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7th December 2017
The Secretary An Bord Pleanála
64 Marlborough Street
Dublin 1

Application Reference No: PL29S.JA039
Planning Authority: Dublin City Council
Date of Submission: 18th May 2017
Description of Project: Development of a new Civic Plaza and ancillary traffic management measures.

Dear Sir

Instructions

Reid Associates and Stephen Reid Consulting are instructed by Dublin Bus, 59 Upper O'Connell Street, Dublin 1, which is a constituent company within the CIÉ group as a national public transport service provider. The CIÉ Group is a designated stakeholder for the College Green Project and is furthermore a designated Prescribed Body under the Planning and Development Act 2000 as amended. In that context the submission is made on behalf of Dublin Bus, Bus Átha Cliath, 59 Upper O'Connell Street, Dublin 1, as the company within the CIÉ Group with responsibility for public bus transport in Dublin city and wherein the traffic management proposals directly impact and have implications for public bus transport in the city.

Any correspondence in respect of this submission should be sent to the offices of Reid Associates, 2 Connaught Place, Crofton Road, Dún Laoghaire, County Dublin.

We hereby make submissions in respect of the additional information response to An Bord Pleanála on foot of the public notice dated 16th November 2017.

AN BORD PLEANÁLA	
TIME <u>17:20</u>	BY <u>Gerd</u>
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SUBMISSIONS

This submission comprises:

The main responses, Reid Associates and Appendix 1, the Transport Technical response, Stephen Reid Consulting.

PREAMBLE:

Dublin Bus comments and observations are driven by the desire to see a civic space at College Green that is open and accessible, and that recognises the need for integrated public transport that offers the benefits of a civic plaza to the entire city.

There are elements of the proposal that we consider could benefit from re-consideration of key points identified below.

We recognise that there are significant changes happening and proposed across the city in terms of public transport investment and welcome these changes as contributing to the economic, social and sustainability of the city and offer the following observations with a view to improve the overall success of the proposed plaza as a pedestrian friendly civic space.

RESPONSES

1 No significant change or modification to the design

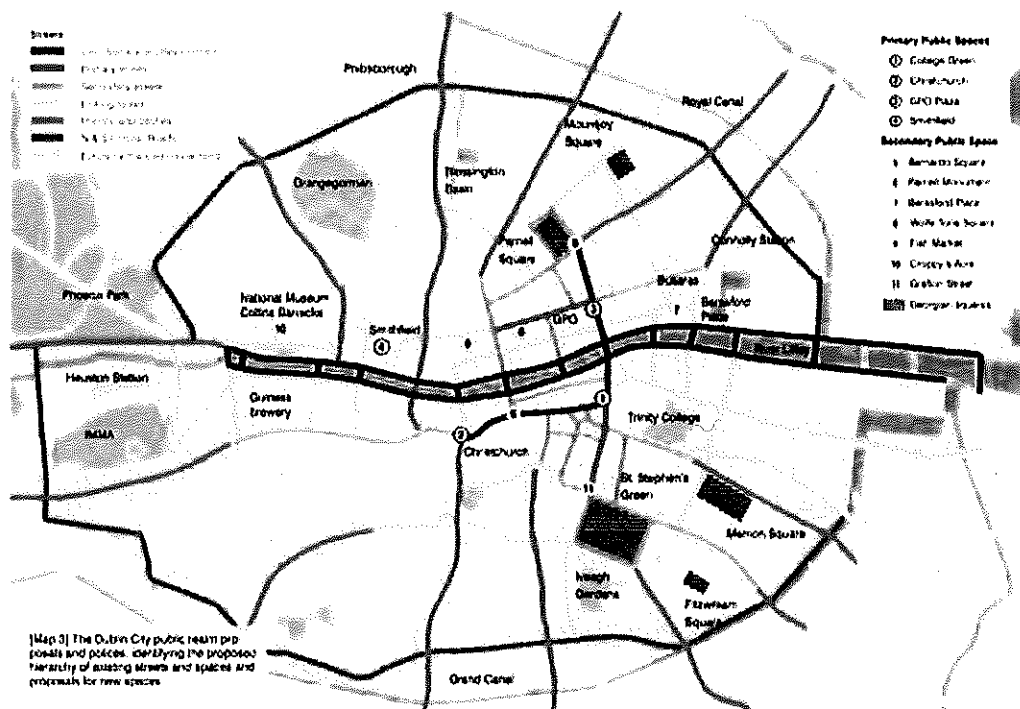
Our review of the Dublin City Council response to the request for additional information from An Bord Pleanála reveals that the substantive points raised by An Bord Pleanála have not been adequately addressed. The original core observations made by Dublin Bus remain valid.

The responses focus on the specific local plan context, while many of our concerns are in relation to the impact on the entire city.

2 The centrality of College Green is essential to a connected bus network

At the outset it is important to reiterate that College Green is the single most important connecting link in the citywide bus network. There are no comparable alternatives. It is the hub, which links the system both to and through the city centre east west north south. This is reflected in the fact that the College Green area is currently a public transport only area between the hours of 07.00hrs to 19.00hrs. It is also evident in the public realm strategy map. It is the crucial link connecting a fragmented city. Public bus transport is crucial to ensuring people from all parts of the city can access this civic area.

It is also important to recognise that Dublin does not possess an underground metro system and the Luas cannot accommodate the necessary directional accessibility or capacity for public transport in the city. Therefore, the essential connections between bus routes and other modes has to occur at surface road level. Bus is the largest element of Dublin's public transport network. It is of strategic importance in the move towards a more sustainable Dublin city centre and the creation of a civic area. It is critical in that context that bus penetration into the central area is as comprehensive as possible, particularly in the areas which have the highest demand.



Extract Public Realm Strategy

The additional information responses acknowledge that Parliament Street could run two way provided there is no exceedance of air pollution standards. However the additional information response and EIAR states this does not form part of the College Green Project.¹ There are changes proposed to Parliament Street within the project and it is critical that the issue of two way running of buses on Parliament Street be revisited.

We refer to the original public consultation in respect of the project as highlighted in our original submission², which included accommodation of two-way bus routes on Parliament Street:

The College Green Traffic Management Measures Public Consultation Document issued in April 2016 by Dublin City Council (DCC) and the National Transport Authority (NTA) clearly shows Parliament Street accommodating two-way bus routes. This was the basis upon which Dublin Bus and the National Transport Authority (NTA) understood the public transport arrangements and traffic management proposals.

