Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

Neighbourhood Transport Schemes 2020

East Wall Preliminary Phase 3 Report

CONTENTS

EXECUTIVE SUMMARY

Two workshops on transport issues in the East Wall Area were held in April and Oct 2019. At the meetings, councillors were given the opportunity to express their concerns and suggest possible solutions. From 5th – 8th Nov 2019, a number of site assessments were also conducted to further define these issues.

The two transport issues which have been identified are as follows:

1. **Issue 1: Parking-related issues**
   a. **Issue 1a:** Commuter Parking i.e. non-residential parking near the workplace which an employee commutes to work.
   b. **Issue 1b:** Illegal Parking i.e. vehicles parked in a manner that is in breach of the Road Traffic Act Regulations and/or Dublin City Council Parking Control Bye-Laws 2019.
2. **Cut-Through Traffic** i.e. non-local traffic passing through the neighbourhood.

The purpose of this Preliminary Phase 3 Report is to outline the potential solutions available to alleviate the above issues. Councillors can then advise which avenues they wish to pursue in terms of providing a solution to the local residents and businesses.

The three potential solutions to alleviate the above issues are as follows:

1. **Solution 1: Parking Demand Management**
   - Pay & Display Parking
   - Sustainable Parking Provision e.g. introduction of Cycle Parking facilities.
   - Parking Restrictions e.g. installation of Double Yellow Lines
   - Physical Obstructions e.g. installation of Planter Boxes
   - Parking Enforcement
2. **Solution 2: Traffic Calming Measures**
   - Lane narrowing e.g. footpath widening
   - Vertical deflections e.g. raised junction speed tables
   - Horizontal deflection e.g. buildouts, chicanes
3. **Solution 3: Traffic Rerouting Measures**
   - Access Restriction Signage e.g. Left Turn Bans
   - Filtered Permeability i.e. limiting access to walking and cycling and preventing access to motorised vehicles
   - One-Way Systems

The following Evaluation Scale was used to summarise the effectiveness of each solution to alleviate the transport issues and achieve the aims of a Neighbourhood Transport Scheme:

	Effectiveness Description
Colour Code	Not effective, extremely unlikely
	Slightly effective, unlikely
	Moderately effective, neutral
	Very effective, likely
	Highly effective, extremely likely

Aims of a Neighbourhood Transport Scheme

"To provide more livable and sustainable neighbourhoods by facilitating safer and calmer streets where the priority is given to pedestrians and cyclists"

The effectiveness of each solution to alleviate the transport issues and achieve the aims of a Neighbourhood Transport Scheme is summarised in the table below.

Solution	Issue 1a Commuter Parking	Issue 1b Illegal Parking	Issue 2 Cut-Through Traffic	Neighbourhood Transport Scheme Aims
1 Parking Demand Management	Highly effective, extremely likely	Very effective, likely	Moderately effective, neutral	Moderately effective, neutral
2 Traffic Calming Measures	Slightly effective, unlikely	Slightly effective, unlikely	Moderately effective, neutral	Moderately effective, neutral
3 Traffic Rerouting Measures	Slightly effective, unlikely	Slightly effective, unlikely	Very effective, likely	Very effective, likely
4 (1 + 3) Parking Demand Management + Traffic Rerouting Measures	Highly effective, extremely likely	Very effective, likely	Very effective, likely	Highly effective, extremely likely

Based on the above table, it can be observed that Solution 1 is likely to be effective at alleviating the two Parking Issues while Solution 3 is likely to be effective at alleviating the Cut-Through Traffic Issues and achieving main aims of a Neighbourhood Transport Scheme.

Therefore, it is likely that implementing Solution 1 in conjunction with Solution 3 (i.e. Solution 4) would offer the most effective measures to alleviate the identified transport issues and to achieve the main aims of a Neighbourhood Transport Scheme.

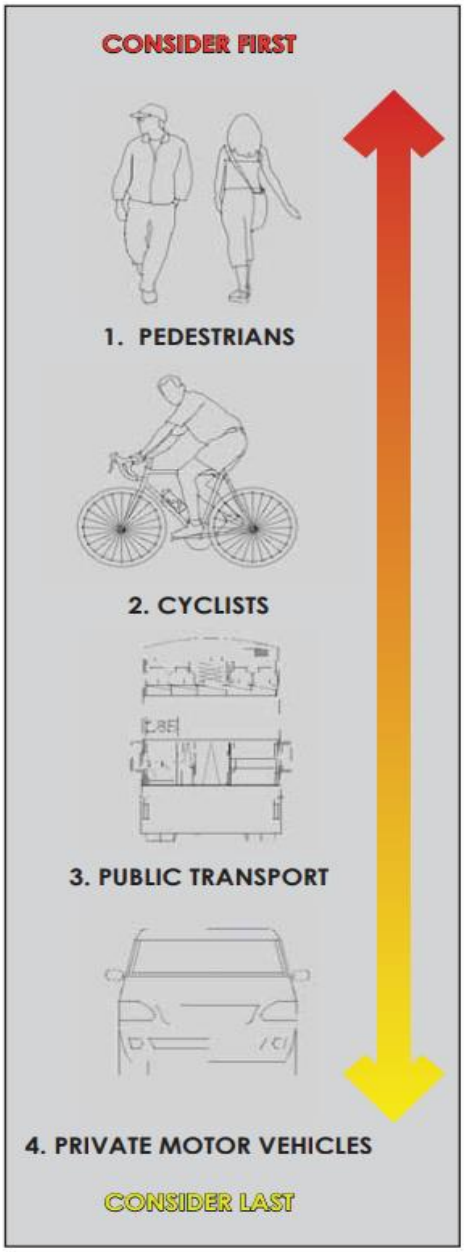
However, Councillors can advise which solution(s) they wish to pursue in terms of providing a solution to the local residents and businesses.

Councillors will be given time to digest the attached report and to discuss it with local residents and businesses. Feedback is welcome at all time at NTSnorth@dublincity.ie

We will then arrange a workshop to agree what solution(s) the Councillors would like us to explore further.

PURPOSE OF NEIGHBOURHOOD TRANSPORT SCHEMES

The purpose of these schemes is to provide communities with sustainable neighbourhoods with a focus on safety with regard to transport issues. It is the aim to allow for more walkable and calmer streets where the priority is given to pedestrians, cyclists and public transport. These aims are in line with Dublin City Council Corporate Plan 2015-2019 and Dublin City Development Plan 2016-2022.



BACKGROUND DOCUMENTS

DUBLIN CITY DEVELOPMENT PLAN 2016-2022

- The core strategy will guide development in both policy and spatial terms. Delivered together, these priorities represent an integrated and holistic approach to the delivery of essential infrastructure and services within an over-arching sustainable framework.
- In order to create a more sustainable city, the development plan, in accordance with national policy, places emphasis on the need for a modal shift from motorised private modes of transport towards public transport, cycling and walking
- Support the continued development of a quality, affordable and accessible movement system within the city prioritising walking, cycling and quality public transport which serves both the needs of local neighbourhoods and the economy of the city and the health and well-being of all.
- The creation and nurturing of sustainable neighbourhoods, which are designed to facilitate walking and cycling, close to public transport insofar as possible, and a range of community infrastructure, in quality, more intensive mixed-use environments

DUBLIN CITY COUNCIL CORPORATE PLAN 2015-2019

- The place to live (GOAL 4): To deliver improved quality of life and social inclusion throughout the city by providing sustainable neighbourhoods, supported by a range of services and connected by good public transport and green infrastructure.
- The place to live (GOAL 6): To promote healthy living and the recreational use of Dublin's unique natural amenities while protecting the environment and building resilience to cope with climate change.

