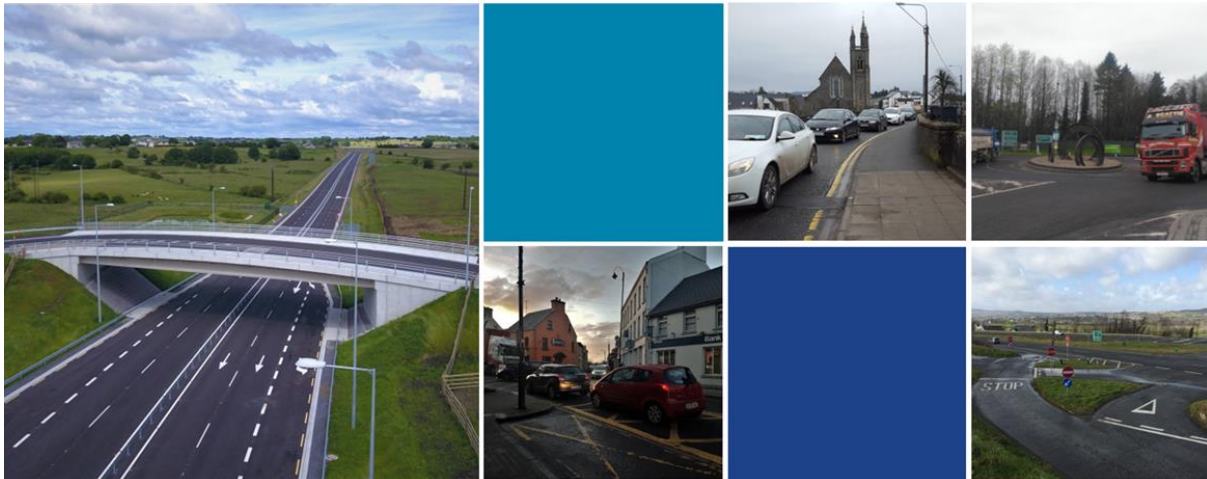


# TEN-T Priority Route Improvement Project, Donegal

## Option Selection Report Volume H – Project Appraisal Balance Sheet



## Document Control Sheet

<b>Client:</b>	Donegal County Council
<b>Project Title:</b>	TEN-T Priority Route Improvement Project, Donegal
<b>Document Title:</b>	TT_Y16112-BT-11-PAG -ZZ -DO-Y-00102_Project_Appraisal_Balance_Sheet

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# Contents

TEN-T Priority Route Improvement Project, Donegal Phase 2 Project Appraisal Balance Sheet

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Part A: Project Context



Date	
Version No.	0

Project Title	<b>TEN-T Priority Route Improvement project, Donegal</b>
PRS Reference Number	
Project Phase	<b>Phase 2: Option Selection</b>
National Roads Office	<b>Donegal</b>
TII Project Manager	<b>Patrick Duffy</b>
Project Description	<b>Upgrade of TEN-T network, Donegal comprising the N13/N15 Ballyboffey/Stranorlar Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford/Strabane/A5 Link</b>
Scheme Cost €m (TSB)	<b>€476.00</b>
What Are The Likely Sources of Non-Exchequer Funding	
TII Growth Scenario	<b>TII Central Growth</b>
Appraisal Team Author	<b>Gordon Blair</b>
Design Team Reviewer	<b>Eamon Daly</b>
TII Engineering Inspector	<b>Chintapalli Vishal Choudary</b>
External Auditor	
Modelling Base Year	<b>2017</b>
Scheme Opening Year	<b>2028</b>
Reference Number of Nearest TII Traffic Monitoring Unit(s)	

Note - This PABS should be completed with reference to the latest version of TII PAG Unit 7.1. Users should always check that the correct version is followed prior to undertaking the PABS.

PABS Version 2 05.09.2016

## Project Appraisal Balance Sheet



## Part B: Environment

Air Quality & Climate	Climate - Carbon Dioxide (CO <sub>2</sub> )				Quantitative Statement Parameter					
	Tonnes of CO <sub>2</sub> produced in the Do Minimum Scenario?				20,433,847					
	Tonnes of CO <sub>2</sub> produced in the Do Something Scenario?				20,419,729					
	Ratio of CO <sub>2</sub> produced in Do Something Scenario to Do Minimum Scenario				1.00					
	Significance Criteria			Substantial Beneficial	Moderate Beneficial	Slight Beneficial	Negligible	Slight Adverse	Moderate Adverse	Substantial Adverse
	Number of Sensitive Locations Experiencing Impacts That Are:			0	0	0	0	23	30	0
	Index of Overall Change in Exposure			Large Negative Index	Medium Negative Index	Small Negative Index	Small Positive Index	Medium Positive Index	Large Positive Index	
	Nitrogen Dioxide (NO <sub>2</sub> )			○	○	●	○	○	○	
	Particulate Matter (PM <sub>10</sub> )			○	○	●	○	○	○	
	Quantitative Statement		Qualitative Statement							
<b>Slightly Negative</b>		Section 1 has 14 properties within 50m of the centreline (Slightly Negative). Section 2 has 30 properties within 50m of the centreline (Moderate Negative) and Section 3 has 9 properties within 50m of the centreline (Slightly Negative). Overall, it is anticipated that the air quality and climate impacts will be slight to moderate negative. A more detailed assessment will be undertaken at Phase 3.								