It is proposed that routes previously travelling through College Green eastbound be rerouted to travel along Winetavern Street northbound, across O'Donovan Rossa Bridge and along the North Quays.

¹ S 3.7.2.2 EIAR

² S 3.2.2 Dublin Bus

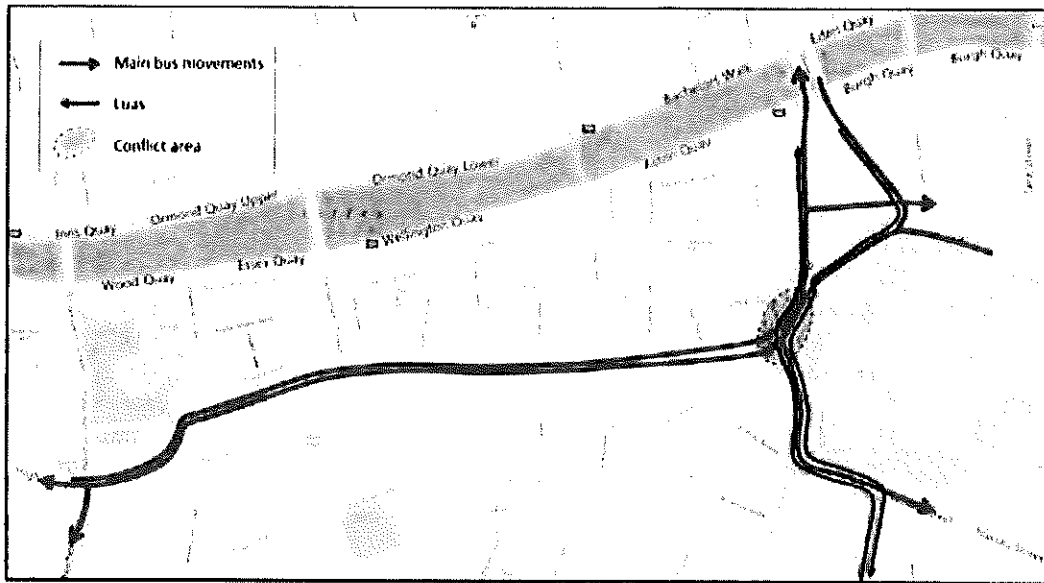


Figure 2.16: Do-Minimum Scenario - Local Bus and Luas Movements

The do minimum scenario for bus movement can be managed as stated in the additional information response. It is clear from Figure 2.16 that this solution provides the only direct route west east to the south central city area.

Figure 2.17 shows the diverted routes, which demonstrate that there is no suitable alternative other than to manage the on-street do minimum scenario for buses. The hugely important south central city area is not adequately accessed from the west or served by public bus as a result of the proposals and results in a significant loss of service to one of the most important retail and office districts of the city.

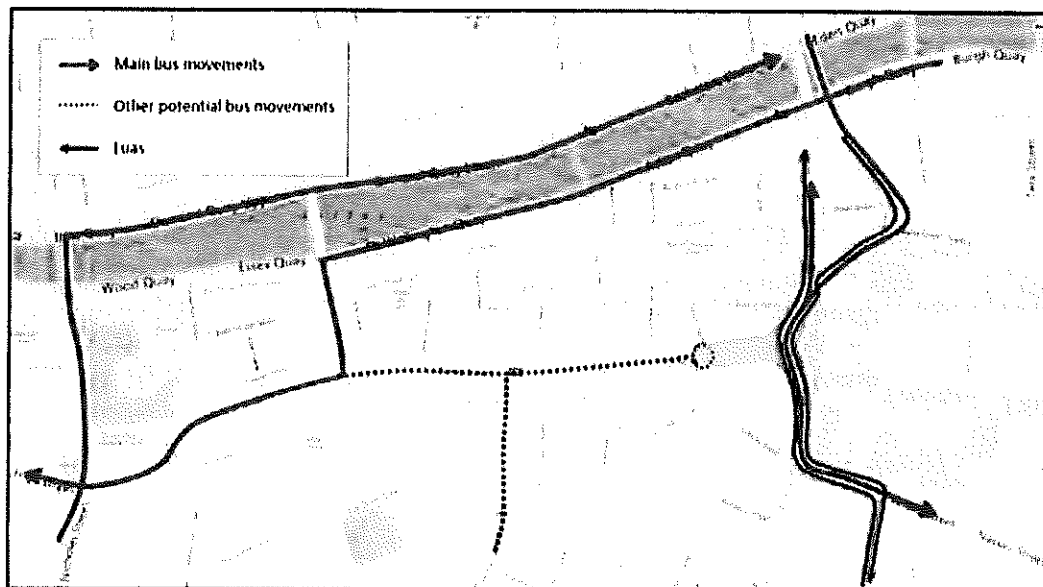


Figure 2.17: Do-Something Scenario - Proposed Bus Movements

Dublin Bus remains of the view therefore, that some bus movement (at least west to east services) and options for two way running on Parliament Street, subject to meeting emissions targets, are essential components in a final plan for the College Green Civic Plaza Project.

Winetavern Street is over 800m distant, a 10 minute walk, from College Green, and could never provide a suitable alternative or mitigation to the loss of the connection through College Green. They are not comparable.

The basis for the Civic Plaza mobility management strategy emerged on foot of Luas driven traffic management solutions without an appraisal of the overall integration of public bus transport and land use in the city or of the need to provide customer choice in the drive to secure increased modal shift to public transport.

Dublin Bus fully appreciates that changes are necessary to the bus network and for that reason is fully engaged in the bus network restructuring project with the National Transport Authority. Bus services are constantly reviewed and adapted to the changing demands of the city, but we urge that changes are allowed to bed in and the implications be tested and fully understood before making dramatic changes that have serious repercussions for the city.

The additional information response suggests:

"While the final detail of bus network restructuring is yet to emerge from the NTA, it is clear that the introduction of the Proposed Project will result in existing bus routes through College Green being re-routed towards the Liffey Quays, via Winetavern Street on the eastbound direction and via Parliament Street on the westbound direction."³

This is an assumption within the bus network restructuring. However the development of all options should be tested prior to adoption of a final network design. It is a central aim of the network design process to improve bus routes, to provide more convenient routes to key amenities such as the central city area and provide quicker journey times.

