Appendix A – Multi Criteria Analysis Tables

Table 1: MCA Table

MCA criteria	Assessment Sub-Criteria	Scheme Option 1A	Scheme Option 1B	Scheme Option 1C	Scheme Option 2A	Scheme Option 2B	Scheme Option 3A	Scheme Option 3B
Economy	1.a. Capital Cost	Capital Cost: €3.30 Length: 0.836km Cost/Km: 3.95m ***Indicative Scheme Infrastructure* Works Cost** - € 2.93M ***Land Acquisition Cost*** - € 0.37M - 245 sq.m. of land See exclusions in Land Acquisition Cost in Section 8.2.	Capital Cost: €1.01M Length: 0.836km Cost/Km: 1.2M ***Indicative Scheme Infrastructure* Works Cost** - € 1.01M ***Land Acquisition Cost*** - € 0	Capital Cost: €4.77M Length: 0.836km Cost/Km: 5.70M ***Indicative Scheme Infrastructure* Works Cost** - € 4.72M ***Land Acquisition Cost*** - € 0.050 - 32 sq.m. of land See exclusions in Land Acquisition Cost in Section 8.2.	Capital Cost: € 15.75M Length: 1.05km Cost/Km: 15M ***Indicative Scheme Infrastructure* and *Land Acquisition Cost*** - € 14.25M	Capital Cost: € 14.25M Length: 0.95km Cost/Km: 15M ***Indicative Scheme Infrastructure* and *Land Acquisition Cost*** - € 14.25M	Capital Cost: € 6.25M Length: 0.95km Cost/Km: 5M ***Indicative Scheme Infrastructure* Works Cost** - € 6.25M ***Land Acquisition Cost*** - €0	Capital Cost: € 6.25M Length: 0.95km Cost/Km: 5M ***Indicative Scheme Infrastructure* Works Cost** - € 6.25M ***Land Acquisition Cost*** €0
	Rank							
	1.b. Transport Reliability and Quality (Journey Time)	Journey Time: 3 mins both directions Length: 0.836km No. of signalised intersections: 3	Journey Time: 6 mins inbound /7 mins outbound Length: 0.836km No. of signalised intersections: 3	Journey Time: 3 mins both directions Length: 0.836km No. of signalised intersections: 3	Journey Time: 2 mins both directions Length: 1.05km No. of signalised intersections: 0	Journey Time: 2 mins both directions Length: 0.95km No. of signalised intersections: 0	Journey Time: 4 mins both directions Length: 1.25km No. of signalised intersections: 3	Journey Time: 8 mins inbound / 9 mins outbound Length: 1.25km No. of signalised intersections: 3
	Rank							
Integration	2.a. Land Use Integration	Integrates with existing / **planned** residential (Montrose campus) educational, commercial, medical and leisure uses in this established area.	Integrates with existing / **planned** residential (Montrose campus) educational, commercial, medical and leisure uses in this established area.	Integrates with existing / **planned** residential (Montrose campus) educational, commercial, medical and leisure uses in this established area.	Though Scheme Option 2A and 2B would not integreate with existing / planned residential developments to the same extent as the other scheme options, 2A and 2B would integrate with exsting schools i.e. St. Mary's Boys, Our lady of Mercy Convent School and St. Andrew's College.	Though Scheme Option 2A and 2B would not integreate with existing / planned residential developments to the same extent as the other scheme options, 2A and 2B would integrate with exsting schools i.e. St. Mary's Boys, Our lady of Mercy Convent School and St. Andrew's College. Unlike Scheme Option 2A, Scheme Option 2B would require demolition of a property fronting onto Rock Rock.	Integrates with existing residential, educational and commercial developments in this established area.	Integrates with existing residential, educational and commercial developments in this established area.
	Rank							
	2.b. Residential Population and Employment Catchments	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.	Route Opition 1 and 3 would serve a greater residential and employment catchment than Route Option 2.
	Rank							