Noise & Vibration	Sensitive Receptors		Quantitative Statement Parameter
	Number of Sensitive Receptors Requiring Mitigation (i.e. the three conditions have been satisfied) Per Kilometre		0
	Number of Sensitive Receptors Requiring Mitigation (i.e. the three conditions have been satisfied), But It Is Not Feasible To Mitigate Noise To The Required Level Per Kilometre		0
	Quantitative Statement		Qualitative Statement
<b>Neutral</b>		Section 1 has 361 receptors within 300m of the centreline. This option takes traffic away from the centres of Ballybofey and Stranorlar and hence has a slightly positive impact overall. Section 2 has 432 receptors within 300m of the centreline. This option takes traffic away from the existing N13 at Lurgybrack, and the school, before joining the existing dual carriageway at Dromore. Section 3 has 485 properties within 300m of the centreline. The proposed scheme takes traffic away from the existing N14. The overall impact is determined as Neutral. Mitigation per kilometre will be determined at Phase 3	

## Project Appraisal Balance Sheet



## Part B: Environment

Waste	Unacceptable Material		Quantitative Statement Parameter No. (m <sup>3</sup> )								
	Quantity Of Unacceptable Material Class U1 To Be Disposed Of Off Site?		0								
	Quantity Of Unacceptable Material Class U2 To Be Disposed Of Off Site?		0								
	Quantity Of Contaminated Land/Hazardous Waste To Be Left In Situ?		0								
	Quantitative Statement		Qualitative Statement								
<b>Neutral</b>		Section 1 has an almost balanced cut/fill ratio with an expected excess of material of approx. 29,000m <sup>3</sup> . Section 2 has an excess of material of approx. 517,000m <sup>3</sup> . Section 3 has an estimated 1,060,000 cum of unacceptable material to be disposed of. It is expected that all unacceptable material will be disposed of on -site. Borrow pits will be included for in the planning consents to both obtain acceptable material for filling soft ground areas and for general fill and to dispose of unacceptable material. No U2 or contaminated material has been determined at this stage. The full extent of U1 material will be determined at Phase 3 following Site Investigation works. This Phase will also allow for further optimisation of the earthworks.									
Landscape & Visual Amenity (incl. Light)	Landscape & Visual Amenity (incl. Light)		Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:		0	0	0	0	0	0	0	0	0
			National Landscape Designation / Listing			County Landscape Designation / Listing			Other Areas of Significant Landscape Value/Amenity		
	Number of Profound / Significant Impacts On Sites Of:		0	0	0	0	0	0	0	0	0
	Quantitative Statement		Qualitative Statement								
<b>Moderately Negative</b>		The assessment of visual impacts has been based upon a desktop quantitative analysis of residential dwellings within 300m of the centre line of each Route Option. Section 1 has an impact score of Highly to moderate negative. Section 2 has an impact score of moderate to minor negative. Section 3 has an impact score of moderate negative. Overall the project has a moderate negative ranking. The Route Options assessment does not take landscape mitigation into account. Additional assessment of visual intrusion and obstruction on an individual property basis is not required at this Route Option appraisal stage and more detailed assessments are to be carried out at the full EIAR stage.									
Biodiversity - Flora & Fauna	Impact on Ecological Receptors		International Importance	National Importance	County Importance	Local Importance (Higher value)	Local Importance (Lower value)				
	Number of Significant Positive Impacts On Ecological Receptors Of:		0	0	0	0	0				
	Number of Significant Negative Impacts On Ecological Receptors Of:		15	7	1	1	4				
	Quantitative Statement		Qualitative Statement								
<b>Highly Negative</b>		For Section 1 the River Finn SAC is crossed with a bridge. Also, there is the potential to impact on 13 watercourses that provide suitable habitat for Otter. For Section 2 the Lough Swilly SAC and SPA is crossed with a bridge. Section 3 has no adverse affects on the integrity of a Natura 2000 site. Mitigation measures will be developed to avoid/reduce/offset any potential impacts to any of the sites and species on the scheme, it is expected that with these mitigation measures in place there will be no significant impacts.									

## Project Appraisal Balance Sheet



## Part B: Environment

Agriculture	Impact on Agriculture Holdings		Major Positive Impact	Moderate Positive Impact	Slight Positive Impact	Neutral Impact	Slight Negative Impact	Moderate Negative Impact	Major Negative Impact	
	Impacts On An Agricultural Holdings That Are:		0	0	0	0	0	0	0	0
	Quantitative Statement	Qualitative Statement								
	<b>Moderately Negative</b>	The assessment was based on a comparative analysis of each route option using a simple model that applied a score to the following parameters: Length of centreline, Number of constraints potentially affected, Number of folios intersected and Number of folios significantly severed. Individual impacts on agricultural holdings will be undertaken at the EIAR stage. Section 1, 2 and 3 all have moderate negative impacts.								

