Aecom Ireland Ltd

Griffith Avenue Protected Cycle Lane Scheme between Walnut Rise and Charlemont Estate

Stage 3 Road Safety Audit

P·M·C·E

October 2021

Aecom Ireland Ltd

Griffith Avenue Protected Cycle Lane Scheme between Walnut Rise and Charlemont Estate

Stage 3 Road Safety Audit

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1 Introduction

1.1 General

This report results from a Stage 3 Road Safety Audit on the Griffith Avenue Protected Cycle Lane Scheme between Walnut Rise and Charlemont Estate carried out at the request of Mr Hugh McCarthy of Aecom Ireland Ltd.

The members of the Road Safety Audit Team are independent of the design team, and include: -

Mr. Alan O'Reilly
(BA BAI MSc CEng MIEI RSACert)
Road Safety Audit Team Leader

Mr. Mazen Al Hosni
(BEng, MIEI)
Road Safety Audit Team Member

Due to the current COVID-19 pandemic the Audit Team visited the site alone and were not accompanied by any members of the Design Team, Employer's Representative, Local Authority or An Garda Síochána. The Audit Team however requested that an invitation be issued to these individuals to visit the site themselves prior to the Stage 3 Road Safety Audit and to advise the Road Safety Audit Team of any issues that they raised during their site visit.

The road safety audit followed a site visit, during daytime and darkness, by all team members on the 25th August 2021. At the time of the daytime site visit the weather was dry and the ground surface was dry. Traffic volumes during the site visit were high, pedestrian and cyclist volumes were moderate and traffic speeds were considered to be generally within the posted speed limit.

At the time of the darkness site visit the weather was dry and the ground surface was dry. Traffic volumes during the site visit were low, pedestrian and cyclist volumes were low and traffic speeds were considered to be generally within the posted speed limit.

This Stage 3 Road Safety Audit has been carried out in accordance with the requirements of Transport Infrastructure Ireland's (TII) publication GE-STY-01024 (previously NRA HD19/15).

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety, and from the perspective of all road users. It has not been examined or verified for compliance with any other standards or criteria. The problems identified in this report are considered to require action in order to improve the safety of the scheme and minimise collision occurrence.

If any of the recommendations within this road safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observations are intended to be for information only. Written responses to Observations are not required.

