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*meath county council*

# Meath County Council Dunshaughlin Public Realm Scheme

DMURS Quality Report

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**2040**



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CONSULTING ENGINEERS

# DUNSHAUGHLIN PUBLIC REALM SCHEME

## DMURS Quality Audit

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## 1.0 INTRODUCTION

### 1.1 DESCRIPTION OF THE SCHEME

#### 1.1.1 Background

TOBIN Consulting Engineers have been commissioned by Meath County Council to provide design consultancy services for the Dunshaughlin Public Realm Scheme. This DMURS Quality Audit report aims to assess the scheme from the perspective of the Design Manual for Urban Roads and Streets on aspects of safety, accessibility and streetscape. This project includes the provision of upgraded public realm facilities along the R147 Main Street in Dunshaughlin incorporating improved pedestrian permeability and active travel upgrades, pedestrian priority junction works, traffic calming. Pedestrian facilities along “The Dales” and an upgraded public space at the Dunshaughlin Courthouse.

Dunshaughlin lies within easy reach of Navan, and Dublin, being located in the southeast of County Meath. As a rapidly growing urban area experiencing significant population increases, it is important that Dunshaughlin maintains good transportation linkages to surrounding urban and rural areas, while also maintaining and enhancing its strong community roots. This will be a key factor in attracting future economic and residential populations and maintaining Dunshaughlin as an attractive location that builds upon the years of effort developing the pride of place associated with the town. The Main Street is recognised as a constrained route which caters for local and regional road traffic. Aside from the M3 motorway which bounds Dunshaughlin to the west, the R147 Main Street provides the only linkage north to south through the town currently. This traffic is a mixture of heavy goods vehicles (HGVs), bus and utility service vehicles, as well as regional and local car traffic. Traffic is observed as relatively significant and constant throughout the day, particularly at peak times with up to 12,000 AADT. The historical context of the R147 Main Street (previously N3) was its place along the main connection route of Dublin – Navan – Cavan and The North. This is still in evidence emphasised by the vehicular priority through which the R147 is still built upon.

The introduction of improved active travel provisions, improved pedestrian permeability and junction upgrades, would assist in shifting priority in the town centre towards vulnerable road users. These works, in conjunction with a regenerated street scape, would enhance the town centre as an area to live and do business. These works will create improved access for all vulnerable road users to access the existing bus services in a safe and comfortable manner, which will encourage use of the service.

#### 1.1.2 The Scheme

The proposed development will consist of:

- Amendments to the junctions between the R147 Main Street and ‘The Dales’ side road
- Amendments to the junctions between the R147 Main Street and ‘The Bungalows’ side road
- Amendments to the junctions between the R147 Main Street and ‘Supple Park’ side road
- Streetscape upgrades along the R147 Main Street
- Streetscape Upgrades along The Bungalows side road
- Active Travel Upgrades along the Dales and Main Street
- Rationalising of on-street parking provision
- All associated ancillary highway works relevant (drainage, utilities, public lighting, KFLPA, signs and lines and pavement design).

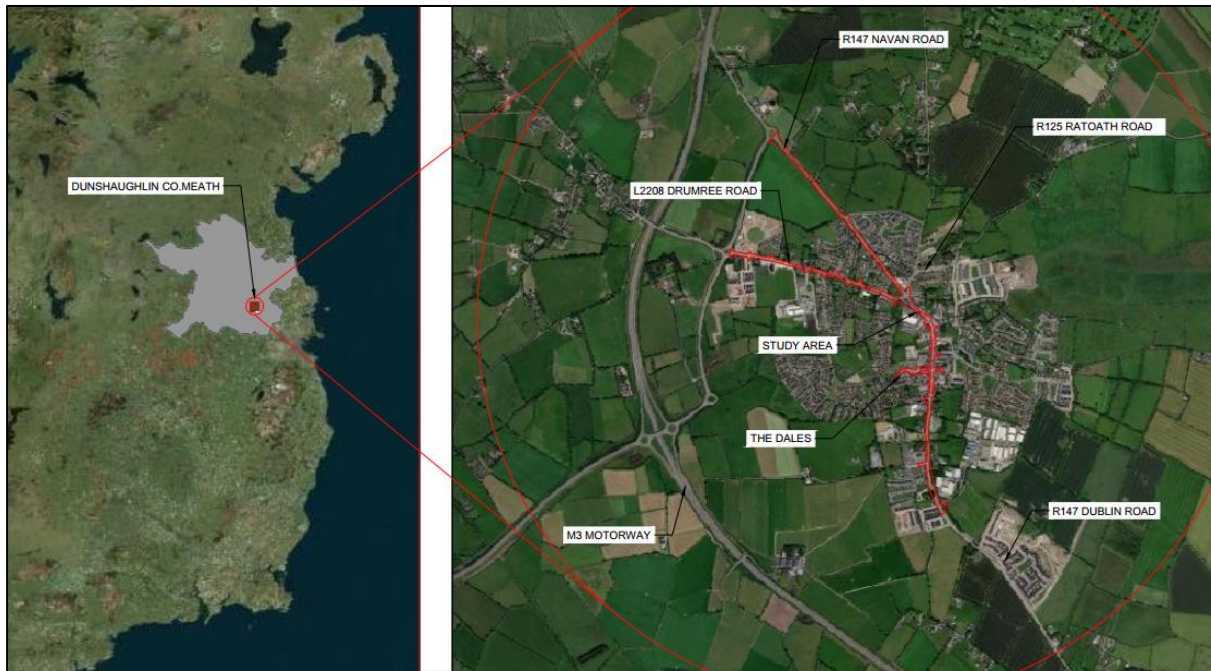


Figure 1-1: Location and aerial view of Dunshaughlin Co. Meath. Google Map imagery © 2021

## 2.0 QUALITY AUDIT

Quality Audit is a defined process, independent of, but involving, the design team that, through planning, design, construction and management stages of a project provides a check that high quality places are delivered and maintained by all relevant parties, for the benefit of all end users. Quality Audit is a process, applied to urban roads, traffic management or development schemes, which systematically reviews projects using a series of discrete but linked evaluations and ensures that the broad objectives of place, functionality, maintenance and safety are achieved.

Quality Audit was introduced in the publication Design Manual for Urban Roads and Streets following concerns that in the design of new streets provisions made for motor vehicles frequently led to a poorly-designed public realm. In an urban area there is a high level of competing demand from different classes of road users. A well-balanced street should have minimal visual clutter and obstacles; incorporating durable materials and most importantly, will encourage a degree of negotiation between road users as they make their way through it.

Quality Audit involves various assessments of the impacts of a street scheme in terms of road safety, visual quality and the use of streets by the community. Access for people with additional needs, pedestrians, cyclists and drivers of motor vehicles is considered.

In the context of a Quality Audit, a road safety assessment is considered to be an appropriate method of examining road safety issues as it incorporates both the hazard identification techniques used in road safety audit (RSA) and formal risk assessment techniques. This allows the opportunity at an early stage for road safety issues to be considered in a more dynamic way within the design process, and to ensure that safety issues are considered as part of the design rather than after design work is completed.

The Quality Audit Team reports findings with suggestions for future action. It should be noted that, in a Quality Audit, it is not the intention that suggestions would be binding on the design team; they are offered for detailed consideration in the design process.

DMURS states that Quality Audits should consist of the following parts:

- DMURS Street Design Audit
- Individual Design Audits
- Quality Audit Report

In the case of this report the individual design audits comprise an RSA, an Integration & Accessibility audit, a Walkability audit and Cycle audit.

### 3.0 METHODOLOGY

The Design Audit Team for the Quality Audit (Independent of the Road Safety Audit Team – Outlined in Chapter 5) was as follows:

- Ronan Murtagh           Chartered Engineer MIEI
- David McHugh           Associated Engineer MIEI

Road safety, non-motorized users, visual quality, people with additional and functionality were considered in the Quality Audit. This exercise focused on issues such as:

- the design rationale as it related to vehicle, cycle and pedestrian movements;
- pedestrian desire lines both to and through the site;
- access requirements for all modes of transport;
- access requirements for disabled people and other vulnerable users;
- any road safety concerns associated with the scheme;
- the visual appearance of the scheme as it is experienced by those entering it and moving around within the street, including how this affects road user behavior; and
- any other issues considered relevant to each constituent element of the Quality Audit process.

Multiple Site Visits have been carried out by the Audit Team to enable the generation of the Quality Audit and the individual audits within. These site visits included:

- Assessment of existing infrastructure for Walkability, Accessibility and Cycle Audit

The documents provided for the audit were:

Drawing Number	Drawing Title
11514-2000	Overall Site Location
11514-2001	Site Layout
11514-2002	Typical Cross Sections
11514-2005 to 2006	Geometric Plan & Profiles
11514-2007 to 2009	Site Clearance
11514-2010 to 2012	Fencing & Boundary Treatments
11514-2015 to 2017	Drainage
11514-2020 to 2022	Kerbing and Paved Areas
11514-2025 to 2028	Pavement & Details
11514-2030 to 2032	Traffic Signals, Signs & Road Markings
11514-2034 to 2036	Public Lighting
11514-2038 to 2040	Landscaping

Copies of these audited drawings are contained in Appendix B of the Part 8 Particulars.

In accordance with DMURS Advice Note No. 4 May 2019 (contained on <https://www.dmurs.ie/supplementary-material>) a Quality Audit should always contain a DMURS Street Design Audit and Other Design Audits (as required). Section 4 of this report contains the Street Design Audit and Section 5 contains the Other Design Audits (Road Safety, Walking, Cycling, Accessibility). The Street Design Audit is in the format provided as a template on the DMURS website.

## 4.0 STREET DESIGN AUDIT

The use of DMURS in urban areas is mandatory and the DMURS Street Design Audit is an auditing tool that can be used to ensure that the relevant issues contained within DMURS have been duly considered.

The DMURS Street Design Audit is primarily concerned with four major aspects of street design:

- Connectivity
- Self-Regulating Street Environment
- Pedestrian and Cycling Environment
- Visual Quality

The Street Audit focuses on ensuring a place based / integrated approach to design has been incorporated and based around 4 core principles:

1. To support the creation of integrated street networks which promote higher levels of permeability and legibility for all users, and in particular more sustainable forms of transport. – DMURS Chapter 3
2. The promotion of multi-functional, place based streets that balance the needs of all users within a self-regulating environment – DMURS Chapter 4
3. The quality of the street is measured by the quality of the pedestrian environment – DMURS Chapter 4
4. Greater communication and co-operation between design professionals through the promotion of a plan-led, multidisciplinary approach to design – DMURS Chapter 5

The DMURS Street Design Audits consists of a series of short tables that can be used to cross check a design against the principles, approaches and standards contained within DMURS. In doing so, it should be clear that:

- The issue is relevant or not relevant.
- The issue has been considered in accordance with the principles of DMURS.
- The issue is addressed in a more detailed design audit (see Section 3.2)
- The relevant approach or standard has been applied.
- Or if not, why not, and what mitigation measures have been applied (i.e. what is the alternative solution).

