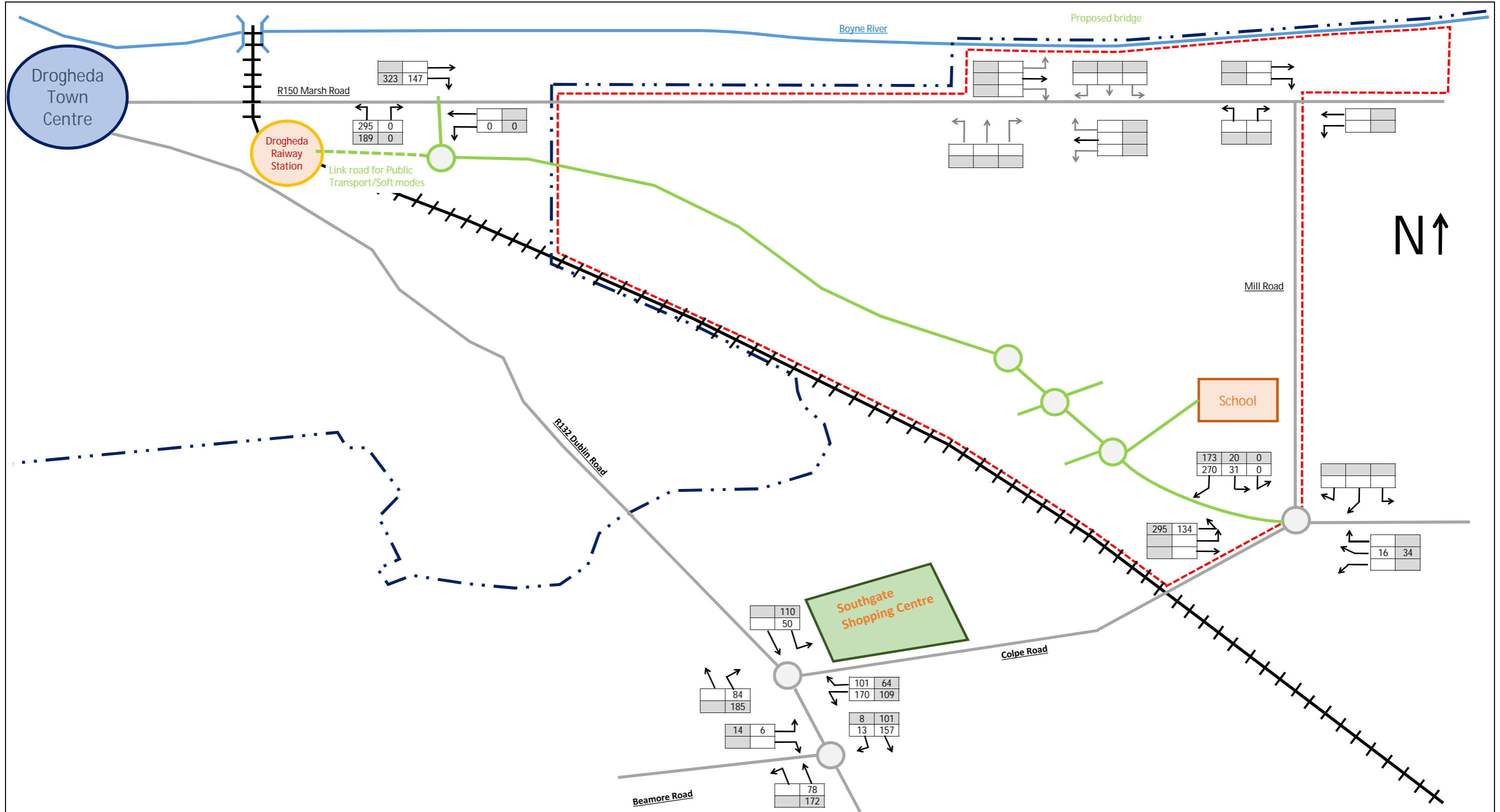
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	10c		Rev:	-



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2025 Development Flows
Residential Land Use

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

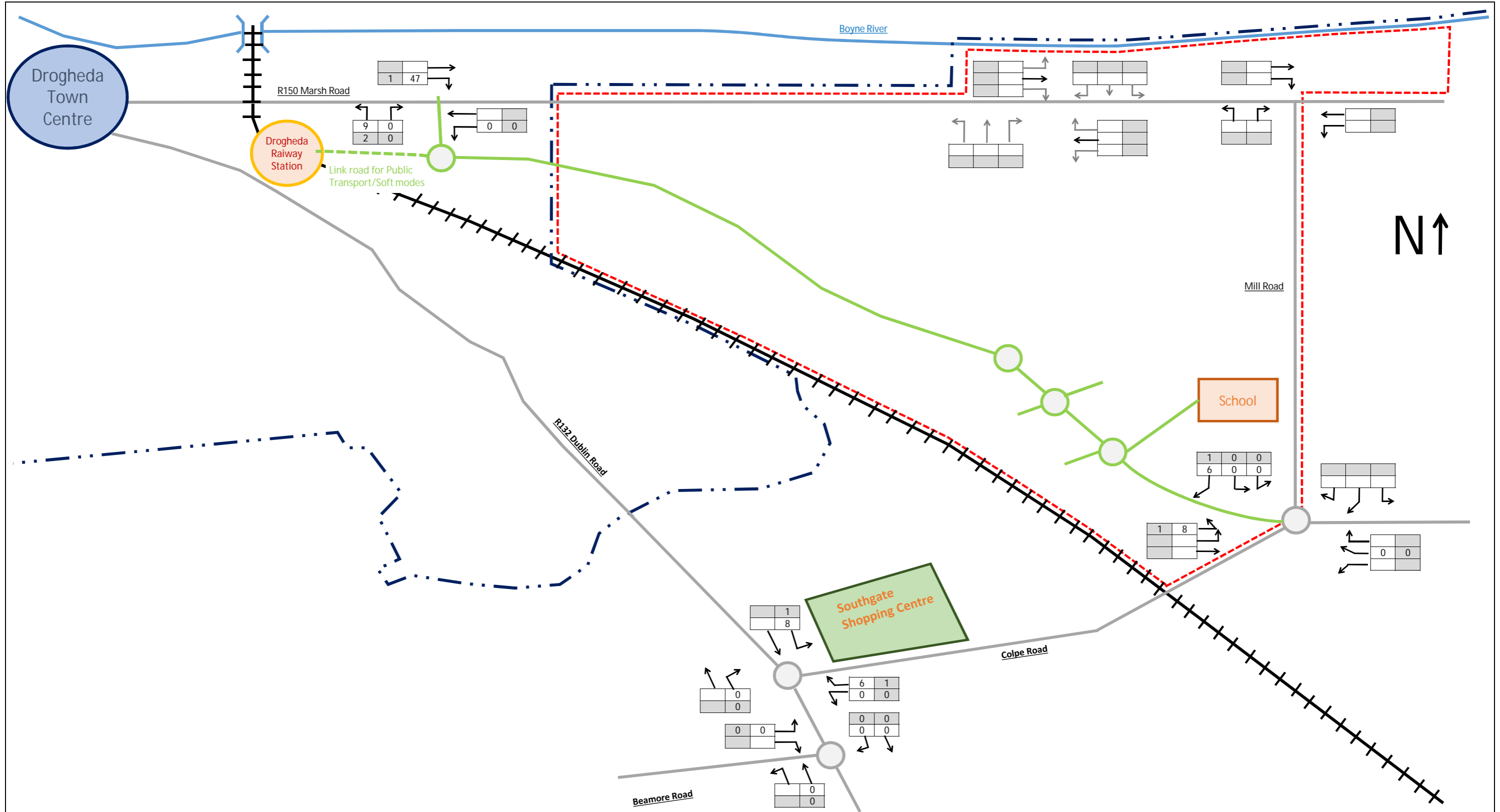
Legend:
 Louth Co. Council Boundary Line
 Study Area Boundary Line

+
+
+
+
 Railway Line

Dwn: MMK Ckd: RJK Date: 23/08/2017

Ref: G:\2017\p170092\calcs\excel\Traffic Model

Figure: 10d Rev: -



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2025 Development Flows
Educational Land Use**

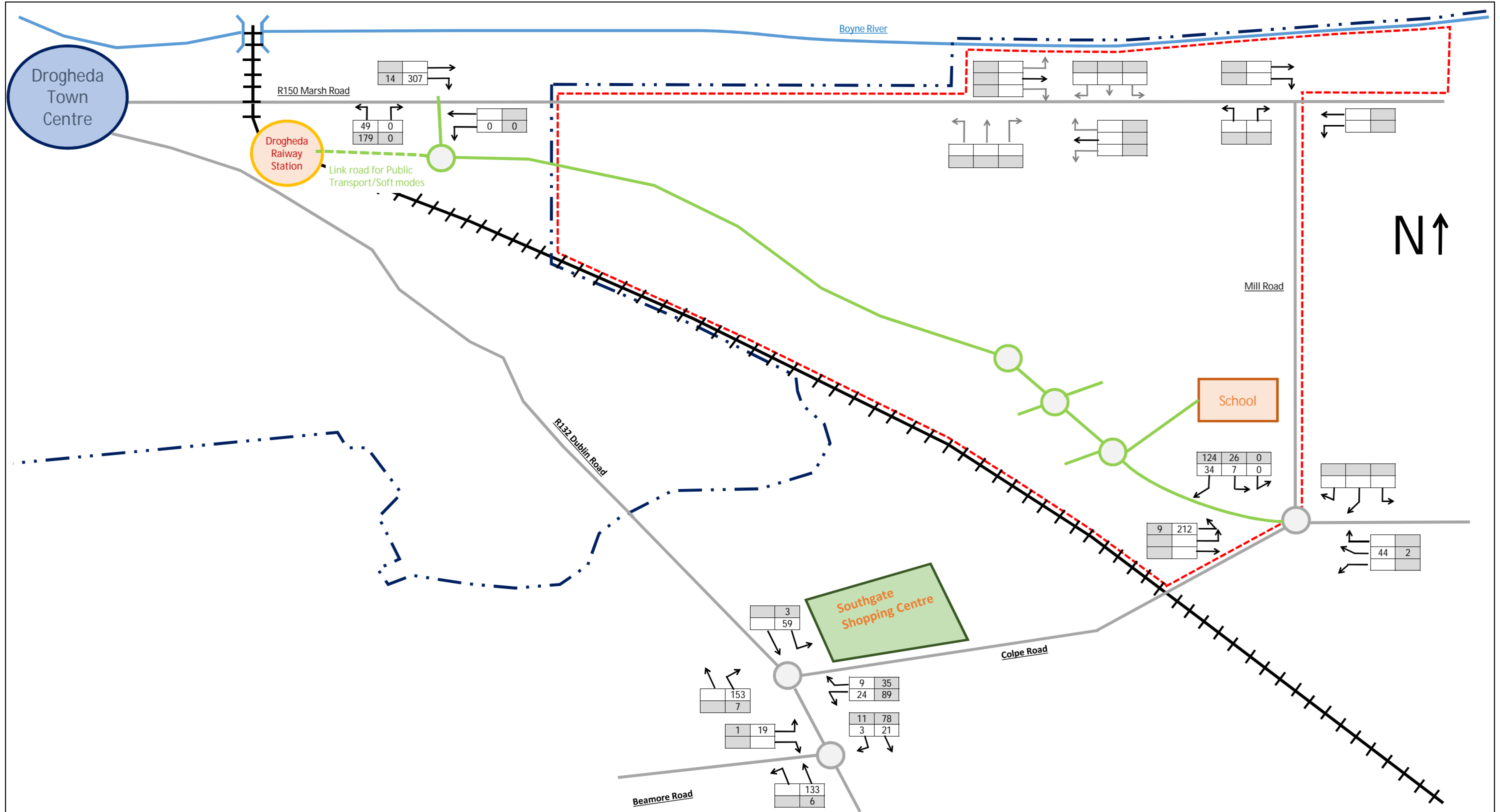
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10e		-		



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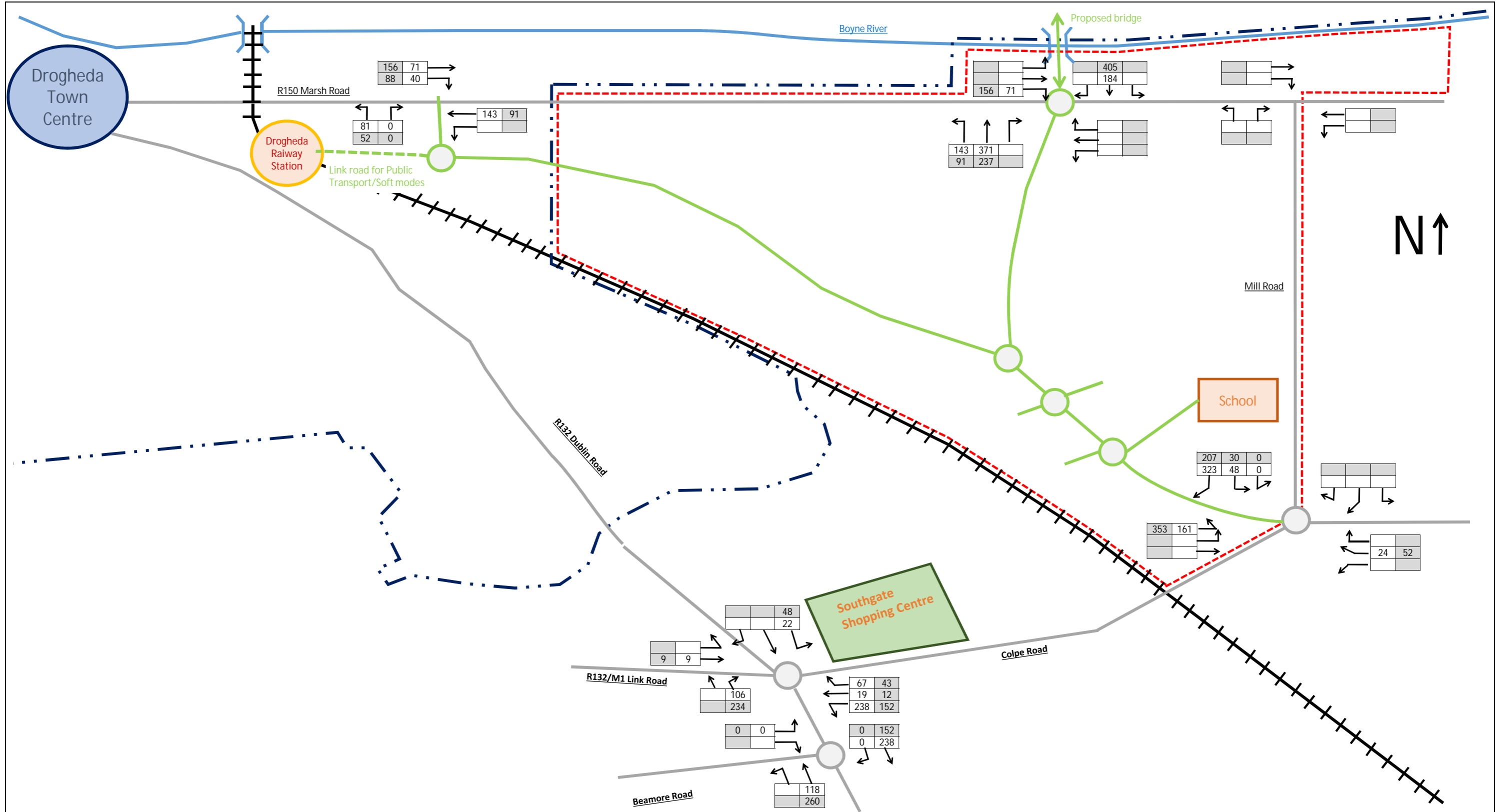
Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2025 Development Flows
Employment Land Use

Key:
AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:
Louth Co. Council Boundary Line
Study Area Boundary Line
Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	10f		Rev:	-



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Development Flows
Residential Land Use**

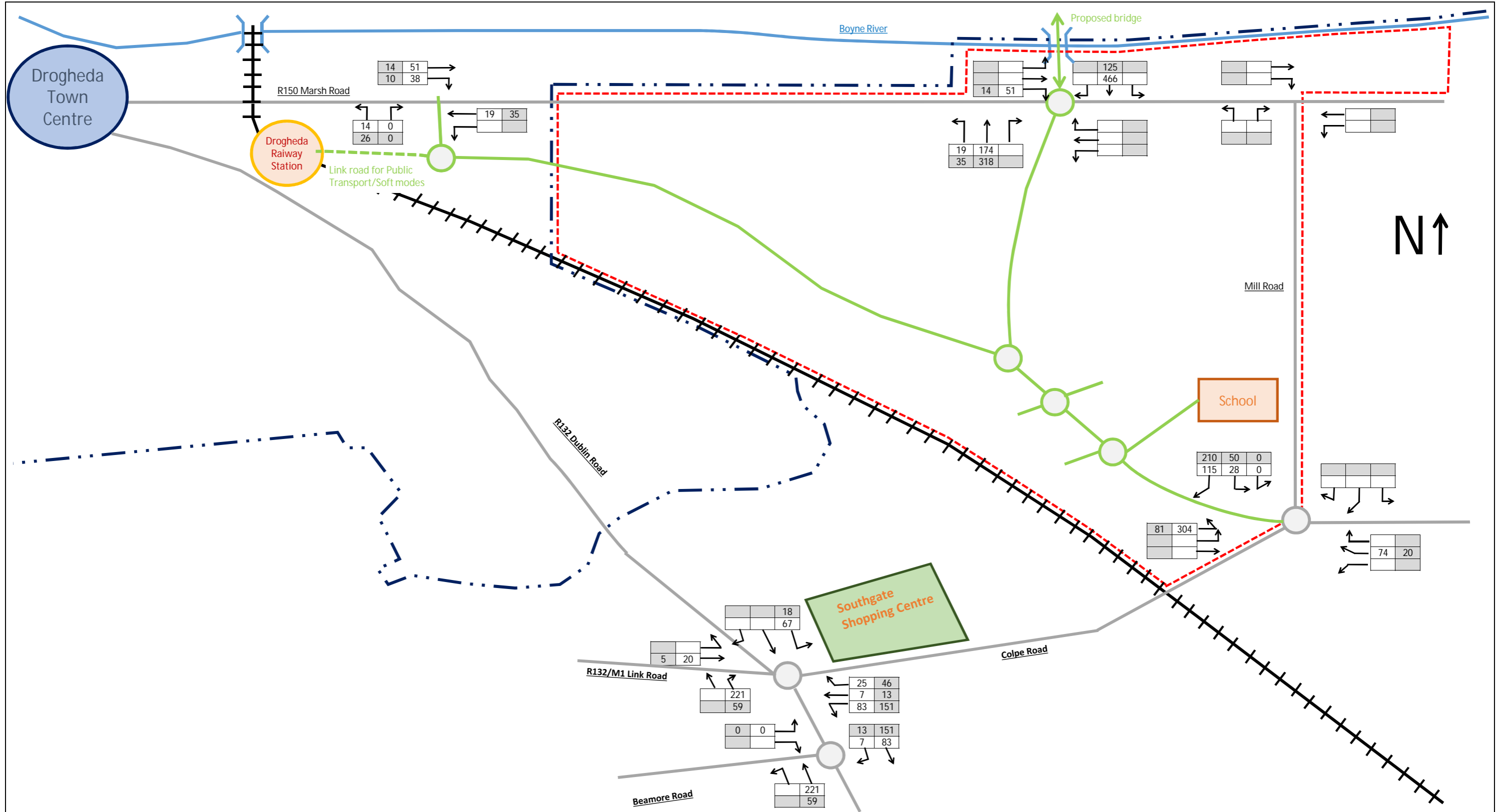
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	10g		Rev:	-



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2035 Development Flows
Employment Land Use

Key:

AM Peak Hour (0830 to 0930)

PM Peak Hour (1745 to 1845)

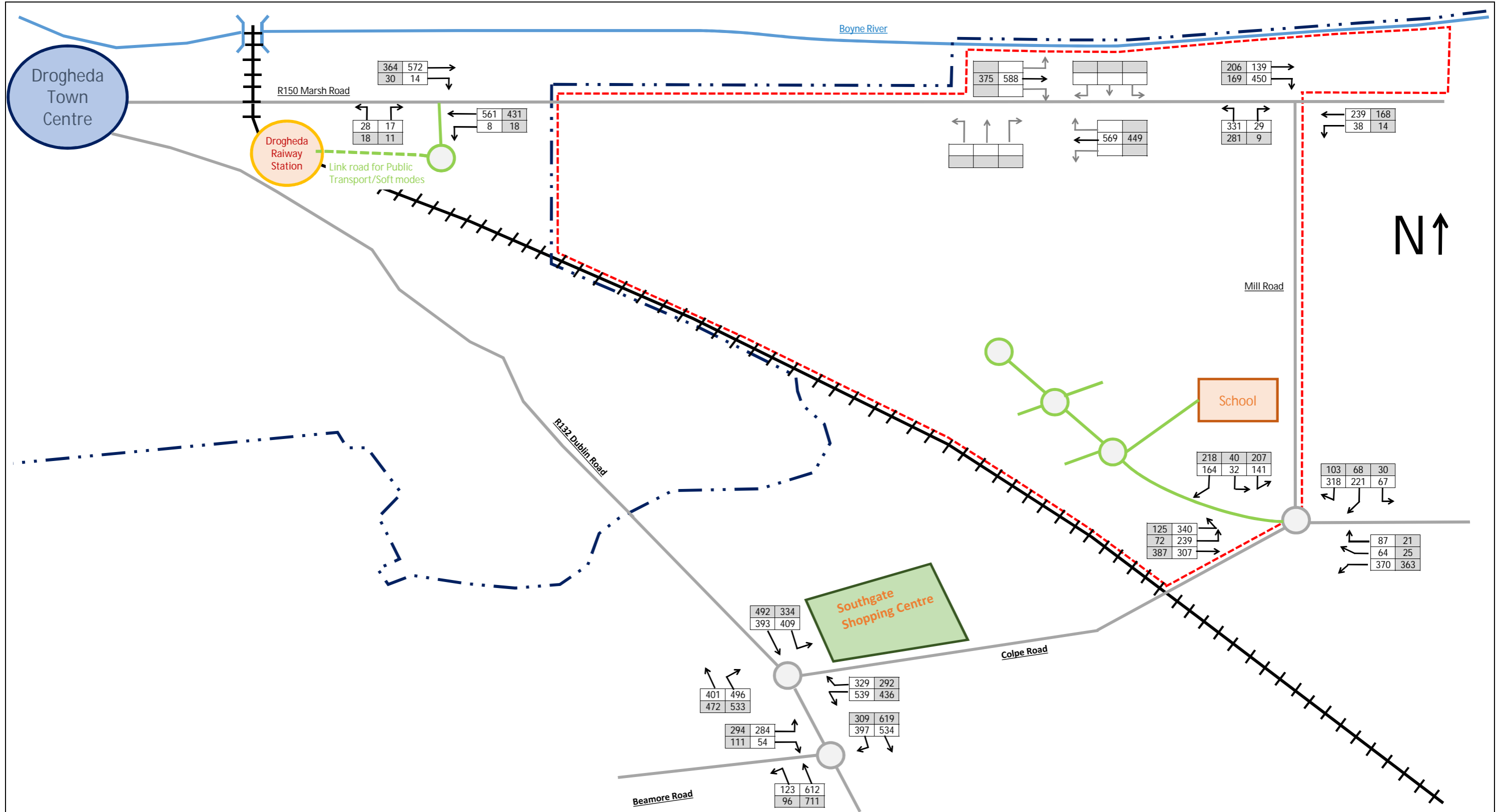
Legend:

