BusConnects Cork Phase Two Public Input Summary

Appendix to Volume III: New Bus Network Report

Prepared by SYSTRA, Ltd., and Jarrett Walker & Associates for the National Transport Authority 6 June 2022

1 Overview of the Redesign Process

1.1 Introduction

In 2021 the National Transport Authority (NTA) began work on reviewing the Cork Area bus network, in collaboration with Cork City Council, Cork County Council and Bus Éireann, and with assistance from Jarrett Walker and Associates (JWA) and SYSTRA Ltd. In November 2022 a Draft New Network was published and a seven-week non-statutory public consultation was carried out. Almost 1,250 responses to this consultation were received, and based on this feedback the NTA, in conjunction with the working group, reconfigured the network in response to these submissions.

This report sets out the key findings from the second phase of public consultation, which focused on the Draft New Network. In conjunction with the earlier Phase One consultation regarding key choices, this report presents the public influence on the network design. The focus of this report are issues relating purely to the network design. During the consultation, a number of submissions were received in relation to wider issues such as ticketing and bus infrastructure. Feedback on these wider issues is captured and reported within a separate report, titled Ancillary Issues.

1.2 Development of the Revised New Network

Following the consultation on the Draft New Network the planning team analysed and summarised the input received, and then met in February and March 2022 to determine the appropriate changes to the network. A new, revised network was finalised in April 2022. A full description of the revised network, and changes from the previous proposals can be found in the New Network Report.

1.3 Phase Two: Draft New Network Consultation

Public consultation is at the heart of the BusConnects Network Redesign. A process was devised to provide as much information as possible and to

facilitate the potential for feedback. The consultation approach was adapted in response to COVID-19 restrictions. A number of channels of communication were used including social media, print and online media, and on-bus advertising. The team also developed seven booklets with local information on the proposed network changes. The relevant booklets were delivered to every household and business within the Cork Metropolitan Area. The booklets were also made available to the public on the BusConnects website along with an interactive map providing details of the proposed bus routes and where they will connect to. The full Draft Network Report was made available to download. A series of webinars via Zoom were organised communicating the Draft New Network proposals, informing on the consultation process and how to submit feedback, as well as providing the opportunity to put questions to the team. A video was released and made available via the BusConnects website to further inform the public.

The public consultation on the Draft New Network took place from the 2nd of November to the 17th of December 2021 with feedback collected from the public via an online feedback form and email submissions.

1.4 Communications

In summary, the communications strategy consisted of:

- Information available on the BusConnects Cork website: <u>www.busconnects.ie/cork</u> including the Draft New Bus Network
 Report in multiple formats comprising English, Irish and accessible
 PDF
- Seven Local Area Booklets, including route maps, delivered to over 160,000 homes and businesses in the Cork Metropolitan Area and available through the website
- Public Information Campaign throughout the duration of the consultation across all local media outlets
- Interactive Online Map to help people understand the proposed services and routes

- Online Feedback Form within a consultation portal on the website with an interactive survey for submissions and provision for documents to be attached
- Email and phone line made available for queries throughout the consultation period
- A series of three public webinars via Zoom, the dates and times are set out in Table 1 below.

Day	Date	Time
Wednesday	17 th November	6.30 pm
Wednesday	24 th November	1.30 pm
Tuesday	30 th November	6.30 pm

Table 1.1 BusConnects Cork Network Redesign Webinar Events during Phase Two

1.5 Feedback

A web survey form was available that contained some structured questions, as well as free text boxes for written commentary. Submissions were also received by email or by post.

2 Analysis of Feedback on the Draft New Network

2.1 Overview

Across all feedback platforms the team received just under 1,300 submissions in response to the Draft New Network. 1,235 submissions were made through the consultation portal comprising 1,175 submissions from individuals and 60 from organisations. In addition, email submissions were received from 15 individuals and 27 from organisations and elected representatives. 1,277 total submissions were received though there was a small amount of duplication between online and email submissions.

The consultant team of JWA and SYSTRA was engaged by the NTA to review and categorise the consultation submissions to facilitate additional analysis and interpretation. All feedback was considered, categorised and used as an input into the preparation of the final BusConnects Cork Network Redesign. The methodology for this analysis is detailed below.

2.2 Assessment Methodology

The BusConnects team undertook an initial overview of the feedback to establish the scope of the comments. It was noticeable that a number of route specific and area specific issues and suggestions emerged. A breakdown of the more general, high level issues and suggestions are set out in Section 3. The area and route specific uses are set out in Section 4 below.

2.3 Profile of Respondents

The respondents were asked some general questions about themselves.

Where do you live?

800 respondents answered this question, of which the most commonly stated location was Cork South West and East Suburbs (121 and 86 respondents respectively).

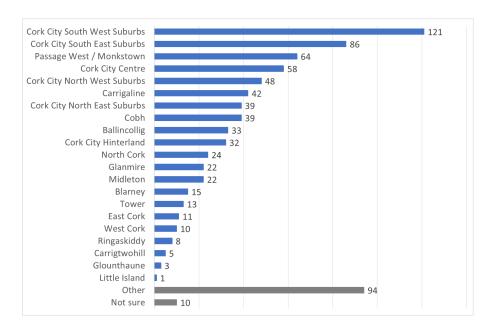


Figure 2.1 Number of submissions by area according to responses to "Where do you live?"

Do you use the bus to travel within the Cork area? (Or did you before the Covid?)

1169 respondents answered this question with the majority, 82%, stating that they were bus users.

Which bus(es) do you use most often?

Respondents could select up to three from a list of existing services to reflect the buses they use most often. The 220: Carrigaline-Ovens was chosen most often, 271 times, with the 220X: Ovens-Crosshaven being selected an additional 177 times. The next most commonly used route was the 205: MTU-Kent Station. In general, there was good representation across the network with the most highly used services being chosen most often as would be expected.

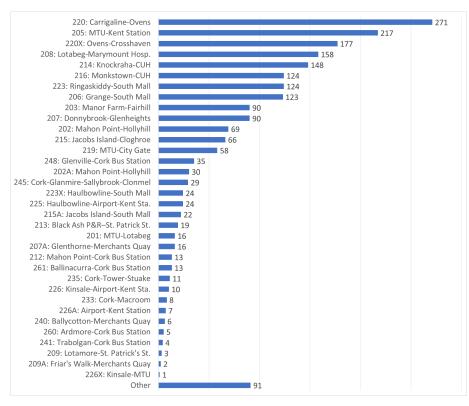


Figure 2.2 Number of submissions associated with each "route used most often in the Existing Network"

How does the Draft New Network compare to the existing Cork network? ...for you?...for people you know?....for the Cork area?

Respondents were asked to give a general indication as to whether the Draft New Network was better, worse or about the same as the existing network from different perspectives. About half of respondents stated that, for themselves, they considered the Draft New Network worse than the existing network. Around a quarter thought the Draft New Network better for them. This increased to 34% when asked to consider the Draft New Network for the Cork area as a whole. This indicates that the network as a whole is viewed more positively, but that there are specific issues for individuals.

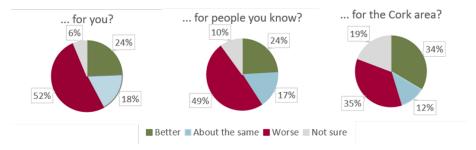


Figure 2.3 General response to whether the respondents viewed the Draft New Network as Better, Worse or About the Same as the Existing Network

How old are you?

1158 respondents answered this question. There were a relatively high number of respondents in the 18 to 24 year old age group, representing nearly 19% of respondents. The largest number of respondents were in the 25 to 44 age group, closely followed by the 45 to 64 age group. 7% of respondents were aged over 65 which is an increase in representation amongst this group compared to the earlier consultation on the Choices Report where this group comprised only 5% of respondents. It is important to note that advocate groups for older people also made separate submissions on the consultation which was captured in the feedback from organisations.

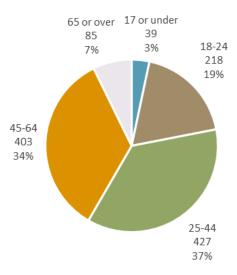


Figure 2.4 Number of submissions by age group

Feeling about the Draft New Network By Age

There was variation across the age groups in response to whether the Draft New Network was viewed as better or worse compared to the existing network. There was a slightly higher number of older people who considered the Draft New Network better. By comparison, the majority of respondents under 25 considered the Draft New Network to be worse. This is also reflected in the large number of submissions relating to bus trips to school and college which is discussed in Section 3.

Responses to the Draft New Network by Route

Respondents were invited to provide feedback on each route in the Draft New Network. Some respondents provided feedback on multiple routes. Respondents were asked if they liked or disliked the route or whether they had questions on routes proposed. The ten routes most commonly commented on are listed in the table below, with the full list of routes illustrated in the figure overleaf. Of the top 10 routes most commented on, 6 were disliked by the majority of people and 4 were liked by more people.