The Street Design Audit for the Dunshaughlin Public Realm Scheme has been carried out using the template as provided from [www.dmurs.ie](http://www.dmurs.ie) and is shown below

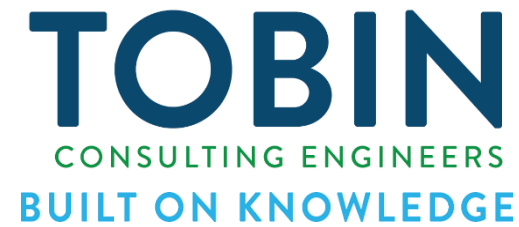


# Design Manual for Urban Roads and Streets

## Street Design Audit

Prepared in respect of: *{Dunshaughlin Public Realm Scheme}*

Prepared by: *{TOBIN Consulting Engineers}*



Date: *{23/06/2023}*

## Connectivity & Connected Networks

Key Issues	Key Reference. DMURS	Design Response
Strategic routes/major desire lines have been identified and are clearly being incorporated into the design.	<p>3.1 - Integrated Street Network</p> <p>3.2.1 - Movement Function</p> <p>3.3.1 - Street layouts</p> <p>3.3.4 - Wayfinding</p>	<p>Current Infrastructure segregates the town between east and west sides of the main street and does not provide infrastructure for crossing the R147 at key pedestrian desire lines around the R147 / The Dales and R147 / The Bungalows junctions.</p> <p>The Scope of the project is to provide updated junction arrangements that provide multiple controlled crossing points along the R147, including a signalised crossing at the R147 / The Dales to help significantly improve permeability.</p> <p>Improvements to alleyways off main street and courthouse will also improve wayfinding and movement function while new continuous footways along the westbound side of “The Dales” creates a more integrated street network.</p> <p>Proposed cycleways along the R147, removal of the right turn pocket at “The Bungalows” and inclusion of raised tables with coloured surface will re-prioritise the street away from being heavily vehicular focused and promote active travel and ability to access bus routes.</p>
Improvements to points of access are provided to the	<p>3.3.1 - Street Layouts</p> <p>3.3.3 - Retrofitting<sup>1</sup></p>	<p>Improvements to existing alleyway off main street and courthouse will improve wayfinding and movement function while new continuous footways along the westbound side of “The Dales” will create a more integrated street network.</p>

<sup>1</sup> When connecting with existing communities a detailed analysis and extensive community consultation should be carried out to identify the optimal location for connections (refer also to the NTA Permeability in Existing Urban Areas: Best Practice Guide).

<p>site/place, in particular for sustainable modes.</p>		<p>The proposed design also removes the right turn pocket at “The Bungalows creating a more pedestrian friendly junction with new crossing points at the adjoining residential area and will discourage its use to vehicles as a rat run to the Lagore Road. Raised tables will help control speed and enable safer access to the R147.</p> <p>Upgrading of the R147 / The Dales Junction to a signalised junction will similarly improve pedestrian points of access between the east and west sides of the main street whilst also providing significantly improves means of egress and access to turning vehicles.</p> <p>Retrofitting active travel infrastructure in the form of segregated cycleways within the study area will also provide development of other sustainable modes of transport and future connection to the wider infrastructure already in place.</p> <p>The scheme will also include the retrofitting of a new continuous segregated footway along the westbound side of “The Dales” improving the quality of infrastructure for vulnerable road users within the centre of the town.</p>
<p>Accessibility throughout the site is maximised for pedestrians and cyclists, ensuring route choice.</p>	<p>3.3.1 – Street Layouts 3.3.2 – Block Sizes 3.4.1 – Vehicle Permeability</p>	<p>Inclusion of cycling infrastructure along the northbound and southbound carriageways of the R147, upgrade of existing footways, improved pedestrian routes off Main Street and provision of a new continuous footway along “The Dales” will enhance active travel choice.</p> <p>Improvements to the alleyway linking the Main Street to the Supervalu Car Park along with the courthouse redevelopment will reduce the ‘block size’ of Dunshaughlin which is limited by minimal access points off the R147 Main Street currently.</p> <p>The provision of continuous cycling infrastructure within the scheme extents will form the basis of development and tie in to the wider Dunshaughlin cycling network enabling improved connectivity and promote a wider choice of travel within the growing Urban area. This will also add to route choice available to local journeys such as school traffic and commuting.</p>

		<p>Narrowing of the Main Street carriageway and inclusion of raised tables and junction amendments will also reduce the current operational 85<sup>th</sup> %ile speeds providing a safer environment for pedestrians and cyclists to operate.</p> <p>Signalisation of the R147 / The Dales Junction will also improve the vehicle permeability to the side street while inclusion of raised tables at the Supple Park and Bungalows junctions will help reduce through speeds on the R147 and enhance the permeability of merging traffic. The removal of the right turn pocket at the Bungalows will help slightly reduce capacity of the junction. This will de-prioritise the use of this route as a 'rat-run' through to the Lagore road improving safety in the residential area. The calming of traffic and raised table along the R147 improving merging/diverging permeability will negate any significant impacts. The reduction in carriageway width will also assist vulnerable road users.</p>
<p>Through movements by private vehicles on local streets are discouraged by an appropriate level of traffic calming measures.</p>	<p>3.2.1 – Movement Function</p> <p>3.2.3 – Place Context</p> <p>3.4.1 – Vehicle Permeability</p>	<p>Narrowing of the Main Street R147 carriageway and inclusion of raised tables and junction amendments will reduce the current operational 85<sup>th</sup> %ile speeds along the road and will provide a safer environment for pedestrians and cyclists to operate.</p> <p>The scheme is sited around the focal point of the Dunshaughlin Courthouse and the R147/The Dales junction. The courthouse can be viewed as the historical centre of the village and is sited adjacent to the garda &amp; fire stations. The Dales side road opposite the courthouse formed the entry point to the main shopping area and car park for the village and access to the main residential area (prior to significant expansion in recent years).</p> <p>The proposed upgrades seek to enhance the courthouse area and promote the renovation works proposed in tandem to the Public Realm Scheme. The courthouse redevelopment will be supplemented by junction upgrades including raised table construction and signalisation of the junction providing pedestrian crossing facilities and desire lines between the east and west sides of the main street. North and south of this, traffic calming in the form of raised tables and controlled / uncontrolled crossings at the Bungalows / R147 and Supple Park / R147 junctions respectively will ringfence the approaches to this main area of pedestrian activity and add increased significance to the Place Context and re-prioritisation of the space away from vehicular traffic.</p>

Self-Regulating Street Environment & Multi-Functional Streets		
Key Issues	Key DMURS Reference.	Design Response
A suitable range of design speeds have been applied with regard to context and function.	3.2.1 – Movement Function. 3.2.2 – Place Context. 4.1.1 – A Balanced Approach to Speed <sup>2</sup>	85 <sup>th</sup> %ile Operational Speeds on the existing R147 (immediately south of Supple Park junction) have been monitored at 53kph. A posted speed limit of 50kph is currently in place. The inclusion of multiple raised tables aims to reduce the operational speeds to typical urban values of between 30-35kph around the R147/ The Dales junction improving safety to pedestrians and cyclists.
The street environment will facilitate the creation of a traffic calmed environment via the use of ‘softer’ or passive measures. <sup>3</sup>	4.2.1 – Building Height and Street Width 4.2.2 – Street Trees 4.2.3 – Active Street Edges 4.2.4 – Signage and Line Marking	85 <sup>th</sup> %ile Operational Speeds on the existing R147 (immediately south of Supple Park junction) have been monitored at 53kph. A posted speed limit of 50kph is currently in place. The inclusion of multiple raised tables aims to soften the environment, discouraging drivers from higher operational speeds and vehicular priority.  The proposed works will aim to reduce the carriageway widths and junction radii in line with DMURS guidance promoting lower operational speeds while soft &

<sup>2</sup> Refer also to the National Speed Limit Guidelines

<sup>3</sup> In retrofit situations a detailed analysis should be carried out to establish what measures exist, what their likely effectiveness is and level of intervention required to achieve the designed design speed.

	<p>4.2.7 - Planting</p> <p>4.4.2 - Carriageway Surfaces</p> <p>4.4.9 - On-Street Parking</p> <p>Advice Note 1 - Transitions and Gateways</p>	<p>active street edges such as raised cycle lanes, rationalised parking, colour and material changes &amp; urban planting will further raise driver awareness and encourage lower through speeds. This will be especially important given the relatively low-level building heights along the main street in adding to the feeling of enclosure.</p> <p>The proposed reduction of the existing carriageway width away from TII DMRB standards in line with DMURS guidelines will similarly discourage higher operational speeds and promote the 'active street edge'</p>
<p>A suitable range of design standards/measures have been applied that are consistent with the applied design speeds.</p>	<p>4.4.1 - Carriageway Widths</p> <p>4.4.4 - Forward Visibility</p> <p>4.4.5 - Visibility Splays</p> <p>4.4.6 - Alignment and curvature</p> <p>4.4.7 - Horizontal and Vertical Deflections</p> <p>Advice Note 1 - Transitions and Gateways</p>	<p>Design standards as outlined in DMURS have been adopted to improve the existing carriageway widths, road geometry, forward and junction visibilities and horizontal and vertical deflections throughout the scheme. A geometric design report has been produced to supplement the design report.</p>

## Pedestrian and Cycling Environment

Key Issues	Key DMURS Reference.	Design Response
<p>The built environment contributes to the creation of a safe and comfortable pedestrian environment.</p>	<p>4.2.1 – Building Height and Street Width 4.2.3 – Active Street Edges 4.2.5 – Street Furniture 4.4.9 - On-Street parking</p>	<p>Key focus has been given to providing a fully accessible design with comfortable pedestrian facilities throughout the study area with a key focus on safe controlled linkages between the east and west sides of the R147, increased permeability around side streets and Courthouse area and improved facilities along “The Dales” road.</p> <p>The development of the Courthouse front as a public space for pedestrians and inclusion of street furniture will create safe pedestrian leisure/meet up space within the urban centre. Rationalised on-street Car Parking will also form part of the creation of the safer pedestrian environment</p>
<p>Junctions been designed to ensure the needs of pedestrians and cyclists are prioritised<sup>4</sup>.</p>	<p>4.3.2 - Pedestrian Crossings 4.3.3 – Corner Radii 4.4.3 - Junction Design 4.4.7 - Horizontal and Vertical Deflections</p>	<p>The courthouse redevelopment will be supplemented by junction upgrades including raised table construction and signalisation of the junction providing pedestrian crossing facilities and desire lines between the east and west sides of the main street. North and south of this, traffic calming in the form of raised tables and controlled / uncontrolled crossings at the Bungalows / R147 and Supple Park / R147 junctions respectively will ringfence the approaches to this main area of pedestrian activity and add increased significance to the Place Context and re-prioritisation of the space away from vehicular traffic.</p>

<sup>4</sup> Refer also to the National Cycle Manual (2011)