--- Louth Co. Council Boundary Line

- - - - Study Area Boundary Line

+ + + + Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	10i		Rev:	-



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website: www.dbfl.ie

Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
2020 Do Something

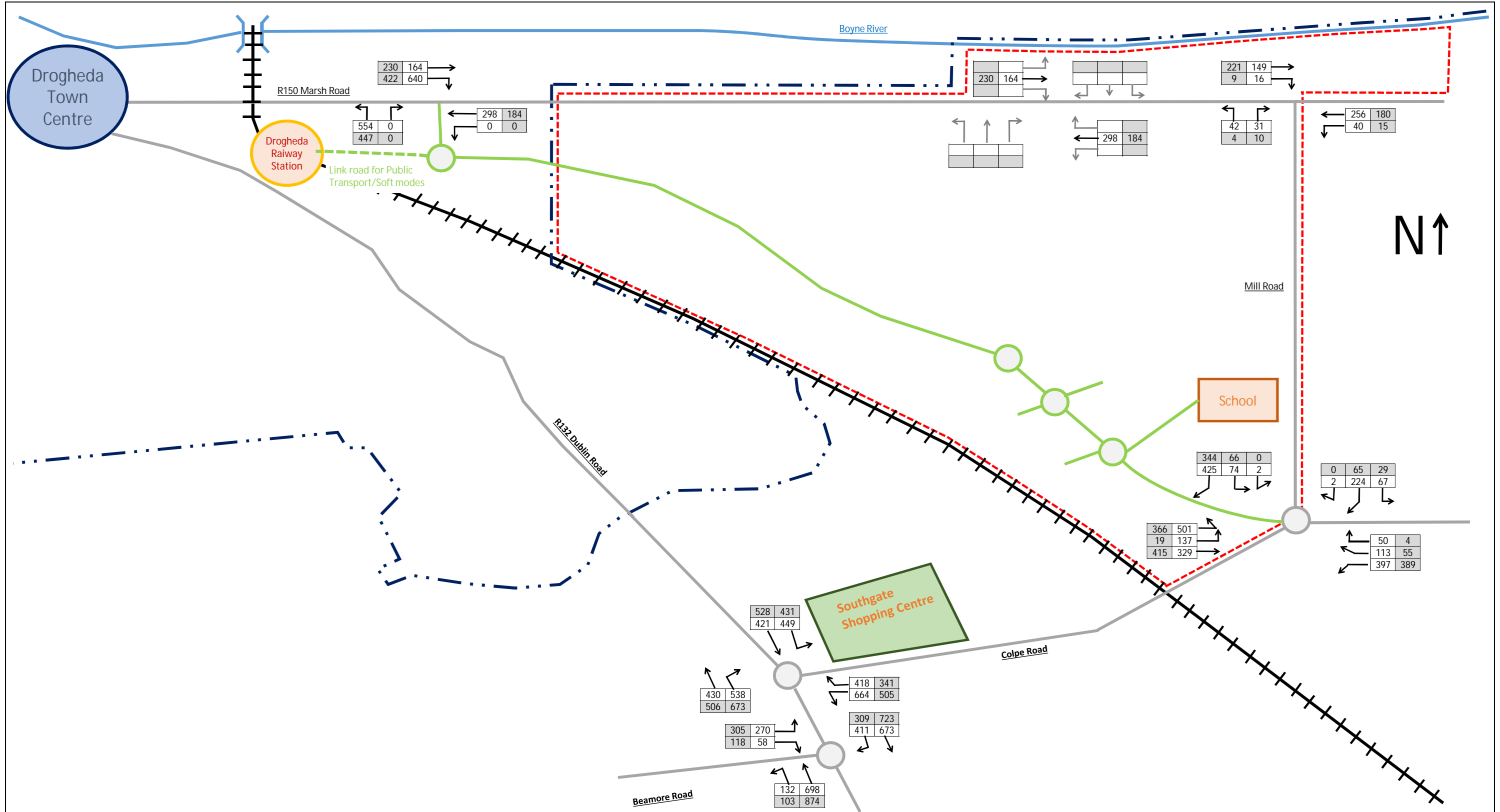
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
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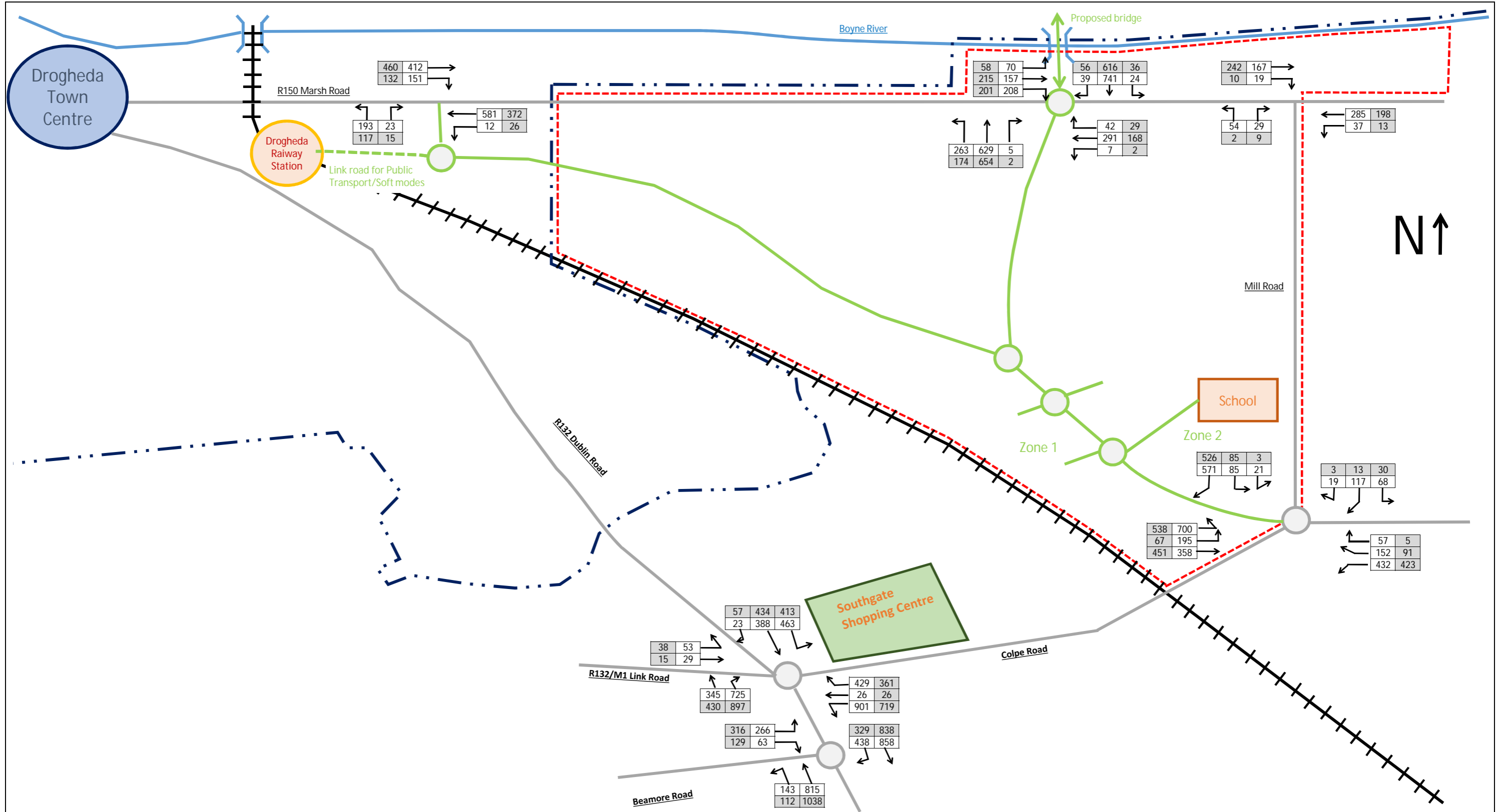
Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2025 Do Something

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:
- - - - - Louth Co. Council Boundary Line
- - - - - Study Area Boundary Line
+ + + + + Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	12		Rev:	-	



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
2035 Do Something

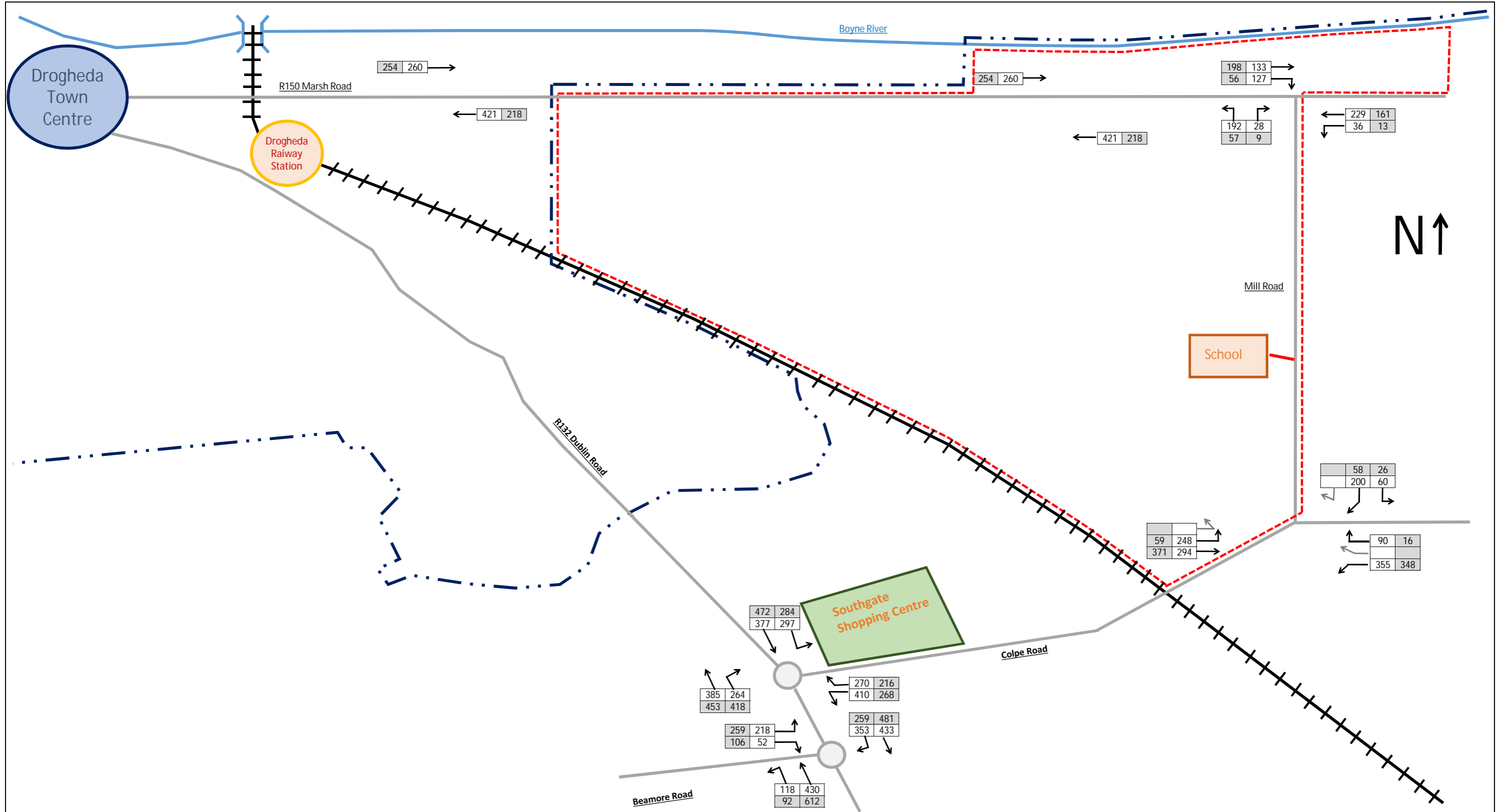
Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- +
+
+
+
 Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
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High Growth



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email: info@dbfl.ie
website: www.dbfl.ie

Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Network Traffic Flows - Vehicles
2017 Base Flows

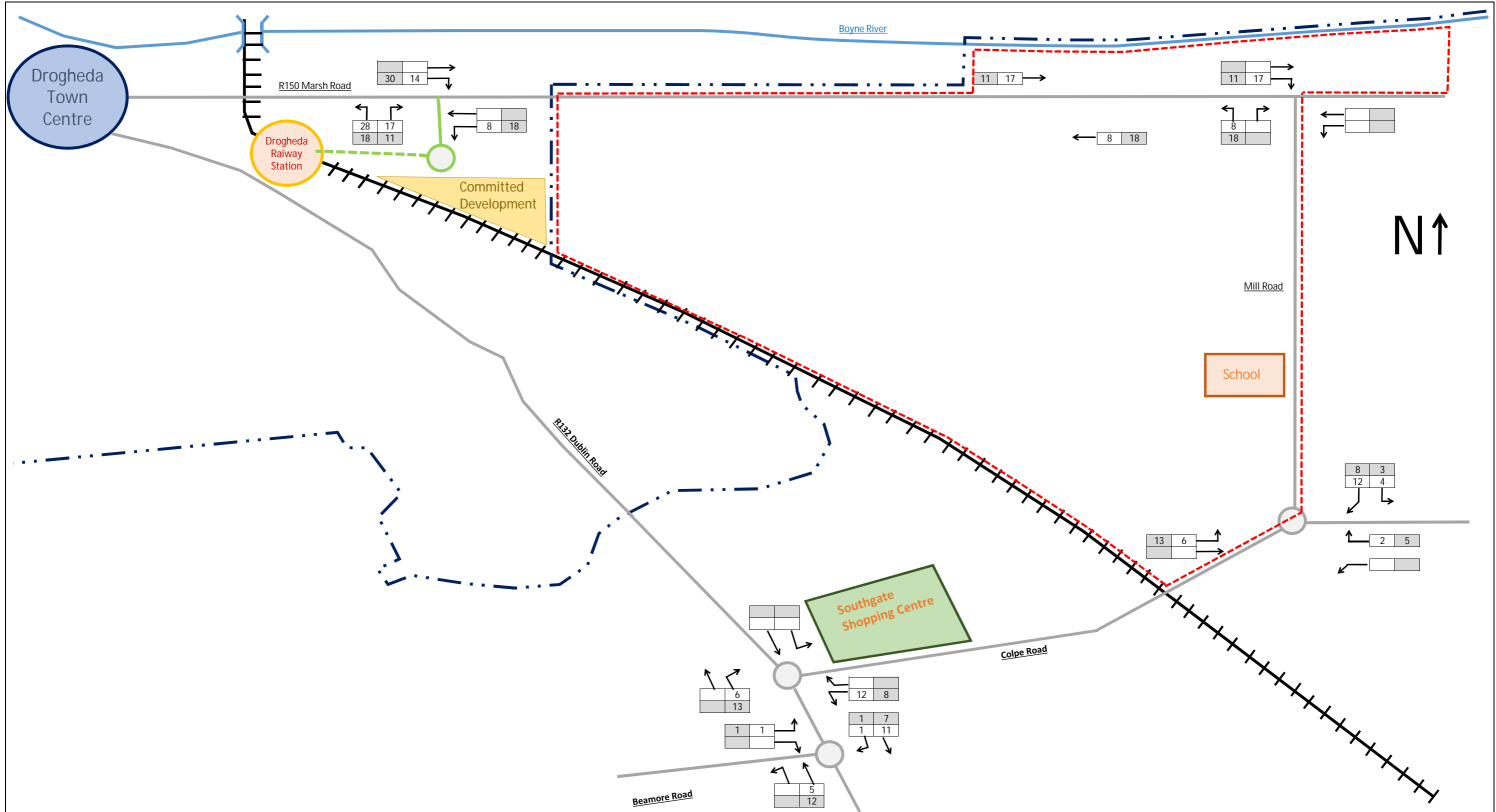
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

	Louth Co. Council Boundary Line
	Study Area Boundary Line
	Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	1	Rev:	-	



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Network Traffic Flows - Vehicles
Committed Development Trips 2020 (No Subject Development)**

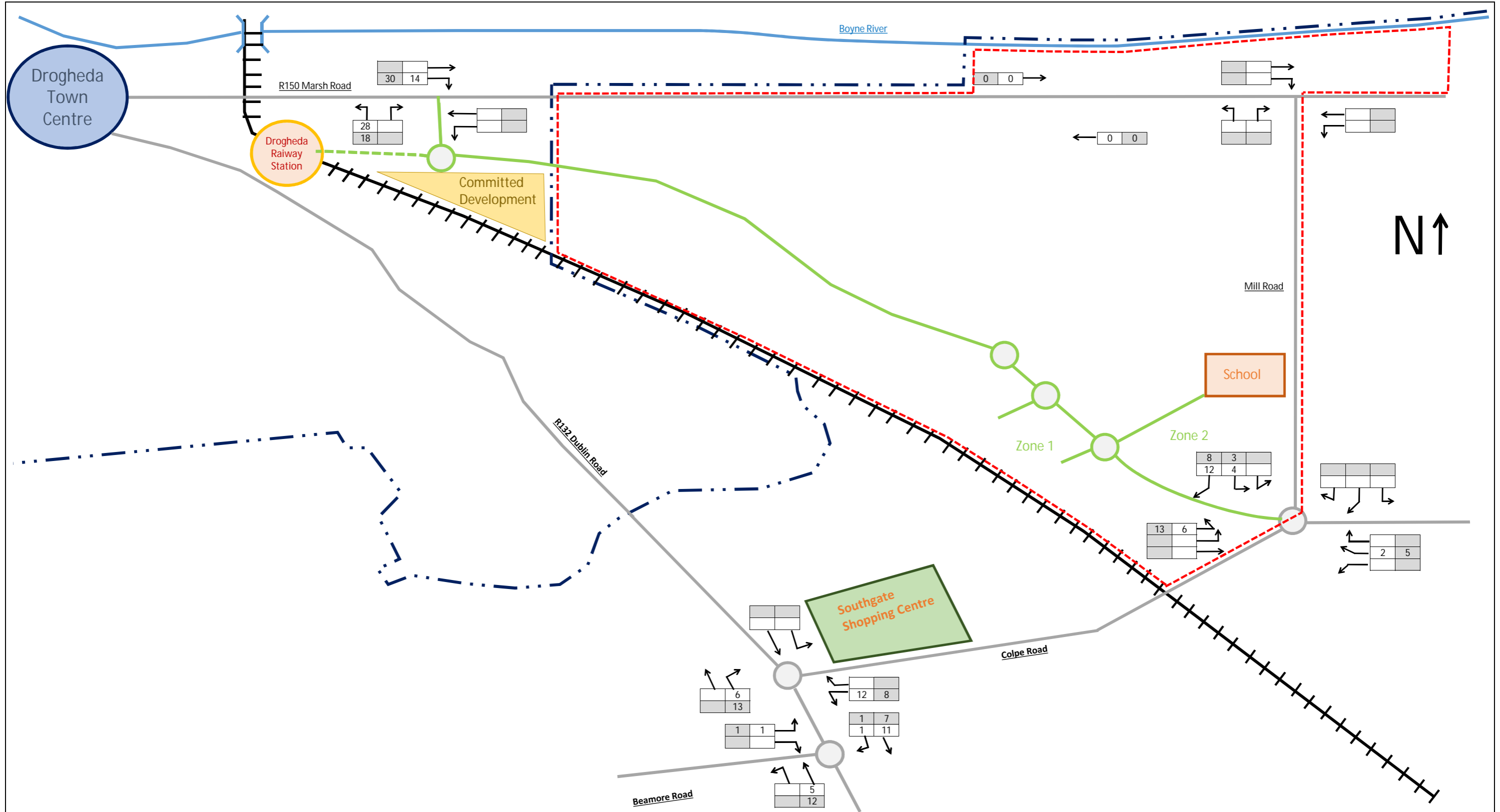
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	2a		Rev:	-



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Network Traffic Flows - Vehicles
Committed Development Trips 2025

