AtkinsRéalis

Road Safety Impact Assessment

WS Atkins Ireland Limited

18/11/2024

0088798DG0043

N59 OUGHTERARD FOOTBRIDGE

Notice

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1.0	Draft Report	EON	MS	EON	MC	23/07/2024
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Client signoff

Client	WS Atkins Ireland Limited
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1. Introduction

Atkins Ireland have been appointed by Galway County Council as Consulting Engineers for the proposed N59 Oughterard Footbridge project. Atkins are responsible for the design, planning documentation, construction tender documentation, contract administration and site supervision, and the role of Project Supervisor Design Process.

The proposed N59 Oughterard Footbridge is to span across the Owenriff River close to or adjacent to the existing trafficked stone arched Oughterard Bridge, Co. Galway. The main objective of the proposed pedestrian bridge is to improve the pedestrian connectivity between the Town Centre to the south and the schools to the north of the river. The proposed bridge will pass over the Owenriff River – Lough Corrib Special Area of Conservation (SAC – Site Code 000297).

1.1 The Scope of the RSIA Report

This Road Safety Impact Assessment report (RSIA) will consider the road safety implications of the proposed options and will compare the impact of each option to determine which one would provide the safest outcome. This assessment of the proposed designs for N59 Oughterard Footbridge is in accordance with TII Publication PE-PMG-02001 and PE-PMG-02005 (December 2017) which includes the requirements of the EU Directive 2008/96/EC on Road Infrastructure Safety Management (RISM) under Irish Law SI 472 of 2011. The conclusions and recommendations in this report are based on current available information.

1.2 Site Location

The site is on a national secondary route and the location is in Galway County in the village of Oughterard. The site extends 250m east and west along the existing N59 from the Oughterard Road Bridge (GC-N59-040.00) and 250m along Carrowmanagh Road.

Figure 1-1 - Structure Location Map

1.3 RSIA Study Area

The study area is detailed in Figure 1-2 and extends 250m from the existing stone arch bridge west and east along the N59 and from the junction of the N59/Carrowmanagh Road north past the schools.

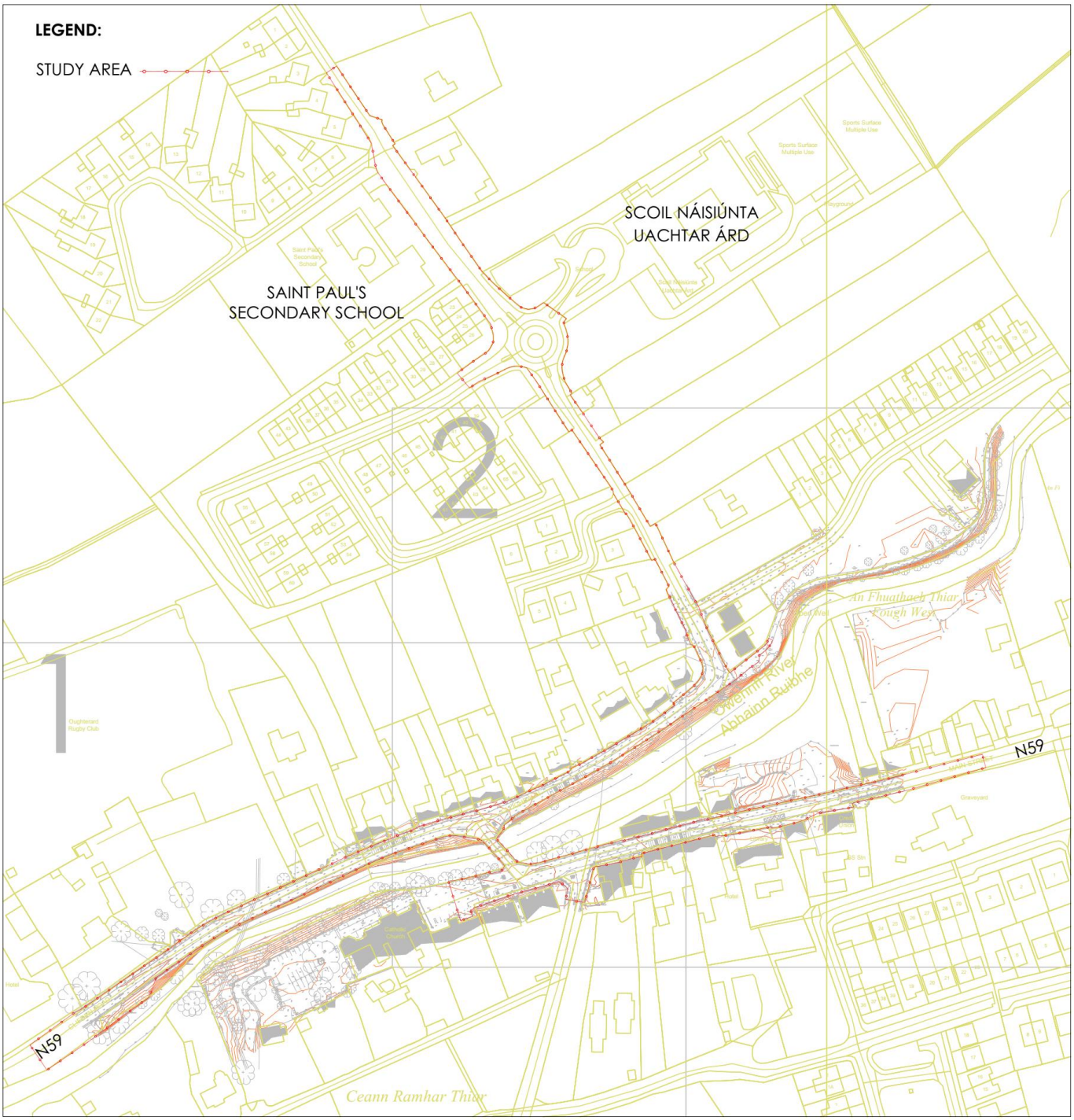


Figure 1-2 - Extent of the Study Area

1.4 Existing Infrastructure

1.4.1 Existing Road Network

The existing N59 is a sub-standard national secondary road that goes through the centre of Oughterard and crosses the Owenriff River by means of a narrow stone arch bridge. All through traffic, cross the river at this bridge. Along the N59 there are varying widths of footpaths provided but this is not continuous, there are no cycle provisions throughout the town and a distinct lack of pedestrian/cycle facilities at the bridge.

Figure 1-3 - Existing Road Network and School Locations

The following is a detailed description of the existing road network and any pedestrian and cycle facilities:

- The study area extends west of Oughterard along the N59 to the end of the parking layby adjacent to the river. At this location (see Figure 1-3) the road is a narrow single carriageway with a parking bay for perpendicular parking on the left between the N59 and the river and a footpath provided on the right. This cross section continues along the N59 towards the bridge with the verge on the river side narrowing to a point where a low-level wall is provided as separation between the road and the river (see Figures 1-4 to 1-6).

Figure 1-4 - Looking West with the Parking Layby on the Left and the Footpath and Single Dwelling Residential Properties on the Right.

Figure 1-5 **- Looking Towards the Bridge with the Low-Level wall on the Right-Hand Side**

Figure 1-6 – N59 Looking East with the Low-Level wall on the Left-Hand Side and Single Dwelling Residential Properties on the Right.

- The junction between the N59 and Carrowmanagh Road is just north of the existing stone arch road bridge. At this location (see Figure 1-7) the road widens out with the low-level wall between the river and the road on the left-hand side and a footpath provided on the right. The junction is directly adjacent to the bridge (see Figures 1-8 and 1-9) with poor visibility to the left.

Figure 1-7 - Junction between N59 & Carrowmanagh Road.

Figure 1-8 - Looking West from Carrowmanagh Road towards the Junction at the Bridge.

Figure 1-9 - Visibility to the Left from Carrowmanagh Road onto N59

- The N59 continues south and over the bridge into the town of Oughterard. At this location (see Figure 1-10) the bridge is a very narrow single carriageway with no cycle, or pedestrian facilities provided. The forward visibility along the N59 is poor due to the 90º bends on both approaches with vehicles having to yield to one another as typically only one vehicle will fit across the bridge (see Figure 1-10).

Figure 1-10 - N59 Owenriff Stone Arch Bridge

- South of the bridge there is an access to the right into the church car park and the N59 continues through the commercial centre of Oughterard as a single carriageway with a low-level wall on the left and a narrow footpath on the right with intermittent parking and shop fronts opening directly onto the footpath. (see Figures 1-11 to 1-14).

Figure 1-11 - Access to Church Car Park on the South Side of the Bridge

Figure 1-12 - Looking East from the Bridge towards the Town

Figure 1-13 - End of Parking Bay and Overflow Parking on the Double Yellow Lines.

