

AtkinsRéalis



Stage 1 Road Safety Audit

Uisce Éireann

December 2025

5161805DG0459

MORTARSTOWN WASTEWATER TREATMENT PLANT UPGRADE - RSA 1

Notice

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Client signoff

Client	Uisce Éireann
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1. Introduction

1.1 Background

This report describes the findings of a Stage 1 Road Safety Audit associated with Uisce Éireann's proposed Mortarstown Wastewater Treatment Plant (WwTP) Upgrade. The site is located south of Carlow, Co. Carlow with the entrance to the WwTP located along Green Road.

The Design Team confirmed the following to the Audit Team by way of a Brief:

- There is no designated footpaths or cycleways withing the existing WwTP layout.
- There is no line marking of pedestrian paths or parking bays within the existing WwTP.
- There is no proposed upgrade to existing internal roads (pavement and linemarking).
- There are some new access roads to the new upgrade WwTP as shown on the landscape plan.
- There is one entry/exit point to the site with no designated pedestrian walkway/cycle way.
- In summary there is no proposed changes to the existing but there are some additional access roads added internally.

The primary objective of the project is to upgrade the WwTP to service current and future agglomeration loading, ensuring the scheme complies with the Urban Wastewater Treatment Regulations 2001 (in accordance with Waste Water Discharge Authorisation [WWDA]) and to maintain the designation and status of the receiving waters.

The Audit has been completed by AtkinsRéalis on behalf of Uisce Éireann.

1.2 RSA Site Location

The site location is shown in Figure 1-1, with the red line boundary indicating the extent of the Audit. The site includes the primary WWTP (to the south) and the existing Kilkenny Road Pump Station (to the north). The former has proposed internal site changes, which may increase usage of the entrance onto Green Road. The latter has no changes proposed as part of the works, and so has not reviewed as part of the Road Safety Audit¹.

¹ A Road Safety Audit is not required if there are no proposed changes.





Figure 1-1 - RSA Site Location

1.3 Site Inspection

The site inspection was carried out on 10th September 2025 by the Audit Team. Occasional traffic northbound and southbound along Green Rd. was noted. Vehicle and pedestrian traffic conditions during the audit were low with no cyclist movement observed.

The weather conditions during the site inspection were overcast and the road surface wet. The site visit was completed during daylight hours.

1.4 The Team

The Road Safety Audit Team members were as follows:

- Team Leader: **Shane Tobin**, BA BAI P.Cert (RSA) C.Eng
- Team Member: **Cheslyn Gardiner**, BEng, MEng, C.Eng, MIEI
- Observer: **Thabang Rakgotho**, BSc (Eng), MIEI

1.5 The Design

The drawings listed in Table 1-1 were provided by the Design Team as part of the Stage 1 Road Safety Audit. However, only Drawings 5161805_EWE_DR_MOR_1101 to 1104 are relevant to the Stage 1 RSA in terms of the safety of road users. The internal road network of the WWTP is not accessible to the public, and the operation therein is a matter that is principally covered by the Safety, Health and Welfare at Work Act and its Regulations; rather than a Road Safety Audit.

Table 1-1 - Design Team Drawing List

Drawing No.	Drawing Title	Revision	Status
5161805_EWE_DR_MOR_1101	MORTARSTOWN WWTP UPGRADE - SITE LOCATION	6	I



Drawing No.	Drawing Title	Revision	Status
5161805_EWE_DR_MOR_1102	MORTARSTOWN WWTP UPGRADE - EXISTING SITE LAYOUT	5	I
5161805_EWE_DR_MOR_1103	MORTARSTOWN WWTP UPGRADE - PROPOSED SITE LAYOUT	6	I
5161805_EWE_DR_MOR_1104	MORTARSTOWN WWTP UPGRADE - PROPOSED SITE LANDSCAPING LAYOUT	1	I
5161805_EWE_DR_MOR_1110	MORTARSTOWN WWTP UPGRADE - PROPOSED PROCESS FLOW DIAGRAM	3	I
5161805_EWE_DR_MOR_1111	MORTARSTOWN WWTP UPGRADE - PROPOSED INLET WORKS GENERAL ARRANGEMENT	4	I
5161805_EWE_DR_MOR_1112	MORTARSTOWN WWTP UPGRADE - PROPOSED STORM TANK GENERAL ARRANGEMENT	3	I
5161805_EWE_DR_MOR_1114	MORTARSTOWN WWTP UPGRADE - PROPOSED PRIMARY SETTLEMENT TANKS GENERAL ARRANGEMENT SHEET 1 OF 2	4	I
5161805_EWE_DR_MOR_1115	MORTARSTOWN WWTP UPGRADE - PROPOSED PRIMARY SETTLEMENT TANKS GENERAL ARRANGEMENT SHEET 2 OF 2	4	I
5161805_EWE_DR_MOR_1116	MORTARSTOWN WWTP UPGRADE - PROPOSED FINAL SETTLEMENT TANKS & RAS PS GENERAL ARRANGEMENT SHEET 1 OF 2	3	I
5161805_EWE_DR_MOR_1117	MORTARSTOWN WWTP UPGRADE - PROPOSED FINAL SETTLEMENT TANKS & RAS PS GENERAL ARRANGEMENT SHEET 2 OF 2	4	I
5161805_EWE_DR_MOR_1118	MORTARSTOWN WWTP UPGRADE - PROPOSED SLUDGE BLENDING TANKS GENERAL ARRANGEMENT	3	I
5161805_EWE_DR_MOR_1119	MORTARSTOWN WWTP UPGRADE - PROPOSED SLUDGE THICKENING TANKS GENERAL ARRANGEMENT	3	I
5161805_EWE_DR_MOR_1120	MORTARSTOWN WWTP UPGRADE - PROPOSED MODIFICATIONS TO SLUDE DEWATERING BUILDING GENERAL ARRANGEMENT	3	I
5161805_EWE_DR_MOR_1121	MORTARSTOWN WWTP UPGRADE - PROPOSED MODIFICATIONS TO SLUDE DEWATERING BUILDING ELEVATIONS	4	I
5161805_EWE_DR_MOR_1122	MORTARSTOWN WWTP UPGRADE - PROPOSED MODIFICATIONS TO AERATION TANK BLOWER PIPEWORK	2	I
5161805_EWE_DR_MOR_1123	MORTARSTOWN WWTP UPGRADE - PROPOSED PUMP STATION	3	I
5161805_EWE_DR_MOR_1124	MORTARSTOWN WWTP UPGRADE - OUTFALL CHAMBER PLAN & SECTION	3	I
5161805_EWE_DR_MOR_1125	MORTARSTOWN WWTP UPGRADE - BLOWER BUILDING	2	I