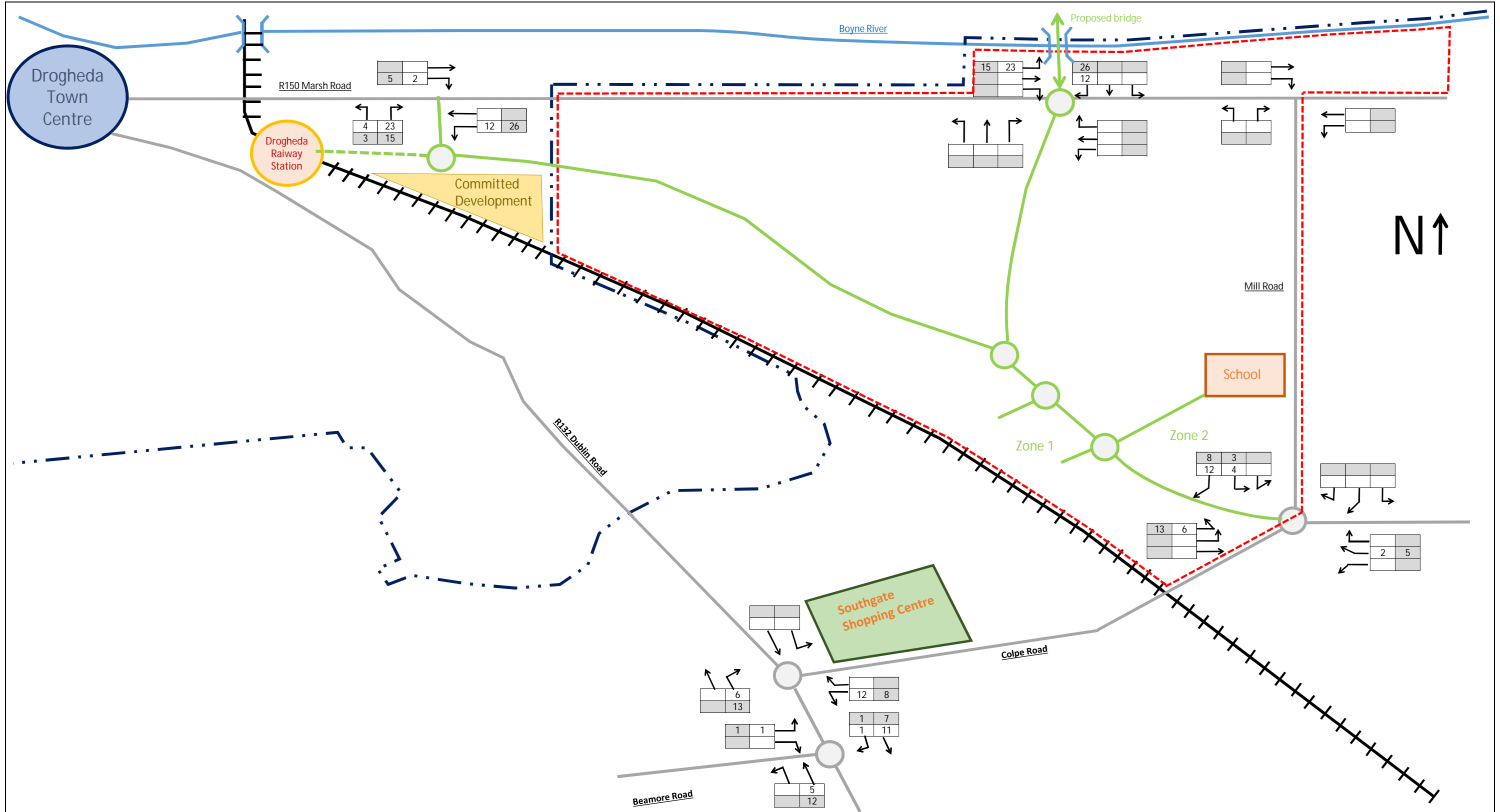
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
++++ Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	2b		-		



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Network Traffic Flows - Vehicles
Committed Development Trips 2035

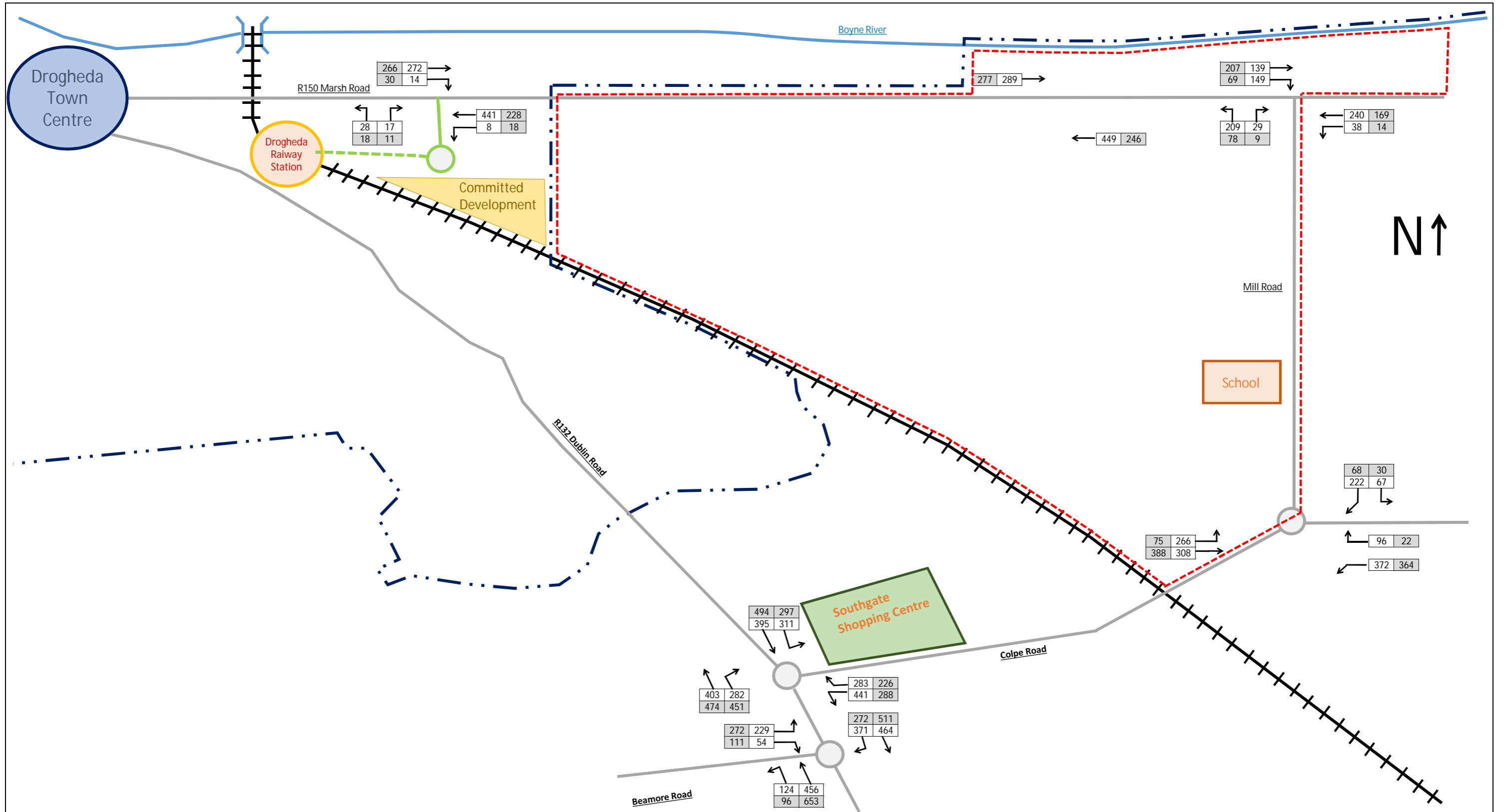
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Network Traffic Flows - Vehicles
2020 Do Nothing

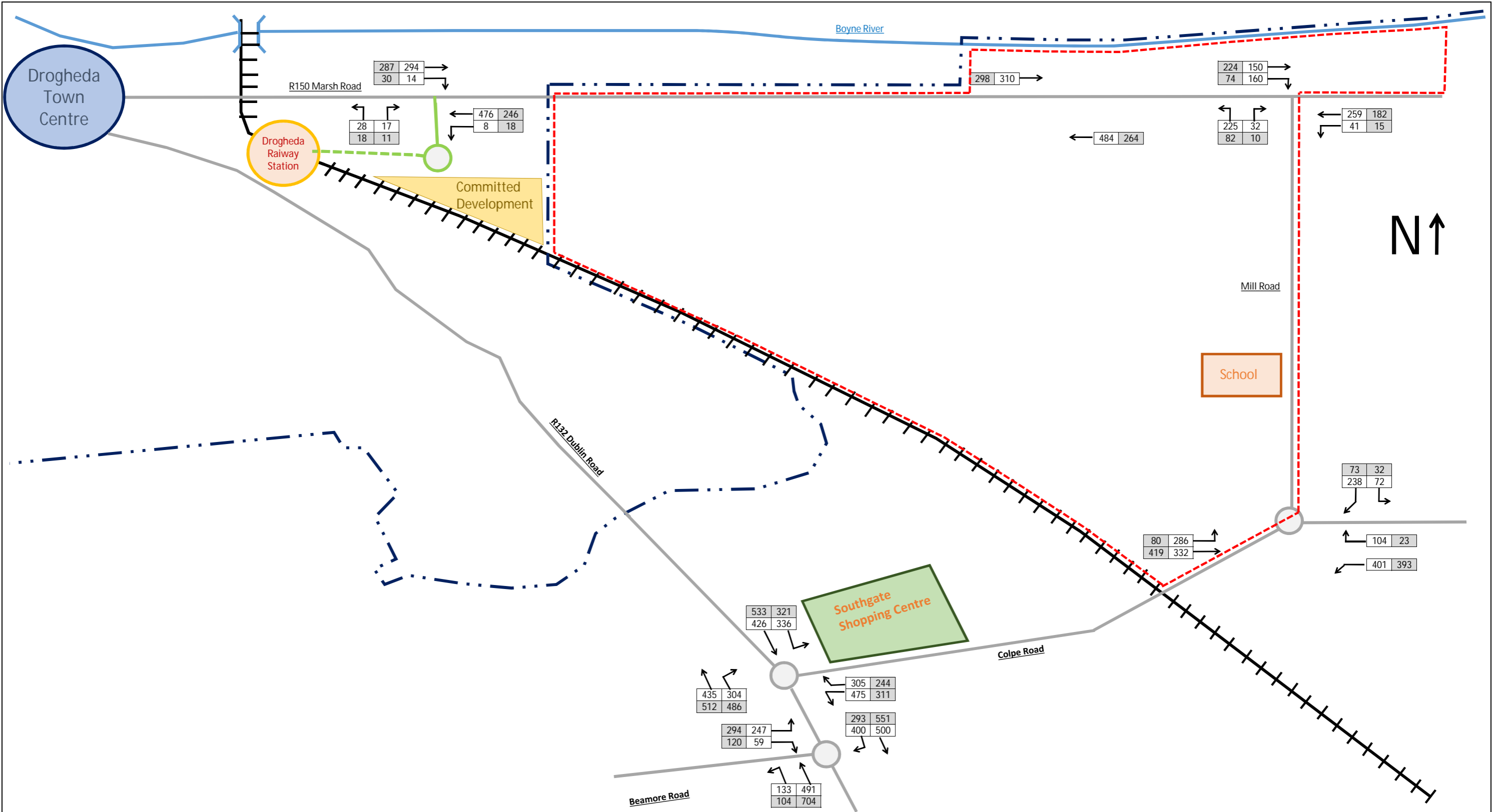
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- --	Louth Co. Council Boundary Line
- - - -	Study Area Boundary Line
+ + + +	Railway Line

Dwn:	skd:	Date:
MMK	RJK	23/08/2017
Ref: G:\2017\p170092\calcs\excel\Traffic Model		
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3a		-



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Network Traffic Flows - Vehicles
2025 Do Nothing**

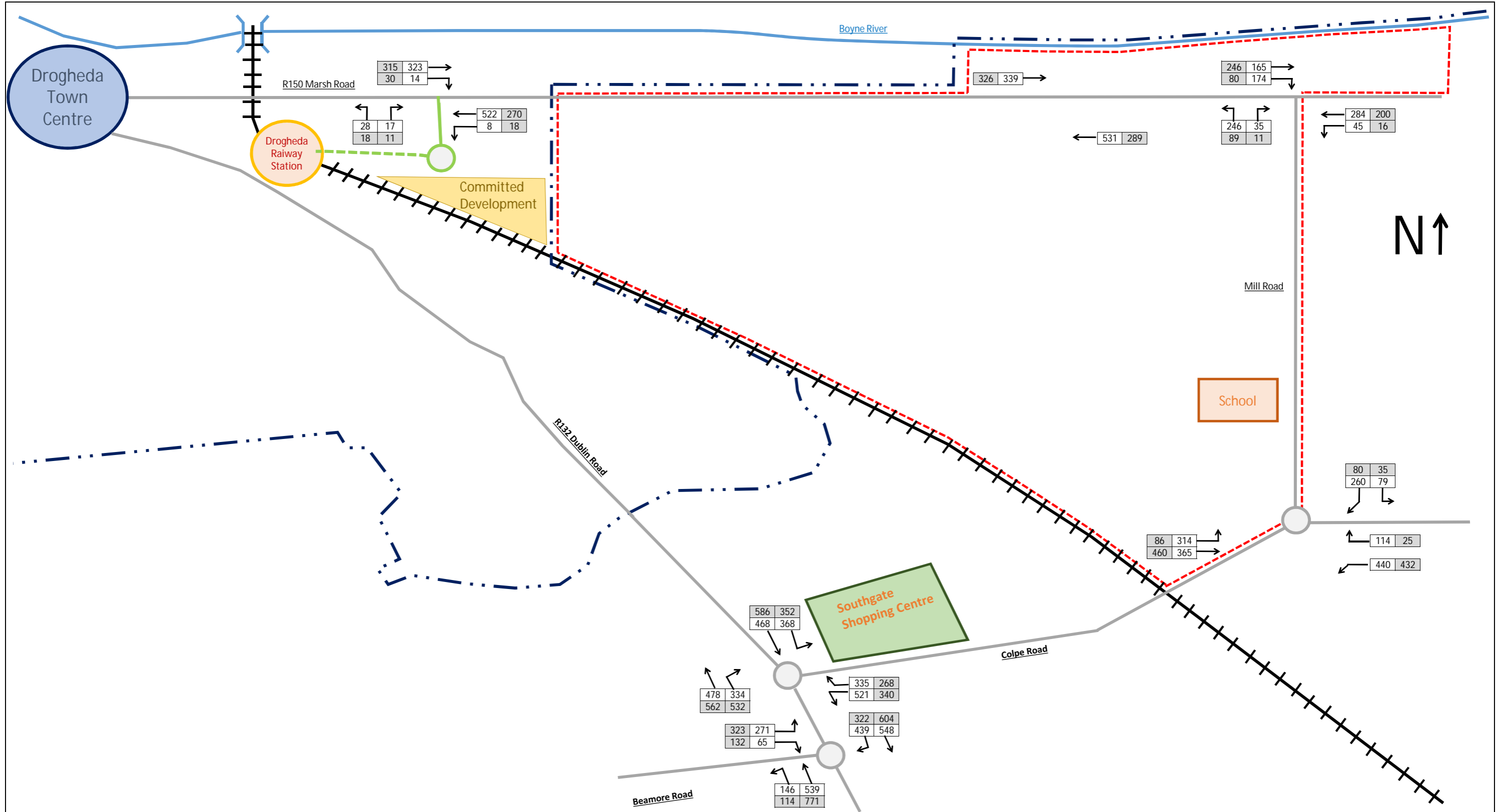
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	skd:	Date:
MMK	RJK	23/08/2017
Ref: G:\2017\p170092\calcs\excel\Traffic Model		
Figure:	Rev:	
3b	-	



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Project :

Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :

Network Traffic Flows - Vehicles
2035 Do Nothing

Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

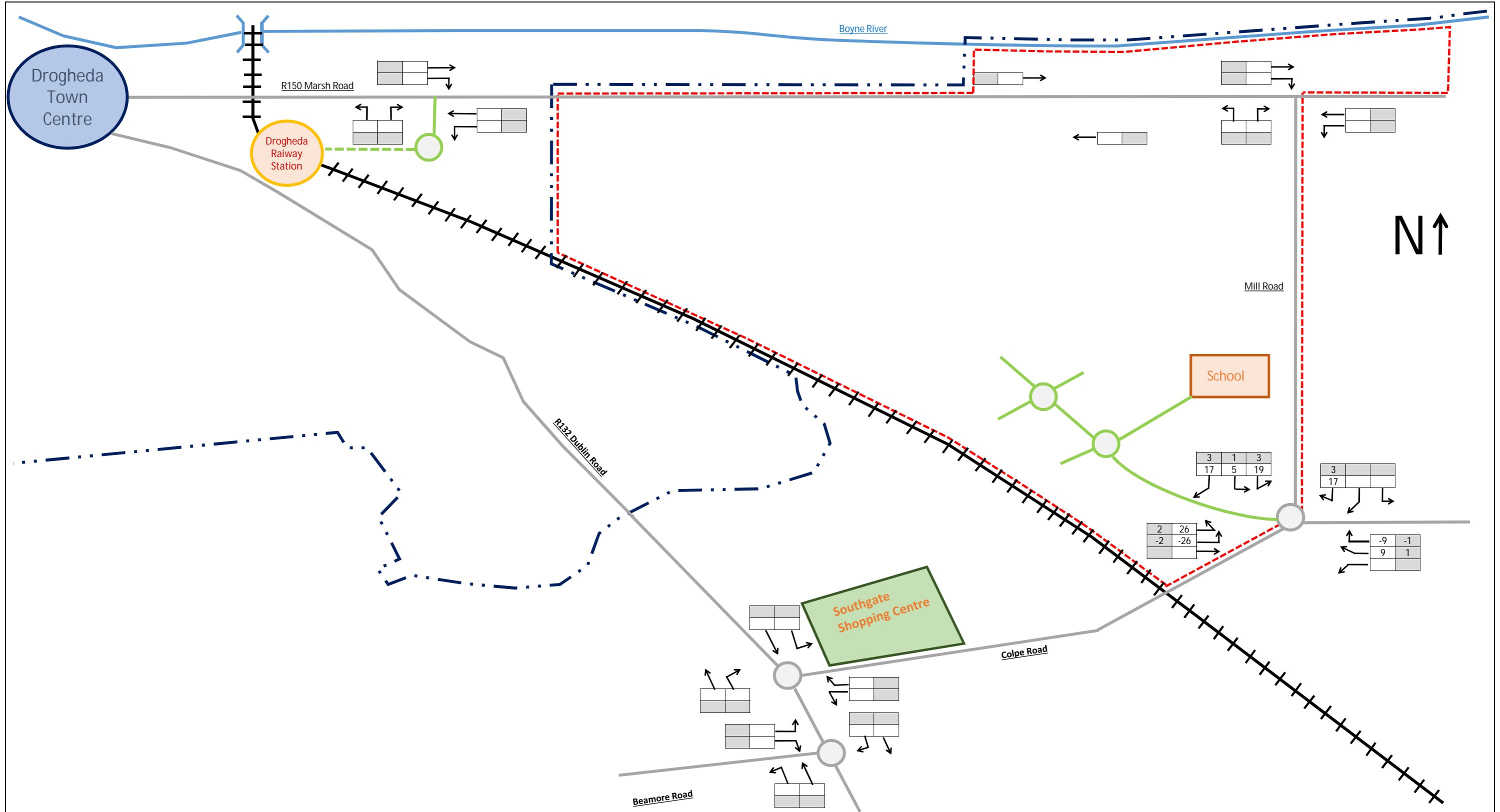
Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn: MMK Ckd: RJK Date: 23/08/2017

Ref: G:\2017\p170092\calcs\excel\Traffic Model

Figure: 3C Rev: -



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Diverted Trips
Gaelscoil an Bhradain Feasa Diverted Trips 2020

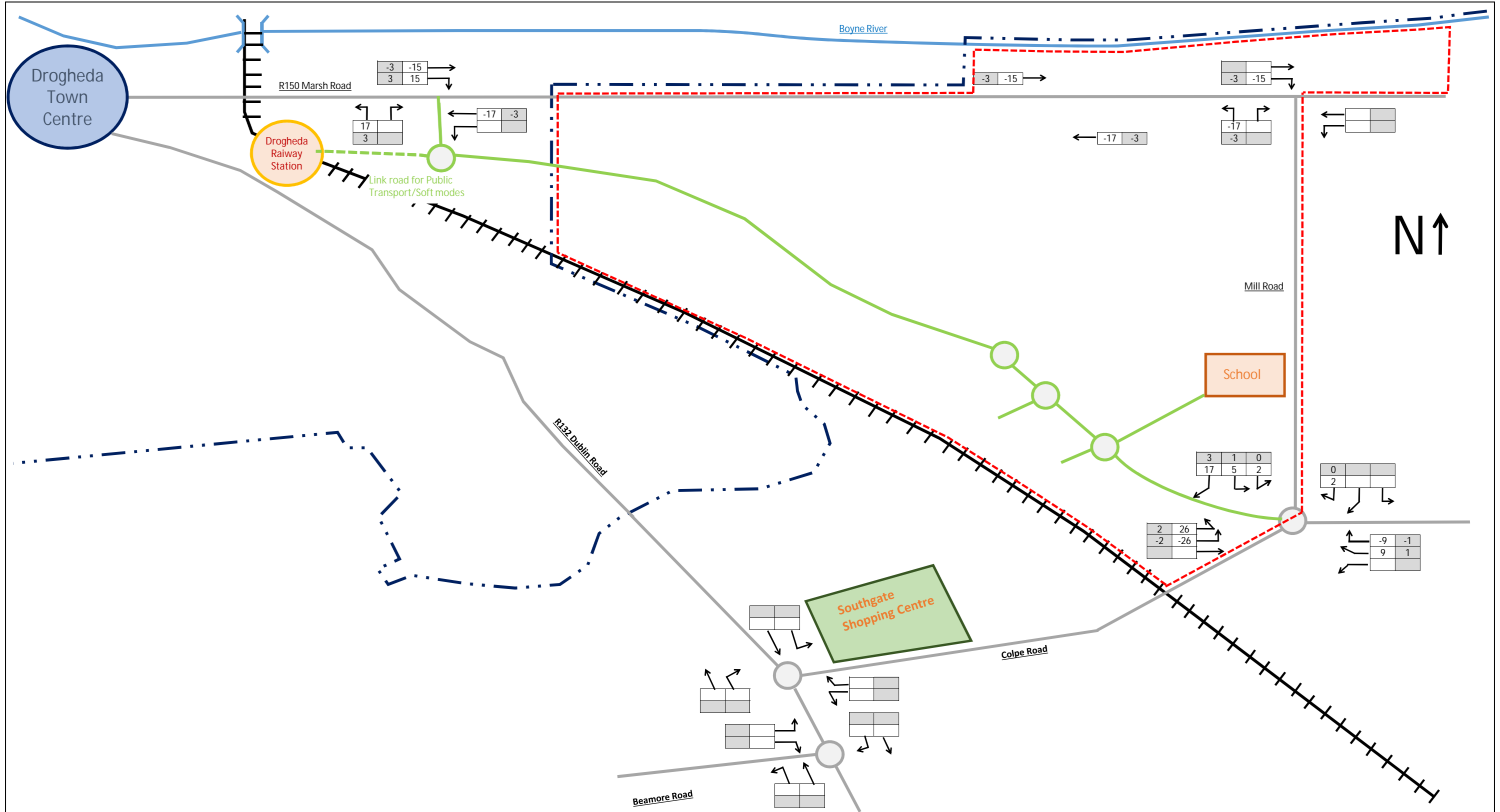
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	4a		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Network Traffic Flows - Vehicles
Gaelscoil an Bhradain Feasa Diverted Trips 2025**