Figure 1-14 - Commercial Property adjacent to Footpath with Goods Placed within the Footpath

- Carrowmanagh Road is a narrow local road and the section under consideration starts at the junction with the N59 just north of the existing stone arch road bridge and extends approximately 50m beyond St Paul's Secondary School. The road is a narrow single carriageway with substandard, narrow and intermittent footpaths provided along both sides. From the junction with the N59 the road heads east parallel to the river and turns sharply at a 90º bend and heads north with two schools, single residential dwellings and small housing estate roads fronting onto the Carrowmanagh Road on either side until it meets the roundabout at the entrance to Scoil Náisiúnta Uachtar Árd. Beyond the roundabout the road widens to provide perpendicular parking outside St. Paul's secondary school and then it narrows again with no footpaths on either side. (see Figures 1-15 to 1-22).

Figure 1-15 - Looking West towards the Junction with the N59 and Bridge from Carrowmanagh Road

Figure 1-16 - Looking West towards the N59 Junction and Lack of Footpaths on either Side of the Road

Figure 1-17 - Looking West along Carrowmanagh Road with verge and Slope to River on the Left-Hand Side & Residential Properties on the Right Fronting Directly onto the Road.

Figure 1-18 - Looking South along Carrowmanagh Road towards the 90º Degree Bend

Figure 1-19 - School Children Walking South along Carrowmanagh Road in the Substandard Narrow Footpath

Figure 1-20 - Large Roundabout outside Scoil Náisiúnta Uachtar Árd with non-standard Parking Observed on the Roundabout

Figure 1-21 - Perpendicular Parking and Bus Parking outside St. Paul's Secondary School.

Figure 1-22 - Looking South along Carrowmanagh Road form the Extent of the Study Area.

1.4.2 Existing Traffic Levels

Traffic data on the N59 was collected from the existing TII Permanent Traffic Counters located between Maam Cross TMU N59 250.0 E, Site ID 000000001595 and Moycullen TMU N59 280.0 ID S, Site 000000001591. A summary of the Average Annual Daily Traffic (AADT) and percentage Heavy Goods Vehicles (HGV) is provided in Table 1-1 and Table 1-2. Comparing the years 2022 to 2023 (where almost full coverage was achieved) , the tables indicate that traffic volumes have increased by 7% close to Maam Cross and by 16% at Moycullen in the same comparison period. The significant % increase since 2020 at Moycullen is more than likely due to the lock-down restrictions in place during the Covid19 pandemic in the years 2020 and 2021. *(Note: TII Traffic Counter data taken on18th November 2024)*

Table 1-1 - AADT Figures from TMU N59 250.0 E

TMU N59 250.0 E	2020	2021	2022	2023	2024*
5926		2534	3319	3550	3813
% HGV		2.6%	2.7%	2.8%	2.5%
Annual Coverage		16.0%	100%	98.6%	85.8%

Table 1-2 - AAT Figures from TMU N59 280.0 S

TMU N59 280.0 S	2020	2021	2022	2023	2024*
5926	5926	6786	7852	7965	8258
% HGV	2.8%	2.3%	4.3%	2.9%	2.4%
Annual Coverage	98.7%	100%	100%	100%	87.9%

1.4.3 Existing Level of Service

The level of service (LOS) being provided by a road is assessed using recognised international standards. LOS is a qualitative measure describing operational conditions within a traffic stream, and levels are categorised from LOS A, which indicates free flow conditions, to LOS F, which indicates a breakdown in flow. At Level of Service D conditions are considered to be moving from stable flow to unstable flow. Speeds begin to decline slightly with slight increase of

flows and density begins to increase somewhat more quickly. Freedom to manoeuvre within the traffic stream is more noticeably limited, and the driver experiences reduced comfort levels.

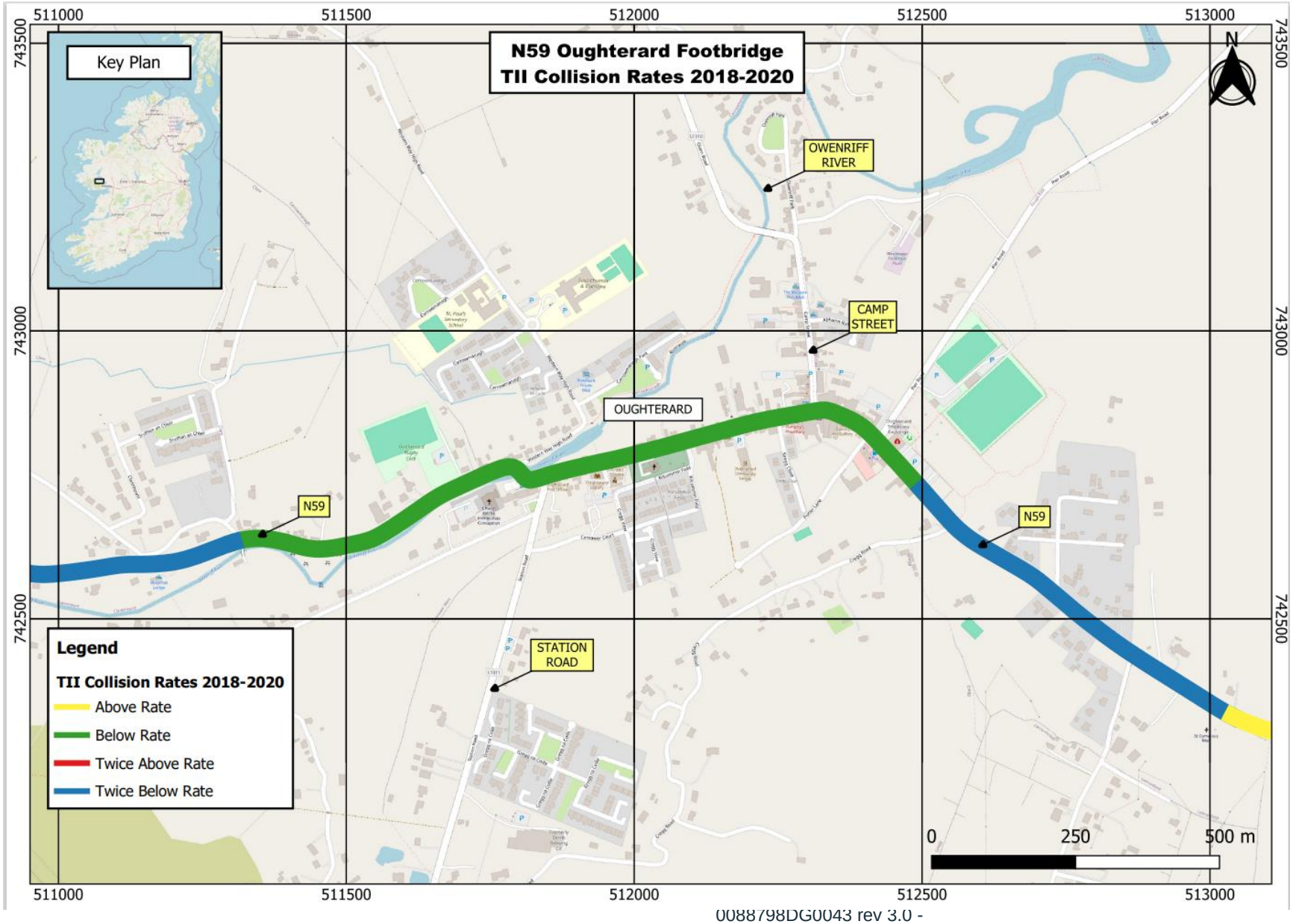
The TII Road Link Design Standard provides guidance on the approximate capacity of different road types to provide a Level of Service D in terms of AADT. The N59 road within the study corridor is generally comparable to a Type 3 single carriageway (i.e. 6m carriageway, 0.5m hard strips and 3m verge with ghost island or roundabout junctions), though, there are significant inconsistencies in the road cross-section widths in terms of carriageway, hard-shoulders and verges. For a standard Type 3 single carriageway, a capacity of 5,000 AADT is indicated for the provision of LOS D.

The AADT in Table 1-2 above of 7,899 is over 6% in excess of the LOS D capacity of 5,000 AADT for a standard Type 3 single carriageway. The current AADT is below the limit for the provision of Type 2 single carriageway road with a capacity of 8,600, indicating that the existing road is operating at a level below LOS D. This indicates that traffic flows and operations along this section of the N59 are currently volatile and vulnerable to instability when subject to minor disruptions or incidents. It is also considered that this vulnerability will increase with prevailing traffic growth rates in the long term with further growth likely into the future based on Travel Demand Projections contained within Unit 5.3 – Travel Demand Projections of the PAG.