		<p>Currently one signalised pedestrian crossing is in place south of the R147/The Dales junction. This crossing fails to take into account pedestrian desire lines. South of this a zebra crossing is present approx. 150m further south at St. Seachnall’s National School with a further signalised crossing 200m north at the pedestrian access to the Aldi development. No pedestrian crossing infrastructure (controlled or uncontrolled) is currently provided at the R147/The Dales junction or the R147/The Bungalows junction.</p> <p>Consideration is being given to the designation of the Dales Road as a Shared Surface highlighting the use of the area by cyclists in a low-speed zone. Segregated cycle facilities are being proposed along the R147 Main Street from the Dales Junction and Courthouse development to the zebra crossing at Seachnaill National School to provide active travel means for children to get to and from school. This can potentially be further extended in future scenarios to the Dunshaughlin Business Park connecting with cycle lanes provided for the developments at the Willows and Fairfield.</p> <p>Crossing points 4m width are to be provided throughout to cater for transition between cycle infrastructure and to cater for both pedestrians and cyclists alike.</p>
<p>Footpaths are continuous and wide enough to cater for the anticipated number of pedestrian movements.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.5 – Street Furniture 4.3.1 - Footways, Verges and Strips 4.3.2 - Pedestrian Crossings</p>	<p>Continuous footpaths are being provided as part of the proposed design including provision of a new footway westbound along “The Dales” road. Along the Main Street.</p> <p>Footways are typically 2.5m in width, widening to over 3m in the environs of the R147 / The Dales Junction along main street where it is anticipated the focus of pedestrian activity will be present. Short sections of minimum 1.8m footways are also provided but are constrained to areas of lower pedestrian activity and are intermittent point occurrences.</p>
<p>The particular needs of visually and mobility</p>	<p>4.2.5 - Street Furniture</p>	<p>The Designer has been cognisant of the use of tactile paving, kerbing at shared surfaces, pedestrian crossings and height changes between areas in the proposed</p>


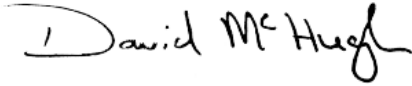


<p>impaired users been identified and incorporated in the design.</p>	<p>4.3.1 - Footways, Verges and Strips 4.3.2 - Pedestrian Crossings 4.3.4 - Pedestrianised and Shared Surfaces</p>	<p>design to consider needs of visually and mobility impaired users. The Designer is ensuring a fully accessible scheme featuring material changes that caters for all mobility impaired users throughout.</p> <p>Accessible Car-Parking is also to be provided along the main street and The Dales Side Road to ensure that mobility impaired users have a choice of location to park to meet their demands from the village centre.</p>
<p>Cycling facilities will cater for cyclists of all ages and abilities.<sup>5</sup></p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.3.5 - Cycle facilities.</p>	<p>Cycling facilities proposed will be via a raised cycle lane providing a buffer to the adjacent road carriageway. Cycle Lanes will continue between the raised junctions at Supple Park and the Dales to optimise use by cyclists of all ability. Cycle facilities will terminate at the courthouse / R147 / The Dales junction to ensure compliance with the area as a civic space and lack of segregated facilities along “The Dales” road. The signalised crossing will be 4.0m in width to facilitate both pedestrian and cyclists. The Dales road will be facilitated as a Shared Space street where low speeds and lower traffic volumes are experienced</p> <p>Proposed facilities will enable future connection to cycling infrastructure existing and proposed on the outskirts of the village.</p>

<sup>5</sup> Refer also to the National Cycle Manual (2011)

<b>Visual Quality</b>		
<b>Key Issues</b>	<b>Key Considerations and DMURS Ref:</b>	<b>Design Response</b>
<p>The landscape plan responds to the street hierarchy and the value of the place.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.2 – Street Trees 4.2.7 – Planting Advice Note 1 – Transitions and Gateways</p>	<p>TOBIN Consulting Engineers are liaising with the Planning section of Meath County Council and architects working on Dunshaughlin Courthouse redevelopment to ensure that the landscape plan is in keeping with the Planning specifications of the area and all other proposed works in Dunshaughlin to ensure the project takes cognisance of the street hierarchy and aesthetic value of the town.</p>
<p>Street furniture is orderly placed.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.5 - Street Furniture. 4.3.1 Footways, Verges and Strips</p>	<p>Street Furniture will be placed cognisant of pedestrian desire lines, footpath widths and likely use of the various zones within the scheme extents</p> <p>Selection of Street furniture type at detailed design will be cognisant of the place profile and be in keeping with the design elements incorporated from the existing environment and courthouse environs redevelopment.</p>

<p>The use of signage and line marking has been minimised.</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.4 - Signage and Line Marking.</p>	<p>Signage and line markings have been minimised within the scheme extents in favour of using material and colour changes to inform all road users.</p>
<p>Materials and finishes used throughout the scheme have been selected from a limited palette and respond to the value of the place?</p>	<p>3.2.1 – Movement Function. 3.2.3 – Place Context. 4.2.6 – Materials and Finishes 4.2.8 – Historic Contexts. 4.3.2 – Pedestrian Crossings 4.4.2 – Carriageway Surfaces Advice Note 2 – Materials and Specifications</p>	<p>Materials and finishes will be chosen at detailed design stage in consultation with Meath County Council and following close consideration of the historic context of the area.</p> <p>Full consideration will be given to construction guidance as outlined in DMURS Advice Note 2 – Materials and Specifications to ensure that appropriate surface and sub surface materials and construction are implemented.</p> <p>TOBIN are engaging with Meath County Council Planning department along with planners to ensure a design in keeping with the area and in keeping with the long-term development and planning strategy for the town of Dunshaughlin.</p>
<p><b>Additional Comments</b></p>		

Personnel Information			
	Name	Date	Signature
Report Prepared By:	Ronan Murtagh C.Eng	26/06/2023	
Principle Designers	Ammar Alkadry / David McHugh	26/06/2023	

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## 5.0 ROAD SAFETY AUDIT

A Stage 1 Audit has been carried out in accordance with the relevant sections of Transport Infrastructure Ireland Publication (Standards) "Road Safety Audit" GE-STY-01024 (December 2017). The team have examined and reported only on the road safety implications of the design submitted and has not examined or verified the compliance of the design to any other criteria.

The Road Safety Audit Report has been included in Appendix A to this report.

## 6.0 WALKABILITY & ACCESSIBILITY AUDIT

The Design Team have carried out audits on Walkability & Accessibility issues on the existing scheme and have used these issues to inform the design principles of the Dunshaughlin Public Realm Scheme. Currently no cycling infrastructure is in place along the extents of the Dunshaughlin Public Realm Scheme and has not been considered. A shortened summary of the key issues identified across both areas of Walkability & Accessibility are outlined below with the full audit items included in Appendix B to this report:

### 6.1 SUMMARY OF WALKABILITY & ACCESSIBILITY ISSUES

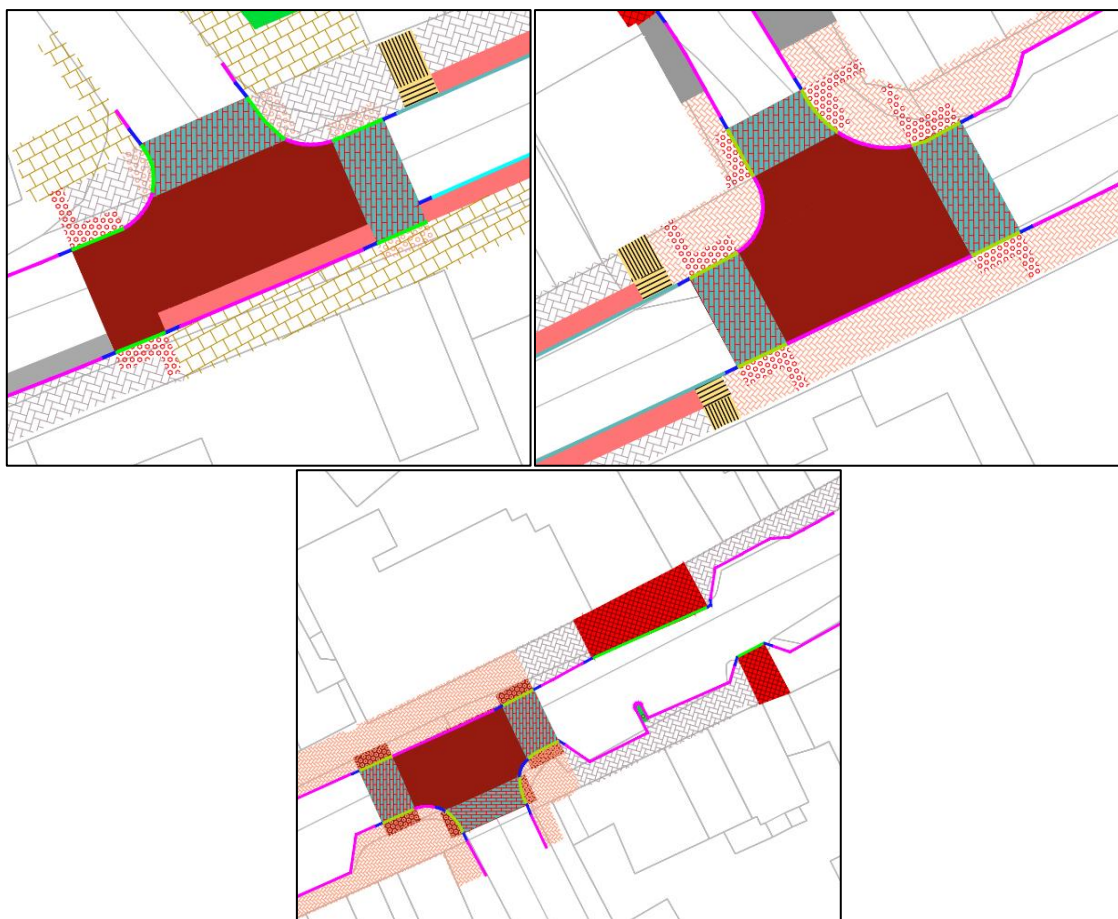
#### Issue 6.1:

Within the existing extents of the scheme, there is a lack of drop kerbs facilitating pedestrian desire lines and no evidence of tactile paving at key junction crossings as well as incorrect tactile provision and desire lines. This was noted at the Supervalu / The Dales Junction and key points along the R147. It has been noted that point hazards provide obstructions along the footways and where vehicle access points are present across existing footways, vehicular priority is provided instead of continuity of pedestrian infrastructure.



**Suggestion:**

Ensure Tactile paving and drop kerbs of appropriate size and orientation along pedestrian desire lines at road crossings, improve pedestrian desire lines around junctions and re-prioritise individual vehicular access points for pedestrian priority where they cross the footway.