MCA criteria	Assessment Sub-Criteria	Scheme Option 1A	Scheme Option 1B	Scheme Option 1C	Scheme Option 2A	Scheme Option 2B	Scheme Option 3A	Scheme Option 3B
	2.c. Transport Network Integration	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.	Connects two proposed Core Bus Corridors i.e. Dun Laoghaire to City Centre CBC and UCD to City Centre CBC.
	Rank							
	2.d. Cycle Network Integration	Both directions of Route 1 align with a secondary cycle route as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. Scheme Option 1A and 1C score higher than 1B due to the proposed segregated cycle lanes in both directions along the entire length of Route 1.	Both directions of Route 1 align with a secondary cycle route as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. Scheme Option 1B proposes shared bus and cycle lanes. Scheme Option 1A and 1C score higher than 1B due to the proposed segregated cycle lanes in both directions along the entire length of Route 1.	Both directions of Route 1 align with a secondary cycle route as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. Scheme Option 1A and 1C score higher than 1B due to the proposed segregated cycle lanes in both directions along the entire length of Route 1.	Route 2 is not identified as a planned cycle route in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. However, both Scheme Option 2A and 2B would provide dedicated cycle lanes in each direction along the route.	Route 2 is not identified as a planned cycle route in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. However, both Scheme Option 2A and 2B would provide dedicated cycle lanes in each direction along the route.	Both directions of Route 3 align with a secondary cycle route as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. Neither Scheme Option 3A or 3B would provide dedicated cycle facilities.	Both directions of Route 3 align with a secondary cycle route as identified in the GDA Cycle Network Plan. See report Section 2 Figure 2.2 and 2.3. Neither Scheme Option 3A or 3B would provide dedicated cycle facilities.
	Rank							
	2.e. Traffic Network Integration	Scheme Option 1A and 1B would not impact on the existing number of traffic lanes.	Scheme Option 1A and 1B would not impact on the existing number of traffic lanes.	Scheme Option 1C would reroute outbound (westbound) vehicular traffic on Nutley Lane for the most part via Ailesbury Road or Nutley Avenue and Nutley Road, removing an existing cul-de-sac.	Scheme Option 2A and 2B would not integrate with the existing traffic network.	Scheme Option 2A and 2B would not integrate with the existing traffic network.	Scheme Option 3A would restrict Booterstown Avenue to local traffic access only. Through traffic would need to be rerouted.	Scheme Option 3B would integrate well with the existing traffic network on Booterstown Avenue. The only impact would be a small number of turning lanes removed for the provison of the inbound bus lane.
	Rank							
Accessibility & Social Inclusion	3.a. Key Trip Attractors (Education/Health/Commercial/Employment)	- St. Vincent's Hospital - RTE Studios - Planned development (Montrose campus) - Elm Park Golf Club - Hibernia College - Tesco	- St. Vincent's Hospital - RTE Studios - Planned development (Montrose campus) - Elm Park Golf Club - Hibernia College - Tesco	- St. Vincent's Hospital - RTE Studios - Elm Park Golf Club - Hibernia College - Tesco	- Radisson Hotel - St. Andrew's College - St. Mary's Boys	- Radisson Hotel - St. Andrew's College - St. Mary's Boys	- Willow Park School - St. Andrew's College - Booterstown Parish - A large number of businesses are located along Booterstown Avenue	- Willow Park School - St. Andrew's College - Booterstown Parish - A large number of businesses are located along Booterstown Avenue
	Rank							
	3.b. Deprived Geographic Areas	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.	This option primarily serves areas considered **affluent** and **marginally above** as identified in the Pobal Deprivation Index.
	Rank							

MCA criteria	Assessment Sub-Criteria	Scheme Option 1A	Scheme Option 1B	Scheme Option 1C	Scheme Option 2A	Scheme Option 2B	Scheme Option 3A	Scheme Option 3B
Safety	4.a. Road Safety	No. of Junctions: 3 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Due to proposed segregation of traffic, bus and cycle lanes, Scheme Option 1A scores higher than 1B.	No. of Junctions: 3 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Scheme Option 1B does not propose the same level of segregation of buses and cyclists as 1A.	No. of Junctions: 3 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Scheme Option 1C also proposes segregation of traffic, bus and cycle lanes (similar to Scheme Option 1A). However, this scheme option scores lower than Scheme Option 1A as the outbound (westbound) vehicular traffic would be rerouted along Nutley Avenue and Nutley Road, which are residential streets.	No. of Junctions: 0 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Scheme Option 2A and 2B would be bus and cyclist only routes (i.e. no traffic) with segregated facilties and hence score highest.	No. of Junctions: 0 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Scheme Option 2A and 2B would be bus and cyclist only routes (i.e. no traffic) with segregated facilties and hence score highest.	No. of Junctions: 3 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Scheme Option 3A would restrict Booterstown Avenue to local traffic only. Hence traffic volumes would be low. Neither 3A or 3B propose dedicated cycle lanes.	No. of Junctions: 3 Turning movements: Inbound: No turning movements required Outbound: No turning movements required Scheme Option 3B does not propose the same level of segregation of buses as 3A. Neither 3A or 3B propose dedicated cycle lanes.
	Rank							
Physical Activity	5.a Physical Activity	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.	This criterion relates to the health benefits derived from using different transport modes. The subject scheme options under consideration relate to the same mode of travel (bus). As such, this criterion will not produce any relative differences between the options.
	Rank							
Environment	6.a. Archaeology and Cultural Heritage	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.
	Rank							
	6.b. Architectural Heritage	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.	No appreciable impacts.
	Rank							
	6.c. Flora & Fauna	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary along Nutley Lane. Also, a number of trees behind the road boundary would require removal (e.g. at the tennis courts). It is unlikely that these trees are of roosting importance for bats.	The installation of bus lanes would also require the removal of existing trees within the road boundary along Nutley Lane. However, Scheme Option 1B would not require the removal of trees outside the road boundary . It is unlikely that these trees are of roosting importance for bats.	The installation of bus and cycle lanes would require the removal of existing trees within the road boundary along Nutley Lane. Also, a number of trees behind the road boundary would require removal (e.g. at the tennis courts). It is unlikely that these trees are of roosting importance for bats.	Due to the off-road nature of Scheme Option 2A and 2B, they would have the most significant impact on flora and fauna of all scheme options considered.	Due to the off-road nature of Scheme Option 2A and 2B, they would have the most significant impact on flora and fauna of all scheme options considered.	There are no trees within the road boundary along Booterstown Avenue. However, a small number of overhanging trees outside the boundary may need to be cut back. Scheme Option 3A and 3B would have a minimal impact on flora and fauna.	There are no trees within the road boundary along Booterstown Avenue. However, a small number of overhanging trees outside the boundary may need to be cut back. Scheme Option 3A and 3B would have a minimal impact on flora and fauna.
	Rank							