1.4.4 TII Network Safety Ranking Data

The TII Network Safety Ranking for the section of the N59 under consideration is shown in Figures 1-23 TII Network Safety Ranking for 2018 – 2020. The collisions recorded in these two years indicate that there is a collision rate of ‘Below Rate’ through the centre of the town, including the bridge and ‘Twice Below’ average from the junction between the N59 and the L5330 heading west beyond the scope of the scheme and from the junction with the N59 and Pier Road heading east to beyond the scope of the scheme. This indicates that there is not an existing safety issue along this section of the N59 given that the collision rate is either below or twice below average.

Figure 1-23 – TII Network Safety Ranking for 2018 - 2020



1.5 Collision Data

Transport Infrastructure Ireland provided existing collision information along the N59 from 2015 to 2023. Figure 1-24 give the location and details of the collisions.

Currently, access to the Road Safety Authority web site has been removed for use by third parties and as a result the existing collision information for Carrowmanagh Road cannot be analysed as part of this RSIA.

Table 1-3 - Collision Data 2015 - 2023

SOURCE	Road Type	KILLED	SERIOUS	MINOR	MATERIAL DAMAGE
TII – Reported Collisions 2015 - 2023	National Secondary N59	0	0	3	18
TOTAL		**0**	**0**	**3**	**18**

Summary & spatial distribution of data from reported collisions (2015 to 2023)

K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
0	0	3	18

Broad Collision Types	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Head-on	0	0	0	1
NMU	0	0	1	0
Other PCT	0	0	0	3
SVC	0	0	0	9
Veh to Veh	0	0	2	5
Total	**0**	**0**	**3**	**18**

Month	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
January	0	0	0	0
February	0	0	1	0
March	0	0	0	0
April	0	0	0	2
May	0	0	0	3
June	0	0	1	1
July	0	0	0	4
August	0	0	0	2
September	0	0	1	4
October	0	0	0	0
November	0	0	0	1
December	0	0	0	1
Total	**0**	**0**	**3**	**18**

Year	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
2015	0	0	1	1
2016	0	0	0	0
2017	0	0	1	4
2018	0	0	0	3
2019	0	0	0	4
2020	0	0	0	0
2021	0	0	0	2
2022	0	0	0	1
2023	0	0	1	3
Total	**0**	**0**	**3**	**18**

Lighting	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Dark-Good Lighting	0	0	0	2
Dark-No Lighting	0	0	0	0
Dark-Poor Lighting	0	0	0	0
Dark-Unlit Lighting	0	0	0	0
Day-Good Visibility	0	0	3	15
Day-Poor Visibility	0	0	0	1
Unknown	0	0	0	0
Total	**0**	**0**	**3**	**18**

Rd Surf Condition	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
Dry	0	0	3	13
Frost/Ice	0	0	0	0
Muddy	0	0	0	0
Oily	0	0	0	0
Other	0	0	0	0
Snow	0	0	0	0
Unknown	0	0	0	0
Wet	0	0	0	4
Total	**0**	**0**	**3**	**17**

RouteNo	K Coll Count	SI Coll Count	MI Coll Count	MDO Coll Count
N59	0	0	3	18
Total	**0**	**0**	**3**	**18**

The information provided by TII references the number of reported collisions known at this time. The classification of such information is subject to review and is therefore provisional. For internal use only. Not for distribution

Figure 1-24 - Transport Infrastructure Ireland Collision Data for the N59

1.6 RSIA Team

As per TII Publications PE-STY-02003 (December 2017) the RSIA team is made up of a Road Design Engineer and a Road Safety Auditor. These roles are fulfilled by the following AtkinsRéalis staff members

- Road Design Engineer (RDE) – Michal Szreder. Michal is a Principal Engineer with fifteen years post-graduate experience in road design. Michal has the required seven year post graduate experience in both urban and rural road design.
- Road Safety Auditor (RSA) – Eileen O Neill. Eileen is a Principal Engineer with 30+ years' experience in the field of road design and an approved TII Road Safety Audit Team Leader, has participated in numerous road safety audits, Road Safety Inspections on behalf of TII and has competed several RSIAs. Eileen has completed the requisite three day and five-day RSA training and in addition, holds a Certificate of Competence in Road Safety Auditing (2012). A copy of the TII approval for the RSA team member is included in Appendix A.

2. Description of the Options Considered

2.1 Footbridge Option 1 – 15m Upstream from Existing Road Bridge

This option crosses the Owenriff River to the west of the existing stone arch road bridge on the opposite side of the road to the junction with the Carrowmanagh Road. The northern end of the structure lands within a green area adjacent to the riverbank and on the southern side within the carpark area for the church. This option requires an additional pedestrian crossing on the N59 on the outer edge of the village.

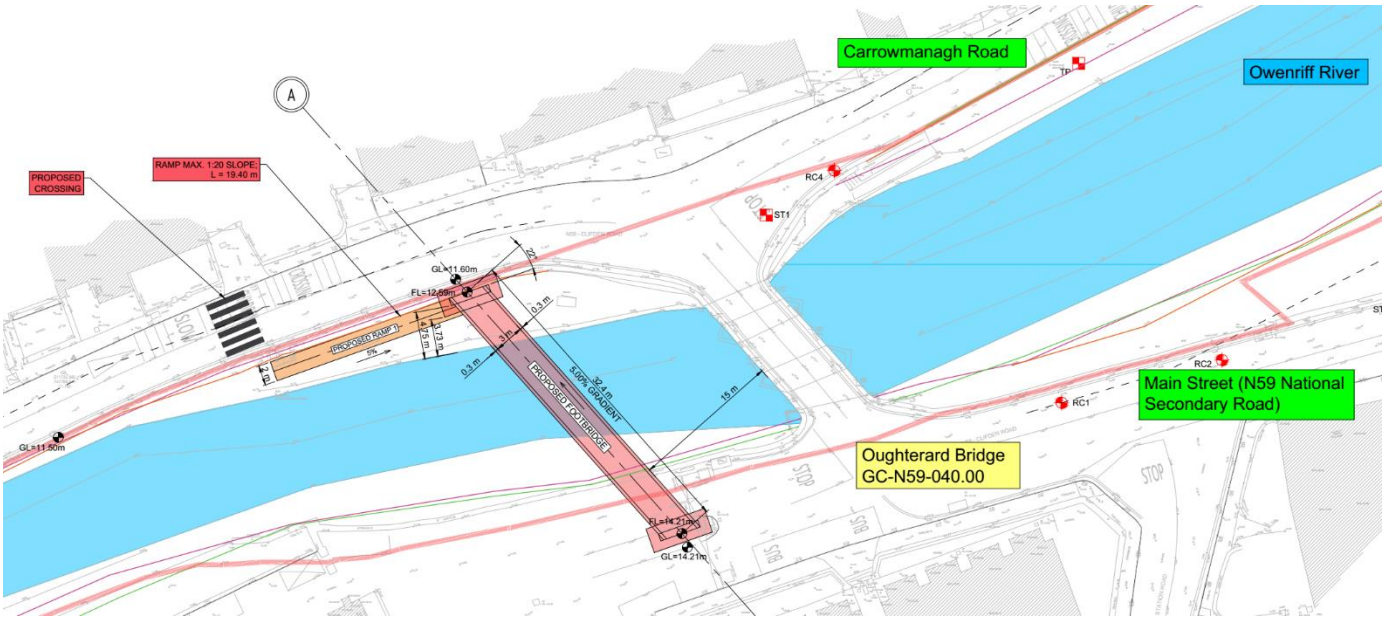


Figure 2-1 – Footbridge Option 15m Upstream from Existing Road Bridge

Table 2-1 – Footbridge Option 1 Safety Considerations

Advantages	Disadvantages
This location of the footbridge provides good visibility of the crossing from the surrounding area which will provide good passive surveillance to minimise anti-social behaviour.	The proposed footbridge is located up stream of the existing road bridge in a residential area of the village with few interruptions to the flow of traffic. For eastbound traffic there is poor forward visibility to pedestrians coming from the proposed footbridge and as such vehicles will not be expecting pedestrians to be crossing at this location on the N59 .
Provides some connectivity between the village and the schools and the residential areas to the north of the river to the village and church.	The landing area for the bridge on the southern side will seriously impact the parking area for the church. Existing issues with parking within the village which may be exacerbated further.
	The proposed landing area would impact the access/egress from the church carpark which may impact the flow of traffic on the N59 given its proximity to the existing road bridge.
	The bridge is on the upstream side which moves the pedestrian alignment further away from the desire line to the schools which

Advantages	Disadvantages
	may result in pedestrians continuing to use the existing road bridge.
	At the proposed location approach speeds on the existing N59 may be at the higher end of the posted speed limit or above, due the alignment at this location and the residential environment on the northern side of the N59 compared to busier crossing points within the village. In addition, south of the existing road bridge is a mixture of commercial and residential properties on both sides of the N59 with on-street parking, all acting as traffic calming measures and slowing the traffic.

