

Stage 2		Section 1 - Clongriffin/Belmayne MCA		
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3
Economy	Capital Cost	Total - €3.8M Cost per KM - €3.2M <i>Indicative Scheme Infrastructure Works Cost - €3.8M Private Land Costs - €0M</i>	Total - €4.6M Cost per KM - €3.5M <i>Indicative Scheme Infrastructure Works Cost - €4.6M Private Land Costs - €0M</i>	Total - €7.6M Cost per KM - €4.4 M <i>Indicative Scheme Infrastructure Works Cost - €6.9M Private Land Costs - €0.7M</i>
	Rank			
	Journey-time reliability and quality of service	This scheme has a total length of 1.2 km and from initial journey time calculations, would take an average of 3-3.5 mins. Full bus priority is provided and so the reliability of these journey times would be good	This scheme has a total length of 1.3 km and from initial journey time calculations, would take an average of 3-3.5 mins. Full bus priority is provided and so the reliability of these journey times would be good	This scheme has a total length of 1.7 km and from initial journey time calculations, would take an average of 3.5-4 mins. Full bus priority is provided and so the reliability of these journey times would be good
	Rank			
Integration	Land Use Integration	Would facilitate the full completion of the Clongriffin Main St. from Malahide Rd. to Clongriffin as outlined in the North Fringe LAP	Would only facilitate the partial completion of the Clongriffin Main St. between Belmayne and Clongriffin as outlined in the North Fringe LAP	Would not facilitate the completion of Clongriffin Main St.
	Rank			
	Residential Catchment (10 Mins)	14123	14653	17030
	Employment Catchment (10 Mins)	1620	1623	2226
	Total residential and employment (10 mins)	15744* <i>*Development planned in Belmayne/Clongriffin that will likely increase figures for this scheme</i>	16276* <i>*Development planned in Belmayne/Clongriffin that will likely increase figures for this scheme</i>	19255
	Rank			
	Public Transport Integration	Integrates with other Dublin Bus services	Integrates with other Dublin Bus services	Integrates with other Dublin Bus services
	Traffic Network Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank			
Cyclists and pedestrian Integration	Cyclists would be diverted along R139	Cycle lanes would be provided along the R139 portion of the scheme	Full cyclist integration can be achieved through this scheme.	
Rank				
Accessibility and Social Inclusion	High Volume Trip Attractors (Education, Health, Commercial, Retail, Leisure)	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank			
	Deprived Geographic Areas & Areas Underserved by Public Transport	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
Rank				
Safety	Road Safety	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank			
Archaeological, Architectural and Cultural Heritage	Zones of Archaeological Protection	None	None	Traverses zone of archaeological potential (ZAP) for Grange Abbey, National Monument (NM) No. 605. The abbey church & graveyard (RMP DU015-069) are located on north side of Grange Road, adjacent the route.
	Record of Monument and Places (RMP)	No RMP sites in proximity	No RMP sites in proximity	Potential that features associated with Grange Abbey might extend into the road, albeit heavily truncated or indeed removed by subsequent road development.
	Protected Structures	No RPS / NIAH sites in proximity	No RPS / NIAH sites in proximity	No RPS / NIAH sites in proximity
	Summary	Greenfield archaeological potential where new western section of link road is proposed & in area of road widening	Greenfield archaeological potential in area of road widening	Potential that features associated with Grange Abbey (National Monument) might extend into the road, albeit heavily truncated or indeed removed by subsequent road development. Greenfield archaeological potential in area of road widening, especially given relative proximity to Grange Abbey
	Rank			

Flora and Fauna	EU Sites	There is no apparent hydrological connectivity to European Sites of Conservation of Importance downstream of this route option in Dublin Bay.	There is no apparent hydrological connectivity to European Sites of Conservation of Importance downstream of this route option in Dublin Bay.	There is no apparent hydrological connectivity to European Sites of Conservation of Importance downstream of this route option in Dublin Bay.
	Ecological Land Take	Land-take is expected to result in the loss of green space and derelict ground along the proposed route option including an area of Clongriffin Main Street currently under construction (along the proposed new bus and cycle lanes) as well as amenity areas along sections of Route Option 1.	Land-take is expected to result in the loss of road verge, recently planted trees and derelict or built ground along Belmayne Avenue as well as derelict ground along sections of this option.	Land-take would result in the loss of road verge and curtilage (garden frontage, predominantly recently planted trees and hedging) along the Hole in the Wall Road.
	Areas of high ecological values	There are few areas of ecological interest along Clongriffin Main Street including a section connecting to the Malahide Road, currently under construction, much of this route option comprises built-on ground. Loss of areas with a high ecological value will be minimal along much the extent of this route option.	The route option would impinge on few areas of ecological potential or connectivity. Land-take may include loss of recently planted streetscape trees and road verge along Belmayne Avenue and a long a section of the R139 with low ecological value.	Land-take would include the loss of margins of amenity areas. There are few areas of ecological interest which will be impacted by this route option, according to AutoCAD maps.
	Salmonid Watercourses	A single waterbody includes the man-made lake in Father Collins Park, which should not be impacted along this route option.	No waterbodies occur along this route option.	No waterbodies occur along this route option.
	Invasive Species	Buddleja davidii (medium impact IAS) occurs in an area under construction on Clongriffin Main Street. Record obtained from the NBDC indicate that the high impact species Greylag Geese occur in the vicinity of the site.	No invasive plant species were recorded along this route option.	No invasive plant species were recorded along this route option.
	NBDC Records	Records of the following protected species were identified in the NBDC database along this scheme option including: Common Kingfisher (Annex I), Northern Shoveler (Annex II), Teal (Annex II), Wigeon (Annex II), Mallard (Annex II), Pink-footed Goose (Annex II), Short-eared Owl (Annex II), Tufted Duck (Annex II), Greater Scaup (Annex II), Common Goldeneye (Annex II), Long-tailed Duck (Annex II), Whooper Swan (Annex II), Little Egret (Annex I), Common Coot (Annex II), Curlew (Annex II), Meadow Barley (Flora Protection Order, 2015) and Petalwort (Annex II).	Records of the following protected species were identified in the NBDC database along this scheme option including: Common Kingfisher (Annex I), Northern Shoveler (Annex II), Teal (Annex II), Wigeon (Annex II), Mallard (Annex II), Pink-footed Goose (Annex II), Short-eared Owl (Annex II), Greater Scaup (Annex II), Common Goldeneye (Annex II), Long-tailed Duck (Annex II), Whooper Swan (Annex II), Little Egret (Annex I), Common Coot (Annex II), Curlew (Annex II), Ruf (Annex II), Marsh Fritillary (Annex II), Meadow Barley (Flora Protection Order, 2015), Petalwort (Annex II), Otter (Annex II) and Badger (Wildlife Acts 1976-2012).	Records of the following protected species were identified in the NBDC database along this scheme option including: Common Kingfisher (Annex I), Northern Shoveler (Annex II), Teal (Annex II), Wigeon (Annex II), Mallard (Annex II), Pink-footed Goose (Annex II), Short-eared Owl (Annex II), Tufted Duck (Annex II), Greater Scaup (Annex II), Common Goldeneye (Annex II), Long-tailed Duck (Annex II), Whooper Swan (Annex II), Little Egret (Annex I), Common Coot (Annex II), Curlew (Annex II), Ruf (Annex II), Marsh Fritillary (Annex II), Meadow Barley (Flora Protection Order, 2015), Petalwort (Annex II), Otter (Annex II) and Badger (Wildlife Acts 1976-2012).
	Summary	Overall, impacts from the construction of bus and cycle lanes along stretches of this route option are expected to be low.	Overall, impacts from the construction of bus and cycle lanes along stretches of this route option are expected to be low.	Overall, impacts from the construction of bus and cycle lanes along stretches of this route option are expected to be low.
Rank				
Soils and Geology	Groundwater Vulnerability	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is "L". As such groundwater vulnerability is assessed as low through the proposed route option.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is ranked as Low (L). As such groundwater vulnerability is assessed as low through the proposed route option.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is ranked as Low (L). As such groundwater vulnerability is assessed as low through the proposed route option.
	Bedrock Geology	According to the GSI GeoUrban Viewer, the Bedrock Geology 100k comprises of the Malahide Formation, that is Argillaceous bioclastic limestone, shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k series) comprises of the Malahide Formation comprising Argillaceous bioclastic limestone and shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k series) comprises of the Malahide Formation comprising Argillaceous bioclastic limestone and shale.
	Bedrock Aquifer	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as "LI", that is a locally important aquifer which is described as bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), which describes bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), which describes bedrock which is moderately productive only in local zones.
	Geological Heritage Site	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils include "Till derived chiefly from limestone" (TLs) belonging to Soil Group "Grey Brown Podzolics, Brown Earths (medium-high base status)" and "Surface water Gleys, Ground water Gleys". There is also some "Made ground".	According to the GSI GeoUrban Viewer, the Teagasc Soils include "Till derived chiefly from limestone" (TLs) belonging to Soil Group "Grey Brown Podzolics, Brown Earths (medium-high base status)" and "Surface water Gleys, Ground water Gleys".	According to the GSI GeoUrban Viewer, the Teagasc Soils include "Till derived chiefly from limestone" (TLs) belonging to Soil Group "Grey Brown Podzolics, Brown Earths (medium-high base status)" and "Surface water Gleys, Ground water Gleys". There is also some "Made ground".
	Industrial Emissions Directive (IED)/Integrated Pollution Control (IPC) facilities (potential contamination)	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.
	Soils	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.
	Landtake and geology	A large extent of the proposed north and southbound bus lanes include existing infrastructure. Disturbance to soils and geology during the construction phase of the proposed project is expected to be minimal.	The widening of parts of Belmayne Avenue to accommodate both the south and northbound bus routes may implicate impacts to existing soil.	The widening of parts of the Hole in the Wall Road to accommodate both the south and northbound bus routes may implicate impacts to existing soil.
	Summary	Although use of existing road infrastructure is proposed for this route option, road widening and realignment may implicate some impacts on soil and geology at localised pinch points.	Localised construction works to accommodate bus and cycle lanes along this route option are proposed with some potential impacts on soil and geology at localised pinch points.	Localised construction works to accommodate bus and cycle lanes along this route option are proposed with some potential impacts on soil and geology at localised pinch points.
	Overall, there is a low risk of impacts to soil and geology from the proposed Route Option 1.	Overall, there is a low risk of impacts to soil and geology from the proposed Route Option 2.	Overall, there is a low risk of impacts to soil and geology from the proposed Route Option 3.	
Rank				

Environment

Fluvial Areas of flood risk (AEP 10%)	Tidal flooding is not predicted to occur along this Scheme option (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).	Tidal flooding is not predicted to occur along this Scheme option (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).	Tidal flooding is not predicted to occur along this Scheme option (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).
Fluvial Areas of flood risk (AEP 1%)	"There is a 1% AEP (1 in 100 year Annual Exceedance Potential) risk of Fluvial flooding at the Malahide Road junction with a road currently under construction (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).	"There is a 1% AEP (1 in 100 year Annual Exceedance Potential) risk of Fluvial flooding at the Malahide Road junction with a road currently under construction (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).	"There is a 1% AEP (1 in 100 year Annual Exceedance Potential) risk of Fluvial flooding at the Malahide Road junction with a road currently under construction (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).
Flood Management Plans	There is also a risk of a (1 in 1000 year extreme flood event) along Clongriffin Main Street.	There is also a risk of a (1 in 1000 year extreme flood event) along Clongriffin Main Street.	There is also a risk of a (1 in 1000 year extreme flood event) along Clongriffin Main Street.

