

Lands at Kilbride, Arklow

Quality Audit

Certain Assets of Dawnhill & Windhill Ltd.

May 2025

Lands at Kilbride, Arklow

Quality Audit

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Notice

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1. Introduction

1.1 Report Context

This report describes the findings of a Quality Audit associated with the Lands at Kilbride, Arklow. The Audit has been completed by Traffico on behalf of Certain Assets of Dawnhill & Windhill Ltd..

1.2 Details of Site Inspection

Date	Daylight / Darkness	Weather & Road Conditions
Wednesday 23 rd April 2025	Daylight	Sunny with dry road pavements.

Table 1.1 – Site Inspection Details

1.3 The Road Safety Audit Team

The members of the Road Safety Audit Team have been listed following:

Status	Name / Qualifications	TII Auditor Reference No:
Audit Team Leader (ATL)	Martin Deegan BEng(Hons) MSc CEng MIEI	MD101312
Audit Team Member (ATM)	Shane Kearns MEng, BEng (Hons) MIEI	SK*364

Table 1.2 – Audit Team Details

1.4 Design Information Examined as Part of the Audit Process

The following design information was examined as part of the Road Safety Audit (RSA) process:

Drawing No.	Drawing Title	Revision
2432-DOB-XX-SI-DR-C-0500	Proposed Site Layout Overall	P05
2432-DOB-XX-SI-DR-C-0510	Proposed Site Layout Sheet 1	P05
2432-DOB-XX-SI-DR-C-0520	Proposed Site Layout Sheet 2	P05
2432-DOB-XX-SI-DR-C-0530	Proposed Site Layout Sheet 3	P05
2432-DOB-XX-SI-DR-C-0540	Proposed Site Layout Sheet 4	P05
2432-DOB-XX-SI-DR-C-0550	Proposed Site Layout Sheet 5	P05
2432-DOB-XX-SI-DR-C-0560	Proposed Site Layout Sheet 6	P04
2432-DOB-XX-SI-DR-C-0570	Proposed Site Layout Sheet 7	P03
2432-DOB-XX-SI-DR-C-0600	PR. Works to the R772 & Beech Rd Junction	P03

Drawing No.	Drawing Title	Revision
2432-DOB-XX-SI-DR-C-0610	PR. Works to the R772 & Beech Rd Junction / Autotracks	P03
2432-DOB-XX-SI-DR-C-0700	Proposed road markings and signage Overall	P03
2432-DOB-XX-SI-DR-C-0710	Proposed road markings and signage Sheet 1	P03
2432-DOB-XX-SI-DR-C-0720	Proposed road markings and signage Sheet 2	P03
2432-DOB-XX-SI-DR-C-0730	Proposed road markings and signage Sheet 3	P03
2432-DOB-XX-SI-DR-C-0740	Proposed road markings and signage Sheet 4	P03
2432-DOB-XX-SI-DR-C-0750	Proposed road markings and signage Sheet 5	P03
2432-DOB-XX-SI-DR-C-0760	Proposed road markings and signage Sheet 6	P03
2432-DOB-XX-SI-DR-C-0800	Proposed Autotracks – Refuse Vehicle	P03
2432-DOB-XX-SI-DR-C-0810	Proposed Autotracks – Fire Tender	P03
2432-DOB-XX-SI-DR-C-0820	Proposed Autotracks – 4x4 Vehicle	P03
2432-DOB-XX-SI-DR-C-0900	Proposed Boardwalk General Arrangement	P02
2432-DOB-XX-SI-DR-C-0910	Existing and Proposed Works BY WCC	P01
2432-DOB-XX-SI-DR-C-0920	Proposed Boardwalk River Crossing	P01
2432-DOB-XX-SI-DR-C-0930	Proposed Boardwalk Sections	P01
2432-DOB-XX-SI-DR-C-1100	Proposed typical siteworks details Sheet 1 of 2	P03
2432-DOB-XX-SI-DR-C-1110	Proposed typical siteworks details Sheet 2 of 2	P03
2432-DOB-XX-SI-DR-C-1800	Proposed road sections Sheet 1	P01
2432-DOB-XX-SI-DR-C-1810	Proposed road sections Sheet 2	P01

Table 1.3 – Designers Drawing List

1.5 Quality Audit Content and Compliance

Procedure and Scope for Quality Audit

This Quality Audit is undertaken in accordance with Section 5.4.2 of the Design Manual for Urban Roads and Streets. The UK Department for Transport Traffic Advisory Leaflet (TAL) 5/11 has also been referred to for guidance.