2.1 Footbridge Option 2 – Attached Boardwalk on Downstream side of the Existing Road Bridge

crosses the Owenriff River on a boardwalk adjoining the east elevation of the existing stone arch traffic bridge and closely resembles the existing route taken by pedestrians accessing the schools. An additional pedestrian crossing is required on both the Carrowmanagh Road and the N59. The northern end of the structure lands on the southern side of the Carrowmanagh Road adjacent to the riverbank and approximately 40m from the junction with the N59.The southern end of the structure lands on the northern side of the N59, approximately 40m east of the existing stone road bridge with a proposed pedestrian crossing connecting to the footpath on the southern side of the N59.

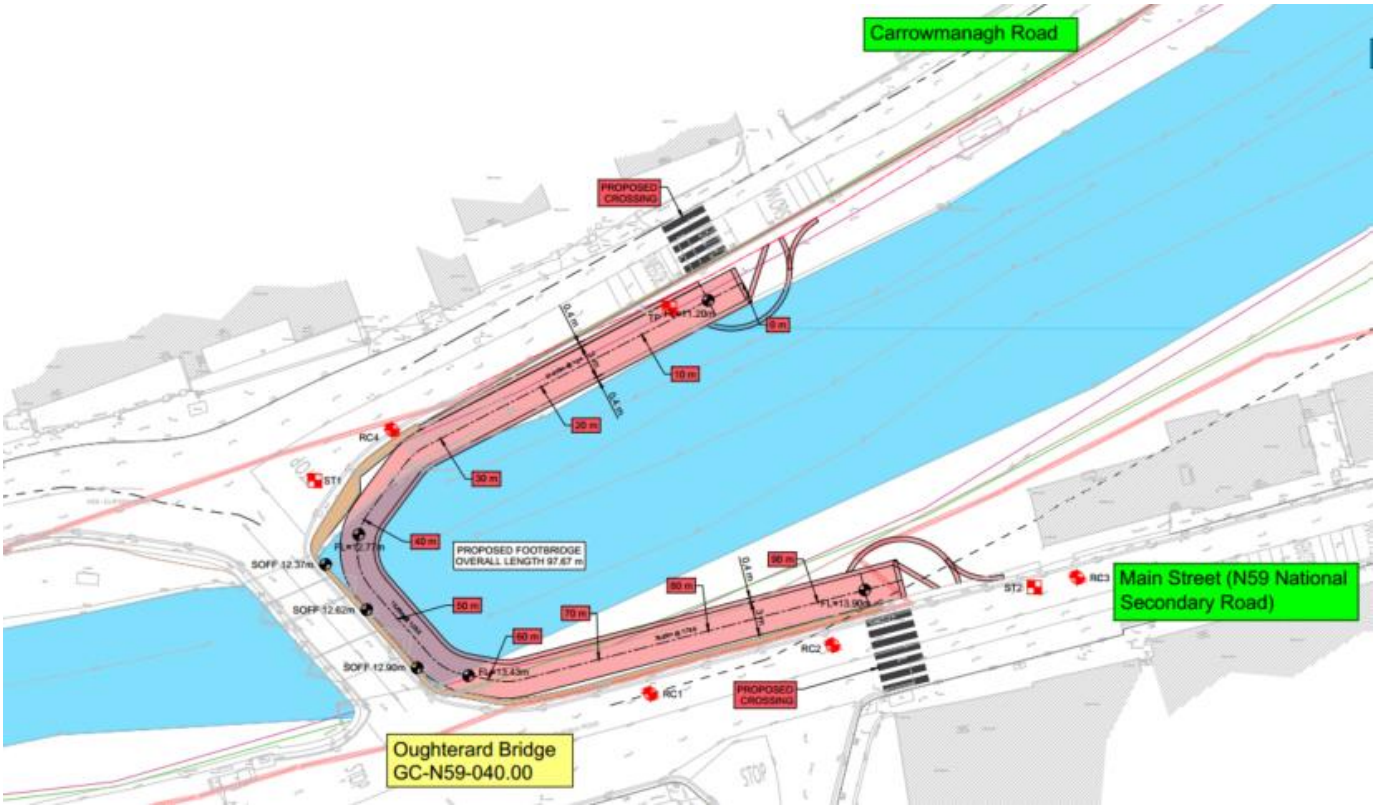


Figure 2-2 - Footbridge Option - Attached Boardwalk on the Downstream Side of the Existing Road Bridge

Table 2-2 – Footbridge Option 2 Safety Considerations

Advantages	Disadvantages
This location of the footbridge provides good visibility of the crossing from the surrounding area which will provide good passive surveillance to minimise anti-social behaviour.	The location of the pedestrian crossing on the southern side may seriously impact the traffic flow on the N59 given its proximity to the existing road bridge (40+m).
Provides some connectivity between the village and the schools and the residential areas to the north of the river to the village and church.	The location of the pedestrian crossing on the southern side may impact the traffic flow on Station Road given its proximity.
	The location of the pedestrian crossing on the northern side may seriously impact the traffic flow on the N59 and the Carrowmanagh Road given its proximity to the junction with the N59 (40+m).
	The location of the pedestrian crossing on the northern side crosses Carrowmanagh at a point where there is currently no continuity of footpath heading towards the schools.
	For users coming from the residential areas to the south along Station Road, there is a risk they might continue to use the existing road bridge due to the detour into the village and back out again to reach the proposed footbridge.
	The existing visibility splay to the left at the junction between the N59 and the Carrowmanagh Road is significantly impacted by two existing factors, the existing level difference between the N59 and the Carrowmanagh Road and the existing stone parapet. The proposed footbridge will have 1.4m parapet railings which may further impact this visibility splay.

2.2 Footbridge Option 3 – 58m Downstream of the Existing Road Bridge

This option crosses the Owenriff River 58m downstream of the existing road bridge and is a relatively direct route for pedestrians accessing the schools. An additional pedestrian crossing is required on both the Carrowmanagh Road and the N59. The northern end of the structure lands within the carriageway of the Carrowmanagh Road. As a result, a pinch point with single lane traffic is required for approximately 20+m. The southern end of the structure lands on the northern side of the N59, approximately 40m east of the existing stone road bridge with a proposed pedestrian crossing connecting to the footpath on the southern side of the N59.