Hydrology	Pluvial Flood Risk (AEP 10%)	There is a 1% AEP (1 in 100 year Annual Exceedance Potential) risk of Pluvial flooding occurring at numerous point locations in extreme rainfall events, particularly along Main Street in Clongriffin (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).	There is a 1% AEP (1 in 100 year Annual Exceedance Potential) risk of Pluvial flooding occurring at numerous point locations in extreme rainfall events, particularly along Main Street in Clongriffin (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).	There is a 1% AEP (1 in 100 year Annual Exceedance Potential) risk of Pluvial flooding occurring at numerous point locations in extreme rainfall events, particularly along Main Street in Clongriffin (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 257 / A).
	OPW National Flood Hazards Map	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded close to this proposed route option (River Mayne and Grange Road). However, no flood events are known to have occurred along the proposed bus and cycle lanes.	The OPW National Flood Hazard Mapping web site notes historic flood events recorded close to this proposed route option (River Mayne and Grange Road). However, no flood events are known to have occurred along the proposed bus and cycle lanes.	The OPW National Flood Hazard Mapping web site notes historic flood events to the north and east of this proposed route option (River Mayne and Grange Road - R809). However, no flood events are known to have occurred along the proposed bus and cycle lanes.
	Summary	Overall, there is a low risk of fluvial flooding with a higher risk of pluvial flooding occurring along localised sections of this Route Option 1.	Overall, there is a low risk of fluvial flooding with a higher risk of localised pluvial flooding occurring along localised sections of this Route Option 2.	Overall, there is a low risk of fluvial flooding with a higher risk of localised pluvial flooding occurring along localised sections of this Route Option 3.
Rank				
Landscape and visual	Low impact to all streets on this route Widening of the R107 would result in removal of street trees from the eastern side	Low impact to all streets on this route Widening of the R139 would result in removal of street trees from the southern side	Low impact to all streets on this route Widening of the R139 would result in removal of street trees from the southern side	Low impact to all streets on this route Medium visual impact to properties on R139 as land take is required from a number of back gardens Widening of the R139 would result in removal of street trees from the southern side
Rank				
Noise and Vibration	Qualitative noise assessment	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.
	Geodirectory (Building types)	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.
	Sensitive Receptors	Other than residential properties along the scheme option, there are no other noise sensitive properties that meets the EPA definition of a noise sensitive location.	Other than residential properties along the scheme option, there are no other noise sensitive properties that meets the EPA definition of a noise sensitive location.	Other than residential properties along the scheme option, there are no other noise sensitive properties that meets the EPA definition of a noise sensitive location.
	New Road Construction	The route option will involve the construction of 2 new links which will lead to construction noise impacts.	The route option will involve the construction of 1 new link which will lead to construction noise impacts.	The route option involves the construction of no new links. The option is based on existing road links.
	Land take	There will be some instances of public land acquisition for the construction of the link road to join the Malahide Road and also areas along the R139/R107 to the Clarehall Shopping Centre	There will be some instances of public land acquisition. 'Belmayne Avenue will be widened locally to provide bus and cycle lanes. The existing roundabout at the junction with the R139 will be converted to a signalised junction. There are existing bus lanes along the R139 although construction works will be required to provide cycle lanes here.	There will be some instances of public and private land acquisition. The two existing roundabouts on the R139 will be converted to signalised junctions. There are existing bus lanes along the R139 although construction works will be required to provide cycle lanes here.
	Summary	The route option has the potential for both positive and negative impacts to the existing noise environment. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to the existing noise environment. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to the existing noise environment. There are no major issues that have the potential to give rise to significant impacts.
Rank				
Air Quality	Qualitative noise assessment	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.
	Geodirectory (Building types)	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.
	Requirements for demolition	Other than residential properties along the scheme option, there are no other noise sensitive properties that meets the EPA definition of a noise sensitive location.	Other than residential properties along the scheme option, there are no other noise sensitive properties that meets the EPA definition of a noise sensitive location.	Other than residential properties along the scheme option, there are no other noise sensitive properties that meets the EPA definition of a noise sensitive location.
	New Road Construction	The route option will involve the construction of 2 new links which will lead to construction air quality impacts such as dust generation.	The route option will involve the construction of 1 new link which will lead to construction noise impacts.	The route option involves the construction of no new links. The option is based on existing road links.
	Land take	There will be some instances of public land acquisition for the construction of the link road to join the Malahide Road and also areas along the R139/R107 to the Clarehall Shopping Centre	There will be some instances of public land acquisition. 'Belmayne Avenue will be widened locally to provide bus and cycle lanes. The existing roundabout at the junction with the R139 will be converted to a signalised junction. There are existing bus lanes along the R139 although construction works will be required to provide cycle lanes here.	There will be some instances of public and private land acquisition. The two existing roundabouts on the R139 will be converted to signalised junctions. There are existing bus lanes along the R139 although construction works will be required to provide cycle lanes here.

		Summary	The route option has the potential for both positive and negative impacts to air quality. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to air quality. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to air quality. There are no major issues that have the potential to give rise to significant impacts.
	Rank				
	Land Use and Built Environment		No car parking spaces removed Options considered equal under this criterion	No car parking spaces removed Options considered equal under this criterion	No car parking spaces removed Options considered equal under this criterion
	Rank				

Stage 2		Section 1 - Main MCA			
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3	Route 4
Economy	Capital Cost	Total - €38M Cost per KM - €5.9M <i>Indicative Scheme Infrastructure Works Cost - €30.5M</i> <i>Private Land Costs - €7.5M</i>	Total - €22.7M Cost per KM - €5.3M <i>Indicative Scheme Infrastructure Works Cost - €20.7M</i> <i>Private Land Costs - €2M</i>	Total - €31M Cost per KM - €6.5M <i>Indicative Scheme Infrastructure Works Cost - €23.8M</i> <i>Private Land Costs - €7.2M</i>	Total - €43.5M Cost per KM - €6.5M <i>Indicative Scheme Infrastructure Works Cost - €32M</i> <i>Private Land Costs - €11.5M</i>
	Rank				
	Journey-time reliability and quality of service	This scheme has a total length of 6.4 km and from initial journey time calculations, would take an average of 15-16 mins. Residential accesses along parts of Kilmore Road would likely hinder reliability.	This scheme has a total length of 4.3 km and from initial journey time calculations, would take an average of 10-11 mins. Full bus priority is provided and so the reliability of these journey times would be good	This scheme has a total length of 4.7 km and from initial journey time calculations, would take an average of 11-12 mins. Residential accesses along length of Tonlegee Road would likely hinder reliability.	This scheme has a total length of 6.7 km and from initial journey time calculations, would take an average of 16-17 mins. Residential accesses along length of Tonlegee Road would likely hinder reliability.
	Rank				
Integration	Land Use Integration	Would allow for the Clongriffin 'Main Street' to be completed, as outlined in the North Fringe LAP, aiding in the planned development of the area. Will integrate with the proposed development of the Balgriffin and Clongriffin Town Centre.	Would allow for the Clongriffin 'Main Street' to be completed, as outlined in the North Fringe LAP, aiding in the planned development of the area. Will integrate with the proposed development of the Balgriffin and Clongriffin Town Centre.	Would not facilitate the construction of Clongriffin Main Street. Does not integrate with the North Fringe LAP to the same extent as Routes 1 and 2	Would not facilitate the construction of Clongriffin Main Street. Does not integrate with the North Fringe LAP to the same extent as Routes 1 and 2
	Rank				
	Residential Catchment				
	400m (5 mins)	8387	4965	6283	9705
	800m (10 mins)	23506	18529	22218	27195
	1200m (15 mins)	42729	38086	42039	46682
	Employment Catchment				
	400m (5 mins)	2100	1183	1060	1977
	800m (10 mins)	6154	3721	2886	5319
	1200m (15 mins)	9359	6116	5366	8609
	Total residential and employment (10 mins)	29660	22250	25104	32514
Rank					
Public Transport Integration	This section follows that of a number of existing bus serves. Likely to result in rationalisation/ modification of existing Dublin Bus services operating in the area. Integrates with the DART line.	This section follows that of a number of existing bus serves. Likely to result in rationalisation/ modification of existing Dublin Bus services operating in the area. Integrates with the DART line.	This section follows that of a number of existing bus serves. Likely to result in rationalisation/ modification of existing Dublin Bus services operating in the area. Integrates with the DART line.	This section follows that of a number of existing bus serves. Likely to result in rationalisation/ modification of existing Dublin Bus services operating in the area. Integrates with the DART line.	
Traffic Network Integration	Kilmore Road and Oscar Traynor Road will have greater impact due to CBC operations	Malahide Road already has bus lanes in operation and no major impact noted due to CBC operations.	Grange Road/ Tongleee Road will have greater impact due to CBC operations	Kilmore Road and Oscar Traynor Road will have greater impact due to CBC operations	
Rank					
Cyclists and pedestrian Integration	The Malahide Road is a Primary Route in the GDA cycle Network Plan. The diversion from Malahide road is identified as a Secondary Route in the GDA cycle Network Plan. Currently, no cycling facilities exist. The road would be upgraded to provide segregated cycle tracks in both directions	The Malahide Road is a Primary Route in the GDA cycle Network Plan. The route mostly contains advisory cycle lanes, which would be upgraded to segregated cycle lanes along the whole route.	The section of this route along Grande Rd and Tonlegee Rd is identified as a Secondary Route in the GDA cycle Network Plan. Currently, no cycling facilities exist. The road would be upgraded to provide segregated cycle tracks in both directions. The Malahide Road is a Primary Route in the GDA cycle Network Plan. The route mostly contains a cycle lane within the bus lane, which would be upgraded to segregated cycle lanes along the whole route.	The length of this route is identified as a Secondary Route in the GDA cycle Network Plan. Currently, no cycling facilities exist. The road would be upgraded to provide segregated cycle tracks in both directions	
Rank					
Accessibility and Social Inclusion	High Volume Trip Attractors (Education, Health, Commercial, Retail, Leisure)	Belmayne Clare Hall Shopping Centre Odeon/Leisureplex Coolock Malahide road Industrial Park Northside Shopping Centre Beaumont Hospital Artane Castle Shopping Centre	Belmayne Clare Hall Shopping Centre Odeon/Leisureplex Colock Malahide road Industrial Park	Donaghmede Shopping Centre, Donaghmede Park, Donahies Community School, Church of Holy Trinity Donaghmede, Gragemore Park Odeon/Leisureplex Coolock, Holy Trinity Primary School, St Kevins Junior Primary School, Grange Community College, Ardscoil La Sallee School, baldoye Industriar Area	Donaghmede Shopping Centre, Donaghmede Park, Donahies Community School, Church of Holy Trinity Donaghmede, Gragemore Park Odeon/Leisureplex Coolock, Holy Trinity Primary School, St Kevins Junior Primary School, Grange Community College, Ardscoil La Sallee School, baldoye Industriar Area Northside Shopping Centre Beaumont Hospital Artane Castle Shopping Centre
	Rank				
	Deprived Geographic Areas & Areas Underserved by Public Transport	Serves Kilmore and Darndale RAPID areas. Serves areas with a higher deprivation indexes than routes 3 & 4	Serves Kilmore and Darndale RAPID areas. Serves areas with a higher deprivation indexes than routes 3 & 4	Serves RAPID areas at Edemore and Kilbarrack. However, these areas are comparatively smaller than those served by routes 1 and 2. Serves areas with lower deprivation indexes than routes 1 & 2	Serves Kilmore and Darndale RAPID areas. Also, serves RAPID areas at Edemore and Kilbarrack. However, these areas are comparatively smaller than those served by routes 1 and 2. Serves areas with a lower deprivation indexes than routes 1 & 2
	Rank				