2 Project Description

2.1 General

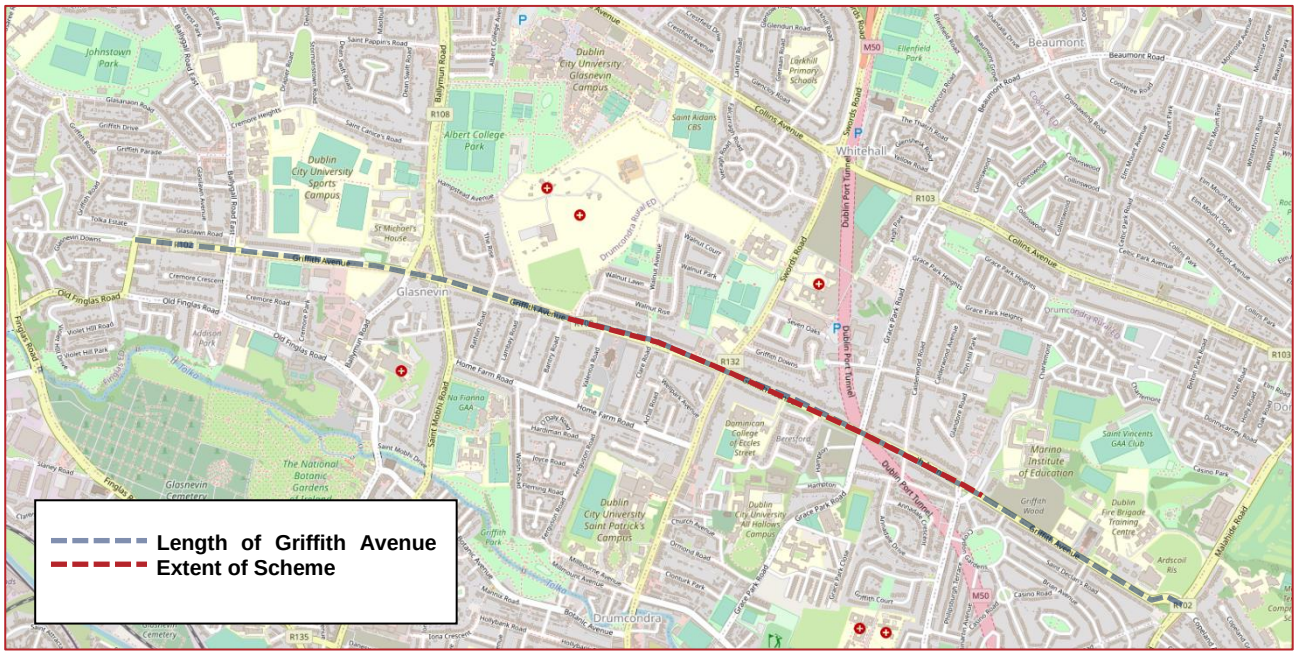


FIGURE 2.1: SCHEME LOCATION (SOURCE: WWW.OPENSTREETMAP.ORG)

The Scheme consists of the provision of protected cycle lanes on the R102 (Griffith Avenue), Co. Dublin between its junctions with Walnut Rise and the Charlemont Residential Estate, a distance of approximately 1.5km.

Griffith Avenue is a two-way single carriageway road which extends from its junction with Glasnevin Downs, in the West, to its junction with Malahide Road, in the East. It provides direct access to properties from the carriageway along its length. Within the extents of the Scheme there are a number of other amenities including the Dominican College, the Dublin Mortuary, An Post Delivery Office and the Corpus Christi Roman Catholic Church. Prior to the implementation of the Scheme, Griffith Avenue had wide traffic lanes and vehicles parked informally along the edge of the carriageway. There were limited cycle facilities, consisting of advisory cycle lanes in some locations. The posted speed limit on Griffith Avenue is 50kph.

Protected cycle lanes have been installed through the provision of road markings and reboundable bollards between the cycle lane and the adjacent traffic lane. On-street parking spaces have also been provided in some locations, with a hatched buffer zone between the cycle lane and parking spaces, and the cycle lane is routed to the rear of the parking spaces while drivers are guided around the parking spaces via a taper, arrow road markings and reflective bollards at the start of the on-street parking.

Road markings on the approaches to some junctions on Griffith Avenue have been amended to remove the nearside lanes, which were left-turn-only, or straight-ahead and left-turn.

Gaps in the bollards between the cycle lane and adjacent traffic lane have been provided at accesses and side road junctions. Yellow reflective bollards with a blue ‘Keep Right’ arrow for drivers and a blue ‘Keep Left’ arrow for cyclists have been provided in most instances at the recommencement of a row of bollards following gaps at side roads. Cycle signal heads have also been provided on traffic signal poles at pedestrian crossings and signalised junctions which are mounted at a cyclist’s eye level. At the start of a green phase for traffic on Griffith Avenue, cyclists are given a green signal a few seconds before vehicular traffic.

2.2 Collision History

The Road Safety Authority website (www.rsa.ie) was consulted to identify historical collisions in the vicinity of the proposed scheme. The website includes summary information on recorded collision occurrence for the period 2005 to 2016 (see Figure 2.2).

