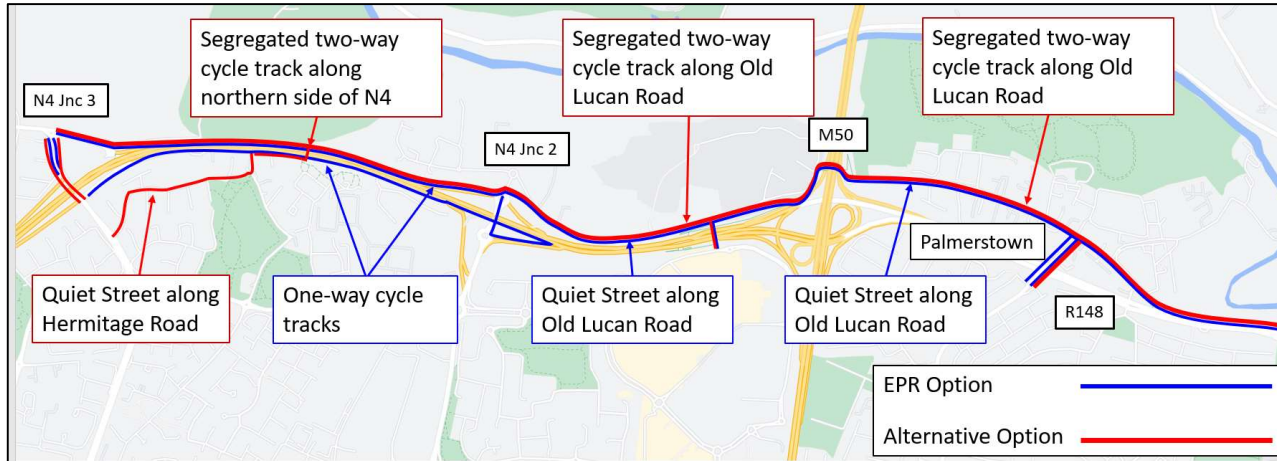


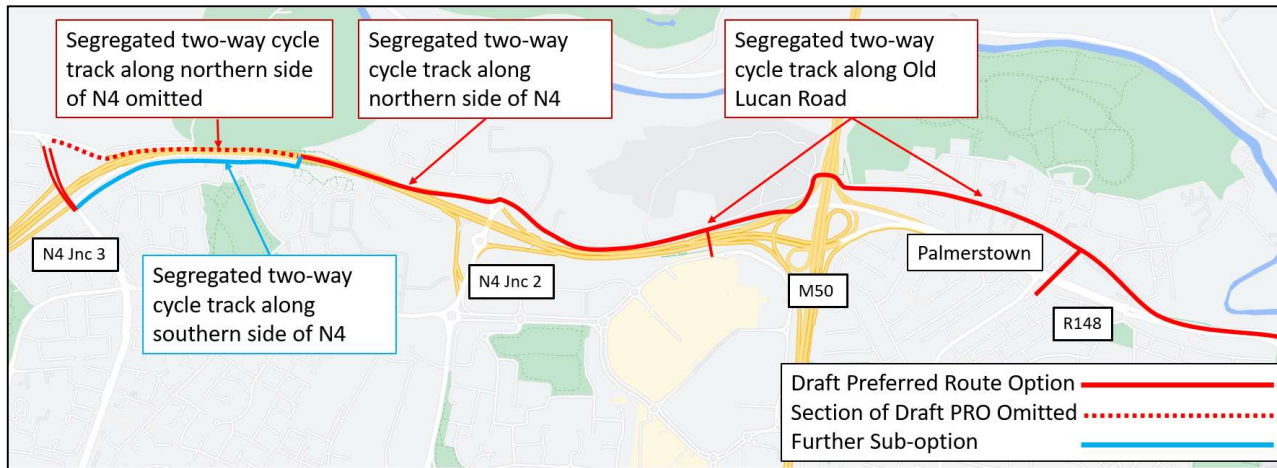


**Appendix D**  
MCA Tables –  
Standard of Cycle  
Facilities

## Standard of Cycle Facilities - EPR Option and Alternative Option



## Alternative Sub-Option



Assessment Ranking		Description		
		Significant advantages over the other options		
		Some advantages over the other options		
		Neutral compared to other options		
		Some disadvantages over other options		
		Significant disadvantages compared to other options		
Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
1. Economy	1.a. Capital Cost	<p><b>Indicative Infrastructure Costs include;</b></p> <ul style="list-style-type: none"> <li>Provide new bus and cycle facilities along parallel side road on WB N4 by widening. This requires the frontal land take of gardens or property owned by adjacent residences (13no.) and commercial areas (1 no.)</li> <li>Provide widening at Jct. 3 E/B road along a 90m length required to meet the cycle width requirement due to a bus lane been introduced down the slip road onto N4.</li> <li>New cycle and bus lane facilities provided near the existing footbridge over the N4 which requires widening and land take to facilitate all the required lanes.</li> <li>Two proposed new Toucan crossings located North of the N4 off the main carriageway.</li> <li>Quiet Street along Old Lucan road either side of the M50.</li> <li>Two single cycle lanes are to be provided on both sides of Kennelsfort Road Lower. This requires widening in certain locations and the associated land take, with certain bay parking been set back at the eastern end of the road. It also results in reducing the width along the whole of road.</li> </ul> <p><b>Land Acquisition costs include;</b></p> <ul style="list-style-type: none"> <li>Approximately 1,900m<sup>2</sup> private land</li> </ul>	<p><b>Indicative Infrastructure Costs include;</b></p> <ul style="list-style-type: none"> <li>3.5m 2-way cycle track along Lucan Road from junction with R835 to start of Jct.3 EB slip (land take required).</li> <li>A 3.5m 2-way cycle track is to be provided parallel to footpath running beside Hermitage Golf Club and Hermitage Medical Clinic. Existing wall is to be replaced with new proposed wall behind cycle track.