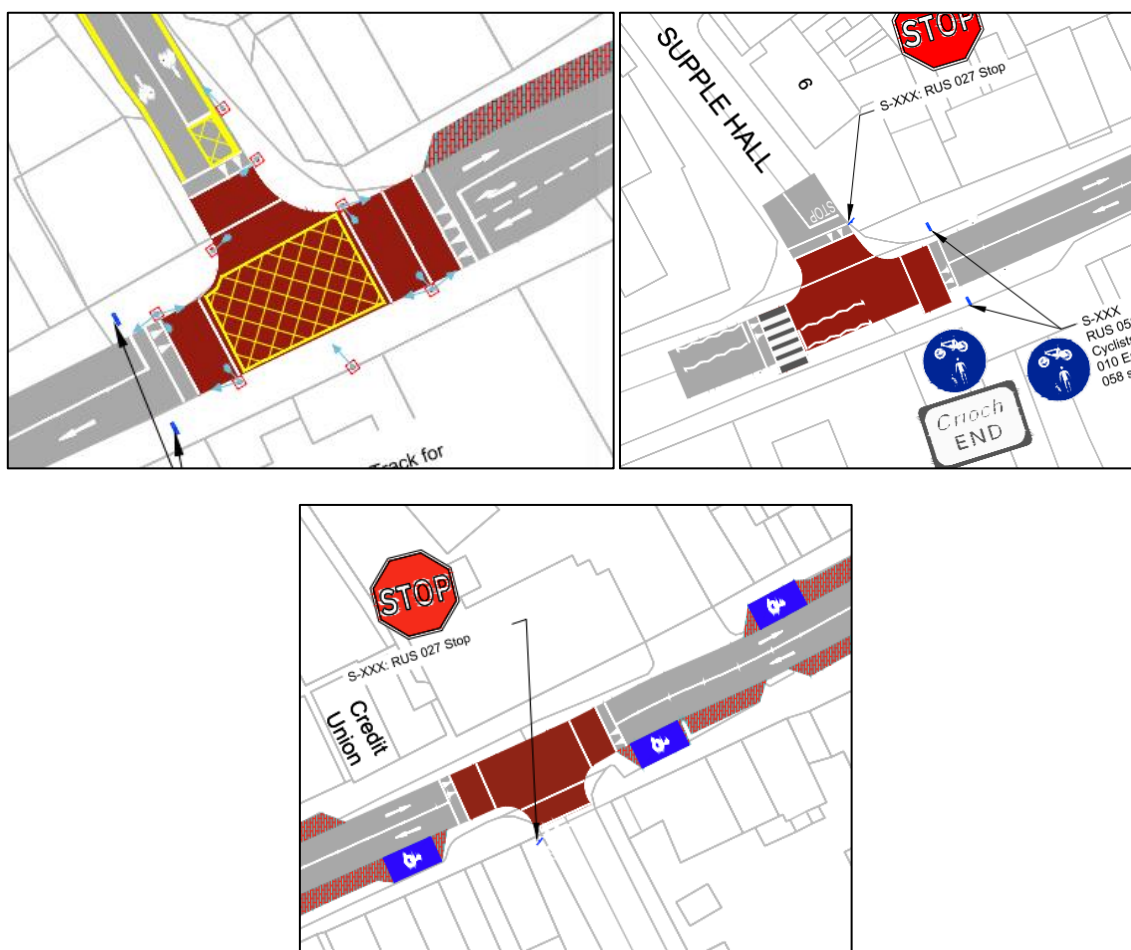
**Issue 6.2:**

Currently in Dunshaughlin there is a significant issue regarding accessibility and crossing of the R147 to facilitate pedestrian desire lines. Within the study area which encompasses 3 No. Junctions with the R147 1) Supple Park, 2) The Dales and 3) The Bungalows, only 2 pedestrian crossings (controlled or uncontrolled) are present. This also presents an accessibility issue for mobility impaired users and those using the accessible parking currently situated within the courthouse environs.



**Suggestion:**

Improve desire lines and incorporate pedestrian crossing infrastructure (controlled and uncontrolled) along the R147 at junction locations. Provide accessible parking along both sides of the R147 Main Street



**Issue 6.3:**

Trip Hazards & Ponding Water observed within the existing footways through desktop and site survey. These trip hazards may result in slips and falls and will lead to deteriorating





**Suggestion:**

Assessment of issues creating ponding and trip hazards such as tree surveys, flat spot analysis and survey of utilities. Design will incorporate a full 3D redesign of the streetscape to ensure functional drainage channels and new heavy duty and durable covers, gratings & paving.

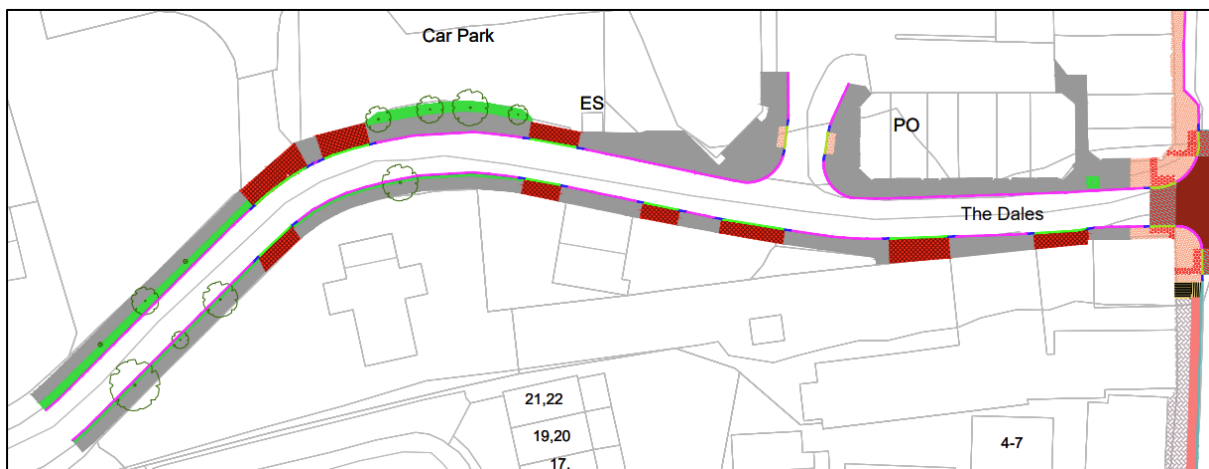
**Issue 6.4:**

Existing Footpath widths are constrained at key locations preventing pedestrians from using the infrastructure comfortably with street furniture in the way e.g. Lighting Columns, bollards. There is also a noted lack of segregated infrastructure along the westbound side of the Dales road which has lengths of uncontrolled vehicular access raising significant safety concerns.



**Suggestion:**

Provide continuous widened infrastructure along the Dales Road, removing point constraints and re-prioritising the area to provide segregated pedestrian infrastructure with controlled vehicular access points





## Appendix A - Stage 1 Road Safety Audit Report

# TOBIN

CONSULTING ENGINEERS

BUILT ON KNOWLEDGE



comhairle chontae na mí  
*meath county council*

## MEATH COUNTY COUNCIL

### Dunshaughlin Public Realm Scheme

### STAGE 1 ROAD SAFETY AUDIT



# Dunshaughlin Public Realm Scheme

## STAGE 1 ROAD SAFETY AUDIT

Document Control Sheet	
Document Reference	11514-01 TR01 RSA S1
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Current Revision	A
Client:	Meath County Council
Client Address:	Buvinda House Dublin Road Navan County Meath C15 Y291
Project Number	11514-01

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Revision	Description	Author:	Date	Reviewed By:	Date	Authorised by:	Date
D01	Draft	MR	09/05/2023	LG	17/05/2023	LG	17/05/2023
D02	Draft - updated layout	MR	26/06/2023	LG	26/06/2023	LG	26/06/2023
A	Final	MR	27/07/2023	LG	27/07/2023	LG	27/07/2023

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**Appendix B – TII Approval**

**Appendix C – Problem Map**

**Appendix D – Road Safety Audit Feedback Form**



## 1.0 INTRODUCTION

This report describes the Stage 1 Road Safety Audit carried out on a proposed public realm scheme in Dunshaughlin, Co. Meath. The scheme location is shown in Figure 1-1. The extent of the Road Safety Audit includes the R147 regional road and The Dales, shown in Figure 1-2.

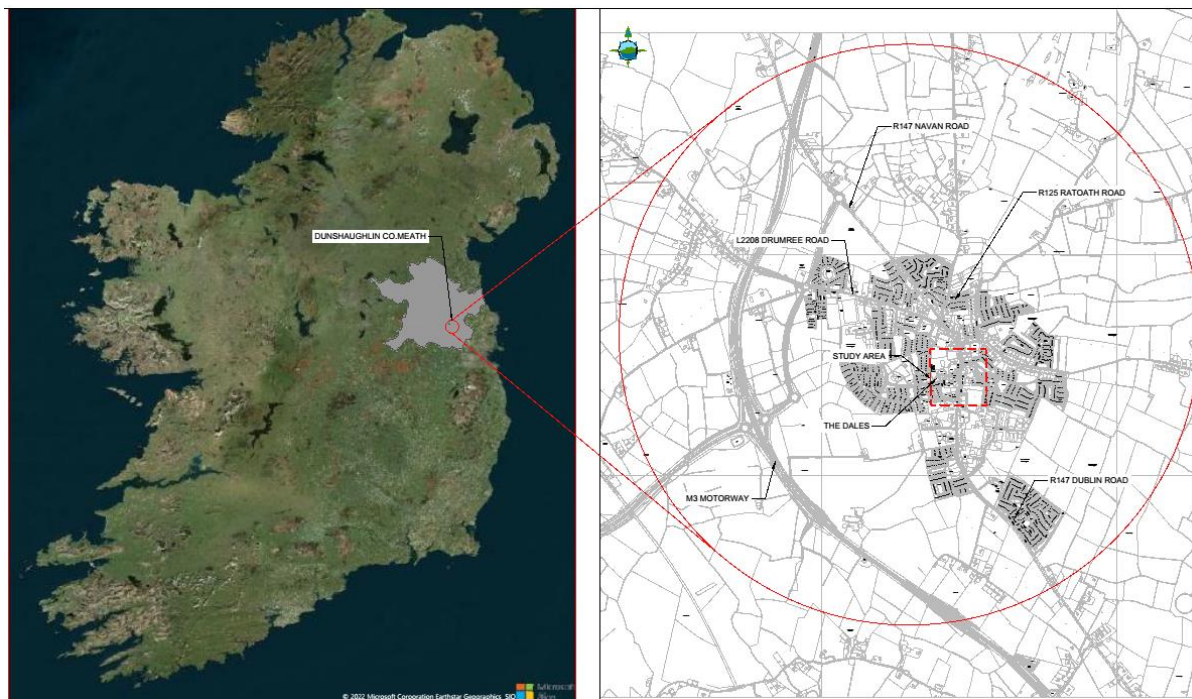


Figure 1-1 Location Map (Extract of Drawing 11514-2000)

## 1.1 PROPOSED SCHEME

The proposed Dunshaughlin Public Realm Scheme includes raised cycle lanes along the R147 with associated upgrades to public realm infrastructure. The works proposed also include amendments to the R147 / The Dales Junction, the R147 / The Bungalows Junction and the R147 / Supple Park.

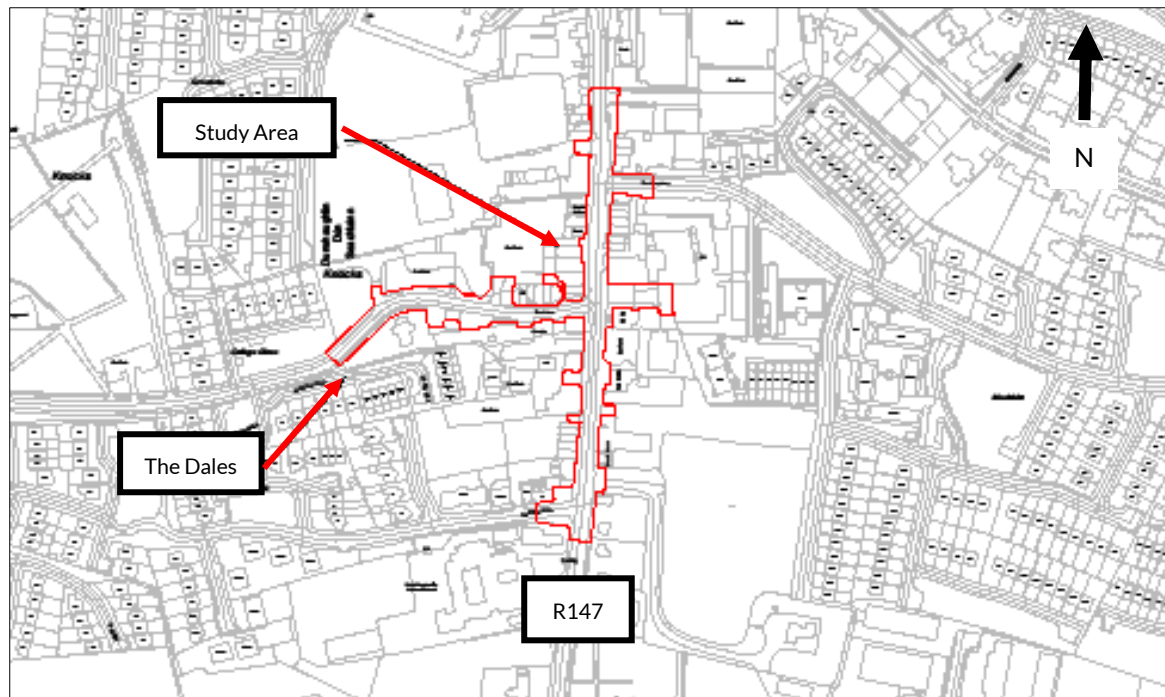


Figure 1-2 Extent of the Road Safety Audit (OSi Licence No. 2020/151/NMA/MCC)

## 1.2 COLLISION DATA

Collision data has not been supplied with this scheme.