Drawing No.	Drawing Title	Revision	Status
5161805_EWE_DR_MOR_1126	MORTARSTOWN WWTP UPGRADE - PROPOSED MODIFICATIONS TO ADMINISTRATION BUILDING	2	I
5161805_EWE_DR_MOR_1127	MORTARSTOWN WWTP UPGRADE - PROPOSED STOREGE SHED PLAN, ELEVATIONS & SECTION	3	I
5161805_EWE_DR_MOR_1137	MORTARSTOWN WWTP UPGRADE - PROPOSED OUTFALL PIPE PLAN & SECTION	5	I
5161805_EWE_DR_1150	MORTARSTOWN WWTP UPGRADE - PROPOSED INLET PUMPING STATION	2	S1
5161805_EWE_DR_MOR_1500	KILKENNY ROAD PUMPING STATION TO MORTARSTOWN WWTP UTILITY PLAN	P01	S1
5161805_EWE_DR_MOR_1501	KILKENNY ROAD PUMPING STATION TO MORTARSTOWN GRAVITY MAIN SEWER TUNNEL	P01	S1
5161805_EWE_DR_MOR_1502	KILKENNY ROAD PUMPING STATION TO MORTARSTOWN WWTP LONG SECTION	P01	S1
5161805_EWE_DR_MOR_1503	KILKENNY ROAD PUMPING STATION TO MORTARSTOWN WWTP CROSS SECTION	P01	S1
5161805_EWE_DR_MOR_1504	KILKENNY ROAD PUMPING SATION TO MORTARSTOWN WWTP TYPICAL DETAILS OF SHAFTS C, D & E	P01	S1
5161805_EWE_DR_MOR_1505	KILKENNY ROAD PUMPING STATION TO MORTARSTOWN WWTP TRENCH & TUNNEL DETAILS	P01	S1

1.6 Road Safety Audit Compliance

Procedure and Scope

This 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** and **GE-STY-02027 – Road Safety Audit Guidelines**.

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. Road Safety Issues Identified

2.1 Problem: Overgrown Vegetation Obscuring Sightlines

Location: North of the entrance to the WwTP.

Overgrown vegetation along Green Road verge was observed to obscure intervisibility between approaching road users and those exiting Mortarstown WwTP, which could increase the risk of collisions between these road users.



Figure 2-1 – Overgrown Vegetation

Recommendation:

Vegetation along Green Road should be maintained regularly to ensure it does not impede visibility.

2.2 Problem: Poorly Secured Temporary Traffic Cones

Location: North and South of the WwTP entrance.

The temporary traffic cones placed at the north and south of the WwTP entrance are inadequately secured. During heavy storms the temporary traffic cones may be displaced onto the roadway and lead to unexpected vehicular movements as road users swerve or suddenly brake to avoid the traffic cones. This could result in rear-end shunt type collisions or head-on collisions.