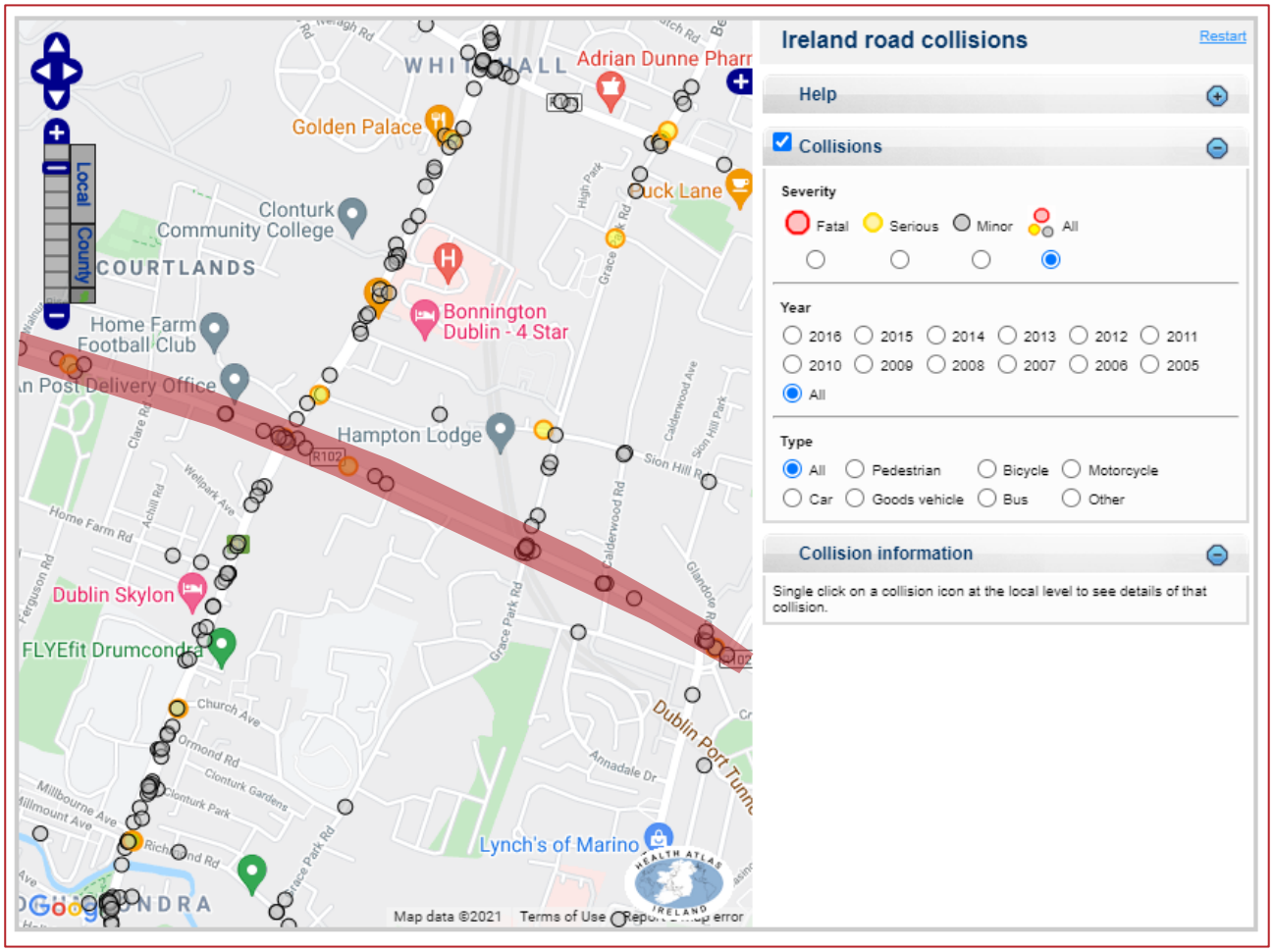


FIGURE 2.2: HISTORICAL COLLISIONS RECORDED WITHIN THE EXTENTS OF THE SCHEME BETWEEN 2005 AND 2016 (SOURCE: WWW.RSA.IE)

A number of collisions were recorded on Griffith Avenue within the extents of the Scheme during this period. Four Serious Injury Collisions and forty-one Minor Injury Collisions were recorded within the Scheme during this period. Table 2.1 below summarises the total number of collisions recorded within the Scheme.

15 collisions involved a vulnerable road user (VRU) (i.e. a pedestrian, cyclist or motorcyclist) which accounts for 33% of the total number of collisions recored during this period. 29 collisions (64.4%) were located at the signalised junctios within the Scheme, the N1/R132 Junction (13 collisions), the Grace Park Road junction (9 collisions) and the Glandore Road junction (7 collisions).

The number of collisions involving a VRU, one third of the total collisions recorded, suggests that measures were requried to improve the safety of VRUs along Griffith Avenue.

Severity	Year	Vehicle	Circumstances	No. of Casualties	Day of week	Time	Reference Location
Minor	2016	Car	Other	5	Tuesday	10am – 4pm	N1/R132 Junction
Minor	2016	Car	Other	1	Friday	7am – 10am	Glandore Rd. Junction
Minor	2016	Bicycle	Other	1	Sunday	7am – 10am	Grace Park Rd. Junction
Minor	2016	Bicycle	Other	1	Monday	3am – 7am	Glandore Rd. Junction
Minor	2016	Bicycle	Other	1	Saturday	7am – 10am	Glandore Rd. Junction
Minor	2015	Car	Head-on	1	Friday	4pm – 7pm	Calderwood Rd. Junction
Minor	2015	Car	Pedestrian	1	Tuesday	7am – 10am	Walnut Rise Junction
Minor	2014	Car	Rear End Shunt	2	Friday	10am – 4pm	West of N1 Junction
Minor	2014	Car	SVO	1	Tuesday	7am – 10am	East of N1 Junction
Minor	2014	Car	SVO	1	Sunday	7am – 10am	Grace Park Rd. Junction
Minor	2014	Car	Head-on	1	Wednesday	10am – 4pm	Calderwood Rd. Junction
Minor	2014	Bicycle	Other	1	Friday	4pm – 7pm	West of N1 Junction
Serious	2013	Bus	Other	1	Monday	11pm – 3am	Valentia Rd. Junction
Minor	2013	Car	Side-on	1	Tuesday	10am – 4pm	Calderwood Rd. Junction
Serious	2012	Car	Other	2	Monday	3am – 7am	N1/R132 Junction
Serious	2012	Undefined	Other	1	Wednesday	10am – 4pm	Glandore Rd. Junction
Minor	2012	Car	Other	1	Thursday	10am – 4pm	Charlemont Estate Junction
Minor	2012	Goods Vehicle	Pedestrian	1	Friday	7am – 10am	West of Calderwood Rd. Junction
Minor	2012	Undefined	Other	1	Sunday	3am – 7am	N1/R132 Junction
Minor	2011	Car	Other	1	Saturday	7pm – 11pm	Glandore Rd. Junction
Minor	2011	Car	Other	3	Friday	7pm – 11pm	Grace Park Rd. Junction