Figure 2.17, which shows the displacement of key bus routes from the central city area, undermines access to the south city centre. The scale and length of the distance of rerouting off centre, the crossing of the Liffey are all stark and substantive changes that undermine central city accessibility by bus.

The "do minimum" scenario can manage bus integration with the Luas and is a preferable scenario to adopt.

Improvements in journey times on the quays derive from the do nothing scenario and not from the proposed project. The Bus network restructuring project has not been concluded and assumptions regarding the diversion of buses to the quays from College Green derive from the proposed project and not from independent objective criteria for the improvement of bus routes. The network redesign is at draft stage and it is not appropriate to prejudge the outputs from the draft proposals as there will be extensive public consultation taking place once the draft is published.

The successful integration of land use and public bus transport is central to public life in the city. The diversion of west east bus routes from College Green via Winetavern Street will have significant unintended consequences for the pattern and vibrancy of land use in the city and for customer perception of public bus transport.

There are several sections of the Dublin City Council response that suggest minimal impact on walking times and catchment in relation to the change in services. This may look reasonable, but it is missing the detail of accessibility through Temple Bar for example. It is also missing the detail of the impact on customer preferences, and ultimately discretion remains with customers not to undertake social trips where convenience is replaced by perceived difficulties of access.

³ S3.2.5 DCC, AI response

The Dublin City Council response also references the journey time savings on the quays as a rationale to balance any walk time increase. The journey time savings are part of the do nothing scenario which would be in place irrespective of the College Green project.

It is hard to understand why the Aircoach and Route 25b were assessed for journey times, as they are not the most representative routes, specifically the 25b does not use Dame Street and will not be affected by the proposals.

When faced with reduced convenience customers will continue to use the service for necessary trips, but it is the optional trips and retail, leisure and recreational trips that bring life to the city all day and evening which will incur significant impacts and which will bring with it significant impacts and disruption on the pattern of footfall, vibrancy and public life in the city.

The intensity of pedestrian footfall within College Green is currently in part attributable to its importance as a vital central public bus connection link in the city. Public bus accessibility mutually supports the public realm and accessibility to that public realm and ultimately supports the success of the College Green Civic Plaza.

3 College Green Civic Plaza area is the key to sustainable bus network

The future of public bus transport in city centres is smart, quiet, electric or other non-pollutant energy sources. The emergent trends across Europe and worldwide is to phase out or ban diesel vehicles in city centres. The only question is the timing, but it appears inevitable.

"Part of the debate will have to include choices about what fuel will power buses in the future, amid increasing concern over climate emissions and air quality."

*"There is a number of options in terms of electric, hybrid, bio-diesel and hydrogen,"
"In recent years we've concentrated on getting the most buses for our money. There's no doubt we need to look at the next fleet to reduce our carbon footprint and reduce emissions, but there's a cost associated."⁴*

The College Green Civic Plaza is a major impetus to drive that sustainability agenda and to support the testing of electric buses in the city.

Dublin Bus will continue to support sustainability, which enhances bus performance within the newly designed civic public realm space of College Green and other public realm areas in the city. In terms of Parliament St, we have previously noted the results of the modelling by DCC in terms of bus operation subject to EU air quality standards.

Transport for London (TFL) for example has plans for the introduction of 250 zero emission buses by 2020. These zero emission buses are quieter with lower vibration levels.

It is important that this willingness on the part of Dublin Bus to respond to sustainability is acknowledged and that the College Green Civic Plaza provides an opportunity to unify and integrate public transport logistics and support improved sustainability across that entire sector, bus included. It is not a matter of principle it is a matter of time. Assumptions regarding diesel vehicles, which will be overtaken by other technologies in time, should not be used to preclude, impede or erode established bus accessibility and connections through this vital artery of the city.

The College Green Civic Plaza is a pedestrian priority space not a pedestrian only zone. In that context maintaining established bus accessibility west east as well as north south is vital to ensuring its success as a central city hub and crossroads for public transport interconnection. This is a key point that is discussed further in Section 9 of this submission.

⁴ ibid

College Green is the vital link in making the city work in terms of public bus transport. Of all the vehicles restricted to ensure pedestrian priority, public bus transport should not be in that category. The principle of maintaining established public bus accessibility and priority through College Green should be enshrined in the Civic Plaza project as a vital means of supporting public transport mobility in the city.

There is a need to more rigorously question the need of other vehicles to access the space.

4 Opportunity for testing of bus running west east through College Green

The Dublin City Council response to many of the bus related issues raised by the Board is that the Bus network restructuring project and network review will deal with a lot of issues such as simplifying the bus network, removing multiple routes converging in the city centre.

As noted, the Bus network restructuring network design project assumes the diversion of west east buses from College Green. Options arising from the project will be tested and evaluated and be subject to consultation; the final recommendations cannot be prejudged. It therefore remains premature to preclude access to bus in the Civic Plaza until this review has been completed.

Luas Cross City will be operational from the 9th December 2017. The timing of the opening of Luas Cross City means that the bus running west east will continue to operate with Luas across College Green. Therefore, it is vital to understand in that context how public bus and Luas interact. There is an empirical need to fully understand what this means in terms of public transport properly serving customers.

The modeling, which has been undertaken to date, is a macro model and there is a need for a much more detailed localized micro model. It is only from a detailed local model that it will be possible to understand local delays and local benefits and whether they translate to knock on impacts on the overall network.

The dual running of Luas and Dublin Bus through College Green from 9th December offers a vital opportunity to assess the empirical results on the ground.

We hereby request that the Board facilitate the authorities with a reasonable time period to undertake the research to properly assess and evaluate the impacts arising. This is a critical input into any decision, which could be made to exclude west east bus routes from this core area of the city.

With Luas Cross City operational from December 9th, there will be a bedding in period and traffic volumes in December cannot be taken into account given the effects that shopping centres have on traffic schedules. It would be possible however, to ascertain trends as to how Dublin Bus and Luas interact by using a reasonable time period, for example data from 2nd week of January to the end of February (6 weeks), this data could be reviewed in 2 weeks leading to a final date of mid March for an indicative assessment of trends

While normally Dublin Bus would assess trends over a six month period the suggested shorter review period would give vital and valuable insight on trends that could produce accurate empirical results which will have long term implications for public transport in the city for decades.