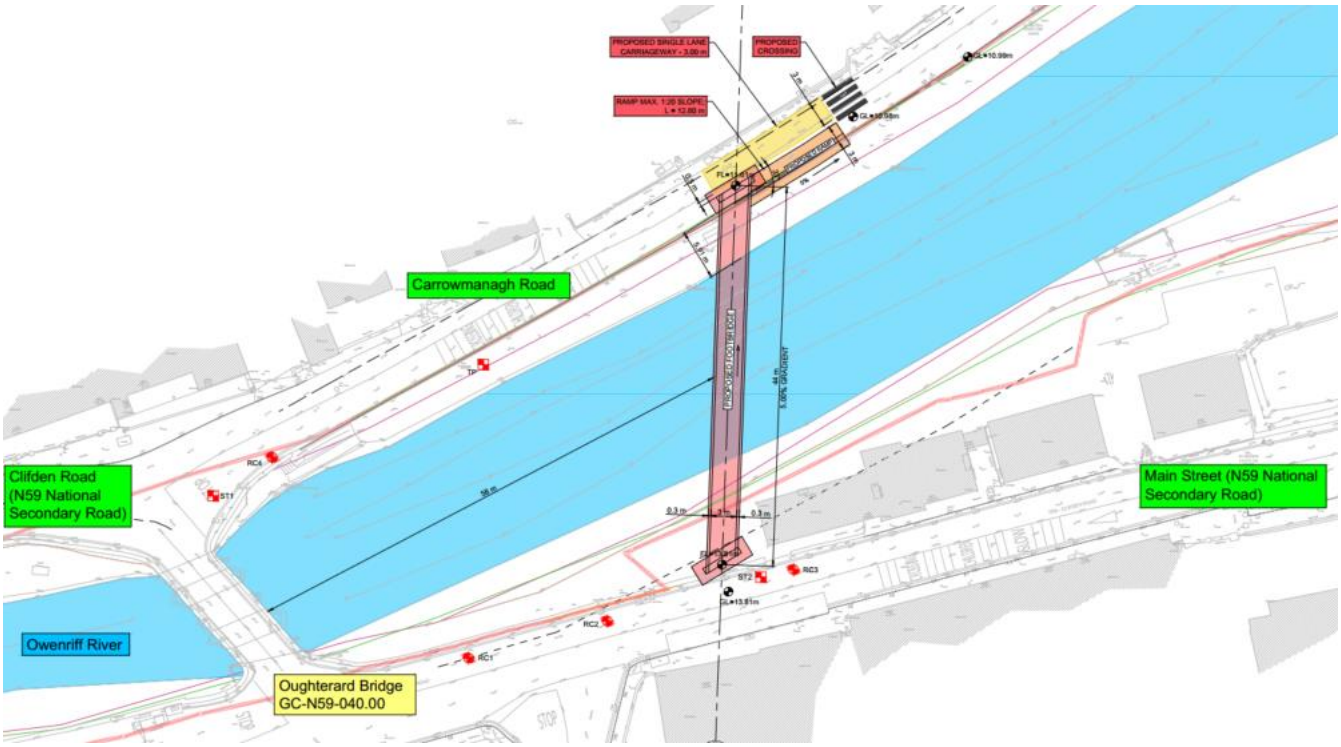


Figure 2-3 - Footbridge Option- 58m Downstream of the Existing Road Bridge

Table 2-3 – Footbridge Option 3 Safety Considerations

Advantages	Disadvantages
This location of the footbridge provides some visibility of the crossing from the surrounding area which will provide moderate passive surveillance to minimise anti-social behaviour.	The location of the pedestrian crossing on the southern side may seriously impact the traffic flow on the N59 given its proximity to the existing road bridge (approximately 40m).
Provides good connectivity between the village and the schools and the residential areas to the north of the river to the village and church.	The location of the pedestrian crossing on the southern side may impact the traffic flow on Station Road given its proximity.
The alignment of the bridge is on the desire line for pedestrians on the southern side of the river accessing the school.	The location of the pedestrian crossing in combination with the pinch point on the northern side may seriously impact the traffic flow on the N59 and the Carrowmanagh Road.
	The pedestrian crossing on the northern side crosses Carrowmanagh at a point where there is currently no continuity of footpath heading towards the schools.

2.3 Footbridge Option 4 – 77m Downstream of the Existing Road Bridge

This option crosses the Owenriff River 77m downstream of the existing road bridge and is a relatively direct route for pedestrians accessing the schools. An additional pedestrian crossing is required on both the Carrowmanagh Road and the N59. The northern end of the structure lands within the carriageway of the Carrowmanagh Road. As a result, a pinch point with single lane traffic is required for approximately 40+m. The southern end of the structure lands on the northern side of the N59, approximately 50m east of the existing road bridge with a proposed pedestrian crossing connecting to the footpath on the southern side of the N59.

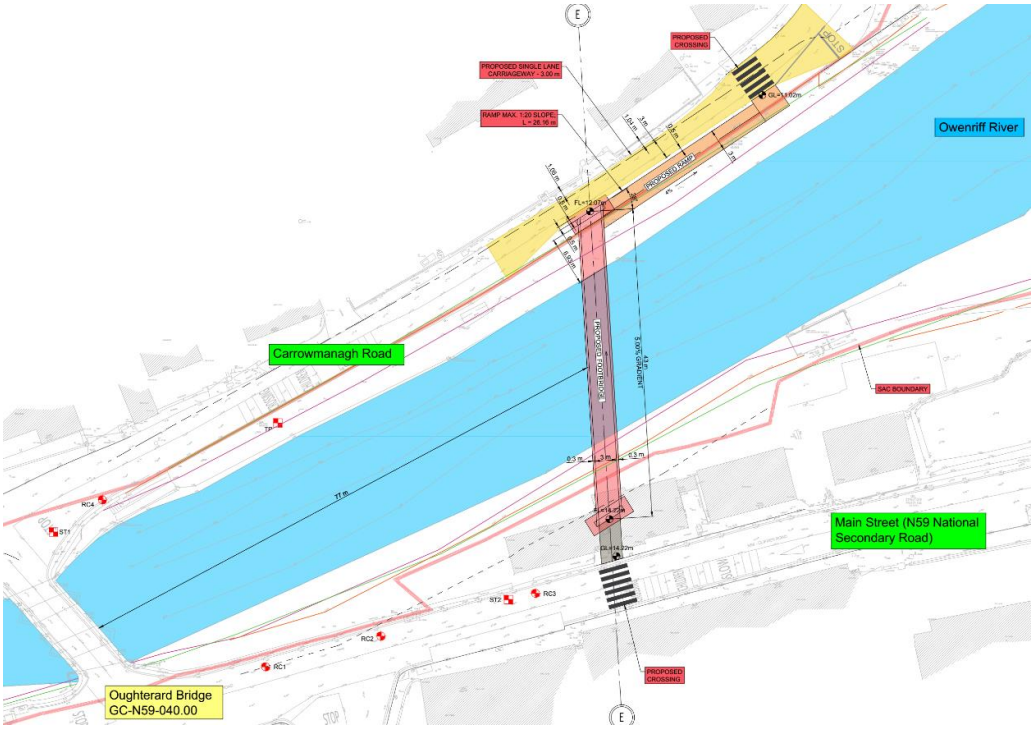


Figure 2-4 - Footbridge Option - 77m Downstream of the Existing Road Bridge

Table 2-4 – Footbridge Option 4 Safety Considerations

Advantages	Disadvantages
Provides good connectivity between the village and the schools and the residential areas to the north of the river to the village and church.	The location of the pedestrian crossing on the southern side may seriously impact the traffic flow on the N59 given its proximity to the existing road bridge (approximately 60m).
The pedestrian crossing on the northern side crosses the Carrowmanagh at a point where there is a continuous footpath heading towards the schools, albeit substandard in places beyond the extent of the works.	The location of the pedestrian crossing on the southern side may impact the traffic flow on Station Road given its proximity.
The alignment of the bridge is on the desire line for pedestrians on the southern side of the river accessing the school.	The location of the pedestrian crossing in combination with the pinch point on the northern side may seriously impact the traffic flow on the N59 and the Carrowmanagh Road.
	Poor visibility of the footbridge at this location with low level passive surveillance which may facilitate anti-social behaviour.

2.4 Footbridge Option 5 – 150m Downstream of Existing Road Bridge

This option crosses the Owenriff River 150m to the east of the existing road bridge close to the ninety-degree bend on the Carrowmanagh Road. The northern end of the structure lands with a setback of 2.5m from the adjacent property boundary wall and existing greenway that starts at this location and heads east along the riverbank. Similar to the previous option, an additional pedestrian crossing is required on both the Carrowmanagh Road and the N59. The southern end of the structure lands within a wooded area on the northern side of the N59, with a 20 -30m long shared area connection from the bridge to the proposed pedestrian crossing which connects to the existing footpath on the southern side of the N59.

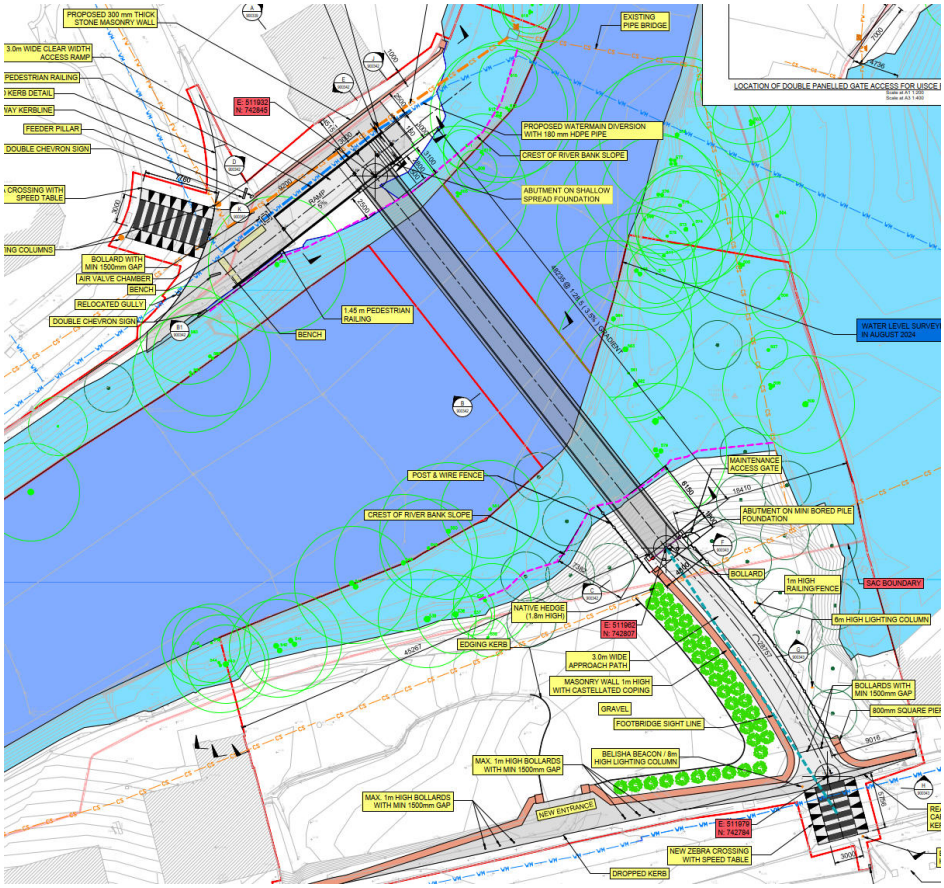


Figure 2-5 – Footbridge Option 5 – 151m Downstream of the Existing Road Bridge

Table 2-5 - Option 5 Safety Considerations

Advantages	Disadvantages
Provides a good location for the proposed pedestrian crossings on Carrowmanagh Road to the north and the N59 to the south.	Due to the elevation of the bridge and the associated railing required, this will form a narrow passageway of 2m for the existing riverside path on the north bank.
Provides good connectivity between the village and the schools and the residential areas to the north of the river to the village and church.	Bridge is away from the natural passive supervision of the N59 which may give rise to anti-social behaviour.