Severity	Year	Vehicle	Circumstances	No. of Casualties	Day of week	Time	Reference Location
Minor	2011	Car	Head-on	1	Friday	10am – 4pm	Grace Park Rd. Junction
Minor	2011	Bicycle	Other	1	Monday	4pm – 7pm	N1/R132 Junction
Minor	2010	Car	SVO	1	Saturday	10am – 4pm	Grace Park Rd. Junction
Minor	2010	Undefined	Other	1	Thursday	3am – 7am	Grace Park Rd. Junction
Minor	2009	Car	Other	1	Tuesday	10am – 4pm	West of N1/R132 Junction
Minor	2009	Car	Other	1	Thursday	7am – 10am	N1/R132 Junction
Minor	2009	Car	Head-on	2	Thursday	10am – 4pm	N1/R132 Junction
Minor	2009	Car	Other	1	Tuesday	10am – 4pm	Grace Park Rd. Junction
Minor	2009	Motorcycle	Other	2	Sunday	10am – 4pm	Valentia Rd. Junction
Minor	2009	Car	Pedestrian	1	Thursday	10am – 4pm	Valentia Rd. Junction
Minor	2009	Car	Pedestrian	1	Saturday	4pm – 7pm	N1/R132 Junction
Minor	2009	Car	Pedestrian	1	Monday	4pm – 7pm	N1/R132 Junction
Minor	2009	Motorcycle	Pedestrian	2	Saturday	7pm - 11pm	N1/R132 Junction
Minor	2008	Car	Rear End Shunt	2	Tuesday	7pm – 11pm	N1/R132 Junction
Minor	2008	Car	Rear End Shunt	1	Friday	10am – 4pm	N1/R132 Junction
Minor	2008	Motorcycle	SVO	1	Sunday	7pm – 11pm	Grace Park Rd. Junction
Minor	2008	Car	Rear End Shunt	1	Wednesday	7pm – 11pm	Glandore Rd. Junction
Minor	2008	Car	Rear End Shunt	1	Sunday	7am – 10am	Glandore Rd. Junction
Minor	2007	Car	Side Swipe	2	Tuesday	3am – 7am	N1/R132 Junction
Minor	2007	Motorcycle	Side Swipe	1	Friday	7am – 10am	N1/R132 Junction
Serious	2005	Car	Rear End Shunt	Unknown	Saturday	11pm – 3am	Dominican College
Minor	2005	Car	Head-on	1	Wednesday	7pm – 11pm	Valentia Rd. Junction

Severity	Year	Vehicle	Circumstances	No. of Casualties	Day of week	Time	Reference Location
Minor	2005	Car	Head-on	1	Thursday	7pm -11pm	Dominican College
Minor	2005	Car	Head-on	2	Sunday	7pm -11pm	Grace Park Rd. Junction

TABLE 2.1: SUMMARY OF COLLISIONS RECORDED WITHIN THE SCHEME ON THE ROAD SAFETY AUTHORITY COLLISION DATABASE BETWEEN 2005 AND 2016

2.3 Scope of Road Safety Audit

The Scope of this Stage 3 Road Safety Audit includes the Protected Cycle Lanes and amendments to the Griffith Avenue carriageway between its junctions with Walnut Rise and the Charlemont Residential Estate. Existing footpaths, pedestrian crossings and infrastructure were not included within the scope of this Stage 3 Road Safety Audit with the exception of elements of the existing road layout which the Audit Team may consider to present a safety issue to road users due to the construction of the proposed Scheme.