This Quality Audit consists of the following audit sections:

- Walking, Cycling and Access Audit – focusing on accessibility requirements of vulnerable road users (and in particular, those with visual or mobility impairments), and on the movement and place function requirements of pedestrians and cyclists
- Road Safety Audit – focusing on issues relating directly to road safety

Procedure and Scope Specific to the Road Safety Audit

The Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 - Road Safety Audit.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

Compliance with Design Standards

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

Minimizing Risk of Collision Occurrence

All problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.

2. Walking, Cycling and Access Audit

2.1 Best Practice Guidance

This Quality Audit has been carried out in accordance with general best practice guidance set out within the following documents:

- The Disability Act 2005
- Technical Guidance Document M 2022 – Access and Use
- Buildings for Everyone Access and use for all citizens (National Disability Authority)
- Access Auditing of the Built Environment Guidelines (National Disability Authority)
- DMURS Advice Note 4 – Quality Audits
- Traffic Management Guidelines (Irish Government Publications 2003)
- Guidance on the use of Tactile Paving Surfaces: UK Department for Transport.

2.2 Objectives of the Walking, Cycling and Access Audit

The objectives of this Walking, Cycling and Access Audit are as follows:

- To ensure a high level of accessibility to the proposed development site for all vulnerable road users and in particular, for visually and mobility impaired users
- To ensure that the current and future access needs within the scheme are recognised and developed
- To ensure that advantage is afforded to walkers and cyclists at every opportunity.

2.3 General Accessibility Recommendations

Following delivery of the Walking, Cycling and Access Audit, the design team should consider all issues raised herein for inclusion into the final design. It is less costly to make the changes now, pre-construction, than later after the scheme has been commissioned.

The client should consider setting up a dedicated access team for the project, responsible for the long-term management of universal access throughout the development.

This process should be facilitated by an Access Plan, which is a strategy for improving accessibility developed from the Audit and can ensure that access is an on-going concern and help identify opportunities for change.

The access plan should incorporate planned maintenance programmes, a schedule of works that has been devised to take into account the priority information in the Audit, processes to allow regular updating of the Audit information and links to maintenance and management procedures.



It should also set out procedures to ensure that when opportunities for access improvement arise, they are recognised.

2.4 Specific Walking, Cycling and Accessibility Recommendations

A summary of the design features, together with recommended actions to be taken during the relevant stage of the design or operation of the scheme have been detailed in the following table.

Table 2.1 - Walking, Cycling and Access Audit Summary Table

I.D.	Location	Feature	Action	When
 Recommendations to Encourage Walking				
W1	Footpaths within Lands at Kilbride, Arklow	Pedestrian provision & universal access	Ensure pedestrian environments are logical, continuous, easy to understand and consistent throughout the development.	Design Stage
W2	Footpaths within Lands at Kilbride, Arklow	Pedestrian Provision / Universal Access	Ensure continuity for pedestrians is provided at crossing points, and that crossing points are located with good forward stopping sight distance for approaching vehicles.	Design Stage
W3	Pedestrian linkage to external Public Roads serving Lands at Kilbride, Arklow	Pedestrian provision – connections to external public roads	Provide seamless connections onto the Dublin Road (R772) to encourage uptake for car sharing and public transport, including existing (Expressway Route 2) and future bus routes.	Design Stage
W4	Footpaths serving Lands at Kilbride, Arklow	Street furniture positioning	Ensure street furniture is carefully positioned to avoid obstructions in footways and to maximise the effective width.	Design & Operational Stages
W5	Footpaths serving Lands at Kilbride, Arklow	Footpaths and crossing points	Ensure footpaths and crossing points are located on all significant desire lines, where they are safe and convenient to use for all vulnerable road users.	Design Stage
W6	Footpaths serving Lands at Kilbride, Arklow	Pedestrian Provision / Universal Access	Ensure continuity for pedestrians is provided at crossing points, and that crossing points are located with good forward stopping sight distance for approaching vehicles.	Design Stage
W7	Footpaths serving Lands at Kilbride, Arklow	Pedestrian Provision / Universal Access	At access points through the site boundaries which connect with existing public thoroughfares, all internal footpaths should link seamlessly with external footpaths / walking opportunities to accommodate universal access and facilitate pedestrian progression.	Design Stage