TECHNICAL DOCUMENTS

- Design Manual for Urban Roads and Streets (DMURS)
- National Cycling Manual
- Traffic Management Guidelines
- Traffic Signs Manual
- Greater Dublin Area (GDA) cycle network plan.

*Note this is not an exhaustive list

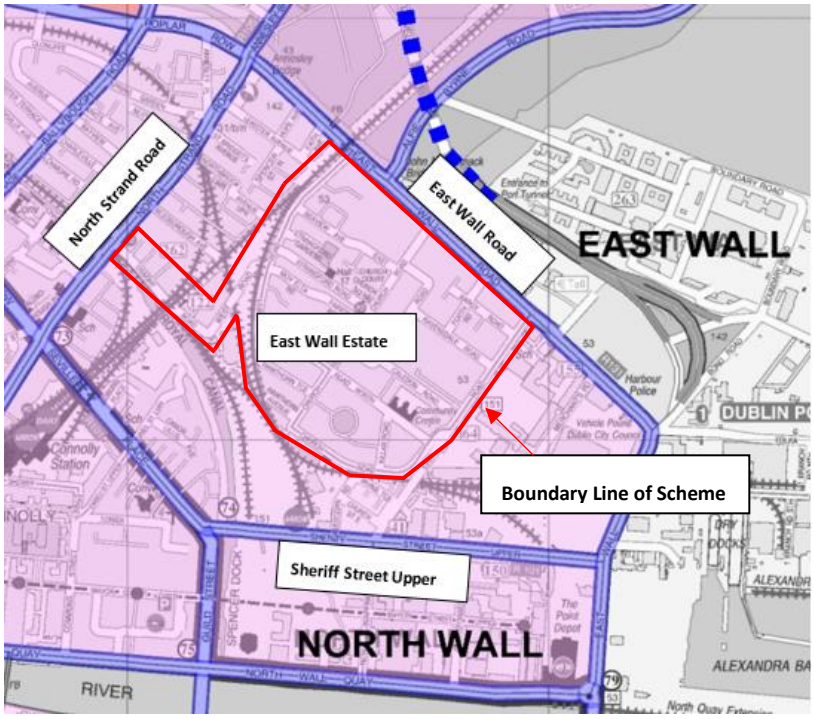
INTRODUCTION

BACKGROUND

The East Wall neighbourhood is bounded by North Strand Road to the west, by East Wall Road to the North and by Sheriff Street Upper to the south. The neighbourhood use is primarily residential, with mixed-use (i.e. residential and commercial) along East Road and Church Road. The area is serviced by shops, St. Joseph's Church, a community centre, a primary school and recreational facilities.

East Road is considered the main thoroughfare route through the neighbourhood linking the East Wall Road to Sheriff Street Upper. The street comprises a number of residential and commercial premises including the An Post Delivery Service Unit and Facebook (located in The Beckett Building).

The surrounding high density employment areas includes the International Financial Services Centre to the south, East Point Business Park to the north and Dublin Port to the east. These areas attract a high volume of traffic into the area for work purposes and has resulted in transport-related issues in the East Wall neighbourhood.



Map showing East Wall Estate bounded by Arterial Streets and Boundary Line of NTS Scheme

TRANPORT ISSUES

Two workshops on transport issues in the East Wall Area were held in April and Oct 2019. At the meetings, councillors were given the opportunity to express their concerns and suggest

possible solutions. The following pages summarise the concerns and suggested solutions identified during these workshops with the elected members.

One item raised by councillors for the development of a Neighbourhood Transport Scheme was the issue of all day commuter parking resulting in a lack of parking for residents of East Wall. This issue has led to a high demand for parking in the area resulting in vehicles parked illegally on footpaths making it difficult for pedestrians to pass by safely.

Another item raised was the issue of traffic cutting-through the East Wall Area in order to avoid the nearby arterial streets. This issue has resulted in increased traffic, adding to the potential for accidents involving both motorists and pedestrians, and increased noise and emissions impacting on the quality of life for people living in the area.

The two transport issues which have been identified and discussed in this report are as follows:

1. **Parking-related issues**
    a. Commuter parking i.e. non-residential parking near the workplace which an employee commutes to work.
    b. Illegal parking i.e. vehicles parked in a manner that is in breach of the Road Traffic Act Regulations and/or Dublin City Council Parking Control Bye-Laws 2019.
2. **Cut-Through Traffic** i.e. non-local traffic passing through the neighbourhood.

The purpose of this Preliminary Phase 3 Report is to outline the potential solutions available to alleviate the above issues. Councillors can then advise which avenues they wish to pursue in terms of providing a solution to the local residents and businesses.

POTENTIAL SOLUTIONS

This area has been assessed by the Transport Advisory Group in order to establish potential solutions which could address the issues identified in this area.

The three potential solutions which will be discussed in this report are as follows:

- Solution 1: Parking Demand Management
    - Pay & Display Parking
    - Sustainable Parking Provision e.g. introduction of Cycle Parking facilities
    - Parking Restrictions e.g. installation of Double Yellow Lines
    - Physical Obstructions e.g. installation of Planter Boxes
    - Parking Enforcement
- Solution 2: Traffic Calming Measures
    - Lane narrowing e.g. footpath widening
    - Vertical deflections e.g. raised junction speed tables

  - Horizontal deflection e.g. buildouts, chicanes
- Solution 3: Traffic Rerouting Measures
  - Access Restriction Signage e.g. Left Turn Bans
  - Filtered Permeability i.e. physically limiting access to walking and cycling and preventing access to motorised vehicles
  - One-Way Systems

SURVEYS

PARKING CAPACITY SURVEY

A Preliminary Parking Capacity Survey was conducted to estimate the potential capacity for residential parking in the East Wall Area. This includes on-street parking where vehicles can legally park, and off-street parking i.e. driveways. The estimated no. of houses in the survey area is 1307.

The results of the survey, indicate that there is potential for 1127 parking spaces in the overall survey area, equating to approximately 0.84 parking spaces per household.

The street with the most no. of parking spaces per household (i.e. 1.86) is West Road which has only has houses on one side of the road and sufficient road space to facilitate double-side parking.

The street with the least no. of parking spaces per household (i.e. 0.45) is East Road which is a mixed use street (i.e. residential and commercial) with a no. of existing parking restrictions in place such as Loading Bays and Double Yellow Lines to facilitate the loading and unloading of delivery vehicles.

The percentage of parking by commuters / residents is unknown. However, observational and anecdotal evidences suggests that there are large numbers of commuters entering the area for the purposes of parking.

The methodology and results of the Parking Capacity Survey for each street are shown in the Appendix.

Please note that the above parking capacity figures are rough estimates. The actual parking capacity of each street may vary.

TRAFFIC SURVEYS

Preliminary Traffic Surveys were carried out from 5th – 8th Nov 2019 to gain an understanding of traffic volumes and movements of vehicles entering the survey area. Numerous site visits took place at different times of the day so a reasonable understanding of the issues could be obtained.

During the AM Peak Period (07:00 – 10:00), a significant volume of vehicles were observed to turn right from East Wall Road onto East Road with a large majority of these vehicles continuing straight onto Sherriff Street Upper. A high volume of vehicles was also observed to turn right from East Wall Road onto Church Road with a large majority of these vehicles turning left into the shopping centre car park.