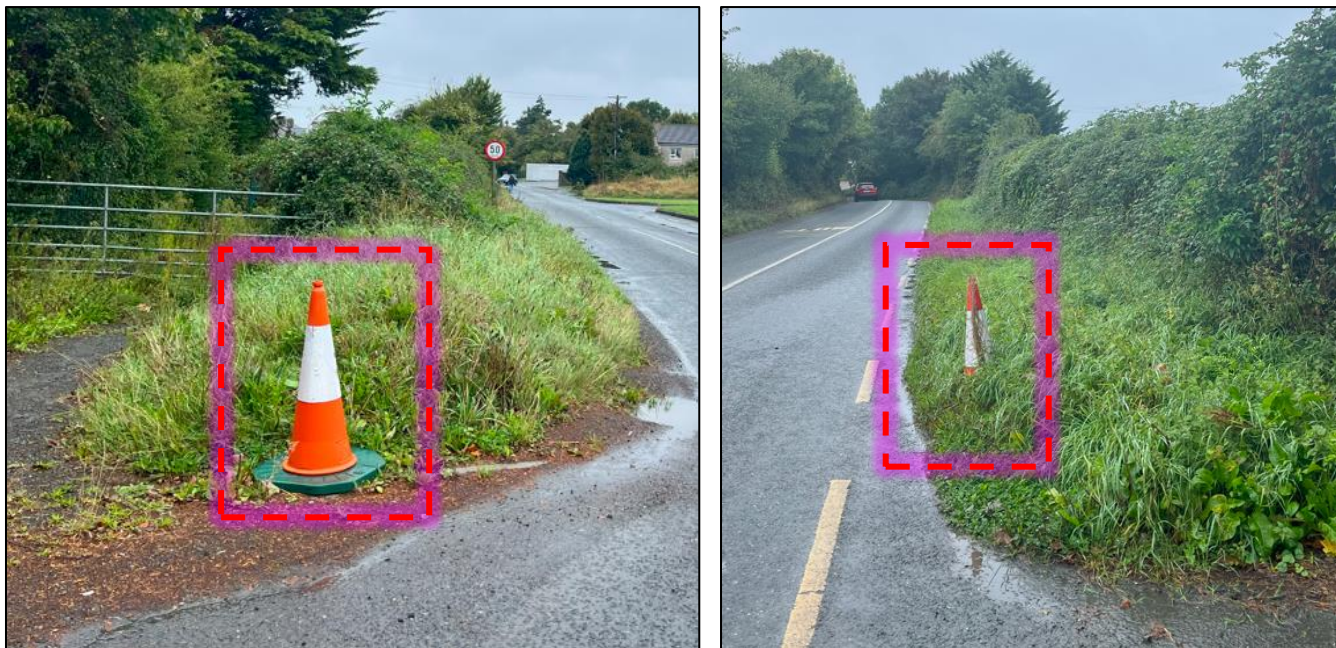


Figure 2-2 – Poorly secured temporary traffic cones north and south of the WwTP entrance.

Recommendation:

The temporary traffic cones should be removed and consultation undertaken with the WwTP to consider a permanent bollard installation, if the temporary cones were to highlight the entrance.

3. Audit Team Statement

3.1 Certification

We certify that we have examined the drawings listed in Section 1 of this Report.

3.2 Sole Purpose

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.

3.3 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.

3.4 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.

3.5 Road Safety Audit Team Sign-Off

Shane Tobin

Audit Team Leader

Road Safety Engineering Team

ATKINSRÉALIS

Signed:



Date:

26/09/2025

Cheslyn Gardiner

Audit Team Member

Road Safety Engineering Team

ATKINSRÉALIS

Signed:



Date:

10/09/2025

Thabang Rakgotho

Audit Team Observer

Road Safety Engineering Team

ATKINSRÉALIS

Signed:



Date:

10/09/2025



4. Designer's Response

4.1 Preparing a Response 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.

4.2 Returning the Feedback Form

Please return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email or postal address:

Email: Shane.Tobin@atkinsrealis.com

Postal address: Road Safety Engineering Team
AtkinsRéalis,
AtkinsRéalis House,
150 Airside Business Park
Swords
Co Dublin
K67 K5W4

Telephone: 00 353 (0)1 810 8000

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

4.3 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.



APPENDICES

Appendix A. Road Safety Audit Feedback Form

Scheme: MORTARSTOWN WASTEWATER TREATMENT PLANT UPGRADE - RSA 1

Audit Stage: Stage 1 Road Safety Audit

Date Audit Completed: 26th September 2025

To be completed by the Designer				To be completed by the Audit Team
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures or comments	Alternative Measures accepted by Auditors (yes/no)
2.1	Yes	Yes	To be actioned prior to construction stage commencement.	
2.2	Yes	Yes	To be actioned prior to construction stage commencement.	

Signed by the Designer:

Date: 04/12/2025



Signed by the Audit Team Leader:

Date: 10/12/2025



Signed by the Employer:

Date: DD/MM/2025



Appendix B. Auditor Approvals

First Name: Shane

Last Name: Tobin

Email: shane.tobin@atkinsrealis.com

Auditor Ref No.: ST273743

Organisation: Atkins

Registered: Yes

Eligible as team member: Yes

Eligible as team leader: Yes

Client: Yes

Auditor: Yes

Team Member Approval Date: 02/01/2025

Team Leader Approval Date: 02/01/2025

Leader Expiry Date: 12/04/2027



User
First Name: Cheslyn
Last Name: Gardiner
Email: Cheslyn.Gardiner@atkinsrealis.com
Auditor Ref No.: CG341585
Organisation: Atkins
Registered: Yes
Eligible as team member: Yes
Eligible as team leader: No
Client: Yes
Auditor: Yes
Team Member Approval Date: 18/08/2025



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