Stage 2		Section 1 - Main MCA				
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3	Route 4	
Safety	Road Safety	5 Turning Movements 10 Major Junctions 16 Minor / Moderate Junctions	1 Turning Movement 10 Major Junctions	3 Turning Movements 8 Major Junctions 14 Minor / Moderate Junctions	4 Turning Movements 9 Major Junctions 14 Minor / Moderate Junctions	
	Rank					
Archaeological, Architectural and Cultural Heritage	Record of Monument and Places (RMP)	-	-	Proximity to National Monument No. 605. The abbey church & graveyard (RMP DU015-069) are located on north side of Grange Rd, adjacent the route. Road widening proposed along this section.	Proximity to National Monument No. 605. The abbey church & graveyard (RMP DU015-069) are located on north side of Grange Rd, adjacent the route. Road widening proposed along this section.	
		Road widening at Kilmore Rd will directly affect 3 RMP sites (castle, church & graveyard, DU014-073001 to -073003).	-	Road widening at Tonlegee Rd will directly affect 1 RMP site (ecclesiastical enclosure, DU015-076001). Also proximity to 4 others associated with it (church, graveyard, mill & cross; DU015-076002 to -076005).	Road widening at Tonlegee Rd will directly affect 1 RMP site (ecclesiastical enclosure, DU015-076001). Also proximity to 4 others associated with it (church, graveyard, mill & cross; DU015-076002 to -076005).	
		Vicinity of 1 RMP site in Coolock (mound DU015-074).	Vicinity of 1 RMP site in Coolock (mound DU015-074).	Vicinity of holy well (RMP DU015-075), on NW side of Tonlegee Rd.	Vicinity of 1 RMP site in Coolock (mound DU015-074). Vicinity of holy well (RMP DU015-075), on NW side of Tonlegee Rd.	
	Protected Structures	3 protected structures adjacent route (Woodville Ho. on Kilmore Rd, Milestone on Malahide Rd / Belcamp Ln, & Moat at Fry-Cadbury Factory). Road-widening will directly affect surviving boundary wall associated with Woodville House. No road-widening proposed at other two locations.	1 protected structure adjacent route (Milestone on Malahide Rd / Belcamp Ln). No road-widening proposed at this location.	No protected structures adjacent route.	1 protected structure adjacent route (Woodville Ho. on Kilmore Rd). Road-widening will directly affect surviving boundary wall associated with Woodville House.	
	Archeological Conservation Areas	No ACAs.	No ACAs.	No ACAs	No ACAs.	
	Summary	Road widening at Kilmore Rd will directly affect 3 RMP sites (castle, church & graveyard). Also potential that features associated with the RMP sites might extend into the road, albeit heavily truncated or indeed removed by subsequent road development. Road-widening will directly affect surviving boundary wall associated with Woodville House (protected structure).	No RMP sites in proximity & no protected structures directly affected.	Road widening at Tonlegee Rd will directly affect 1 RMP site (ecclesiastical enclosure). There is also potential that features associated with the ecclesiastical sites, on Grange Rd (National Monument) and Tonlegee Rd (RMP), might extend into the road, albeit heavily truncated or indeed removed by subsequent road development. The site on Tonlegee Rd includes an ecclesiastical enclosure; such enclosures can be extensive and can contain associated elements outside of the inner sanctum that holds the church & burial ground. No protected structures affected.	Road widening will directly affect 4 RMP sites (ecclesiastical enclosure at Tonlegee Rd, & castle, church & graveyard at Kilmore Rd). There is also potential that features associated with the ecclesiastical sites, on Grange Rd (National Monument) and Tonlegee Rd (RMP), might extend into the road, albeit heavily truncated or indeed removed by subsequent road development. The site on Tonlegee Rd includes an ecclesiastical enclosure; such enclosures can be extensive and can contain associated elements outside of the inner sanctum that holds the church & burial ground. Road-widening will directly affect surviving boundary wall associated with Woodville House (protected structure).	
	Rank					
	Flora and Fauna	EU Sites	European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses - River Santry).	'European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses - River Santry).	'European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses - River Santry).	'European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses - River Santry).
		Ecological Land Take	Land-take is expected to result in loss of some mature trees through the route - green space of parkland and roadside verges comprising planted trees and mature tree lines, particularly Land-take is expected to result in loss of some mature trees through the route - green space of parkland and roadside verges comprising planted trees and mature tree lines, particularly along Kilmore Road in private grounds as well as amenity areas along sections of this route option.	Land-take is expected to result in loss of scattered mature trees within and alongside the route along the Malahide Road, where fringes of amenity grassland/parkland, roadside verges and central median including planted trees would be impacted.	Land-take is expected to result in loss of scattered mature trees within and alongside the route along the Malahide Road, where fringes of amenity grassland/parkland, roadside verges and central median including planted trees would be impacted.	Land-take is expected to result in loss of some mature trees throughout the route - green space of parkland, roadside verges including planted trees and mature tree lines, particularly along Grange Road and Oscar Traynor Road of this route option as well as fringes of amenity areas.
		Areas of high ecological values	Areas of ecological interest occur along sections of the route option, including the intersection of the R107 with the Santry River as well as parts of the Kilmore Road. Potential impacts on foraging, roosting and/or nesting species of birds and bats.	Areas of ecological interest are limited along this route option, including the Santry River intersection. Low potential for impacts on foraging, roosting and/or nesting species of birds and bats.	Areas of ecological interest are limited along this route option, a number of discrete areas comprising tree copses/linear treeline feature occur along Grange Road. Low potential for impacts on foraging, roosting and/or nesting species of birds and bats.	Areas of ecological interest occur along sections of the route option, include a number of discrete areas comprising tree copses and linear treeline features of mature trees along Grange Road and Kilmore Road. Potential impacts on foraging, roosting and/or nesting species of birds and bats.
Salmonid Watercourses		The water quality status of the River Santry is ranked as "poor" upstream of the R107 and is of "unassigned" status where the R107 intersects the river. The Santry River is also characterised as "at risk". (refer to EPA maps, River Waterbody, WFD Status 2010-2015; River Waterbodies Risk).	The water quality status of the River Santry is ranked as "poor" upstream of the R107 and is of "unassigned" status where the R107 intersects the river. The Santry River is also characterised as "at risk". (refer to EPA maps, River Waterbody, WFD Status 2010-2015).	The water quality status of the River Santry is ranked as "poor" upstream of Tonlegee Road and is of "unassigned" status where Tonlegee Road intersects the river. The Santry River is also characterised as "at risk". (refer to EPA maps, River Waterbody, WFD Status 2010-2015).	The water quality status of the River Santry is ranked as "poor" upstream of Tonlegee Road and is of "unassigned" status where Tonlegee Road intersects the river. The Santry River is also characterised as "at risk". (refer to EPA maps, River Waterbody, WFD Status 2010-2015).	
Salmonid Watercourses		The Santry River is not designated as a salmonid river (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988).	The Santry River is not designated as a salmonid river (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988).	The Santry River is not designated as a salmonid river (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988).	The Santry River is not designated as a salmonid river (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988).	

Stage 2		Section 1 - Main MCA					
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3	Route 4		
Environment	Soils and Geology	NBDC Records	Watercourses along this route include the Santry River which is not envisaged to be impacted along this route option.	Watercourses along this route include the Santry River which is not envisaged to be impacted along this route option.	Watercourses along this route include the Santry River which is not envisaged to be impacted along this route option.	Watercourses along this route include the Santry River which is not envisaged to be impacted along this route option.	
		Invaseive Species	A number of invasive plant species are identified from NBDC databases or were recorded, mostly common medium impact species such as <i>Buddleja davidii</i> .	No invasive plant species were recorded along this route option.	No invasive plant species were recorded along this route option.	A number of invasive plant species are identified from NBDC databases or were recorded, mostly common medium impact species such as <i>Buddleja davidii</i> .	
		Summary	Some impacts are envisaged to flora and fauna along this route option including loss of mature trees and areas of potential faunal connectivity.	Overall, while some impacts are envisaged to flora and fauna along this route option, comparatively less disturbance and/or loss of features/supporting habitat expected relative to route options 1 and 4.	Overall, while some impacts are envisaged to flora and fauna along this route option, comparatively less disturbance and/or loss of features/supporting habitat expected relative to route options 1 and 4.	Impacts to flora and fauna are expected to be greatest along this route option owing to the considerable loss of areas of high ecological value and connectivity.	
		Rank					
		Soils and Geology	Groundwater Vulnerability	According to the GSI GeoUrban Viewer, the groundwater vulnerability codes are Low (L) and locally High (H) or Extreme (X). As such groundwater vulnerability is assessed as low through a vast extent of this main route option. Small areas of high or extreme groundwater vulnerability also occur along stretches of this main scheme option.	According to the GSI GeoUrban Viewer, the groundwater vulnerability codes are Low (L) and locally High (H) or Extreme (X). As such groundwater vulnerability is assessed as low through a vast extent of this main route option. There are areas of high or extreme groundwater vulnerability occur beneath 'Made' ground.	According to the GSI GeoUrban Viewer, the groundwater vulnerability codes are Low (L). As such groundwater vulnerability is assessed as low through the proposed main route option.	According to the GSI GeoUrban Viewer, the groundwater vulnerability codes are Low (L). As such groundwater vulnerability is assessed as low through the proposed main route option.
			Bedrock Geology	According to the GSI GeoUrban Viewer, the Bedrock Geology 100k predominantly comprises of the Malahide Formation, that is Argillaceous bioclastic limestone, shale. There southern extent of this main route option traverses Calcareous shale, limestone conglomerate of the Tober Colleen Formation and Dark Limestone and Shale ('calp) of the Lucan Formation.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) predominantly comprises of the Malahide Formation, that is Argillaceous bioclastic limestone, shale. There southern extent of this main route option is characterised by Calp of the Lucan Formation - dark grey to black limestone & shale Calcareous shale, limestone conglomerate of the Tober Colleen Formation and Dark Limestone and Shale of the Lucan Formation.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) predominantly comprises of the Malahide Formation, that is Argillaceous bioclastic limestone, shale. There southern extent of this main route option is characterised by Calcareous shale, limestone conglomerate of the Tober Colleen Formation and by Calp - Dark Limestone and Shale of the Lucan Formation as well as Dark grey to black limestone & shale also of the Lucan Formation.	According to the GSI GeoUrban Viewer, the Bedrock Geology 100k predominantly comprises of the Malahide Formation, that is Argillaceous bioclastic limestone, shale. There southern extent of this main route option traverses Calcareous shale, limestone conglomerate of the Tober Colleen Formation and by Calp - Dark Limestone and Shale of the Lucan Formation as well as Dark grey to black limestone & shale also of the Lucan Formation.
			Bedrock Aquifer	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), which describes bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), which describes bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), which describes bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), which describes bedrock which is moderately productive only in local zones.
			Geological Heritage Site	According to the GSI GeoUrban Viewer, a considerable area of the proposed main route option will run along 'Made' ground. Alluvial soils are present under a culverted stretch of the Santry River associated with the Malahide Road.	According to the GSI GeoUrban Viewer, a considerable area of the proposed main route option will run along 'Made' ground. Alluvial soils run under a culverted stretch of the Santry River associated with the Malahide Road.	According to the GSI GeoUrban Viewer, a considerable area of the proposed route option will run along 'Made' ground. Alluvial mineral soil is associated the Santry River which intersects the Malahide Road and Tonleegge Road, alluvial soils also occur through a largely culverted unnamed stream through Grange Road.	According to the GSI GeoUrban Viewer, a considerable area of the proposed route option will run along 'Made' ground. Alluvial mineral soil is associated the Santry River which intersects the Malahide Road and Tonleegge Road, alluvial soils also occur through a largely culverted unnamed stream through Grange Road.
			Industrial Emissions Directive (IED)/Intergrated Pollution Control (IPC) facilities (potential contamination)	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.
			Soils	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.
			Landtake and geology	Land-take of considerable curtilage and green space is proposed along much of this scheme option. Although, much of the proposed bus lanes and cycle lanes would largely use existing infrastructure, considerable disturbance of soils would be expected.	Land-take of some curtilage and green space is proposed along much of this scheme option. Although, much of the proposed bus lanes and cycle lanes would largely use existing infrastructure, some disturbance of soils would be expected.	Land-take of significant curtilage and green space is proposed along much of this scheme option. The proposed scheme option would implicate loss of curtilage particularly along Tonleegge Road, significant disturbance of soils would be expected.	Land-take of significant curtilage and green space is proposed along much of this scheme option. The proposed scheme option would implicate loss of curtilage particularly along Tonleegge Road, Oscar Traynor Road and Kilmore Road, significant disturbance of soils would be expected.
			Summary	Overall, construction of priority northbound and southbound bus lanes along this main scheme option would implicate extensive disturbance of soils and thus considerable impacts to soil and geology.	Overall, construction of priority northbound and southbound bus lanes along this main scheme option would implicate local disturbance of soils and thus localised impacts to soil and geology.	Overall, construction of priority northbound and southbound bus lanes along this main scheme option would implicate significant disturbance of soils and thus significant impacts to soil and geology.	Overall, construction of priority northbound and southbound bus lanes along this main scheme option would implicate significant disturbance of soils and thus significant impacts to soil and geology.
	Overall, some disturbance to soil and geology is expected for Main Route Option 1 associated with the area of land take. There is an associated risk of impacts to soil and geology.			Overall, disturbance to soil and geology is expected to be lowest for Main Route Option 2 associated with the comparatively lower area of land take. The risk of impacts to soil and geology is expected to be low.	Overall, some disturbance to soil and geology is expected for Main Route Option 3 associated with the area of land take. There is an associated risk of impacts to soil and geology.	Overall, disturbance to soil and geology is expected to be most significant for Main Route Option 4 associated with the high area of land take. The risk of impacts to soil and geology is expected to be significant.	
	Rank						
	OPW National Flood Hazards Map	According to the OPW National Flood Hazard Maps, historic flood events have occurred close to the northern stretches of this main route option and recurring flooding close to the R107 intersection with Collins Road East, associated with the Mayne and Naniken Rivers.	According to the OPW National Flood Hazard Maps, historic flood events have occurred close to the northern stretches of this main route option and recurring flooding close to the R107 intersection with Collins Road East, associated with the Mayne and Naniken Rivers.	According to the OPW National Flood Hazard Maps, recurring flooding occurs close to the R107 intersection with Collins Road East, associated with the Naniken River.	According to the OPW National Flood Hazard Maps, there have been no records of historic flooding along the extent of this main route option.		

