KEEPING BRITAIN TRADING

IMMINGHAM EASTERN RO-RO TERMINAL

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Chapter 17: Traffic and Transport
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Immingham Eastern Ro-Ro Terminal

Environmental Statement: Volume 1
Chapter 17: Traffic and Transport

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17 Traffic and Transport

17.1 Introduction

17.1.1 This chapter provides an assessment of the potential significant effects of the proposed Immingham Eastern Ro-Ro Terminal (IERRT) on terrestrial traffic and transportation. This chapter has been prepared by David Tucker Associates (DTA).

17.1.2 The following receptors have been considered within the assessment:

- Users of the public highway in the vicinity of the site including pedestrians, cyclists and public transport users;
- Private car and van drivers; and
- Existing freight traffic users of the port and surrounding areas.

17.1.3 A number of figures support the description of the existing environment (baseline) and are provided in Volume 2 of this Environmental Statement (ES) document (Application Document Reference number 8.3). Figure 17.1 to this ES is a plan of the local highway network in relation to the location of the IERRT. Figure 17.2 to this ES shows the wider highway network.

17.1.4 The assessment has been carried out in accordance with the Institute of Environmental Assessment (IEA) Guidance Note No 1 'Guidelines for the Environmental Assessment of Road Traffic' (1993) (the 'IEA Guidelines') and takes account of the relevant traffic and transport assessment aspects contained within section 5 of the National Policy Statement for Ports (Department for Transport (DfT), 2012) (NPSfP) (Section 5.4).

17.1.5 The impacts associated with traffic in relation to air quality and noise are set out in Chapters 13 and 14 of this ES respectively.

17.1.6 A Transport Assessment (TA) is presented in Appendix 17.1 in Volume 3 of the ES (Application Document Reference number 8.4) and has been prepared to support the assessment reported in this chapter. The assessment reviews the impact on both the local and strategic road network (SRN) and reflects discussions with National Highways (NH) and the relevant local Highway Authorities (North Lincolnshire and North East Lincolnshire). A Framework Travel Plan (FTP) (Appendix 17.2 to this ES) has also been prepared as part of the application to ensure that vehicle movements are reduced where it is possible to do so.

17.2 Definition of the study area

17.2.1 The study area for this assessment is the area over which potential direct and indirect effects of the IERRT project are predicted to occur during the construction and operational periods.

17.2.2 The landside of the IERRT project site, and the eastern access to the Port of Immingham, lies within the administrative area of North East Lincolnshire Council (NELC) who are the local Highway Authority for their area. The western access to the Port of Immingham – which is of relevance to the proposed IERRT project - falls within North Lincolnshire Council (NLC; also a unitary authority and hence Highway Authority for their area).

17.2.3 The A160 and A180 fall within the study area and lie under the jurisdiction of NH.

17.2.4 As noted above, the location of the Port of Immingham in relation to the surrounding network is shown on Figure 17.1 to this ES.

17.2.5 Paragraph 6.13.18 of the ES Scoping Report, submitted to the Planning Inspectorate (PINS) in September 2021, indicated that consideration of transport impacts would include all immediate access points to the Port of Immingham and all links that might experience an increase in flows of more than 30% on a daily basis. In its subsequent scoping opinion this position was accepted by PINS as appropriate.

17.2.6 This approach has been reflected in the assessment and the broad study area, therefore, encompasses the main routes from the Port to the A160 and A180. The assessment has also extended further afield to include consideration of the A15 (Humber Crossing) and M180 at the request of National Highways.

17.3 Assessment methodology

Data and information sources

17.3.1 In order to inform the assessment, traffic count data was collected on the local road network at various locations during 2021. The location of the surveys is shown on Figure 17.3 to this ES. Traffic count data was also collected during 2022 at junctions within the Port, which are expected to be impacted by the IERRT project.

17.3.2 Full details of the data are provided in Section 3.4 of the TA (Appendix 17.1 to this ES). The data includes continuous 7-day link flow data and more detailed turning movement counts at local junctions.

17.3.3 Traffic flow data is also available from the Department for Transport (DfT) for the A160 (from Rosper Road to A180), the A180, M180 and A15. That data is summarised below in the section which describes the existing environment (Section 17.6 of this chapter).