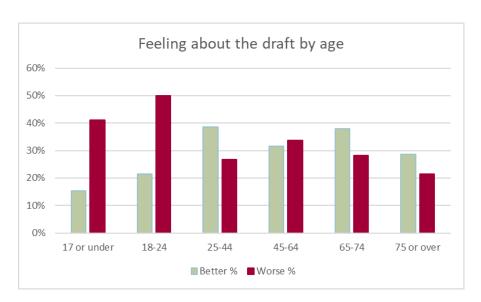


Figure 2.5 General response to the network by age group

Route	Like	Dislike
2A: MTU – Glanmire	23%	51%
12: Carrigaline Primary Care Centre – Bus Station	17%	57%
53: Blarney – Bus Station	62%	13%
1: Ballincollig – Mahon Point	46%	34%
5: CUH – CUH	6%	76%
52: Whitechurch – Bus Station	43%	12%
40: Crosshaven – Haulbowline	13%	72%
8: Grange Road – Mercy Hospital	9%	78%
34: Cobh Town Bus Services	39%	24%
4: Lehenaghmore – Kent Station	18%	61%

Table 2.1 General feedback on the routes receiving the most comments

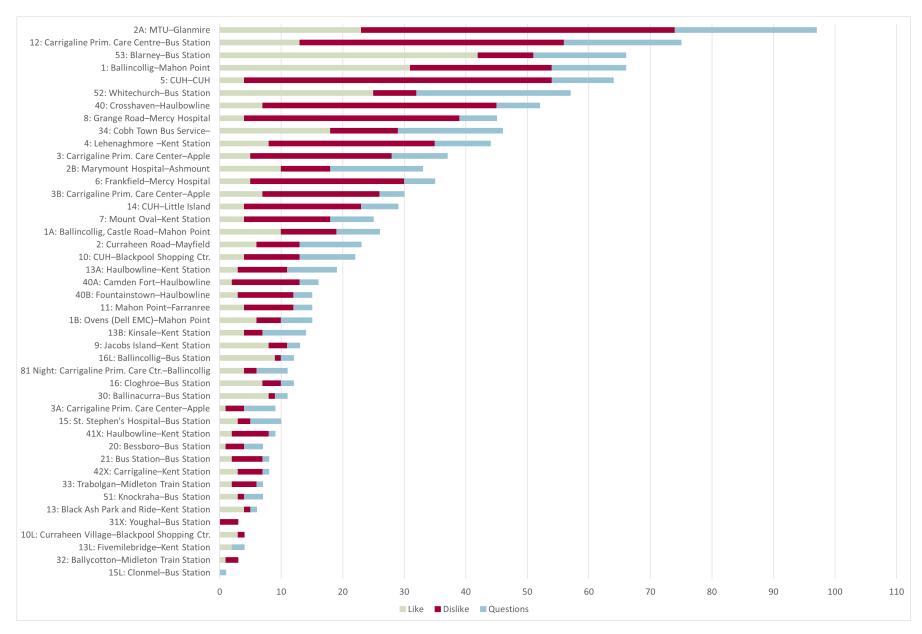


Figure 2.6 General response to the network by route commented on

3 General Feedback and Responses

3.1 Issues Mentioned Frequently in Feedback

While the content of the individual submissions varied across the Cork Metropolitan Area, a number of themes emerged frequently. As an overview, the most commonly referenced issues are represented by the themes listed below. These themes are not necessarily mutually exclusive, and often submissions cross reference numerous issues. For example comments on the need for higher frequency services would often raise capacity / overcrowding concerns. It is also worth noting that some issues were commented on favourably and negatively; for example, some submissions view interchange negatively whilst others view the opportunity to interchange between services positively. The general issues are presented in more detail below.

- Access to City Centre 36%
- Travel to college by bus 24%
- Travel to school by bus 21%
- o Issues with interchange / lack of direct bus links 20%
- Suggestions to extend routes / add new routes 18%
- Access to MTU 12%
- Integration between bus and rail 11%
- Congestion issues / delays to buses 11%
- Access to CUH or hospital 8%
- Capacity of bus services 5%

Note: Respondents' submissions could contain more than one theme, therefore percentages will sum to more than 100.

3.2 Access to Key Destinations

Many of the submissions made references to particular journeys that are currently undertaken by bus highlighting how the existing network serves particular categories of passenger demand well. These would include trips to schools and colleges, Cork City Centre, CUH and connectivity with Kent

Station. A substantial number of comments raised concerns that the proposed network would not provide for these journeys as well as the current network.

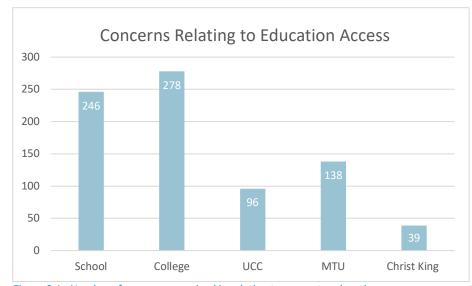


Figure 3.1 Number of responses received in relation to access to education

Response

In general, the new network is planned as an integrated set of routes which supports the potential for interchange that would result in an increase in accessibility to key destinations by bus throughout the day and from a wider range of origins. However, the submissions challenged the team to seek to improve the directness of connections particularly in instances where there are significant rates of travel and trips would require more than one interchange. A number of revisions have been made to the network to address the issues raised in relation to access to key destinations. Details of the changes are summarised within area based and route specific changes described in Section 4.

3.3 Inconvenience

Another issue raised in relation to the Draft New Network for Cork was the concern that the proposals would result in a bus network that is less convenient than the current network. 20% of responses mentioned issues with interchanges or lack of direct bus links. Other examples of inconvenience that were raised included additional walk distances to reach bus routes and routes no longer running along the existing bus route

alignments which will result in less direct services for some passengers.

Some respondents believed a lack of coordination of services and interchange points would result in longer journeys with 35 mentions of slow bus journeys. It should be noted that for some passengers the new bus routes will be a shorter distance away and more direct, as reflected in the many positive feedback submissions.

Route 13A – "Better connections/interchange with other buses will also encourage more people to get the bus".

Route 3B – "I'll now have to get 2 buses and one is only every 60 mins!"

Response

Overall, as can be seen in the feedback by individual route, there was a mixture of positive and negative feedback in relation to the proposed routes within the Draft New Network. There are a number of cross city trip patterns in Cork, for example trips from the south east to destinations in the west such as CUH and MTU. For some people, the revised new network made these cross city trips more direct, but for others it would necessitate an interchange in the City Centre. Whilst overall accessibility is improved within the Draft New Network, the submissions challenged the team to make further improvements particularly in instances where existing direct connections would be changed. The feedback in relation to inconvenience has informed revisions to the network across multiple areas and routes.

3.4 Extensions to the Network

18% of submissions made reference to areas that are not within the catchment of the Draft New Network or are considered to be poorly served by the Draft New Network. These mainly related to areas of new development, areas that are not densely developed or areas that are not served by the existing bus network.

Route 2A – "I would like it to be extended to the Waterfall area"

Response

Providing geographic coverage across the whole of the Metropolitan Area is a challenge. The new coverage services in the Draft New Network add only modestly to the total number of people and jobs within the catchment of the bus network despite adding many new kilometres to the network. This is a result of lower densities and longer distances between developed areas. Expanding coverage to provide geographic inclusion means spending more to reach smaller numbers of people.

The feedback did challenge the team to see if more areas could be brought within the catchment of the revised new network albeit resulting in a higher cost network overall.

The new Cork bus network will be implemented in 2023 and 2024 and whilst areas of new development have influenced the network structure, it would not be efficient to serve new development areas in advance of their completion. The feedback did highlight some areas where plans are well progressed and/or construction underway and the need to serve development areas was reexamined by the team.

It should be noted that it is not anticipated that the new network will provide full coverage of the CMA and that there are also some areas where public transport will be enhanced through improvements in the complementary Local Link bus network.

3.5 Capacity of Bus Services

The issue of capacity of bus services was raised within 5% of responses with either references to current issues of crowded services / full buses or comments that the revisions to the network would increase crowding on services.

Response

It is hoped that the new network will attract higher levels of bus patronage and it is acknowledged that the availability of capacity will be important in the future development of Cork's bus network. The implementation of changes arising from the network redesign will be closely monitored. Should additional capacity be required, it is anticipated that extra service will be provided where needed. The proposed frequency / capacity of the New BusConnects Cork Network should be considered as 'open to review', and that the need for additional capacity (by increased frequency of service or additional peak only services) will be a consideration of the BusConnects Cork Network Implementation Group and to be decided on a case by case basis.

3.6 Other Issues

Whilst the focus of the consultation was on the BusConnects Cork Network Redesign some comments were received in relation to other elements of the BusConnects programme such as the Core Bus Corridors and bus stop infrastructure.

Response

Within the consultation material efforts were made to differentiate the network redesign from other elements of the BusConnects programme whilst informing the public on these important complementary elements. To capture the valuable feedback, comments on issues that were not directly related to the network redesign have been reported within the Ancillary Issues Report.

3.7 Extended Hours of Operation

There was a mixture of issues raised in relation to the hours of operation of the bus network. Most commonly, concerns were raised that having a different route overnight (Route 81) than during the day (Routes 1 and 3) will cause confusion. Comments mentioned that there was a missed opportunity to create a more extensive night bus network, including from the Cork Commuter Coalition. There was some support for more 24 hour service to support workers and for minimum hours of service on all routes to be 6am to midnight. There was a suggestion that the operation of Route 5 should commence earlier in the morning to facilitate commuters from the northside to CUH with reference to 8am start times.

Response

Whilst extending hours of operation will have cost implications for the network, the feedback challenged the team to consider provide additional service overnight. The NTA will seek to extend the hours of operation of services within Cork subject to demand. To address the specific issue of changes in the route configuration overnight, the revised new network will include for 24 hour operation on both Route 1 and 3. During implementation, opportunities for earlier starts on services to CUH should be considered.

4 Feedback by Area

The analysis presented below relates to comments written by the respondents to the survey. Not all participants chose to make written comments and people who were unhappy with the proposed network were apparently more motivated to write a comment.

Suggestions and requests were reviewed by NTA and assessed in light of:

- Benefits or harms to all other bus passengers.
- The usefulness of the bus network to a greater number of people than use it today.
- The operating and capital costs to provide the bus network.
- Likely impacts on service speed or reliability.

4.1 Cork North West Area

As illustrated in Figure 4.1, the response from residents in the North West Area was generally positive.