We hereby request the Board that any oral hearing would not take place until after mid March in order that the authorities undertake an assessment of the dual operation and interaction of Dublin Bus services and Luas through College Green so that such information could be presented as evidence based testing of the options to any Oral Hearing. There is a need to research the journey times, customer numbers and loading times.

This time frame for any oral hearing is critical in order to assess the project properly as it is important not to rush in and make drastic changes to the accessibility of public bus services

based on untested potential problems of right turning buses from College Green around the front of Trinity College onto Dame Street.

We respectfully submit that such an extension of time would provide a valuable input to the project, which ultimately would expedite decision-making based on the evidence rather than modeling, or assumptions. It would also allow the progress of Bus network restructuring in parallel so there is a synchronicity of measures to facilitate the improvement of accessibility of the public realm in accordance with the underlying vision of Dublin City Council.

5 Necessary improvements to pedestrian infrastructure connecting the Civic Plaza to bus routes and bus stops

There are no measures included in the DCC response for improving universal pedestrian accessibility through Temple Bar. Pedestrian accessibility through Temple Bar is difficult as a result of the cobbled streets. Pedestrian crossing of the Liffey can be difficult and involves delay to negotiate the traffic light junctions, which do not prioritise pedestrian movement. Pedestrian congestion at key pedestrian crossings will be exacerbated by the diversion of bus routes to the quays. All of these difficulties militate against the convenience of taking the bus as a public transport option.

As the largest public transport provider in the Dublin area both on a daily basis (500,000 customers) and annually (138 million customers projected in 2017), it is of paramount importance that bus customers are able to get to where they want to go, including the proposed College Green plaza area.

While pedestrian desire lines for movement through College Green have been assessed⁶ there has been no similar assessment for pedestrian movement to access proposed new bus stops or to access College Green from the rerouted bus service and stop locations on the north quays and on Winetavern Street. While there are improvements in permeability within the College Green Civic Plaza there are drawbacks for pedestrians who desire to access College Green but who have to negotiate their route from Winetavern Street for example through Temple Bar across cobbled streets or from the north quays where signal controls and river crossings, pedestrian congestion and delay and other obstacles provide barriers to permeability. Conditions for pedestrians outside of the College Green Civic Plaza area will deteriorate and significant numbers of pedestrians and bus customers will be displaced from the College Green area to Winetavern Street and the north south quays. Anglesea St. gains a significant volume of traffic under the modelling and this is a street that many pedestrians may want to use to travel from the quays to Dame St. The assessment of the impact on pedestrians is therefore narrowly focussed. There is no corresponding plan to link the Civic Plaza, to provide pedestrian improvements on connected routes or to prioritise pedestrian signals at junctions.

The response to the request for additional information suggests that vehicular conflicts are removed. The turning circle is problematic as a vehicular conflict zone and there is the possibility of all vehicles turning in this area.

6 Footpath capacity on the quays

Diversion of bus customers who now congregate and wait in College Green onto the quays. is problematic as there is insufficient pedestrian space capacity on the narrow footpaths to accept the increased customer numbers anticipated. The modeling has investigated road capacity on the quays but not footpath capacity. The narrow linear footpath space along Bachelor's Walk, for example, compounds these problems with customers trying to alight and board from the same restricted space as well as significant volumes of pedestrians passing through. Issues of pedestrian safety or comfort need to be anticipated or factored in. This must bear in mind the overall extent of the diversion of customers, which is of the order of

⁶ S 3.2.3 AI response

4.28 million annualised boarding's, twice that number if alighting is included, placing extreme pressure on limited footpath space.

There is a lack of clarity on measures to address footpath capacity or safety. The Dublin City Council response acknowledges footpath congestion, however the concentration is focussed on the road capacity and suggests that better use of road space and more timely loading and unloading of buses will ease congestion. The scale of the increased intensity of pedestrian and customer diversions to the quays places excessive pressure on the footpath space.

Bus network restructuring can look at integrating coherent approaches to accessing bus routes in the College Green Civic spine to improve the pedestrian experience within a pedestrian priority zone rather than eliminating the bus from the brief. This is infinitely preferable to diverting pedestrians and customers onto inadequate footpath space on the quays where public safety may be an issue.

7 Conflicts arising at the turning area

The DCC response has included a swept path test. This is not a sufficient response to the issues raised. Please refer to the Stephen Reid Consulting report.

8 Equality of accessibility

The socio economic report looks solely at the city centre and not at the issues raised in the Dublin Bus submission or in the additional information request from the Board.

"Growth will be held back if the transport network cannot support convenient access".⁶

Dublin Bus agrees and it is the significant implications for customer convenience and access that are particularly problematic.

The unintended consequences of the bus diversion on equal accessibility of communities in the western sector of the city has not been addressed. The attempt to suggest that bus catchments will increase on the north side of the Liffey for the diverted routes fails to understand that the diverted routes are originally designed to serve the west east catchments accessing the south central city. There is already a network of routes serving the north city centre catchment from which this proposed increased population is drawn.

9 Development Plan of a pedestrian friendly civic space

The public realm options for College Green were never adequately explored or tested. A number of options shown to Dublin Bus were ruled out on the basis that they didn't work. This is a flaw in the process as exclusion of bus traffic appears to be an assumption of the design brief. This flaw appears to derive from a different perspective as to the intended function of the civic space.

The DCC response suggests:

"It is not possible to maintain pedestrian priority in a shared space with buses." ⁷

However this is not correct even within the limits of the project as currently formulated which includes buses and LUAS running north south through the College Green Civic Plaza.

The DCC response in respect of provision for cyclists fails to take on board any of the submissions or concerns regarding the conflict posed by the turning circle and instead refers to the:

⁶ Socio Economic Report S 1.4.6

⁷ S3.7.2.3 DCC AI response

"philosophy of the spatial arrangements at College Green. This highly important public space is intended primarily to function as a pedestrian plaza" ⁸

Dublin Bus notes the socio economic report refers to:

"The vision for the Public Realm Masterplan is for a pedestrian-friendly core"

This philosophy of intended function and use exceeds and goes way beyond the Development Plan Objective SC08 for the space as a *"pedestrian friendly civic space."*

In exceeding the intentions of the development plan objective there are serious repercussions for all other users of the civic space including pedestrians who need to get to the space to enjoy the civic amenity and quality of the environment created and for public bus transport mobility in the city.