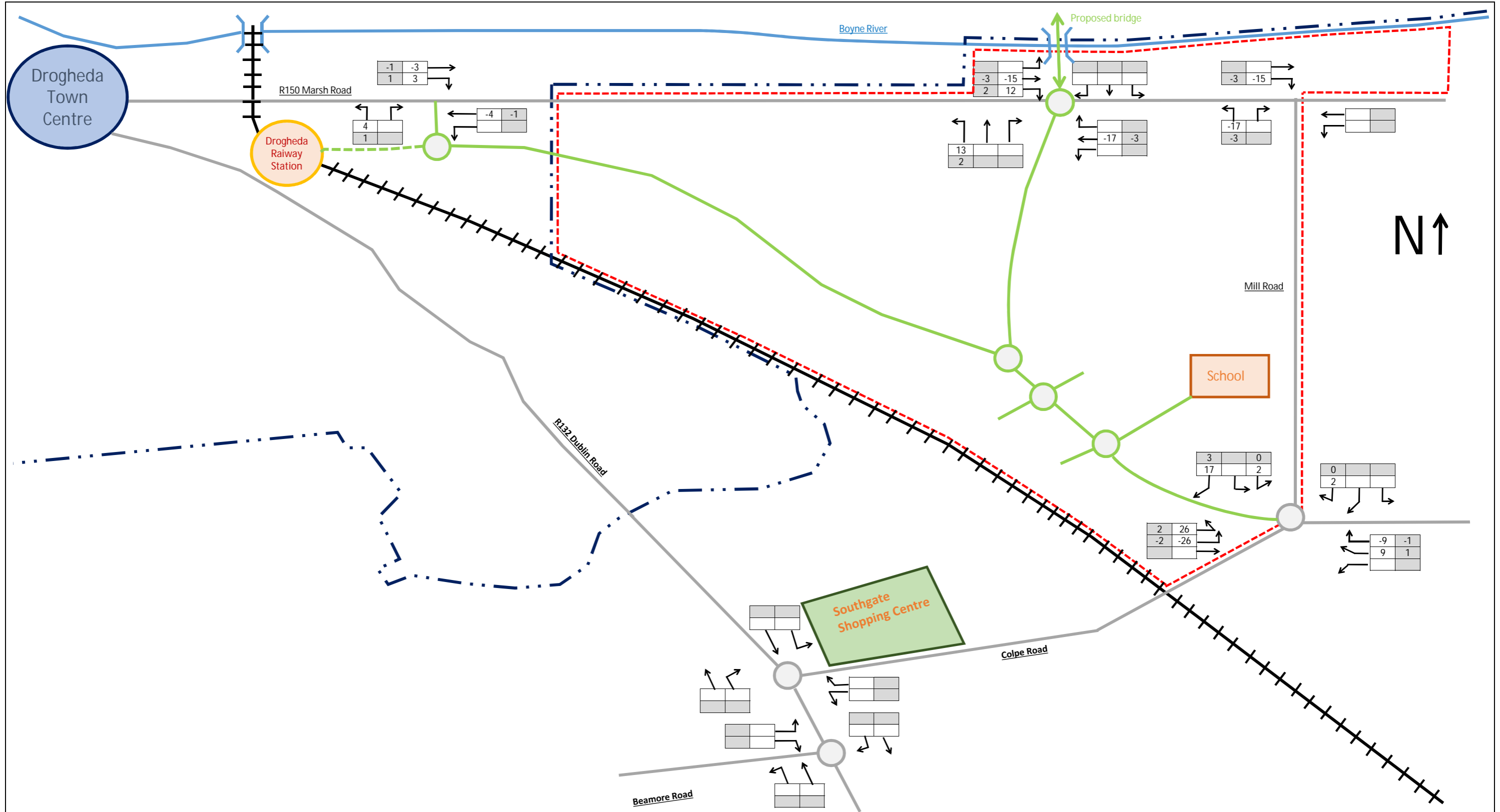
Key:

AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:

Louth Co. Council Boundary Line
 Study Area Boundary Line
 Railway Line

Dwn:	skd:	Date:
MMK	RJK	23/08/2017
Ref: G:\2017\p170092\calcs\excel\Traffic Model		
Figure:	Rev:	
4b	-	



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Diverted Trips
Gaelscoil an Bhradain Feasa Diverted Trips 2035

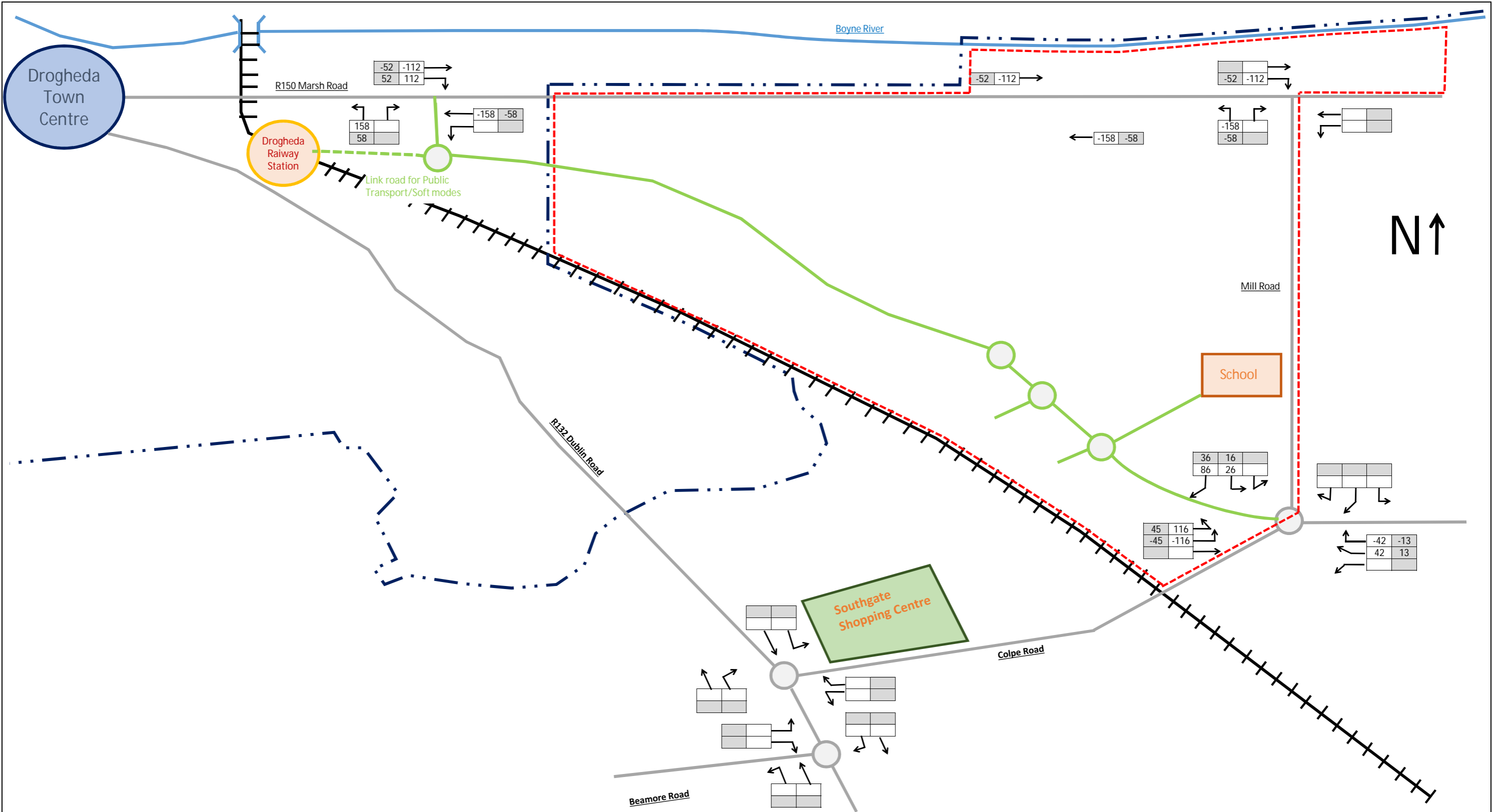
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	4C	Rev:	-	



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Project :
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Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Diverted Trips
2025 Future Design Year**

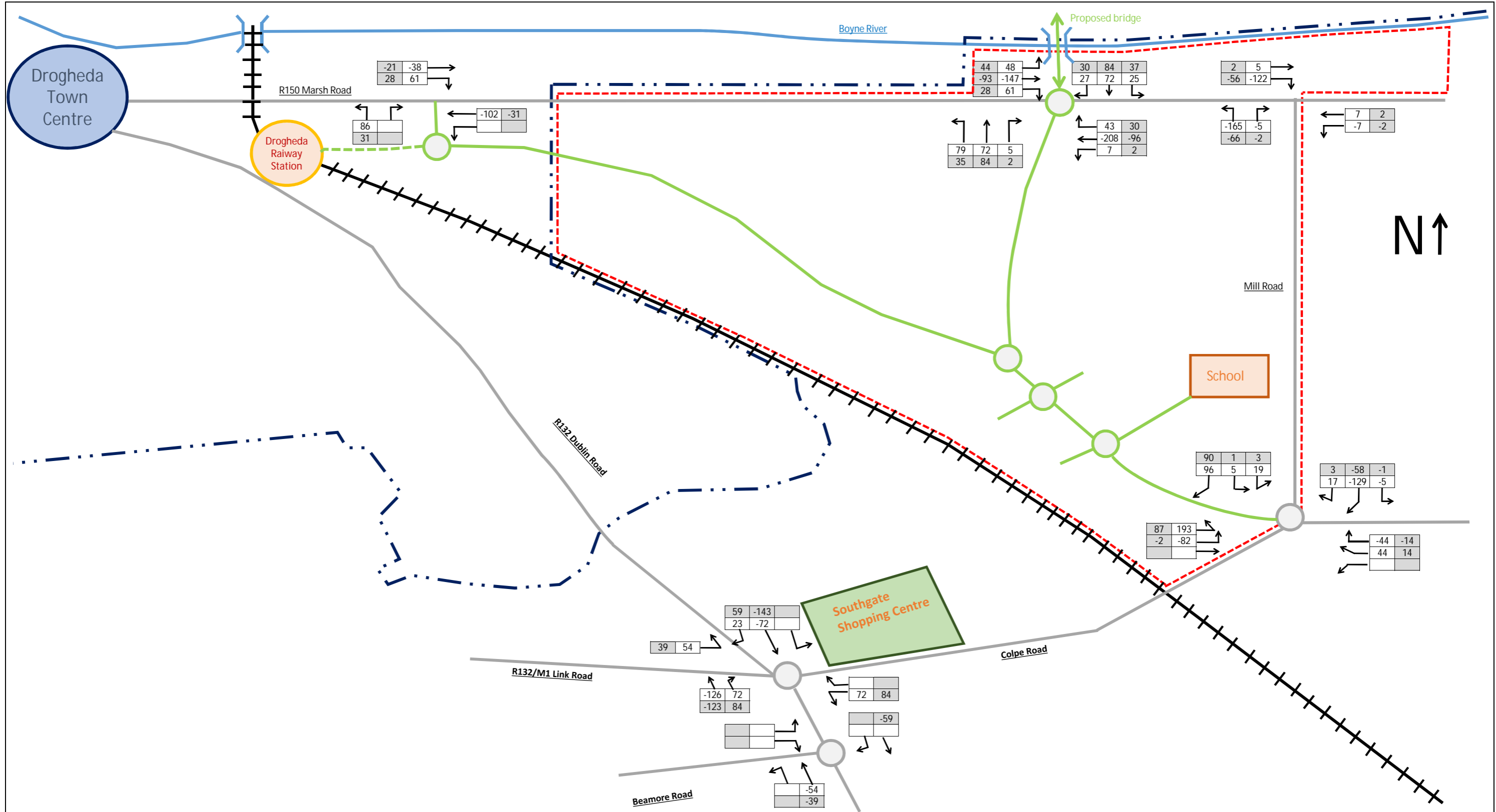
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	5a		Rev:	-	



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email: info@dbfl.ie
 website: www.dbfl.ie

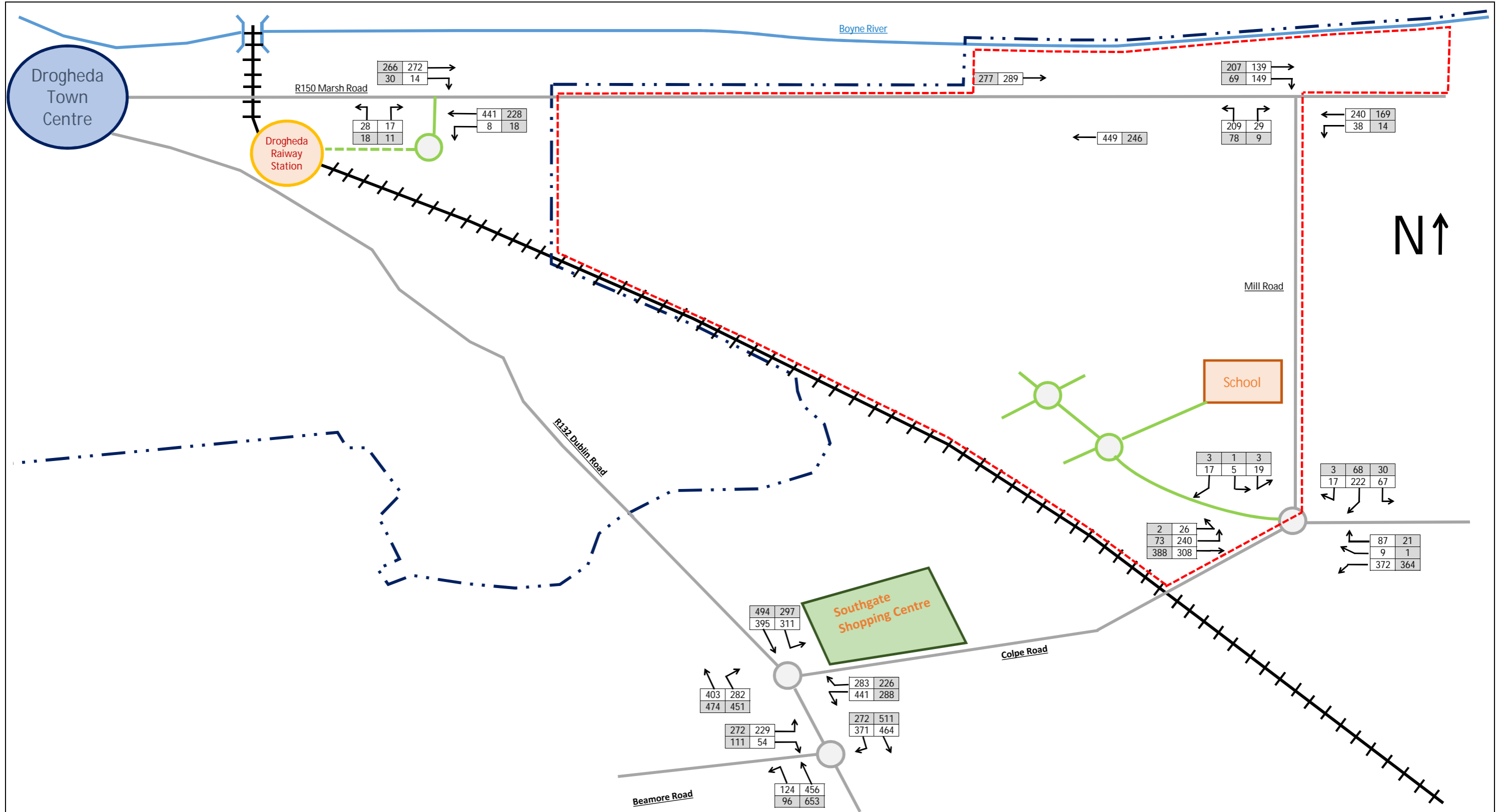
Project :
 Local Framework Plan
 Mill Road / Marsh Road Local Area Plan

DRG. Title :
 Diverted Trips
 2035 Future Design Year

Key:
 AM Peak Hour (0830 to 0930)
 PM Peak Hour (1745 to 1845)

Legend:
 Louth Co. Council Boundary Line
 Study Area Boundary Line
 Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	5b	Rev:		



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Network Traffic Flows - Vehicles
2020 Adjusted Base Flows

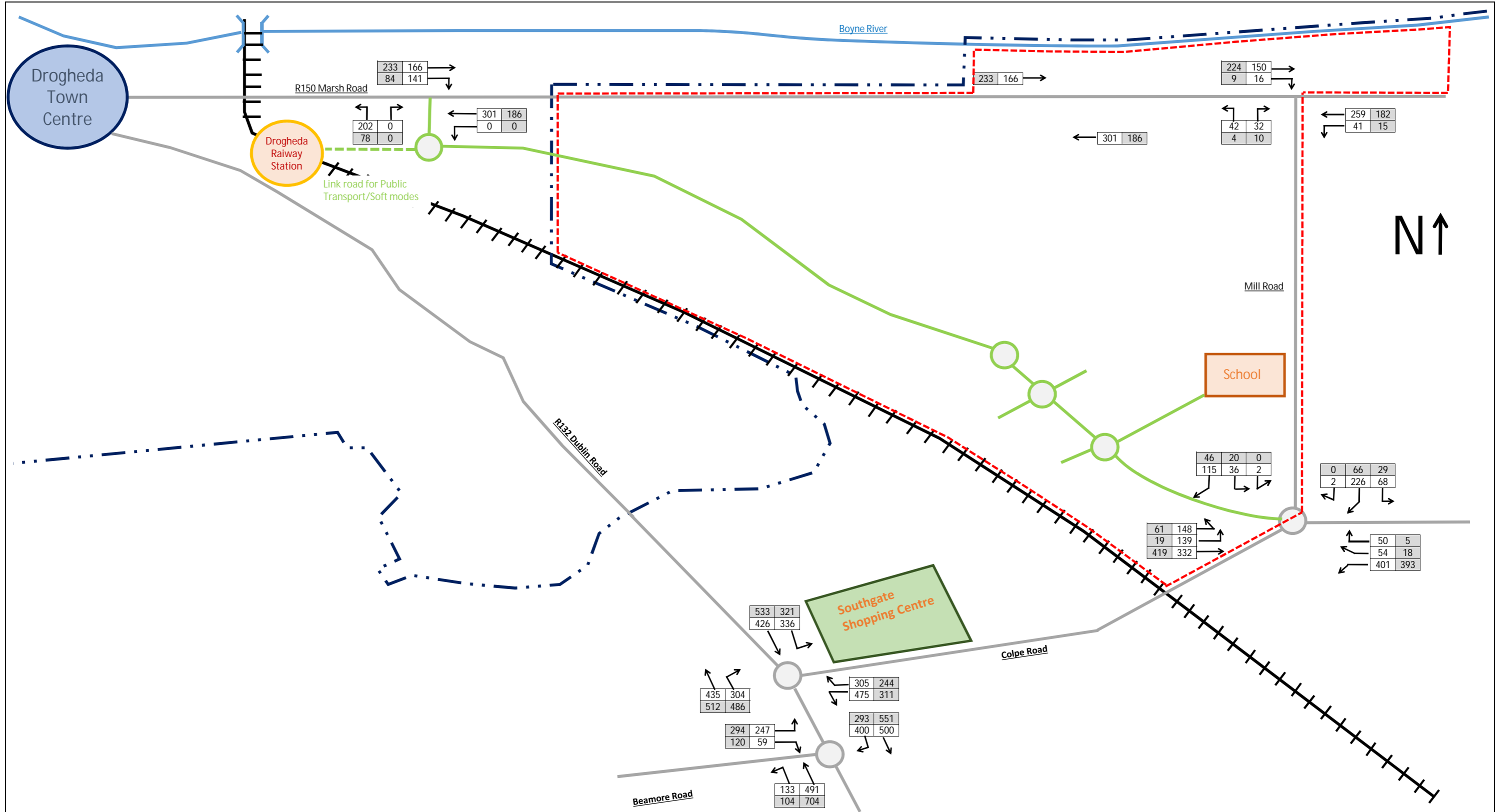
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- --	Louth Co. Council Boundary Line
- - - -	Study Area Boundary Line
+ + + +	Railway Line

Dwn:	skd:	Date:
MMK	RJK	23/08/2017
Ref: G:\2017\p170092\calcs\excel\Traffic Model		
Figure:		Rev:
6		-



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**Network Traffic Flows - Vehicles
2025 Adjusted Base Flows**