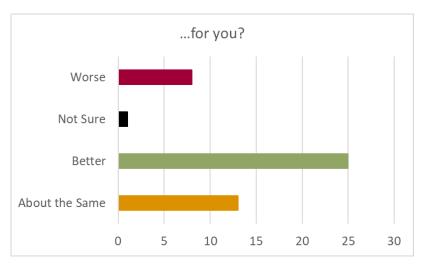


Figure 4.1 Opinion of Respondents from the Cork North West Area¹

The consultation feedback from the Cork North West Area primarily relates to the following main issues and suggestions:

- 1. Concerns from residents in Farranree/Fairhill that the frequency of **Route 11** is poorer than the current Route 203.
- 2. Concerns that **Route 11** is too long and that it will be unreliable.

Concerns about insufficient frequency or capacity on the proposed Route 11, as well as potential problems with reliability, were examined by the team.

Route 11 will overlap with other routes as it enters Cork City Centre, and thus along most of its length there will be ample frequency provided by other routes, including near Fairfield Ave in the North West area. An increase in frequency above what was proposed would be hard to justify at this time given how few residents are near only Route 11 and no other (more frequent) route.

Some commenters noted that the existing Route 203, with a frequency of every 20 minutes, is sometimes very full and that offering only every 30 minute frequency on the proposed Route 11 would lead to crowding. Yet some residents who today use Route 203 will likely use the high frequency Route 5 along Popham's Road. Accounting for both Route 5 and Route 11, the Fairhill area will have considerably more service and capacity compared to the existing network.

It is possible to improve the directness of Route 11 from Farranree to the City Centre by removing the loop around Kent Station. This would shorten journey times and partly offset the impact of the reduction in frequency for Farranree residents who are traveling to the city centre. No positive comments were received welcoming the Kent Station deviation proposed on Route 11.

¹ Respondents who listed 'Cork North West Suburbs' as where they live.

Action: Maintain Route 11 frequency as proposed, but improve directness for journeys to Cork City Centre or Mahon Point by removing deviation to Kent Station.

3. Loss of a one-seat-ride between **Mahon and Hollyhill**, as the journey on the Draft New Network will involve a transfer.

As described in earlier reports, and envisaged in CMATS, introducing an east-west light rail in Cork necessitates changing the through-route pairings of many routes. This will inconvenience some existing passengers, whilst improving journeys for other existing passengers. It is worth doing because it allows the overall network to become more useful to a larger number of Cork residents.

It will be important to support fast and easy interchange between Routes 1 and 3 to minimise the inconvenience and additional journey time for those people who use Route 202/202A to travel between Mahon Point and the North West area at present.

Action: No changes to the network.

4. Impressions of a loss of a direct route between Hollyhill and North West Cork as currently provided by existing **Route 201**.

Some commenters were under the impression that there would no longer be a route traversing Hollyhill and North West Cork. Today Route 201 operates at a very low, sporadic frequency of worse-than-hourly. In the Draft New Network, Route 5 was proposed to follow nearly the same path as Route 201 from Hollyhill to Blackpool, across North West Cork, at a vastly better frequency.

There are a small number of residents in the North West who are very close to Route 201 who would not be equally close to Route 5. For these people, nearly all of North West and North East Cork would *still* be faster to reach on the New Network, compared to the existing network, even with a new interchange in the City Centre or Blackpool Shopping Centre.

Action: No changes to the network.

5. Suggestion that **Route 3** be moved from Cathedral Road to Sunvalley Drive to improve directness.

A suggestion was received that Route 3 should be moved from Cathedral Road to Sunvalley Drive to provide a more direct link from Hollyhill to the City Centre. Cathedral Road has a large number of residences and is where the existing Route 202/202A runs. Taking into account where the greatest numbers of residents and jobs are located, what trips are currently made within the CMA, and existing patronage patterns, the team decided that removing a frequent and high-patronage service from Cathedral Road would likely raise many objections from existing passengers and would reduce the usefulness of the network to residents overall.

Action: No changes to the network.

6. Suggestion that **Route 5** be adjusted to operate along Mount Agnus Road rather than Knockfree Ave, to serve more jobs and shops.

Some people suggested that Mount Agnes Road has more activity (including shops) than Churchfield Hill/Knockfree Ave and that Route 5 would be useful to more people and for more journeys if it used Mount Agnes Road.

Action: Alter Route 5 to follow Mount Agnes Road instead of Churchfield Hill/Knockfree Ave.

- 7. Enthusiasm for **Route 52** and the provision of service to Whitechurch with requests for frequency improvements.
- 8. Requests to extend **Route 52** to Glenville during midday as well as peaks.

Multiple residents of Glenville wrote to request more frequent bus trips to Cork City on weekdays as well as weekends. In the existing network and on the proposed Route 52, bus trips are offered only during weekday peaks and twice on Saturdays.

NTA considered whether serving a village of Glenville's size, outside of the Cork Metropolitan Area (CMA), at such a long distance from the rest of the bus network, can be justified given high cost of covering all of that distance. Other villages of similarly small size at a similarly long distance from Cork are not included in the PSO bus network at all, even a few such villages inside the CMA. NTA therefore decided that the low level of service proposed to Glenville is all that can be justified at present, and is fair in the context of other similar villages.

Whitechurch is a small village *inside* the CMA, and considerably closer to other busy places, and as a result it is planned to receive a greater frequency of service than Glenville. NTA reflected on whether the number of residents in Whitechurch can justify a greater frequency than was shown in the Draft New Network, and concluded that it cannot, and that what was proposed is fair in comparison to villages of a similar size and a similar distance from the city, elsewhere in the CMA.

Action: No changes to the network.

9. Requests that Kilcully be served by adding a deviation or loop on **Route 52**.

Consideration was given as to how Kilcully might be served by bus. A few Kilcully residents requested that the proposed Route 52 serve St. Catherine's cemetery and residences on Kilcully Road en route to Whitechurch and Carrignavar. They proposed a one-way loop service, but a one-way loop would require Kilcully residents (and others) bound for the city centre to reach it via Carrignavar (or, during rush hours, via Glenville), an extremely indirect journey.

Instead, the NTA team determined that a deviation along Kilcully Road bound for Whitechurch and then Carrignavar would be sensible. This would make the route slightly longer and slightly less direct for people in Glenville, Whitechurch and Carrignavar, but would benefit residents of Kilcully and city residents who wish to visit the cemetery.

Action: Lengthen Route 52 to connect Carrignavar and Kilcully via Old Whitechurch Road.

Route 52: "With this new proposal I will be able to reduce my personal mileage by 70%."

Route 5: "Overall good, but I cannot believe it diverts away from Mount Agnes Road and goes to Knockfree Avenue."

Summary of Network Changes for Cork North West Area

The following network changes have been agreed by the NTA team as an outcome of the 2021 Consultation Process:

- Route 3: Operation extended to 24 hours.
- Route 5: Minor route alteration to serve shops and job areas along Mount Agnes Road.
- Route 11: Directness of route to City Centre and Mahon Point improved through removal of loop around Kent Station.
- Route 52: Route alteration to serve Kilcully before following Old Whitechurch Road to Whitechurch and Carrignavar.

4.2 Cork North East Area

As illustrated in Figure 4.2, there was a mixture of responses from residents in the North East Area. Those who considered the Draft New Network to be better numbered slightly more than those who considered the network worse or about the same.

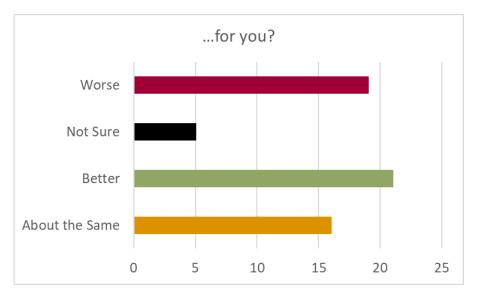


Figure 4.2 Opinion of Respondents from the Cork North East Area²

The feedback received regarding the Cork North East Area primarily relates to the following main issues and suggestions:

- 1. Suggestions that Route 15 as opposed to Route 2A should be the higher frequency service between Glanmire and Cork City.
- 2. Concern that roads used by Route 2A are not suitable for high volumes of buses.
- 3. Many positive comments on the increase in frequency and improvement in linkages between Glanmire, the City Centre and

UCC/MTU, but concerns about journey time delays through Mayfield.

In relation to the routing of bus services through Glanmire, the team reviewed the network in detail taking on board the feedback.

The suggestion to change the route of the 2A was examined by the team. Three factors make Route 15 a worse candidate for high frequency than Route 2A:

"Increased frequency between Glanmire, the City Centre and UCC/MTU is a large positive."

- There are housing, shops and other activities along the corridor of the proposed Route 2A that warrant the increase in frequency over what exists today.
- Between the city centre and Glanmire, Route 15 passes close to many fewer residents than does the proposed Route 2A. It passes close to employment areas, but poor pedestrian infrastructure (especially around the N8) depresses demand for bus service in those areas.
- By integrating with the Route 2B to Mayfield, a very high frequency can be provided efficiently along Summerhill North. That combined frequency would be lost if Route 2A had reduced frequency in favour of Route 15 as suggested by some respondents.

However, within Glanmire, Route 15 can serve a greater number of residents by running through Castlejane rather than along the R639, for the short distance between Church Hill Road and the R615.

Bus Éireann and City Council consider that Route 2A is operable as shown in the Draft New Network. Overall there is a significant increase in the level of bus service to Glanmire proposed compared to the existing network and, along with future bus priority proposals that will be part of BusConnects, this will offset some of the concerns about delays for journeys through Mayfield.

² Respondents who listed 'Cork North East Suburbs' or 'Glanmire' as where they live.

Action: Maintain frequencies planned for Routes 2A and 15. Modify Route 15 slightly to pass through Castlejane.

4. Requests that a direct bus link should be provided between Glanmire and Little Island, or that trips are better-facilitated through interchange than what was proposed.

In relation to the need to provide a service between Glanmire and Little Island, while there are people who travel between those two areas there are unlikely to be the very high numbers of journeys needed, all day and all week, to sustain an additional route linking the two directly. This may change as both Glanmire and Little Island develop further.