MCA criteria	Assessment Sub-Criteria	Scheme Option 1A	Scheme Option 1B	Scheme Option 1C	Scheme Option 2A	Scheme Option 2B	Scheme Option 3A	Scheme Option 3B
	6.d. Soils and Geology	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts
	Rank							
	6.e. Hydrology	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts	No appreciable impacts
	Rank							
	6.f. Landscape and Visual	The addition of bus and cycle lanes on Nutley Lane would have effects on the existing treelines and footpaths. Unlike Scheme Option 1B, this scheme option would require land-take and removal of some trees outside the current road boundary.	The addition of bus lanes on Nutley Lane would have effects on the existing treelines and footpath, though not to the same extent as Scheme Option 1A or 1C.	The addition of bus and cycle lanes on Nutley Lane would have effects on the existing treelines and footpaths. Unlike Scheme Option 1B, this scheme option would require land-take and removal of some trees outside the current road boundary.	Scheme Option 2A and 2B would have the most negative impact on the landscape and visuals along their route. The provision of a new road would require significant land-take and impact much of the current treeline.	Scheme Option 2A and 2B would have the most negative impact on the landscape and visuals along their route. The provision of a new road would require significant land-take and impact much of the current treeline.	Scheme Option 3A and 3B are not anticipated to have any negative impact on the landscape and visual along Booterstown Avenue.	Scheme Option 3A and 2B are not anticipated to have any negative impact on the landscape and visual along Booterstown Avenue.
	Rank							
	6.g. Air Quality	This scheme option would maintain two traffic lanes but possible impact on air quality due to the introduction of two bus lanes.	This scheme option would maintain two traffic lanes but possible impact on air quality due to the introduction of two bus lanes.	While the impact would be reduced over a short section on Nutley Lane, there would be an increased number of properties exposed along Nutley Avenue and Nutley Road.	This scheme option would not impact air quality along existing streets but would impact the air quality along the proposed route.	This scheme option would not impact air quality along existing streets but would impact the air quality along the proposed route..	This scheme would maintain the existing number of traffic lanes. By restricting Booterstown Avenue to local traffic only it would reduce the traffic volumes (i.e. air quality) along this route.	This scheme would maintain the existing number of traffic lanes. It is not antiicapted to significantly impact the air quality on Booterstown Avnenue.
	Rank							
	6.h. Noise & Vibration	This scheme options would maintain two traffic lanes but possible impact on noise quality due to the introduction of two bus lanes.	This scheme options would maintain two traffic lanes but possible impact on noise quality due to the introduction of two bus lanes.	While the impact would be reduced over a short section on Nutley Lane, there would be an increased number of properties exposed along Nutley Avenue and Nutley Road.	This scheme option would not impact on noise and vibration along existing streets but would impact the noise/vibration along the proposed route.	This scheme option would not impact on noise and vibration along existing streets but would impact the noise/vibration along the proposed route.	This scheme would maintain the existing number of traffic lanes. By restricting Booterstown Avenue to local traffic only it would reduce the traffic volumes (i.e. noise/vibration) along this route.	This scheme would maintain the existing number of traffic lanes. It is not antiicapted to significantly impact on noise/vibration on Booterstown Avnenue.
	Rank							
	6.i. Land Use Character	Road widening on Nutley Lane would impact on existing on-street parking provisions.	Road widening on Nutley Lane would impact on existing on-street parking provisions.	Road widening on Nutley Lane would impact on existing on-street parking provisions.	No appreciable impacts.	No appreciable impacts.	This scheme option would require the removal of on-street parking along Booterstown Avenue.	This scheme option would require the removal of on-street parking along Booterstown Avenue.
	Rank							

Appendix B – Data Collection

1. Study area visit

Each of the route sections were visited / driven and audited to identify any constraints which may not have been evident from maps and drawings. The site visits enabled a comprehensive evaluation of the route options in terms of their capacity to accommodate of a bus corridor.

2. Land Use and Planning

The land use assessment was carried out using GIS and examined private and public land along the different route options. This information was used for developing cost estimates for each of the route options, based on the area and nature (public or private) of the land acquisition required. The land use assessment results are presented in the MCA tables in Appendix A.