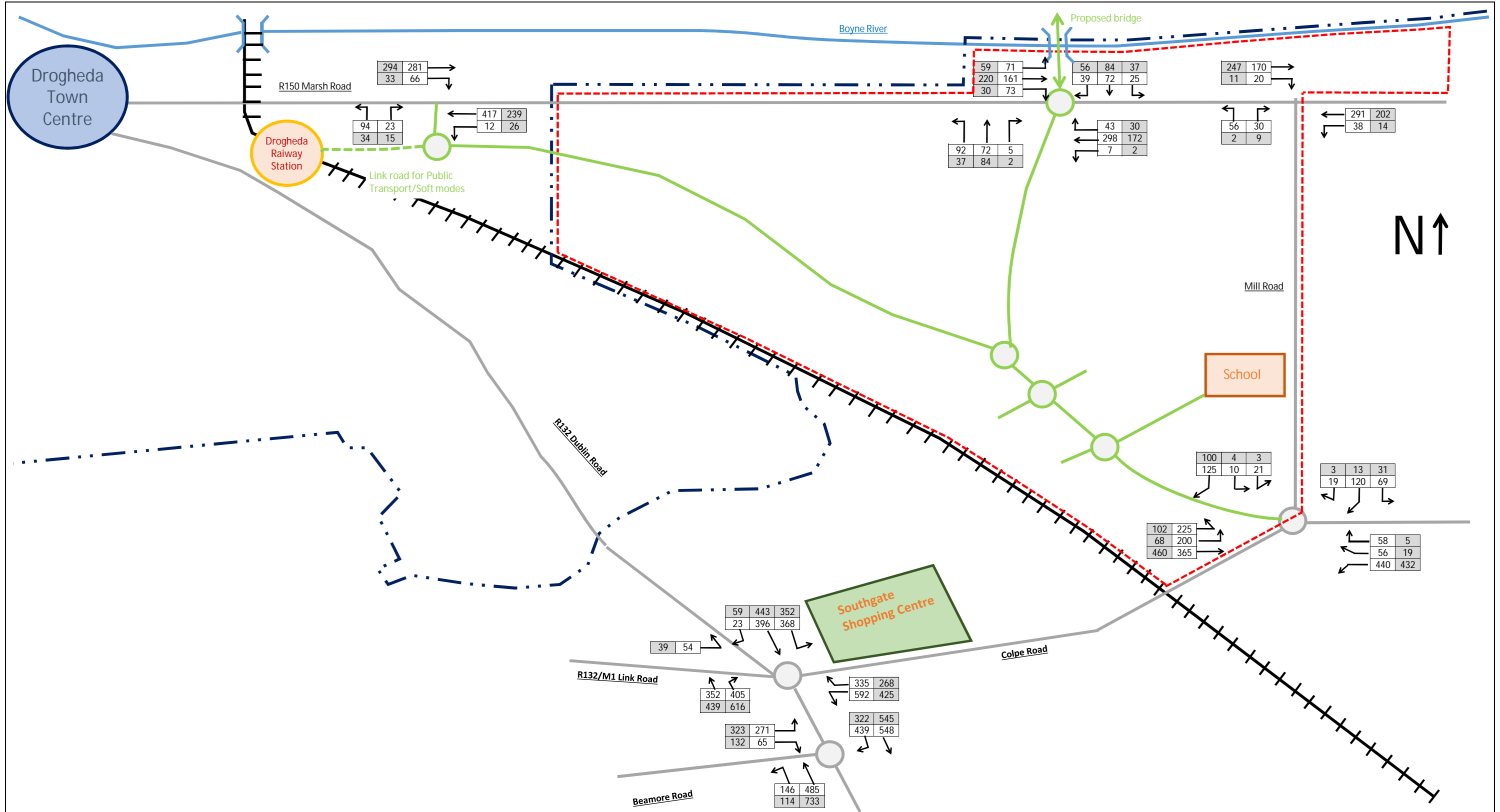
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	skd:	Date:
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Ref: G:\2017\p170092\calcs\excel\Traffic Model		
Figure:		Rev:
7		-



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
Network Traffic Flows - Vehicles
2035 Adjusted Base Flows

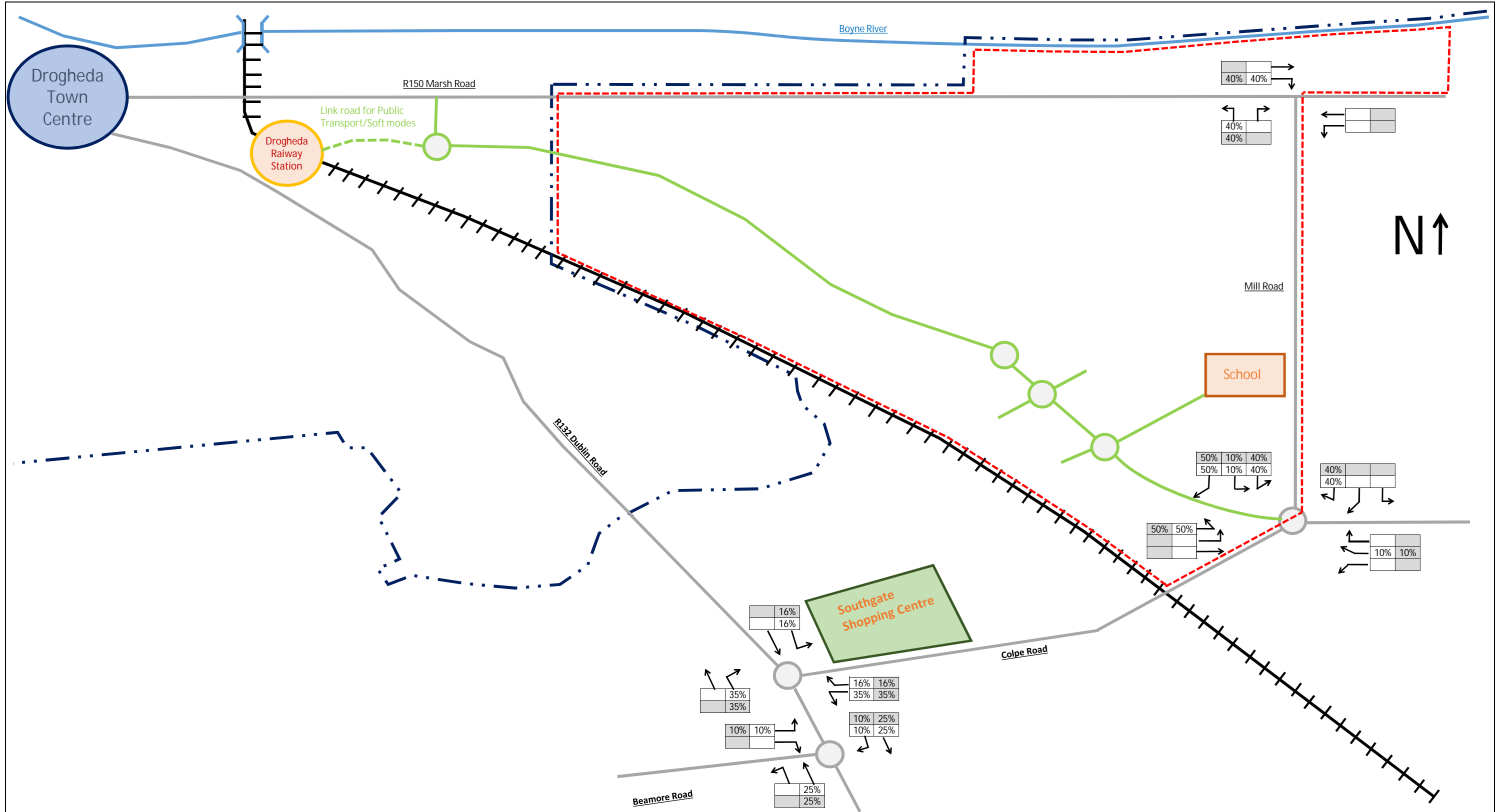
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	Ed:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	8		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Opening Year Trip Distribution
Residential Land use**

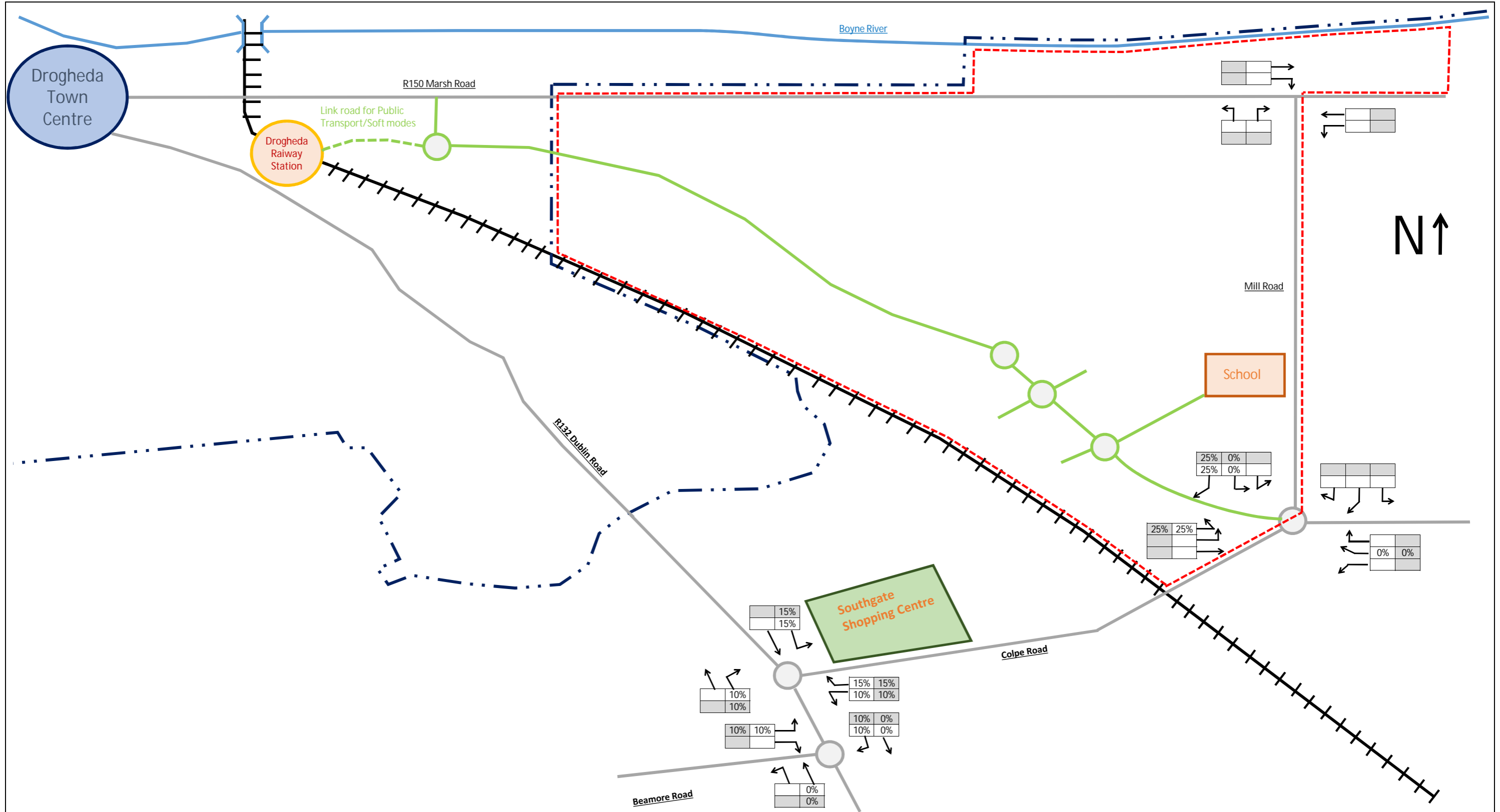
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9a		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Opening Year Trip Distribution
Educational Land use**

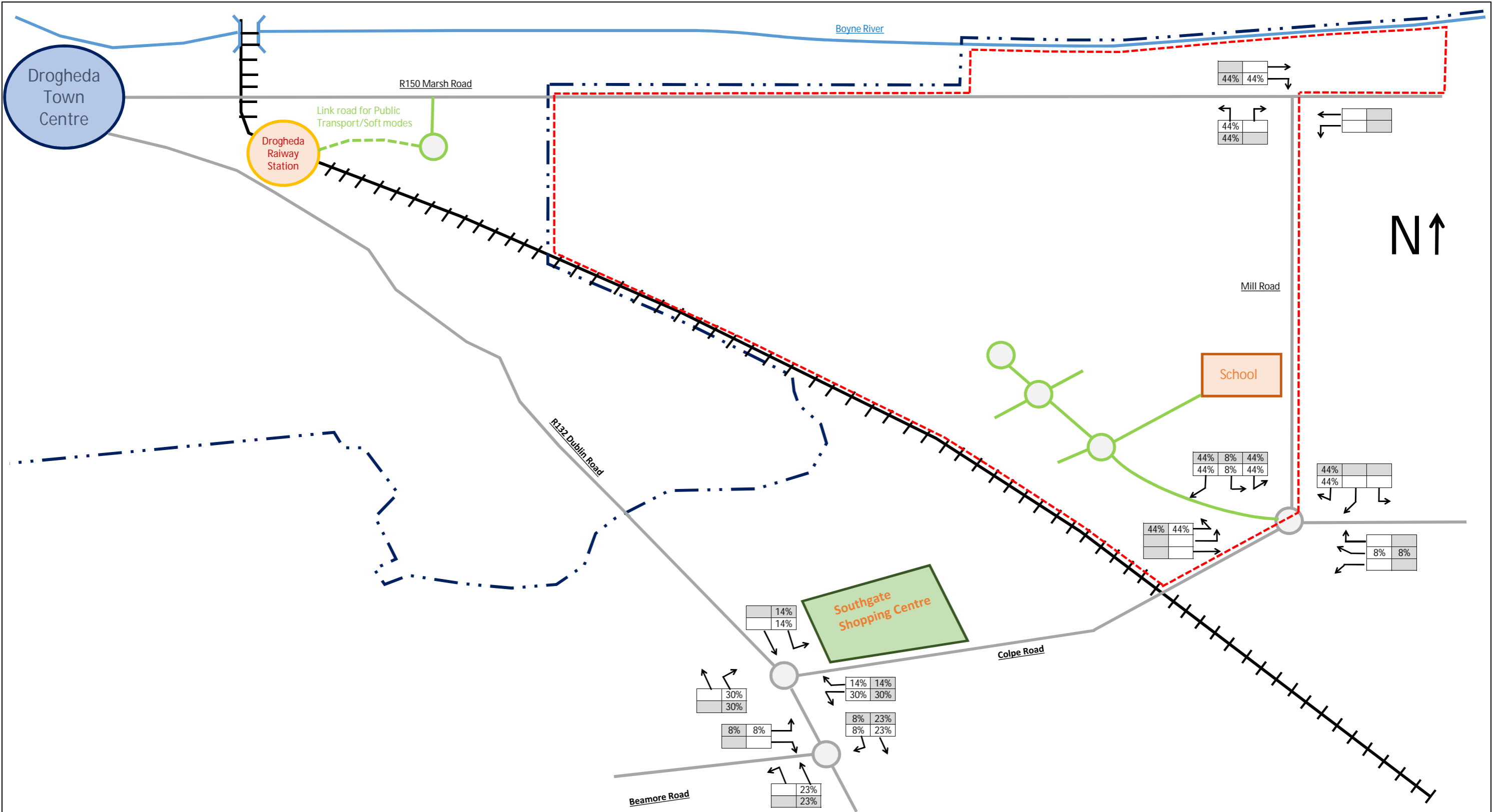
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
- + + + + Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9b		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Opening Year Trip Distribution
Employment Land use**

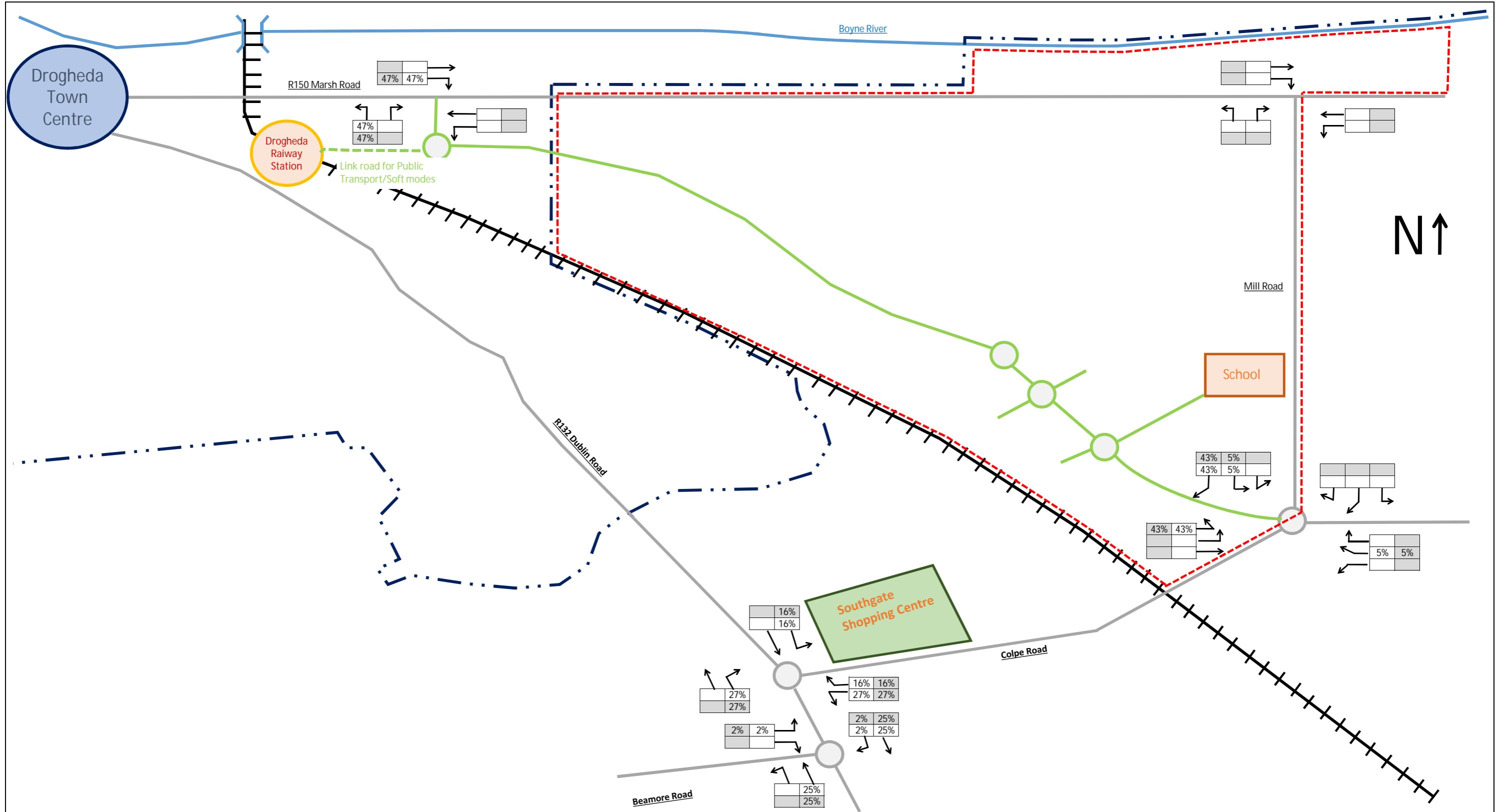
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	9c	Rev:	-	



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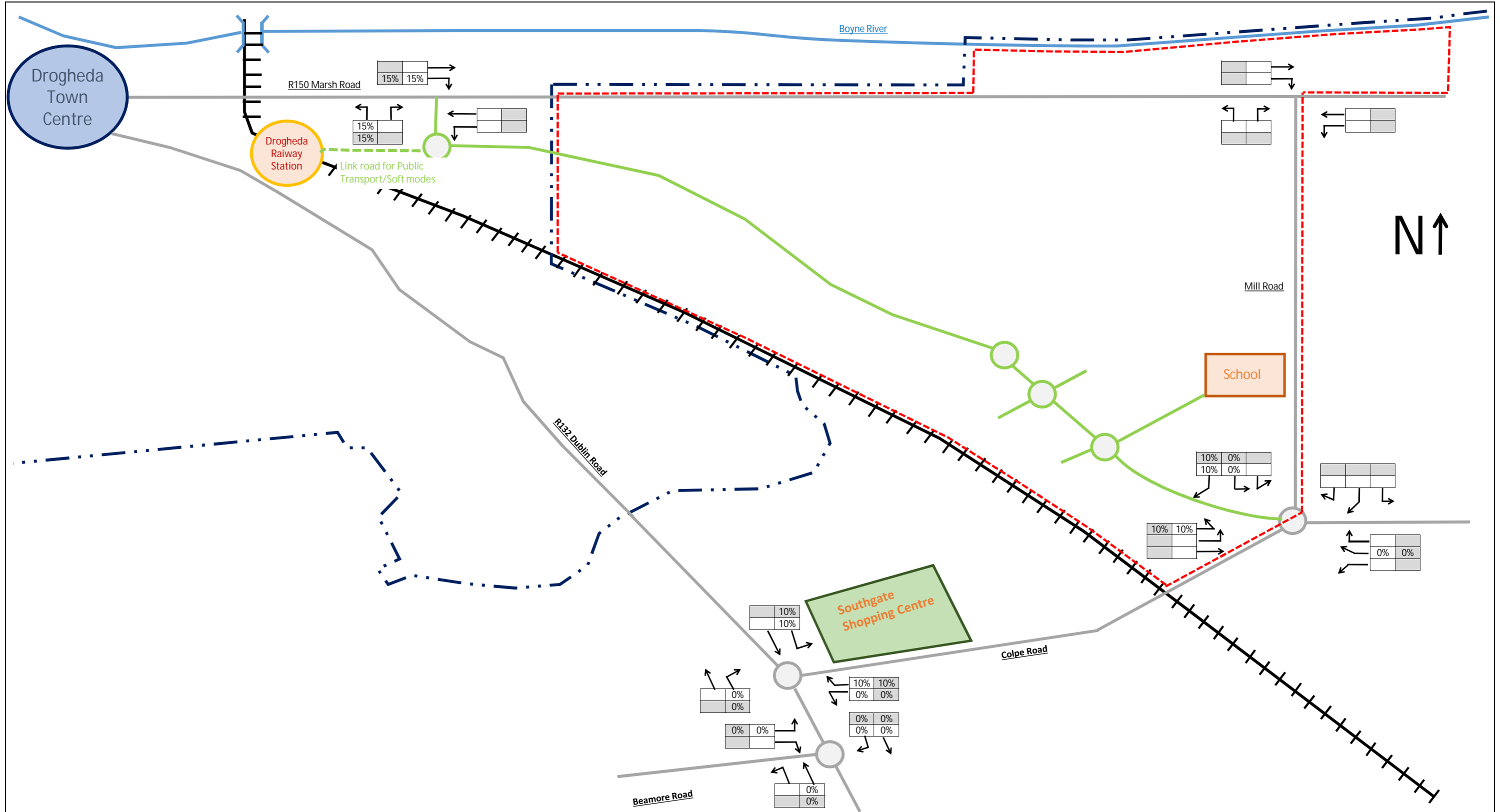
Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2025 Opening Year Trip Distribution
Residential Land use**