Route 30 serves Little Island and Route 15 from Glanmire operates on the same roads towards Kent Station and the City Centre. Whilst passengers will have to travel back on themselves to interchange between the routes to travel between Glanmire and Little Island, priority measures should make those movements fast, and Route 30 represents a significant improvement on bus service to Little Island compared to the existing network.

These investments in frequency and speed on high-demand corridors will improve the overall the connectedness between Glanmire and Little Island compared to the existing network, whilst also improving connectedness between both places and other areas in Cork.

Improvements to pedestrian infrastructure on and alongside the N8 (which is currently impossible to cross on foot) would allow some passengers to make an interchange there, which at times would make someone's journey between Glanmire and Little Island faster.

Action: No changes to the network.

Requests that bus services be extended to Upper Glanmire and/or White's Cross. The suggestion to extend services to Upper Glanmire and White's Cross was examined by the team. It was considered that there was merit in

"The major flaw is that there is still no route for White's Cross and Upper Glanmire."

providing a new service to Upper Glanmire and White's Cross. The team determined that six daily trips, on weekdays, would be proportionate to the number of existing and planned residents in the area, and fair in consideration of the level of service provided to other CMA villages of similar size and distance from Cork.

Action: Introduce Route 54 operating between Upper Glanmire and Cork Bus Station via White's Cross, with six daily trips on weekdays.

- 6. Desires to serve new growth areas in North Cork such as Kilbarry and Ballyvolane.
- 7. Concern at the loss of a one-seat-ride between North Cork and Douglas as provided by the existing Route 7.

In response to this feedback, the network in the North and North East suburbs of Cork was reviewed with particular attention to planned new developments in Kilbarry, Ballyvolane, Dublin Hill and along Ballyhooly Road.

"I am very concerned about the lack of a high-frequency service to the Ballyvolane area."

Route 10: "There will be poor connectivity from Ballyvolane into town."

This is a very challenging part of the network to design, as the road configuration and the low-density development do not lend themselves to central bus corridors, nor to concentrating service into frequent routes, as is possible elsewhere. There are many cul de sacs as well as natural barriers created by topography and water courses which prevent people from walking to nearby service. This lack of pedestrian connections forces bus routes to be more circuitous, longer, and as a result more costly to operate at any given frequency.

A small number of submissions raised concerns on the loss of direct bus links between northern areas and Douglas.

In the Draft New Network, Route 10 was proposed to connect Ballyvolane, Dublin Hill, Blackpool, Kent Station and the City Centre, and to then go onwards to CUH. The frequency offered was every 30 minutes, and the route will offer two-way service which is an improvement over existing service.

However, to the City Centre to interchange with other services, such as routes to Douglas, would be circuitous. The team decided to alter Route 10 to provide for a more direct route to the City Centre, in order to shorten peoples' journeys from Ballyvolane and Dublin Hill to the centre as well as to all other routes to which they might want to interchange, such as the very frequent Route 3 to Douglas. To make it more direct, the deviation to Kent Station was removed, though more frequent service between the City Centre and Kent Station was added as well, to make that interchange easier for Kent-bound residents.

For those wishing to avoid a walk or an interchange, Route 21 will serve Kent Station from both Ballyvolane and Dublin Hill. However, Route 21 in the Draft New Network included a deviation to provide coverage to the Barracks area on Old Youghal Road. To improve the directness of service on Route 21 between Ballyvolane and Kent Station, this deviation of Route 21 has been removed and replaced by the new Route 23.

There were a number of submissions in relation to areas served by the existing Route 207 which operates a large one way loop around Ballyvolane and Dublin Hill. The proposed Routes 21/22 and Route 10 were proposed to operate two-way loops which may not have been understood by respondents. This means that for some residents they will have the option of travelling in one direction or the other, essentially doubling their frequency of service or reducing the length of their journey on the bus, either way saving them time.

Actions: Alter Route 10 to provide for a quicker journeys between Ballyvolane, Dublin Hill, Ballyhooly Road, Cork City Centre and southern

areas such as Douglas. Remove deviation on Route 21 to make journeys to Kent Station more direct. Introduce new hourly Route 23.

8. Concerns that the area between Lower Glanmire Road and Old Youghal Road are not served.

Some concern was raised that there is an area between Old Youghal Road and Lower Glanmire Road that was not directly served by bus in the Draft New Network. There are a number of important destinations in this area and an aging population.

Unfortunately, there is no suitable road for a bus route, as the Middle Glanmire Road is too narrow for two way bus operation.

By sending Route 21 along Murmont Avenue every 30 minutes, the New Network will provide better-frequency service as close to this area as is possible.

Action: No changes to the network.

Summary of Network Changes for Cork North East Area

In summary, the following network changes have been agreed by the NTA team as an outcome of the 2021 Consultation Process:

- Route 10: Directness of route from Ballyvolane, Dublin Hill, Ballyhooly Road to City Centre improved through removal of loop around Kent Station.
- Route 15: Small change to route to serve Castlejane residences in Glanmire
- Route 21: Deviation along Old Youghal Road to Barracks area removed
- Route 23: New hourly route introduced from Old Youghal Road/Barracks area to the City Centre and Black Ash Park and Ride
- Route 54: New route from Upper Glanmire to Cork Bus Station with six trips per weekday

4.3 Cork South East Area

As illustrated in Figure 4.3, just over half of residents in the South East Area considered the Draft New Network to be worse.

It should be noted that one aspect of the network changes were not clearly communicated and there were many misunderstandings of the operation of Route 6 and 8, which will combine to provide a frequent two-way loop. Of the 80 comments in relation to Routes 6 and 8, at least 25 were clearly based on misconceptions. It is likely other comments were as well, but the comments were not detailed enough to be certain.

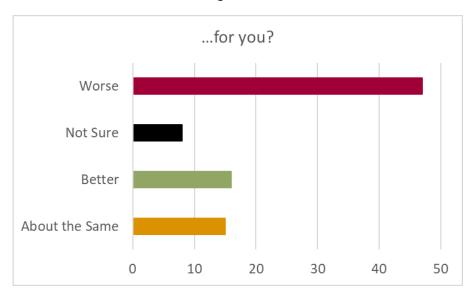


Figure 4.3 Opinion of Respondents from the Cork South East Area³

³ Respondents who listed 'Cork South East Suburbs' as where they live.

The consultation feedback on the Cork South East Area primarily relates to the following main issues and suggestions:

1. Concerns about students not being able to get to Christ King Secondary School (on South Douglas Road next to South Link Road) or Chríost Rí school (in Turners Cross on Capwell Rd).

Many submissions were received relating to students' access to the schools along the South Douglas Road.

A number of proposed routes will provide access within a 10 minute walk. Depending on the school, these short walks would be from bus stops on Douglas Road, or the bridge at South Link Road, or Church Street in Douglas. In addition, Route 7 will operate along South Douglas Road at a frequency of every 20 minutes.

The misunderstanding of the operation of Routes 6 and 8 clearly affected many of the comments received. Many commenters had the impression that a student could not, for example, ride Route 6/8 from their home in Grange along Kinsale Road to Christ King School on S. Douglas Road. Others had the impression that a student could not ride the other direction, from Frankfield through Douglas to the Douglas Community School. Both will be possible, with high frequency service and no interchange.

The team reviewed the routes and it was agreed that efforts would be made to place bus stops on Routes 6 and 8 as close as possible to the schools on South Douglas Road. Together with the opportunity to interchange with Route 7 in Douglas Village, the team determined that the New Network provides good accessibility for the schools, and that many students in the area who are poorly served by the existing network (and may not use the bus today) will find that the New Network makes their journey to school easier by bus.

Action: Consideration to be given to the location of bus stops in proximity to schools as part of the implementation of Routes 6 and 8. The through-routing

of Routes 6 and 8 with one another to be communicated more clearly in the future. No changes to the network.

2. Comments that the proposed frequency of service on Route 9 to Jacobs Island and along Beaumont Drive (every 20 minutes) was insufficient.

A number of submissions were made in relation to Jacobs Island and, in particular, the frequency of service proposed on Route 9. Some people

expressed concern that buses would be crowded. A number of submissions were appreciative of the proposed Route 9 as well.

9: "Excellent route, will be far more efficient to get into City Centre"

Based on the feedback and in considering the operation of the network as a whole, the team was considering an additional through-route through the City Centre. It was decided to merge the operation of Route 4 and Route 9, providing a radial through-route from Lehenaghmore to Jacobs Island, which necessitates matching the frequencies and therefore results in a higher frequency (every 15 minutes) for Jacobs Island and Beaumont Drive.

Action: Combine the routes serving Lehenaghmore/Pouladuff Road and Jacobs Island/Beaumont drive. This new through-route will operate from at a frequency of every 15 minutes.

3. Concerns that Route 3B from Carrigaline with be full when it approaches Donnybrook and Douglas, such that residents of those areas will not be able to get seats.

There were a significant number of submissions concerned with the

availability of capacity in Donnybrook and Douglas on services originating in Carrigaline.

The Draft New Network included an increase in the amount of service between Cork City Centre and

"I am concerned that the new route servicing Donnybrook will be full by the time it reaches Donnybrook Hill coming from Carrigaline." Carrigaline, reflecting the recent population growth. In addition, the team decided to plan for two additional express trips per hour during peaks (on Route 42X), resulting in even more capacity in the New Network.

It is not anticipated that there will be crowding on any routes to the point that numerous residents cannot get seats for long journeys. However, the routes will be monitored soon after implementation, and over future years, and NTA commits that additional capacity will be provided if patronage is sufficiently high to cause crowding

Action: Addition of two trips per hour between Carrigaline and Cork City Centre during peaks, on Route 42X, to offer a 20-minute peak frequency.

- 4. Concerns about the reduction in bus frequency on Blackrock Road, Beaumont Drive and through Blackrock Village.
- 5. Concerns about the reduction in bus frequency in Ballinlough.