Advantages	Disadvantages
The alignment of the bridge is on the desire line for pedestrians on the southern side of the river accessing the school.	

3. Collision Analysis

3.1 Collision Data

The collision data used in this report has been provided by TII for the N59 national secondary road from 2015 to 2023. Over the nine years under consideration, there have been a total of twenty-one reported collisions which included, three minor injury collisions and eighteen material damage collisions (refer to Table 1-4 - Collision Data 2015 - 2023) on the N59.

Due to current GDPR restrictions the data provided is not linked to the location of each individual collision and as such an in-depth analysis cannot be carried out. In addition, the number of casualties is unknown for the minor collisions. The following are the Road Safety Authority documents referenced in the following analysis of the collisions reported:

- Road Casualties and Collisions in Ireland 2019 – Tables – Provisional
- Road Casualties and Collisions in Ireland 2018 – Tables

3.1.1 Road Safety Authority Collision Information

In the Road Safety Authority document, Road Casualties & Collisions in Ireland Report 2019, Table 5 Persons Killed and Injured in Each County 2015 – 2019 provides, the persons killed/persons injured data on the road network for County Galway. Table 3-1 of this report lists this data for the years 2015 – 2019.

Table 3-1 – Table 5 RSA Persons Injured on the Galway County Road Network 2014 - 2019

Year	2015	2016	2017	2018	2019
Persons Injured	479	424	360	402	412*
Persons Killed	12	10	5	7	7

Provision RSA figures for 2019

This data shows that the trend in persons injured was decreasing from 2014 to 2017 but that the figures have started to rise in 2018 and again in 2019. These figures include all personal injuries from serious to minor.

3.2 Collision Analysis

Figure 1-4 gives a breakdown of the collision information within the study area provided to the RSIA team for the years 2015 to 2023. At the site location there are only three collisions involving minor personal injuries over a nine-year period and the exact number of persons injured has not been provided.

Of the three minor collisions on the N59, two involved vehicle/vehicle type collisions and one involved a non-motorised user (NMU). The three minor collisions occurred in 2015, 2017 and 2023 and they account for 0.2% of all injuries recorded in County Galway in 2015 and 0.3% in 2017. The figures for 2023 are not available.

Given the location, poor road alignment and substandard facilities provided for both pedestrian and cyclists only one of the minor injuries involved a NMU in the nine-year period under consideration. The data does not indicate what year this collision involving the NMU occurred.

From this information we can see that in 2017, the highest number of collisions were recorded (five), four material damage collisions and one minor collision. This is followed by 2023 with three material damage collisions and one minor collision and 2019 with four material damage collisions occurring. The low number of collisions in 2020 to 2022

(zero collisions in 2020, two in 2021 and one in 2022) could be attributed to the lock downs in place during the COVID -19 pandemic. This data shows that, excluding the COVID years) the number and type of collisions are relatively consistent and are not reducing.

All three minor collisions and thirteen of the eighteen material damage collisions occurred on days with good visibility and dry surface conditions, indicating the light and surfacing are not contributing factors.

3.3 Existing Road Safety Issues

Based on the RSA Personal Injury Collision (PIC) data for the period 2015-2023 relating to Fatal, Serious and Minor collisions and detailed in Table 1-4 shows that the site has a low level of Fatal, Serious and Minor collisions, four in nine years, given the nature of the existing road and the poor pedestrian and cycle provisions. This is reflected in the network safety ranking which indicates a section of the N59 within the town as below average and the sections of the N59 either side of the village as twice below average.

Most of the recorded collisions along this section of the N59 are material damage type collisions and occurred on days with good visibility and dry surface conditions, indicating the light and surfacing are not contributing factors.

Given the nature of material damage type collision and the level of non-reporting, the exact number of these may be higher and as such the existing situation may be worse.

3.4 Conclusion

The high number of material damage collisions may be attributed to the existing alignment of the N59 within the study area which has poor forward visibility to on-coming traffic at the bridge and parking along the edge of the N59, both of which may be the cause of vehicle/vehicle material damage or collisions with the existing road bridge or parked cars.

The seriousness of the collisions involving NMUs can be more significant, and one minor NMU collision was reported within the study area. It kis noted that when vulnerable roads users are involved in a collision, they are at risk of more serious injuries, and it might be that there are a number of unreported near misses. Based on this the proposed footbridge would reduce the risk to NMUs at this location.

4. Recommendation

Based on the assessment above there is a need to provide improved facilities for both pedestrians and cyclists at the bridge location to minimise the risk of further collisions involving NMUs. The existing alignment may be self-enforcing but the result of a collision involving a NMU is more serious and could result in further fatalities.

Of the five options assessed, Option 5 - 150m Downstream of the Existing Road Bridge is the preferred option from a safety point of view. While this is the longest crossing length and slightly away from the surrounding network for passive surveillance, this crossing provides a relatively direct route for all users within the village and from Carrowmanagh Road. In addition, this option facilitates the safest positions to provide pedestrian crossings to connect the existing footpath infrastructure safely on both sides of the river and will not seriously impact the flow of traffic at the narrow stone arch road bridge.

APPENDICES

Appendix A. TII Approval for the RSA Team Member

Eileen O Neill
Atkins House
150 Lakeside Drive
Airside Business Park
Swords, Co.Dublin

Date: 25/11/2022

Ref: EO109345

re: APPROVAL AS ROAD SAFETY AUDITOR

Dear Eileen O Neill,

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	31/05/2025
Development Scheme	Team Leader	31/05/2025