Stage 2		Section 1 - Main MCA			
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3	Route 4
Hydrology	Fluvial Areas of flood risk (AEP 10%)	There is a 10% risk of a (1 in 10 year extreme flood event) - (1% Annual Exceedance Potential - Fluvial flooding) occurring along the Santry River at Tonleeg Road and the Malahide Road (R107) (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).	There is a 10% risk of a (1 in 10 year extreme flood event) - (1% Annual Exceedance Potential - Fluvial flooding) occurring along Santry River along the Malahide Road (R107) (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).	There is 10% risk of a (1 in 10 year extreme flood event) - (1% Annual Exceedance Potential - Fluvial flooding) occurring from the Santry River which intersects the R107 and Tonleeg Road (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).	There is 10% risk of a (1 in 10 year extreme flood event) - (1% Annual Exceedance Potential - Fluvial flooding) occurring from the Santry River which intersects the R107 and Tonleeg Road (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).
	Fluvial Areas of flood risk (AEP 1%)	There is a risk of a (1 in 100 year extreme flood event) at the R107/ Clongriffin Main Street intersection (under construction) and where the R107 traverses the Santry River (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).	There is a risk of a (1 in 100 year extreme flood event) (1% Annual Exceedance Potential - Fluvial flooding) at the R107/ Clongriffin Main Street intersection (under construction) and where the R107 traverses the Santry River (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).	There is a risk of a (1 in 100 year extreme flood event) (1% Annual Exceedance Potential - Fluvial flooding) at the R107/ Clongriffin Main Street intersection (under construction) and where Tonleeg Road traverses the Santry River (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).	There is a risk of a (1 in 100 year extreme flood event) (1% Annual Exceedance Potential - Fluvial flooding) at the R107/ Clongriffin Main Street intersection (under construction) and where Tonleeg Road traverses the Santry River (refer to pre-liminary Flood Risk Assessment CFRAMs maps, Ref: 2019 / Map / 238 / A).
	Pluvial Flood Risk (AEP 10%)	Pluvial flooding is at risk of occurring (10% AEP) at numerous point locations in extreme rainfall events, particularly along Clongriffin Main Street, Oscar Traynor Road, Kilmore Road and points along the R107.	Pluvial flooding is at risk of occurring at numerous point locations in extreme rainfall events, particularly along Clongriffin Main Street and points along the R107.	Pluvial flooding is at risk of occurring at numerous point locations in extreme rainfall events along the R107.	Pluvial flooding is at risk of occurring at numerous point locations in extreme rainfall events, particularly along Oscar Traynor Road and Kilmore Road.
	Summary	Overall, there is a 10% risk of a (1 in 10 year extreme flood event - AEP) risk of fluvial flooding occurring at two points along the Santry River. There is also a considerable risk of pluvial flooding (10% AEP) occurring at multiple points of Main Route Option 1.	Overall, there is a 10% risk of a (1 in 10 year extreme flood event - AEP) risk of fluvial flooding occurring at one point along the Santry River. There is also a risk of pluvial flooding (10% AEP) occurring primarily along the northern stretches of Main Route Option 2.	Overall, there is a 10% risk of a (1 in 10 year extreme flood event - AEP) risk of fluvial flooding occurring at one point along the Santry River. There is also a risk of pluvial flooding (10% AEP) occurring particularly on Grange Road and the west of Tonleeg Road of Main Route Option 3.	Overall, there is a 10% risk of a (1 in 10 year extreme flood event - AEP) risk of fluvial flooding occurring at one point along the Santry River. There is also a risk of pluvial flooding (10% AEP) occurring particularly on Oscar Traynor Road, Kilmore Road, Grange Road and the west of Tonleeg Road of Main Route Option 4.
Rank					
Landscape and visual		No protected views or trees are located along the route. The protected structures Woodville House and the ruins near Pinebrook Rise are located along the route but these will not be impacted upon by the works Visual impact on properties: Potential High Impact on properties along Grange Road and Tongalee Road due to road widening and removal of grass verges and trees. A new road will be constructed through a greenfield site to facilitate the construction of Clongriffin Main St	No protected views, trees or structures are located along the route Makes use of the existing Malahide Road corridor with no particular landscape or visual sensitivities. The majority of the proposed scheme will utilise the existing bus lanes/facilities. A new road will be constructed through a greenfield site to facilitate the construction of Clongriffin Main St	No protected views or trees are located along the route. The protected structures Church of St John the Evangelist is located along the route but it will not be impacted upon by the works Visual impact on properties: Potential High Impact on properties along Oscar Traynor Road and Kilmore Road due to road widening and removal of grass verges and trees	No protected views or trees are located along the route. The protected structures Woodville House, the ruins near Pinebrook Rise and the Church of St John the Evangelist are located along the route but these will not be impacted upon by the works Visual impact on properties: Potential High Impact on properties along Grange Road, Tongalee Road, Oscar Traynor Road and Kilmore Road due to road widening and removal of grass verges and trees
Rank					
Noise and Vibration	Qualitative noise assessment	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.
	Geodirectory (Building types)	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.
	Sensitive Receptors	The route option will involve the construction of 2 new links which will lead to construction noise impacts.	The route option will involve the construction of 2 new links which will lead to construction noise impacts.	The route option involves the construction of no new links. The option is based on existing road links.	The route option involves the construction of no new links. The option is based on existing road links.
	New Road Construction	There will be some instances of public land acquisition for the construction of the link roads and for the road widening and realignment works for the provision of bus lanes on the Malahide Road. In addition, Oscar Traynor Road (Public land acquisition) and Kilmore Road (both public and private land acquisition) will be widened using verge/green space on either side of the road to provide bus and cycle lanes. Land take from gardens will be required in places along Kilmore Road	There will be some instances of public land acquisition for the construction of the link roads and for the road widening and realignment works for the provision of bus lanes on the Malahide Road.	There will be some instances of public and private land acquisition which will be required for significant road widening on Grange Road and Tonleeg Road. Land take would be required from front gardens along the western half of Tonleeg Road.	'There will be some instances of public and private land acquisition which will be required for significant road widening on Grange Road and Tonleeg Road. Land take would be required from front gardens along the western half of Tonleeg Road. In addition, Oscar Traynor Road (Public land acquisition) and Kilmore Road (both public and private land acquisition) will be widened using verge/green space on either side of the road to provide bus and cycle lanes. Land take from gardens will be required in places along Kilmore Road
	Land take	Land-acquisition would include: - 70 gardens would be affected - 50 garden parking spaces - 50 on-street spaces and 30 commercial parking spaces would be removed.	Land-acquisition would include: - 20 gardens would be affected - 50 on-street residential parking spaces would be removed.	Land-acquisition would: - approximately 150 gardens on Tonleeg Road - None would have parking spaces removed - considerable acquisition of green space.	Land-acquisition would: - Approximately 200 gardens affected - 50 garden parking spaces, 50 on-street spaces, 30 commercial spaces removed - considerable acquisition of green space.
	Summary	The route option has the potential for both positive and negative impacts to the existing noise environment. There is construction of 2 new links and some considerable land take.	The route option has the potential for both positive and negative impacts to the existing noise environment. There is construction of 2 new links, however of all the options, this has the lowest no. of properties garden being affected.	The route option has the potential for both positive and negative impacts to the existing noise environment. This has some considerable land take.	The route option has the potential for both positive and negative impacts to the existing noise environment. This has the highest number of properties garden being affected of all the route options,
Rank					