During the PM Peak Period (16:00 – 19:00), a number of vehicles were observed to turn left from East Road onto Church Road, and left from East Wall Road onto either East Road, Forth Road, Church Road or West Road.

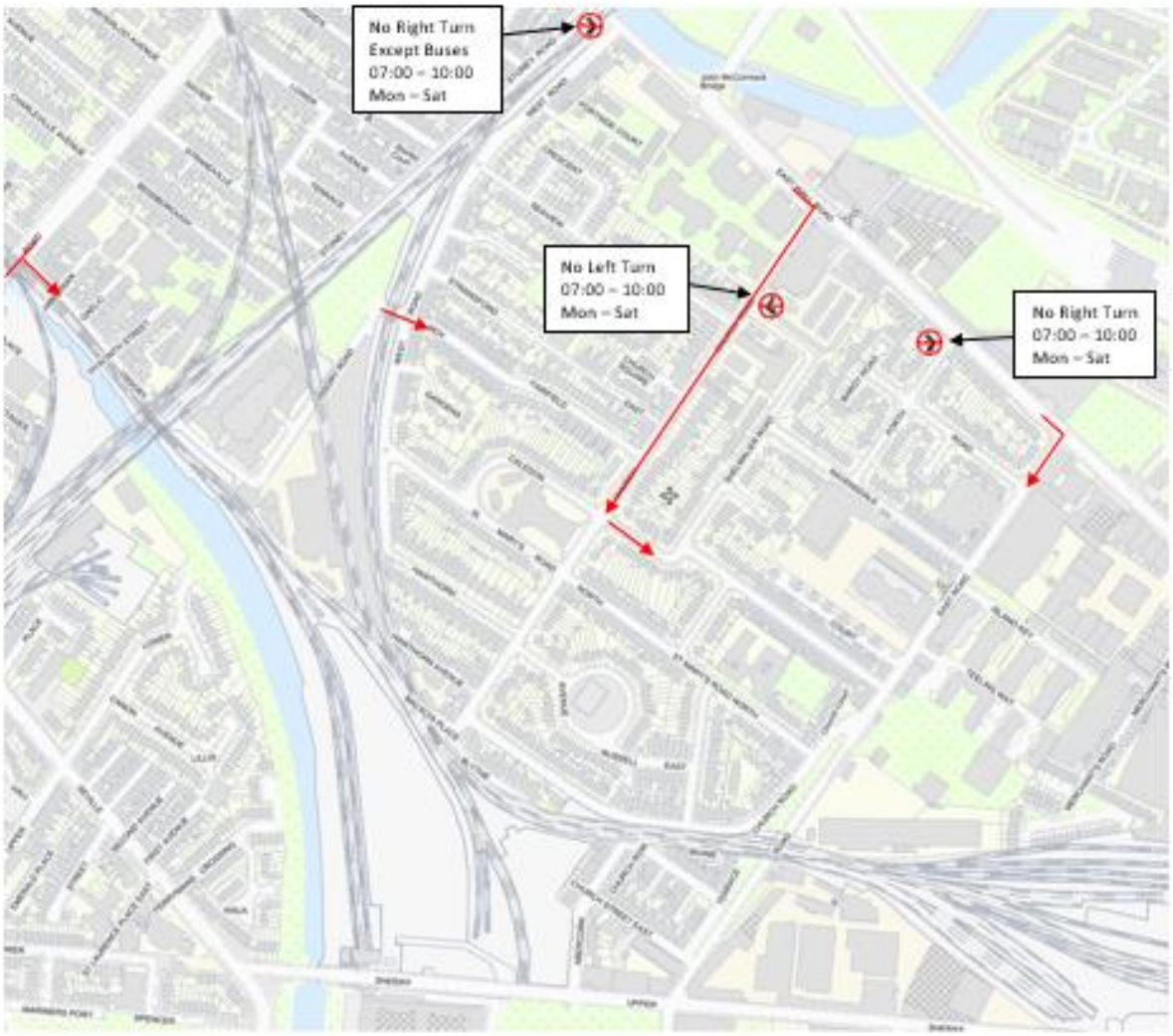
During these periods, a considerable volume was also observed to travel through Ossory Road.

It is likely that most of these drivers were either residents, rat-runners, shoppers, commercial delivery vehicles or commuters using the East Wall as a parking destination.

However, the origin and destination of vehicles entering into the East Wall estate is unknown without carrying out detailed traffic surveys such as Automatic Number Plate Recognition (ANPR) surveys this is an avenue which can be explored further if requested by Councillors. However, there are limitations in the accuracy of the information that can be generated from these surveys.

The speed limit on all roads within the study area is 30 km/hr. No vehicles were visually observed to travel at speeds exceeding the speed limit.

It can be observed from the maps below that there are a number turning restrictions currently in place to restrict rat-running through the area. No drivers were observed to violate these restrictions during the surveys.



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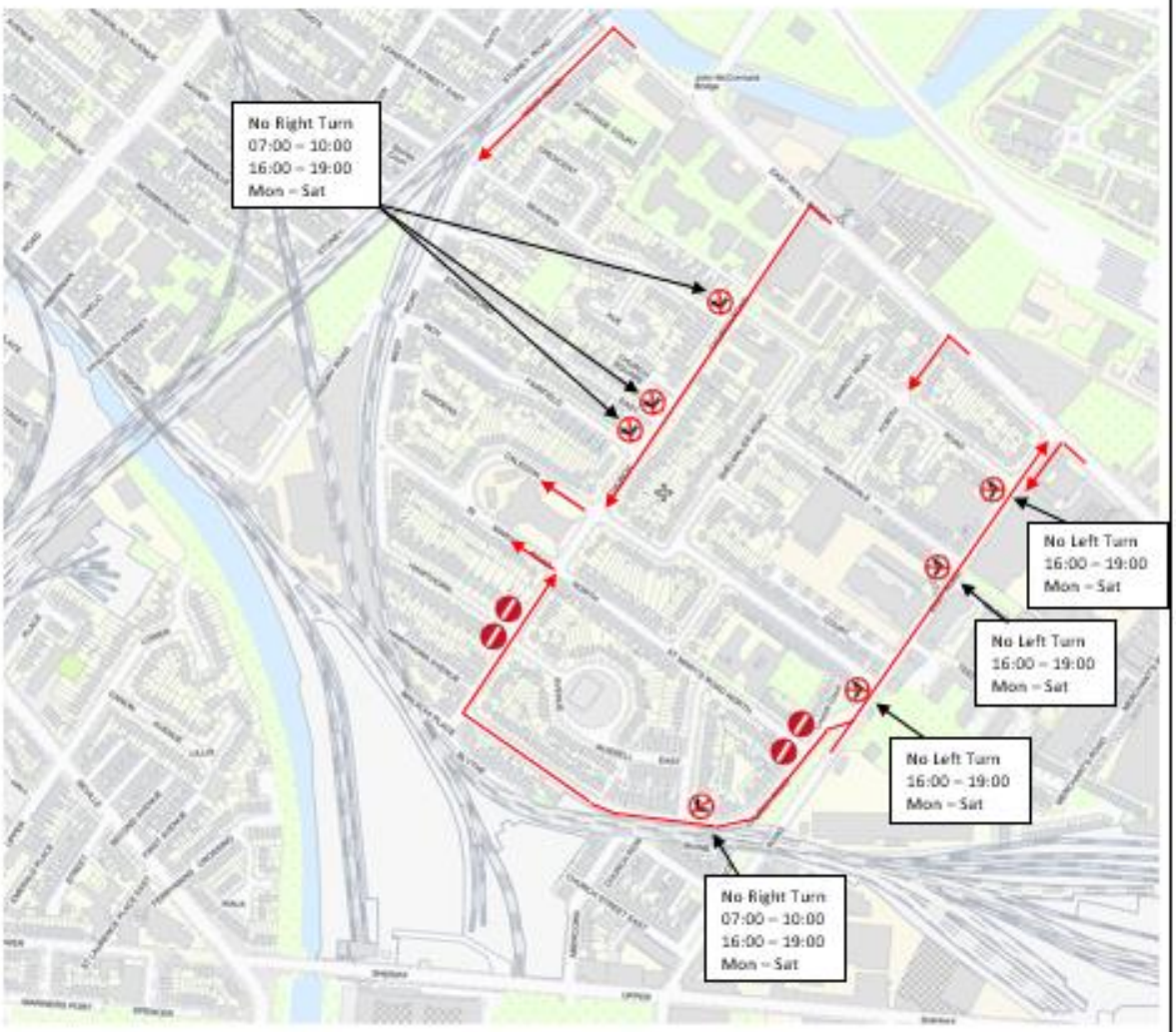
POTENTIAL RAT-RUNNING ROUTE FOR VEHICLES TRAVELLING FROM NORTH/WEST TO SOUTH/EAST ON EAST WALL ROAD