Road Collision Data is not currently available on the Road Safety Authority Database, and therefore the audit team has no access to the historical collision information for this site and / or adjacent roads.

## 1.3 AUDIT DETAILS

The audit took place in TOBIN Offices in May 2023. The audit comprised an examination of the documents provided by the Design Team and are listed in Appendix A. A site visit was carried out on Thursday, the 4<sup>th</sup> of May 2023 between the hours of 11:00-13:00. During the site visit the weather was dry and the road surface was dry.

The Audit Team note that no information was provided on the following:

- Traffic volumes.
- Visibility splays.
- Inter-visibility splays.
- No swept paths analysis.
- Drainage.
- Traffic signal infrastructure (i.e. ducting, chambers).
- Sign schedule.

The approved TII audit team are as follows, refer to Appendix B:

Audit Team Leader

- Laura Gaffney – MSc. Env. Eng., BEng (Hons) Civil Eng., CEng., MIEI. Senior Engineer for Roads & Transportation, TOBIN Consulting Engineers – TII Reference LG3386505

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#### Audit Team Member

- Maria Rooney – BEng (Hons) Civil Eng., MEng, MIEI. Senior Engineer for Roads & Transportation, TOBIN Consulting Engineers. – TII Reference MR3384505

#### Audit Team Observer

- Gabriela Iha – BEng Civil Eng., MIEI. Design Engineer for Roads & Transportation, TOBIN Consulting Engineers.

This Stage 1 Audit has been carried out in accordance with the relevant sections of Transport Infrastructure Ireland Publication (Standards) “Road Safety Audit” GE-STY-01024 (December 2017). The team have examined and reported only on the road safety implications of the design submitted and has not examined or verified the compliance of the design to any other criteria. However, to clearly explain a problem or a recommendation, it may be necessary to refer to another Standard or Advice Note, but such reference will not conflict with the requirements of the above Terms of Reference.

**The Design Team and Employer (Client) is reminded that the Road Safety Audit Feedback Form, in Appendix D, shall be completed and returned to the Road Safety Audit Team Leader for sign off.**

## 2.0 ITEMS RESULTING FROM THIS ROAD SAFETY AUDIT

### 2.1 GENERAL

#### 2.1.1 PROBLEM

##### Existing ACO Drains

The Audit Team noted a number of existing ACO drains which have not been incorporated into the design. The Audit Team are concerned ponding may result in slips and falls, especially in cold weather if surface water was to freeze.



*Plate 2-1 Example of existing ACO drain*

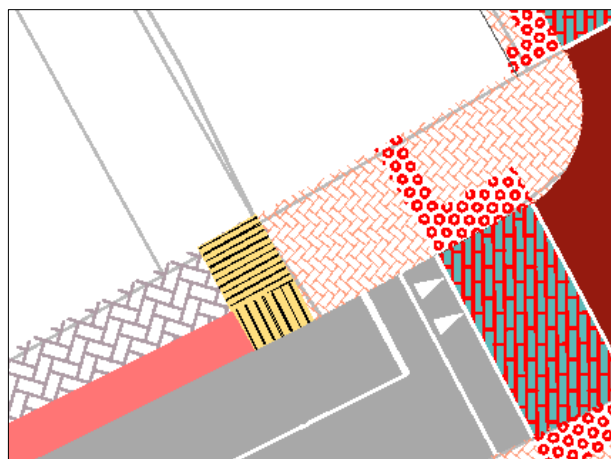
##### Recommendation

The design team should incorporate existing drainage requirements into the design.

#### 2.1.2 PROBLEM

##### Proposed Corduroy Paving

The Audit Team noted the proposed buff tramline and ladder paving is oriented in the incorrect direction. The Audit Team are concerned this may result in a visually impaired person entering into the cycleway in conflict with a cyclist resulting in a collision.



*Figure 2-1: Example of proposed tramline and ladder*

##### Recommendation

The design team should provide tramline and ladder paving in the correct orientation.

### 2.1.3 PROBLEM

#### Existing Utilities

The Audit Team noted an existing sluice valve is located on the proposed raised table. The Audit Team are concerned existing utilities has not been considered in the design which may result in level variations along the scheme. This may result in vehicles striking the proud / depression at utility locations resulting in a losing of control of the vehicle.



Figure 2-2: Example of existing utilities

#### Recommendation

The design team should raise / lower all utility cover and frame levels to the finished road surface level.

### 2.1.4 PROBLEM

#### Visibility Splays

The Audit Team noted parking is not restricted within the visibility splays at the R417/Bungalow junction. The Audit Team are concerned parking may occur within the visibility envelopes obstructing the visibility to / from vehicles. Vehicles edging into the carriageway may result in side-swipe collisions with passing vehicles on the mainline.

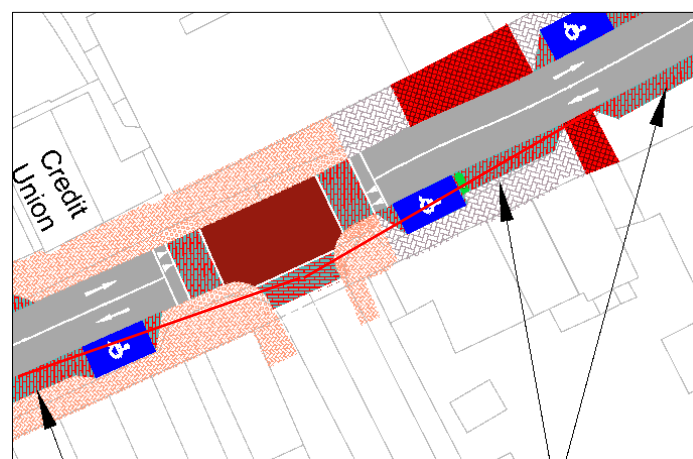


Figure 2-3: Proposed Parking (11514 -1008-04)

#### Recommendation

The design team should provide clear unobstructed visibility splays.

### 2.1.5 PROBLEM

#### Proposed Parking – Pedestrians

The Audit Team noted the proposed parking is within the within visibility of the R147/Bungalows junction. The Audit team are concerned if vehicles are parked in the disabled bays (i.e. high sided vehicles) it may obstruct visibility to/from pedestrians. This may result in a collision between a vehicle and a VRU.

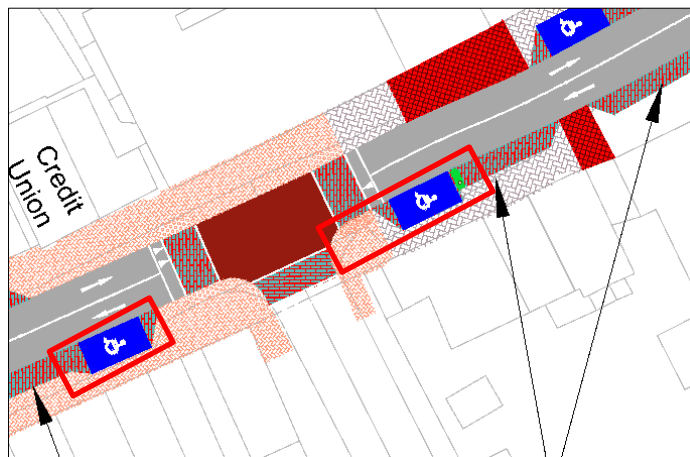


Figure 2-4: Proposed Parking (11514-1008-04)

#### Recommendation

The design team should remove all obstructions from the visibility envelopes.

### 2.1.6 PROBLEM

#### Drainage – Chamber Covers

The Audit Team observed a number of the chambers in the carriageway along the wheel track of single-track vehicles. This may result in skidding of these vehicles on smooth covers leading to potential collisions / injury to the motorists.



Plate 2-2: Sample of existing access covers.

#### Recommendation

The design team should provide anti-skid covers to chambers within the carriageway.

## 2.2 MAIN STREET R147

### 2.2.1 PROBLEM

#### Termination of Cycleway

The Audit Team observed the tie-in details for the cycle lane terminates suddenly in the carriageway. The Audit Team are concerned the sudden termination of the cycleway may result in cyclists entering into the carriageway in conflict with vehicles. This may result in a rear-end / side-swipe collision between cyclists and vehicles.

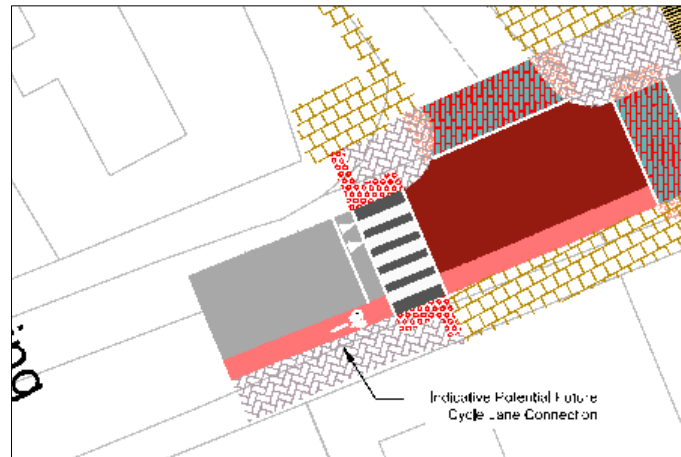


Figure 2-5: R147/Supple Park Junction (Drawing 11514-1008-04)

#### Recommendation

The design team to provide warning of the merging of cyclists with vehicles on the mainline.

### 2.2.2 PROBLEM

#### Entry onto Cycleway

The Audit Team noted in order to entry the cycle lane the cyclist may cross where vulnerable road users (VRU) may be waiting to cross the road safely. This may result in a collision between cyclists and pedestrians.



Figure 2-6: Cycle lane (Drawing 11514-1008-04)

#### Recommendation

The design team should provide a safe means of access onto the cycle lane.



### 2.2.3 PROBLEM

#### Priority at the Junctions

The Audit Team noted the priority T- Junctions have no STOP road markings and no signage. The Audit Team are concerned the lack of priority will result in driver confusion. This may result in a side on collision.