Stage 2		Section 1 - Main MCA			
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3	Route 4
Air Quality	Qualitative noise assessment	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.
	Geodirectory (Building types)	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.	A review of An Post Geodirectory data indicated that Building use along the route option is predominately residential.
	Sensitive Receptors	The route option will involve the construction of 2 new links which will lead to construction air quality impacts mainly dust generation.	"The route option will involve the construction of 2 new links which will lead to construction air quality impacts mainly dust generation.	The route option involves the construction of no new links. The option is based on existing road links.	The route option involves the construction of no new links. The option is based on existing road links.
	New Road Construction	There will be some instances of public land acquisition for the construction of the link roads and for the road widening and realignment works for the provision of bus lanes on the Malahide Road. In addition, Oscar Traynor Road (Public land acquisition) and Kilmore Road (both public and private land acquisition) will be widened using verge/green space on either side of the road to provide bus and cycle lanes. Land take from gardens will be required in places along Kilmore Road	There will be some instances of public land acquisition for the construction of the link roads and for the road widening and realignment works for the provision of bus lanes on the Malahide Road.	There will be some instances of public and private land acquisition which will be required for significant road widening on Grange Road and Tonlegee Road. Land take would be required from front gardens along the western half of Tonlegee Road.	"There will be some instances of public and private land acquisition which will be required for significant road widening on Grange Road and Tonlegee Road. Land take would be required from front gardens along the western half of Tonlegee Road. In addition, Oscar Traynor Road (Public land acquisition) and Kilmore Road (both public and private land acquisition) will be widened using verge/green space on either side of the road to provide bus and cycle lanes. Land take from gardens will be required in places along Kilmore Road
	Land take	Land-acquisition would include: - 70 gardens would be affected - 50 garden parking spaces - 50 on-street spaces and 30 commercial parking spaces would be removed.	Land-acquisition would include: - 20 gardens would be affected - 50 on-street residential parking spaces would be removed.	Land-acquisition would: - approximately 150 gardens on Tonlegee Road - None would have parking spaces removed - considerable acquisition of green space.	Land-acquisition would: - Approximately 200 gardens affected - 50 garden parking spaces, 50 on-street spaces, 30 commercial spaces removed - considerable acquisition of green space.
	Summary	The route option has the potential for both positive and negative impacts to the existing air quality environment. There is construction of 2 new links and some considerable land take.	The route option has the potential for both positive and negative impacts to the existing air quality environment. There is construction of 2 new links, however of all the options, this has the lowest no. of properties garden being affected.	The route option has the potential for both positive and negative impacts to the existing air quality environment. This has some considerable land take.	The route option has the potential for both positive and negative impacts to the existing air quality environment. This has the highest number of properties garden being affected of all the route options,
	Rank				
Land Use and Built Environment		Lan Use Amenity, Open Space, Recreational/Sports: Potential medium impact to open spaces along Kilmore Road Parking Removed: '51 On-Street Residential 31 Commercial 47 Garden Parking	'Lan Use Amenity, Open Space, Recreational/Sports: The scheme makes use of the existing Malahide Road corridor. The majority of the proposed scheme will utilise the existing bus lanes/facilities. Some removal of green space is required to complete the missing section of Clongriffin Main St Low impact on existing land use character and built environment Parking Removed: 8 Gardens will have parking capacity reduced. Commercial parking in front of Goblet Pub will be reduced.	Lan Use Amenity, Open Space, Recreational/Sports: Potential medium impact to open spaces along Grangemore Park and by Santry River Parking Removed: 8 Gardens will have parking capacity reduced. Commercial parking in front of Goblet Pub will be reduced.	Lan Use Amenity, Open Space, Recreational/Sports: Potential medium impact to open spaces along Kilmore Road, Grangemore Park and by Santry River Parking Removed: 51 On-Street Residential 31 Commercial 47 Garden Parking
	Rank				

Stage 2		CBC1 - Fairview MCA				
Assessment Criteria	Sub-Criteria	Scheme 1	Scheme 2	Scheme 3	Scheme 4	
Economy	Capital Cost	Total - €3.6M Cost per KM - €8M <i>Indicative Scheme Infrastructure Works Cost - €2.2 M</i> <i>Private Land Costs - €1.4M</i>	Total - €2.4M Cost per KM - €5.25M <i>Indicative Scheme Infrastructure Works Cost - €1.9M</i> <i>Private Land Costs - €0.5M</i>	Total - € 2.9 M Cost per KM - € 6.25M <i>Indicative Scheme Infrastructure Works Cost - €2 M</i> <i>Private Land Costs - €0.9M</i>	Total - € 2.5M Cost per KM - €8M <i>Indicative Scheme Infrastructure Works Cost - €2.5 M</i> <i>Private Land Costs - € 0 M</i>	
	Rank					
	Journey-time reliability and quality of service	Continious south bound bus lanes, northbound bus lanes start 180m north of junction with Marino Mart. Cycle lanes provided in both directions. Northbound buses must share with general traffic for a 180m section, buses could be delayed here although traffic count data indicates that there is no queueing at this section	Continuous bus lanes in both directions. No cycle lanes provided, cyclists detour via Haverty Road or share the bus lane. It is likely some cyclists will continue to cycle in the bus lane and this may delay buses	Continious south bound bus lanes, northbound bus lanes start 180m north of junction with Marino Mart. Cycle lanes provided northbound Northbound buses must share with general traffic for a 180m section, buses could be delayed here although traffic count data indicates that there is no queueing at this section. Buses must share lane with southbound cyclists, delays should be minimal as this section is downhill for cyclists	Continious northbound bus and cycle lane Buses must share lane with southbound cyclists, delays should be minimal as this section is downhill for cyclists	
Rank						
Integration	Land Use Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	
	Rank					
	Total residential and employment (10 Mins)	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	
	Rank					
	Public Transport Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	
	Rank					
	Traffic Network Integration	No traffic diversions as part of this option	No traffic diversions as part of this option	No traffic diversions as part of this option	This option involves rerouting all inbound traffic via Copeland Avenue and Howth Road. This will likely have a significant impact on journey times for general traffic	
Rank						
Accessibility and Social Inclusion	Cyclists and pedestrian Integration	Cycle lanes provided in both directions for whole length	Cyclists in both directions diverted around Haverty/Carleton Rd or share the bus lanes	Northbound cycle lane provided, southbound cyclists share the bus lane or divert via Hegarty Road	Northbound cycle lane provided, southbound cyclists share the bus lane or divert via Hegarty Road	
	Rank					
	High Volume Trip Attractors (Education, Health, Commercial, Retail, Leisure)	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	
Rank						
Safety	Deprived Geographic Areas & Areas Underserved by Public Transport	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	
	Rank					
Flora and Fauna	Archaeological, Architectural and Cultural Heritage	Road Safety	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	
		Rank				
		Zone of Archaeological Potential (ZAP)	Traverses ZAP around Fairview Park (RMP DU018-067), related to burial site on N side of Clontarf Rd.	Traverses ZAP around Fairview Park (RMP DU018-067), related to burial site on N side of Clontarf Rd.	Traverses ZAP around Fairview Park (RMP DU018-067), related to burial site on N side of Clontarf Rd.	Traverses ZAP around Fairview Park (RMP DU018-067), related to burial site on N side of Clontarf Rd.
		Record of Monument and Places (RMP)	3 protected structures adjacent route (62 & 64 Malahide Road, 1 Marino Crescent).	3 protected structures adjacent route (62 & 64 Malahide Road, 1 Marino Crescent).	3 protected structures adjacent route (62 & 64 Malahide Road, 1 Marino Crescent).	3 protected structures adjacent route (62 & 64 Malahide Road, 1 Marino Crescent).
		Archaeological Conservation Areas	Adjacent Marino Casino ACA. As the route follows an existing road in a suburban environment, the ACA will be unaffected.	Adjacent Marino Casino ACA. As the route follows an existing road in a suburban environment, the ACA will be unaffected.	Adjacent Marino Casino ACA. As the route follows an existing road in a suburban environment, the ACA will be unaffected.	Adjacent Marino Casino ACA. As the route follows an existing road in a suburban environment, the ACA will be unaffected.
	Summary	It is possible that additional burials might be uncovered within the RMP ZAP for Fairview Park, though again, any surviving features are likely to have been disturbed by the existing road. The boundaries of 2 protected structures on Malahide Rd (62 & 64) may be affected by road widening.	It is possible that additional burials might be uncovered within the RMP ZAP for Fairview Park, though again, any surviving features are likely to have been disturbed by the existing road. No protected structures directly affected.	It is possible that additional burials might be uncovered within the RMP ZAP for Fairview Park, though again, any surviving features are likely to have been disturbed by the existing road. The boundaries of 2 protected structures on Malahide Rd (62 & 64) may be affected by road widening.	It is possible that additional burials might be uncovered within the RMP ZAP for Fairview Park, though again, any surviving features are likely to have been disturbed by the existing road. No protected structures directly affected.	
	Rank					
	EU Sites	There are no European or Nationally designated Sites of Conservation of Importance downstream of this route option in Dublin Bay.	There are no European or Nationally designated Sites of Conservation of Importance downstream of this route option in Dublin Bay.	There are no European or Nationally designated Sites of Conservation of Importance downstream of this route option in Dublin Bay.	There are no European or Nationally designated Sites of Conservation of Importance downstream of this route option in Dublin Bay.	
	Ecological Land Take	Land take will be greatest along this scheme and will include loss of garden frontage including planted trees and other planted recreational features. Garden frontage will be impacted on both sides of the scheme.	Land-take will result in the loss of garden frontage resulting in impacts on flora and fauna. Although, a lower number of private gardens would be impacted than scheme 2.	Land-take will result in the loss of garden frontage resulting along the southbound bus and cycle lanes low impacts envisaged to ecological features along this scheme with minimal impacts expected to flora and fauna.	The proposed bus corridor would utilise existing infrastructure with no impact on ecological features along this scheme with minimal impacts expected to flora and fauna.	
	Areas of high ecological values	The route option would impinge on areas of low ecological potential or connectivity primarily along the southern end of the Malahide Road with low impacts to flora and fauna. Few semi-mature trees will be impacted along this scheme with generally low ecological potential for foraging and breeding birds or foraging bats.	The route option would impinge on garden frontage which is of low ecological potential or connectivity for foraging and breeding birds or foraging bats with low impacts to flora and fauna.	Ecological supporting features along this scheme primarily include planted semi-mature trees and planted recreational features. Thus, impacts to ecological supporting features is expected to be low.	Ecological supporting features are not envisaged to be impacted along this scheme.	
Riparian environment	There are no watercourses through this stretch of the Malahide Road.	There are no watercourses through this stretch of the Malahide Road.	There are no watercourses through this stretch of the Malahide Road.	There are no watercourses through this stretch of the Malahide Road.		