3. Existing Bus Lanes

A map indicating the existing bus lanes throughout the Study Area was produced to identify routes already capable of accommodating segregated facilities. Blue routes indicate inbound bus lanes while red routes indicated outbound bus lanes.

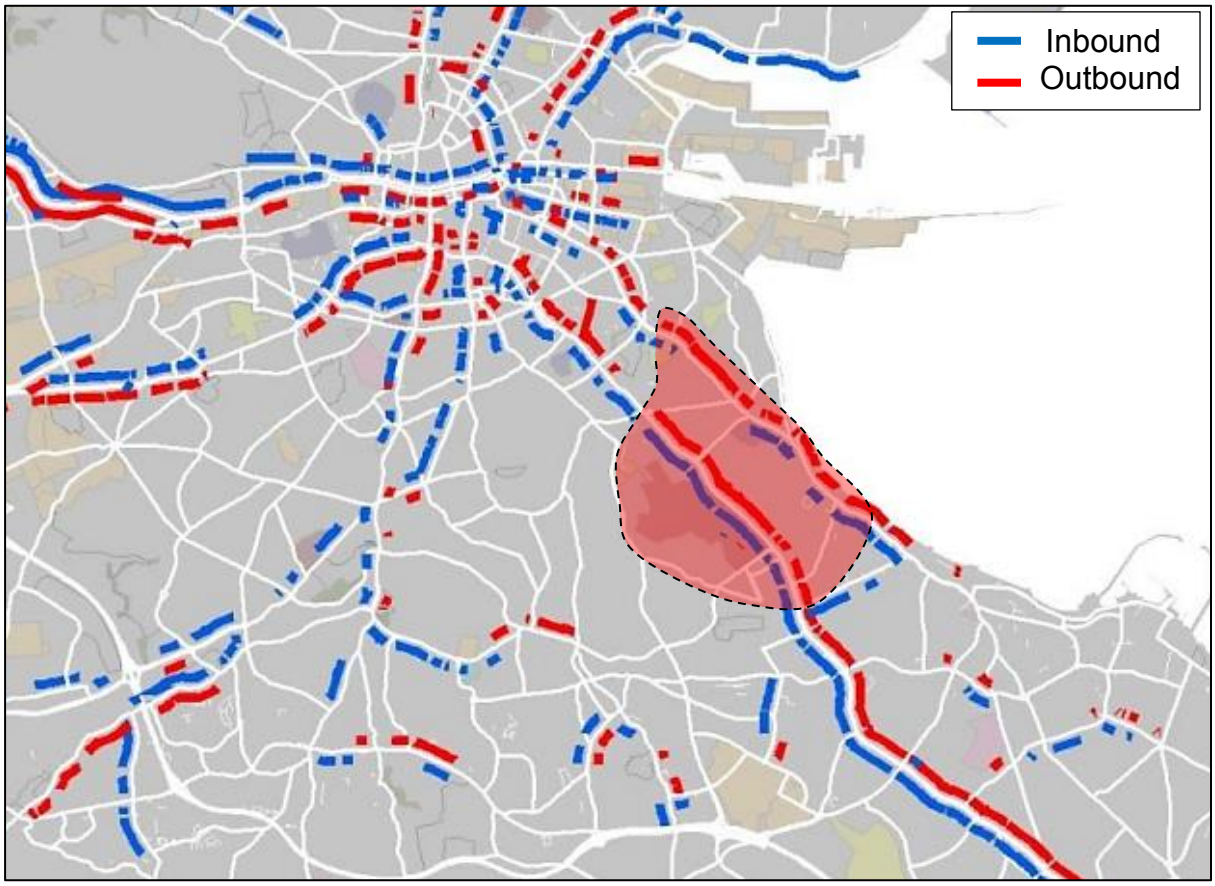


Figure 1: Existing bus lanes within the study area (Source: NTA Core Bus Network Report - Figure 4.1. Existing Bus Infrastructure – Metropolitan Area)

4. Bus Journey Times

The bus travel times for each scheme option were estimated based on a number of criteria, including;

- Length of segregated bus lane;
- Length of shared bus / traffic lane;
- Number of signalised junctions;
- Number of pedestrian crossings; and
- Number of bus stops.

Due to the large number of route options and calculations, the results of the bus journey time estimates are presented in Appendix C.

5. Road Collision History

The Road Safety Authority database of personal injury accidents was examined to establish if there are any existing safety issues along the route options that were not evident from the site visits. The database provides accident records for the period 2005 to 2013; in terms of location, year, road user type involved (pedestrian, car, cyclist, motorcyclist, bus etc.), circumstances and severity of collision (minor, serious or fatal). The following bus collision history map indicates the location of incidents within the Study Area.