Non-Agricultural Properties	Impact on Non-Agriculture Properties		Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact	
	Number of Impacts That Are:		0	0	0	0	0	0	0	0	0
	Quantitative Statement	Qualitative Statement									
	<b>Moderately Negative</b>	Section 1 - 4 residential properties, 1 commercial business, 1 commercial forest and 3 public amenity areas are potentially impacted (all ranked as moderately negative). 13 local roads are crossed and 3 crossing os 110kv line all ranked as minor to slightly negative. Section 2 - Two residential properties are within the corridor; 1 commercial property, 1 forestry area, HV powerline (all scored moderately negative). Crossing of disused railway line and 5 local roads (all scored as minor to slightly negative). Section 3 - 2 residential properties - Monetary compensation will be agreed for loss of land, buildings and other injurious affection. The individual impacts of all properties impacted directly or indirectly (adjacent to the scheme) will be assessed at the full EIAR stage.									

Architectural Heritage	Impact on Architectural Heritage		Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact
	Number of Impacts That Are:		0	0	0	10	5	16	1	0
	Number of Impacts On Sites Of National Importance That Are:		0	0	0	0	0	0	0	0
	Quantitative Statement	Qualitative Statement								
<b>Moderately Negative</b>	Within a 500m wide corridor, Section 1 - 7 impacts (Direct and Indirect) - House at Drumboe Upper (-ve Significant), 1No. c.18th C farmstead (-ve moderate); 1 No. Outbuilding (-ve moderate and imperceptible) and 1No. Cornmill (-ve moderate); Finn View Houe and an outbuilding (both imperceptible), Drumboe Castle Garden Demesne (-ve moderate) . Section 2 - 4 impacts, 1 no mill (-ve slight); 1No. House (-ve slight); 2No. Disused railway bridges (-ve modeate and imperceptible), Section 3 - 21 sites - 11 moderate negative 3 slight negative and 7 imperceptible.									

Archaeological & Cultural Heritage	Impact on Archaeological & Cultural Heritage		Significant Positive Impact	Moderate Positive Impact	Slightly Positive Impact	Imperceptible Impact	Slightly Negative Impact	Moderate Negative Impact	Significant Negative Impact	Profound Negative Impact
	Number of Impacts That Are:		0	0	0	6	13	7	2	11
	Number Of Impacts On Sites Of National Importance That Are:		0	0	0	0	0	0	0	0
	Quantitative Statement	Qualitative Statement								
<b>Moderately Negative</b>	Within a 500m wide corridor - Section 1 - 11 impacts - 1No. Church (site of) (-ve significant); 5 areas of potentail aracheology (-ve potential profound); 1No. ringfort (-ve significant); 1No. ringfort (-ve slight); 1No. Well site (-ve moderate); 1No. possible ringfort (-ve potential moderate); 1 famine gavyard (imperceptible). Section 2 - 8 impacts - There is an area of potential archaeological significance at Ballyraine where there is a bridge proposed for the River Swilly. 1No. ringfort (-ve moderate); 1 No. Ares of archaeological potential (-ve potential profound); 4No. standing stones - rock art (-ve slight); 1No. church (site of) and graveyard (site of) (both -ve slight). Section 3 - 20 impacts - 5 Potential Profound at potential sites, 2 moderate negative, 7 slight negative and 6 imperceptible									

## Project Appraisal Balance Sheet



## Part B: Environment

Soils & Geology	Soils & Geology		Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:		0	0	0	1	5	0	0	0	0
	Quantitative Statement	Qualitative Statement									
	<b>Neutral</b>	Section 1 - Overall Impact Neutral, Section 2 overall impact neutral, Section 3 - Impacts on Geology - Neutral, Impacts on Soft Soils - Neutral, Impacts on quarries - Minor Positive, Aggregate Potential - Neutral - Overall impact three sections - Neutral									

Hydrology	Hydrology		Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:		0	0	0	0	2	28	13	5	0
	Quantitative Statement	Qualitative Statement									
	<b>Slightly Negative</b>	The route selection stage impacts are based on the numbers of watercourse crossing, watercourse diversions and potential impacts on flood plains. Potential impacts on flood plains are given a moderate negative impact. More detailed assessments will be undertaken at the EIAR stage when the Designs, including the drainage designs are developed further.									