The philosophy of a pedestrian plaza is not achievable in the context of the impact on bus connectivity and exceeds the scope and vision of the development plan objective for a pedestrian friendly space. This has serious implications for cyclists and for public bus customers and goes against the principles that the best public spaces integrate all users.

We respectfully submit that the design of the civic space with the expressed intention to function as a pedestrian plaza materially contravenes the development plan objective SC08 *"To prioritise the redevelopment of College Green as a pedestrian friendly civic space including the pedestrianisation of Foster Place."*

The extension and alteration of the intended function of the civic space from a pedestrian friendly civic space to a pedestrian plaza goes significantly beyond the level of ambition of the development plan objective, which supports a more integrated use of the civic space. In terms of the adverse implications for cyclists and bus customers the proposed intended function of the space as a pedestrianised zone would materially contravene the development plan objective for the *redevelopment of College Green as a pedestrian friendly civic space.*

Figure 8.2 the Functional Diagram of the Proposed Plaza shows the civic space at College Green as a pedestrianised zone exactly the same as Fosters Place notwithstanding that the development plan objective clearly differentiates these functions.

⁸ S3.8.2.1

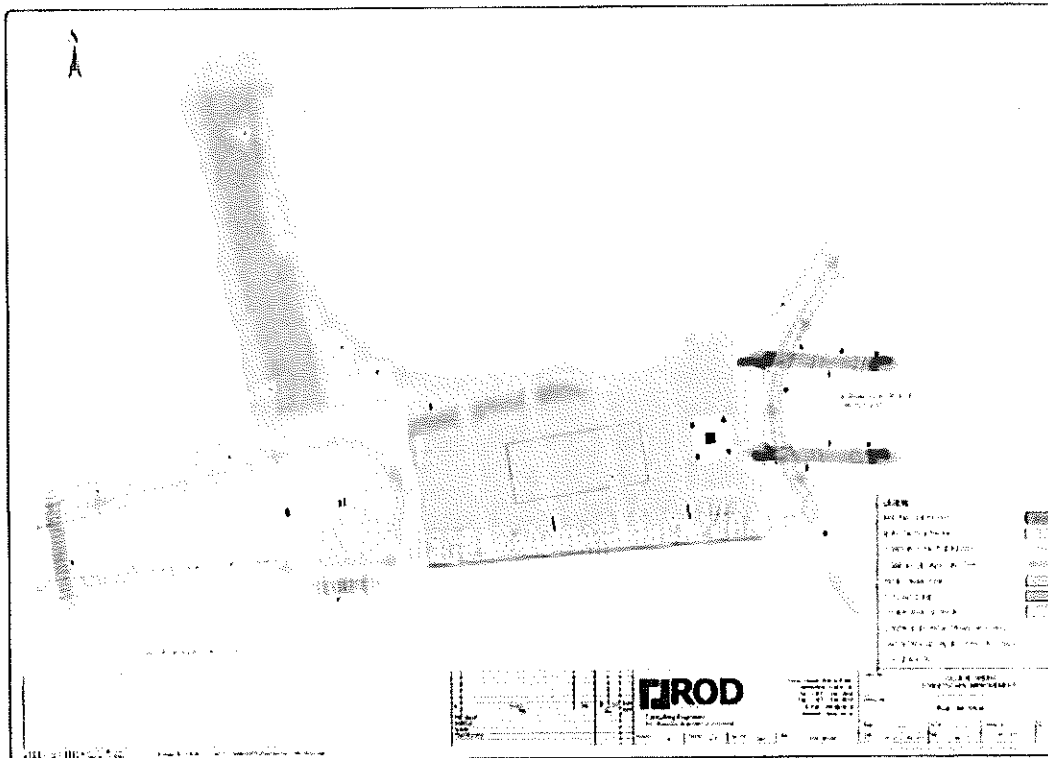


Figure 8.2: Functional Diagram of Proposed Plaza showing various arrangements of priority

This is an error of ambition for pedestrians which is understandable but for which we contend there is no authority in the development plan. It has unintended consequences in this case for other users of the civic space and ultimately for the essential connectedness of public bus transport in the city because of the highly unique and strategic significance of the space in connecting the city.

11 Bus network restructuring

The DCC response further states:

*"Bus Connects is being planned with the understanding of a plaza at College Green."*⁹

We consider that this assumption is premature as it was imposed without testing the implications of such a constraint on the major public bus artery in the city.

The Civic Plaza at College Green should be understood in the context of the development plan statutory objective for the redevelopment of a Pedestrian Friendly Plaza, as supported by the "do minimum scenario", which supports buses continuing to access College Green Plaza.

The time is opportune to re-examine this assumption in the context of the vital role of public bus transport in connecting an already fragmented city.

The Bus network restructuring will review the network with a view to enhancing bus service across the city and wider metropolitan area but in serving the city centre there is no suitable alternative for connection of the south city and it is evident that the planned rerouting serves an entirely different sector of the city. It is not a viable alternative, and provides an entirely different level of bus service to the south city centre which will be de-connected from the civic spine of the city.

⁹ *ibid*

The timing of the operation of Luas allows for the critical re-examination of the design constraints in the light of the testing of the system.

Any decision to proceed on the basis of the previous limitations and constraints as set out in the current design of the civic space as a pedestrianized zone rather than a pedestrian friendly civic space would be premature. It is important to allow the testing and examination of this assumption within the bus network restructuring in the light of the statutory development objective for a pedestrian friendly civic space.

12 Concluding Statement

The Dublin City Council response has not addressed the substantive planning issues raised by the Board in the additional Information request by adopting an overly narrow perspective to validate its original design. The core points of our original submission remain valid.

Luas Cross City will be operational from the 9th December 2017. The timing of the opening of Luas means that the bus running west east will continue to operate with Luas across College Green. This is a vital opportunity to properly assess the project with Dublin Bus and Luas operational at the same time in College Green. There is an empirical need to fully understand what this means in terms of public transport in the city.