	Invasive Species	Records for a number of medium impact invasive alien species have been obtained from the National Biodiversity Database. Three-cornered Garlic, Buddleja and Traveller's Joy are noted to occur along this scheme.	Records for a number of medium impact invasive alien species have been obtained from the National Biodiversity Database. Three-cornered Garlic, Buddleja and Traveller's Joy are noted to occur along this scheme.	Records for a number of medium impact invasive alien species have been obtained from the National Biodiversity Database. Three-cornered Garlic, Buddleja and Traveller's Joy are noted to occur along this scheme.	Records for a number of medium impact invasive alien species have been obtained from the National Biodiversity Database. Three-cornered Garlic, Buddleja and Traveller's Joy are noted to occur along this scheme.
	Protected Species	Records for a number of protected species have been obtained from the National Biodiversity Database. Bird species recorded along the scheme include Mallard (Annex II), Hen Harrier (Annex I), Rock Pigeon (Annex II), Common Wood Pigeon (Annex II), Mediterranean Gull (Annex II),	Records for a number of protected species have been obtained from the National Biodiversity Database. Bird species recorded along the scheme include Mallard (Annex II), Hen Harrier (Annex I), Rock Pigeon (Annex II), Common Wood Pigeon (Annex II), Mediterranean Gull (Annex II),	Records for a number of protected species have been obtained from the National Biodiversity Database. Bird species recorded along the scheme include Mallard (Annex II), Hen Harrier (Annex I), Rock Pigeon (Annex II), Common Wood Pigeon (Annex II), Mediterranean Gull (Annex II),	Records for a number of protected species have been obtained from the National Biodiversity Database. Bird species recorded along the scheme include Mallard (Annex II), Hen Harrier (Annex I), Rock Pigeon (Annex II), Common Wood Pigeon (Annex II), Mediterranean Gull (Annex II),
	Summary	Minor impacts to flora and fauna are expected along this scheme.	Minor impacts to flora and fauna are expected along this scheme.	Minor impacts to flora and fauna are expected along this scheme, however lower than 2 and 4 due to reduced land take on the eastern side.	No impacts to flora and fauna would be expected through this scheme, slight advantage over other options.
	Rank				
Soils and Geology	Groundwater Vulnerability	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is predominately Moderate (M). As such groundwater vulnerability is assessed as moderate.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is predominately Moderate (M). As such groundwater vulnerability is assessed as moderate.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is predominately Moderate (M). As such groundwater vulnerability is assessed as moderate.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is predominately Moderate (M). As such groundwater vulnerability is assessed as moderate.
	Bedrock Geology	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale.
	Bedrock Aquifer	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), that is a locally important aquifer which is described as bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), that is a locally important aquifer which is described as bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), that is a locally important aquifer which is described as bedrock which is moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI), that is a locally important aquifer which is described as bedrock which is moderately productive only in local zones.
	Geological Heritage Site	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils consist predominately of "Made ground".	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils consist predominately of "Made ground".	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils consist predominately of "Made ground".	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils consist predominately of "Made ground".
	Industrial Emissions Directive (IED)/Intergated Pollution Control (IPC) facilities (potential)	According to the GSI Geological Heritage viewer and EPA GIS data, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer and EPA GIS data, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer and EPA GIS data, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer and EPA GIS data, there are no geological heritage sites along the route.
	Soils	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.
	Landtake and geology	Land take from this scheme would implicate minor impacts to soils and geology over predominantly built ground	Land take from this scheme would implicate minor impacts to soils and geology over predominantly built ground	Land take from this scheme would implicate minor impacts to soils and geology over predominantly built ground	Land take is not envisaged through this scheme option with no impacts expected on soils and geology.
	Summary	Land take along this scheme would result in minor impacts to soils and geology.	Land take along this scheme would result in minor impacts to soils and geology.	Land take along this scheme would result in minor impacts to soils and geology, and land take is less than Schemes 2 and 4	Land take is not expected along this scheme with no impacts to soils and geology expected.
	Rank				
Hydrology	Fluvial Areas of flood risk (AEP 10%)	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.
	Fluvial Areas of flood risk (AEP 1%)	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.
	Flood Management Plans	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.	Flood Risk Assessment CFRAMs maps are not available for the southern extent of the Malahide Road.
	OPW National Flood Hazards Map	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along Fairview Park associated with the tidal reaches of the River Tolka close to the south of the scheme.	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along Fairview Park associated with the tidal reaches of the River Tolka close to the south of the scheme.	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along Fairview Park associated with the tidal reaches of the River Tolka close to the south of the scheme.	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along Fairview Park associated with the tidal reaches of the River Tolka close to the south of the scheme.
	Pluvial Flood Risk (AEP 10%)	There is a 1 in 10 year risk of pluvial flooding (10% Annual Exceedance Potential AEP) along a considerable area of this scheme (Refer to: Map number E09DCC_EXPCD_F0_02).	There is a 1 in 10 year risk of pluvial flooding (10% Annual Exceedance Potential AEP) along a considerable area of this scheme (Refer to: Map number E09DCC_EXPCD_F0_02).	There is a 1 in 10 year risk of pluvial flooding (10% Annual Exceedance Potential AEP) along a considerable area of this scheme (Refer to: Map number E09DCC_EXPCD_F0_02).	There is a 1 in 10 year risk of pluvial flooding (10% Annual Exceedance Potential AEP) along a considerable area of this scheme (Refer to: Map number E09DCC_EXPCD_F0_02).
	CFRAMS	Flooding is a risk through the extent of this scheme option. However, CFRAMs maps are not available to assess the potential risk of future flood events. The River Tolka which is located to the south of this scheme is highlighted as an area prone to tidal flooding. Fluvial flooding may also occur along the extent of bus and cycle lanes (10% AEP).	Flooding is a risk through the extent of this scheme option. However, CFRAMs maps are not available to assess the potential risk of future flood events. The River Tolka which is located to the south of this scheme is highlighted as an area prone to tidal flooding. Fluvial flooding may also occur along the extent of bus and cycle lanes (10% AEP).	Flooding is a risk through the extent of this scheme option. However, CFRAMs maps are not available to assess the potential risk of future flood events. The River Tolka which is located to the south of this scheme is highlighted as an area prone to tidal flooding. Fluvial flooding may also occur along the extent of bus and cycle lanes (10% AEP).	Flooding is a risk through the extent of this scheme option. However, CFRAMs maps are not available to assess the potential risk of future flood events. The River Tolka which is located to the south of this scheme is highlighted as an area prone to tidal flooding. Fluvial flooding may also occur along the extent of bus and cycle lanes (10% AEP).
	Summary	Overall, there is high risk of pluvial flooding along this scheme while there increased risk of tidal flooding from the River Tolka.	Overall, there is high risk of pluvial flooding along this scheme while there increased risk of tidal flooding from the River Tolka.	Overall, there is high risk of pluvial flooding along this scheme while there increased risk of tidal flooding from the River Tolka.	Overall, there is high risk of pluvial flooding along this scheme while there increased risk of tidal flooding from the River Tolka.
	Rank				
Environment	Landscape and visual	Tree Protection/Preservation: Low/Medium Impact: Removal of small trees/hedges from private land required	Tree Protection/Preservation: Low Impact: Removal of small trees/hedges from private land required	Tree Protection/Preservation: Low Impact: Removal of small trees/hedges from private land required	Tree Protection/Preservation: Little/ No Impact
		Landscape Impact on Protected Structures: Little/No Impact	Landscape Impact on Protected Structures: Little/No Impact	Landscape Impact on Protected Structures: Little/No Impact	Landscape Impact on Protected Structures: Little/No Impact
		Landscape Impact on Architectural Conservation: Potential Low/Medium. Impact to railings of protected buildings	Landscape Impact on Architectural Conservation: Little/No Impact	Landscape Impact on Architectural Conservation: Potential Low/Medium. Impact to railings of protected buildings	Landscape Impact on Architectural Conservation: Little/No Impact
		Visual Impact on Properties: Potential Medium Impact - Impact to some properties on Malahide Road	Visual Impact on Properties: Potential Low Impact - Minor impact to some properties on Malahide Road	Visual Impact on Properties: Potential Low/Medium Impact - Minor impact to some properties on Malahide Road	Visual Impact on Properties: Little/No Impact
		Impact on Streetscape/Townscape: Med Impact to Malahide Road	Impact on Streetscape/Townscape: Low Impact to Malahide Road	Impact on Streetscape/Townscape: Low/Medium Impact to Malahide Road	Impact on Streetscape/Townscape: Little/No Impact
	Rank				

Noise and Vibration	Qualitative noise assessment	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to sensitive receptors due to road widening.</p> <p>Should traffic be moved closer to sensitive receptors (or traffic volumes increase), there may be an increase in noise.</p>	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to sensitive receptors due to road widening.</p> <p>Should traffic be moved closer to sensitive receptors (or traffic volumes increase), there may be an increase in noise.</p>	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to sensitive receptors due to road widening on the eastern side, bus lanes on both sides of the roads would increase noise at sensitive receptors compared to option 6.</p> <p>Should traffic be moved closer to sensitive receptors (or traffic volumes increase), there may be an increase in noise.</p>	<p>The bus lane on the western side of the carriageway may result in an increase in noise for the sensitive receptor to the west of the scheme.</p> <p>Diversion of traffic down Copeland Avenue is expected to result in significant increases in noise.</p>
	Geodirectory (Building types)	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Charlemont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Charlemont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Charlemont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Charlemont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>
	Sensitive Receptors	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>
	Land take	<p>There will be some instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>	<p>There will be some instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>	<p>There will be some instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>	<p>There will be no instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>
	Summary	<p>The route option has the potential for both positive and negative impacts to the existing noise environment. There are no major issues that have the potential to give rise to significant impacts.</p>	<p>The route option has the potential for both positive and negative impacts to the existing noise environment. There are no major issues that have the potential to give rise to significant impacts.</p>	<p>The route option has the potential for both positive and negative impacts to the existing noise environment. There are no major issues that have the potential to give rise to significant impacts.</p>	<p>Significant disadvantage due to the diversion of traffic down Copeland Avenue</p>
Rank					
Air Quality	Qualitative noise assessment	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to sensitive receptors due to road widening.</p> <p>Should traffic be moved closer to sensitive receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.</p>	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to sensitive receptors due to road widening.</p> <p>Should traffic be moved closer to sensitive receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.</p>	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to sensitive receptors due to road widening on the eastern side, bus lanes on both sides of the roads would increase pollutant concentrations at sensitive receptors compared to option 6.</p> <p>Where traffic is moved closer to sensitive receptors (or traffic volumes increase) at the eastern side, there may be an increase in pollutant concentrations.</p>	<p>The bus lane on the western side of the carriageway may result in an increase in pollutant concentrations for the sensitive receptor to the west of the scheme.</p> <p>Diversion of traffic down Copeland Avenue is expected to result in significant increases in pollutant concentrations.</p>
	Geodirectory (Building types)	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Claremont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Claremont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Claremont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>	<p>A review of An Post Geodirectory data indicated that Building use along the Malahide Road is predominately residential. There is some commercial building use at the northern end of the scheme between the junction of Copeland Avenue and Claremont Road. The southern end of Malahide Road between the junction of Crescent Place and Marino Crescent is predominately commercial and with some both residential & commercial use.</p> <p>Building use along the section at Fairview Park is predominately commercial, while building use along Annesley Bridge Road is predominately residential.</p>
	Sensitive Receptors	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>	<p>There is one Creche (25 Malahide Rd), 2 educational establishments (Mario College, St. Joseph's CBS Secondary School) and 1 place of worship (Fairview hall), and 1 area of high amenity (Fairview Park) along the scheme option that meets the EPA definition of a noise sensitive location.</p>
	Land take	<p>There will be some instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>	<p>There will be some instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>	<p>There will be some instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>	<p>There will be no instances of private land acquisition along the Malahide Road. In addition, there will be some instances of public land acquisition along the Malahide Road and along the R105 at Fairview Park</p>
	Summary	<p>The route option has the potential for both positive and negative impacts to air quality. There are no major issues that have the potential to give rise to significant impacts.</p>	<p>The route option has the potential for both positive and negative impacts to air quality. There are no major issues that have the potential to give rise to significant impacts.</p>	<p>The route option has the potential for both positive and negative impacts to air quality. There are no major issues that have the potential to give rise to significant impacts.</p>	<p>Significant disadvantage due to the diversion of traffic down Copeland Avenue</p>
Rank					
Land Use and Built Environment		<p>Land acquisition will be highest along this scheme and will impact garden frontage along both sides of the Malahide Road.</p> <p>Private parking within front gardens may also be removed with no alternative on-street parking available along both sides of Malahide Road.</p> <p>Positive impacts will include the provision of north and southbound cycle lanes.</p> <p>There would likely be changes to traffic management structures with potentially increased volumes of general traffic along southern sections of the Malahide Road.</p>	<p>Land acquisition will impact garden frontage along both sides of this scheme. Land acquisition is expected to be reduced in comparison to scheme 2.</p> <p>Car parking in private gardens will not be impacted.</p> <p>Cycle lanes will also be diverted through alternative routes.</p> <p>There would likely be changes to traffic management structures with potentially increased volumes of general traffic along southern sections of the Malahide Road.</p>	<p>Land-acquisition will include impacts to garden frontage along the eastern side of the scheme to an undisclosed number of private properties.</p> <p>Land-changes along this scheme would primarily impact traffic management structures with no impact to existing infrastructure or garden frontage proposed.</p> <p>Residential and on-street car parking is not envisaged to be impacted.</p> <p>Cycle lanes will be provided northbound with diverted cycle lane southbound (not shown on drawings).</p> <p>Buses would primarily utilise designated lanes although, northbound buses would share a section with general traffic.</p>	<p>Land-changes along this scheme would primarily impact traffic management structures with no impact to existing infrastructure or garden frontage proposed.</p> <p>On-street car parking would be removed along Copeland Avenue.</p> <p>Cycle lanes would be provided northbound with diverted cycle lanes expected to be constructed southbound.</p> <p>General traffic would be diverted along Copeland Avenue with increases in traffic volumes resulting in significant traffic congestion.</p>