- Potential Rat-Running Route
- No Right Turn
- No Left Turn
- No Entry

TRAFFIC MANAGEMENT AND CONTROL

DRAWN	DATE	REVISION	SCALE
AG	8/1/2019	N/A	N.T.S



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POTENTIAL RAT-RUNNING ROUTES FOR VEHICLES TRAVELLING FROM SOUTH/EAST TO NORTH/WEST ON EAST WALL ROAD

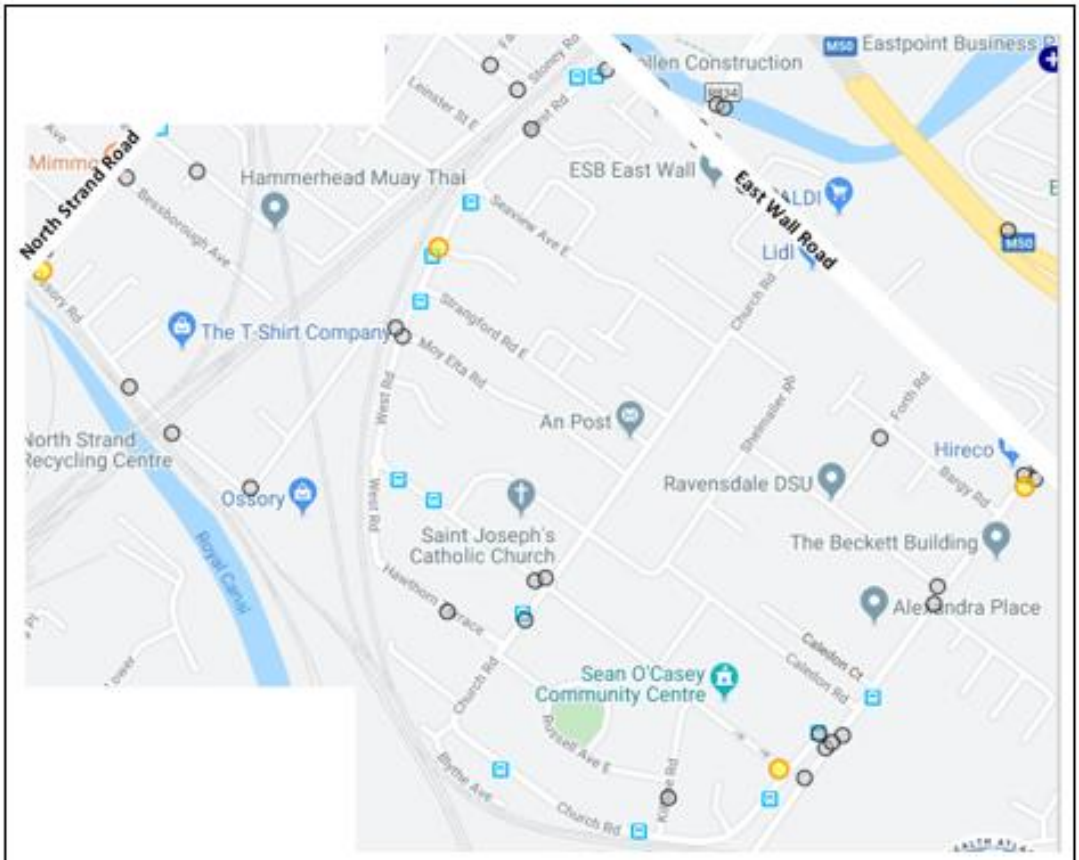
- Potential Rat-Running Route
- No Right Turn
- No Left Turn
- No Entry

TRAFFIC MANAGEMENT AND CONTROL

DRAWN	DATE	REVISION	SCALE
AG	8/1/2019	N/A	N.T.S

COLLISIONS

The RSA database of traffic accidents was examined to establish if there are any existing safety issues in the study area that were not evident from site visits. The database provides accident records for the period 2005 to 2016, with the map below outlining the recorded collisions locations over the eleven year period, while the table below outlines collision type on the different streets. Four serious collisions and approx. 20 minor collision were recorded in the study area during this period. Further information is provided in the 'notes' column in the table below.



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RSA Accident Records (2005-2016) in vicinity of the East Wall Neighbourhood Transport Scheme study area.

- Fatal Accident
- Serious Accident
- Minor Accident

TRAFFIC MANAGEMENT AND CONTROL

DRAWN	DATE	REVISION	SCALE
AG	25/1/2019	N/A	N.T.S

Street Name	Fatal	Serious	Minor	Notes
Ossory Road	0	1	4	The 1 serious accident occurred in 2007 (between 11pm-3am) near the Ossory Road / North Strand Road junction involving a pedestrian and a car. This junction has since been redesigned / upgraded. The Ossory Road speed limit has since been reduced from 50 km/hr to 30 km/hr.
West Road	0	1	3	The 1 serious accident occurred in 2016 (between 4pm-7pm) near the West Road / Strangford Gardens junction involving a cyclist and a car. The West Road speed limit has since been reduced from 50 km/hr to 30 km/hr.
Saint Mary's Road	0	1	2	The 1 serious accident occurred in 2006 (between 10am-4pm) near the Saint Mary's Road / Church Road junction involving a car. The West Road speed limit has since been reduced from 50 km/hr to 30 km/hr.
East Road	0	1	8	The 1 serious accident occurred in 2015 (between 7am-10am) on East Road near the East Road / East Wall Road junction involving a Cyclist. The East Road speed limit has since been reduced from 50 km/hr to 30 km/hr.
Hawthorn Terrace	0	0	1	The Hawthorn Terrace speed limit has since been reduced from 50 km/hr to 30 km/hr.
Forth Road	0	0	1	The Forth Road speed limit has since been reduced from 50 km/hr to 30 km/hr.
Killane Road	0	0	1	The Killane Road speed limit has since been reduced from 50 km/hr to 30 km/hr.