17.3.4 Personal Injury Accident (PIA) data has been obtained from NELC for the latest 5-year period (to 20 August 2021). NLC do not keep historic accident data and have requested that for the assessment details are obtained from the website Crashmap.co.uk which provides the same data base.

17.3.5 The study area for PIAs includes the port access roads to the A160. The data is included in full in Section 3.5 of the TA (Appendix 17.1 to this ES) and a summary is provided in the section in this chapter which describes the existing environment (Section 17.6 of this chapter).

Determining significance of effects

17.3.6 For the impact assessment process and to ensure consistency in the terminology used, a standard assessment methodology has been applied. This methodology has been developed from a range of sources, including the IEA Guidelines and advice given in the Design Manual for Roads and Bridges (DMRB) suite of documents .

17.3.7 The IEA Guidelines sets out when traffic related environmental impacts can be scoped out for further assessment. Paragraph 3.15 notes that:

> *"To assist the assessor, it is suggested that two broad rules of thumb could be used as a screening process to delimit the scale and extent of the assessment. The rules are described and justified in the following paragraphs:*
> - *Rule 1 includes highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%).*
> - *Rule 2 includes any other specifically sensitive areas where traffic flows have increased by 10% or more."*

17.3.8 These 'rules of thumb' have been used as a general guide in undertaking this assessment rather than a determinative rule. There is no formal advice in the Guidelines as to what is categorised as a "sensitive area" but in this case all local roads as far as the Tunk Road network is covered in the assessment. The assessment of the significance of an effect has been determined by the interaction of the following factors:

- The magnitude, scale or severity of the impact or change; and
- The value, importance or sensitivity of the environmental resource or receptor being affected.

17.3.9 The IEA Guidelines make it clear in paragraph 4.5 that:

> *"For many effects there are no simple rules or formulae which define thresholds of significance and there is, therefore, a need for interpretation and judgement on the part of the assessor, backed up by data or quantified information wherever possible".*

17.3.10 The approach to determining the significance of identified effects has regard to the guidance given in the Design Manual for Roads and Bridges - 'DMRB Lifecycle Analysis (LA) 104 Environmental assessment and monitoring' (LA 104) - in terms of defining the environmental value / sensitivity of the receptor (Table 3.2N of LA 104 – reproduced as Table 17.1 of this chapter of the ES) and the magnitude of the impact (Table 3.4N of LA 104 – reproduced as Table 17.2 of this chapter of the ES). The overall significance of effects has been determined using the matrix set out in Table 17.4 (which

is based upon the tables listed above from LA 104) and descriptors of the significance of effect categories are provided in Table 17.3 of this chapter of the ES.

17.3.11 The categorisation of the magnitude of the impact brought about by the proposals varies depending upon the impact area being considered (e.g., severance, driver delay etc. – which are explained further in the following sections). In considering the impacts on the different topic areas regard has been had to the relevant guidance contained within the IEA Guidelines. This guidance is further discussed in the following paragraphs.

Table 17.1. Environmental value (or sensitivity) and typical descriptors

Value (Sensitivity)	Typical Descriptors
Very High	Facility of international or national significance.
High	Close proximity to schools, colleges, accident black spots.
Medium	Close proximity to congested junctions, hospitals, community centres, conservation areas.
Low (or Lower)	Close proximity to public open space, nature conservation areas, and residential areas with adequate pavements.
Negligible	Receptors of low sensitivity.

Table 17.2. Magnitude of the Impact and typical descriptors

Value (Sensitivity)	Typical Descriptors
Major/ substantial	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (Adverse). Large scale or major improvement of resource quality; extensive restoration or enhancement; major improvement of attribute quality (Beneficial).
Moderate	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements (Adverse). Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial).
Minor/ slight	Some measurable change in attributes, quality, or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristic(s), features or elements (Adverse). Minor benefit to, or addition of, one (maybe more) key characteristic(s), features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring (Beneficial).
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse). Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial).