Key:
AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:
Louth Co. Council Boundary Line
Study Area Boundary Line
Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9d		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2025 Opening Year Trip Distribution
Educational Land Use**

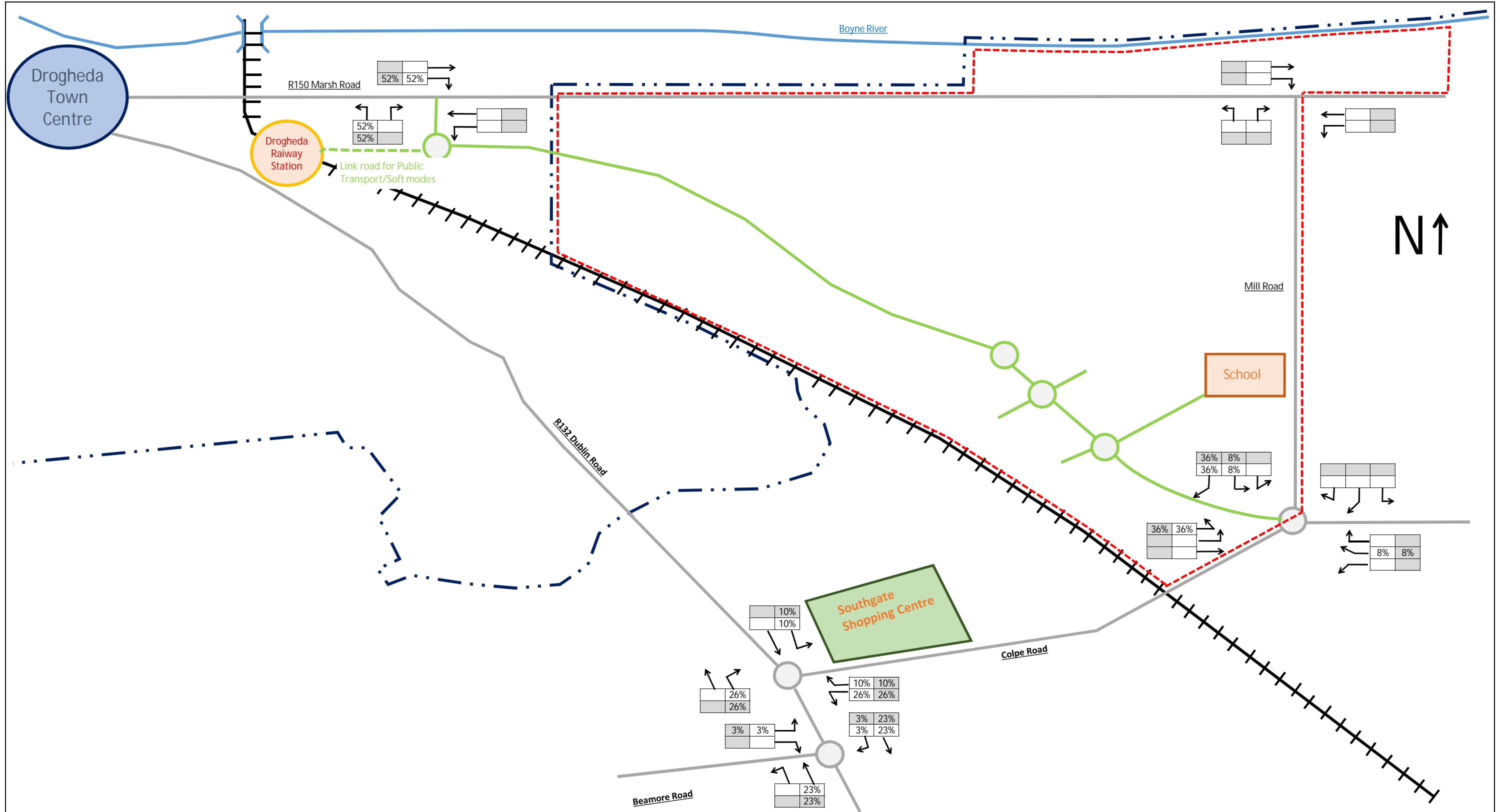
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9e		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2025 Opening Year Trip Distribution
Employment Land use**

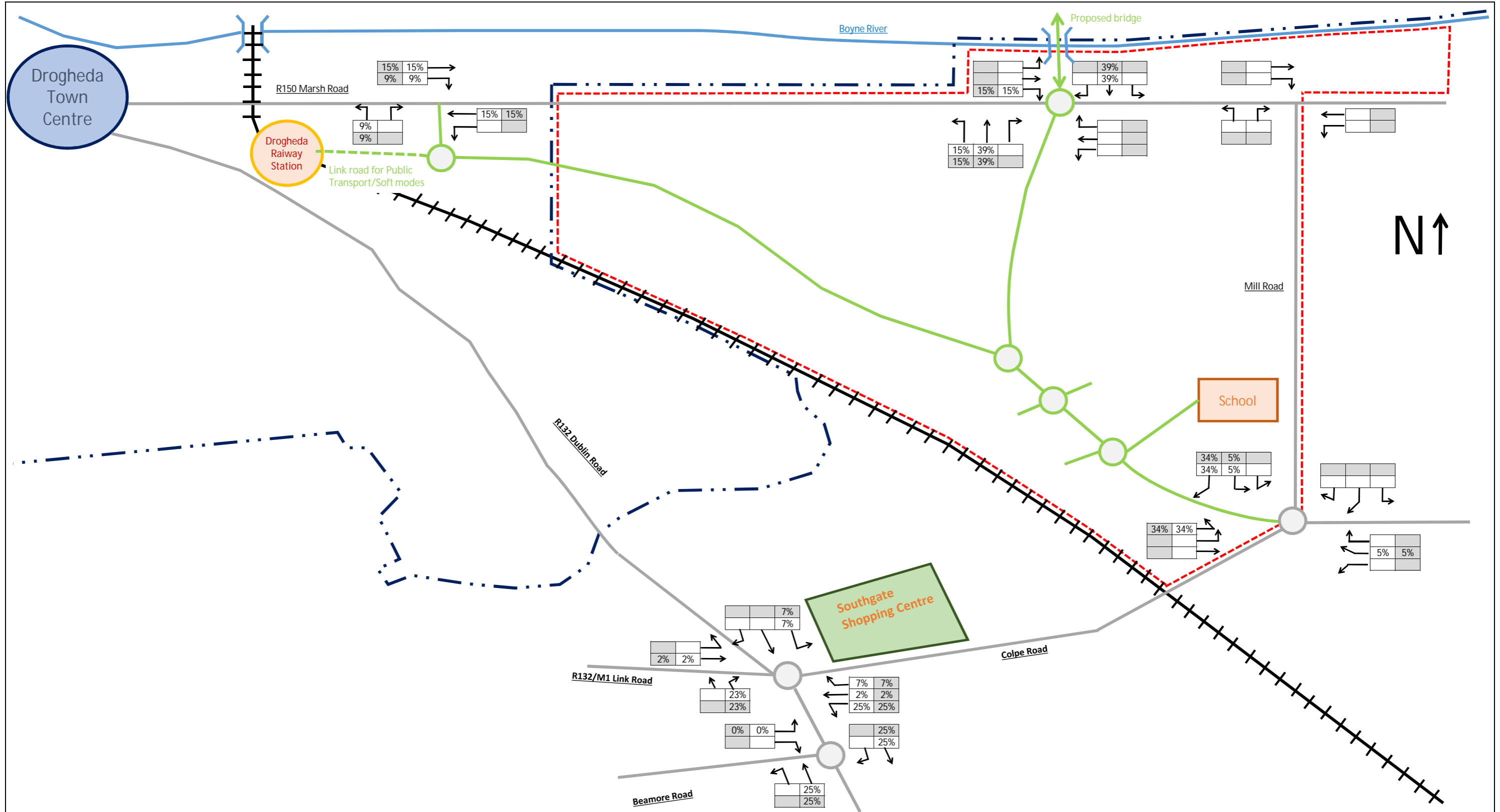
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
- ++++ Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9f		-		



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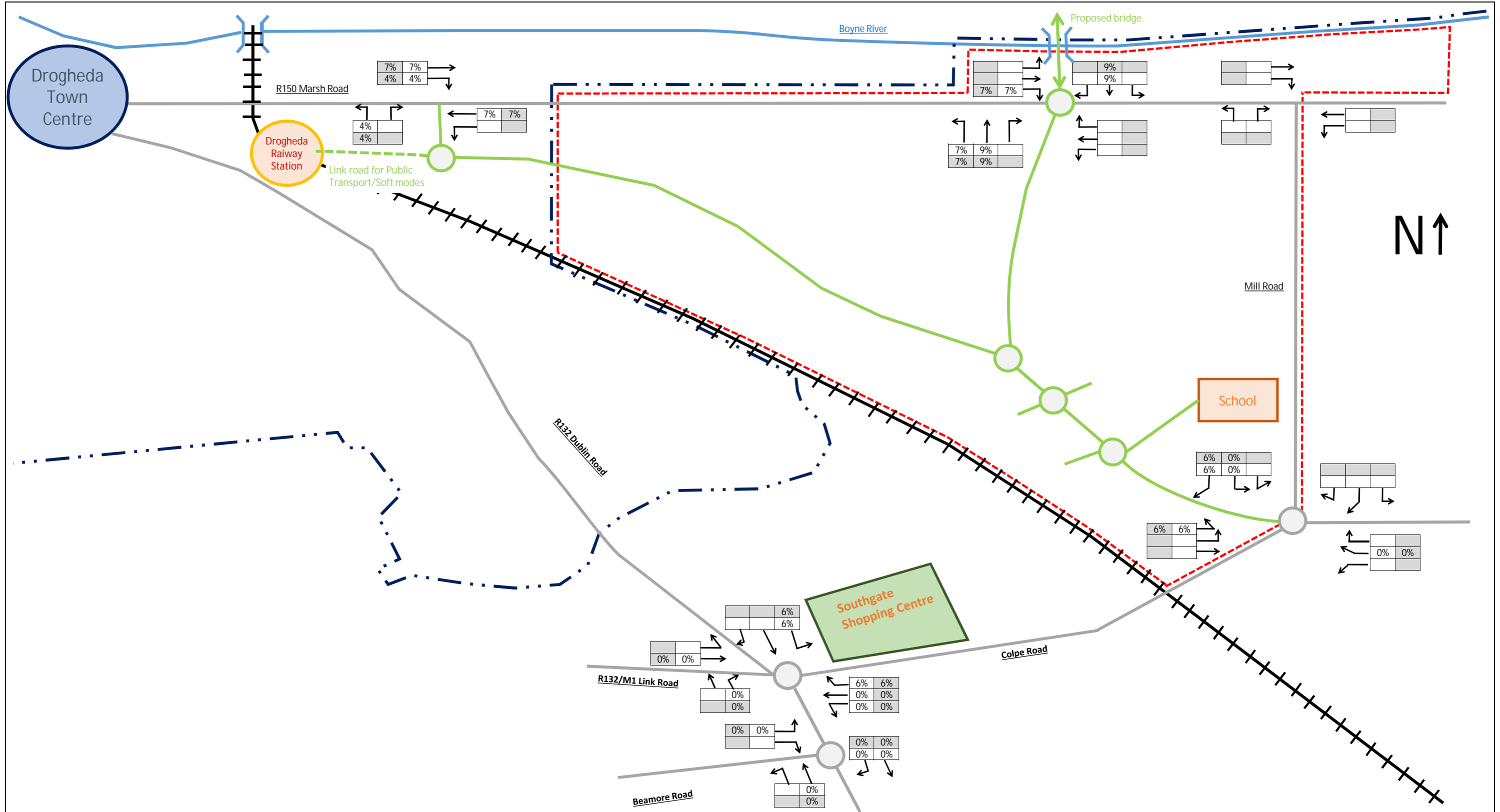
Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Opening Year Trip Distribution
Residential Land use**

Dwn: MMK
Ekd: RJK
Date: 23/08/2017

Ref:
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Figure:
9g



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Opening Year Trip Distribution
Educational Land use**

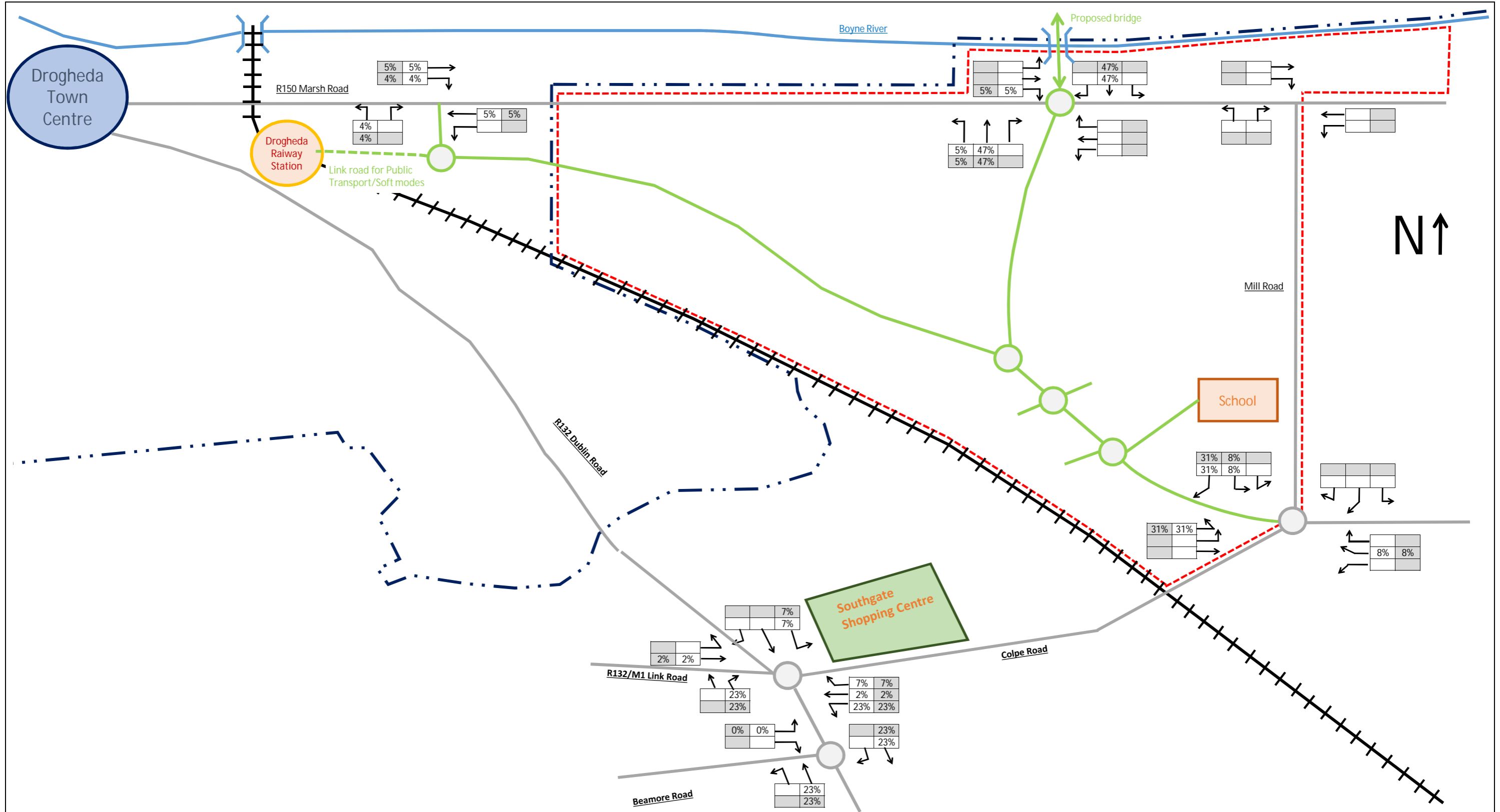
Key:

- AM Peak Hour (0830 to 0930)
- PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9h		-		



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2035 Opening Year Trip Distribution
Employment Land use

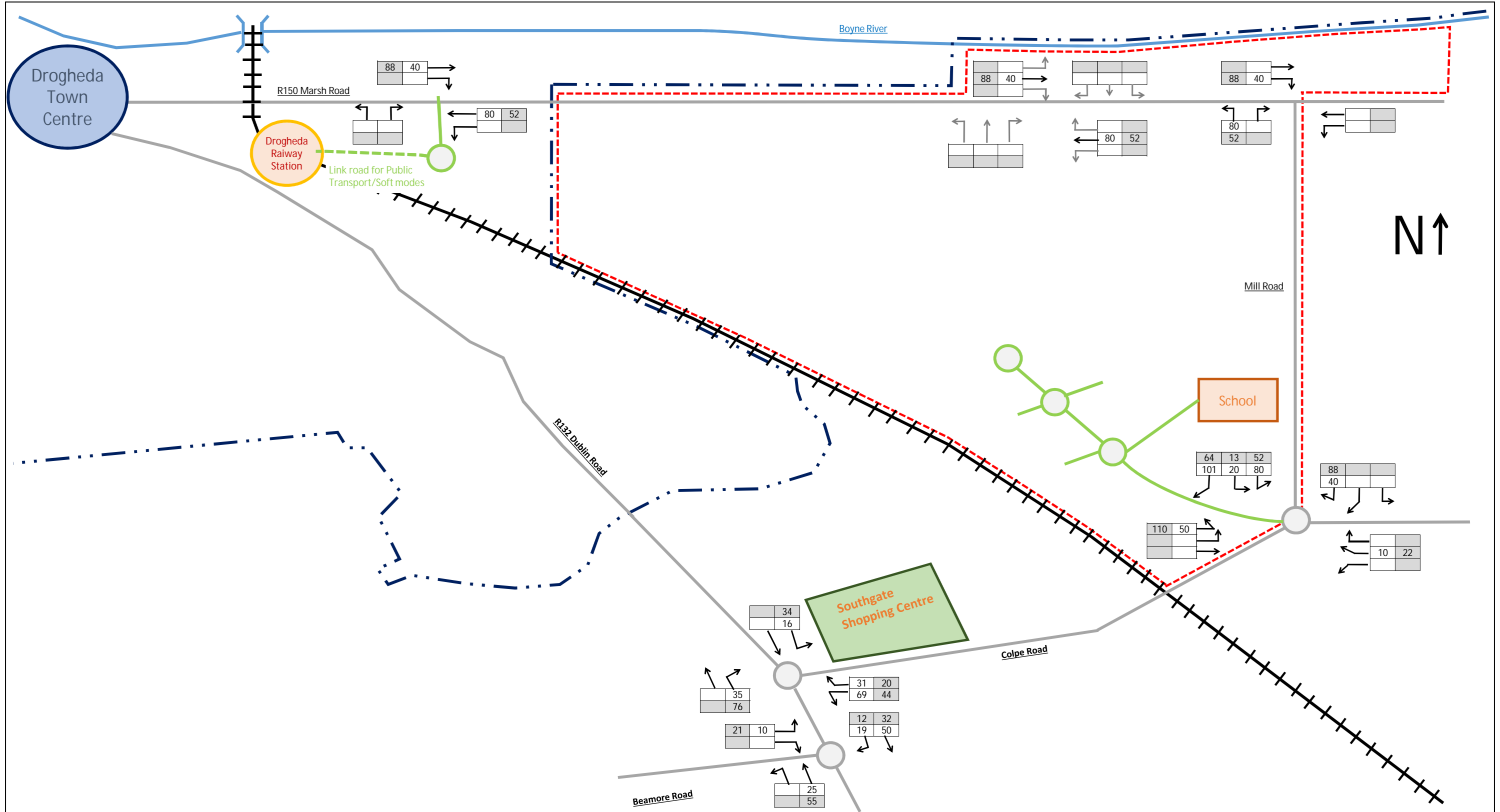
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	9j		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2020 Development Flows
Residential Land Use**

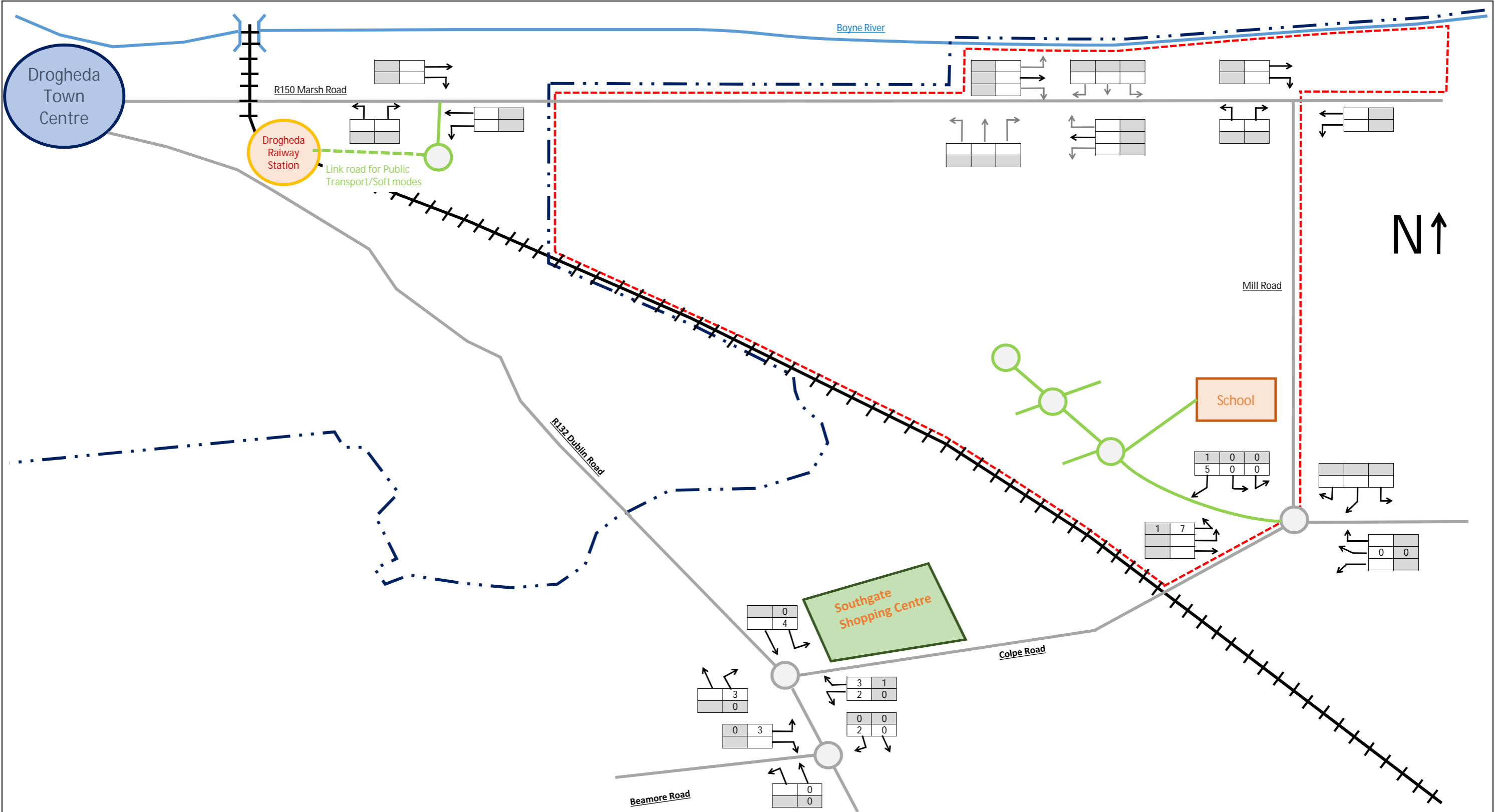
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10a		-		