A number of respondents raised concerns about reductions in frequency and capacity in certain parts of the network, particularly along the Blackrock Road and in Ballinlough Road.

Feedback during the first phase of public consultation, regarding how to design the network, indicated that most respondents favoured investments in more frequent services that require longer walks from some areas, rather than investments that are spread equally onto all routes and all roads.

This input guided the design of the network in Ballintemple, Ballinlough, Blackrock and Mahon, and the decision to concentrate new service investments onto those roads that are close to the greatest number of residents and jobs. This concentrated service also helps the greatest number of passengers benefit from the bus priority measures that will be

1: "It's a great improvement."

1: "Great frequency"

"Under the new proposal the Ballinlough route will be triple downgraded to a 60 minute route...This seems like a very bad service for a city suburb." delivered on key corridors as part of BusConnects.

In many cases, a slightly longer walk will provide access to a much better service, offsetting impacts. For example, from Ballinlough, more frequent service is available on Boreenmanna or Douglas Roads, a maximum of 600 metres away.

For those people who are unable or prefer not to walk further to reach a more frequent service, less-frequent routes have been maintained on roads such as Blackrock Road and Ballinlough Road.

Action: No changes to the network.

6. Requests to improve frequency on Route 14 and better facilitate interchange for trips between Carrigaline / Douglas and Mahon.

There was a suggestion to improve the frequency on Route 14 to provide for access to Mahon through better interchange with radial services, such as Route 3 from Douglas and Carrigaline. It was also suggested that Douglas could become a major focal point for interchange with a number of routes converging. A frequent Route 14 would also aid in journeys to and from school, as interchanges with radial routes such as Routes 4, 5 and 6/8 would become faster. It may also take pressure off of some radial routes, such as Route 9 which was described above with regards to some commenters' capacity worries.

A frequent Route 14 has wider benefits for the network and the CMA as a whole, because it creates a "frequent grid" on which a great number of places can be connected with a single quick interchange.

The team determined that the concentration of demand along the section of Route 14 from CUH to Mahon Point warrants the additional expenditure required to double the frequency for that segment of the route, from every 30 minutes to every 15 minutes.

Action: Improve the frequency of Route to every 15 minutes between CUH and Mahon Point.

7. Concerns due to traffic congestion on Monahan Road, particularly when events are on at Páirc Uí Chaoimh. Questions about why Monahan Road would not have frequent service, when bus priority measures have been taken there.

The NTA team considered this feedback and decided that using Centre Park Road would provide for greater overall access to service (and in particular to frequent service) given its proximity to major imminent development in the Docklands. Frequent service concentrated on Monahan Road would also be too close to Blackrock Road, and the two routes would inadvertently "compete" with one another for trips to mostly the same destinations (City Centre and Mahon

As for all routes, operational issues will be monitored post implementation to identify any persistent delays or reliability problems, and appropriate action will then be taken which may comprise traffic management changes or adaptations to the network.

Action: As described above, frequency of Route 9 on Centre Park Road improved to every 15 minutes. No other changes to the network.

Summary of Network Changes for Cork South East Area

The following network changes have been agreed as an outcome of the 2021 Consultation Process:

- Route 3: No changes to Route 3 itself, but capacity concerns about Route 3 addressed in part by adding two trips per hour, during peaks, to Route 42X between Carrigaline and Cork City Centre.
- Routes 6/8: Renamed to Route 6, and shown more clearly as a two-way loop, in the New Network materials to avoid confusion.
- Route 9: Merged with Route 4 to offer 15 minute frequency between
 Jacobs Island and Lehenaghmore via the City Centre.
- Route 14: Improved frequency from every 30 minutes to every 15 minutes between CUH and Mahon Point.

 Route 42X: Increased frequency to every 20 minutes at peak, to address crowding concerns on Route 3.

4.4 Cork South West Area

As illustrated in Figure 4.4, two thirds of residents in the South West Area considered the Draft New Network to be worse.

It should be noted that the network changes were not clearly communicated and there were many misunderstandings of the operation of Route 5. Many commenters had the idea that Route 5 would be an enormous one-way loop, when in fact it will be a two-way loop. Of the 77 comments in relation to the network being 'worse', 13 commented on Route 5 with reference to the misconception that it would operate as a one-way loop. It is unknown how many other comments about the network being "worse" were also based on this misunderstanding of the proposal.

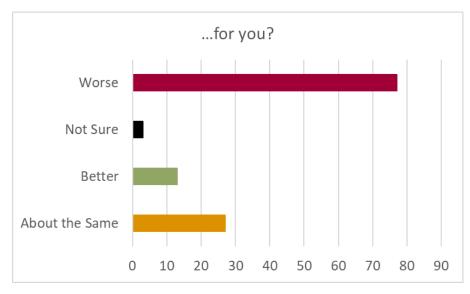


Figure 4.4 Opinion of Respondents from the Cork South West Area⁴

⁴ Respondents who listed 'Cork South East Suburbs' as where they live.

The consultation feedback on the Cork South West Area primarily relates to the following main issues and suggestions:

- 1. Loss of direct bus route between MTU, CUH or UCC; and Kent Station.
- 2. Loss of a one-seat-ride between MTU and UCC.
- 3. Concerns on the level of bus service to MTU.
- 4. Concerns that Route 1 will not have capacity for residents west of MTU, given the high demand from residents in Ballincollig.

With regard to the loss of bus routes between Kent Station and MTU, UCC or CUH, it was noted that the frequent Route 2A provides a direct link to MTA/UCC/CUH within a 500m walk of the southern entrance to Kent Station. However, considering that there would be further walk distances to train platforms and that some passengers may be making an additional interchange at the other end of their train journey, the team considered options to connect Kent Station to these major destinations with faster journey times and, for those people who cannot or prefer not to walk, with a shorter walk. to the station could be provided efficiently within the revised network.

Routes 15 and 30 in the Draft New Network were proposed to stop at Kent Station from the east (Glanmire and Midleton, respectively) with a combined 15 minute weekday frequency. The team decided to extend Routes 15 and 30 across the City Centre to UCC, CUH and MTU. This will provide one-seat-rides from those areas to Kent Station, as well as adding more capacity and frequency between them and the City Centre.

The lengthening of Routes 15 and 30 will also benefit Glanmire, Midleton and other intermediate destinations through the provision of a direct bus service to the Cork South West Area.

In relation to the loss of a one-seatride between MTU and UCC, Route 1 on Model Farm Road is within a 400m walk of MTU via a footpath, and provides direct access to UCC via College Road and O'Donovan Road. Routes 2A, 15 and 30 will connect MTU and UCC along an alternative

"For students in MTU, the 205 bus is an invaluable service in order to get to the train station. It would put many at a huge disadvantage if this service was stopped."

route with shorter walk distances depending on the origin and destination of trips within the MTU / UCC campuses.

Action: Extend Routes 15 and 30 to UCC, CUH and MTU.

5. Disappointment that no proposed routes would extend to Waterfall Village.

The suggestion to provide a new bus service for Waterfall Village was raised numerous times and the team agreed that the imminent development of new housing in

"Really disappointed that there is no planned service to Waterfall despite all the recent housing development in the area"

Waterfall justifies provision of a new route there. Six times per day on weekdays and Saturdays, a Route 10 bus will continue on past CUH as far as Waterfall Village via Waterfall Road. This will connect the village to CUH, Cork City Centre, Blackpool and Ballyvolane.

Action: Add six daily trips on Route 10 that extend to Waterfall Village.

- 6. Loss of a one-seat-ride provided by the existing Route 214 particularly from Togher to St. Patrick's Street.
- 7. Loss of direct link from Lehenaghmore to schools in Turners Cross as currently provided for by Route 203.

A number of submissions were made raising concerns on the loss of the direct link from Togher to the western side of the City Centre (especially St. Patrick's Street) as currently provided by Route 214.

Whilst there was some confusion regarding the operation of the proposed Route 5 and incorrect assumptions that it would comprise a one way loop, Route 5 will take a more circuitous way into the City Centre and won't bring people as close to Kent Station or St Patrick's Street as the existing Route 214.

Consideration was given by the team as to the potential to revise Routes 5 and 4 to maintain the historical continuous radial pattern on Togher Road. However, it was considered that there are wider benefits of crossing over two high frequency routes and facilitating the opportunity for interchange between Route 4 and Route 5, for example allowing people living in Lehenaghmore access to UCC and St. Patrick's Street with a single frequent interchange, whilst people in Togher have easy access to the City Hall area with a single interchange.

Also, Route 5 will serve Merchant's Quay which is within a short walking distance of St. Patrick's Street. Route 5 is proposed to operate at a frequency of every 15 minutes compared to the 214 which currently has a frequency of every 20 minutes. This better frequency will offset some of the journey time impacts to some passengers.

A very small number of survey respondents raised concerns on the loss of direct bus service between Lehenaghmore and Turner's Cross for children going to school, currently provided by Route 203 every 20 minutes. Redesigning the network to improve access for all residents will inevitably impact on some existing bus users, and this is one such example.

With regards to the connectivity from Lehenaghmore and Turners Cross, this will be provided for by way of interchange between Routes 4 and 5 which both operate at a high frequency of every 15 minutes, resulting in an average wait to interchange of 7.5 minutes.

Whilst this will inconvenience some passengers who use the existing Route 203 to travel between Lehenaghmore and Turners Cross, the increase in frequency will partially offset the impact on journey times for these students. The reason the team judged this change worthwhile, despite the negative

impact on a small number of students, is that the higher frequency routes and the new service patterns will allow students to travel to many more schools than they could reach on any single route. The redesigned network will improve access to school, on average, for all students in Cork, including those who do not use the bus today.

Action: No changes to the network.

8. Concerns that some areas where many older people reside (Deerpark and Friar's Walk) would not be covered by even an occasional service.