I.D.	Location	Feature	Action	When
 Recommendations to Encourage Cycling				
C1	Shared cycling and walking areas within Lands at Kilbride, Arklow	Pedestrian & cyclist facilities.	Conflicts can arise where different modes of transport share the same space. Ensure cycle environments are logical, continuous, and legible throughout the development. Where cyclists are encouraged to share with pedestrians, ensure that sufficient width and end user information are provided.	Design Stage
C2	Formal Road Crossings within Lands at Kilbride, Arklow	Continuity and crossing.	Ensure continuity for cyclists and pedestrians are provided at key crossing points, and that crossing points are located with good forward stopping sight distance for approaching vehicles (these should not be obscured with landscaping).	Design Stage
C3	All dedicated cycling provisions within Lands at Kilbride, Arklow	Street furniture positioning.	Ensure street furniture is carefully positioned to avoid obstruction in cycle paths and to maximise the effective width available to cyclists.	Design & Operational Stages
C4	Dedicated cycle tracks within Lands at Kilbride, Arklow	Commencements and terminations	Where cycle tracks commence, measures to allow ease of access for cyclists should be included. Where cycle tracks terminate, then termination points should be carefully designed to optimise cycle safety.	Design Stage
C5	Cycle Parking Areas within Lands at Kilbride, Arklow	Cycle Parking	Ensure appropriate cycle parking is provided within the development to encourage uptake of cycling. Ensure it is comfortable and safe for cyclists to access the parking.	Design Stage
C6	Cycle Parking Areas within Lands at Kilbride, Arklow	Cycle Parking & security	To encourage use and safeguard security, position cycle parking away from isolated areas and close to building entrances which are well lit and have natural passive surveillance. Consider providing cover over the cycle parking to protect cyclists from the elements where possible.	Design Stage
 Recommendations to Provide for Universal Access & Accessibility				
A1	Footpaths serving Lands at Kilbride, Arklow	Dropped kerbs & tactile paving	Ensure appropriate dropped kerbs and tactile paving are provided at key crossing points.	Design Stage
A2	Footpaths serving Lands at Kilbride, Arklow	Universal Access – footpath types and finishes	Ensure consistency in the types of footpath surface utilised and ensure that the surface provides appropriate contrast with the adjacent road pavement.	Design Stage