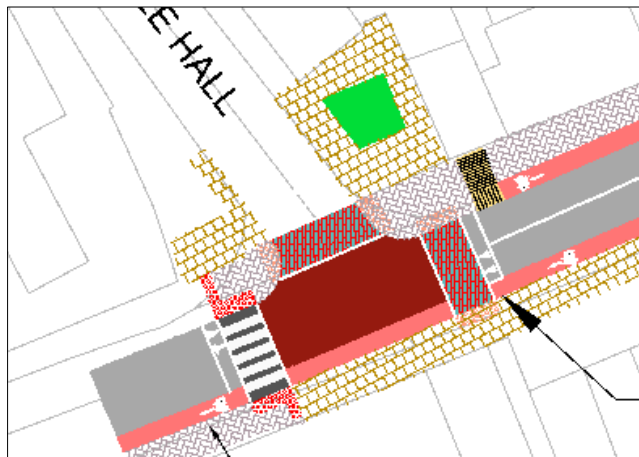


Figure 2-7: R147/Supple Park Junction (Drawing (11514 -1008-04)

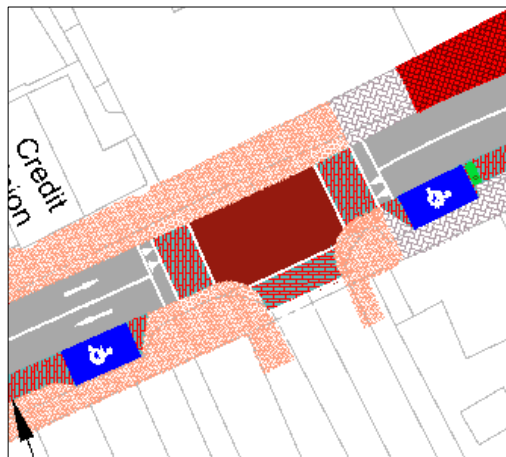


Figure 2-8: R147/Bachelor Junction (Drawing (11514 -1008-04)

#### Recommendation

The design team should provide signage and road markings as per the Traffic Signs Manual (TSM).

### 2.2.4 PROBLEM

#### Zebra Crossing

The Audit Team noted the proposed zebra crossing does not having appropriate road markings on approach to the crossing. The Audit Team are concerned in the absence of the road markings it may result in drivers not reducing speed on approach to pedestrian crossing / giving priority to the pedestrian. This may result in a collision between a VRU and a vehicle.

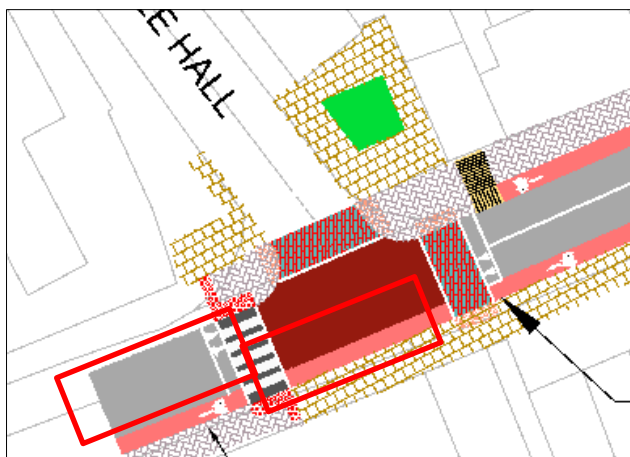


Figure 2-9: R147/Supple Park Junction (Drawing 11514-2030)

#### Recommendation

The design team should propose road markings in accordance with the TSM.

## 2.2.5 PROBLEM

### Cyclist Priority at the Zebra Crossings

The Audit Team noted the cycle lane has no yield markings on approach to the zebra crossings. The Audit Team are concerned the absence of the road markings may result in confusion on priority. This may result in a collision between a cyclist and a pedestrian.

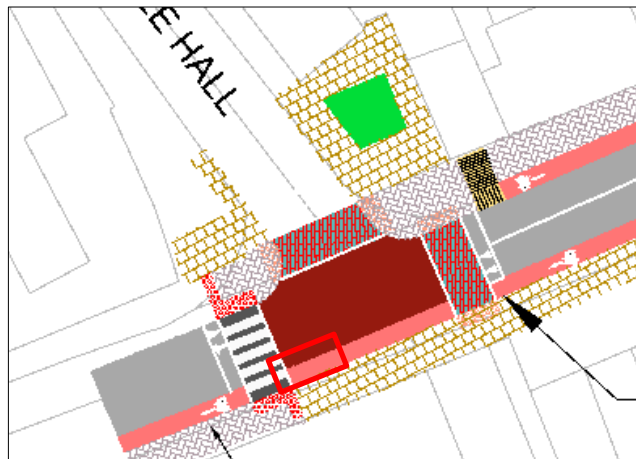


Figure 2-10: R147/Supple Park Junction (Drawing 11514-2030)

### Recommendation

The design team should provide road markings in accordance with the TSM.

## 2.2.6 PROBLEM

### Traffic Calming Triangles

The Audit Team note the Traffic Calming Triangles are not proposed on all approaches to the raised tables. The Audit Team are concerned drivers may hit the raised table at speed resulting in a loss of control of the vehicle which may result in a collision.

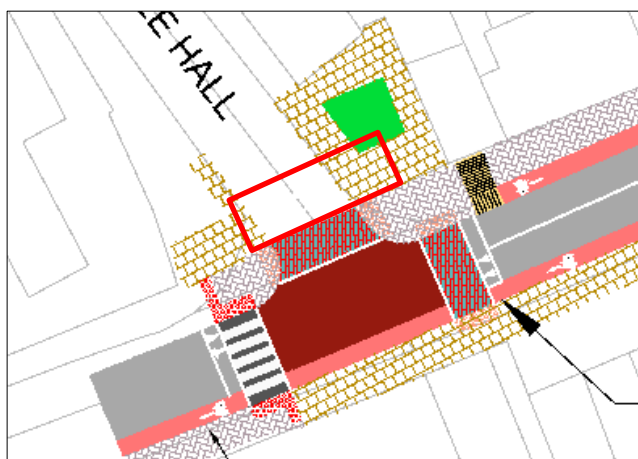


Figure 2-11: R147/Supple Park Junction (Drawing 11514-2030)

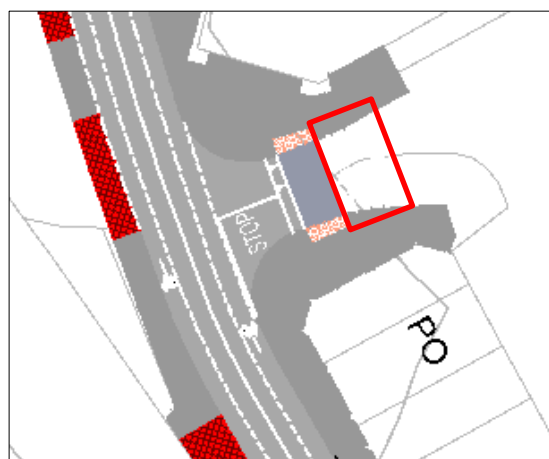


Figure 2-12: Carpark Access (Drawing 11514-2031)

### Recommendation

The design team should provide road markings in accordance with the TSM.

## 2.2.7 PROBLEM

### Approach to Shared Surface

The Audit Team note the proposed footway is elevated above the cycleway. The level difference at the shared space may result in a trip hazard.

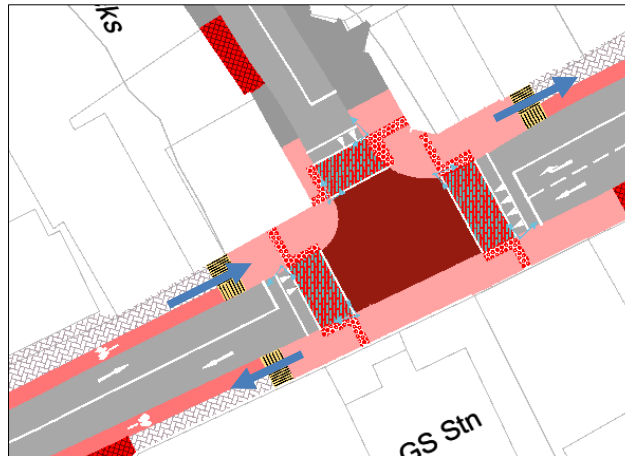


Figure 2-13: Share Surface Gradient

### Recommendation

The design team should provide an appropriate gradient on approach to the shared surface.

## 2.2.8 PROBLEM

### Existing Road Markings

On site the Audit Team observed road markings on approach to the national school. However, it was noted these road markings are not shown to be reinstated. The Audit Team are concerned the absence of the road markings may result in drivers not reducing speed on approach to the school and it may result in a collision with a VRU.



Plate 2-3: Existing Road Markings



Plate 2-4: Existing Road Markings

### Recommendation

The design team should reinstate the warning road markings.

## 2.2.9 PROBLEM

### Existing Road Markings

The Audit Team observed an existing priority junction to a car parking facility. The design proposes a continuous footway at this location. The Audit Team are concerned the absence of the "Stop" road markings may result in drivers not stopping and entering directly onto the footway / cycleway in conflict with VRU.



*Plate 2-5: Existing Junction at An Sibin*

### Recommendation

The design team should reinstate the road markings behind the footway on the minor road.

## 2.2.10 PROBLEM

### Existing Yellow Box Marking at Fire Station

The Audit Team observed the existing yellow box markings at the Fire Station are not proposed. The Audit Team are concerned the absence of the road markings will result in drivers obstructing the entry and exit movements of emergency vehicles.



*Plate 2-6: Existing Hatch*

### Recommendation

The design team should reinstate the road markings.

### 2.2.11 PROBLEM

#### Existing Disabled Parking

The Audit Team noted the proposed design has not allowed for access to the existing disabled parking spaces beside the Garda Station. This may result in drivers access the parking via the raised table in conflict with pedestrians waiting at the toucan crossing resulting in a collision.



*Plate 2-7: Existing Disabled Parking*

#### Recommendation

The design team should provide access to the existing disabled bays or provide alternative within the scheme.

### 2.2.12 PROBLEM

#### Traffic Signals Warning Signage

The Audit Team noted no warning signage has been provided for the proposed signal heads. The Audit Team are concerned without adequate warning drivers will approach the junction at a high speed which may result in a rear end collision.

#### Recommendation

The design team should provide warning signage in accordance with the TSM.

## 2.3 THE DALES

### 2.3.1 PROBLEM

#### Proposed Access to Car Park

The Audit Team noted the existing carpark entrance has not been incorporated into the design. The Audit team are concerned vehicles may try entering the car park against the one-way exiting traffic system. This may result in a head-on collision.



Plate 2-8: Existing Access to Car Park

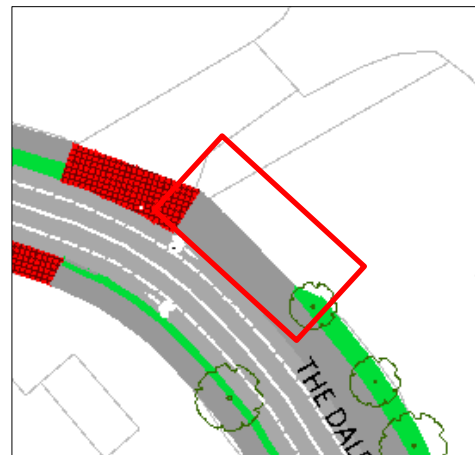


Figure 2-14: Proposed Works (Drawing 11514-1008-04)

#### Recommendation

The design team should include the entrance for the car park into the design.