Hydrogeology	Hydrogeology		Profound Positive	Significant Positive	Moderate Positive	Slightly Positive	Imperceptible	Slightly Negative	Moderate Negative	Significant Negative	Profound Negative
	Number of Impacts That Are:		0	0	0	0	7	7	2	0	0
	Quantitative Statement	Qualitative Statement									
	<b>Slightly Negative</b>	Section 1 - 3 Neutral impacts and 2 slightly negative impacts, Section 2 - 4 Neutral impacts, 3 slightly Negative impacts, 1 Moderate Negative, Section 3 - Impact on Aquifers - Slightly Negative, Impact on Vulnerability - Moderately Negative, Impact on Cuttings - Slightly Negative - Overall Scheme impact - Slightly Negative									

Overall Scale of Impact		Amended Scale of Impact	
<b>Moderately Negative</b>			



<b>Safety</b>	<b>Collision Reduction</b>		Total Collision Reduction	Casualty Reduction			Value Of Accident Reduction (€m)					
				Fatal	Serious	Minor						
		What is the Collision/Casualty Reduction Over 30 Years?	254.4	5.3	19.2	362.1	€ 9.78					
		Quantitative Statement	Qualitative Statement									
		Highly Positive	The scheme is predicted to result in significant reductions in collisions and casualties, based on default accident rates, under the central growth scenario. A total reduction in collisions of 247.1 over the 30 year appraisal period is predicted, with an associated reduction in casualties of approximately 6 fatal, 19 serious and 354 slight casualties, suggesting the scheme will have a highly positive impact on safety within the vicinity of the improvement.									
	<b>Security</b>		Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive		
		What is the Expected Impact Of The Project On The Security Of Road Users?	○	○	○	○	○	○	●	○		
		Quantitative Statement	Qualitative Statement									
			Moderately Positive	A segregated cycle track is being provided for the full extent of the mainline. These segregated pedestrian / cyclist facilities being provided as part of the scheme will enhance the security of vulnerable road users.								
	<b>Safety - Overall Scale of Impact</b>			<b>Safety - Amended Scale of Impact</b>								
Highly Positive												

# Project Appraisal Balance Sheet



## Part C: Economy, Safety, Accessibility and Social Inclusion and Integration Input Sheet

			Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive	
Physical Activity	Ambience	What is the expected impact of the project upon journey ambience?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
		Quantitative Statement	Value of Benefit		Qualitative Statement						
		Moderately Positive	Not included in the appraisal at this stage		Cycle/pedestrian facilities are being provided by means of new infrastructure adjacent to the proposed mainline alignment. In addition the existing national roads will have significantly less traffic.						
		<hr/>									
	Absenteeism	What is the impact of the project on absenteeism?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
		Quantitative Statement	Value of Benefit		Qualitative Statement						
		Moderately Positive	Not included in the appraisal at this stage		The provision of cyclist / pedestrian facilities along with the reduced traffic on the existing network are likely to result in increased physical activity which in turn is likely to have a minor beneficial effect on work absenteeism.						
		<hr/>									
	Reduced Health Risk	What is the impact of the project on the reduction in relative risk for cyclists and walkers?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
		Quantitative Statement	Value of Benefit		Qualitative Statement						
		Moderately Positive	Not included in the appraisal at this stage		Cycle/pedestrian facilities are being provided by means of new infrastructure adjacent to the proposed mainline alignment which will reduce risks to pedestrians and cyclists.						
		<hr/>									
Physical Activity - Overall Scale of Impact			Physical Activity - Amended Scale of Impact								
Moderately Positive											

# Project Appraisal Balance Sheet

## Part C: Economy, Safety, Accessibility and Social Inclusion and Integration Input Sheet



Economy	Efficiency and Effectiveness		Commuting (€m)	Business (€m)	Other (€m)	PSP Impact (€m)	Indirect Tax (€m)	Residual Value (€m)	Total Benefits (€m)	
		What Are The Benefits Of The Scheme?	€ 50.2	€ 159.1	€ 97.8	€ 0.0	-€ 1.0	€ 164.4	€ 470.6	
		Quantitative Statement								
	The scheme is predicted to return significant TEE benefits, primarily through improvements in journey times.									
	Wider Economic Impacts	What Impact Will The Project Have On....	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive
		Increase Competition In Markets?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Lead To Efficiencies In Clustering Of Economic Activity? (Agglomeration Benefits)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Attract Inward Investment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Expand Local Labour Supply?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Contribute To Urban Regeneration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quantitative Statement		Qualitative Statement								
Slightly Positive		With improved transport links reducing journey times there is potential for slight benefits in terms of Agglomeration and increasing the markets employment catchment.								
Funding Impacts	What Impact Will The Project Have On....	Don't Know / NA	None	< 10%	10%-30%	> 30%				
	What Percentage Of Non-Exchequer Funding Is The Project Expected To Receive?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
	Quantitative Statement		Qualitative Statement							
	Neutral		While the funding is not known at this stage, the project is on the TEN-T network and will assist in improving connectivity to a peripheral region in Europe (which may become more isolated as a result of Brexit), there is potential to secure non-exchequer funding through the European Union. Amending the funding impact to <10% non exchequer funding results in a slightly positive score for this sub-criteria and also an overall slightly positive score for Economy. In addition the project provides an overall BCR greater than 2. On both of these basis, the overall Economy Scale is amended to Slightly Positive.							
Economy - Overall Scale of Impact			Economy - Amended Scale of Impact							
Neutral			Slightly Positive							