I.D.	Location	Feature	Action	When
A3	Footpaths serving Lands at Kilbride, Arklow	Universal Access – material contrast	Ensure contrasting colours/materials are used to define areas which are meant for sole use by vulnerable road users.	Design Stage
A4	Footpaths serving Lands at Kilbride, Arklow	Universal Access – footpaths	Ensure that measures are taken to actively maintain and police errant car parking on footpaths which might impact negatively upon pedestrian progression.	Design Stage & Operational Stage
A5	Footpaths serving Lands at Kilbride, Arklow	Definition of footpath edges & terminations	Ensure footpath edges are clearly defined and ensure that appropriate termination details are provided when footpaths end.	Design Stage
A6	Footpaths serving Lands at Kilbride, Arklow	Steps - legibility	Ensure steps are legible and easy to define by providing step nosings with contrasting colour.	Design Stage
A7	Building structures – Lands at Kilbride, Arklow	Building Entrances	Ensure that dwelling entrances are well defined and by employing colours and material finishes which contrast with the rest of the building façade.	Design Stage
A8	Building structures – Lands at Kilbride, Arklow	Building Entrances	Ensure clear sight lines to house entrances are provided from all approaches. Trees, planting or street furniture should not block these.	Design Stage
A9	Footpaths serving Lands at Kilbride, Arklow	Street Lighting	Ensure public lighting is located where pedestrian movement decisions are required (i.e. at crossing points, entrances and in shared street areas).	Design Stage
A10	External Landscaped areas serving Lands at Kilbride, Arklow	Drainage gaps	Ensure any break in surface or gap (such as a drainage gully) is no greater than 10mm and is perpendicular to line of travel. Locate drainage features both away from (and up gradient from) crossing points.	Design Stage
A11	External Landscaped areas serving Lands at Kilbride, Arklow	Drainage / pavement gradients	Ensure access routes are constructed with even and gentle falls to allow proper drainage and prevent the formation of puddles. The cross-fall gradient to any access route should not exceed 1 in 50, except when associated with a dropped-kerb.	Design Stage
A12	External Landscaped areas serving Lands at Kilbride, Arklow	Obstructions from Street Furniture or landscaping	Ensure street furniture / landscaping do not encroach on the clear width of pathways.	Design Stage

I.D.	Location	Feature	Action	When
A13	External Landscaped areas Lands at Kilbride, Arklow	Street Furniture – visually impaired	Ensure street furniture contrasts in colour with the surrounding pavement surfaces.	Design Stage
A14	Car Parking Areas within Lands at Kilbride, Arklow	Universal access to parking	Ensure car parking is accessible, easy to use, and sufficient parking spaces are provided within a well-designed environment to meet the needs of all end users who might (reasonably) be expected to use them.	Design Stage
A15	Car Parking Areas within Lands at Kilbride, Arklow	Disabled parking	Ensure the location of designated spaces for car users with disabilities are located as close as possible to the building access points.	Design Stage
A16	Car Parking Areas within Lands at Kilbride, Arklow	Car park & boundary treatment	Ensure that access to/from parked vehicles is not inhibited by boundary treatments, trees, hedges, street furniture or structural features.	Design Stage
A17	Bin storage within Lands at Kilbride, Arklow	Bin storage	Bin storage and collection can lead to obstruction of the footpaths and cycle facilities. The Designer should ensure that refuse truck access and turning, bin storage and bin collection are all considered and comprehensively catered for within the development proposals.	Design Stage

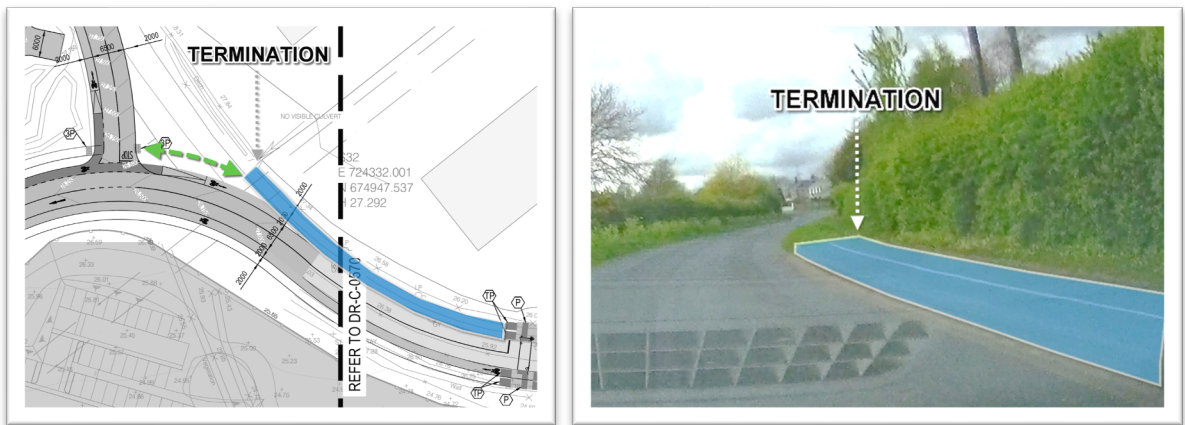
3. Stage 1 Road Safety Audit Issues

3.1 Problem: Continuity At Termination of Footpath & Cycle Track

Location: Section of Re-Aligned Local Road (Sheet 2 of 7)

Failing to provide a seamless connection for pedestrians here could lead to slips, trips and progression issues for mobility impaired road users.