		Overall, considerable changes to land-use including land-acquisition are expected along this scheme.	Overall, low changes to land-use are expected on both sides of this scheme with a number of private residents expected to be impacted through loss of garden frontage.	Overall, some impacts to land-use are expected along this scheme. Although, impacts to traffic management structures and potential increases in traffic volumes are likely.	Overall, considerable impacts to traffic management structures are expected with considerable changes to traffic volumes along Copeland Avenue.
	Rank				

Stage 2		Section 2 - Annesley Bridge to Custom House		
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3
Economy	Capital Cost	Total - €10.3M Cost per KM - €4.7M <i>Indicative Scheme Infrastructure Works Cost - €10.3M</i> <i>Private Land Costs - €0M</i>	Total - €9.6M Cost per KM - €4.6M <i>Indicative Scheme Infrastructure Works Cost - €9.6M</i> <i>Private Land Costs - €0M</i>	Total - €8M Cost per KM - €4.4M <i>Indicative Scheme Infrastructure Works Cost - €7.9M</i> <i>Private Land Costs - €0M</i>
	Rank			
	Journey-time reliability and quality of service	This scheme has a total length of 2.2 km and from initial journey time calculations, would take an average of 10-11 mins. Full bus priority is provided and so the reliability of these journey times would be good	This scheme has a total length of 2.1 km and from initial journey time calculations, would take an average of 9-10 mins. Full bus priority is provided and so the reliability of these journey times would be good	This scheme has a total length of 1.8 km and from initial journey time calculations, would take an average of 7-8 mins. Full bus priority is provided and so the reliability of these journey times would be good
	Rank			
Integration	Land Use Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank			
	Residential Catchment (10 Mins)	44397	37878	33337
	Employment Catchment (10 Mins)	58630	53825	49883
	Total residential and employment (10 Mins)	103028	91703	83220
	Rank			
	Public Transport Integration	Does not integrate as well with Connolly Station	Does not integrate as well with Connolly Station	This route integrates better with National Rail, DART, and Bus Services at Connolly Station
	Rank			
	Transport Network Integration	One lane on Ballbough/Summerhill in either direction will be converted to a bus lane. A portion of Poplar Row will be converted to a bus only section and traffic will have to detour via Annesley PI	New bus only right turn onto Killarney Place would impact on 5 Lamps junction. Some section of traffic lanes on Gardiner St required	Some sections of traffic lanes will be converted to bus lanes on Amiens St
	Rank			
Accessibility and Social Inclusion	Cyclists and pedestrian Integration	Ballybough Road is a secondary cycle route. Interrupted cycle lanes will be provided along Ballybough Rd, No Cycling Provided along Gardnier St	Killarney St and Sean McDermott St are secondary cycle routes, Amien St is a primary cycle route. Cycle lanes not provided on Killarney St, Sean MacDermott St Lower, and Garnier St. Diversion along Amiens St	Amiens St is a primary cycle route. New segregated cycle lanes will be provided in both directions. Footpaths on Amiens St will be widened.
	Rank			
	High Volume Trip Attractors (Education, Health, Commercial, Retail, Leisure)	Croke Park, O'Connell Secondary School, DIT Mountjoy & Cathal Brugha, Talbot St Area	Marino College of Further Education, DIT Cathal Brugha, Talbot St Area, Our Lady of Lourdes Church	Marino College of Further Education, Connelly Station, IFSC
	Rank			
Safety	Deprived Geographic Areas & Areas Underserved by Public Transport	Serves areas with a v high deprivation index scores along Ballybough/Summerhill	Does not serve as many areas with high deprivation index scores as option 1	Does not serve as many areas with high deprivation index scores as option 1
	Rank			
Safety	Road Safety	3 Turning Movements	2 Turning Movements	0 Turning Movements
	Rank			
	Record of Protected Monuments	1 RMP site on route (sea wall, DU018-020505). Potential that similar features might survive beneath the road, albeit heavily truncated or indeed removed by subsequent road development.	1 RMP site on route (sea wall, DU018-020505). Potential that similar features might survive beneath the road, albeit heavily truncated or indeed removed by subsequent road development.	1 RMP site on route (sea wall, DU018-020505).
		Proximity to 2 RMP sites (bridge & weir, DU018-022001 &-022002).	-	-

Archaeological, Architectural and Cultural Heritage	Protected Structures	3 protected structures on route: Railway bridge (RPS 877), canal bridge (RPS 910), both on Ballybough Rd, & railway bridge (stone columns & arches) on Beresford Place (RPS 881).	2 protected structures on route: Railway bridge (RPS 888) on North Strand Rd, & railway bridge (stone columns & arches) on Beresford Place (RPS 881).	1 protected structure on route: Railway bridge (RPS 888) on North Strand Rd.
		75 protected structures immediately adjacent route, the majority of which are houses. Most notable is Custom House.	62 protected structures immediately adjacent route, the majority of which are houses. Most notable is Custom House.	39 protected structures immediately adjacent route, the majority of which are houses.
	Summary	<p><i>Summary of Constraints:</i></p> <p>Potential that similar features might survive beneath the road in vicinity of RMP site (sea wall), albeit heavily truncated or indeed removed by subsequent road development.</p> <p>With regard to the numerous protected structures along the route, the CBC works will not extend beyond the existing road, though footpaths may need to be reduced in places. Given that the structures have clearly defined boundaries they are unlikely to be impacted as they can easily be avoided.</p>	<p><i>Summary of Constraints:</i></p> <p>Potential that similar features might survive beneath the road in vicinity of RMP site (sea wall), albeit heavily truncated or indeed removed by subsequent road development.</p> <p>With regard to the numerous protected structures along the route, the CBC works will not extend beyond the existing road, though footpaths may need to be reduced in places. Given that the structures have clearly defined boundaries they are unlikely to be impacted as they can easily be avoided.</p>	<p><i>Summary of Constraints:</i></p> <p>Potential that similar features might survive beneath the road in vicinity of RMP site (sea wall), albeit heavily truncated or indeed removed by subsequent road development.</p> <p>With regard to the numerous protected structures along the route, the CBC works will not extend beyond the existing road, though footpaths may need to be reduced in places. Given that the structures have clearly defined boundaries they are unlikely to be impacted as they can easily be avoided.</p>
Rank				
Flora and Fauna	EU Sites	European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses River Tolka and River Liffey).	European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses River Tolka and River Liffey).	European Sites of Conservation of Importance downstream of this route option in Dublin Bay (potential connectivity via watercourses River Tolka and Grand Canal/River Liffey).
	Ecological Land Take	Land-take will be minimal along this route option with little impact to private or public grounds identified, other than the planted triangle at Memorial Road/Amiens Street/Beresford place.	Land-take will be minimal along this route option with little impact to private or public grounds identified, other than the planted triangle at Memorial Road/Amiens Street/Beresford place.	Land-take will be minimal along this route option with little impact to flora and fauna on private or public grounds identified
	Areas of high ecological values	Owing to the built-up nature of this sub-option, the route would not impinge on areas of ecological potential or connectivity. Minimal impacts on flora and fauna expected.	Owing to the built-up nature of this sub-option, the route would not impinge on areas of ecological potential or connectivity. Minimal impacts on flora and fauna expected.	Owing to the built-up nature of this sub-option, the route would not impinge on areas of ecological potential or connectivity. Minimal impacts on flora and fauna expected.
	Watercourses	Watercourses along this route include the Royal Canal, River Liffey and the River Tolka (estuarine influence in this stretch) which are not envisaged to be impacted along this route option.	Watercourses along this route include the Royal Canal, River Liffey and the River Tolka (estuarine influence in this stretch) which are not envisaged to be impacted along this route option.	Watercourses along this route include the Royal Canal and the River Tolka (estuarine influence in this stretch) which are not envisaged to be impacted along this route option.
	Areas of high ecological values	Nationally designated sites include Dublin Bay proposed National Heritage Area (pNHA 000206) which is downstream of the Annesley Road Bridge as part of the River Tolka and the Royal Canal pNHA (002103).	Nationally designated sites include Dublin Bay proposed National Heritage Area (pNHA 000206) which is downstream of the Annesley Road Bridge as part of the River Tolka and the Royal Canal pNHA (002103).	Nationally designated sites include Dublin Bay proposed National Heritage Area (pNHA 000206) which is downstream of the Annesley Road Bridge as part of the River Tolka and the Royal Canal pNHA (002103).
	Water Quality	'The water quality status of the River Tolka is ranked as "moderate" and is characterised as "at risk" as a transitional waterbody at Annesley Road Bridge. The water quality status of the River Liffey ('Liffey Estuary Upper') is ranked as at "moderate" and is characterised as "at risk" as a transitional waterbody at Custom House Quay. The water quality of the Royal Canal at Ballybough-Sommerhill Road is ranked as "good" (refer to the River Waterbody WFD Status 2010-2015; EPA Water Quality report).	The water quality status of the River Tolka is ranked as "moderate" and is characterised as "at risk" as a transitional waterbody at Annesley Road Bridge. The water quality status of the River Liffey ('Liffey Estuary Upper') is ranked as at "moderate" status and is characterised as "at risk" as a transitional waterbody at Custom House Quay. The water quality of the Royal Canal at Amiens Street is ranked as "good" (refer to the River Waterbody WFD Status 2010-2015; EPA Water Quality report).	'The water quality status of the River Tolka is ranked as "moderate" and is characterised as "at risk" as a transitional waterbody at Annesley Road Bridge. The water quality of the Royal Canal at Amiens Street is ranked as "good" (refer to the River Waterbody WFD Status 2010-2015; EPA Water Quality report).