Whilst there is a dense network of streets in the South West Area allowing people to walk to the main bus routes on Pouladuff and Connolly Roads, feedback was received in relation to the need to continue to serve the area in between these two roads. This area is today covered by Route 209A, which makes just two round trips per day. The team decided to provide a new but infrequent route in this area, so that people there can reach the City Centre with a very short walk. A new Route 23 will operate once per hour between Black Ash Park & Ride and the barracks on Old Youghal Road, via Turner's Cross, Deerpark Road, St. Patrick's Street and Kent Station.

Action: Introduce new Route 23 between Old Youghal Road and Black Ash Park & Ride, via Deerpark Road and St. Patrick's Street.

9. Requests for service on Togher Road between Lehenaghmore and Doughcloyne, and on Manor Road east of Lehenaghmore Road.

Some respondents requested that either Route 4 or 5 double-back to get closer to residents and the industrial estate on Togher Road between Lehenaghmore and Doughcloyne. Other residents requested that Route 4 on Lehenaghmore Road deviation into the Manor Farm estate.

The team evaluated the walking distances that residents in these two areas will have to bear to reach either of these frequent routes. The team also evaluated the number of residents who would benefit from the deviations

and the number of passengers who would be delayed by the deviations. The team decided not to introduce either deviation at this time.

In the future, as Cork City grows outwards to the south, Togher Road may become a logical place for Route 5 to branch and divide its frequency. This depends on the type of development that occurs to the south, and whether and where it is concentrated.

To improve access to the bus for residents of Manor Farm, bus stop and pedestrian improvements should be considered on Lehenaghmore Road at Manor Road. This will be addressed in the Ancillary Issues Report.

Action: No changes to the network at this time.

Summary of Network Changes for Cork South West Area

The following network changes have been agreed as an outcome of the 2021 Consultation Process:

- Routes 15 and 30: Extended from Kent Station to MTU via the City Centre, UCC and CUH.
- Route 23: New route proposed to operate between Black Ash Park & Ride and Old Youghal Road/barracks via Tramore Road, Pearse Road, Deerpark Road, St Patrick's Street, Kent Station and Summerhill North.

4.5 Cork Outer East Area

As shown in Figure 4.5 there was a fairly even split between residents of the Cork Outer East Area who considered the Draft New Network to be better and those who considered it to be or worse than the existing network.

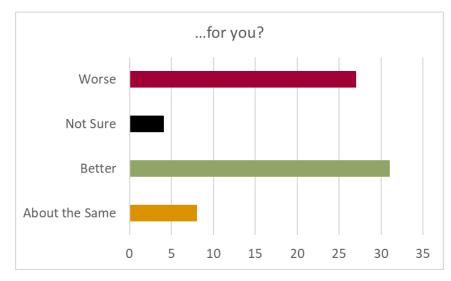


Figure 4.5 Opinion of Respondents from the Cork Outer East Area⁵

Over a third of the respondents who indicated that the Draft New Network would be worse referred to the lack of a one-seat-ride from Kent Station to UCC/MTU. The comments related to students travelling from the outer east areas by rail and availing of bus connections to reach their respective colleges.

This issue was described in an earlier section as part of the Cork South West Area. Additional service, requiring shorter walks, will be provided between Kent Station and UCC/CUH/MTU by way of an extension on Routes 15 and 30 resulting in a combined 15 minute frequency.

⁵ Respondents who listed 'Carrigtwohill', 'Cobh', 'Midleton', 'Little Island' or 'Glounthaune' as where they live.

The remainder of the feedback on the Cork Outer East Area primarily relates to these main issues and suggestions:

1. Suggestions there should be a bus route between Cobh and Carrigtwohill.

The team considered the suggestion that there be a unique bus route directly linking Cobh and Carrigtwohill. This would be in addition to the rail connect already provided. The team concluded that there is not today sufficient demand for travel between these two places to warrant a bus route connecting only these two places, in addition to the rail connection. Cobh is also connected to other places in the CMA via rail, a commercial bus service (Cobh Connects) and a ferry.

Action: No changes to the network.

2. Mixed response to the proposed Cobh route with many welcoming the addition to the network and others suggesting it should serve Cobh Town Centre more directly and areas to the north of the town such as Ticknock Shopping Centre.

Comments on the proposed Cobh Town service were considered in detail by the team. Cobh is a challenging environment for bus operations with many narrow roads and steep topography, especially in the busiest part of town near the centre. It was not possible to find an efficient way to serve the northern part of Cobh (in particular Ticknock) whilst maintaining the coverage and frequency of services as proposed and welcomed by many respondents. Similarly, no suitable routes were identified to increase the penetration of the bus service into Cobh Town Centre.

"The route proposed for Cobh is welcome in so far as it goes. What is surprising is that it would not serve the Beach area – in effect the centre of the town – the Cathedral, the shopping centre of Ticknock where the new health centre is being built and several other popular areas of the town."

In the future, as Cobh develops further to the north, a branched route that includes Ticknock, or a two-way loop using the northerly road around the town, may be worth considering. However, either would require doubling the operating and capital expense of the route already planned.

Action: No changes to the network.

- 3. Suggestions that Route 30 buses be deviated through northern parts of Carrigtwohill and potentially connect with the train station.
- 4. Support for the proposed route through the Business and Technology Park in Carrigtwohill.

With this feedback in mind, the network in Carrigtwohill was reviewed including consideration of new development areas. Route 30 is considered by some to be already too meandering for the long journey many of its passengers will be making. Additional deviations would cause longer journeys for all passengers whose trips did not start or end in northern Carrigtwohill. There would

Route 30: "The increase in frequency is great."

"In Carrigtwohill Route 30 could enter Castlelake at Aldi and take in that large residential population...It could also go via Fota Rock, Cul Ard and the train station."

also be a risk that the route to northern part of Carrigtwohill would duplicate and unintentionally compete with the rail service, causing inefficiency. The team decided that deviating Route 30 to northern parts of Carrigtwohill would compromise its directness and was not appropriate given the rail service available to many people in the northern area.

Action: No changes to the network.

5. Enthusiasm for the later evening service to Midleton.

Many commenters expressed their support for the later evening bus service proposed on Route 30 as part of the Draft New Network.

- 6. Suggestions that bus routes should better connect with Little Island train station.
- 7. Concerns that eastern parts of Little Island were not well served.

There were a number of submissions suggesting that better connectivity between bus and rail was required at Little Island. This matter was considered at length by the team. It is understood from Cork County Council that an improved pedestrian linkage from Little Island Train Station across the N25 to northern parts of Little Island will soon be provided. This will allow people to reach the train station more quickly by foot than by waiting for a bus route.

"For the majority of workers on Little Island, the walk from the train station to the many far flung industrial estates is just not practical, especially in bad weather....Route 14 serves the western-side industrial estates but does not serve the eastern side."

Commentors and Cork County Council staff also provided updated development information which indicated that there will be new demand for public transport as far east as Courtstown. As a result, the team decided that Route 14 should be extended to the east of Little Island as far as Courtstown.

Routes 14 and 30 were also revised

slightly on Little Island in order to make Route 30 less circuitous for those people riding through between eastern towns (such as Carrigtwohill or Midleton) and Cork.

Action: Revise Route 14 to operate from Courtstown Industrial Estate through northern Little Island. Revise Routes 14 and 30 to make Route 30 more linear on Little Island.

8. Requests that Routes 32 and 33 be operated at a better frequency to better serve areas south of Midleton. Requests that bus arrivals and departures on these routes be timed with train arrivals and departures.

Routes 32 and 33 were proposed to operate at a better frequency in the Draft New Network compared to the existing network. No further frequency increases were deemed necessary at this time.

It may be possible to time some bus arrivals and departures with the trains. This will depend in part on whether the train schedule lines up with the trip time of these routes, and also on how much time the trains and the buses need, respectively, to layover at the Midleton station between arriving and departing.

In addition, at some times of day the desire to time Route 33 connections with the train may conflict with the desire to extend that route west in the mornings and afternoons to provide school service in Ballintubbrid.

Action: No changes to the network.

Summary of Network Changes for Cork Outer East Area

The following network changes have been agreed as an outcome of the 2021 Consultation Process:

- Route 14: Extended to Courtstown on Little Island. Modified to travel via Eastgate Retail Park, Eastgate Road and a new road link.
- Route 30: Given a more linear pattern on Little Island, in consideration of people riding through, facilitated by the change to Route 14.

4.6 Cork Outer West Area

As shown in Figure 4.6 the majority of residents in the Cork Outer West Area considered the Draft New Network to be better or about the same as the existing network.

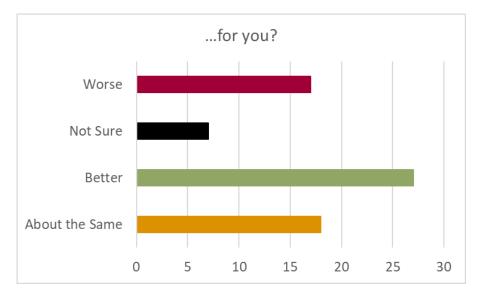


Figure 4.6 Opinion of Respondents from the Cork Outer West Area⁶

The consultation feedback on the Cork Outer East Area primarily relates to these issues and suggestions:

- 1. Support for Route 53 with numerous requests to increase frequency
- 2. Support for Route 16/16L with some requests to increase frequency

A number of submissions from Blarney, Tower, and Kerry Pike welcomed the planned routes but requested better frequencies.

Many of the routes in this part of the network are very long, covering large areas with discontinuous development. The length makes it costly to provide

Route 53: "I am happy to see Kerry Pike has a proposed route, however, every 120 minutes is not enough and should be more" Route 16L: "An excellent addition to the network that plugs that gap in the Blarney-Ballincollig corridor."

high frequency, while the

discontinuous development pattern means that fewer people are benefiting from the high frequency than when such service is provided along a continuously dense corridor.