Table x: RSA Accident Records (2005-2016) Collisions in the study area (www.RSA.ie)

STAGE 1: DETAILED PROBLEM IDENTIFICATION

ISSUE 1: PARKING

Parking is permitted on any public road under the proviso that a vehicle is parked in accordance with the Road Traffic Act (Traffic & Parking) Regulations and Dublin City Council Parking Control Bye-Laws 2019. Under this Act and Bye-Laws, parking restrictions include parking in a manner that obstructs the flow of traffic, blocking an entrance, parking within 5m of a junction, parking on a public footpath, or parking on a section of roadway with existing road marking signage such as Double Yellow Lines or Pay & Display Parking Bays.

Parking-related issues in the East Wall Area has been subdivided into the following two issues:

a) **Commuter Parking** i.e. non-residential parking near the workplace which an employee commutes to work.
b) **Illegal Parking** i.e. vehicles parked in a manner that is in breach of the Road Traffic Act Regulations and/or Dublin City Council Parking Control Bye-Laws 2019.

These two parking-related issues will be discussed in more detail below.

ISSUE 1A: COMMUTER PARKING

Information gathered during the workshops and preliminary site surveys have indicated that a significant volume of drivers are parking their vehicles in the East Wall Area. The ownership of these vehicles (e.g. residents or commuters) is unknown without carrying out more detailed surveys. However, the anecdotal and observation evidence suggests that these are likely made up of residents and commuters.

The East Wall Area has free on-street parking and is located in close proximity to high density employment areas in the city centre such as the International Financial Services Centre (IFSC) and East Point Business Park. Therefore, it is likely that the area is a desirable parking destination for a large number of commuters. This issue has likely resulted in increased traffic, adding to the potential for accidents involving both motorists and pedestrians, and increased noise and emissions impacting on the quality of life for people living in the area.

The parking of any vehicle, whether resident or commuter owned, is permitted on any public road under the proviso that the vehicle is parked in accordance with the Road Traffic Act (Traffic & Parking) Regulations and Dublin City Council Parking Control Bye-Laws 2019. Accordingly, the most effective solution to preserve residential parking and discourage all-day commuter parking would be to introduce parking restrictions in the form of a Residential Pay & Display scheme. This is discussed in subsequent sections of this report.

ISSUE 1B: ILLEGAL PARKING ISSUES

Following a number of site observations of the East Wall Area, it was observed that a number of vehicles were parked in an illegal manner on footpaths. At the times of assessment the impact of this issue to pedestrian accessibility was considered minor as drivers left sufficient footpath space for a wheelchair/pram to pass.

Google image of a vehicle parked illegally on the footpath

Another observation was vehicles parked in a manner that blocks a resident's driveway. It is likely that the drivers of these vehicles had consent of the homeowners to park at these locations as DCC Parking Enforcement received no complaints regarding this issue. Therefore, these vehicles were not considered to be parked in an illegal manner. Perhaps this suggests that residents are parking their vehicles on-street rather that utilising their off-street parking spaces.

Photo of a parked vehicle blocking a resident's driveway

Another issue worth noting was bicycles locked in an illegal manner to sign posts presenting a hazard to pedestrians, particularly the visually-impaired.

Photo of bicycles locked in an illegal manner to sign posts

No other illegal parking issues were observed during the site visits.

ISSUE 2 – CUT-THROUGH TRAFFIC

Cut-Through Traffic occurs when non-local traffic passes through the neighbourhood on local streets which are designed and intended for low volumes of traffic.

Following a number of site observations of the East Wall Area, it would appear that some vehicles were rat-running through the area in order to avoid the nearby arterial streets (i.e. East Wall Road, Sherriff Street Upper and North Strand Road) which are designated to accommodate larger volumes of traffic. This issue has likely resulted in increased traffic, adding to the potential for accidents involving both motorists and pedestrians, and increased noise and emissions impacting on the quality of life for people living in the area.

The observational evidence suggests that a large proportion of the vehicles that enter the East Wall Area are travelling around the area in search of a parking space. However, the origin and destination of vehicles entering into the East Wall estate is largely unknown without carrying out detailed traffic surveys such as Automatic Number Plate Recognition (ANPR) surveys. However, there are limitations in the accuracy of the information that can be generated from these surveys. This is an avenue which can be explored further if requested by Councillors.

POTENTIAL SOLUTIONS

Preliminary site surveys have indicated that the East Wall Area is a likely parking destination choice for commuters due to the presence of free parking in close proximity to workplaces in the city centre such as the International Financial Services Centre (IFSC). This high demand for residential/commuter parking in combination with narrow roadway widths has resulted in illegal parking issues such as vehicles parked partially on footpaths.

The site surveys have also indicated that that some vehicles were rat-running through the area in order to avoid the nearby arterial streets (i.e. East Wall Road, Sherriff Street Upper and North Strand Road) which are designated to accommodate larger volumes of traffic. This issue has likely resulted in increased traffic, adding to the potential for accidents involving both motorists and pedestrians, and increased noise and emissions impacting on the quality of life for people living in the area.

The three potential solutions to alleviate the above issues which will be discussed further in this report are as follows:

4. Solution 1: Parking Demand Management
    - Pay & Display Parking
    - Sustainable Parking Provision e.g. introduction of Cycle Parking facilities.
    - Parking Restrictions e.g. installation of Double Yellow Lines
    - Physical Obstructions e.g. installation of Planter Boxes
    - Parking Enforcement
5. Solution 2: Traffic Calming Measures
    - Lane narrowing e.g. footpath widening
    - Vertical deflections e.g. raised junction speed tables
    - Horizontal deflection e.g. buildouts, chicanes
6. Solution 3: Traffic Rerouting Measures
    - Access Restriction Signage e.g. Left Turn Bans
    - Filtered Permeability i.e. physically limiting access to walking and cycling and preventing access to motorised vehicles
    - One-Way Systems

The following Evaluation Scale will be used to estimate the effectiveness of each solution to alleviate the transport issues.

	Effectiveness Description
Colour Code	Not effective, extremely unlikely
	Slightly effective, unlikely
	Moderately effective, neutral
	Very effective, likely
	Highly effective, extremely likely

SOLUTION 1: PARKING DEMAND MANAGEMENT

Parking Demand Management is designed to reduce parking demand and associated traffic flows, preserve parking for residents, and promote a shift away from motorised vehicles and into sustainable travel modes such as walking, cycling and public transport.

Interventions include:

1. Pay & Display Parking can reduce parking demand by discouraging all-day commuter parking and ensuring vehicles are parked in a more orderly fashion.
2. Cycle Parking Provision can reduce parking demand by reducing the availability of existing parking spaces by reallocating parking spaces to Cycle Parking facilities.
3. Parking Restrictions (e.g. Double Yellow Lines, Clearways) can reduce parking demand by reducing the availability of existing parking spaces.

The design of Residential Pay & Display Parking Scheme would consist of a combination all three interventions with Cycle Parking facilities (i.e. bike racks) being implemented at strategic locations in the area.

According to the Dublin City Council Development Plan 2016-2022, the East Wall is designated as an Area 2 Parking Zone where a maximum of 1 parking space is required per house. A parking provision below the maximum may be permitted provided it does not impact negatively on the amenities of surrounding properties or areas and there is no potential negative impact on traffic safety.

The Parking Capacity Surveys have indicated that there is potential to provide approximately 0.84 parking spaces per household in the overall area.

Due to the existing dimensions of the streets and footpaths in the area, there is very little if any scope to introduce additional capacity in terms of parking spaces for residents. However, the purpose of a Pay and Display and Residents' Permit Parking Scheme (P&D) is to eliminate long-term commuter/business parking in residential areas thereby freeing up spaces for local residents.