Table 17.3. Descriptors of the significance of effect categories

Significance Category	Typical Descriptors of Effect
Major	These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process.
Moderate	These beneficial or adverse effects may be important but are not likely to be key decision-making factors. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse effect on a particular resource or receptor.
Minor	These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the project.
Insignificant	No effects on those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Table 17.4. Significance of effect matrix

Sensitivity	Magnitude of Impact			
	Negligible	Minor	Moderate	Major
Very High	Minor	Minor or Moderate	Moderate or Major	Major
High	Minor	Minor or Moderate	Moderate or Major	Major
Medium	Minor or insignificant	Minor	Moderate	Moderate or Major
Low	Minor or insignificant	Minor or insignificant	Minor	Minor or moderate
Negligible	Insignificant	Minor or insignificant	Minor or insignificant	Minor

17.3.12 As the matrix in Table 17.4 of this chapter of the ES demonstrates, the sensitivity of the receptor and the magnitude of impact for each environmental effect has been considered to determine the significance of the effect. In Environmental Impact Assessment (EIA) terms the effects which are defined as moderate, or major are taken to be significant.

Severance

17.3.13 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic route. Whilst the IEA Guidelines refer to the effect of traffic on severance of 30%, 60% and 90% producing ‘slight’, ‘moderate’ and ‘substantial’ changes in severance respectively, it is suggested within the Guidelines that caution be applied to relying on these

quanta of change. The consideration of severance in this assessment has had regard to specific local conditions in particular, the location of pedestrian routes to key local facilities and whether crossing facilities are provided or not.

Driver delay

17.3.14 Traffic delays to 'non-development' traffic can occur:

- At the proposed site entrance or entrances where there will be additional turning movements;
- On the highways passing the site (both internal and external to the Port) where there may be additional flows; and
- At key junctions on the nearby highway network which will be used by development traffic.

17.3.15 The impact on driver delay is based on the quantum of change in traffic levels considered against an interpretation of the local highway link capacity expressed in terms of predicted flows.

Pedestrian delay

17.3.16 The IERRT project will bring about increases in the number of vehicle movements during the construction and operational phases. In general terms, increases in traffic levels are likely to lead to greater increases in delay to pedestrians seeking to cross roads. The IEA Guidelines recommend that, rather than rely on thresholds of pedestrian delay, the assessor should use judgement to determine whether pedestrian delay is a significant impact. This is the approach which has been adopted in this assessment.

Pedestrian amenity

17.3.17 This is broadly defined as the relative pleasantness of a journey and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic. The IEA Guidelines cite a doubling of traffic flow (or its lorry component) as representing a threshold for impact evaluation. This measure is considered within the assessment that follows.

Fear and intimidation

17.3.18 This again relates to pedestrians, and shares characteristics with pedestrian amenity. There are no commonly agreed thresholds for estimating danger, but research work is cited setting out 'degree of hazard' levels relating to 18-hour average traffic flow, 18-hour heavy goods vehicle (HGV) flow and average vehicle speed. The thresholds for determining the magnitude of change are based upon the conclusions of the 1981 study by Crompton (1981) entitled 'Pedestrian Delays, Annoyance and Risk. This demonstrates that changes in flows of HGVs of less than 2,000 per 18-hour day will be small or negligible. These levels are considered within the assessment that follows in terms of impact.

Accidents and safety

17.3.19 The PIA record for the local highway network has been obtained from NELC and Crashmap.co.uk for the most recently available 5-year period. The impact of additional traffic from the proposals is considered in terms of the magnitude of traffic increase and existing accident record data.

Hazardous loads

17.3.20 The IEA Guidelines acknowledge that most developments will not result in increases in the number of movements of hazardous/dangerous loads, however, this matter has been assessed below.

17.4 Consultation

17.4.1 Consultation as to whether there are likely to be any traffic and transport effects as a result of the construction and operation of the IERRT project has been undertaken with National Highways, North Lincolnshire and North East Lincolnshire Councils. In addition, the relevant outcomes of the formal ES scoping process, as well as any feedback received in response to the statutory consultation and the publication of the Preliminary Environmental Information Report (PEIR) and supplementary statutory consultation and the publication of the Supplementary Consultation Report, have also been taken into account to inform the assessment.

17.4.2 The outcome of the consultation that has been undertaken, along with how it has influenced the assessment is summarised in Table 17.5 of this chapter of the ES.