As is, the New Network will provide an increase in the level of bus services in this part of the City. As the areas of Kerry Pike and Blarney continue to develop, there may be justification to support in frequency, longer hours of service or additional days of service.

Action: No change to the network.

3. Suggestions that Route 53 should enter the City via Shanakiel and Western Road, serving UCC

In relation to suggestions that Route 53 should enter the City via Shanakiel and Western Roads, this would leave a gap in coverage on Sunvalley Drive.

Many of the submissions on this matter related to access to UCC. For residents in Blarney and Tower and along Route 16L they will also have the opportunity to interchange in Ballincollig with the very high frequency Route 1. Thus they will be able to reach UCC by interchange to a very frequent route either in the city centre or in Ballincollig, by riding Route 16/16L in one direction or the other, depending on the timing of their trip.

Action: No changes to the network.

4. Suggestion that routes in Blarney should be extended north along Station Road to serve new development areas.

 $^{^{\}rm 6}$ Respondents who listed 'Ballincollig', 'Blarney', 'Tower', or 'West Cork' as where they live.

There were some suggestions to extend services northwards through Blarney along either Waterloo Road or Station Road. This extension would be a deviation off of the direct path through Blarney to Ballincollig, and as a result the team decided its costs to other potential patrons outweigh the benefits to the potential patrons living or working on those roads.

In the future, consideration could be given to extending Route 53 along Station Road. It would be necessary to find a suitable terminus and turnaround facility for buses, and a place for bus drivers to take a break, for such an extension to be viable. Whether this extension were possible would also depend on how many minutes it added to the round-trip driving time from Cork Bus Station, and whether that addition disrupted any timed connections between Route 53 and other routes at the Station.

Action: No change to the network.

- 5. Enthusiasm for the new Ballincollig Mahon through-route pattern on Route 1.
- 6. The provision of bus service on Castle Road in south Ballincollig is welcomed.
- 7. Some suggest that the branch point on Route 1 should be further west, whilst others suggest that it should be further east.
- 8. Concerns that the frequency to Classes Lake is not sufficient.
- 9. Request for a one-seat-ride bus route between Ballincollig and CUH.

Route 1: "I understand there is a huge amount of people that need to travel via Model Farm Road but any travelling to the City has 20 minutes added to their journey at least"

Route 1: "I would be grateful for this route to extend to Mahon Point" There was a number of submissions on the branching of Route 1 in Ballincollig forming Route 1A and 1B, many with opposing suggestions of moving it eastwards or westwards.

In reviewing the feedback, it was apparent that there was no 'ideal' location to branch the Route 1 service and that there was a need to serve both Ballincollig Main Street and

Castle Road/Carriganarra Road to the south. In addition, Classes Lake produces very high bus patronage on the existing network, and so extending high frequency service at least that far is important.

The network was reviewed in detail with the feedback in mind and it was decided to operate two routes from Ballincollig towards the City Centre. By operating Route 1 to a terminus at the eastern side of Dell, the revised network will provide enhanced frequency and capacity to serve Dell employees and the residents of Classes Lake and surrounding areas.

A second route will be provided by way of an extension of Route 2B every 30 minutes to Grange Road on the western side of the Dell campus via Castle Road in the southern part of Ballincollig. This will provide a new link between Ballincollig, Marymount, UCC facilities at Curraheen Road, Bishopstown and CUH. Route 2B will enter the City Centre via Western Road.

Action: Maintain the full frequency of Route 1 all the way to Dell's eastern entrance. Provide service on Castle Road to Ovens through an extension of Route 2B every 30 minutes.

10. Concerns on the switching of the Ballincollig service from Carrigrohane Road to Model Farm Road / College Road due to the likelihood of delays.

Some submissions from the Ballincollig area raised concerns on the routing of services into Cork City along Carrigrohane Road rather than Model Farm Road. As acknowledged in some submissions, different passengers have different needs, with many travelling from Ballincollig to destinations along Model Farm Road and others going to the City Centre and beyond.

Many of the concerns regarding the use of Model Farm Road related to risk of delays due to traffic. It is anticipated that the bus priority elements of BusConnects will reduce the delays to buses.

Other concerns related to the capacity of the service. The revised new network will provide additional capacity to the Ballincollig area through the extension of Route 2B. Further enhancements to the network such as the extension of Route 15 and 30 to MTU will result in more capacity on Route 1 that is available to those traveling home from the city centre to Ballincollig.

Bus Éireann's regional service Route 233 currently operates along Model Farm Road and will be shifted for some of its daily trips onto the Carrigrohane Road to provide an alternative service option.

Action: Bus Éireann to shift some Route 233 trips onto Carrigrohane Road. No other changes to the network. Under the Connecting Ireland programme an alternative option will be provided on Carrigrohane Road.

Summary of Changes for Cork Outer West Area

The following network changes have been agreed as an outcome of the 2021 Consultation Process:

- Route 1: Full frequency (every 10 minutes) extended to Classes Lake and Dell's eastern entrance. Service span lengthened to 24 hours.
- Route 2B: Every other trip extending from St Mary's Hospice, along Castle Road & Flynn's Road before following R608 to Coolroe Meadows and terminating at Grange Manor at the western entrance to Dell.
- Route 10L: Route as previously proposed on Curraheen Road in the Draft New Network is superseded by the new branch on Route 2B.
 Route 10L realigned to follow Waterfall Road from CUH to Heatherfield, Waterfall.
- o Route 233: Some trips to be realigned onto Carrigrohane Road.

As shown in Figure 4.7 the majority of residents in the Cork Outer South Area considered the Draft New Network to be worse than the existing network. Of those who considered the network to be worse, over two thirds were from the Passage West / Monkstown area, with most being existing users of Routes 223 Ringaskiddy – South Mall or Route 216 Monkstown – CUH.

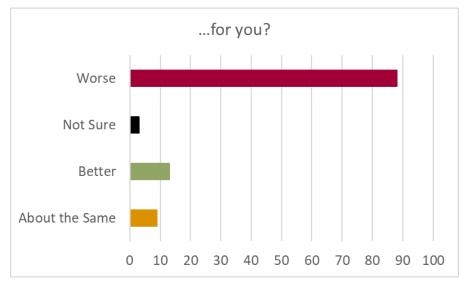


Figure 4.7 Opinion of Respondents from the Cork Outer South Area⁷

^{4.7} Cork Outer South Area

 $^{^{\}rm 7}$ Respondents who listed 'Carrigaline', 'Passage West / Monkstown' or 'Ringaskiddy' as where they live.

The feedback on the Cork Outer South Area primarily relates to these issues and suggestions:

- 1. Loss of one-seat-rides between Passage west and UCC / MTU / CUH.
- 2. Enthusiasm for the connectivity provided between Passage West and Carrigaline.
- 3. Concern that the frequency proposed on Route 12 would be too low.
- 4. Loss of a route between Passage West and Shanbally / Ringaskiddy.
- 5. Loss of a route between Ringaskiddy, Shanbally and Douglas.
- 6. Suggestions that Church Hill / Old Church Road in Passage West should be served providing access for school children and those who find the steep topography challenging.

The reconfiguration of the network will result in the severance of some existing routes. Two of these were the focus of many comments from residents in Passage West, namely the link to Ringaskiddy as provided by the existing Route 223, and the link to CUH as provided by the existing Route 216. In the Draft New Network, these journeys would require interchange. Requiring interchange made it affordable to create new connections such as the proposed Route 12 between Passage West and Carrigaline. This new route was widely welcomed with positive feedback. However, negative feedback did highlight local issues that warranted reconsideration of introducing interchanges for both of the journeys mentioned above.

In Passage West, further submissions referred to the intermittent service to Church Hill / St Peter's School and suggestions that service be increased to be more regular. Some commenters were concerned about the 30-minute frequency planned for Route 12, however it is likely that many people did not understand that Route 12's peak weekday frequency would be every 15 minutes, equal to the frequency offered today on the two existing routes in the area.

The team considered that there was merit in retaining the one-seat-ride between Passage West and Ringaskiddy, especially because the interchange required by the Draft New Network for this journey would be between two infrequent routes and would take place outside of a town or city centre. To

address this concern, a new Route 45 is included in the Revised New Network, which is very similar to the existing Route 223. It will operate hourly from Ringaskiddy / Shanbally via the R610 to Monkstown, Passage West, St Peter's School, and terminating in Douglas.

Regarding the loss of a one-seat-ride from Passage West to CUH, which is provided by the existing Route 216, the team decided that this journey is so well provided for by the proposed network that adding an additional route from Passage West would not be appropriate. Passage West will be connected to Douglas by Route 12 every 15 minutes at peaks and every 30 minutes at midday and evenings. From Douglas, Route 14 will be available to CUH every 15 minutes. Or, someone may remain on Route 12 into Cork City Centre where 14 buses per hour will be passing on their way to CUH.

It is understandable that residents of Passage West who are accustomed to making a one-seat-ride to CUH on Route 216 would be unhappy at the introduction of an interchange to their journey. However, this type of inconvenience to a small number of people makes it possible to design the entire network to improve those residents' trips to other places, and to improve bus trips for a great many other people. For this reason, the NTA team decided not to restore the one-seat-ride currently provided by Route 216.

Action: Introduce new Route 45 between Douglas and Ringaskiddy via Passage West / Monkstown, every 60 minutes.

"The 223 is essential to connect Ringaskiddy and Shanbally to Monkstown and Passage. Kids from the area use that route to go to secondary school in Passage, a lot of workers use it to go to work in the factories in Ringaskiddy. We are all one Parish and need to be

12: "This route will offer further connectivity and a missing link between Rochestown, Passage and Monkstown with Carrigaline. However the direct link with Ringaskiddy will be gone."

- 7. Enthusiasm for the new link between Crosshaven and Ringaskiddy, but not at the expense of a direct route from Crosshaven to the City Centre.
- 8. Enthusiasm for Route 40.