# Project Appraisal Balance Sheet



## Part C: Economy, Safety, Accessibility and Social Inclusion and Integration Input Sheet

Accessibility and Social Inclusion	Deprived Areas	What Impact Will The Project Have On.....	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive	
		Area Based Childhood Programme?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
		Rural Social Scheme?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
		Quantitative Statement	Qualitative Statement								
		Neutral	As the area is identified as being disadvantaged to various extents and visibly has a significant proportion of its industry within farming, it is likely that participants in the Rural Social Scheme reside within the study area, particularly for Section 3. The scheme is likely will improve accessibility from the rural areas to Letterkenny, Ballyboffey and Lifford. The construction of the scheme will also provide short term employment opportunities.								
	Vulnerable Groups	What Impact Will The Project Have On.....	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive	
		Access To Employment or Vital Infrastructure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
		Quantitative Statement	Qualitative Statement								
		Neutral	The scheme improves accessibility between Lifford and Letterkenny and subsequently to/from Dublin. It will also improve access from Sligo to Letterkenny thereby improving the access to jobs, key facilities and social opportunities in Letterkenny, Ballyboffey Lifford and other areas of Donegal. Route options are unlikely to have enough impact to alter the Pobal HP Deprivation score or have measurable impact on Vulnerable Groups								
	Accessibility & Social Inclusion - Overall Scale of Impact			Accessibility & Social Inclusion - Amended Scale of Impact							
Neutral											

# Project Appraisal Balance Sheet

## Part C: Economy, Safety, Accessibility and Social Inclusion and Integration Input Sheet



		What Impact Will The Project Have On.....	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive	
Integration	Transport Integration	Connectivity of the Strategic Road Network?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
		Connectivity Between Transport Modes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
		Sustainable Transport Networks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
		Access to Other Transport Infrastructure Such As Ports and Airports?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
		Quantitative Statement	Qualitative Statement								
	Moderately Positive	The provision of the three Sections of the TEN-T network in Donegal (N15 Ballyboffey / Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford / Strabane) will significantly improve connectivity to the strategic road network. There is no rail network in Donegal so therefore the improvements will not have an impact on modal change from road to rail. Improving the road infrastructure may make public transport by bus more desirable by improving journey times and journey time reliability. The desirable cross-section to be applied on the preferred route option is a Type 2 Dual Carriageway. This cross-section includes a cycle track within the corridor which is separated from the paved road surface. The scheme will improve access to Dublin Airport, Dublin Port and to Belfast Airport and Port.									
	Land Use Integration	Objectives of Local and County Development Plans?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		Strategic Connectivity for High Value Trips?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
		Urban Sprawl?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Quantitative Statement	Qualitative Statement								
Moderately Positive		The provision of the three Sections of the TEN-T network in Donegal (N15 Ballyboffey / Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford / Strabane) is an objective of the County Development Plan. The N13, N14 and N15 proposed to be upgraded as part of this scheme are identified as a Comprehensive Corridor on the Trans-European Transport Network, meaning it has regional significance. The scheme replaces the full length of the existing routes with an improved route alignment with a wider cross-section, which will subsequently improve the capacity, operation and safety of the N14. The scheme provides for limited connectivity to national and regional roads and will therefore be a protected road regarding									
Geographic Integration	Cross Border Connectivity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
	The Trans European Transport network?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
	Quantitative Statement	Qualitative Statement									

# Project Appraisal Balance Sheet



## Part C: Economy, Safety, Accessibility and Social Inclusion and Integration Input Sheet

		Highly Positive	The TEN-T Priority Route Improvement Project Donegal is part of the Trans European Transport Network (TEN-T), meaning it has National and European significance and provides cross-border, international connectivity.							
Other Government Policy Integration	How Will This Project Impact On The Wider Objectives of....	Don't Know / NA	Highly Negative	Moderately Negative	Slightly Negative	Neutral	Slightly Positive	Moderately Positive	Highly Positive	
	National Spatial Strategy/National Planning Framework	○	○	○	○	○	○	○	●	
	Quantitative Statement	Qualitative Statement								
	Highly Positive	Upgrade of TEN-T network in Donegal (N15 Ballyboffey / Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford / Strabane) is a key objective of the National Development Plan 2018-2027 and the National Planning Framework - Project Ireland 2040.								
<b>Integration - Overall Scale of Impact</b>		<b>Integration - Amended Scale of Impact</b>								
<b>Highly Positive</b>										