### 2.3.2 PROBLEM

#### Proposed Advisory Cycle Lane

The Audit Team noted advisory cycle lanes are proposed along the Dales. The Audit team are concerned the advisory lanes give the impression of sufficient width for a two-way vehicle to overtake a cyclist. This may result in vehicles driving in close proximity to the cyclist in the same direction of travel, resulting in a collision.

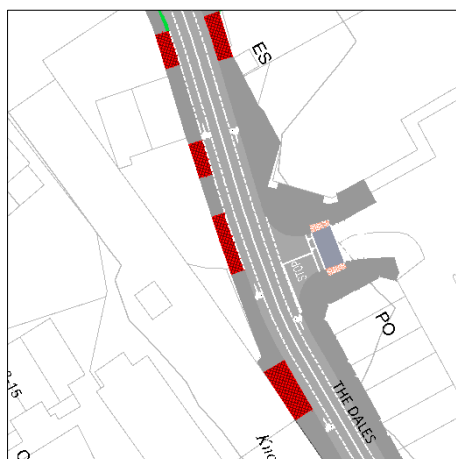


Figure 2-15: Proposed Advisory Cycle Lane (Drawing 11514-1008-04)

#### Recommendation

The design team should remove the advisory cycle lane.

### 2.3.3 PROBLEM

#### Tactile Paving Orientation

The Audit Team noted the proposed tactile paving is not orientated perpendicular to the carriageway or squared off. The Audit Team are concerned a visually impaired pedestrians may enter the carriageway and cannot exit the carriageway becoming stranded. This may result in a collision between a vehicle and a VRU.

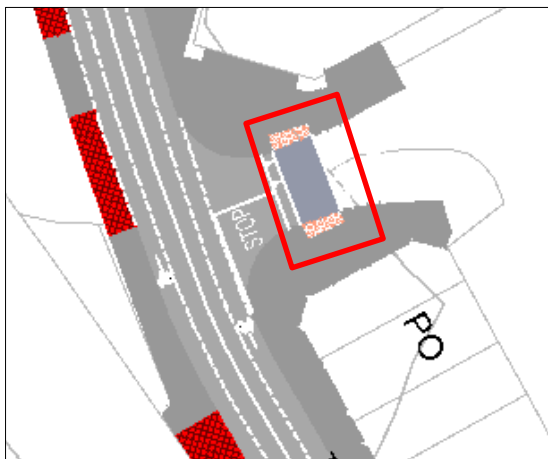


Figure 2-16: Carpark Access (Drawing 11514-1008-04)

#### Recommendation

The design team should provide tactile paving perpendicular to the carriageway in accordance with the design standards.

## 3.0 OBSERVATIONS

### 3.1 OBSERVATION

#### Sign Obstructed

The audit team noted existing warning sign is obstructed by vegetation.



*Plate 3-1: Existing Keep Left Sign*

### 3.2 OBSERVATION

#### Damage to existing downpipes outlet

The audit team noted existing outlet for the downpipe was damaged allow debris to enter and block the outlet.



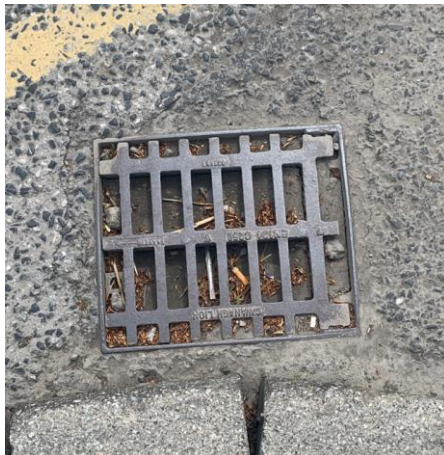
*Plate 3-2: Existing drainage channel*



### 3.3 OBSERVATION

#### Blocked Gullies

The audit team noted existing gullies on site are blocked with debris.



*Plate 3-3: Existing Gully*

### 3.4 OBSERVATION

#### Non-Regulatory STOP sign

The audit team noted an existing STOP sign from the Supervalu car park in not to the specification of the TSM.



*Plate 3-4: Existing Signage*

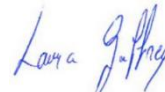
## 4.0 AUDIT TEAM STATEMENT

We certify that we have examined the drawings and other information listed in Appendix A and visited the site during the day of the 24<sup>th</sup> of April 2023. We further certify that we are independent from the design team for the scheme. This examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified to improve the safety of the scheme. The problems that we have identified have been noted in the report, together with suggestions for improvement that in our opinion should be studied for implementation.

### AUDIT TEAM LEADER

Name: Laura Gaffney

Signed:



TII Reference: LG3386505

Date: 27/7/23

Position: Senior Engineer

Organisation: TOBIN Consulting Engineers

Address: Fairgreen House,  
Fairgreen Road  
Galway,

### AUDIT TEAM MEMBER

Name: Maria Rooney

Signed:



TII Reference: MR3384505

Date: 27/7/23

Position: Senior Engineer

Organisation: TOBIN Consulting Engineers

Address: Fairgreen House,  
Fairgreen Road  
Galway

## Appendix A – List of Documents Examined


- Drawings
  - 11514-1008-04-P01



**LEGEND**

- 1.8-2.5m PROPOSED FOOTPATH
- RETENTION OF EXISTING FOOTWAY / PAVED AREA
- PROPOSED URBAN PLANTING
- IMPRINTED HRA SURFACING CROSSING
- BUFF TACTILE PAVING (GREEN)
- BELISHA BEACON
- 1.5m PROPOSED CYCLELANE
- IMPRINTED HRA SURFACING
- PROPOSED CIVIC AREA
- BUFF TACTILE PAVING (RED)
- PROPOSED PAVED FOOTWAY

Rev	Date	Description	By	Chkd.
P01	23.05.23	DRAFT	AA	PC

Client:  **comhairle chontae na mí**  
meath county council

Meath County Council

Project: **Dunshaughlin Public Realm Scheme**

Title: **Preliminary Design  
General Arrangement**

Prepared by: AA

Checked: PC

Date: 23.05.23

Project Director: JOF

Drawing Status: S0

Scale @ A1: 1:500

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Drawing No.: **11514-1008-04**

Revision: **P01**

## Appendix B – TII Approval

## Laura Gaffney

---

**From:** TII Systems Notification <noreply@tii.systems>  
**Sent:** Tuesday 4 May 2021 18:05  
**To:** Laura Gaffney  
**Cc:** roadsafetyaudits@nra.ie; Fiona.Bohane@corkrdo.ie; Alastair.DeBeer@TII.ie; Bryan.kennedy@TII.ie; LCurtis@Kerrycoco.ie  
**Subject:** RSAAS - Road Safety Audit Approvals System - Auditor Approval LG3386505

**Importance:** High

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

*Laura Gaffney  
Fairgreen House  
Fairgreen Road  
Galway  
H91 AXK8*

Date: 04/05/2021

Ref: LG3386505

### re: APPROVAL AS ROAD SAFETY AUDITOR

Dear Laura Gaffney,

You meet the qualification and experience requirements for Road Safety Audit as follows:

Scheme Category	Audit Team Status	Team Leader Expiry Date
Road Scheme	Team Leader	30/09/2023
Development Scheme	Team Leader	30/09/2023

The above assessment is based on information supplied and the qualification and experience requirements of National Roads Authority in accordance with HD 19 "Road Safety Audit". Further approval through RSAAS must be sought for the proposed road safety audit team for each audit undertaken on a National Road.

Yours sincerely,

Lucy Curtis

*Regional Road Safety Engineer*  
[roadsafetyaudits@tii.ie](mailto:roadsafetyaudits@tii.ie)

## Laura Gaffney

---

**From:** TII Systems Notification <noreply@tii.systems>  
**Sent:** Thursday 30 May 2019 16:28  
**To:** Maria Rooney  
**Cc:** roadsafetyaudits@nra.ie; Fiona.Bohane@corkrdo.ie; Alastair.DeBeer@TII.ie; ronan.quinn@tii.ie; nicholas.mcdonnell@tii.ie  
**Subject:** RSAAS - Road Safety Audit Approvals System - Auditor Approval MR3384505  
**Importance:** High

*Maria Rooney  
Fairgreen House  
Fairgreen Road  
Galway  
H91 AXK8*

Date: 30/05/2019

Ref: MR3384505

**re: APPROVAL AS ROAD SAFETY AUDITOR**

Dear Maria Rooney,

You meet the qualification and experience requirements for Road Safety Audit as follows:

Scheme Category	Audit Team Status	Team Leader Expiry Date
Road Scheme	Team Member	
Development Scheme	Team Member	

The above assessment is based on information supplied and the qualification and experience requirements of National Roads Authority in accordance with HD 19 "Road Safety Audit". Further approval through RSAAS must be sought for the proposed road safety audit team for each audit undertaken on a National Road.

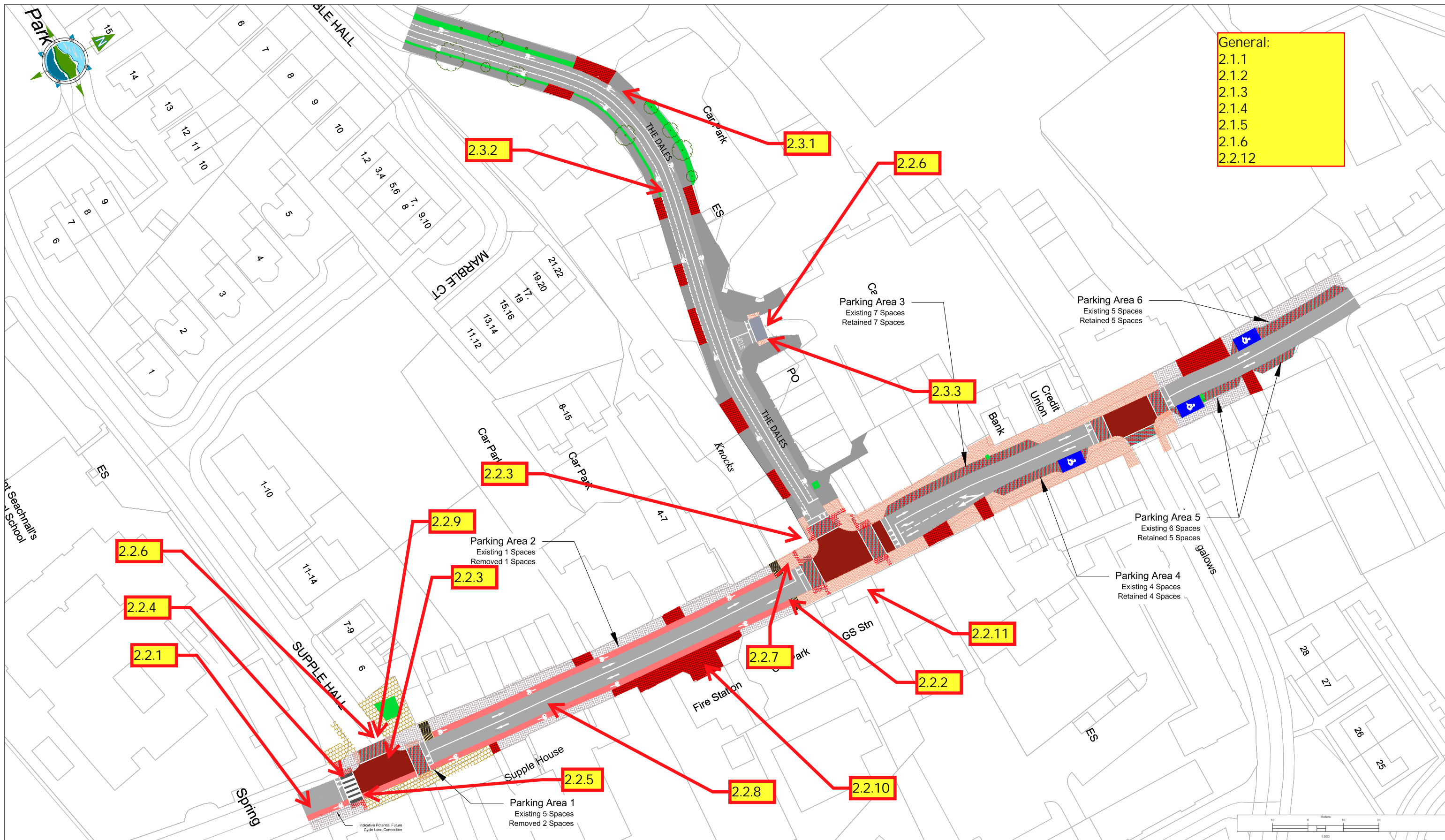
Yours sincerely,

Lucy Curtis

*Regional Road Safety Engineer*  
[roadsafetyaudits@nra.ie](mailto:roadsafetyaudits@nra.ie)