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

Appendix B. Option Drawings

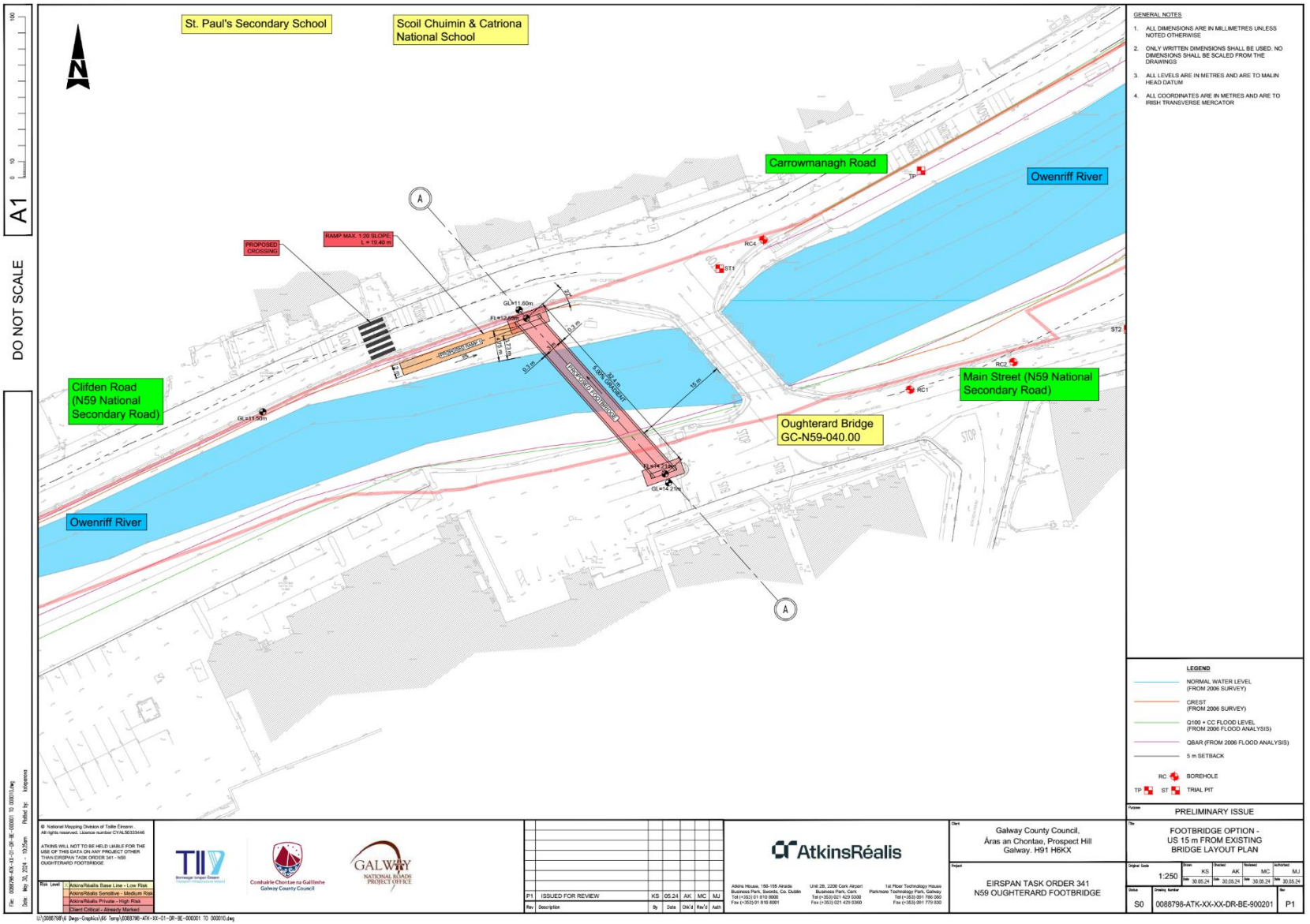


Figure B-1 - Option 1 - Upstream of Existing Road Bridge

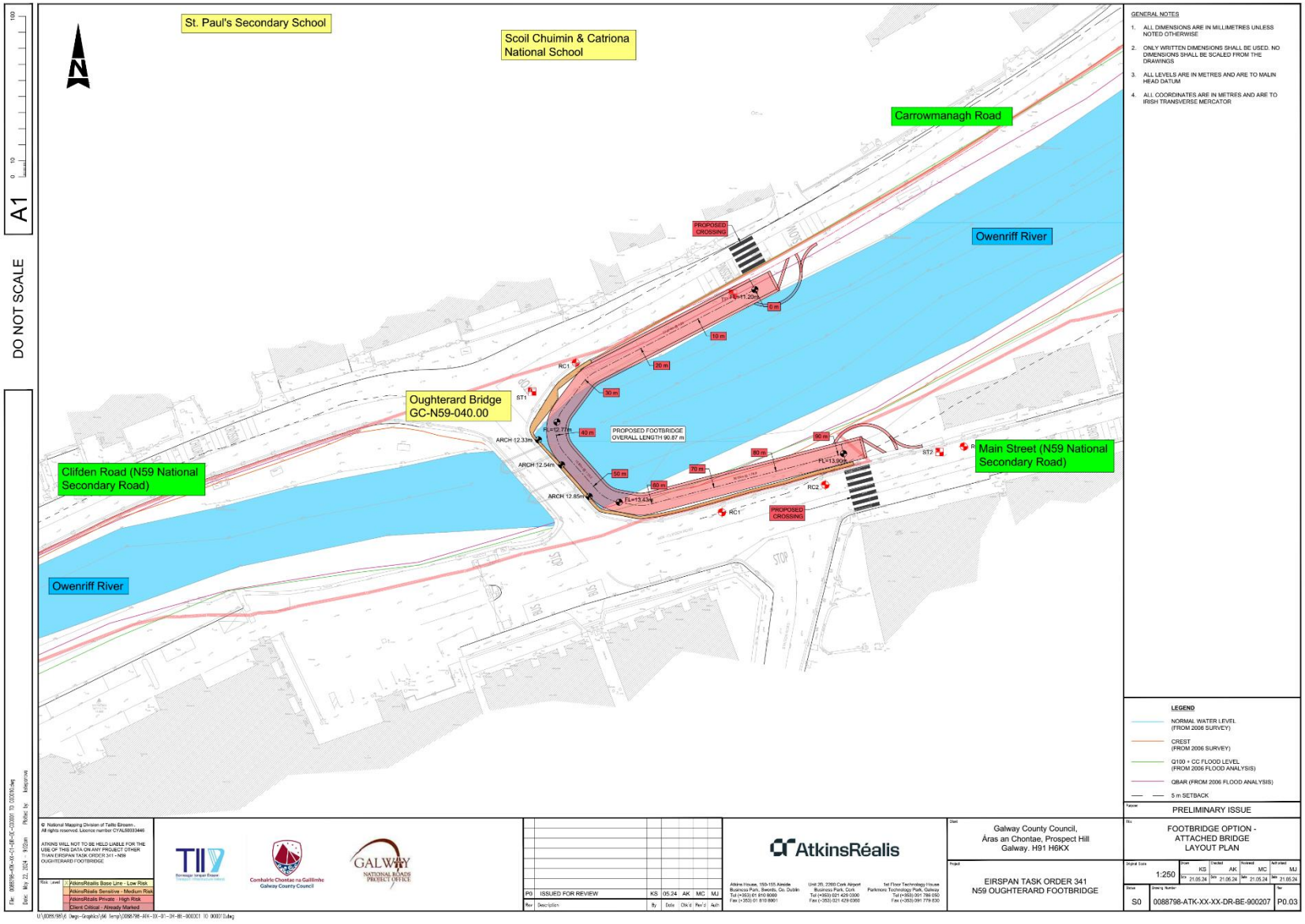


Figure B-2 - Option 2 – Attached to Existing Road Bridge

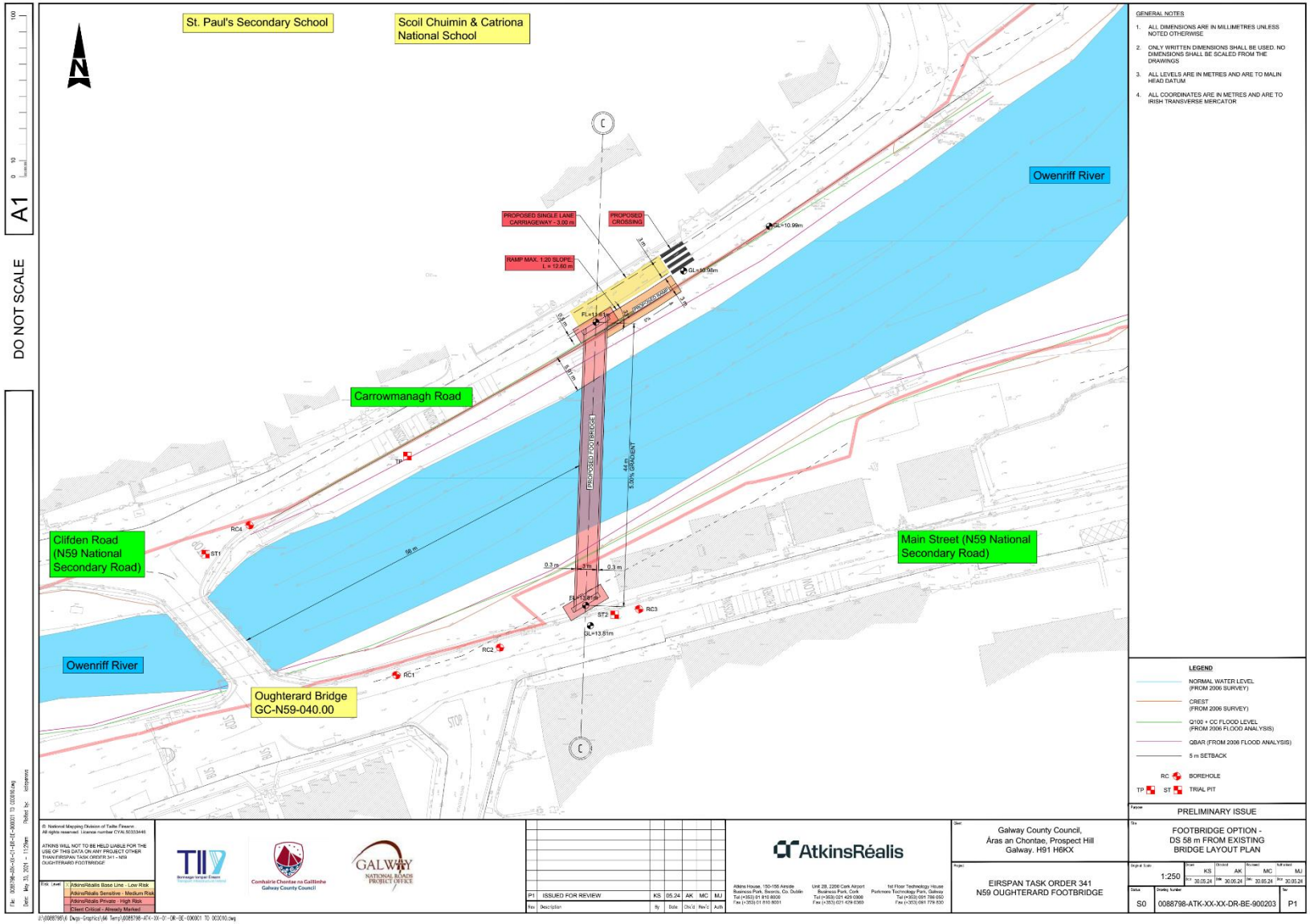