# Project Appraisal Balance Sheet



## Part D: PABS Summary Table

Project Title		PRS Reference Number	0	Project Description								Scheme Cost (€m)	Date		
TEN-T Priority Route Improvement project, Donegal		Modelling Base Year	2017	Upgrade of TEN-T network, Donegal comprising the N13/N15 Ballybofey/Stranorlar Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford/Strabane/A5 Link								€ 476.00	00/01/1900		
		Scheme Opening Year	2028												
Criteria	Quantitative Statement	Summary of Keys Impacts (Qualitative Assessment)						Quantitative Assessment						Monetised (€m over 30 yrs)	
Environment	Air Quality and Climate	Slightly Negative	Section 1 has 14 properties within 50m of the centreline (Slightly Negative). Section 2 has 30 properties within 50m of the centreline (Moderate Negative) and Section 3 has 9 properties within 50m of the centreline (Slightly Negative). Overall, it is anticipated that the air quality and climate impacts will be slight to moderate negative. A more detailed assessment will be undertaken at Phase 3.						Additional CO <sub>2</sub> (Tonnes) -14118 Ratio of CO <sub>2</sub> Do-Min/Do-Some 1.00 Index of Overall Change in Exposure NO <sub>2</sub> Small Negative Index Index of Overall Change in Exposure PM <sub>10</sub> Small Negative Index Sub Ben. Mod Ben Sli Ben. Negligible Sli Adv. Mod Adv. Sub Adv. 0 0 0 0 23 30 0						Value of Change in Emissions (€m)
	Noise and vibration	Neutral	Section 1 has 361 receptors within 300m of the centreline. This option takes traffic away from the centres of Ballybofey and Stranorlar and hence has a slightly positive impact overall. Section 2 has 432 receptors within 300m of the centreline. This option takes traffic away from the existing N13 at Lurgybrack, and the school, before joining the existing dual carriageway at Dromore. Section 3 has 485 properties within 300m of the centreline. The proposed scheme takes traffic away from the existing N14. The overall impact is determined as Neutral. Mitigation per kilometre will be determined at Phase 3						No. of Sensitive Locations Experiencing Impacts That Are: 0 0 0 0 23 30 0 No. of Sensitive Receptors Requiring Mitigation 0 No. of Sensitive Receptors Requiring Mitigation (Not Feasible) 0						
	Waste	Neutral	Section 1 has an almost balanced cut/fill ratio with an expected excess of material of approx. 29,000m <sup>3</sup> . Section 2 has an excess of material of approx. 517,000m <sup>3</sup> . Section 3 has an estimated 1,060,000 cum of unacceptable material to be disposed of. It is expected that all unacceptable material will be disposed of on -site. Borrow pits will be included for in the planning consents to both obtain acceptable material for filling soft ground areas and for general fill and to dispose of unacceptable material. No U2 or contaminated material has been determined at this stage. The full extent of U1 material will be determined at Phase 3 following Site Investigation works. This Phase will also allow for further optimisation of the earthworks.						Unacceptable Material/Contaminated Land/Hazardous Waste to be ... Disposed of Off Site U1 [m <sup>3</sup> ] U2 [m <sup>3</sup> ] Left in Situ [m <sup>3</sup> land waste] 0 0 0 0						
	Landscape & Visual Amenity (incl. Light)	Moderately Negative	The assessment of visual impacts has been based upon a desktop quantitative analysis of residential dwellings within 300m of the centre line of each Route Option. Section 1 has an impact score of Highly to moderate negative. Section 2 has an impact score of moderate to minor negative. Section 3 has an impact score of moderate negative. Overall the project has a moderate negative ranking. The Route Options assessment does not take landscape mitigation into account. Additional assessment of visual intrusion and obstruction on an individual property basis is not required at this Route Option appraisal stage and more detailed assessments are to be carried out at the full EIAR stage.						No. of Impacts That Are: PP Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 0 0 0 0 0 0 No. of Profound/Significant Impacts on Sites Of: National 0 County 0 Other 0						
	Biodiversity, Flora & Fauna	Highly Negative	For Section 1 the River Finn SAC is crossed with a bridge. Also, there is the potential to impact on 13 watercourses that provide suitable habitat for Otter. For Section 2 the Lough Swilly SAC and SPA is crossed with a bridge. Section 3 has no adverse affects on the integrity of a Natura 2000 site. Mitigation measures will be developed to avoid/reduce/offset any potential impacts to any of the sites and species on the scheme, it is expected that with these mitigation measures in place there will be no significant impacts.						II NI CI LI(H) LI(L) Number of Positive Impacts 0 0 0 0 0 Number of Negative Impacts 15 7 1 1 4						