## Appendix C – Problem Map





- General:
- 2.1.1
  - 2.1.2
  - 2.1.3
  - 2.1.4
  - 2.1.5
  - 2.1.6
  - 2.2.12

- LEGEND**
- 1.8-2.5m PROPOSED FOOTPATH
  - RETENTION OF EXISTING FOOTWAY / PAVED AREA
  - PROPOSED URBAN PLANTING
  - IMPRINTED HRA SURFACING CROSSING
  - BUFF TACTILE PAVING (GREEN)
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- 1.5m PROPOSED CYCLELANE
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- PROPOSED PAVED FOOTWAY

Rev	Date	Description	By	Chkd.
P01	23.05.23	DRAFT	AA	PC

Client: comhairle chontae na mí meath county council  
Meath County Council

Project: Dunshaughlin Public Realm Scheme

Title: Preliminary Design General Arrangement

Prepared by: AA  
Checked: PC  
Date: 23.05.23  
Project Director: JOF  
Drawing Status: S0  
Scale @ A1: 1:500

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Revision: **P01**  
Drawing No.: **11514-1008-04**

## Appendix D – Road Safety Audit Feedback Form

## Road Safety Audit Feedback Form

Scheme: Dunshaughlin Public Realm Scheme

Audit Stage: 1

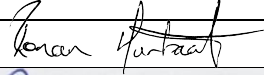
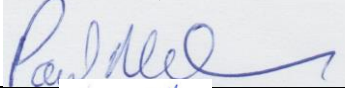
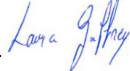
Route No.: R147 Regional Road and The Dales

Date of Audit: 27/06/2023

To be Completed by Designer				To Be Completed by Audit Team Leader
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended Measures Accepted (yes/no)	Alternative Measures (describe). Give reason for not accepting recommended measure	Alternative Measures or reasons accepted by auditors(yes/no)
2.1.1	Y	Y		
2.1.2	Y	Y		
2.1.3	Y	Y		
2.1.4	Y	Y		
2.1.5	Y	Y		
2.1.6	Y	Y		
2.2.1	N	N	Cycleway shown is for potential future development. Cycleway is to terminate appropriately at zebra crossing.	Y
2.2.2	Y	Y		
2.2.3	Y	Y		
2.2.4	Y	Y		
2.2.5	Y	Y		
2.2.6	Y	Y		
2.2.7	Y	Y		
2.2.8	Y	Y		
2.2.9	Y	Y		
2.2.10	Y	Y		
2.2.11	N	N	Parking in Courthouse Area will be re-sited along main street. Please note redesign of courthouse and environs is being designed by a separate commission but in tandem with the Dunshaughlin Public Realm Scheme	Y
2.2.12	Y	Y		

11514 TR01-RSA S1 Feedback form responses

To be Completed by Designer				To Be Completed by Audit Team Leader
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended Measures Accepted (yes/no)	Alternative Measures (describe). Give reason for not accepting recommended measure	Alternative Measures or reasons accepted by auditors(yes/no)
2.3.1	Y	Y		
2.3.2	Y	Y		
2.3.3	Y	Y		

Signed:		Designer	Ronan Murtagh	Date:	27/06/2023
Signed:		Client	Paul McKown	Date:	21/07/2023
Signed:		Audit Team Leader	Laura Gaffney	Date:	27/07/2023

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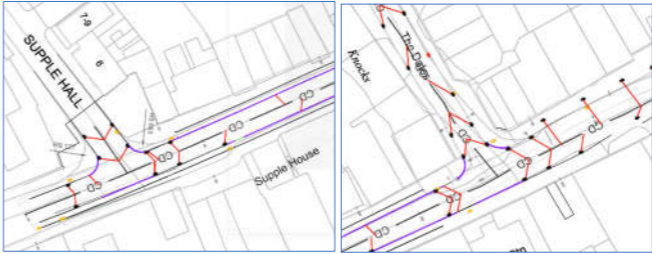

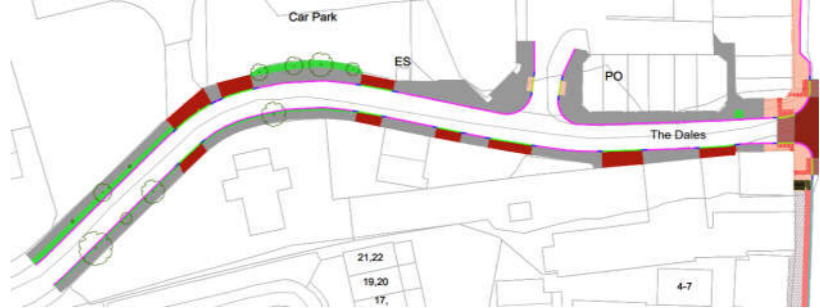

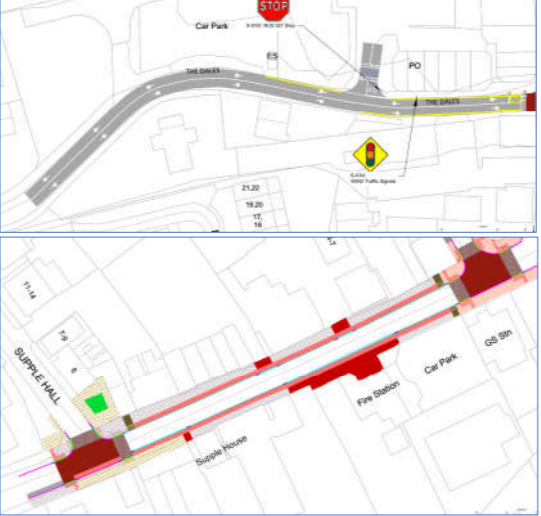
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## Appendix B - Walkability & Accessibility Audit

Item	Issue Category	Images of Existing Issues	Junctions & Crossings – Drop Kerbs and Footways	Design Decisions Implemented
A	<p><b>Junctions &amp; Crossings – Drop Kerbs and Footways</b></p> <ul style="list-style-type: none"> <li>- No evidence of tactile paving / Tactile paving widths not covering extents of crossings</li> <li>- Drop kerbs not facilitating desire lines</li> </ul>		<p><b>Junctions &amp; Crossings – Drop Kerbs and Footways</b></p> <ul style="list-style-type: none"> <li>- Inclusion of Tactile Paving at Drop kerb locations</li> <li>- Desire lines correlate to Pedestrian movements through resited zebra crossing and incorporation of existing ped crossing into signalised junction</li> <li>- Drop kerbs facilitating desire lines</li> <li>- Re-prioritisation of vehicular accesses to pedestrian priority through continuation of footways</li> </ul>	
B	<p><b>Footways - Trip Hazards and Ponding Water</b></p> <ul style="list-style-type: none"> <li>- Observed ponding of water on existing footways &amp; protruding linear drainage channels as potential trip hazards</li> </ul>		<p><b>Footways - Trip Hazards and Ponding Water</b></p> <ul style="list-style-type: none"> <li>- Full regraded streetscape to be designed</li> <li>- Assessment of Urban Planting to remediate ongoing lifting of paving around base of trees</li> <li>- redesign of drainage features including gullies, downpipes and channel drains to prevent surcharging of water, lifting of gratings and outfall of water onto footways</li> </ul>	
C	<p><b>Provision of Footpaths – Lack of Facility</b></p> <ul style="list-style-type: none"> <li>-Intermittent Footpaths on westbound side of Dales Road</li> <li>-Uncontrolled Access to and from Road along sections of length in particular at Supervalu junction</li> <li>-Current Footpath widths not to DMURS standards and further constrained by bollards</li> <li>-No pedestrian crossings at R147 / The Dales Junction</li> </ul>		<p><b>Provision of Footpaths – Lack of Facility</b></p> <ul style="list-style-type: none"> <li>- Continuous segregated footway on westbound side</li> <li>- Controlled Access to and from the main carriageway</li> <li>- Footpath provision to DMURS standards</li> <li>-Tactile Paving, drop kerbs and full pedestrian aspect for signalised junction</li> </ul>	
D	<p><b>Cycling Infrastructure</b></p> <ul style="list-style-type: none"> <li>- No bike parking (sheltered or unsheltered)</li> <li>- No cycle provision</li> </ul>		<p><b>Cycling Infrastructure</b></p> <ul style="list-style-type: none"> <li>- bike parking to be provided in line with MCC Development Requirements (sheltered or unsheltered)</li> <li>- provision of segregated cycle facilities along R147 connecting Dales and Courthouse development (and residential areas behind) to National School.</li> <li>- Potential for future connection to Business Park and Developments at Willows and Fairfield</li> <li>- Consideration &amp; marking of Shared Road space in the Dales to raise awareness of cyclists along the lower speed road</li> <li>- Potential Integration of Bicycle Parking at Supervalu and Courthouse</li> </ul>	

<p><b>Wheelchair Accessible Parking Accessibility</b></p> <p>- Only 1 public location along main street with 2 spaces in courthouse environs with requirement to cross road for businesses on west side</p>		<p><b>Wheelchair Accessible Parking Accessibility</b></p> <p>- Proposal to split parking on both sides of R147 reducing desire lines</p>	
<p><b>Pedestrian Desire Lines</b></p> <p>- Issues surrounding Pedestrian lines Especially at Supple Park, The Dales and The Bungalows Junctions</p> <p>- Drop Kerbs Not providing appropriate desire lines for pedestrians</p>		<p><b>Pedestrian Desire Lines</b></p> <p>- Designated Controlled and Uncotrolled crossing facilities at main junctions</p> <p>- Resiting of zebra crossing in proximity to Supple Park Junction</p> <p>- Incorporation of pedestrian aspect for upgrade of R147 / the Dales junction</p> <p>- Drop kerbs and tactile paving to be provided to guide visually impaired pedestrians accurately at crossing points</p>	



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