

| Option 8 | | Description: Low cost option with roundabout at Ulceby Road | Problems – Capacity of the road exceeded with the future predicted traffic flows | Present Value of Costs to Public Accounts £m |
|---------------|---|--|---|--|
| OBJECTIVE | SUB-OBJECTIVE | QUALITATIVE IMPACTS | QUANTITATIVE ASSESSMENT | ASSESSMENT |
| ENVIRONMENT | Noise | Slight increases in traffic on the A160, Top Road and Habrough Road give very slight increases in noise levels for many of the properties in South Killingholme. A night-time noise assessment was not considered necessary. 41 properties will likely experience noise levels above 68 dB LAeq,18hr in the with scheme scenario. No properties are predicted to experience noise levels above 80 dB LAeq. | Number of people annoyed 15th Yr: Without scheme – 114 With scheme – 117 | net population lose: 3 NPV -£0.08m |
| | Local Air Quality | No exceedences of the annual mean NO ₂ and PM ₁₀ AQS objectives are predicted at receptors located within the study area, which includes Immingham AQMA (for PM ₁₀). The A1173 provides a link between the A160 and A180 and passes through the AQMA. With a decrease in AADT flow on East Halton Rd and A1173 (Kings Rd/ Manby Rd), a large number of properties within South Killingholme will experience an improvement in local air quality however, with the transfer of HGVs onto Pellham Rd results in the predicted net worsening in local air quality. | NO ₂ - improvement 153 properties; deterioration 138 properties. PM ₁₀ – improvement 142 properties; deterioration 149 properties. | NO ₂ +63.25 PM ₁₀ +9.56 |
| | Greenhouse Gases | The increase in carbon emissions primarily results from the higher proportion of HGV flow on the A160 (Humber Rd) and A1173 (Kings Rd/ Manby Rd). | Change in Carbon emissions: in opening year (2015) = -161 tonnes; over 60 year appraisal period = -10,853 tonnes. | NPV of C emissions of Proposal over 60 year period 2015 to 2075 is £457,219. |
| | Landscape | The proposal is on line and results in widening sections of the existing carriageway, limiting the impact on the wider landscape. The increased width of the road increases its visual prominence although it is likely to only affect receptors with existing views to the carriageway. Vegetation bordering the scheme corridor is affected. On line proposals limit impact on field pattern and Brocklesby Junction is unaffected. Score assumes proposed mitigation measures are implemented. Landscape quality within the study area is predominantly poor and ordinary; there are no statutory landscape designations within the study area. | | Slight Adverse |
| | Townscape | The overall baseline quality of the townscape within the study area is assessed to be 'ordinary' for South Killingholme and 'poor' for the oil refinery and port industry areas. Minimal on line works are proposed for the A160 in the areas fronting the main townscape areas, limiting the impact of the scheme on townscape. Existing townscape character is not vulnerable to change and is retained as existing. | | Neutral |
| | Heritage of Historic Resources | Potential impacts upon 2 groups of possible pits detected by geophysics, which are of unknown value; further fieldwork would enable the significance of effects to be assessed with confidence. No adverse impacts upon Scheduled Monuments or Historic Buildings. | | Neutral |
| | Biodiversity | Minor negative impacts anticipated on Rosper Road Pools and Homestead Park Ponds SNCIs and on a number of undesignated habitats. Potential minor negative impacts on badger, brown hare, great crested newt, water vole, birds, invertebrates and reptiles due to the loss of habitat. Surveys are required to confirm the presence of these species and mitigation measures will reduce overall impact. No significant effect predicted on European designated sites; Appropriate Assessment to be conducted prior to option selection following drainage and flood risk assessments. | | Moderate Adverse |
| | Water Environment | Negligible impact to tidal floodplain of Humber Estuary (Special Protection Area), subject to the findings of a flood risk assessment. Potential minor impacts upon 2 SPZs and underlying Major Aquifer should direct discharges of runoff be made to groundwater. Negligible impacts to a number of surface water courses, subject to pollution controls. The probability of an accidental pollution incident is <1%. | | Slight Adverse |
| | Physical Fitness | Existing at grade crossing points retained and cycle route unchanged. | | Neutral |
| | Journey Ambience | Access to facilities maintained, minimal changes to present junctions with neutral effect upon traveller views. Retention of at grade pedestrian crossings with consequent neutral change to levels of frustration/fear of accidents but improved signage. | | Large Beneficial |
| SAFETY | Accidents | Accident savings arising from scheme improvements (Do Minimum accidents – Do Something accidents). | Accidents Fatal Serious Slight 18 3 17 36 | PVB £4.052m |
| | Security | Additional lighting will be required. As currently no pedestrian or cycle facilities are present along the A160, these will be improved slightly, although there will be no provision for pedestrians or cyclists crossing the A160 at South Killingholme. | | Neutral |
| ECONOMY | Public Accounts | Costs to central government arising from scheme improvements. Cost range P10, P50 and P90. | Central Govt PVC | PVC P10 £22.473m P50 £32.195m P90 £41.916m |
| | Transport Economic Efficiency: Business Users & Transport Providers | Journey time savings and reduced congestion along the A160. | Users PVB, Transport Providers PVB, Other PVB | PVB £53.169m |
| | Transport Economic Efficiency: Consumers | Benefits to consumers arising from scheme improvements. | Users PVB | PVB £15.013m |
| | Reliability | Improvements to existing route varies from moderate at the western end to neutral between Manby Road and Rosper Road. | | Neutral to Moderate Beneficial |
| | Wider Economic Impacts | In terms of job creation it is estimated that Option 8 will generate between 3,206 and 4,281 additional new jobs. This equates to economic benefits of between £86.57 million and £115.59 million. | | |
| ACCESSIBILITY | Options values | No public transport routes will be added or withdrawn as a result of Option 8. | | Neutral |
| | Severance | At grade crossings remain at all points, vehicle flows similar to 'Do Minimum' scenario. Low numbers of pedestrians cross the highway. | | Neutral |
| | Access to the Transport System | Level of access to transport systems, where access is defined as owning a car and/or living within 250m of a daytime hourly public transport system, is not likely to be affected by scheme. | | Neutral |
| INTEGRATION | Transport Interchange | The scheme will lead to reduced congestion and reduced delay for freight interchange. | Total freight movements likely to be above 100. | Slight Positive |
| | Land-Use Policy | The Land required for a highway route is protected in a policy in an adopted local plan which anticipates improvements to these roads. The scheme is a high priority in terms of regional transport priorities and the provisions of The Northern Way. It is also supported by the policies contained within the Transport Planning Policy Guidance and White Papers. It is therefore in conformity with transport policy at all levels. | | Beneficial |
| | Other Government Policies | Beneficial to a range of government policies relating to health and the economy. Improved access to the Humber ports are specifically mentioned as economic priorities. Policies relating to DfT, which are entirely supportive of the option, have not been included. It has a broadly neutral impact on the policies of other Government Departments. | | Beneficial |