3 Main Report

3.1 Problem

Location: *Taper at the start of on-street parking within the Scheme*

Summary: *The taper at the commencement of sections of on-street parking within the Scheme is short and may result in drivers suddenly changing direction which may not be anticipated by following drivers.*

On-street parking has been provided at a number of locations within the Scheme. A taper has been provided at the commencement of the on-street parking to guide drivers around parked vehicles. The length of the tapers is relatively short and, during the site visit, the Audit Team observed drivers moving to the right a significant distance upstream of the taper and encroaching on adjacent hatched road markings or the opposing traffic lane, where there is an increased risk of collisions with oncoming vehicles.

Should drivers suddenly change direction at the taper to avoid the parked vehicles a following driver, who may have reduced visibility to the taper, may not anticipate such a manoeuvre leading to them having insufficient time to react resulting in potential collisions with parked vehicles.

During the site visit, the Audit Team noted that some of the bollards at these tapers had been struck.

Recommendation

The taper at the commencement of on-street parking should be amended to more gradually guide drivers past the parked vehicles.

3.2 Problem

Location: *Some bus stop locations within the Scheme*

Summary: *There is a lack of consistency in relation to the layout at bus stops within the Scheme leading to cyclists being insufficiently aware of the bus stop location in some instances where there is an increased risk of collisions between cyclists and buses pulling in at bus stops.*

There is a lack of consistency in the layout of the protected cycle lane at bus stops throughout the Scheme. In some locations, a Yield symbol has been provided in the cycle lane upstream of the bus stop and bus cage road markings have been provided. However, in other locations no road markings have been provided with a gap in the bollards and cycle lane provided only.

Where road markings have not been indicated there is a risk that cyclists, particularly those on electric-powered bikes and scooters who will be travelling at greater speeds than a standard bicycle, may be insufficiently aware of the bus stop ahead and the need to give way to a bus pulling in at the bus stop leading to an increased risk of side swipe, or rear end shunt, collisions between buses and cyclists.

Recommendation

The layout of the protected cycle lanes at bus stops within the Scheme should be consistent ensuring that cyclists are sufficiently aware of the location of the bus stop on approach.

3.3 Problem

Location: *General Problem throughout the Scheme*

Summary: *Trees overhanging the cycle lane may result in an increase of leaves and detritus accumulating within the cycle lane during the Autumn and Winter months.*

Mature trees within the grass verges adjacent the Griffith Avenue carriageway overhang the protected cycle lanes throughout the Scheme. During the site visit, the Audit Team noted leaves and debris at the edge of the kerb and within the hatched road markings adjacent the protected cycle lanes. During the Autumn and Winter months, this is likely to worsen as leaves begin to fall from the trees.

An accumulation of leaves within the cycle lane, particularly during wet weather, may result in a loss of traction for cyclists and an increased risk of loss of control and falls from their bicycle or the potential for cyclists to enter the adjacent traffic lane to avoid detritus resulting in a risk of collisions with vehicles.

Recommendation

Ensure the protected cycle lanes are kept clear of leaves and detritus.

3.4 Problem

Location: *Griffith Avenue/Beresford Avenue signalised junction*

Summary: *The straight-ahead and left-turn lane is located a significant distance away from the cycle lane which may lead to left-turning drivers having insufficient visibility towards a cyclist approaching from behind them.*

A section of on-street parking has been provided at the edge of the westbound traffic lane on Griffith Avenue between the signalised junctions at Grace Park Road and Beresford Avenue. To the west of the on-street parking, hatched road markings have been provided between the parking and stop line at the Beresford Avenue signalised junction, where a straight-ahead and left-turn lane had been previously provided. This results in the new straight-ahead and left turn traffic lane being located a significant distance away from the cycle lane.

As a result, left-turning drivers entering Beresford Avenue may have insufficient visibility to a cyclist approaching the junction from behind them, particularly those on electric-powered bikes and scooters who will be travelling at greater speeds than a standard bicycle, increasing the risk of a driver turning across the path of a cyclist and side-on collisions.

Recommendation

A short section of hatched road markings should be removed upstream of the stop line and a left-turn lane provided adjacent the cycle lane. This will provide increased awareness of the cycle lane for left-turning drivers and provide greater visibility to a cyclist approaching from behind via the vehicle's wing mirrors.