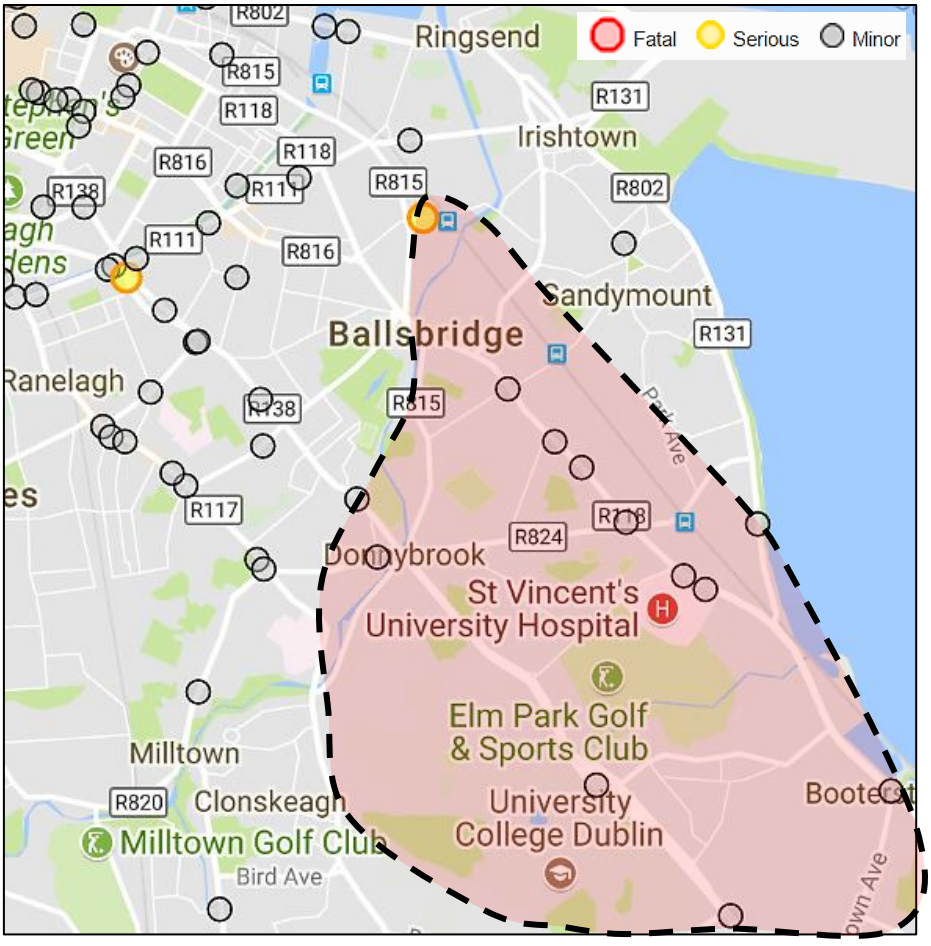


Figure 2: Bus collision history in Study Area

6. Tree surveys

A visual inspection of existing trees along each route option was carried out to identify tree locations and potential route option impacts. The results of these site observations are discussed within the Mutli Criteria Analysis in Appendix A.

7. Architectural and Archaeological information

Irish Archaeological Consultancy (IAC) and Roughan & O' Donovan (ROD) provided an environmental assessment of the different route options under the following criteria:

- Archaeology and Cultural Heritage
- Architectural Heritage
- Flora & Fauna
- Soils and Geology
- Hydrology
- Landscape and Visual
- Air Quality
- Noise & Vibration
- Land Use Character

The architectural and archaeological assessment results are presented in the MCA tables in Appendix A.

8. Route Audit

A assessment of each route option was carried out to identify existing facilities and constraints. The results of this assessment are contained in a report in Appendix D.

9. Parking survey

A parking survey study was carried out to identify the parking conditions in the existing road network. Each route was assessed under the following criteria:

- *Formal Parking:* On-street parking in which marked spaces has been provided. These are spaces in which the Local Authority charges an hourly rate to use.
- *Informal Parking:* On-street parking in which spaces may or may not be marked and in which the Local Authority does not charge for use.
- *Adjacent Parking:* Parking which is accessible to the general public and is located in close proximity to the street. These are spaces in which the Local Authority charges an hourly rate to use.

The results of the parking survey assessment are contained in a report in Appendix E.