We hereby request the Board that any oral hearing would not take place until after mid March in order that the authorities undertake an assessment of the dual operation and interaction of Dublin Bus services and Luas through College Green so that such information could be presented as evidence based testing of the options to any Oral Hearing.

We respectfully submit that such a time frame for holding of an oral hearing would allow for provision of a valuable input to the project, which ultimately would expedite decision-making based on the evidence rather than modeling, or ill perceived assumptions. It would also allow the progress of bus network restructuring in parallel so there is a synchronicity of measures to facilitate the improvement of the public realm in accordance with the underlying vision of Dublin City Council.

The "*do minimum scenario*" provides for continued bus access through the proposed College Green Civic Plaza and supports a pedestrian friendly civic space in line with the development plan policy objective SC08. The "*do something scenario*" disconnects bus service through this key artery of the city and is predicated on redevelopment of a pedestrianized zone outside the scope of the current development plan policy.

This allows scope for a revised plan allowing buses to run east west and also to deliver public realm objectives through options not previously explored with Dublin Bus.

Footpath capacity on the quays is inadequate to accommodate the scale of displaced pedestrian and bus customer numbers and the potential significant congestion could give rise to serious concerns of pedestrian safety.

Yours sincerely,

Ann Mulcrone

**College Green Plaza Project
– Traffic Technical Review of Chapter 6
Of EIAR Submitted as Response to ABP RFI**



1. General

The purpose of this note is to provide a review of the Further Information (EIAR) for DCC College Green Project and more specifically Chapter 6 – Traffic and Transportation, to supplement the submission prepared by Reid Associates.

2. Key Elements of Chapter 6 (Ch.6) and SRC Comments

Ch.6 sets out that 3 assessment scenarios were considered for the traffic and transportation impact assessment, as follows:

- i. 'Do nothing' scenario
- ii. 'Do-minimum' scenario
- iii. 'Do-something' scenario

The **Do-nothing** scenario is described in Ch.6 as follows:

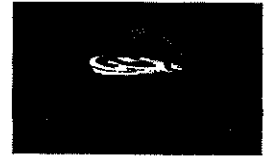
"For the purposes of assessment, the 'do-nothing' scenario locally to the College Green area is defined as the traffic management measures which would be in place as envisaged under the Railway Order for Luas Cross City (Ref: 29N.NA0004), and assuming that Luas Cross City is operational.

For clarity, the junction layout currently under construction between College Green, College Street and Grafton Street Upper, as part of the Luas Cross City works is presented in Figures 6.1a and 6.1b."

From a review of Figures 6.1a and 6.1b, SRC note that the figures are titled "*Figure 6.1a: Luas Cross-City layout across College Green (southern section)*" and "*Figure 6.1a: Luas Cross-City layout across College Green (southern section)*" respectively – due to the poor resolution of graphics used these are not easily readable. SRC note 'North' is to the right-hand side of the page and the drawings show the proposed road markings/traffic management for the College Green/Grafton Street junction.

Measures included in the Do-nothing scenario, which were developed subsequently and separately to the Luas Cross City and College Green proposals, include the '*North and South Quays Traffic Management Measures*' implemented in August 2017. In summary these are given in Ch.6 as follows:

- *One bus lane and one traffic lane on Burgh Quay;*
- *One bus lane and one traffic lane along Aston Quay, Wellington Quay and Essex Quay. No left turn from Wellington Quay at Grattan Bridge; and*
- *Right-turn ban for general traffic from Bachelors Walk on the North Quays onto O'Connell Bridge Southbound.*



Ch.6 notes a number of other 'relevant schemes and traffic management changes' included in the Do-minimum as follows:

- *Camden Street, Wexford Street and Aungier Street Area Traffic Management;*
- *St Stephen's Green Area Traffic Management;*
- *Lincoln Place, Merrion Street and Westland Row Area Traffic Management;*
- *Public transport (bus and taxi) only from O'Connell Street to Rosie Hackett Bridge;*
- *Kildare Street converted to bus-only with the exception of local access;*
- *Clanbrassil Street / Patrick Street and Bride Street QBC;*
- *Thomas Street / James's Street Quality Bus Corridor (QBC); and*
- *Custom House Quay Contra Flow Bus Lane.*

In addition, the following local traffic management arrangements would pertain to College Green and local environs:

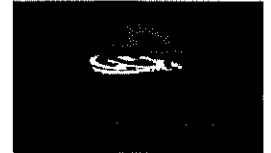
- *General traffic movement restricted to local access and servicing of businesses on College Green from Dame Street only via enforcement of the College Green Bus Gate arrangement;*
- *Restrictions on general vehicular movement, with the 'College Green Bus Gate restrictions' implemented on a 24-hour basis when Luas becomes operational;*
- *West to east bus and taxi movement through, and from College Green onto College Street and onwards to Westmoreland Street;*
- *East to west bus and taxi movement from College Street to College Green; A signalised junction between College Green and College Street, incorporating Luas running to / from Grafton Street Upper and pedestrian crossings on both College Green and Grafton Street Upper;*
- *Shared Luas, Bus and Taxi southbound on Grafton Street Lower; and*
- *No right turn to Nassau Street from Dawson Street. Two-way traffic along Dawson Street between St. Stephens Green and Duke Street, public transport only north of Duke Street.*

Ch.6 notes that the "2018 ERM assessment year has been used, with the 'do-nothing' road and street network coded in the model. The resulting predicted traffic flow data has been extracted for comparative assessment purposes". SRC note that the ERM refers to the NTA's East Region Model.

The Do-minimum scenario is described in Ch.6 as follows:

"The 'do-minimum' scenario for the purposes of assessment is defined as the 'do-nothing' scenario' plus any additional measures which are likely to be introduced in parallel by Dublin City Council in the short term, and in the absence of the College Green Project, in order to improve overall transport network management in the vicinity of College Green. The additional measures are therefore included in the 'do-minimum' scenario therefore comprise the following;

- *Pedestrianisation of Suffolk Street as an extension of the Grafton Street Pedestrian zone (proposed as part of the Dublin City Centre Transport Study); and*
- *Changes to traffic management arrangements on Grafton Street Lower to allow for two-way traffic for Luas, buses and taxis (proposed as part of the Dublin City Centre Transport Study). Previously the Luas Cross City Railway Order assumed segregated Luas running northbound on Grafton Street Lower. This change is primarily intended to facilitate improved bus service routing and flexibility; and*



- *New cycle track along northern side of College Green, between Foster Place and Westmoreland Street.*

The **Do-something** scenario is described in Ch.6 as follows:

"This scenario adds the proposed College Green Project, as described in detail in Chapter 4, to the 'do-minimum' scenario."