	Agriculture	Moderately Negative	The assessment was based on a comparative analysis of each route option using a simple model that applied a score to the following parameters: Length of centreline, Number of constraints potentially affected, Number of folios intersected and Number of folios significantly severed. Individual impacts on agricultural holdings will be undertaken at the EIAR stage. Section 1, 2 and 3 all have moderate negative impacts.						Impact on Agricultural Holdings that are: Maj P Mod P SP N SN Mod N Maj N 0 0 0 0 0 0 0						
	Non-Agricultural Properties	Moderately Negative	Section 1 - 4 residential properties, 1 commercial business, 1 commercial forest and 3 public amenity areas are potentially impacted (all ranked as moderately negative). 13 local roads are crossed and 3 crossing os 110kv line all ranked as minor to slightly negative. Section 2 - Two residential properties are within the corridor; 1 commercial property, 1 forestry area, HV powerline (all scored moderately negative). Crossing of disused railway line and 5 local roads (all scored as minor to slightly negative). Section 3 - 2 residential properties - Monetary compensation will be agreed for loss of land, buildings and other injurious affection. The individual impacts of all properties impacted directly or indirectly (adjacent to the scheme) will be assessed at the full EIAR stage.						Impact on Non-Agricultural Properties Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 0 0 0 0 0						
	Architectural Heritage	Moderately Negative	Within a 500m wide corridor, Section 1 - 7 impacts (Direct and Indirect) - House at Drumboe Upper (-ve Significant), 1No. c.18th C farmstead (-ve moderate); 1 No. Outbuilding (-ve moderate and imperceptible) and 1No. Cornmill (-ve moderate); Finn View Houe and an outbuilding (both imperceptible), Drumboe Castle Garden Demesne (-ve moderate) . Section 2 - 4 impacts, 1 no mill (-ve slight); 1No. House (-ve slight); 2No. Disused railway bridges (-ve moderate and imperceptible), Section 3 - 21 sites - 11 moderate negative 3 slight negative and 7 imperceptible.						No. of Impacts That Are: Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 10 5 16 1 0 No. of Impacts on Sites of National Importance That Are: 0 0 0 0 0 0 0 0						
	Archaeological and Cultural Heritage	Moderately Negative	Within a 500m wide corridor - Section 1 - 11 impacts - 1No. Church (site of) (-ve significant); 5 areas of potential aracheology (-ve potential profound); 1No. ringfort (-ve significant); 1No. ringfort (-ve slight); 1No. Well site (-ve moderate); 1No. possible ringfort (-ve potential moderate); 1 famine gavyard (imperceptible). Section 2 - 8 impacts - There is an area of potential archaeological significance at Ballyraine where there is a bridge proposed for the River Swilly. 1No. ringfort (-ve moderate); 1 No. Ares of archaeological potential (-ve potential profound); 4No. standing stones - rock art (-ve slight); 1No. church (site of) and graveyard (site of) (both -ve slight). Section 3 - 20 impacts - 5 Potential Profound at potential sites, 2 moderate negative, 7 slight negative and 6 imperceptible						No. of Impacts That Are: Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 6 13 7 2 11 No. of Impacts on Sites of National Importance That Are: 0 0 0 0 0 0 0 0						
	Soils & Geology	Neutral	Section 1 - Overall Impact Neutral, Section 2 overall impact neutral, Section 3 - Impacts on Geology - Neutral, Impacts on Soft Soils - Neutral, Impacts on quarries - Minor Positive, Aggregate Potential - Neutral - Overall impact three sections - Neutral						Number Of Impacts That Are: PP Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 1 5 0 0 0 0						
	Hydrology	Slightly Negative	The route selection stage impacts are based on the numbers of watercourse crossing, watercourse diversions and potential impacts on flood plains. Potential impacts on flood plains are given a moderate negative impact. More detailed assessments will be undertaken at the EIAR stage when the Designs, including the drainage designs are developed further.						Number Of Impacts That Are: PP Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 0 2 28 13 5 0						
	Hydrogeology	Slightly Negative	Section 1 - 3 Neutral impacts and 2 slightly negative impacts, Section 2 - 4 Neutral impacts, 3 slightly Negative impacts, 1 Moderate Negative, Section 3 - Impact on Aquifers - Slightly Negative, Impact on Vulnerability - Moderately Negative, Impact on Cuttings - Slightly Negative - Overall Scheme impact - Slightly Negative						Number Of Impacts That Are: PP Sig P Mod P Sli P I Sli N Mod N Sig N PN 0 0 0 0 7 7 2 0 0						