Figure B-3 - Option 3 - 58m Downstream of Existing Road Bridge

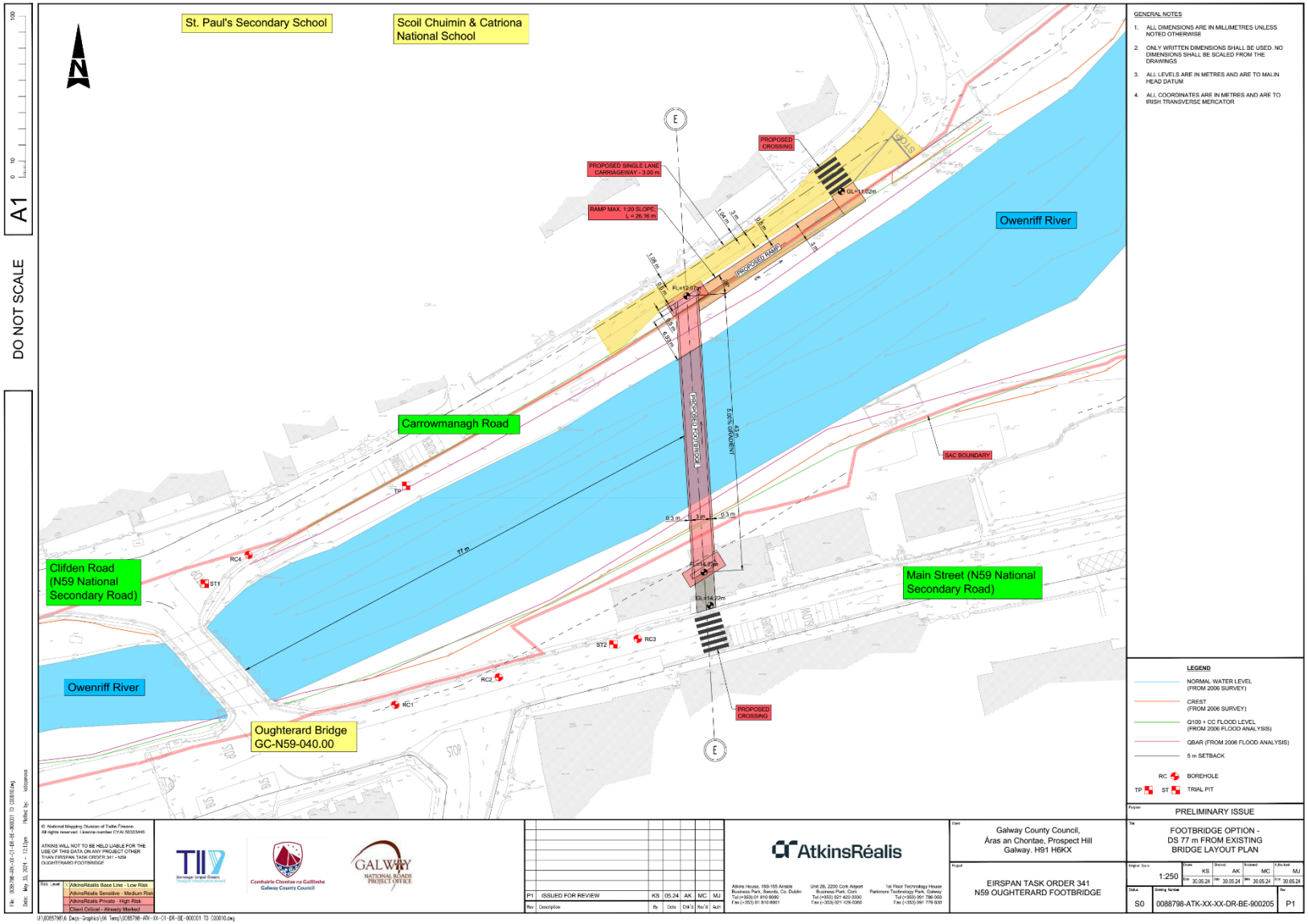


Figure B-4 - Option 4 - 77m Downstream of Existing Road Bridge

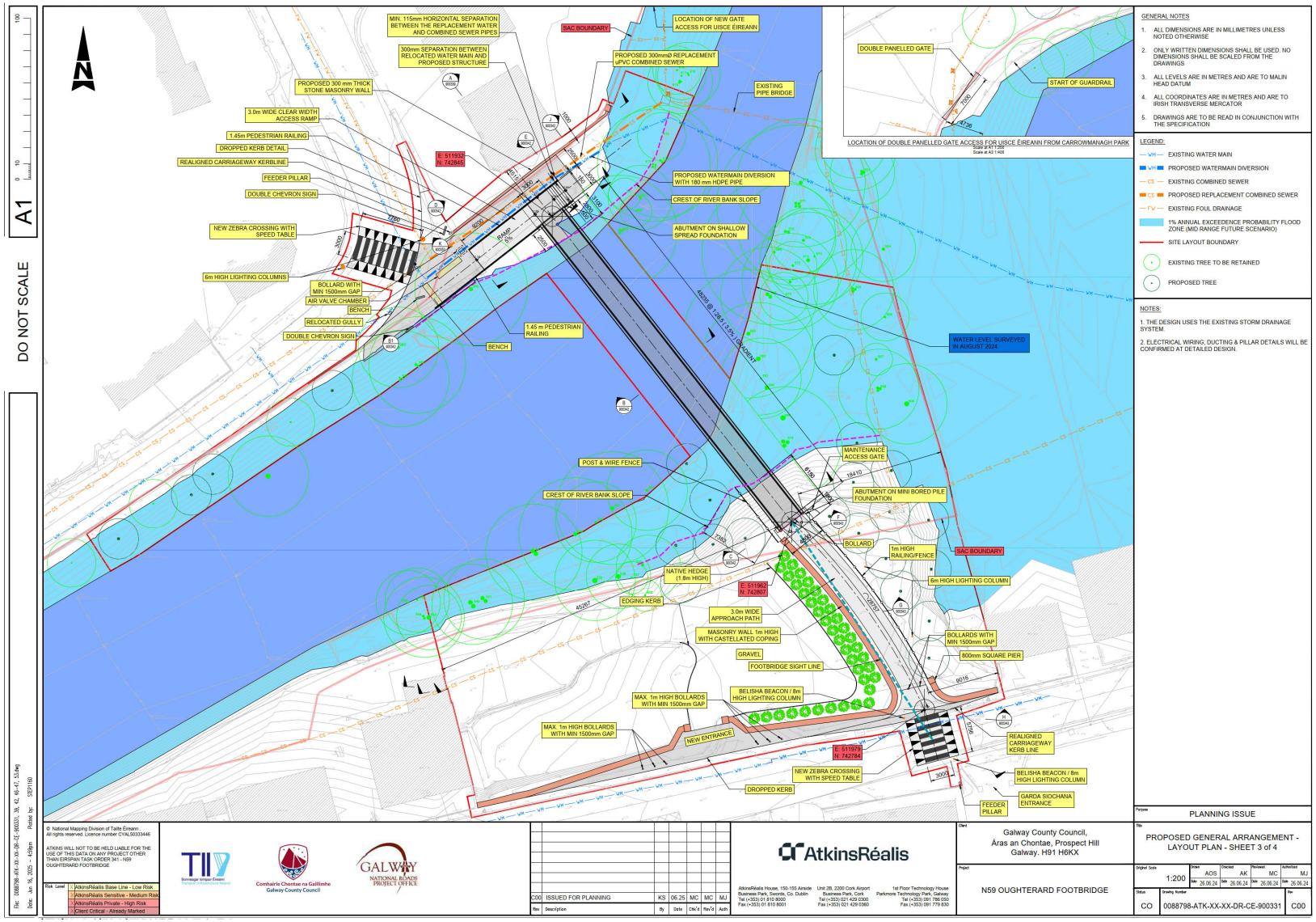


Figure B-5 - Option 5 - 151m Downstream of Existing Road Bridge

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