EFFECTIVENESS

In terms of commuter parking, it is estimated that the introduction of a Residential Pay & Display Parking Scheme would be highly effective at preserving residential parking and discouraging all-day commuter parking. Vehicles without a valid parking permit would be subjected to a maximum stay time limit of 3 hours which reduces the availability of all-day commuter parking. Residents may also have an increased opportunity to park close to their homes (residents parking permit schemes do not however offer any guarantees of a parking space and certainly not a parking space in front of the resident's own home).

In terms of illegal parking, a Residential Pay & Display Parking Scheme would likely reduce commuter parking, and therefore, likely reduce the necessity for drivers to illegally park on footpaths due to a lack of parking capacity. Additionally, the amenity of the area would be improved with vehicles being parked in a more orderly fashion. This is likely to improve the effectiveness of parking enforcement in the area as illegally parked vehicles would become less widespread.

In terms of cut-through traffic, it is estimated that Parking Demand Management measures would be moderately effective at reducing the volume of vehicles entering the East Wall Area due to a reduction in the availability of all-day commuter parking.

Below is a summary table highlighting the estimating effectiveness of implementing Parking Demand Management measures to alleviate the identified transport-related issues in the area.

Transport Issue	Effectiveness
Issue 1a: Commuter Parking	Highly effective, extremely likely
Issue 1b: Illegal Parking Issues	Very effective, likely
Issue 2: Cut-Through Traffic	Moderately effective, neutral

SOLUTION 2: TRAFFIC CALMING MEASURES

Traffic calming measures are physical infrastructure measures aimed to improve safety for road users and pedestrians by combating speeding and other unsafe behaviours of drivers in neighbourhoods. It encourages safer, more responsible driving which can reduce traffic flow by slowing down traffic and making the road safer and less desirable to be used by cut-through traffic.

Interventions include:

1. Lane narrowing (e.g. buildouts, footpath widening) can reduce driver speeds by reducing the useable road space.
2. Vertical deflections (e.g. ramps, raised junction speed tables) can reduce driver speeds by raising a section of a road surface to create discomfort for drivers travelling at high speeds.
3. Horizontal deflection (e.g. buildouts, chicanes) can reduce driver speeds by creating a horizontal deflection that causes vehicles to slow as they would for a curve.

EFFECTIVENESS

In terms of commuter parking, it is estimated that slowing down traffic through the introduction of Traffic Calming Measures would unlikely be effective at preserving residential parking and discouraging all-day commuter parking.

In terms of illegal parking, it is estimated that Traffic Calming Measures would unlikely be effective at preventing illegal parking. For example, although implementing lane narrowing measures such as buildouts with trees may physically prevent drivers from parking on the extended section of footpath, the reduced road space would also reduce the on-street parking capacity of the road and possibly shift more vehicles to park illegally onto the footpath.

In terms of cut-through traffic, it is estimated that Traffic Calming Measures can be moderately effective at reducing the volume of vehicles cutting-through the East Wall Area. Traffic Calming Measures serve to slow down traffic resulting in longer journey times which discourages drivers looking for a faster route through the neighbourhood in an attempt to avoid congestion on the main arterial routes.

Below is a summary table highlighting the estimating effectiveness of implementing traffic calming measures to alleviate the identified transport-related issues in the area.

Transport Issue	Effectiveness
Issue 1a: Commuter Parking	Slightly effective, unlikely
Issue 1b: Illegal Parking Issues	Slightly effective, unlikely
Issue 2: Cut-Through Traffic	Moderately effective, neutral

SOLUTION 3: TRAFFIC REROUTING MEASURES

Traffic rerouting measures are aimed to identify alternative routes for through traffic if travel is to be restricted on any road within the study area.

Interventions include:

1. Access Restriction Signage (e.g. Right Turn Bans, No Straight Ahead) can reduce cut-through traffic by passively limiting access to walking, cycling and Public Transport, and preventing access to motorised vehicles.
2. Filtered Permeability can reduce cut-through traffic by physically limiting access to walking and cycling and preventing access to motorised vehicles e.g. through the implementation of features such as ‘Cycle Gates’. One drawback to this intervention is that it can lead to an uneven spread of motorised traffic throughout the area.

3. One-Way Systems can reduce cut-through traffic by requiring drivers to take a more circuitous route to get to a specific destination. This measure is only appropriate on short length streets due to increased speeding issues associated with one-way systems.

EFFECTIVENESS

In terms of commuter parking, it is estimated that traffic re-routing measures would unlikely be effective at preserving residential parking and discouraging all-day commuter parking. For instance, although creating an enclave of the East Wall Estate (i.e. by closing six of the seven junctions to motorised vehicles where motorised vehicles can enter/exit the estate) would result in longer vehicular journeys, it is unlikely to be effective at discouraging commuters from choosing the area as a destination for free parking.

In terms of illegal parking, it is estimated that traffic re-routing measures would unlikely be effective at preventing illegal parking. As described above, it is unlikely that traffic re-routing measures would discourage commuter parking, and thus, the demand for parking and associated illegal parking issues in the area would likely go unchanged.

In terms of cut-through traffic, it is estimated that traffic re-routing measures can be very effective at reducing cut-through traffic. However, the effectiveness of any proposed measures can vary considerably. For example, retaining two or more vehicular entrances/exits into an estate is likely to leave a potential route for cut-through traffic. Furthermore, the re-routed traffic is likely to shift onto the adjacent residential streets. In limited circumstances, one-way systems can also be implemented to discourage cut-through traffic due to longer vehicular journeys. However, this measure can also result in longer cycling journeys in addition to faster driver speeds.

In the case of East Wall, assessing the feasibility of rerouting traffic measures such as closing any entrances/exits into the estate would be complex and would require consultants to carry out detailed traffic surveys, analysis and consultation.

Transport Issue	Effectiveness
Issue 1a: Commuter Parking	Slightly effective, unlikely
Issue 1b: Illegal Parking Issues	Slightly effective, unlikely
Issue 2: Cut-Through Traffic	Very effective, likely

SUMMARY

Two workshops on transport issues in the East Wall Area were held in April and Oct 2019. At the meetings, councillors were given the opportunity to express their concerns and suggest possible solutions. From 5th – 8th Nov 2019, a number of site assessments were also conducted to further define these issues.

The two transport issues which have been identified and discussed in this report are as follows:

1. **Issue 1: Parking-related issues**
    - **Issue 1a:** Commuter Parking i.e. non-residential parking near the workplace which an employee commutes to work.
    - **Issue 1b:** Illegal Parking i.e. vehicles parked in a manner that is in breach of the Road Traffic Act Regulations and/or Dublin City Council Parking Control Bye-Laws 2019.
2. **Cut-Through Traffic** i.e. non-local traffic passing through the neighbourhood.

The three potential solutions to alleviate the above issues are as follows:

1. **Solution 1: Parking Demand Management**
    - Pay & Display Parking
    - Sustainable Parking Provision e.g. introduction of Cycle Parking facilities.
    - Parking Restrictions e.g. installation of Double Yellow Lines
    - Physical Obstructions e.g. installation of Planter Boxes
    - Parking Enforcement
2. **Solution 2: Traffic Calming Measures**
    - Lane narrowing e.g. footpath widening
    - Vertical deflections e.g. raised junction speed tables
    - Horizontal deflection e.g. buildouts, chicanes
3. **Solution 3: Traffic Rerouting Measures**
    a. Access Restriction Signage e.g. Left Turn Bans
    b. Filtered Permeability e.g. Cycle Gates'
    c. One-Way Systems

The following Evaluation Scale will be used to summarise the effectiveness of each solution to alleviate the transport issues.