Numerous concerns were expressed about the removal of a one-seat-ride between Crosshaven/Fountainstown and the City Centre. For those whose trips are made to destinations west of the City such as UCC and MTU, the impact was even greater. In the Draft New Network these trips would require one or even two interchanges.

The team decided that given the high

patronage on the existing route from

Crosshaven, and the number of interchanges that would be introduced for journeys between Crosshaven and west side destinations (two interchanges), addition of a non-stop bus route would be appropriate. Route 42X will be extended from Fountainstown to Kent Station. It will provide local service between Fountainstown, Crosshaven and Carrigaline, and then act as an express between Carrigaline and Cork City Centre. It will operate once per hour Mondays through Saturdays, all day, and every 20 minutes during weekday peaks. The addition of hourly service on Sundays during the summer can be considered in the future, to support visits by Cork City residents to the beach.

Action: Remove branch 40B to Fountainstown. Replace with Route 42X from Carrigaline to Fountainstown, providing local service via Crosshaven and a one-seat-ride between Crosshaven and Cork City Centre.

9. Suggestions that buses should operate along L2474 due to steep hills and to maintain service to St. Francis College.

"Personally, for me living in Crosshaven and working in UCC it means I need to take 3 buses to get to work"

Route 40: "It is high time that Fountainstown, Crosshaven and especially Carrigaline have a reliable bus service to Ringaskiddy and Haulbowline"

10. Concerns were expressed over removal of bus services to schools currently provided through route variations.

Suggestions were made that buses should serve L2474. Particular reference was made to the need to at least retain the occasional trips to provide access to St Francis College.

Concerns were also raised, as noted earlier, about access to Saint Peter's School.

A sensible route would follow L2474 and Church Hill to connect Douglas, St. Francis College, St. Peter's School and Passage West. However, Church Hill is inoperable by buses, making it very difficult to provide regular services to either of these schools.

12: "'Occasional' stops at St Peter's and going up Church Hill is unacceptable."

"I believe to capture this road L2474 within some route option would greatly improve local options to reduce climate emissions."

The team developed an interim solution, until Church Hill is made operable for buses. At morning and afternoon, a route will connect Douglas and St. Peter's School via L2474, Upper Monkstown and Carrigmahon.

11. Requests that bus services should be extended south of Carrigaline to Minane Bridge / Tracton.

The team examined Minane and Tracton existing and planned development, and considered whether urban bus services there would be appropriate in consideration of where urban bus services are provided elsewhere in the CMA. The density of housing is very low both within these areas and between these areas and the terminus of the closest routes in the network. Tracton is just inside the CMA, whilst Minane Bridge is just outside of it. After this reconsideration, the team determined that it would not be feasible to extend service to these areas given the high expense and the small number of potential beneficiaries, nor would it be fair in consideration of the way that villages of similar size and distance from other developed places have been served.

Action: No change to the network.

Summary of Changes for Cork Outer South Area

The following changes have been agreed as an outcome of the 2021 Consultation Process:

- Route 12: Occasional diversions to schools in Passage West and Monkstown eliminated as they will be served by new Route 45.
- Route 40B in Fountainstown: Replaced by the extension of Route 42X.
- Route 42X: Extended and providing local service from Carrigaline to Fountainstown via Crosshaven Road, Church Bay Road and R612, every hour Mondays through Saturdays.
- Route 42X: Frequency of express trips between Carrigaline and Cork
 City Centre increased to every 20 minutes during weekday peaks.
- Route 45: Introduction of a new Route 45 between Douglas and Ringaskiddy via R610, N28, Marian Terrace/Coolmore Gardens and R613.
- Route 46: Introduction of a new Route 46 to operate an occasional service mornings and afternoons between Douglas and St. Peter's School, via R610, L2474, Scotman's Road and Laurel Hill.

4.8 Cork City Centre

As shown in Figure 4.8, just under half of residents in Cork City Centre considered the Draft New Network to be worse than the existing network.

Nearly half of those who considered the network to be worse were users of the existing Route 205, with many concerned on the loss of a route offering very short walks and a one-seat-ride between Kent Station and MTU.

As most routes serve the City Centre, the majority of the changes in the Revised New Network described for other areas will have some level of impact on the City Centre. In this section the changes most relevant to the feedback from residents in the City Centre is presented.

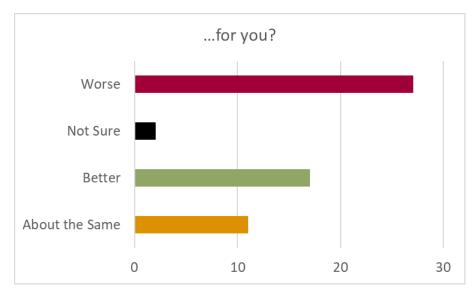


Figure 4.8 Opinion of Respondents from the Cork City Centre Area⁸

⁸ Respondents who listed 'City Centre' as where they live.

The feedback on the City Area primarily relates to these issues and suggestions:

1. Loss of direct links between Kent Station and MTU.

In relation to the need for a direct bus link between Kent Station and MTU, this issue was raised by many residents elsewhere, particularly the Cork South West Suburbs and the Cork Outer East Areas.

"Getting rid of a direct route between Kent Station, the City and MTU will leave hundreds of students unable to get a direct route to college."

Action: Extend Routes 15 and 30 westwards to UCC, CUH and MTU.

2. Loss of direct link to Crosshaven.

A number of submissions raised concerns on the loss of direct link between Cork City Centre and Crosshaven for City residents accessing the amenity of the coast.

Residents from Crosshaven in the Cork Outer South Area also raised concerns over the need to interchange to travel between Crosshaven and the City Centre, in addition to the second interchange required to go on to places like MTU or Ballincollig.

"I'm not at all pleased with the discontinued direct route from Cork City to Crosshaven. This route has provided an invaluable opportunity for the people of Cork City to visit the seacoast directly."

Action: Remove branch 40B and extend Route 42X from Carrigaline to Fountainstown offering local service via Crosshaven, once per hour Mondays through Saturdays.

3. Concern about the level of bus service coverage in Friar's Walk, Deerpark and Ballyphehane.

A small number of submissions referred to a lack of coverage of the area between Pouladuff and Connolly Roads, south of the City Centre. This coverage gap was described at length in the earlier section with regards to comments about the South West Suburbs.

Action: Introduce new Route 23 between Old Youghal Road/barracks and Black Ash Park & Ride, via St. Patrick's Street and Deerpark Road.

4. Concern over the provision of service between the City Centre and Togher.

In relation to the concern raised over bus connections between the City Centre and Togher, it is likely that the misunderstandings in relation to the operation of Route 5 as a one-way loop instead of a two-way loop had an impact on feedback.

The issue of connectivity between Togher and the City Centre was reviewed by the team. The route patterns as proposed in the Draft New Network – in particular the improved frequencies on Routes 4, 5 and 14 – are likely to

serve the City Centre very well in the near-term whilst offering increased opportunity to travel to other parts of the City.

4: "I like the idea of the more frequent route as that would be more convenient for myself."

Action: No further changes to the network.

5. Concern that some routes don't serve St Patrick's Street or South Mall.

There were many comments about routes not serving St. Patrick's Street or South Mall, and concerns that alternative locations are too far removed from the commenter's destination in the City Centre, or that such locations undesirable places to wait for a bus.

The New Network contains approximately 40% more bus service than the existing bus network and it will not be possible to route all bus services along St. Patrick's Street. It will also not be desirable, since for many trips a route along St. Patrick's would be circuitous and out-of-direction.

Many of the routes in the New Network are through-routed cross city and there is a need for a balance between City Centre coverage and efficient operation.

Routes heading in the same general direction should be grouped together, so that people benefit from the higher frequency for their shorter journeys, and this grouping requires that the network be distributed onto fewer streets in the city centre.

It is important that all radial routes through the city cross all other routes, so that people's interchanges are made in the same place for both directions of their trip, and so that routes heading

For all of these reasons, routes are no longer proposed to use South Mall. This makes the city centre network simpler, and makes higher-frequency routes and interchanges more possible, but also means that some people heading for destinations on S. Mall will have a longer walk after getting off their bus.

Finally, consideration also needs to be given to the integration between bus services and other transport modes, particularly walking and cycling, which are for most people the fastest way to reach a destination in the city centre after alighting from a bus.

Throughout this planning process the NTA and Bus Éireann team has observing the ways that the New Network will require additional or moved terminal facilities in the City Centre. Additional space for buses, wayfinding signs for passengers, waiting areas for passengers, and services for bus drivers, will all be required in the city centre, in particular at Kent Station; at the bus station, and near UCC on Western Road. Some route termini have been moved relative to what was proposed in the Draft New Network, to account for limits of the space available for these facilities.

Action: Revisions to the locations of the termini of Routes 12, 13, 16, 20 and 21 to address feedback from the public as well as the need for bus layover space and operator break facilities in the centre.

Summary of Changes for Cork City Centre Area

The following changes have been agreed as an outcome of the 2021 Consultation Process:

- o Route 12: Terminus relocated from Cork Bus Station to Kent Station.
- o Route 13: Terminus relocated from Cork Bus Station to Kent Station.
- Routes 15 and 30: Extended from Kent Station to MTU via the City Centre, UCC and CUH.
- o Route 16: Terminus relocated from Cork Bus Station to Kent Station.
- o Route 20: Terminus relocated from Cork Bus Station to Kent Station.
- Route 21: Extended to UCC to relocate terminus from Cork Bus Station to Western Road/Dyke Parade.
- Route 23: New route proposed to operate between Black Ash Park & Ride and Old Youghal Road/barracks via Tramore Road, Pearse Road, Deerpark Road, St Patrick's Bridge, Kent Station and Summerhill.
- Route 42X: Extended from Carrigaline to Fountainstown via Crosshaven Road, Church Bay Road and R612, once per hour Mondays through Saturdays. Increased frequency at peak to every 20 minutes.