TEN-T Priority Route Improvement Project, Donegal

Category	Sub-Category	Impact	Description	Collision Reduction Over 30 Years					Value of Change (€m)			
				Collisions	Casualties	Fatal	Serious	Minor	Commute	Business	Other	Value of Change
Safety	Collision Reduction	Highly Positive	The scheme is predicted to result in significant reductions in collisions and casualties, based on default accident rates, under the central growth scenario. A total reduction in collisions of 247.1 over the 30 year appraisal period is predicted, with an associated reduction in casualties of approximately 6 fatal, 19 serious and 354 slight casualties, suggesting the scheme will have a highly positive impact on safety within the vicinity of the improvement.	254.4	386.6	5.3	19.2	362.1	€9.8			
	Security	Moderately Positive	A segregated cycle track is being provided for the full extent of the mainline. These segregated pedestrian / cyclist facilities being provided as part of the scheme will enhance the security of vulnerable road users.	Not included in the appraisal at this stage								
Physical Activity	Ambience	Moderately Positive	Cycle/pedestrian facilities are being provided by means of new infrastructure adjacent to the proposed mainline alignment. In addition the existing national roads will have significantly less traffic.	Not included in the appraisal at this stage								
	Absenteeism	Moderately Positive	The provision of cyclist / pedestrian facilities along with the reduced traffic on the existing network are likely to result in increased physical activity which in turn is likely to have a minor beneficial effect on work absenteeism.	Not included in the appraisal at this stage								
	Reduced Health Risk	Moderately Positive	Cycle/pedestrian facilities are being provided by means of new infrastructure adjacent to the proposed mainline alignment which will reduce risks to pedestrians and cyclists.	Not included in the appraisal at this stage								
Economy	Transport Efficiency and Effectiveness		The scheme is predicted to return significant TEE benefits, primarily through improvements in journey times.						€50.2	€159.1	€97.8	€470.6
	Wider Economic Impact	Slightly Positive	With improved transport links reducing journey times there is potential for slight benefits in terms of Agglomeration and increasing the markets employment catchment.	Slightly Positive								
	Funding	Neutral	While the funding is not known at this stage, the project is on the TEN-T network and will assist in improving connectivity to a peripheral region in Europe (which may become more isolated as a result of Brexit), there is potential to secure non-exchequer funding through the European Union. Amending the funding impact to <10% non exchequer funding results in a slightly positive score for this sub-criteria and also an overall slightly positive score for Economy. In addition the project provides an overall BCR greater than 2. On both of these basis, the overall Economy Scale is amended to Slightly Positive.	Expected Percentage of Non-Exchequer Funding								
Accessibility and Social Inclusion	Deprived Geographic Areas	Neutral	As the area is identified as being disadvantaged to various extents and visibly has a significant proportion of its industry within farming, it is likely that participants in the Rural Social Scheme reside within the study area, particularly for Section 3. The scheme is likely will improve accessibility from the rural areas to Letterkenny, Ballyboffey and Lifford. The construction of the scheme will also provide short term employment opportunities.						Impact on Deprived Areas			
	Vulnerable Groups	Neutral	The scheme improves accessibility between Lifford and Letterkenny and subsequently to/from Dublin. It will also improve access from Sligo to Letterkenny thereby improving the access to jobs, key facilities and social opportunities in Letterkenny, Ballyboffey Lifford and other areas of Donegal. Route options are unlikely to have enough impact to alter the Pobal HP Deprivation score or have measurable impact on Vulnerable Groups						Impact on Access to Employment or Vital Infrastructure			
				Neutral								
Integration	Transport Integration	Moderately Positive	The provision of the three Sections of the TEN-T network in Donegal (N15 Ballyboffey / Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford / Strabane) will significantly improve connectivity to the strategic road network. There is no rail network in Donegal so therefore the improvements will not have an impact on modal change from road to rail. Improving the road infrastructure may make public transport by bus more desirable by improving journey times and journey time reliability. The desirable cross-section to be applied on the preferred route option is a Type 2 Dual Carriageway. This cross-section includes a cycle track within the corridor which is separated from the paved road surface. The scheme will improve access to Dublin Airport, Dublin Port and to Belfast Airport and Port.	Moderately Positive								
	Land-Use Integration	Moderately Positive	The provision of the three Sections of the TEN-T network in Donegal (N15 Ballyboffey / Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford / Strabane) is an objective of the County Development Plan. The N13, N14 and N15 proposed to be upgraded as part of this scheme are identified as a Comprehensive Corridor on the Trans-European Transport Network, meaning it has regional significance. The scheme replaces the full length of the existing routes with an improved route alignment with a wider cross-section, which will subsequently improve the capacity, operation and safety of the N14. The scheme provides for limited connectivity to national and regional roads and will therefore be a protected road regarding future access	Moderately Positive								
	Geographical Integration	Highly Positive	The TEN-T Priority Route Improvement Project Donegal is part of the Trans European Transport Network (TEN-T), meaning it has National and European significance and provides cross-border, international connectivity.	Highly Positive								
	Integration with Other Government Policies	Highly Positive	Upgrade of TEN-T network in Donegal (N15 Ballyboffey / Urban Region, N56/N13 Letterkenny to Manorcunningham and N14 Manorcunningham to Lifford / Strabane) is a key objective of the National Development Plan 2018-2027 and the National Planning Framework - Project Ireland 2040.	Highly Positive								
Overall Scale of Impact	Environmental	Moderately Negative	Accessibility & Social Incl.	Neutral								
	Safety	Highly Positive	Integration	Highly Positive								
	Economy	Slightly Positive	Physical Activity	Moderately Positive								
				<b>Summary of Benefits</b>								
				<b>Present Value of Benefits (PVB)</b>		€480		<b>Net Present Value (NPV)</b>		€228		
				<b>Present Value of Costs (PVC)</b>		€252		<b>Benefit to Cost Ratio (BCR)</b>		1.91		