10. Cost estimates

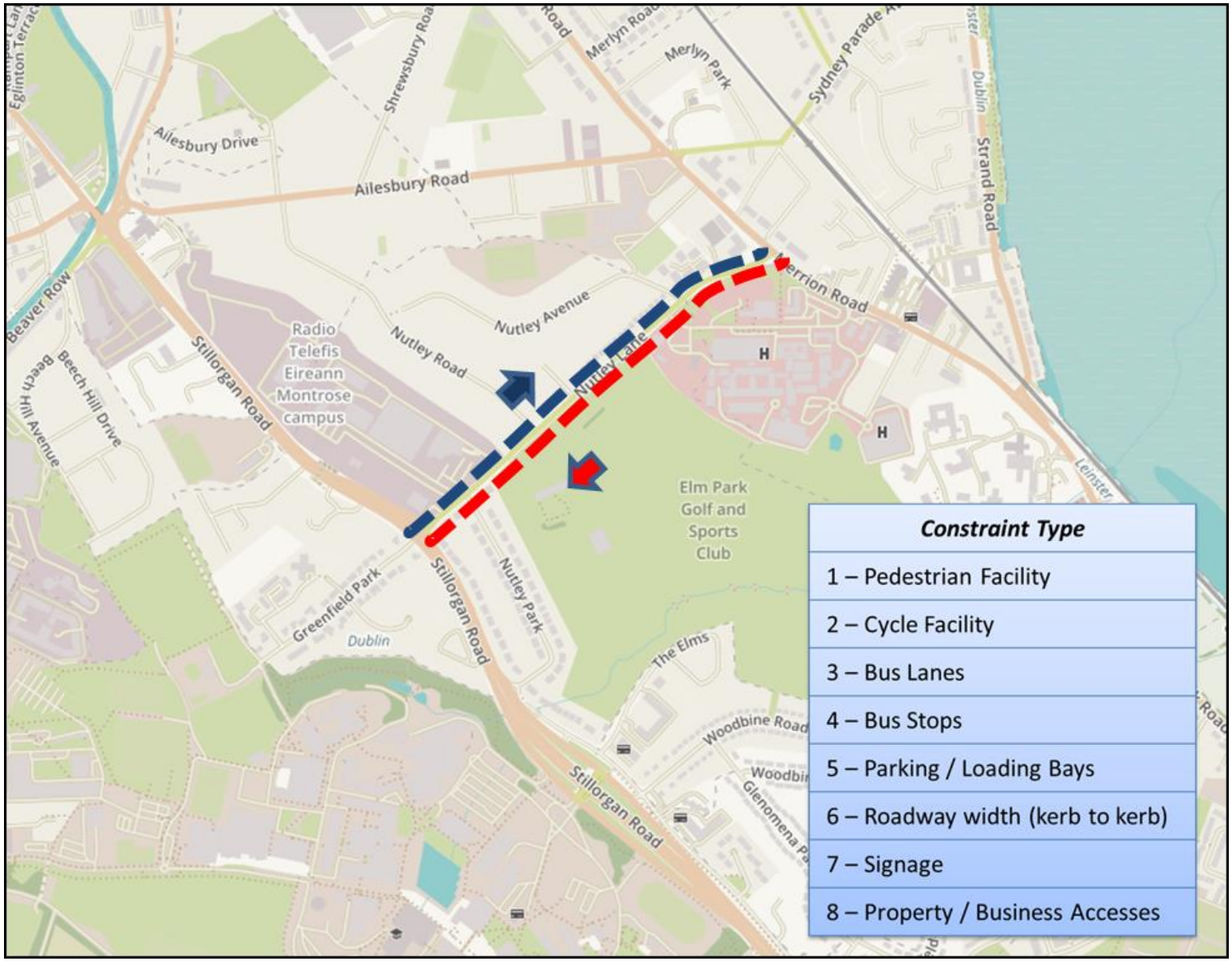
A breakdown of the cost estimation process is presented in Appendix F.

Appendix C – Bus Journey Times

Route 1A and 1B Journey Times

UCD to Grand Canal Corridor Bus Journey Time			**Scheme Option**								
			1A inbound + outbound	**1B inbound**	**1B outbound**	**1A inbound + outbound**	**2a inbound + outbound**	**2b inbound + outbound**	**3a inbound + outbound**	**3b inbound**	**3b outbound**
	KM per Hour	*Average Delay (Minute)*	*Length (KM)/Nr Stops or Junctions*								
Total Length			0.84	0.84	0.84	0.84	1.00	1.00	1.25	1.25	1.25
Fully Segregated Bus Lane	30		0.84	0.14		0.84	1.00	1.00	1.25	0.40	
Shared Bus/Cycle Lane (suburban)	10			0.70	0.84					0.85	1.25
Signalised Junction (Dwell time of 15 seconds per stop on average)		0.25	3	3	3	3	0	0	3	3	3
Pedestrian Crossing (15 second average)		0.25	0	0	0	0	0	0	1	1	1
Bus Stop Dwell Time (15 seconds average)		0.25	3	3	3	3	1	1	3	3	3
Total Journey Time(Minutes)			**3**	**6**	**7**	**3**	**2**	**2**	**4**	**8**	**9**

Appendix D – Route Audit


Ailesbury Drive
Ailesbury Road
Shrewsbury Road
Merlyn Road
Merlyn Park
Sydney Parade Avenue
Dublin
Strand Road
Beaver Row
Stillorgan Road
Radio Telefis Eireann Montrose campus
Nutley Avenue
Nutley Road
Nutley Lane
Merrion Road
Beech Hill Avenue
Beech Hill Drive
Elm Park Golf and Sports Club
Greenfield Park
Dublin
Stillorgan Road
Nutley Park
The Elms
Woodbine Road
Stillorgan Road
Glenomena Park
Leinster Road
Constraint Type
1 – Pedestrian Facility
2 – Cycle Facility
3 – Bus Lanes
4 – Bus Stops
5 – Parking / Loading Bays
6 – Roadway width (kerb to kerb)
7 – Signage
8 – Property / Business Accesses