</li> <li>Existing footpath from existing foot and cycle bridge on N4 to start of entry of Jct.2 slip EB to be widened to provide 3.5m 2-way cycle track and 2m footpath running parallel to N4 (land take required).</li> <li>The segregated 2-way cycle track is to continue down (old) Lucan Road. The road is proposed to have traffic calming measures applied such as road narrowing (to 5.5m), speed bumps and raised tables at junctions with other minor roads. This is to be applied on both sides of the M50.</li> </ul> <p><b>Land Acquisition Costs include;</b></p> <ul style="list-style-type: none"> <li>Approximately 3,600m<sup>2</sup> private land (an additional 16,000m<sup>2</sup> required temporarily, largely to access Hermitage Golf Club for additional planting)</li> <li>Properties and land affected: <ul style="list-style-type: none"> <li>Agricultural land along R835 Lucan Road</li> </ul> </li> </ul>	<p><b>Indicative Infrastructure Costs include;</b></p> <ul style="list-style-type: none"> <li>a one-way cycle track along Lucan Road from junction with R835 to start of Jct.3 EB slip (land take required).</li> <li>A 3.5m 2-way cycle track is to be provided on the south side of N4 WB off-slip and the WB service road from Ballyowen Road to existing bridge at St Loman's</li> <li>A new two-way cycle and pedestrian bridge required over the N4 to replace existing at St Loman's</li> <li>A 3.5m 2-way cycle track is to be provided on north side of N4 parallel to footpath running beside Hermitage Medical Clinic. Existing wall is to be replaced with new proposed wall behind cycle track.</li> <li>Existing footpath from existing foot and cycle bridge on N4 to start of entry of Jct.2 slip EB to be widened to provide 3.5m 2-way cycle track and 2m footpath running parallel to N4 (land take required).</li> <li>The segregated 2-way cycle track is to continue down (old) Lucan Road. The road is proposed to have traffic calming measures applied such as road narrowing (to 5.5m), speed bumps and raised tables at junctions with other minor roads. This is to be applied on both sides of the M50.</li> </ul> <p><b>Land Acquisition Costs include;</b></p> <ul style="list-style-type: none"> <li>Approximately 3,600m<sup>2</sup> private land</li> </ul>

Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
		<ul style="list-style-type: none"> <li>Properties affected:               <ul style="list-style-type: none"> <li>Gardens and frontal land take of 11no. houses along Heritage Garden</li> <li>Commercial land take nr. Jct.3 WB.</li> <li>Frontal land take of 2 houses nr. existing footbridge over N4.</li> <li>Private driveway in front of Palmerstown Lodge Hotel.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Hermitage Golf Club (trees outside fairway))</li> <li>Hermitage Medical Clinic (green space)</li> <li>Sureweld International (Industrial Land)</li> <li>Private driveway lost in front of Palmerstown Lodge Hotel (Kennelsfort Road Lower)</li> </ul>	<ul style="list-style-type: none"> <li>Properties and land affected:               <ul style="list-style-type: none"> <li>Agricultural land along R835 Lucan Road</li> <li>Rear gardens of 16 residential properties on south side of N4 J3 off-slip</li> <li>7 residential properties and 2 commercial properties on south side of N4 service road</li> <li>Hermitage Medical Clinic (green space)</li> <li>Private driveway lost in front of Palmerstown Lodge Hotel (Kennelsfort Road Lower)</li> </ul> </li> </ul>
	1.b. Transport Reliability and Quality	<ul style="list-style-type: none"> <li>Stop start route</li> <li>Indirect route</li> <li>Low quality facilities, shared use, on road in places</li> </ul>	<ul style="list-style-type: none"> <li>Shorter, direct route leading to reduced journey times</li> <li>High quality segregated facilities for full length</li> <li>Minimal detours and interruptions</li> <li>More attractive and comfortable route</li> </ul>	<ul style="list-style-type: none"> <li>High quality segregated facilities for full length, but lower quality from Lucan village eastbound</li> <li>More attractive and comfortable route than EPR</li> <li>Route has additional detour from Lucan village</li> </ul>
<b>1 Economy</b>	<b>Summary</b>			
2. Integration	2.a. Land Use Integration	<ul style="list-style-type: none"> <li>The route integrates well with land use zoning identified in the county development plans, linking well with residential, recreational, and retail zones.</li> </ul>	<ul style="list-style-type: none"> <li>The route integrates well with land use zoning identified in the county development plans, linking well with residential, recreational, and retail zones.</li> </ul>	<ul style="list-style-type: none"> <li>The route integrates well with land use zoning identified in the county development plans, linking well with residential, recreational, and retail zones.</li> </ul>

Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
	2.b. Residential Population and Employment Catchments	<ul style="list-style-type: none"> <li>The difference between the residential and employment catchments of the options, is considered insignificant.</li> </ul>	<ul style="list-style-type: none"> <li>The difference between the residential and employment catchments of the options, is considered insignificant.</li> </ul>	<ul style="list-style-type: none"> <li>The difference between the residential and employment catchments of the options, is considered insignificant.</li> </ul>
	2.c. Transport Network Integration	<ul style="list-style-type: none"> <li>The EPR Option proposals impact on the pedestrian facilities along the route in an adverse manner through conflict points at a number of locations.</li> </ul>	<ul style="list-style-type: none"> <li>The alternative proposals provide fully segregated facilities that have no impact on the pedestrian facilities along the route.</li> </ul>	<ul style="list-style-type: none"> <li>The alternative proposals provide fully segregated facilities that have no impact on the pedestrian facilities along the route.</li> </ul>
	2.d. Cycle Network Integration	<p>The proposed route consists of 2 single (varying width) cycle lanes running down the existing the GDC's Primary Route 6 (generally on-line) which are proposed to be extended to improve continuity, along both sides of the carriageway parallel to the N4 between Jct.3 and Jct.2 before continuing down (old) Lucan Road. Beyond Jct.2 of the N4 a Quiet Street will be provided along (old) Lucan road to allow the continuation of the Primary Route 6 towards Chapelizod.</p> <p>The route interacts with the other following Primary and Secondary cycle routes in a more disjointed manner;</p> <p>West-bound;</p> <ul style="list-style-type: none"> <li>Connects directly to secondary Route SO6</li> <li>Connects directly to Proposed Primary Route SO5 (yet to be constructed)</li> <li>Connects via shared space to Secondary Route 7A</li> <li>Connects via ~550m of shared space to secondary Route NO5 that connects to the Liffey Greenway (both proposed)</li> </ul>	<p>The proposed route is a 2 -way (3.5m) segregated cycle lane extending the existing GDC's Primary Route 6 running parallel to the eastbound carriageway in a high-quality manner and no longer along the westbound carriageway or running on the carriageway. This provides fully segregated cycle routes to improve its continuity and the safety of the cyclists on the Primary cycle network</p> <p>The Route also interacts with the following Primary and Secondary cycle routes;</p> <ul style="list-style-type: none"> <li>Quiet Street connects directly to secondary Route SO6</li> <li>Provides section of SO6 between Lucan Road and Hermitage Road</li> <li>Connects via pedestrian priority zone to Secondary Route 7A</li> <li>Connects to Secondary route NO5 and Liffey Greenway (both proposed)</li> <li>Safer continuation of Primary Route 6 to Chapelizod and proposed Liffey Greenway with reduction of pedestrian priority zones and widening of these areas if required segregated widths of the footway and cycle track cannot be achieved. Furthermore, the addition of the segregated cycle track along</li> </ul>	<p>The proposed route is a 2 -way (3.5m) segregated cycle lane extending the existing GDC's Primary Route 6. It runs parallel to the westbound carriageway from J3 and crosses to the northside at St Lomans. While this provides fully segregated cycle routes to improve its continuity and the safety of the cyclists on the Primary cycle network, it does not integrate as well with the connection to Lucan village as two crossings of the N4 would be required</p> <p>The Route also interacts with the following Primary and Secondary cycle routes;</p> <ul style="list-style-type: none"> <li>Provides section of SO6 between Lucan Road and Hermitage Road</li> <li>Connects via pedestrian priority zone to Secondary Route 7A</li> <li>Connects to Secondary route NO5 and Liffey Greenway (both proposed)</li> <li>Safer continuation of Primary Route 6 to Chapelizod and proposed Liffey Greenway with reduction of pedestrian priority zones and widening of these areas if required segregated widths of the footway and cycle track cannot be achieved. Furthermore, the addition of the segregated cycle track along</li> </ul>



Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
	3.b. Deprived Geographical Areas	Route option serves areas of Affluent to Marginally Below Average means from Pobal Deprivation Index.	Route option serves areas of Affluent to Marginally Below Average means from Pobal Deprivation Index.	Route option serves areas of Affluent to Marginally Below Average means from Pobal Deprivation Index.
<b>3 Accessibility &amp; Social Inclusion</b>	<b>Summary</b>			
4. Road User Safety	4.a. Road User Safety	<p>One factor raised by the NTA in the GDA area cycle plan was the importance of reducing the interaction of cyclists with accesses, parking and other interfaces which could impede a cyclist. Below is a list of all junctions that impede cyclists along the N4 (old Lucan Road not included in this analysis as it is a Quiet Street);</p> <p>West-bound junction interactions:</p> <ul style="list-style-type: none"> <li>Exit from commercial premises (nr. Jct.3)</li> <li>Exit from Texaco Petrol Garage (entrance and exit)</li> <li>Ballyowen Lane</li> <li>Access road to St. Loman's Hospital</li> <li>Jct. 2 Entry Slip road onto N4 (proposed Toucan Crossing)</li> <li>5 private accesses to residential properties</li> </ul> <p>East-bound Junction interactions;</p> <ul style="list-style-type: none"> <li>Access road to Hermitage Road Golf Club</li> <li>Private access to Sureweld International</li> <li>1 private access to residential properties</li> </ul>	<p>As can be seen below from the list below there are significantly less interactions with junctions and accesses compared to that of the EPR option as the choice was made to remove the cycle lane running parallel to the N4 WB. The proposed route along the east-bound carriageway is in line with the criteria set out in the GDA area cycle plan to reduce cyclists' interactions with accesses and junctions;</p> <ul style="list-style-type: none"> <li>Private access to Sureweld International</li> <li>1 private access to residential properties</li> </ul> <p>The segregated 2-way cycle lane runs up Jct.2 towards Old Lucan Road and continues either side of the M50 so it can continue up the R112 towards Chapelizod along Primary Route 6 and join up with the proposed Liffey Greenway.</p> <p>Cycle and pedestrian safety will be improved by being segregated from other forms of transport/pedestrians along the duration of the route.</p> <p>No. of road junctions intercepting the route: 2</p>	<p>While there are less interactions with junctions and accesses compared to that of the EPR option, there are more compared to the alternative option as the two-way track runs parallel to the N4 WB.</p> <ul style="list-style-type: none"> <li>Private access to Sureweld International</li> <li>1 private access to residential properties</li> <li>Exit from commercial premises (nr. Jct.3)</li> <li>Exit from Texaco Petrol Garage (entrance and exit)</li> <li>Ballyowen Lane</li> <li>5 private accesses to residential properties</li> </ul> <p>The segregated 2-way cycle lane runs up Jct.2 towards Old Lucan Road and continues either side of the M50 so it can continue up the R112 towards Chapelizod along Primary Route 6 and join up with the proposed Liffey Greenway.</p> <p>Cycle and pedestrian safety will be improved by being segregated from other forms of transport/pedestrians along the duration of the route.</p> <p>No. of road junctions intercepting the route: 2</p>

Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
		<p>No. of road junctions intercepting the route: 7</p> <p>No. of points where giving way to pedestrians is required (Required length of Shared Area required for continuity of cycle route): 2 (~2150m).</p> <p><i>It should be noted that along the length of Old Lucan Road a Quiet Street will be proposed, not a cycle lane. As well as this, cyclists will have to share the cycle lane with buses at constrained locations where bus stops are required, causing more possible conflict locations.</i></p>	<p>No. of points where giving way to pedestrians is required (Required length of pedestrian priority zone required for continuity of cycle route): 4 (~116m)</p> <p><i>It should be noted that Hermitage Road is a proposed Quiet Street to link communities south of the N4 to the two-way cycle track via the existing pedestrian footbridge at Ballyowen Lane / Mount Andrew.</i></p> <p>The alternative option provides a far safer environment for cyclists travelling along the N4</p>	<p>No. of points where giving way to pedestrians is required (Required length of pedestrian priority zone required for continuity of cycle route): 4 (~116m)</p> <p>This option provides a far safer environment for cyclists travelling along the majority of N4 than the EPR option but does not address the provision eastbound from Lucan village</p>
<b>4 Road User Safety</b>	<b>Summary</b>			
5. Environment	5.a. Archaeology and Cultural Heritage	<ul style="list-style-type: none"> <li>No recorded National monuments along the route.</li> </ul>	<ul style="list-style-type: none"> <li>No recorded National Monuments along the route.</li> </ul>	<ul style="list-style-type: none"> <li>No recorded National Monuments along the route.</li> </ul>
	5.b. Architectural Heritage	<ul style="list-style-type: none"> <li>There is no significant difference in the impact of the two options on properties of Architectural heritage in the National Inventory directly adjacent to the proposed new cycle route.</li> </ul>	<ul style="list-style-type: none"> <li>There is no significant difference in the impact of the two options on properties of Architectural heritage in the National Inventory directly adjacent to the proposed new cycle route.</li> </ul>	<ul style="list-style-type: none"> <li>There is no significant difference in the impact of the two options on properties of Architectural heritage in the National Inventory directly adjacent to the proposed new cycle route.</li> </ul>
	5.c. Flora and Fauna	<p><u>Impact on Trees</u></p> <p>Land take is generally frontal land take from residential and industrial areas so the overall</p>	<p><u>Impact on Trees</u></p> <p>A considerable amount of land take is required north of the N4 of predominantly grassed verges, along with a</p>	<p><u>Impact on Trees</u></p> <p>A considerable amount of land take is required south of the N4 of predominantly grassed verges, along with</p>



Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
	5.c. Flora and Fauna (cont'd)	<p>impact on flora and fauna especially trees is minimal, however the locations of the trees that maybe required to be removed are listed below.</p> <p>Removal of trees maybe required in the following locations;</p> <ul style="list-style-type: none"> <li>• Eastern end of Lucan Rd. (nr. Jct.3 of N4) - Land take of ~ 2m required, which will result in the loss of a considerable number of mature trees.</li> <li>• Widening of Jct.3 exit slip of N4 W/B – Land take will reduce the verge and take a number of mature trees.</li> </ul>	<p>large number of trees to be removed, although much of this will be replanted.</p> <p>Removal of trees may be required in the following locations;</p> <ul style="list-style-type: none"> <li>• Eastern end of Lucan Rd. (nr. Jct.3 of N4) – Land take of ~ 2m required, which will result in the loss of a number of mature trees.</li> <li>• Northern carriageway of N4 from Jct.3 to Jct.2 - Land take of 3m – 4.5m required, which will result in the loss of a considerable number of mature trees (Hermitage Golf Club and Hermitage Medical Clinic).</li> <li>• Jct.2 entry slip of N4 E/B – No land take however the verge will be reduced and there is a possibility of trees to be removed.</li> </ul>	<p>a large number of trees to be removed, although much of this will be replanted.</p> <p>Removal of trees may be required in the following locations;</p> <ul style="list-style-type: none"> <li>• Southern carriageway of the N4 from junction 3 to St Lomans – Landtake 3m-4.5m required which result in the loss of a considerable number of mature trees (rear gardens of 21 residential properties adjacent to the WB off slip road and front boundary of 7 residential properties adjacent to WB service road)</li> <li>• Northern carriageway of N4 from St Lomans to Jct.2 - Land take of 3m – 4.5m required, which will result in the loss of a considerable number of mature trees (Hermitage Medical Clinic).</li> <li>• Jct.2 entry slip of N4 E/B – No land take however the verge will be reduced and there is a possibility of trees to be removed.</li> </ul>
	5.d. Soils and Geology	<p>In general, the route uses the existing carriageway reservation for the majority of its route. In areas where widening is required there is little risk of affecting the existing geology of the area.</p>	<p>In general, the route uses the existing carriageway reservation for the majority of its route. In areas where widening is required there is little risk of affecting the existing geology of the area.</p>	<p>In general, the route uses the existing carriageway reservation for the majority of its route. In areas where widening is required there is little risk of affecting the existing geology of the area.</p>
	5.e. Hydrology	<p>There are no areas along this route identified at being at high/medium risk from fluvial flooding. The route does not cross any major watercourses and is unlikely to affect the local hydrology.</p>	<p>There are no areas along this route identified at being at high/medium risk from fluvial flooding. The route does not cross any major watercourses and is unlikely to affect the local hydrology.</p>	<p>There are no areas along this route identified at being at high/medium risk from fluvial flooding. The route does not cross any major watercourses and is unlikely to affect the local hydrology.</p>

Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
	5.f. Landscape and Visual	<p>In general, this route makes use of the existing cycle tracks/roads along the N4, R148 and (old) Lucan Road. However, there is some widening of the carriageway required at certain locations along the N4 resulting in effects to existing boundaries and landscaping. Most prominently the loss of the northern verge on Lucan Road near Jct.3 and the loss of frontal facing residential and commercial land due to the widening of the N4 Jct.3 slip.</p> <p>There is minimal overall impact to the nearby Landscape Character Areas and Highly Sensitive areas that have been highlighted to the North of the road corridor.</p>	<p>The route follows the existing roads along the N4, R148 and (old) Lucan road. However, a significant amount of widening is required along the northern edge of the carriageway to provide the 2-way segregated cycle path. This will result in effects to existing boundaries and landscaping.</p> <p>There is minimal overall impact to the nearby Landscape Character Areas and Highly Sensitive areas that have been highlighted to the North of the road corridor.</p>	<p>The route follows the existing roads along the N4, R148 and (old) Lucan road. However, a significant amount of widening is required along the southern and northern edges of the carriageway to provide the 2-way segregated cycle path . This will result in effects to existing boundaries and landscaping.</p> <p>There is minimal overall impact to the nearby Landscape Character Areas and Highly Sensitive areas that have been highlighted to the North of the road corridor.</p>
	5.g. Air Quality	<p>The proposed cycle route does not affect the existing traffic in the area. However, the land take in certain areas may result in the loss of trees. This will likely increase the amount of dust and other pollutants that may result in a reduction of air quality which will impact sensitive receptor locations along the route.</p>	<p>The proposed cycle route does not affect the existing traffic in the area. However, the land take in certain areas will result in a significant loss of trees. This will likely increase the amount of dust and other pollutants that may result in a reduction of air quality which will impact sensitive receptor locations along the route.</p>	<p>The proposed cycle route does not affect the existing traffic in the area. However, the land take in certain areas will result in a significant loss of trees. This will likely increase the amount of dust and other pollutants that may result in a reduction of air quality which will impact sensitive receptor locations along the route.</p>
	5.h. Noise and Vibration	<p>There is no significant difference in the impact of the two options on noise and vibration.</p>	<p>There is no significant difference in the impact of the two options on noise and vibration.</p>	<p>There is no significant difference in the impact of the two options on noise and vibration.</p>

Assessment Criteria	Sub-Assessment Criteria	Emerging Preferred Route Option	Alternative Option	Alternative Sub-option
	5.i. Land Use Character	There is no significant difference in the impact of the two options on land use character.	There is no significant difference in the impact of the two options on land use character.	There is no significant difference in the impact of the two options on land use character.
<b>5 Environment</b>	<b>Summary</b>			
	<b>Overall</b>			



**Údarás Náisiúnta Iompair**  
National Transport Authority

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