

# APPENDIX C: SECTION 1 DETAILED MCA

Stage 2		Section 1 - East of Säilín to Skerrit Roundabout		
Assessment Criteria	Sub-Criteria	Option 1	Option 2	Option 4
Economy	Capital Cost	3m wider cross section when compared to Option 2	Least costly option	3m wider cross section when compared to Option 2
	Rank			
	Bus Journey Time and Reliability	<p>All options have the same route for buses, so in free flowing traffic would have similar journey times, however, Option 1 has dedicated bus lanes provided for the length of the route and so will have faster journey times during peak hours compared to Option 4 which drops the bus lane for a short period meaning buses will have to mix with general traffic for 120m.</p> <p>Option 2 requires the inbound traffic and inbound busses to cross over each other in 2 locations, this can be managed using signals to give bus priority, however it is likely these extra crossings would still cause bus delays, meaning Option 2 performs worse for average bus journey time.</p>	<p>All options have the same route for buses, so in free flowing traffic would have similar journey times, however, Option 1 has dedicated bus lanes provided for the length of the route and so will have faster journey times during peak hours compared to Option 4 which drops the bus lane for a short period meaning buses will have to mix with general traffic for 120m.</p> <p>Option 2 requires the inbound traffic and inbound busses to cross over each other in 2 locations, this can be managed using signals to give bus priority, however it is likely these extra crossings would still cause bus delays, meaning Option 2 performs worse for average bus journey time.</p>	<p>All options have the same route for buses, so in free flowing traffic would have similar journey times, however, Option 1 has dedicated bus lanes provided for the length of the route and so will have faster journey times during peak hours compared to Option 4 which drops the bus lane for a short period meaning buses will have to mix with general traffic for 120m.</p> <p>Option 2 requires the inbound traffic and inbound busses to cross over each other in 2 locations, this can be managed using signals to give bus priority, however it is likely these extra crossings would still cause bus delays, meaning Option 2 performs worse for average bus journey time.</p>
	Rank			
Integration	Land Use Integration	All options require widening of the road cross section, however as all routes follows an existing road no significant changes to land use are anticipated as a result of any of the options.	All options require widening of the road cross section, however as all routes follows an existing road no significant changes to land use are anticipated as a result of any of the options.	All options require widening of the road cross section, however as all routes follows an existing road no significant changes to land use are anticipated as a result of any of the options.
	Rank			
	Transport Integration	In terms of Transport Integration, Option 1 is likely to provide the highest level of service for general traffic as it provides a full cross section for the whole length of the route so prevents merging movements and allows busses and traffic to run on the same traffic light phase. Option 2 performs the worst as the traffic detours and the 2 extra crossings of inbound busses and traffic are likely to negatively impact the capacity of the road for inbound traffic.	In terms of Transport Integration, Option 1 is likely to provide the highest level of service for general traffic as it provides a full cross section for the whole length of the route so prevents merging movements and allows busses and traffic to run on the same traffic light phase. Option 2 performs the worst as the traffic detours and the 2 extra crossings of inbound busses and traffic are likely to negatively impact the capacity of the road for inbound traffic.	In terms of Transport Integration, Option 1 is likely to provide the highest level of service for general traffic as it provides a full cross section for the whole length of the route so prevents merging movements and allows busses and traffic to run on the same traffic light phase. Option 2 performs the worst as the traffic detours and the 2 extra crossings of inbound busses and traffic are likely to negatively impact the capacity of the road for inbound traffic.
	Rank			
	Cyclist Integration	Option 1 provides a continuous dedicated cycle track for both inbound and outbound cyclists for the entirety of section 1. This is the case for all proposed options for section 1 and thus, is considered equal in criterion to all other options.	Option 2 provides a continuous dedicated cycle track for both inbound and outbound cyclists for the entirety of section 1. This is the case for all proposed options for section 1 and thus, is considered equal in criterion to all other options.	Option 4 provides a continuous dedicated cycle track for both inbound and outbound cyclists for the entirety of section 1. This is the case for all proposed options for section 1 and thus, is considered equal in criterion to all other options.
	Rank			
	Pedestrian Integration	Option 1 provides a continuous dedicated footpath for pedestrians on both sides of the road for the entirety of section 1. This is the case for all proposed options for section 1 and thus, is considered equal in criterion to all other options.	Option 2 provides a continuous dedicated footpath for pedestrians on both sides of the road for the entirety of section 1. This is the case for all proposed options for section 1 and thus, is considered equal in criterion to all other options.	Option 4 provides a continuous dedicated footpath for pedestrians on both sides of the road for the entirety of section 1. This is the case for all proposed options for section 1 and thus, is considered equal in criterion to all other options.
	Rank			
	Vulnerable Groups	All options perform equally for this criterion.	All options perform equally for this criterion.	All options perform equally for this criterion.
Rank				
Safety	Road Safety	<p>All options would improve road safety by providing dedicated segregated cycle lanes in both directions and improved footpaths and crossings and.</p> <p>However Option 2 would require that inbound traffic make 4 more turning movements, each of these would be a potential conflict point, furthermore it would divert inbound traffic past residential areas and local schools in Renmore. For these reasons Option 2 performs worse than options 2 &amp; 3 for Road Safety.</p>	<p>All options would improve road safety by providing dedicated segregated cycle lanes in both directions and improved footpaths and crossings and.</p> <p>However Option 2 would require that inbound traffic make 4 more turning movements, each of these would be a potential conflict point, furthermore it would divert inbound traffic past residential areas and local schools in Renmore. For these reasons Option 2 performs worse than options 2 &amp; 3 for Road Safety.</p>	<p>All options would improve road safety by providing dedicated segregated cycle lanes in both directions and improved footpaths and crossings and.</p> <p>However Option 2 would require that inbound traffic make 4 more turning movements, each of these would be a potential conflict point, furthermore it would divert inbound traffic past residential areas and local schools in Renmore. For these reasons Option 2 performs worse than options 2 &amp; 3 for Road Safety.</p>
	Rank			