Table 17.5. Summary of consultation

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
PINS	Scoping Opinion, October 2021	The Inspectorate agrees that roads where the increase in traffic flows would be less than 30% can be scoped out of further assessment, provided that the increase in HGVs would also be less than 30% and the increase in traffic flows in sensitive areas would be less than 10%.	This approach has been adopted in the ES.
PINS	Scoping Opinion, October 2021	Accident assessment to include consideration of NH comments.	The accident assessment is provided in Section 3.5 of the TA in Appendix 17.1 to this ES, and section 17.8 of this chapter. The assessment undertaken has due regard to the comments provided by NH.
PINS	Scoping Opinion, October 2021	Traffic Flows to be set out clearly for development and cumulative impacts.	This is described below in Section 17.6 of this chapter.
PINS	Scoping Opinion, October 2021	Consideration of rail is required.	This is described below in Section 17.6 of this chapter.
PINS	Scoping Opinion, October 2021	Consideration of mitigation is required.	This is described below in Section 17.9 of this chapter.
North East Lincolnshire Council (NELC)	Email 23/11/21	Confirms proposed ES scope is acceptable.	Further discussions have been held with North East Lincolnshire District Council and the scope of this chapter and TA (Appendix 17.1 to the ES) has been discussed and accepted separately with them.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
National Highways	Jacobs Systra Joint Venture (JSJV) note (for NH) 6 October 2021	Sets out scoping requirements	Further discussions have been held with NH (as set out below) and the scope of this chapter and TA has been discussed and accepted separately with them.
National Highways	JSJV note (for NH) 6 October 2021	This review has highlighted the need for a Transport Assessment and Travel Plan to be produced in support of this planning application, to be included within the Traffic and Transport Chapter of the ES.	The TA is included in Appendix 17.1 to this ES and the FTP is included in Appendix 17.2 to this ES.
National Highways	JSJV note (for NH) 6 October 2021	The TA should reference dredging, including the resultant transport impact, especially if the SRN is used as a route for disposal vehicles.	This was included in the preliminary TA and provided in Section 5.1 of the final TA included in Appendix 17.1 to this ES. The SRN will not be used for the removal of dredged material.
National Highways	JSJV note (for NH) 6 October 2021	JSJV require details of the disposal area and [if decided], confirmation that the waste would be loaded directly into the estuary without impacting the SRN.	All dredged material will be disposed at sea without any terrestrial road movements.
National Highways	JSJV note (for NH) 6 October 2021	To make an assessment, JSJV require full details of the proposed development, including the 'area to accommodate trailer and container parking and storage' and full details of 'a number of small terminal buildings' as proposed. In addition,	Full details of the IERRT project, including the amount of parking proposed is detailed in Chapters 2 and 3 of this ES and in the TA (Appendix 17.1 to this ES) at Section 4.4.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		JSJV request that the amount of parking proposed is provided.	
National Highways	JSJV note (for NH) 6 October 2021	JSJV acknowledge that at this stage, the final details of the proposal are yet to be confirmed.	The development is described in Chapters 1 to 3 of this ES and shown in Figure 1.3 to this ES.
National Highways	JSJV note (for NH) 6 October 2021	The baseline section of the TA should: ▪ Describe the site background, including the site's location, history, and existing use; ▪ Describe the existing highway network in the area and the existing level of accessibility; ▪ Provide a collision data assessment should be undertaken covering the most recently available complete five-year period for the SRN; and ▪ Outline any relevant outline planning consents and Local Plan allocations.	This is included in the TA at Section 3.0 (Appendix 17.1 to this ES).