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2020 Development Flows
Educational Land Use

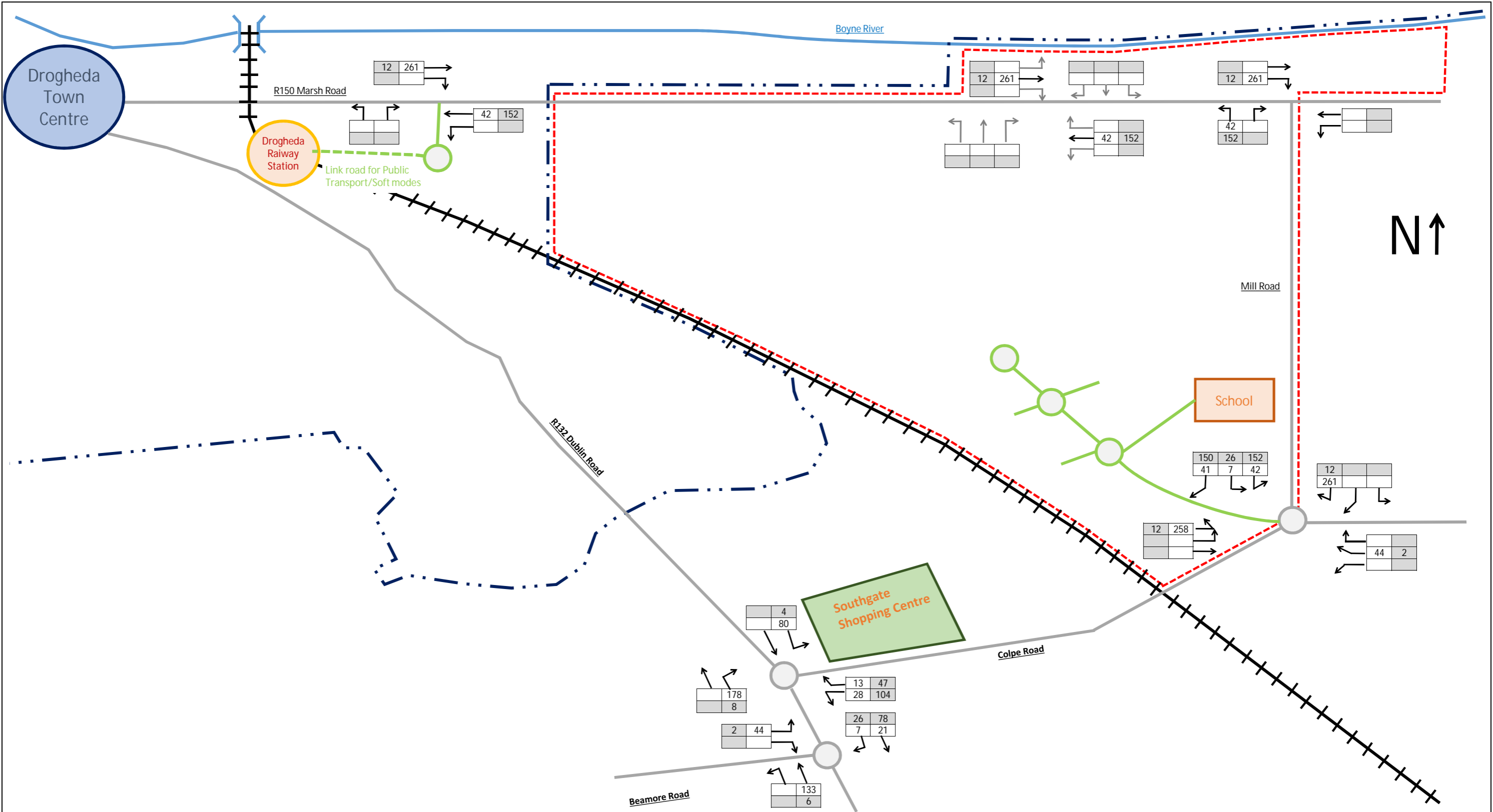
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

--- Louth Co. Council Boundary Line
- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10b		Rev:	-	



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Mill Road / Marsh Road Local Area Plan

DRG. Title :
2020 Development Flows
Employment Land Use

Key:

AM Peak Hour (0830 to 0930)

PM Peak Hour (1745 to 1845)

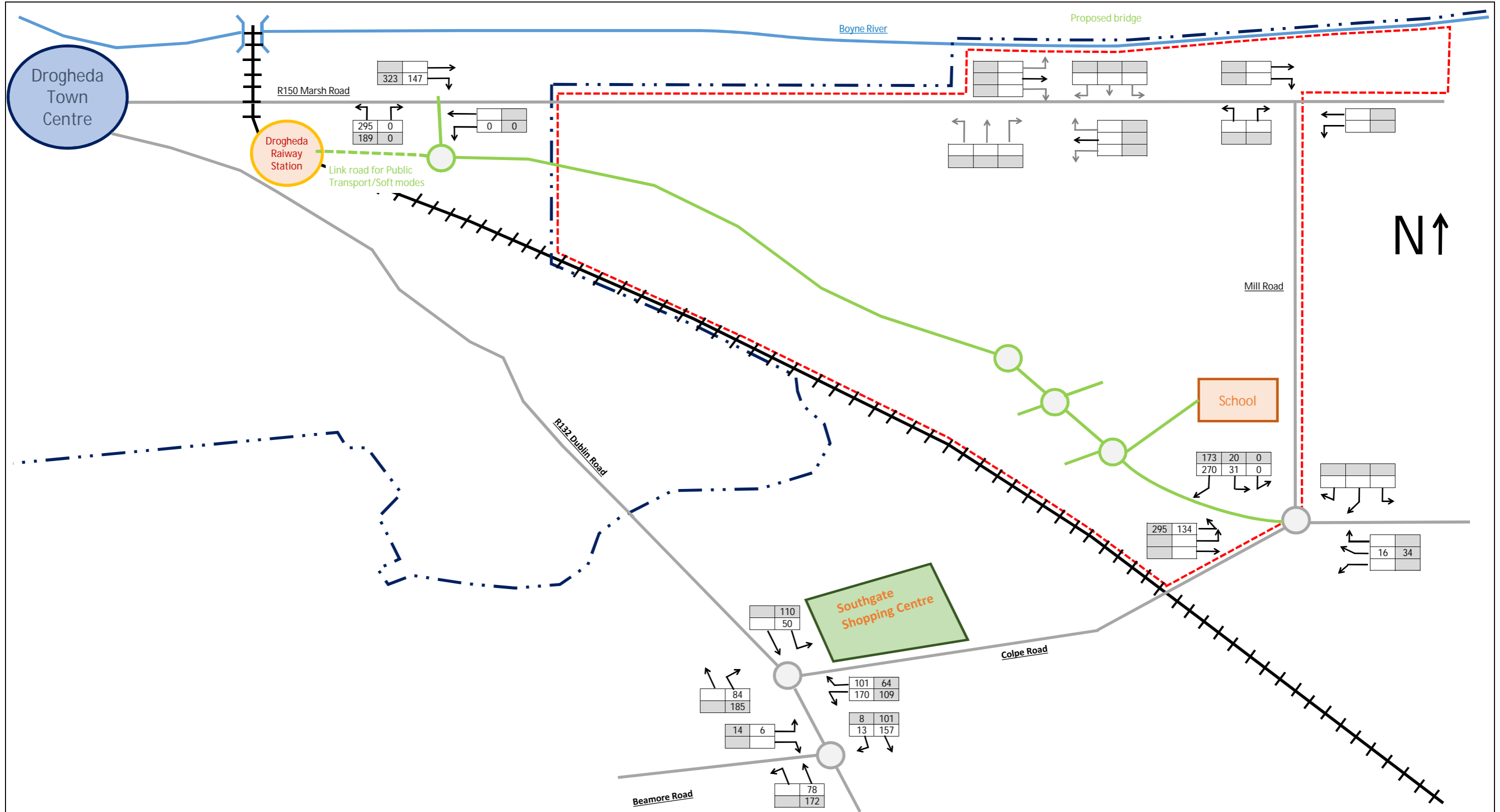
Legend:

Louth Co. Council Boundary Line

Study Area Boundary Line

Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10c		Rev:	-	



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Project :
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Mill Road / Marsh Road Local Area Plan

DRG. Title :
2025 Development Flows
Residential Land Use

Key:

AM Peak Hour (0830 to 0930)

PM Peak Hour (1745 to 1845)

Legend:

Louth Co. Council Boundary Line

Study Area Boundary Line

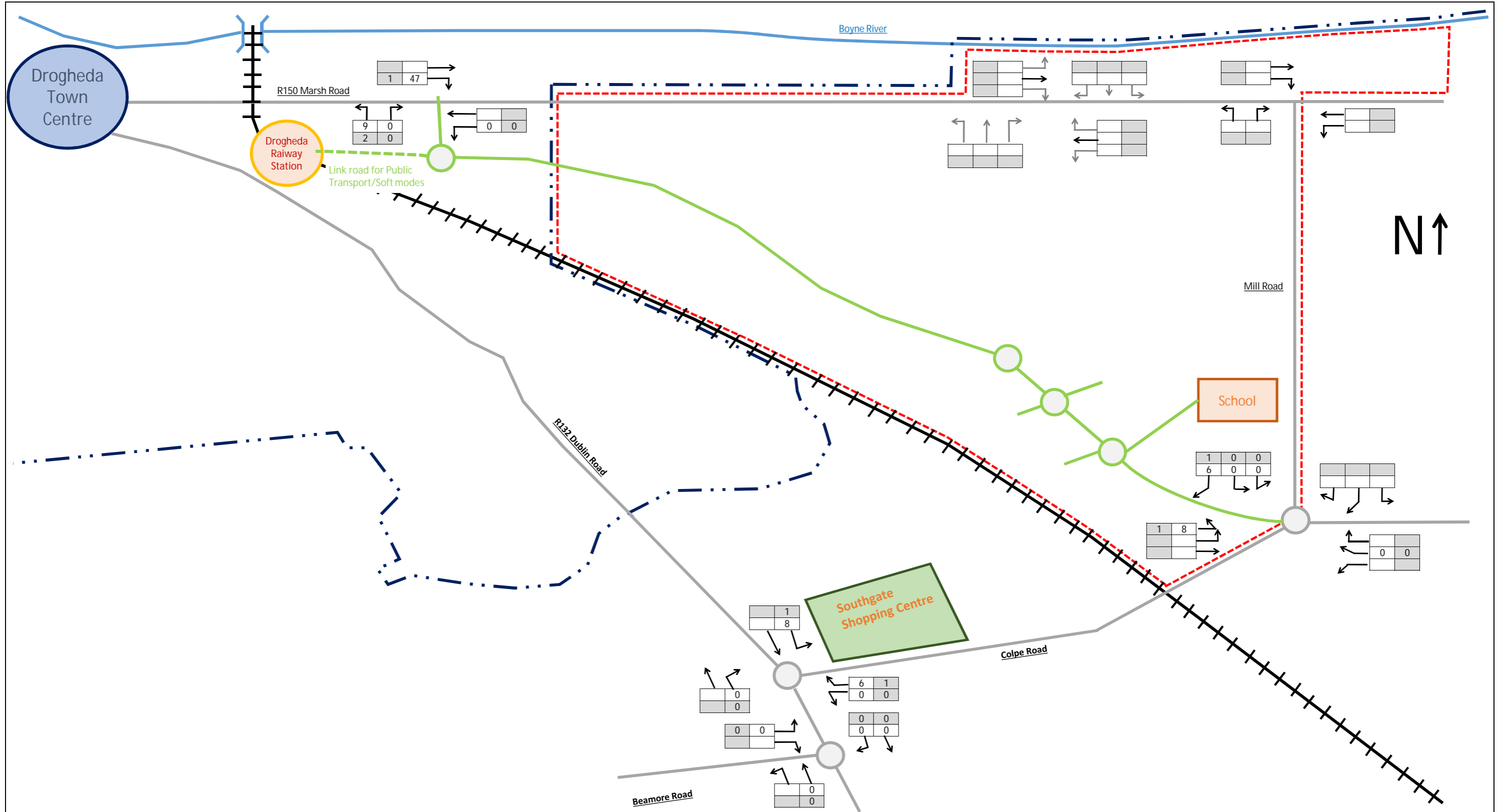
Railway Line

Dwn: MMK
Ckd: RJK
Date: 23/08/2017

Ref: G:\2017\p170092\calcs\excel\Traffic Model

Figure: 10d

Rev: -



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2025 Development Flows
Educational Land Use**

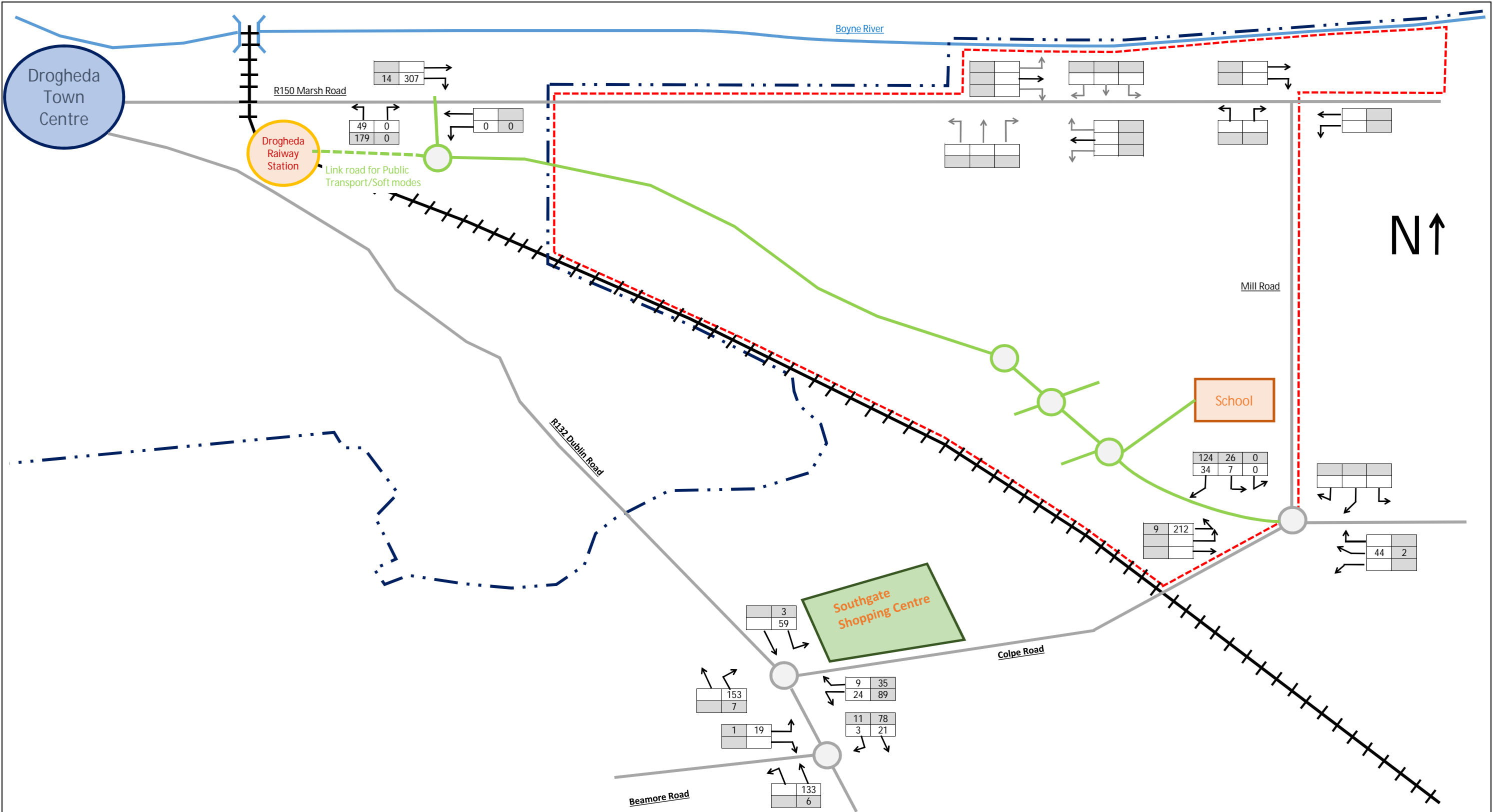
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10e		-		



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2025 Development Flows
Employment Land Use

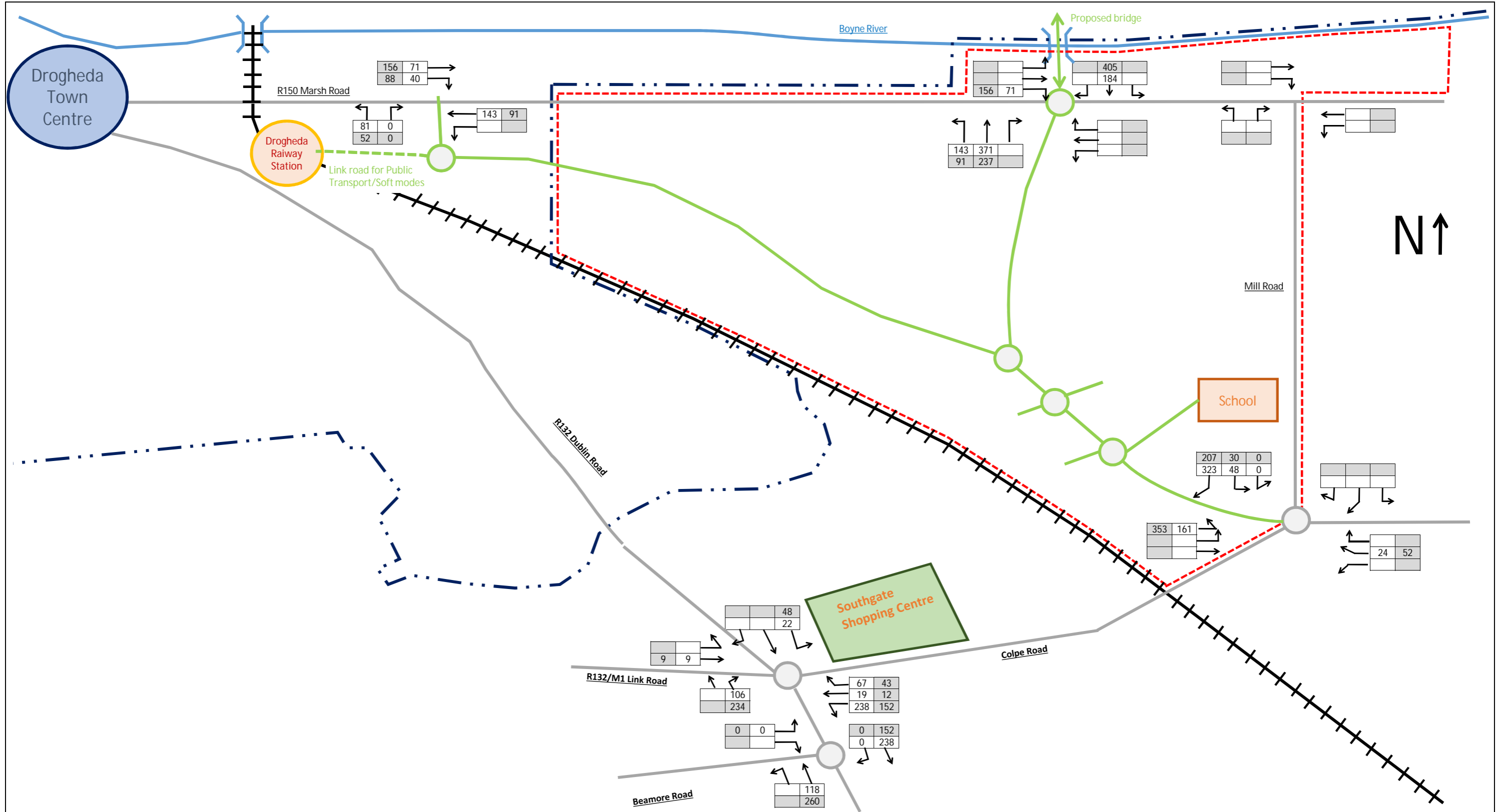
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10f		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Development Flows
Residential Land Use**