	Effectiveness Description
Colour Code	Not effective, extremely unlikely
	Slightly effective, unlikely
	Moderately effective, neutral
	Very effective, likely
	Highly effective, extremely likely

The effectiveness of each solution to alleviate the transport issues is summarised in the table below.

An additional column ('Neighbourhood Transport Scheme Aims') has also been added to evaluate the effectiveness of each solution to achieve the main aims of a Neighbourhood Transport Scheme:

> ***"To provide more livable and sustainable neighbourhoods by facilitating safer and calmer streets where the priority is given to pedestrians and cyclists"***

Solution	**Issue 1a** Commuter Parking	**Issue 1b** Illegal Parking	**Issue 2** Cut-Through Traffic	**Neighbourhood Transport Scheme Aims**
1 Parking Demand Management	Highly effective, extremely likely	Very effective, likely	Moderately effective, neutral	Moderately effective, neutral
2 Traffic Calming Measures	Slightly effective, unlikely	Slightly effective, unlikely	Moderately effective, neutral	Moderately effective, neutral
3 Traffic Rerouting Measures	Slightly effective, unlikely	Slightly effective, unlikely	Very effective, likely	Very effective, likely

Based on the above table, it can be observed that the effectiveness of each solution differs in their ability to alleviate the identified transport issues and to achieve main aims of a Neighbourhood Transport Scheme.

It can be observed that Solution 1 is likely to be effective at alleviating the Parking issues while Solution 3 is likely to be effective at alleviating the Cut-Through Traffic issues and achieving main aims of a Neighbourhood Transport Scheme.

Therefore, it is likely that implementing solutions 1 and 3 (i.e. Solution 4 as shown in the table below) would offer the most effective measures to alleviate the identified transport issues.

Solution	**Issue 1a** Commuter Parking	**Issue 1b** Illegal Parking	**Issue 2** Cut-Through Traffic	**Neighbourhood Transport Scheme Aims**
4 (1 + 3) Parking Demand Management + Traffic Rerouting Measures	Highly effective, extremely likely	Very effective, likely	Very effective, likely	Highly effective, extremely likely

Furthermore, it is likely that a synergy could be achieved between Solution 1 and Solution 3. That is to say that implementing Solution 1 in conjunction with Solution 3 will result in a combined effect that would be highly effective at achieving the main aims of a Neighbourhood Transport Scheme for the East Wall Area.

If Councillors wish to pursue Solution 4 we can commence with the Pay and Display process as described in the next section. In parallel with this, we can engage with consultants to work with Councillors and ourselves to identify traffic re-routing measures and filtered permeability options as described in the next section.

However, Councillors can advise which solution(s) they wish to pursue in terms of providing a solution to the local residents and businesses.

NEXT STEPS FOR CHOSEN SOLUTION(S)

SOLUTION 1: PARKING DEMAND MANAGEMENT

As shown in the table above, Solution 1 is considered to offer a highly effective solution to the issue of commuter parking and very effective to deal with the issue of illegal parking.

Furthermore, it is likely that a synergy can be achieved between Solution 1 and Solution 3. That is to say that implementing Solution 1 in conjunction with Solution 3 will result in a combined effect that would be highly effective at achieving the main aims of a Neighbourhood Transport Scheme for the East Wall Area.

It should be noted that in the East Wall neighbourhood as a whole, there are .84 parking spaces per household. Due to the existing dimensions of the streets and footpaths in the area, there is very little if any scope to introduce additional capacity in terms of parking spaces for residents. However, the purpose of a Pay and Display and Residents' Permit Parking Scheme (P&D) is to eliminate long-term commuter/business parking in residential areas thereby freeing up spaces for local residents.

Councillors are also welcome to suggest any specific locations where additional parking capacity could be provided and these can be reviewed.

Due to limitations on space, not all streets will qualify for residential parking, however permit holders on streets with a low parking capacity would be permitted to park on nearby streets with a higher capacity, subject to some conditions. If this solution is chosen, we will then work with Parking Enforcement to flesh out the details of this proposal for East Wall.

There is scope to include cycle parking spaces with little impact on the existing car parking capacity. Detailed locations for cycle parking can be determined based on feedback from Cllrs / local residents.

There may also be limited scope to include Traffic Calming Measures such as buildouts with trees. Detailed locations for these measures can be determined based on feedback from Cllrs / local residents and these can be reviewed. It is important to note that measures of this type are likely to reduce the existing car parking capacity (as described in Solution 2 above).

If Councillors wish to pursue this solution, firstly we would require Councillors/ Residents to generate a petition which seeks a vote on the introduction of a new P&D scheme with signatures from at least 25% of residents who live on each road. Parking Enforcement have found that this raises awareness of a P&D scheme being voted on prior to the ballot taking place and allows for less negative reaction to the ballot taking place than would otherwise be the case.

Following the receipt of the above, we will then commence design of detailed P&D maps for each street as they are received. It is important to note that we can only proceed with a P&D design for a particular street following receipt of the petition. The P&D maps will then

be sent to ballot the residents of each street to gauge their support for the scheme. A majority vote will determine whether or not a particular P&D scheme gets implemented.

If certain streets proceed to implement a P&D scheme, this may have a knock-on effect on other streets without a P&D scheme, as commuters may choose to park on streets without P&D rather than paying for parking on streets with P&D. Therefore, Councillors would have a role to play in ensuring that all streets were made aware of the proposition to implement P&D schemes across the area.

The solution described above would involve the estimated provision of the following parking capacity which would generally be available to residents only.

Street name	*Number of houses*	On-Street Parking Spaces	*Off-Street Parking Spaces*	*Total Parking Spaces*
West Road	83	144	10	154
Hawthorn Terrace & Oxford Terrace	13	5	9	14
Hawthorn Ave (Excluding Hawthorn Mews)	13	4	3	7
Saint Mary's Rd	137	81	27	108
Caledon Rd	164	74	38	112
Saint Barnabas Gardens	11	6	7	13
Moy Elta Road	44	37	0	37
Fairfield Avenue	47	21	0	21
Strangford Road East	20	10	14	24
Saint Mura's Terrace	6	0	0	0
Strangford Gardens	12	5	12	17
Seaview Avenue East	94	23	40	63
Crescent Gardens	33	10	20	30

Church Road	165	106	55	161
Russell Avenue East	78	27	40	67
Killane Road	26	16	21	37
Boolavogue Road	18	2	18	20
Shelmalier Road	82	8	51	59
Ravendale Road	74	13	28	41
Forth Road	31	7	25	32
Bargy Road	81	8	46	54
East Road	92	37	5	42
Hibernian Ave	11	8	0	8
Gaelic Street	16	9	0	9
Hyacinth Street	15	19	0	19

Please note that the parking capacity figures above are rough estimates. The actual parking capacity of each street may vary. A detailed design of each Pay and Display and Residents' Permit Parking Scheme is required to determine a more accurate parking capacity.

SOLUTION 2: TRAFFIC CALMING MEASURES

Solution 2 would involve Traffic Calming Measures. These measures are considered to offer a moderately effective solution to the issue of cut-through traffic and are unlikely to have any considerable impact on the two parking issues.