3.5 Problem

Location: *Griffith Avenue between the N1/R132 junction and the Sherkin Gardens side road*

Summary: *Protected cycle lanes, and associated amendments to road markings, have not been implemented within a short section of Griffith Avenue which may increase the risk of conflicts between cyclists and motorised vehicles over this section.*

Between the signalised junction of Griffith Avenue and the N1/R132 and the priority-controlled side road junction at Sherkin Gardens to the west, protected cycle lanes have not been provided on Griffith Avenue. There are no cycle facilities within the westbound carriageway while an eastbound advisory cycle lane is provided. During the site visit, the Audit Team observed vehicles parking at the edge of the westbound traffic lane.

This results in westbound cyclists transitioning from protected cycle lanes to the traffic lane where they must mix with motorised vehicles and are at an increased risk of being struck by a vehicle. This problem is exacerbated by the parked vehicles on Griffith Avenue as cyclists may move into the path of a westbound vehicle to pass parked vehicles, further increasing the risk of collisions.

Recommendation

Protected cycle lanes should be provided on both sides of Griffith Avenue between the N1/R132 junction and Sherkin Gardens.

3.6 Problem

Location: *Corpus Christi Roman Catholic Church*

Summary: *Parking spaces located to the rear of the protected cycle lane may result in an increased risk of vehicle-cyclist collisions as drivers cross the cycle lane to enter/exit these parking spaces.*

Parking spaces, inset into the verge, on the southern side of Griffith Avenue on both sides of the Corpus Christi Catholic Church have been retained. This results in these parking spaces being located to the rear of the protected cycle lane. Bollards have also been provided, albeit at increased spacings, between the cycle lane and adjacent traffic lane throughout the length of the parking.

Drivers entering and exiting these parking spaces are required to pass through the spaces between the bollards and cross the cycle lane to complete their manoeuvre, which the Audit Team observed during the site visit. Also, depending on the spaces available, drivers may be required to manoeuvre within the cycle lane when parallel parking. This may lead to an increased risk of rear end shunts as drivers slow down to pass between the bollards or collisions with cyclists when crossing the cycle lane or parallel parking.

Recommendation

The parking spaces and cycle lane at this location should be amended so that the parking spaces are located adjacent the traffic lane and the cycle lane is brought to the rear of the parking spaces.

Alternatively, remove the bollards throughout the length of the parking and provide coloured surfacing within the cycle lane to increase a driver's awareness of the potential for approaching cyclists when entering/exiting the parking spaces.

3.7 Problem

Location: *Priority-controlled side road junctions within the Scheme*

Summary: *The bollards at the edge of the protected cycle lane may align linearly such that a driver approaching a side road may have difficulty locating the junction.*

Reboundable bollards have been provided between the protected cycle lanes and the adjacent traffic lanes on Griffith Avenue with gaps provided at accesses and side road junctions. When travelling along Griffith Avenue, the bollards align linearly making it difficult to identify upcoming side roads particularly during the hours of darkness and where these are located downstream of on-street parking as drivers are positioned further from the nearside kerb.

This may lead to drivers overshooting side roads resulting in sudden braking and rear end shunts or potential unsafe reversing or u-turn manoeuvres to enter the side road.

Recommendation

Measures (e.g. different coloured bollards either side of side roads etc.) should be provided to increase a driver's awareness of priority-controlled side roads within the Scheme.

3.8 Problem

Location: *Immediately east of Calderwood Road side road junction*

Summary: *The bollard at the commencement of the protected cycle lane east of the Calderwood Road junction is not yellow.*

A black bollard has been provided at the start of the row of bollards at the edge of the eastbound protected cycle lane downstream of the Calderwood Road side road junction following the gap in the bollards to facilitate the side road. Eastbound drivers, or drivers turning left from Calderwood Road, may be insufficiently aware of the commencement of the bollards, particularly during the hours of darkness, resulting in them colliding with the bollard and knocking it into the cycle lane or traffic lane where it may present an obstacle to other road users.

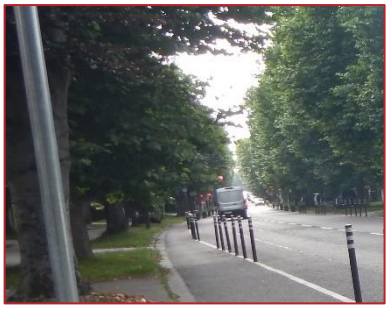
Recommendation

This bollard should be replaced with a yellow bollard including a blue 'Keep Right' arrow sign for drivers and a blue 'Keep Left' arrow sign for cyclists, as provided downstream of side road junctions elsewhere within the Scheme.