Figure 3.1 – Gap in Provision Between Existing Footpath Termination & New Footpath Facility



Recommendation

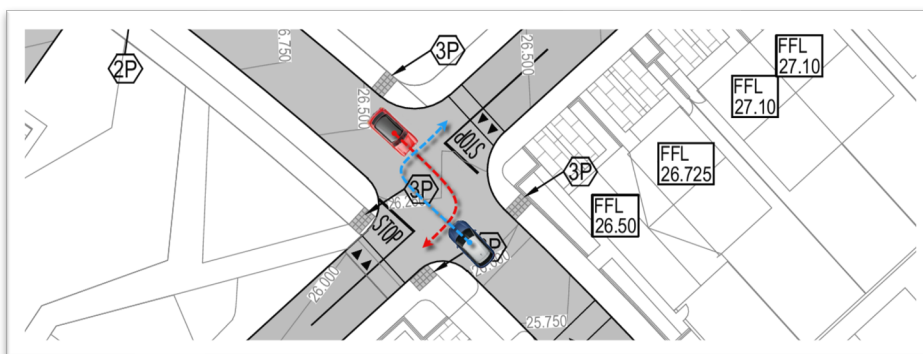
A seamless footpath connection should be provided here.

3.2 Problem: Opposing Right Turn Conflicts

Location: Opposing Streets with Partial Stagger (Sheet 2 of 7)

The unusual 'left to right' side road stagger is likely to result in head-on type conflicts between opposing vehicles both wishing to turn right at the same time.

Figure 3.2 – Partial 'Left to Right' Side Road Stagger Creating Opposition Between Right Turners



Recommendation

The offset between the stagger should be either i) removed, to create a standard cross roads, ii) reversed to create a 'right to left' stagger or iii) increased to allow opposing right turners sufficient space to hook around each other.

3.3 Problem: Long Reversing Manoeuvres in Homezone Street

Location: Long Homezone Cul de Sac without Turning Head (Sheet 4 of 7)

Failing to provide a turning facility at the end of the Cul de Sac could lead to long (and risky) reversing manoeuvres where pedestrians (including children at play) will be required to share space with vehicles.

Figure 3.3 – Drivers Attempting to Reverse in Cul de Sac Placing Vulnerable Road Users at Risk



Recommendation

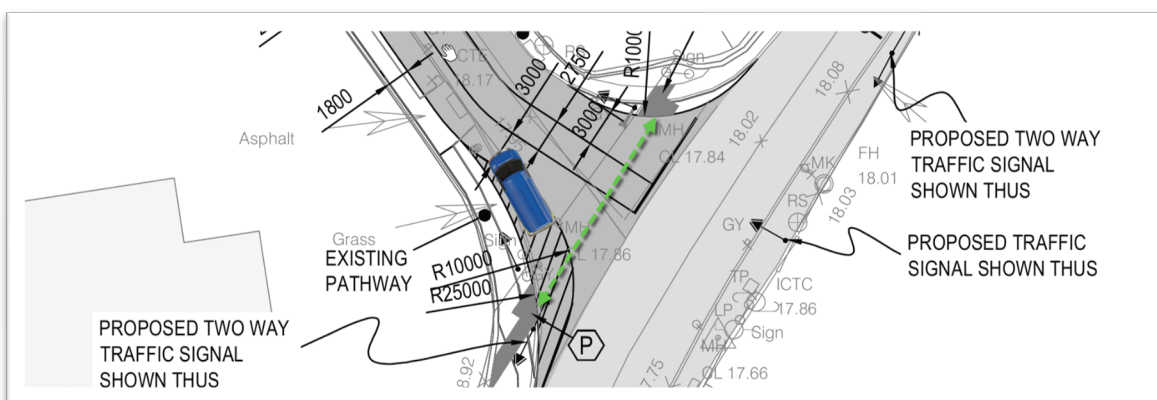
A suitable vehicle turning head should be provided at the end of the Cul de Sac.