Implementing these measures on a specific street is likely to slow down traffic which can discourage drivers from choosing that street due to longer journey times. This can encourage drivers to choose an alternative route with a shorter journey time with the aim being that drivers will choose the main arterial roads rather than cutting-through adjacent residential streets. However, implementing measures such as a buildout will further reduce the capacity of on-street parking space. Furthermore, identifying suitable locations to implement these measures are limited due to constraints such as narrow roadway widths and the presence of driveways. However, Councillors are welcome to suggest any specific locations where traffic calming measures could be provided.

There is a wide range of options available to us here in terms of how we would proceed. If Councillors were interested in pursuing this solution further we would commence with a workshop to identify the kinds of solutions which can be considered further.

SOLUTION 3: TRAFFIC REROUTING MEASURES

Solution 3 would involve Traffic Rerouting Measures. Depending on the specific measures being implemented, solutions of this kind can be highly effective in solving the issue of cut-through traffic and can bring huge positives in terms of calmer streets which promote walking and cycling. They can however be quite divisive amongst a community due to issues such as longer journey times and the shifting of traffic onto adjacent streets. This solution is unlikely to have any considerable impact on the two parking issues.

It is likely that this solution would be effective at achieving the main aims of a Neighbourhood Transport Scheme for the East Wall Area. Furthermore, it is likely that a synergy can be achieved between Solution 1 and Solution 3. That is to say that implementing Solution 1 in conjunction with Solution 3 will result in a combined effect that would be highly effective at achieving the main aims of a Neighbourhood Transport Scheme for the East Wall Area.

There is a wide range of options available to us here in terms of how we would proceed. If Councillors were interested in pursuing this solution further we would commence with a workshop to identify the kinds of solutions which can be considered further. Depending on the types of solutions desired, it is likely that we would then engage consultants to carry out detailed traffic surveys and analysis of the area.

WHAT HAPPENS NEXT

Councillors will be given time to digest the above report and to discuss it with local residents and businesses. Feedback is welcome at all time at NTSnorth@dublincity.ie

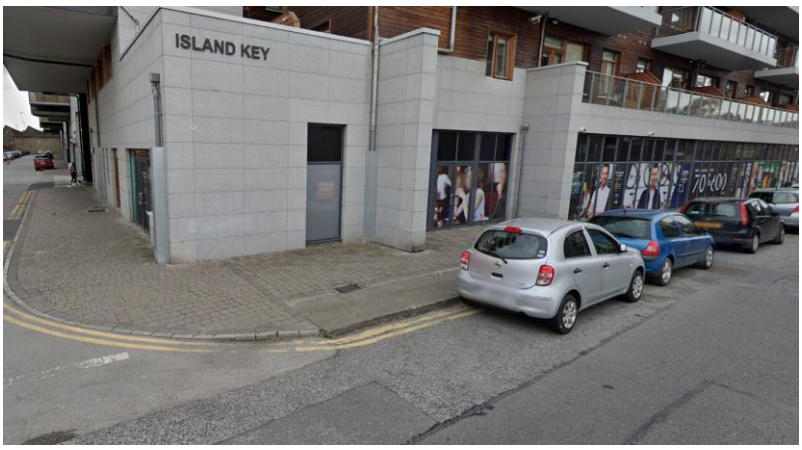
We will then arrange a workshop to agree what solution(s) the Councillors would like us to explore further.

QUICK WINS / OTHER MEASURES

There have been a number of workshops over the past few years with Cllrs and AGS and the majority of low hanging fruit is gone in terms of quick wins.

The following items can be installed relatively quickly following feedback from Cllrs:

1. Cycle Stands on East Road near Centra.



Cycle Stands on East Road near Centra

2. A recent request to improve pedestrian safety on Ossory Road near the West Road / Ossory Road junction will be assessed in the coming weeks and any measures that can improve safety at this location will be considered for implementation.

Request to improve pedestrian safety on Ossory Road near the West Road / Ossory Road junction

3. Bike Bunkers

East Wall residents can now avail of on-street bike storage units 'Bike Bunkers' where they can store their bike securely as an alternative to bringing them into their house. They will be shared by residents, meaning a bike bunker installed on a street can be used by a number of

people from that area. Each user will be registered by Dublin City Council and given a key for the unit, allowing them access to their bike inside the locked unit any time they want. It is intended that the bike bunkers would take the place of a car parking spot on most streets. Anyone interested should register that interest on bikebunkers.ie. Dublin City Council staff will review the expressions of interest monthly. New units can be issued to those locations that feature in a number of expressions of interest. Eligibility criteria is also available on the bikebunkers.ie website.

Bike Bunker installed on the street

APPENDIX

PARKING CAPACITY SURVEYS

To calculate on-street parking capacity, each length of roadside where a vehicle could legally park was measured and then converted into parking spaces by dividing the length by 5 (each vehicle is assumed to measure 4.5 meters with a 0.5 meter buffer space) and rounding down to the nearest whole number. For example, a roadside measuring 51m in length would provide 10 parking spaces (51/5 = 10.2 = 10).

To calculate off-street parking capacity, the number of houses with driveways on each street was counted, and then it was considered that each driveway could provide one parking space. For example, a street with 10 houses with driveways would provide 10 parking spaces.

To calculate total parking capacity, the on-street and off-street parking spaces were added together to give a total number of parking spaces for each road in the survey area.

To calculate the no. of parking spaces per house, the no. of houses was divided by the total parking capacity for each road in the survey area.

The estimated number of on-street and off-street parking spaces per street is highlighted in the table below:

Location	**No. of Houses**	**On-Street Parking**		**Off-Street Parking**	**Total Parking Spaces**	**Parking spaces per house**
		Total (m)	*Estimated no. of Parking Spaces (@ 5 m per space)*	*Estimated no. of Parking Spaces*	*(On-Street Parking + Off-Street Parking)*	*(Total Parking Spaces / No. of Houses)*
West Road	83	720	144	10	154	1.86

Hawthorn Terrace & Oxford Terrace	13	25	5	9	14	1.08
Hawthorn Ave (Excluding Hawthorn Mews)	13	20	4	3	7	0.54
Saint Mary's Rd	137	405	81	27	108	0.79
Caledon Rd	164	370	74	38	112	0.68
Saint Barnabas Gardens	11	30	6	7	13	1.08
Moy Elta Road	44	185	37	0	37	0.84
Fairfield Avenue	47	105	21	0	21	0.45
Strangford Road East	20	50	10	14	24	1.2
Saint Mura's Terrace	6	0	0	0	0	0
Strangford Gardens	12	30	5	12	17	1.42
Seaview Avenue East	94	115	23	40	63	0.67
	33	50	10	20	30	0.91

Crescent Gardens						
Church Road	165	530	106	55	161	0.98
Russell Avenue East	78	135	27	40	67	0.86
Killane Road	26	80	16	21	37	1.42
Boolavogue Road	18	10	2	18	20	1.11
Shelmalier Road	82	40	8	51	59	0.72
Ravendale Road	74	65	13	28	41	0.55
Forth Road	31	35	7	25	32	1.03
Bargy Road	81	40	8	46	54	0.67
East Road	92	185	37	5	42	0.45
Hibernian Ave	11	40	8	0	8	0.73
Gaelic Street	16	45	9	0	9	0.56
Hyacinth Street	15	95	19	0	19	1.27
Total	**1324**				**1113**	**0.84**

Please note that the parking capacity figures above are rough estimates. The actual parking capacity of each street may vary. A detailed design of each Pay and Display and Residents' Permit Parking Scheme is required to determine a more accurate parking capacity.