SRC note that the key elements of the College Green Project are also summarised in section 6.5 of Ch.6. as follows:

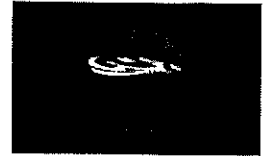
"It is proposed to provide a civic plaza space at College Green which would be reserved for pedestrians and cyclists, preventing all traffic travelling from Dame Street through College Green to Westmoreland Street, and travelling in the opposite direction, from D'Olier Street to Dame Street.

- *Buses currently using Dame Street to cross the city will be diverted onto other routes, while buses which continue to use Dame Street will turn around at College Green, in a new turning circle at the junction of Foster Place and Church Lane.*
- *Parliament Street will be restricted to public transport only from 7am to 7pm Monday to Friday. However, access to loading vehicles will be permitted on the southern section of Parliament Street availing of an all-day deliveries-only right-turn from Essex Gate*
- *The proposals include a two-way cycle track on the eastern and southern sides of the plaza.*
- *32 bicycle parking spaces are proposed within the plaza.*
- *The existing permanent taxi rank on College Green will be relocated to Dame Street with capacity increased from 5 taxis to 8. The existing night time rank with capacity for 3 taxis on the northern side of Dame Street will be converted to a permanent taxi rank. Additional night time capacity equating to 21 spaces will also be provided through the use of proposed loading bays on Trinity Street, Church Lane and Dame Street."*

From a review of predicted impacts, SRC note that at Section 6.6.1 there is no mention of whether the proposed diversion of bus services will take place before any construction commences or whether it will remain possible to operate some bus services through College Green during the construction work period.

While the overall construction traffic generated during construction is not predicted to be significant, it is noted that a number of mitigation measures on Dames Street, Lord Edward Street, Parliament Street, Winetavern Street, and the Liffey Quays would also have to be implemented as precursors to the proposed re-routing of the east-west bus services.

It is not clear from the report that these 'diversion mitigation' measures would be fully completed and operational prior to commencement of College green construction works, so that there is no disruptive construction work on the bus routes and stop areas.



These other locations, remote from the College Green works area, will not only have to accommodate the existing bus services, passengers and other road and footpath users using these routes, but also the increased load of bus services, passengers and other road users who have been diverted onto these other routes and the quays, including additional demands for walking along, waiting on, and crossing the quays by the discommoded passengers.

The timing and delivery of improved stop capacity and improved footpath/passenger waiting capacity on the quays and at stops on diverted routes will be critical in the event that the College Green project goes ahead as proposed by DCC.

Passengers walking to/from the Dame Street/College Green area due to diverted routes will have to use crossing points at Millennium Bridge, Ha'penny Bridge and O'Connell Bridge. SRC note that the Level of Service (LOS) on footpaths at these crossing points is already low, with clusters of pedestrian injury collisions occurring at each crossing point on the north and south Quays.

The increased demand in pedestrian activity at these crossing points and along the Quays, will be compounded by a greater number of pedestrians who are 'hurrying' as they are travelling to/from bus stops and are more likely to take risks crossing outside these traffic routes of the green man signal times. This will be further exacerbated by the increased volume of bus and taxi traffic using the Quays due to the diversions, including through movements and buses and taxis pulling in and out from the kerbside along both sides of the Quays.

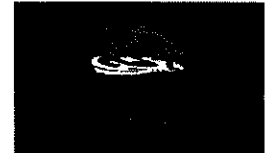
Section 6.6.2 sets out the modelling in the report for the operational scenarios.

In summary, it is noted that the modelling was undertaken by the NTA using the ERM, for the 2018 model year do-nothing, do-minimum and do-something scenarios.

The report also notes *"In addition to 2018, a comparison of do-minimum versus do-something for the future year of 2035 is also included. This year assumes the completion of the integrated transport network as set out in the GDA Transport Strategy and compares impacts with and without the Proposed Project."*

SRC note that for the purpose of reviewing the impacts in a 'real world' scenario, the focus should remain on the 2018 modelling results as they are more relevant in terms of this project.

At the outset, SRC note that the ERM is a multi-modal SATURN demand model which is useful of determining area-wide impacts but is a relatively coarse modelling tool for the purpose of determining the specific impacts on a fine grained urban street network and while it can provide a prediction of the traffic volume increases and journey times, it has clear limits and does not present a more realistic representation of actual queuing and delays through the network and at specific junctions, which would be the case if a micro-simulation modelling process such as VISSIM or TRANSYT was used.



The modelling results are presented as a summary in Section 6.2 at Tables 6.2 and 6.3 (in 2018) and Table 6.4 (2035).

It is noted that there is an obvious and glaring error in Table 6.2, which has column headings of 'Do-Minimum AADT Volumes' v 'Do-Something AADT Volumes', even though the section is specifically referred to as the Do-nothing v Do-Minimum assessment.

Assuming that the column headings are a 'typographical error', and it is actually a comparison of Do-Nothing v Do-Minimum scenarios as the text preceding Table 6.2 describes, then it can be seen that the AADT (daily) traffic flow volumes do not change significantly on any of the links listed in Table 6.2.

Table 6.3 presents what is referenced as the 'Do-Minimum' v 'Do-Something' scenario modelling for 2018. Assuming this is indeed correctly labelled, it is noted that there are more significant changes on a number of the road links listed in the table. While there are clear 'winners' in terms of reduced traffic on College Green and Westmoreland Street, there are also clear 'losers' in terms of the south Quays, High Street/Christchurch Place/Lord Edward Street eastbound, and an increase through many of the vehicle routes within the Temple Bar area.