3.4 Problem: Long Crossing Distance for Pedestrians

Location: Beech Road / Dublin Road Junction Improvement (Sheet 7 of 7)

The hatched island will require pedestrians to make an uncomfortably long street crossing. Inbound left-turning drivers may overrun the hatch, increasing both vehicle speeds and the risk of conflict with pedestrian.

Figure 3.4 – Left Turners Over-Running Hatch & Long Crossing Distance for Pedestrians



Recommendation

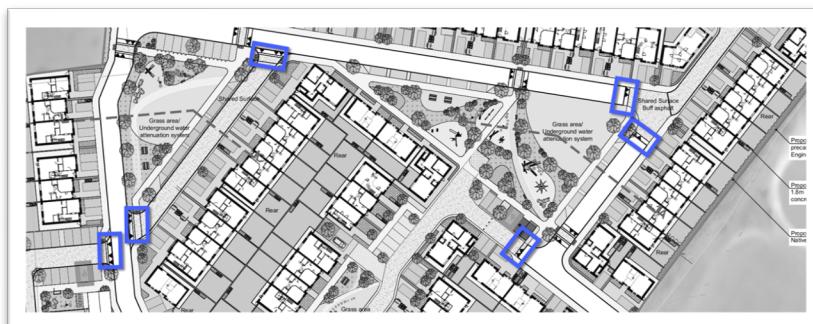
The suggested hatched road marking left turn build out should be substituted with a standard kerbed island build-out.

3.5 Problem: Treatment of Homeszone Entry Points

Location: All Homeszone Gateway Entry Points

Drivers may not immediately recognise that on Homeszone streets, they are required to yield to pedestrians, including children playing, who share the road space. This situation has the potential to heighten the risk of conflict between vehicles and vulnerable road users within Homeszone streets.

Figure 3.5 – Example Entry Points to Homeszones Where Pedestrians & Vehicles will Share Space



Recommendation

Drivers should be clearly informed that they are entering a Homeszone street. Measures might include conscious pedestrian refuge zones, surface colour changes, in-lane roundels, and gateway signage at entry points.

4. Audit Team Statement

4.1 Certification & Purpose

We certify that we have examined the drawing(s) listed in Chapter 1 of this Report.

Sole Purpose of the Road Safety Audit

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified to improve the road safety aspects of the scheme.

4.2 Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements.

We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

Audit Team's Independence to the Design Process

No member of the Audit Team has been otherwise involved with the design of the measures audited.

4.3 Road Safety Audit Team Sign-Off

Martin Deegan

Audit Team Leader

Road Safety Engineering Team

traffico

Signed:



Date:

29th April 2025

Shane Kearns

Audit Team Member

Road Safety Engineering Team

traffico

Signed:



Date:

29th April 2025

5. Designers Response

5.1 How the Designer Should Respond to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team for consideration. See flow-chart following for further description.