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Assessment Criteria	Sub-Criteria	Option 1	Option 2	Option 4
Environment	Archaeological, Architectural and Cultural Heritage	No significant impacts are anticipated as a result of any of these options.  Therefore they perform equally for these criteria.	No significant impacts are anticipated as a result of any of these options.  Therefore they perform equally for these criteria.	No significant impacts are anticipated as a result of any of these options.  Therefore they perform equally for these criteria.
	Rank			
	Biodiversity	SPA and SAC boundary within 100m of western most section of the route. OI/SCI species potentially within disturbance distance. Tree removal (with potential root features (PRFs)) could disturb/impact bat species (roosts) and birds if undertaken during the breeding season. Appropriate mitigation needed. Tree constraints survey would be needed by arb specialist prior to any removal considerations. Non-native flora species present along the route that may need an appropriate management plan.	As option 1	3m less widening of the road cross section than the other options, less trees removed, less hedgerow removed, less grassland removed.
	Rank			
	Soils and Geology	All options require widening of the road cross section and related earthworks.  However no significant issues or impacts are anticipated as a result of any of the options.  For this reason all options score equally for this criterion.	All options require widening of the road cross section and related earthworks.  However no significant issues or impacts are anticipated as a result of any of the options.  For this reason all options score equally for this criterion.	All options require widening of the road cross section and related earthworks.  However no significant issues or impacts are anticipated as a result of any of the options.  For this reason all options score equally for this criterion.
	Rank			
	Landscape and visual	Requirement to set back the stone walls and hedgerows along the carriageway.  Requirement for tree removal.	Requirement to set back the stone walls and hedgerows along the carriageway.  Requirement for tree removal.  Scores better than the other options due to the slightly lesser tree removal.	Requirement to set back the stone walls and hedgerows along the carriageway.  Requirement for tree removal.
	Rank			
	Noise, vibration and air quality	Noise - Existing carriageway widened to accommodate dedicated bus lanes in both directions and dedicated traffic lanes in both directions. This is an increase from the existing lane layout. Cross section widening maintains traffic lanes at similar distance to Do Minimum scenario, hence changes in traffic noise expected to be not significant.  Air Quality - Existing carriageway widened to accommodate dedicated bus lanes in both directions and dedicated traffic lanes in both directions. This is an increase from the existing lane layout and would likely increase emissions at receptors.	Noise - Requires less widening, however general traffic in the westbound direction would be diverted around Ballyloughane Road, Renmore Avenue and Renmore Road, re-joining Dublin Road at the junction with Renmore Road. This would bring additional traffic volumes from Dublin Road closer to residential receptors, Scoil Chaitríona Junior and Senior and would expose more of the Bon Secours Hospital Galway grounds to higher potential higher traffic noise levels, depending on volumes. This option may provide a potential reduction in traffic noise levels along Dublin Road.  Air Quality - Requires less widening, however general traffic in the westbound direction would be diverted around Ballyloughane Road, Renmore Avenue and Renmore Road, re-joining Dublin Road at the junction with Renmore Road. This would bring traffic from Dublin Road closer to residential receptors, Scoil Chaitríona Junior and Senior and would expose more of the Bon Secours Hospital Galway grounds to higher traffic emissions.	Noise - Requires the same amount of widening as Option 1 except at Renmore Junction, where the inbound bus lane 130 m to either side is dropped, reducing potential impact to nearby receptors.  Air Quality - Requires the same amount of widening as Option 1 except at Renmore Junction, where the inbound bus lane 130 m to either side is dropped, reducing the impact to nearby receptors.
	Rank			
	Land Use and Built Environment	All routes require a similar level of widening along the existing road corridor on Dublin Road, and therefore perform equally for land use and the built environment.  Private land take is required. Land take will include small local green areas (e.g. at entrances to residential estates), large recreational green areas, front gardens, masonry walls, car parks and, trees.  At the pinch point at the junction with Renmore Road larger impacts are anticipated, however this area is looked at in its own sub section (Renmore Road junction sub section) so the impacts that are felt there are not included in this section.	All routes require a similar level of widening along the existing road corridor on Dublin Road, and therefore perform equally for land use and the built environment.  Private land take is required. Land take will include small local green areas (e.g. at entrances to residential estates), large recreational green areas, front gardens, masonry walls, car parks and, trees.  At the pinch point at the junction with Renmore Road larger impacts are anticipated, however this area is looked at in its own sub section (Renmore Road junction sub section) so the impacts that are felt there are not included in this section.	All routes require a similar level of widening along the existing road corridor on Dublin Road, and therefore perform equally for land use and the built environment.  Private land take is required. Land take will include small local green areas (e.g. at entrances to residential estates), large recreational green areas, front gardens, masonry walls, car parks and, trees.  At the pinch point at the junction with Renmore Road larger impacts are anticipated, however this area is looked at in its own sub section (Renmore Road junction sub section) so the impacts that are felt there are not included in this section.
	Rank			
	Climate and Carbon	Provides dedicated bus lanes in both directions along the length of the route, providing the best accommodation for buses	Provides bus lanes in both directions, however it increases the length of the route general traffic must take due to the Ballyloughane Road to Renmore Road diversion, likely increasing carbon emissions	Options that provide the best provision for public transport and active travel are likely to encourage the largest modal shift away from the car and towards lower carbon forms of transport.  Option 2 provides the second best level of service for busses and therefore performs second best for this criterion.
	Rank			