Nutley Lane

	Ch.100	Ch.165	Ch.330	Ch.495	Ch.660	Ch.836
Section 1: North/Southbound						
1	Wide Footpath Facilities along the entirety of this section. Trees and street furniture located in footpath at various locations.					
2	No cycle facilities for the entire length of this route					
3	No bus lanes for the entire length of this route					
4	No Bus Stops	Bus Stops	No Bus Stops	Bus Stops	No Bus Stops	Bus Stops	No Bus Stops
5	No allocated parking		Formal Parking		No allocated parking	
6	8.5m - 10m wide carriageway throughout this route.					
7	Traffic signage at various locations particularly surrounding junctions					
8	Residential accesses at numerous locations along this section					

Appendix E – Parking Survey

1. Introduction

AECOM have been tasked by the National Transport Authority (NTA) to identify viable routes for a bus corridor which aims to provide a link between Merrion road and University College Dublin (UCD).

This report shall seek to identify the parking conditions in the existing road network. Each route was assessed using criteria specified by the NTA. The assessment criteria for the existing parking on the separate routes are listed as follows:

- *Formal Parking:* On-street parking in which marked spaces has been provided. These are spaces in which the Local Authority charges an hourly rate to use.
- *Informal Parking:* On-street parking in which spaces may or may not be marked and in which the Local Authority does not charge for use.
- *Adjacent Parking:* Parking which is accessible to the general public and is located in close proximity to the street. These are spaces in which the Local Authority charges an hourly rate to use.
- Taxi Facilities: Parking which is used exclusively for taxis.

This report shall seek to quantify the impact on the existing parking conditions in the road network by the proposed scheme options.

2. Legend

- This colour represents sections along a route which has no parking facilities.
- This colour represents sections along a route which has formal parking facilities.
- This colour represents sections along a route which has informal parking facilities.
- This colour represents sections along a route which has adjacent parking facilities.
- This colour represents sections along a route which have taxi facilities.

3. Nutley Lane

The survey has shown formal car parking facilities at certain locations along the length of Nutley Lane as shown below. There are no informal or adjacent parking spaces on Nutley Lane.

- Formal Parking – Approximately 56 (Of which 4 are Disabled Parking) Spaces.

Both scheme options require full usage of the entire width of Nutley Road and as such, the formal parking spaces (approximately 56 No.) will be removed as part of the proposed works.

Appendix F – Cost Estimate

Scheme Option 1A					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)			0.167	€ 417,500
2				0.607	€ 1,517,500
3					
4					

Total of Route Sections Cost	**€ 1,935,000**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1				€ 0
No of CL2				€ 0
No of CL3			1	€ 1,000,000

Total of Junctions Lower Costs	**€ 1,000,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	245	€ 367,500
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 367,500**
Total Cost =	**€ 3,302,500**

Scheme Option 1B					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)		0.774		€ 1,006,200
2					€ 0
3					€ 0
4					€ 0

Total of Route Sections Cost	**€ 1,006,200**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1				€ 0
No of CL2				€ 0
No of CL3				€ 0

Total of Junctions Lower Costs	**€ 0**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).		0 €
Sum of Commercial along Route (sq.m).		0 €
Sum of Agricultural along Route (sq.m).		0 €
Sum of Industrial along Route (sq.m).		0 €

Total of Route Junctions Cost	**€ 0**
Total Cost =	**€ 1,006,200**

Scheme Option 1C					
Route Sections		Route Section Cost Rates (EUR / km)			Route Section Cost
		CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
		€ 650,000	€ 1,300,000	€ 2,500,000	
1	Section Length (km)			0.167	€ 417,500
2		0.610			€ 396,500
3		0.345			€ 224,250
4				0.320	€ 800,000
5				0.260	€ 650,000
				Total of Route Sections Cost	**€ 2,488,250**

Junctions	Junction Cost Rates (EUR / junction)			Junctions Cost
	CAL 1: Minor	CAL 2: Moderate	CAL 3: Major	
	€ 70,000	€ 230,000	€ 1,000,000	
No of CL1				€ 0
No of CL2		1		€ 230,000
No of CL3			2	€ 2,000,000
			Total of Junctions Lower Costs	**€ 2,230,000**

Land Acquisition	Average Land Value (EUR / sq.m.)	Land Take Cost
	1,500 €	
Sum of Residential along Route (sq.m).	32	€ 48,000
Sum of Commercial along Route (sq.m).		€ 0
Sum of Agricultural along Route (sq.m).		€ 0
Sum of Industrial along Route (sq.m).		€ 0
	Total of Route Junctions Cost	**€ 0**
	Total Cost =	**€ 4,766,250**

Appendix G – Infrastructural Cost Estimate

1. Nutley Lane Scheme Option 1A - Proposed Works

For approximately 167m, from the Nutley Lane/Merrion Road junction, the proposed works have been categorised as **major** i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees are to be removed along the route and as such, limited earthworks works are also required along with full depth pavement reconstruction and associated road markings. Road signage is to be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) are needed. Existing road markings are to be removed and replaced. Local road re-surfacing needed along parts of the route.