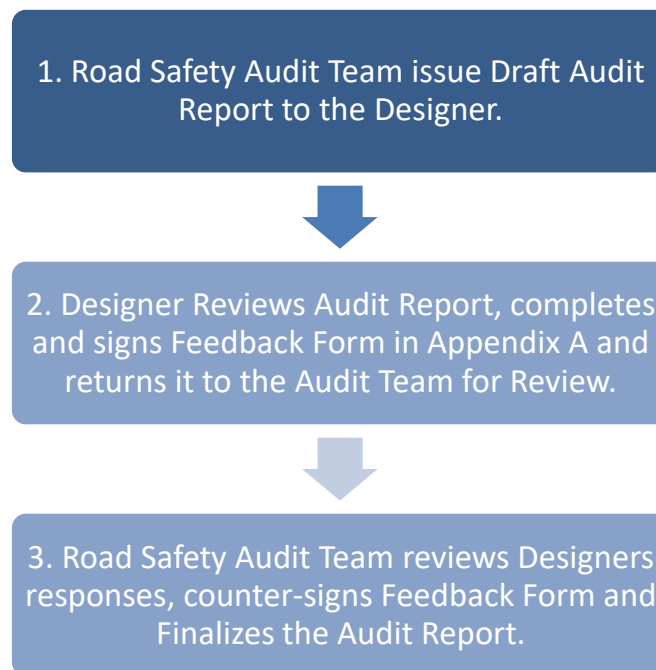


Figure 5.1 – Road Safety Audit Sign-Off and Completion Process

5.2 Returning the Completed Feedback Form

The Designer should return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email address:

- Email address: martin@traffico.ie
- Telephone: 01 699 1551

The Audit Team will consider the Designer's response and reply indicating acceptance or otherwise of the Designers response to each recommendation.

Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.

Appendix A

A.1 Road Safety Audit Feedback Form

Road Safety Audit Feedback Form

Scheme: Lands at Kilbride, Arklow

Audit Stage: Quality Audit

Audit Date: 29th April 2025

Problem Reference (Section 2)	Designer Response Section			Audit Team Response Section
	Problem Accepted (yes / no)	Recommended Measure Accepted (yes / no)	Alternative Measures or Comments	Alternative Measures Accepted (yes / no)
2.1	Y	Y	Comment: continuation of path provided and incorporated on site layout drawing 2432-DOB-XX-SI-DR-C-0520	Comment noted.
2.2	y	N	The staggered junction main through road is southeast to northwest. The 2 arms forming the junction serves 6 dwellings to the southwest and 11 to the north east. Both these arms have 2 options for exiting on the main arterial roads through the site, so up to 3 houses may use this junction to the south west and 5 or 6 to the northeast. There is no demand for traffic from the north to turn onto both these streets and it is likely that all traffic using this junction will be approaching from the southern direction only. Given the very low volumes of traffic and that all of the traffic turning movements will be from the southern arm only, we would consider that the staggered junction will not create a traffic hazard in its current arrangement	Yes.
2.3	Y	Y	As an alternative to the turning head, provision has been made for a through road will be provided to the road to the north to avoid a cul-de-sac in this home zone	Comment noted.
2.4	Y	N	It is accepted that the hatched island requires a longer pedestrian crossing that normal. However, the left hand turning of HGV vehicles at this junction requires this area to be level with the road to avoid HGV mounting the kerb. Refer to Autotrack drawing 2432-DOB-XX-SI-DR-C-0610. We would suggest that the provision of the hatching is necessary for pedestrian safety at this junction, as the normal and standard build out of a kerb island is not feasible in this instance.	Yes - also noting that the traffic signal controlled crossing will offer mitigation.

Problem Reference (Section 2)	Designer Response Section			Audit Team Response Section
	Problem Accepted (yes / no)	Recommended Measure Accepted (yes / no)	Alternative Measures or Comments	Alternative Measures Accepted (yes / no)
2.5	Y	Y	Surface colour changes and gateway signage will be provided at the entry points to home zones as recommended.	Comment noted.

**The Designer should complete the Designer Response Section above, then fill out the designer details below and return the completed form to the Road Safety Audit Team for consideration and signing.*

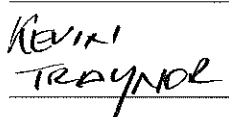
Designer's Name: Donnachadh O'Brien

Designer's Signature:

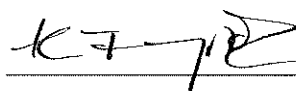


Date: 30.04.2025

Employer's Name:



Employer's Signature:



Date:

01.05.25

Audit Team's Name:

Martin Deegan

Audit Team's Signature:



Date:

15th May 2025



traffico

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