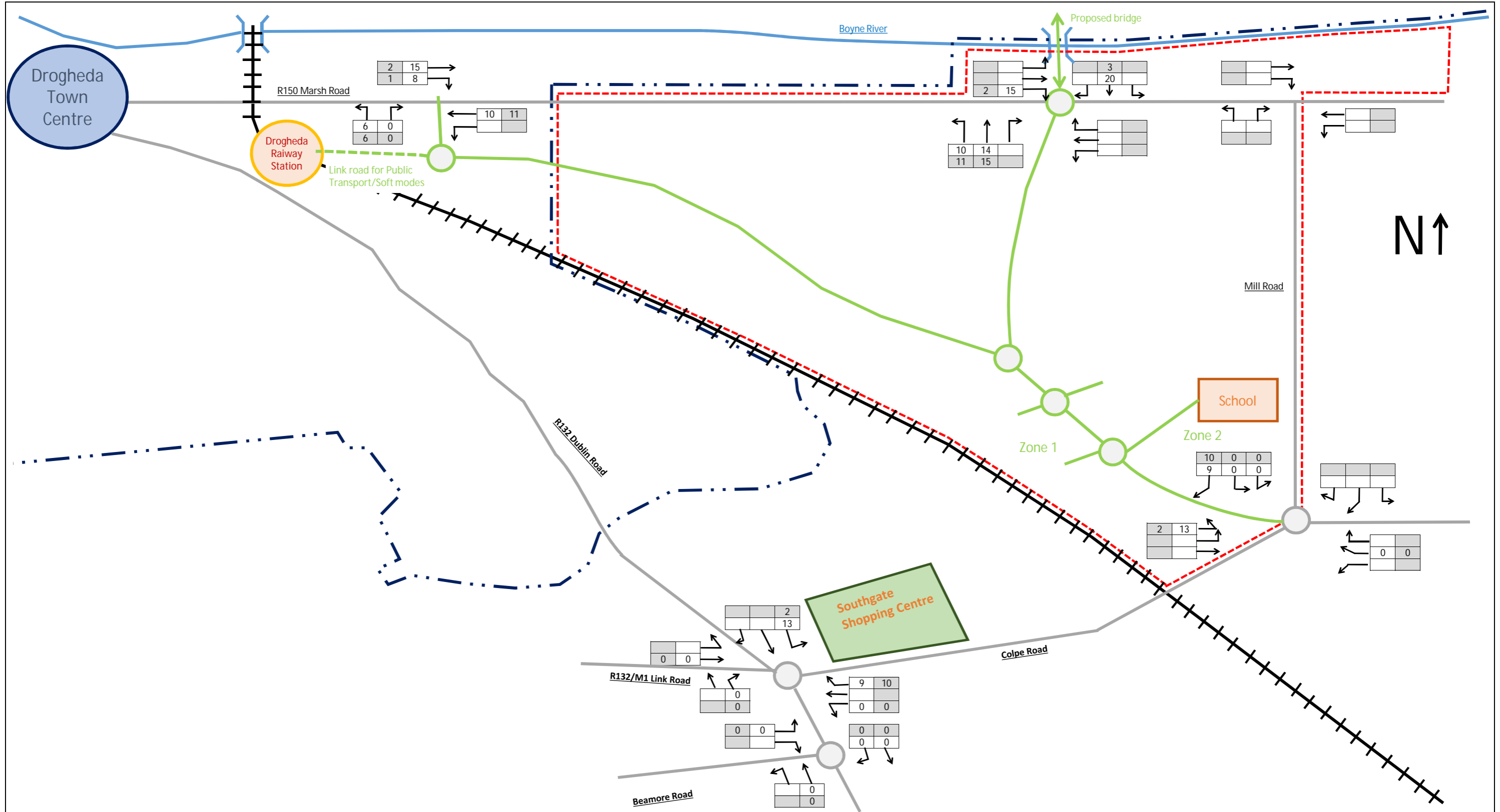
Key:

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- PM Peak Hour (1745 to 1845)

Legend:

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- Study Area Boundary Line
- Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	10g		Rev:	-



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
2035 Development Flows
School Land Use

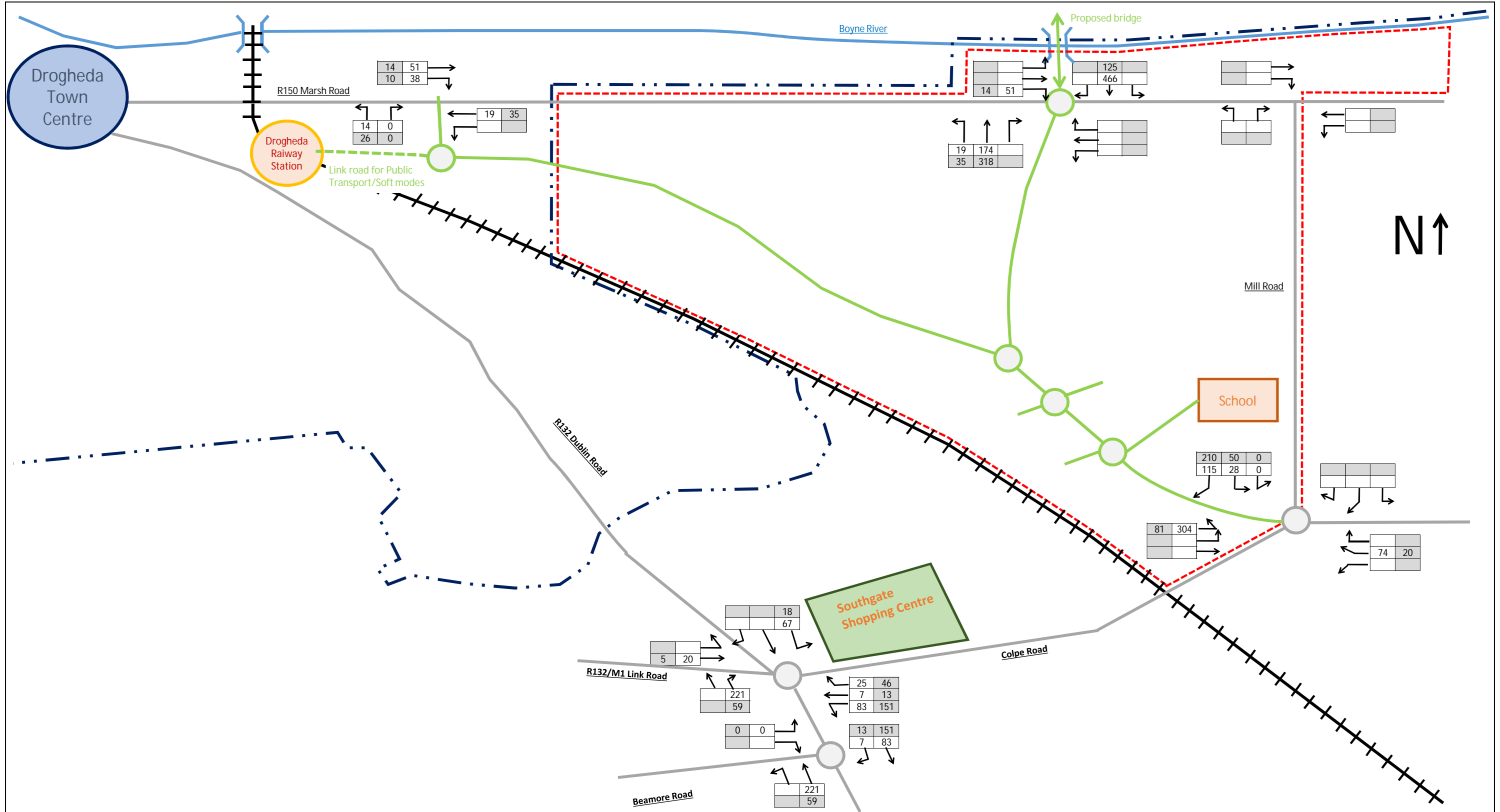
Key:

	AM Peak Hour (0830 to 0930)
	PM Peak Hour (1745 to 1845)

Legend:

	Louth Co. Council Boundary Line
	Study Area Boundary Line
	Railway Line

Dwn:	MMK	ckd:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10h		-		



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
**2035 Development Flows
Employment Land Use**

Key:

AM Peak Hour (0830 to 0930)

PM Peak Hour (1745 to 1845)

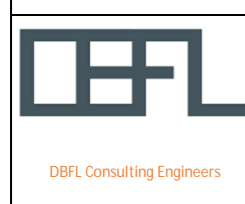
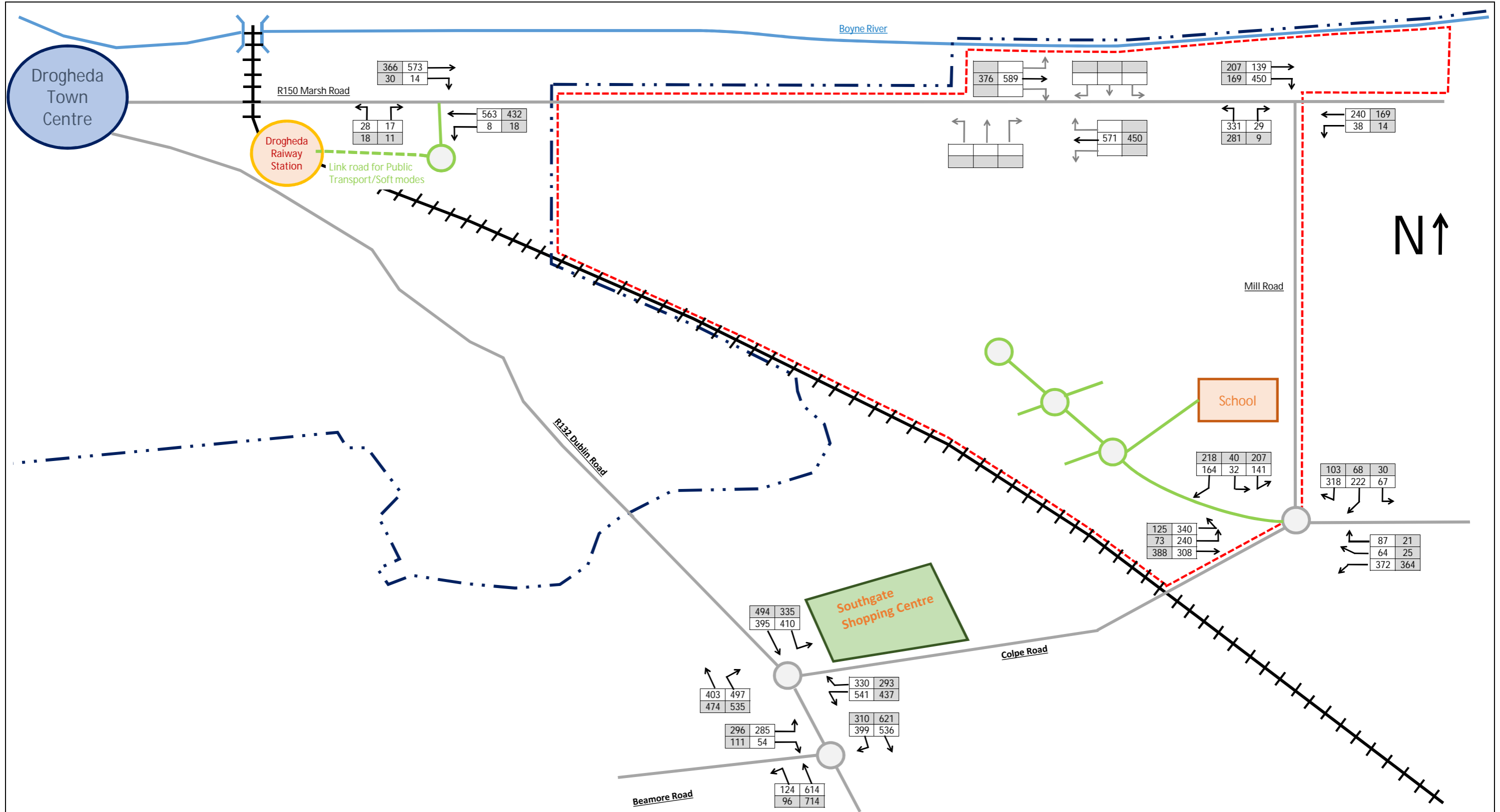
Legend:

Louth Co. Council Boundary Line

Study Area Boundary Line

Railway Line

Dwn:	MMK	Ed:	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model				
Figure:	10i		Rev:	-	



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Project :
**Local Framework Plan
Mill Road / Marsh Road Local Area Plan**

DRG. Title :
2020 Do Something

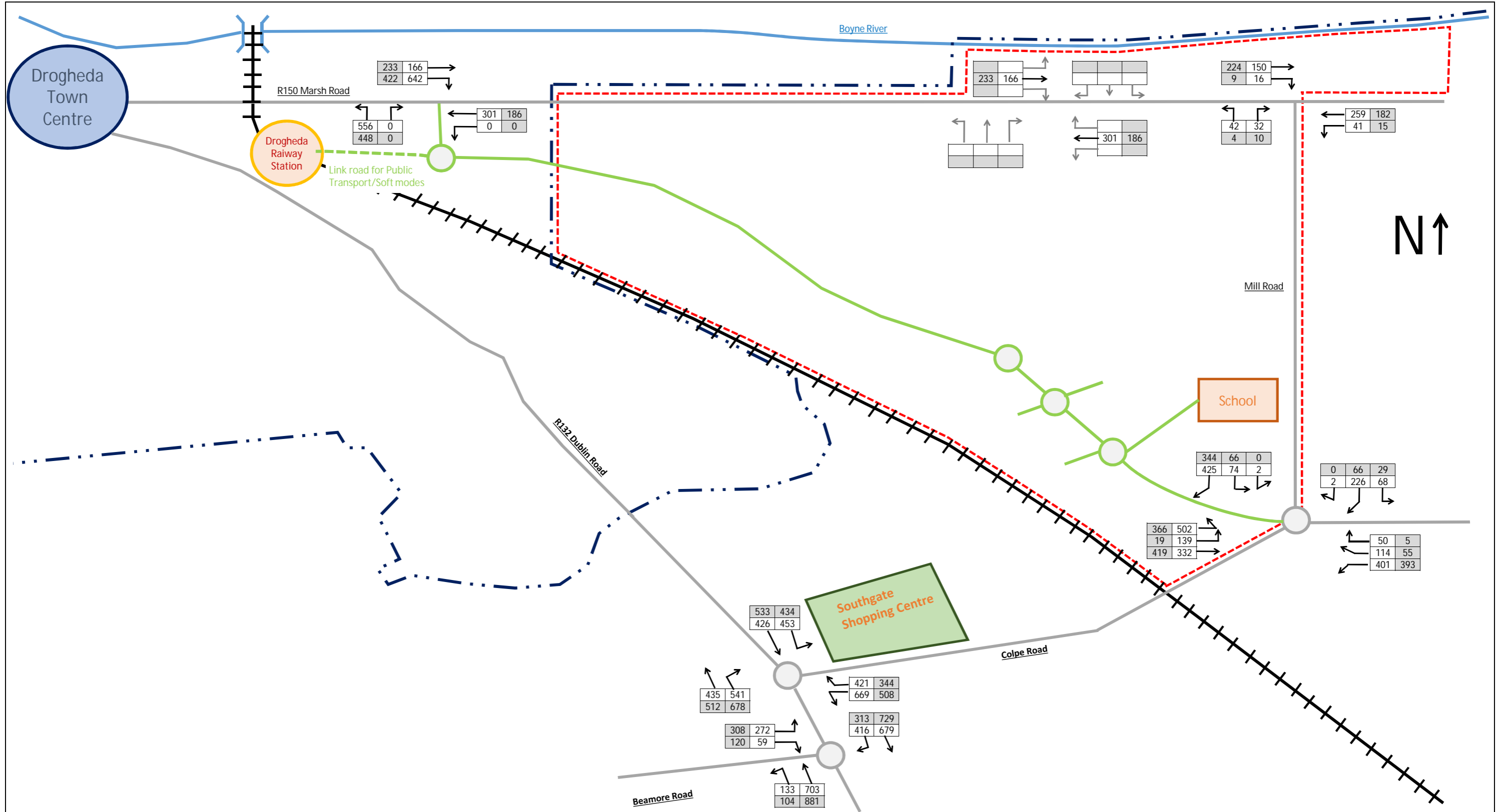
Key:

AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

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- - - Study Area Boundary Line
+ + + + Railway Line

Dwn:	skd:	Date:
MMK	RJK	23/08/2017
Ref: G:\2017\p170092\calcs\excel\Traffic Model		
Figure:	Rev:	
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Local Framework Plan
Mill Road / Marsh Road Local Area Plan

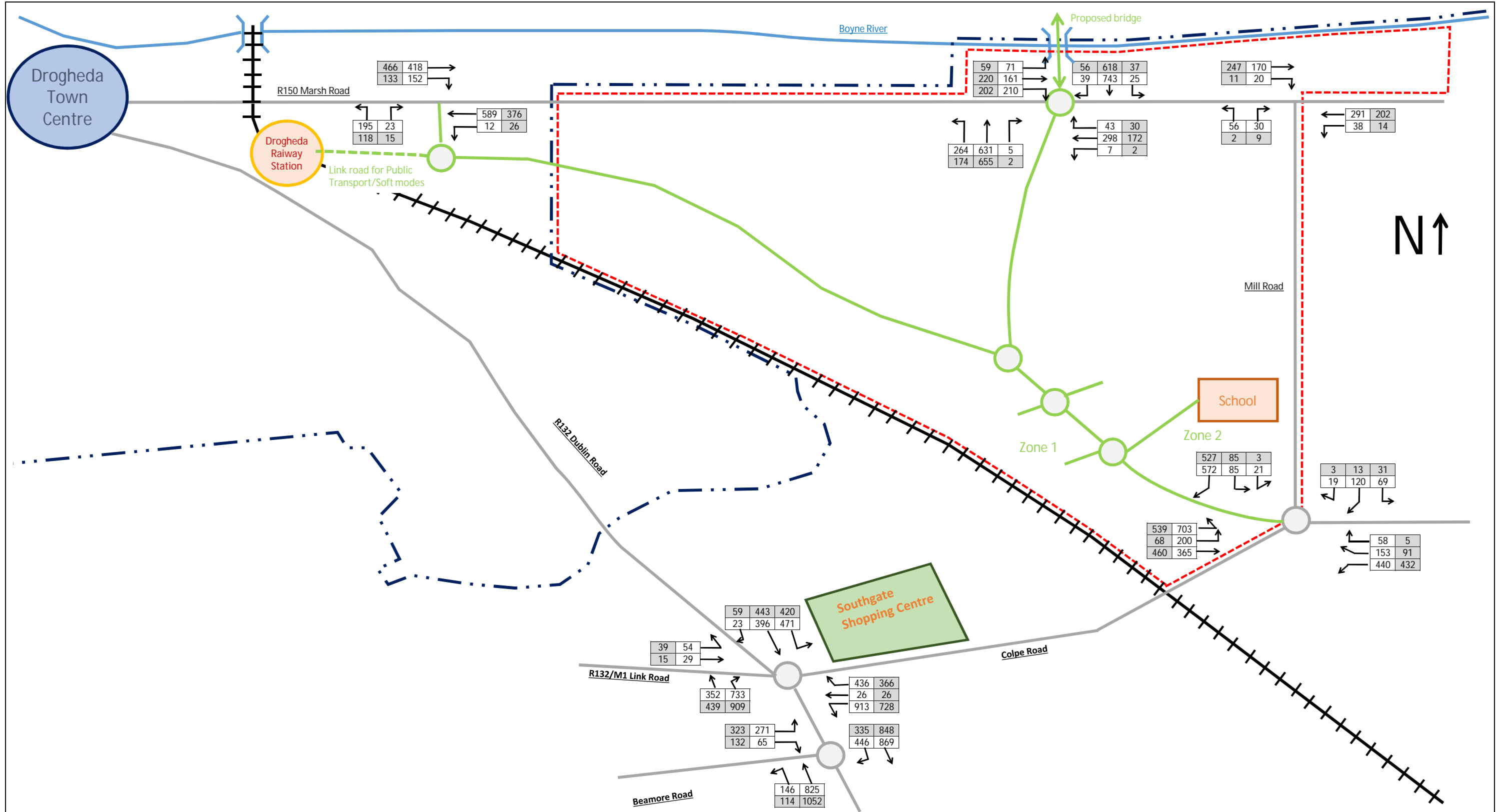
DRG. Title :
2025 Do Something

Key:
AM Peak Hour (0830 to 0930)
PM Peak Hour (1745 to 1845)

Legend:

- Louth Co. Council Boundary Line
- Study Area Boundary Line
- Railway Line

Dwn:	MMK	RJK	Date:	23/08/2017
Ref:	G:\2017\p170092\calcs\excel\Traffic Model			
Figure:	12	Rev:	-	



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Project :
Local Framework Plan
Mill Road / Marsh Road Local Area Plan

DRG. Title :
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 AM Peak Hour (0830 to 0930)
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Figure:	Rev:	
13	-	

Comhairle Chontae na Mí

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**Brian Hughes,
Brady Hughes Consulting,
26 Magdalene Street,
Drogheda,
Co Louth**

30th May 2018

**Re; Proposed development of a strategic employment use site at
Mill Road/Marsh, South Drogheda by Shannon Homes Drogheda Ltd.**

Transport Study

Dear Mr Hughes,

I acknowledge receipt of your letter dated 26th February 2018 regarding the development of lands at Mill Road/Marsh Road for strategic employment use and respond as follows.

The Transportation Study, dated 22/01/2018, was prepared to inform the development of the Urban Framework Plan for the Mill Road/Marsh Road land. The results of an assessment show that up to the horizon year of 2035, all roundabouts generally provide adequate capacity. It is noted that a signalled controlled junction may be required at the Colpe Rd/Mill Rd junction following the realisation of the bridge crossing over the river Boyne.

The Transportation Study acknowledges that both the Louth County Council Development Plan & the Local Area Plan (LAP) for the Southern Environs of Drogheda propose a bridge crossing over the River Boyne, linking the southern environs of Drogheda with the Port Access Northern Cross Route (PANCR). The design and feasibility of this bridge have yet to be explored in detail and in this regard it is not possible to finalise the Transportation Study to facilitate the development of both the Phase 1 and Phase 2 lands. The applicant proposes to address this by ensuring that development of the Phase 1 lands do not prejudice the eventual location of the proposed bridge. The northern tie in of the proposed link street with Marsh Road remains flexible until such time as the preferred location for the Boyne River crossing has been established.

Meath Co Council Transport Department hereby approves the Transportation Study for the purposes of developing Phase 1 of the site only, including the access roads, as defined in Section 7 of the report.

We trust that this is to your satisfaction.

Joe Mc Garvey
Senior Executive Engineer,
Transport Department.