3.9 Problem

Location: *Throughout the Scheme*

Summary: *Low hanging branches over the cycle lane may present obstacles to cyclists.*



Mature trees within the grass verge adjacent the Griffith Avenue carriageway overhang the protected cycle lanes throughout the Scheme. In some locations, the branches are low-hanging such that cyclists where observed stooping on their bicycle to avoid branches during the site visit.

Low hanging branches can present hazards and/or obstacles to cyclists which may lead to personal injuries if struck or to the potential for cyclists to swerve to avoid the branches resulting in collisions with bollards or encroaching into the traffic lane where there is an increased risk of being struck by a vehicle.

Recommendation

Ensure the trees along Griffith Avenue, which overhang the cycle lane, are routinely trimmed to prevent them presenting a hazard/obstacle within the cycle lane.

3.10 Problem

Location: *Eastbound approach on Griffith Avenue to N1/R132 Junction*

Summary: *The upstream protected cycle lane and on-street parking result in an eastbound driver on Griffith Avenue approaching the N1/R132 junction in the right-turn lane or straddling both lanes potentially leading to sudden weaving manoeuvres into the nearside lane and side swipe collisions.*

Protected cycle lanes have not been provided on the section of Griffith Avenue between the N1/R132 signalised junction and the priority-controlled side road junction at Sherkin Gardens. Upstream of Sherkin Gardens, in the eastbound traffic lane, on-street parking has been provided which results in drivers being positioned closer to the centreline when passing the parking and subsequently when entering the section of Griffith Avenue where protected cycle lanes have not been provided, and where the traffic lanes are significantly wider.

This results in drivers being positioned in the traffic lane such that they are directed into the right-turn lane at the N1/R132 junction, or straddling this lane and the straight-ahead and left turn lane. Drivers wishing to turn left or proceed straight ahead may undertake sudden manoeuvres to position themselves in the correct lane on the approach to the junction. Following drivers, who may not expect such a sudden manoeuvre, may have insufficient time to react to the vehicle ahead increasing the risk of side swipe or rear end shunt collisions.

Recommendation

Hatched road markings should be provided within the eastbound lane downstream of the on-street parking directing drivers to the nearside lane with a right-turn lane developed further downstream of the nearside lane.

3.11 Problem

Location: *Signalised junctions within the Scheme*

Summary: *It is unclear if cyclists will be able to safely undertake right turns at signalised junctions within the Scheme.*

Advance stop lines have been provided for right-turning cyclists at signalised junctions within the Scheme. The volume of right-turning cyclists from Griffith Avenue at the signalised junctions within the Scheme is unknown however, on a red signal, cyclists will be able to enter the advance stop line from the protected cycle lane and proceed on a green cyclist phase, which receives a green signal a few seconds in advance of vehicular traffic. However, on a green signal cyclists may be unable to safely exit the protected cycle lane and take up the correct position for turning right as this would require weaving across the adjacent traffic lane where there is an increased risk of being struck by a vehicle.

This may therefore lead to less confident cyclists using the pedestrian crossings at the junctions to enter the side road to the right. These crossings, however, are not toucan crossings and may not accommodate both pedestrians, and cyclists when waiting and using the crossing increasing the risk of conflicts.

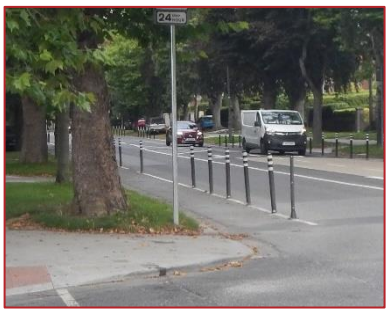
Recommendation

Toucan crossings should be provided at the signalised junctions within the Scheme to facilitate right-turning cyclists with the cyclist push button located where a cyclist can trigger a crossing phase from the stop line in the protected cycle lane.

Alternatively, if possible and the volume of right-turning cyclists requires it, cyclist ‘box-turns’ (Section 4.6.3 of the National Cycle Manual) should be provided at signalised junctions to facilitate right-turning cyclists.

4 Observations

4.1 A 'No Parking' sign located to the west of the entrance to Dominican College is no longer necessary due to the protected cycle lane at this location, which now physically restricts parking. This sign should be removed.



4.2 The yellow bollard at the start of the westbound protected cycle lane west of Philipsburgh Avenue has been struck and no longer contains it's reflective face. This should be repaired.