Major modifications are required at the Nutley Avenue/Nutley Lane/St.Vincents Hospital junction. i.e. the works associated with this categorisation include: removal and replacement of kerbs, footways and paved areas, laying of anti-skid surface, protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. Works including road re-alignment is required at this junction and as such property boundary re-instatement works are needed.

For the next 607m, approximately, the proposed works have been categorised as **major** i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees are to be removed along the route and as such, limited earthworks works are also required along with full depth pavement reconstruction and associated road markings. Road signage is to be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) are needed. Existing road markings are to be removed and replaced. Local road re-surfacing needed along parts of the route.

2. Nutley Lane Scheme Option 1B - Proposed Works

For approximately 774m, from the Nutley Lane/Merrion Road junction works have been categorised as **moderate** due to the removal of kerbs and footways with a width greater than 500mm and the removal/realignment of drainage systems and services. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water, gas) will have to be protected/relocated/diverted. Road signage and road furniture (bins and bollards) are to be removed/ relocated or replaced. No land take is required along this section.

3. Nutley Lane Scheme Option 1C - Proposed Works

For approximately 167m, from the Nutley Lane/Merrion Road junction, the proposed works have been categorised as **major** i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees are to be removed along the route and as such, limited earthworks works are also required along with full depth pavement reconstruction and associated road markings. Road signage is to be removed/ relocated or replaced. Boundary re-instatement works (walls, gates, driveways, etc.) are needed. Existing road markings are to be removed and replaced. Local road re-surfacing needed along parts of the route.

Major modifications are required at the Nutley Avenue/Nutley Lane/St.Vincents Hospital junction. i.e. the works associated with this categorisation include: removal and replacement of kerbs, footways and paved areas, laying of anti-skid surface, protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. Works including road re-alignment is required at this junction and as such property boundary re-instatement works are needed.

For approximately 610m, from the Nutley Lane/Nutley Avenue junction, along Nutley Avenue, the proposed works have been categorized as **minor** i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway. No land take is required along this section.

Moderate modifications are required at the Nutley Avenue/Nutley Road junction i.e. the works to accommodate the proposed design include: general site clearance, removal and replacement of kerbs, footways and paved areas, laying of anti-skid surface, protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works. No land take is required at this junction and as such property boundary re-instatement works are not needed.

For approximately 345m, from the Nutley Avenue junction, along Nutley Road, the proposed works have been categorized as **minor** i.e. the works associated with this section involve removing and replacing existing road markings and local resurfacing of both the carriageway. No land take is required along this section.

Major modifications are required at the Nutley Road/Nutley Lane junction. i.e. the works associated with this categorisation include: removal and replacement of kerbs, footways and paved areas, laying of anti-skid surface, protection/relocation/diversion of services (i.e. power supply, communications, water and gas), removal and replacement of existing road markings, dished kerbs and tactile paving at all crossing points, the provision of guardrails and bollards, landscaping works, additional traffic signals including ducting, cabling and chambers and additional signal poles/heads. Works including road re-alignment is required at this junction and as such property boundary re-instatement works are needed.

For approximately 320m, between the Nutley Avenue/Nutley Lane/St.Vincents Hospital junction and Nutley Road junctions, along Nutley Lane, the proposed works have been categorized as **major** i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees to be removed along the route and as such, limited earthworks works are also required along with full depth pavement reconstruction and associated road markings. Road signage is to be removed/ relocated or replaced. Some land take is required and as such boundary re-instatement works are needed. Existing road markings are to be removed and replaced.

For approximately 260m from Nutley Road junction, along Nutley Lane, the proposed works have been categorized as **major** i.e. the works associated with widening of the road to accommodate full bus and cyclist facilities include the removal of kerbs and footways greater than 500mm and the removal of and installation of new drainage systems. Road lighting (and associated works i.e. cabling and ducting) along the route to be protected/relocated/diverted. Existing services (power supply, communications, water and gas) to be protected/relocated/diverted. To accommodate the road widening, a number of trees to be removed along the route and as such, limited earthworks works are also required along with full depth pavement reconstruction and associated road markings. Road signage is to be removed/ relocated or replaced. Some land take is required and as such boundary re-instatement works (walls, gates, driveways, etc.) are needed. Existing road markings are to be removed and replaced.

Appendix H – Concept Design Drawings and Staging Diagrams

1. MCA Scheme Options

2. Emerging Preferred Scheme Option

1. MCA Scheme Options

2. Emerging Preferred Scheme Option