What is of concern is that Table 6.3 and Figure 6.8 has no reference to Winetavern Street (Fig 6.6 Link 31), Ormond Quay (Fig.6 Link 27), Bachelors Walk (Fig 6.6 Link 3) or the O'Donovan Rossa Bridge or Grattan Bridge. In fact, there is no reference in the Table or Figures to any traffic changes on the North Quays (where most inbound bus services from south west Dublin are to be rerouted to under the Do-Something scenario. This is a major omission and must be clarified in full, with the data presented in a clear and transparent format.

Also, the selective uses of links and renaming of links between Table 6.2 and Table 6.3 is inappropriate. All scenarios should be presented in Tables that show a clear and common link name and number which can be compared, and even those which have a change of less than +/- 0.2% should be included for completeness.

SRC note that previously there have been discussions between Dublin Bus and the NTA and DCC over the option of Parliament Street being revised to operate two-way for buses as an alternative to the Winetavern Street rerouting of inbound bus services (in the 'Do-Something' option), however this has not been presented as a model option, with only the comment that Parliament Street would operate with removal of private car traffic from 7am-7pm to facilitate re-routed outbound buses turning left (presuming the existing left-turn ban is removed and the traffic signal phasing revised to accommodate the displaced pedestrian movement which currently runs during the westbound Essex Quay green light period) from Essex Quay.

SRC submit that the possible two-way bus running on Parliament Street instead of northbound diversion on Winetavern Street is a fundamental point and should have been included as an



additional 'Do-Something' scenario, so that it could be considered by all interested parties/stakeholders.

SRC carry out many traffic impact studies and note use of AADT (Annual Average Daily Traffic) figures is not appropriate for determining the impact of these proposals.

SRC note that if this assessment was for a development project, which was expected to result in significant impacts and changes to traffic flows and patterns in a congested area, DCC would at the very least require a detailed scoping report, including peak period traffic data and modelling of peak hour impacts on key junctions.

There has been no inclusion of peak hour modelling data of key junctions and the network to provide impact results which would have been much more tangible and telling, such as queue length/reserve capacity on links and at junctions through the network. AADT modelling results by their very nature are based on lower traffic volumes than would occur on a weekday, and the modelling can allow for peak spreading of so that the actual impacts during the peak hours would be pronounced on the network.

Furthermore, the data appears to be presented in terms of vehicles, from review of Ch.6 and Appendix 6.1. There is no accounting for the impact of larger vehicles such as buses and coaches in re-routed areas which are by their nature slower when moving in/out from stops and turning around corners and take up more road space.

The NTA model report contained at Appendix 6.1 does provide comments on AM and PM peak modelling and AM period link flow data in terms of PCU (passenger car units) but there is a disconnect between the modelling report and the summarised results in Ch.6 and SRC note that even as experienced traffic modelling professionals, it is difficult, and time consuming to try and cross-reference and make sense of the data.

The primary reason that Dublin Bus have asked for detailed data for the peak hours is to determine the likely impact on journey times and identify possible queuing and delay points on the network, and without this being presented in Ch.6 of the report in a clear and concise format, the issue remains unresolved and Dublin Bus remain of the view that it is impossible for the actual impacts of the project to be properly considered and therefore the assessment as presented in the response to the FI request falls short of acceptable standards.

In terms of diverted services, it is noted that the modelling report includes a diagram illustrating that the left-turn from Essex Quay to Parliament Street has been re-introduced in the Do-Something Saturn model.

The Do-Something model with left turn to Parliament Street and inbound services re-routed to Winetavern Street and O'Donovan Rossa Bridge included the following AM peak change to buses operating on the Quays to the north of the Temple Bar area:



- Eastbound (Ormond Quay/Bachelors Walk) from 103 buses to 157 buses (Do-Minimum to Do-Something)
- Westbound (Aston/Essex Quay) from 60 buses to 104 buses (Do-Minimum to Do-Something)

Ch. 6 contains a comparison of bus journey time, but these are only presented for the Aircoach and Dublin Bus 25b services. SRC note that these services pass through College Green on the Grafton Street (north-south) corridor and are therefore not affected by the proposed closure, whereas the diverted service which currently run east-west through the College Green-Dame Street corridor should have been considered.

Irrespective of the Dublin Bus position that College Green should remain open for through running bus services, the safety issues of the proposed College Green turnaround (at the west end of the proposed plaza, between Church Lane and Foster Place) was raised in the previous submission, and this concern remains unaddressed by DCC and their consultants.

This proposed arrangement is not satisfactory as there is a high risk of conflict between a number of vehicles turning a full 180 degrees at this location (delivery vehicles, bus services/tour coaches, taxis and other local traffic movements), while two cycle routes merge/diverge and there are multiple access points for pedestrians to walk through the turning area. The potential for collisions is high, and is compounded with proposed left turn traffic exiting Church Lane and traffic accessing the Bank of Ireland. This has to be assessed fully as part of a detailed Road Safety Audit (RSA) by an independent audit team. SRC remain of the opinion that a RSA would show up the clear inadequacies and safety issues of the proposed design.

In terms of bus rerouting, it is noted that not only are DCC proposing to reroute via Winetavern Street and Ormond Quay, there is a proposal to route inbound services such as the 16 and 122 via Patrick Street (currently On George Street), which pushes these services even further out of the south side of the city centre – much further from Grafton Street/Temple Bar (see Fig. 6.29 of Ch.6).

The pedestrian walk distances from the relocated route stops on the Quays are stated to be within 500m of the existing stops. However, this takes no account of the quality of the walking route and obstacles/barriers such as the Liffey and crossing points, steps, cobbled streets and narrow footpaths, or any consideration of the fact that this distance is additional to the current walking distance that passengers will make after alighting at the existing east-west stops on Dame Street/College Green.

There is repeated reference in Ch.6 to the Bus Connects project as a 'cure-all' for the issues which have not been addressed, which is clearly an inadequate approach as DCC and the EIAR team have no certainty as to the form that the completed network will take, and based on the current position in relation to the College Green proposals and draft bus network proposals, it is clear that this will not satisfactorily address the impacts on bus services and passengers.



3. Summary

It is considered that while DCC have prepared an EIAR document as a response to the ABP RFI, there remains a number of fundamental issues with the approach to the College Green proposal outstanding and there is a significant failing in the technical assessment to demonstrate that the impacts will not be detrimental to bus services and passengers. Furthermore, key concerns which were raised previously in relation to operational aspects, capacity and safety have not been addressed.

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