Environment

		The River Tolka and the River Liffey are not designated as salmonid rivers (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988). There are records for both Trout and Salmon from both rivers however.	The River Tolka and the River Liffey are not designated as salmonid rivers (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988). There are records for both Trout and Salmon from both rivers however.	The River Tolka and the River Liffey are not designated as salmonid rivers (refer to the First Schedule of S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations, 1988). There are records for both Trout and Salmon from both rivers however.
	Invasive Species	A number of high impact invasive plant species were noted in close proximity to or within the route option. The presence of Giant Hogweed was noted immediately upstream and downstream of the River Tolka at Annesley Bridge Road, during walkover surveys. Medium impact plant species along the route include <i>Buddleja</i> .	A number of high impact invasive plant species were noted in close proximity to or within the route option. The presence of Giant Hogweed was noted immediately upstream and downstream of the River Tolka at Annesley Bridge Road, during walkover surveys. Medium impact plant species along the route include <i>Buddleja</i> .	A number of high impact invasive plant species were noted in close proximity to or within the route option. The presence of Giant Hogweed was noted immediately upstream and downstream of the River Tolka at Annesley Bridge Road, during walkover surveys. Medium impact plant species along the route include <i>Buddleja</i> .
	Summary	Owing to the built-up nature of this sub option routing, minimal impacts on flora and fauna are expected.	Owing to the built-up nature of this sub option routing, minimal impacts on flora and fauna are expected.	Owing to the built-up nature of this sub option routing, minimal impacts on flora and fauna are expected.
	Rank			
Soils and Geology	Groundwater Vulnerability	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is low (L). As such groundwater vulnerability is assessed as low through the proposed route option.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is Low (L). As such groundwater vulnerability is assessed as low through the proposed route option.	According to the GSI GeoUrban Viewer, the groundwater vulnerability code is Low (L). As such groundwater vulnerability is assessed as low through the proposed route option.
	Bedrock Geology	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale (calp).	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) is characterised by Calp of the Lucan Formation - Dark limestone & shale.
	Bedrock Aquifer	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI) which describes as bedrock as moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI) which describes bedrock as moderately productive only in local zones.	According to the GSI GeoUrban Viewer, the bedrock aquifer beneath the area is classified as Locally Important (LI) which describes bedrock as moderately productive only in local zones.
		According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils comprises of "Made ground".	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils comprises of "Made ground".	According to the GSI GeoUrban Viewer, the groundwater Teagasc Soils comprises of "Made ground".
	Soils	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) comprises of the Dark grey to black limestone & shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) comprises of the Dark grey to black limestone & shale.	According to the GSI GeoUrban Viewer, the Bedrock Geology (100k Series) comprises of the Dark grey to black limestone & shale.
	Geological Heritage Site	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.	According to the GSI Geological Heritage viewer, there are no geological heritage sites along the route.
	Industrial Emissions Directive (IED)/Intergrated Pollution Control (IPC) facilities (potential contamination)	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.	According to the EPA Envision viewer, there are no licenced waste, IED or IPC facilities along this route option.
	Landtake and geology	Proposed bus and cycle lanes would use existing infrastructure with impacts to soil and geology expected to be minimal.	Proposed bus and cycle lanes would use existing infrastructure with impacts to soil and geology expected to be minimal.	Proposed bus and cycle lanes would use existing infrastructure with impacts to soil and geology expected to be minimal.
	Summary	Overall, impacts to soil and geology along route option 1 are expected to be minimal.	Overall, impacts to soil and geology along route option 2 are expected to be minimal.	Overall, impacts to soil and geology along route option 3 are expected to be minimal.
	Rank			
	Fluvial Areas of flood risk (AEP 1%)	There is a 1% AEP(1 in 100 year Annual Exceedance Potential) risk of Fluvial flooding along the River Tolka at Ballybough Road and Poplar Road (refer to pre-liminary Flood Risk Assessment CFRAMs maps Ref: 2019 / Map / 238 / A).	There is a 1% AEP(1 in 100 year Annual Exceedance Potential) risk of Fluvial flooding along the River Tolka at North Strand Road (refer to pre-liminary Flood Risk Assessment CFRAMs maps Ref: 2019 / Map / 238 / A).	There is a 1% AEP(1 in 100 year Annual Exceedance Potential) risk of Fluvial flooding along the River Tolka at North Strand Road (refer to pre-liminary Flood Risk Assessment CFRAMs maps Ref: 2019 / Map / 238 / A).

Hydrology	Pluvial Flood Risk (AEP 10%)	Pluvial flooding is at risk (10% AEP) of occurring at numerous point locations in extreme rainfall events, particularly through the northern section on this scheme option (refer to pre-liminary Flood Risk Assessment CFRAMs maps Ref: 2019 / Map / 238 / A).	Pluvial flooding is at risk (10% AEP) of occurring at numerous point locations in extreme rainfall events, particularly through the northern section on this scheme option (refer to pre-liminary Flood Risk Assessment CFRAMs maps Ref: 2019 / Map / 238 / A).	Pluvial flooding is at risk of occurring at numerous point locations in extreme rainfall events, particularly through the northern section on this scheme option (refer to pre-liminary Flood Risk Assessment CFRAMs maps Ref: 2019 / Map / 238 / A).
	OPW National Flood Hazards Map	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along the northern end of this Route Option (Popular Row, North Strand Road & Ballybough Road), associated with the River Tolka. No Flood events are known to have occurred along Summerhill Road, Gardiner Street, Beresford Place/Memorial Road and Custom House Quay.	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along the northern end of this Route Option (Popular Row & North Strand Road), associated with the River Tolka. No Flood events are known to have occurred along Killarney Street/Sean MacDermott Street, Gardiner Street, Beresford Place/Memorial Road and Custom House Quay.	The OPW National Flood Hazard Mapping web site was consulted. Historic flood events have been recorded along the northern end of this Route Option (Popular Row & North Strand Road), associated with the River Tolka. No Flood events are known to have occurred along Amien Street.
	Summary	Overall, there is a risk of fluvial associated with the River Tolka. There is a risk of coastal flooding along northern and southern ends of Route Option 1. There is a considerable risk of pluvial flooding (10% AEP) at localised points along proposed bus and cycle lanes.	Overall, there is a risk of fluvial associated with the River Tolka. There is a risk of coastal flooding at the northern and southern ends of Route Option 2. There is a considerable risk (10% AEP) of pluvial flooding at localised points along proposed bus and cycle lanes.	Overall, there is a risk of fluvial associated with the River Tolka. There is a risk of coastal flooding at the northern and southern ends of Route Option 3. There is a considerable risk (10% AEP) of pluvial flooding at localised points along proposed bus and cycle lanes.
Rank				
Landscape and visual		Impact on Streetscape: Potential low impact to all streets on this route Impact on protected structures/monuments: Several protected buildings/monuments along the route, the proposed works will not affect these locations	Impact on Streetscape: Potential low impact to Amiens St. Potential Medium/High Impact to Killarney St and Sean McDermott St Impact on protected structures/monuments: Several protected buildings/monuments along the route, the proposed works will not affect these locations although the junction around the 5 lamps monument would need to be rearranged to allow for bus movements	Impact on Streetscape: This scheme should have a positive impact on the streetscape of Amiens St with wider less cluttered footpaths provided and a narrower roadway in places.. Impact on protected structures/monuments: Several protected buildings/monuments along the route, the proposed works will not affect these locations
Rank				
Noise and Vibration	Qualitative noise assessment	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.	There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening. Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in noise.
	Geodirectory (Building types)	A review of An Post Geodirectory data indicated that Building use is both residential and commercial along this route option.	A review of An Post Geodirectory data indicated that Building use is both residential and commercial along this route option, however the predominant use is residential.	A review of An Post Geodirectory data indicated that Building use is both residential and commercial along this route option, however the predominant use is residential along North Strand Road and commercial along Amiens Street.
	Summary	The route option has the potential for both positive and negative impacts to the existing noise environment. The route follows existing built up areas. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to the existing noise environment. The route follows existing built up areas. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to the existing noise environment. The route follows existing built up areas. There are no major issues that have the potential to give rise to significant impacts.
Rank				

Air Quality	Qualitative noise assessment	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening.</p> <p>Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.</p>	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening.</p> <p>Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.</p>	<p>There will be some instances where the proposed scheme will result in traffic being relocated closer to receptors due to road widening.</p> <p>Should traffic be moved closer to receptors (or traffic volumes increase), there may be an increase in pollutant concentrations.</p>
	Geodirectory (Building types)	A review of An Post Geodirectory data indicated that Building use is both residential and commercial along this route option.	A review of An Post Geodirectory data indicated that Building use is both residential and commercial along this route option, however the predominant use is residential.	A review of An Post Geodirectory data indicated that Building use is both residential and commercial along this route option, however the predominant use is residential along North Strand Road and commercial along Amiens Street.
	Summary	The route option has the potential for both positive and negative impacts to the existing air quality environment. The route follows existing built up areas. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to the existing air quality environment. The route follows existing built up areas. There are no major issues that have the potential to give rise to significant impacts.	The route option has the potential for both positive and negative impacts to the existing air quality environment. The route follows existing built up areas. There are no major issues that have the potential to give rise to significant impacts.
Rank				
Land Use and Built Environment		<p>Aproximately 60 On-Street Residential parking spaces removed.</p> <p>Approximately 30 On-Street Commercial parking spaces removed.</p>	<p>Aproximately 75 On-Street Residential parking spaces removed.</p> <p>Approximately 50 On-Street Commercial parking spaces removed.</p>	<p>Approximately 45 On-Street Commercial parking spaces removed.</p>
Rank				

Stage 2		Section 2 - Custom House & Quays			
Assessment Criteria	Sub-Criteria	Route 1	Route 2	Route 3	Route 4
Economy	Capital Cost	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Journey-time reliability and quality of service	This scheme has a total length of 685m and from initial journey time calculations, would take an average of 3 -3.5 mins. Full bus priority is provided.	This scheme has a total length of 675m and from initial journey time calculations, would take an average of 3-3.5 mins. Full bus priority is provided	This scheme has a total length of 705m and from initial journey time calculations, would take an average of 4-4.5 mins. Full bus priority is provided, however turbulence caused by weaving movements on Talbot Bridge could potentially delay buses as right turning vehicles will be required to cross the bus lane	This scheme has a total length of 695m and from initial journey time calculations, would take an average of 4-4.5mins. Full bus priority is provided, however turbulence caused by weaving movements on Talbot Bridge could potentially delay buses as right turning vehicles will be required to cross the bus lane
Rank					
Integration	Land Use Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Residential Catchment (10 mins) Employment Catchment (10 mins)				
	Total residential and employment (10 mins)	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Public Transport Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Traffic Network Integration	Two lanes of southbound general traffic from Memorial Place Removed	One lane of southbound general traffic from Memorial Place and one northbound lane from Beresford Place removed	Two lanes of southbound general traffic from Memorial Place and one lane from Talbot Bridge removed.	Takes one lane of general traffic from Memorial Place, one lane from Beresford Place and one lane from Talbot Bridge.
Rank					
Accessibility and Social Inclusion	Cyclists and pedestrian Integration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
Accessibility and Social Inclusion	High Volume Trip Attractors (Education, Health, Commercial, Retail, Leisure)	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
Accessibility and Social Inclusion	Deprived Geographic Areas & Areas Underserved by Public Transport	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
Safety	Road Safety	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
Environment	Archaeological, Architectural and Cultural Heritage	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Flora and Fauna	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Soils and Geology	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Hydrology	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Landscape and visual	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Noise and Vibration	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
Rank					
Environment	Air Quality	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
	Rank				
	Land Use and Built Environment	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion	Options considered equal under this criterion
Rank					