4.3 An existing signalised pedestrian crossing is located across Griffith Avenue at its junction with Beresford Avenue. There is no tactile paving provided at the dropped kerb on the northern side of the crossing and the southern side of the crossing is located at a splitter island where the dropped kerb provided has an upstand greater than 6mm. Also, there is no tactile paving provided within the splitter island at the signalised crossing or at the two uncontrolled crossings of Beresford Avenue and the dedicated left-turn exit.

Tactile paving should be provided on both sides of the signalised crossing. The dropped kerb on the southern side of the crossing should be reduced so that its upstand is no greater than 6mm high. Tactile paving should also be provided within the splitter island on the crossing's southern side at the dropped kerbs at the existing uncontrolled crossings.

5 Road Safety Audit Team Statement

We certify that we have examined the site in daylight and darkness on the 25th August 2021. The examination has been carried out with the sole purpose of identifying any features of the layout that could be removed or modified in order to improve the safety of the scheme.

The problems identified have been noted in this report together with associated safety improvement suggestions, which we would recommend should be studied for implementation. The Audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the design team.

ROAD SAFETY AUDIT TEAM LEADER

Alan O'Reilly Signed:

Dated: 1st October 2021

ROAD SAFETY AUDIT TEAM MEMBER

Mazen Al Hosni Signed: Mazen AlHosni

Dated: 1st October 2021

Appendix A – Feedback Form

Road Safety Audit Feedback Form

Scheme: Griffith Avenue between Walnut Rise and Charlemont Estate

Route No.: R102 (Griffith Avenue)

Audit Stage: Stage 3 Road Safety Audit **Date Audit Completed:** 25th August 2021

	To Be Completed By Designer			**To Be Completed By Audit Team Leader**
Paragraph No. in Safety Audit Report	**Problem Accepted (Yes/No)**	**Recommended Measure(s) Accepted (Yes/No)**	**Describe Alternative Measure(s). Give reasons for not accepting recommended measure**	**Alternative Measures or Reasons Accepted by Auditors (Yes/No)**
3.1	Yes	Yes		
3.2	Yes	No	The layout of the existing bus stops is not consistent due to the presence of mature trees and driveways. Yield signs will be placed at a consistent distance ahead of all bus stops to alert cyclists to the presence of bus stops.	Yes
3.3	Yes	Yes		
3.4	Yes	No	The wide buffer between the cycle lane and the left turn lane into Beresford Avenue increases the acuteness of the angle at which left turning motorists cross the cycle lane. This in turn increases the visibility of cyclists for motorists. Red surfacing will be applied to the cycle lane crossing Beresford Road to further highlight the presence of cyclists in the area.	Yes
3.5	Yes	Yes		
3.6	Yes	Yes		
3.7	Yes	Yes		
3.8	Yes	Yes		
3.9	Yes	Yes		

Road Safety Audit Feedback Form

Scheme: Griffith Avenue between Walnut Rise and Charlemont Estate

Route No.: R102 (Griffith Avenue)

Audit Stage: Stage 3 Road Safety Audit **Date Audit Completed:** 25th August 2021

	To Be Completed By Designer			To Be Completed By Audit Team Leader
Paragraph No. in Safety Audit Report	**Problem Accepted (Yes/No)**	**Recommended Measure(s) Accepted (Yes/No)**	**Describe Alternative Measure(s). Give reasons for not accepting recommended measure**	**Alternative Measures or Reasons Accepted by Auditors (Yes/No)**
3.10	Yes	No	Currently the presence of pedestrian islands on Griffith Avenue on either side of its junction with the Swords Road do not allow the widths to extend the protected cycle lanes right up to the junctions. However designs are currently being finalised for the upgrade of this junction that will include the removal of these islands and allow for the protected cycle lanes to be extended right up to the junction with Swords Road.	Yes
3.11	Yes	No	It is considered that toucan crossings are not warranted at minor signalised junctions along this route. In such cases less confident cyclists can wait if necessary for a red signal which will allow them enter the ASL and make a right turn when they get an advanced green signal. The main junctions on the scheme are being upgraded to accommodate right turn movements for cyclists either as part of this project or future Bus Connects works.	Yes

Signed: Designer **Date** 04/10/2021

Signed: Audit Team Leader **Date** 1st Oct. 2021

Signed: Patricia Reidy Employer **Date** 04/10/2021

Appendix B – Problem Location Plan

Problem 3.10

Problem 3.8

General Problem 3.1

General Problem 3.2

General Problem 3.3

General Problem 3.7

General Problem 3.9

General Problem 3.11

Problem 3.6

Problem 3.5

Problem 3.4