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
National Highways	JSJV note (for NH) 6 October 2021	The impact of the development should be assessed based on relevant regional and national planning policy (e.g., DfT Circular 02/2013, NH guidance document 'The Strategic Road Network: Planning for The Future' [2015], The DfT document 'Road Investment Strategy 2: 2020-2025').	Relevant policy and guidance have been considered in Section 17.5 of this chapter and taken account of as necessary in the assessment undertaken.
National Highways	JSJV note (for NH) 6 October 2021	JSJV understand that Associated British Ports (ABP) will submit a separate scoping document to agree the scope of the TA with NH, however, items raised within this review provide an outline of the details that JSJV would require within any assessment submitted.	This was included in the preliminary TA which can be seen in Appendix 17.1 in Volume 3 of the PEIR. It has now been superseded by the TA in Appendix 17.1 to this ES.
National Highways	JSJV note (for NH) 6 October 2021	It is also noted that there is no reference to a Travel Plan within the submitted Scoping Report.	A Framework Travel Plan has been included as part of the ES and DCO submission (Appendix 17.2 to this ES) as mentioned in Section 17.9 of this chapter.
National Highways	JSJV note (for NH) 6 October 2021	Full details of the proposed study area should be provided within the TA and ES.	Full details of the study area are provided within Section 17.2 of this chapter and Figure 17.1 to this ES.
National Highways	JSJV note (for NH) 6 October 2021	JSJV note that the current estimated construction timescales commencing in Summer 2023 and will have been largely completed by mid-2025. The	The opening year of 2025 has been utilised for assessment purposes in Sections 17.7 and 17.8 of this chapter.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		resultant forecasted 'opening year' scenarios should be informed using these anticipated timescales.	
National Highways	JSJV note (for NH) 6 October 2021	In addition to those agreed with North Lincolnshire Council, JSJV suggest that this development should consider recent development proposed by Able Marine, comprising a 'Material Change' to their existing DCO on application reference: TR30006. The TA should state whether there would be any relationship between the two sites.	The development proposed by Able Marine is considered as a committed development in the traffic impact section (Section 6.1) of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 October 2021	ABP should present firm, robust trip rates and trip generation for the development. The trip rates and resultant vehicle trip generation presented could be derived on a first principles approach or using trip rates from a different development site with a comparable level of accessibility and scale. Alternatively, the Trip Rate Information Computer System (TRICS) online database could be used.	Traffic generation and the method of calculation has been explained in Section 17.8 of this chapter.
National Highways	JSJV note (for NH) 6 October 2021	As the proposed land use is for 'employment', JSJV request that appropriate weekday peak hours are presented, and these should be	The peak hours used have been detailed in Section 6.1 of the TA (Appendix 17.1 to this ES).

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		informed by appropriate traffic counts if necessary.	
National Highways	JSJV note (for NH) 6 October 2021	Due to the nature of the proposals, the TA should also estimate the amount of estimated Heavy Goods Vehicle movement that would be generated from the proposed development both during the construction and operational phases.	This is included in Sections 5.1 and 5.2 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 October 2021	JSJV suggest that the trip distribution rates for the proposed development, the trip assignment based on these rates, and the proposed traffic flows, are clearly presented on traffic flow diagrams. Considering the proposed development's location, JSJV expect the traffic flow diagrams to extend from the proposed development to all junctions that connect to both the A160 and A180.	The traffic flow diagrams are mentioned in Section 17.8 of this chapter and can be seen in Figures 4-8 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 October 2021	Given the proposed development's scale and proximity to the SRN, JSJV suggest that a Construction Traffic Management Plan (CTMP) should be produced and agreed with NH, prior to the determination of this planning application.	A CEMP (Application Document Reference number 9.2) is being included within the application which will include the headline issues relating to construction traffic which will be controlled within the DCO. This document will include a commitment to prepare a more

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
			detailed CTMP when the contractor is engaged.
North Lincolnshire Council (highways)	Email 05/10/21	Confirms proposed ES scope is acceptable.	Noted.
National Highways	Virtual Meeting 02/11/21	The proposed approach to the Transport Assessment was discussed and agreed by NH. The scope of the assessment was also discussed with the capacity calculations and method for wider network assessments summarised.	Further discussions have been held with NH and the scope of the assessment has been discussed and accepted separately with them.
NELC and North Lincolnshire Council (NLC)	Virtual Meeting 02/12/21	The proposed approach to the Transport Assessment was discussed and agreed by NELC and NLC. The scope of the assessment was also discussed with the capacity calculations and method for wider network assessments summarised.	The approach to the TA and the scope of the assessment were accepted by NELC and NLC.
National Highways, NELC and NLC	Virtual Meeting 13/01/22	The approach to the preliminary TA was summarised with all parties confirming that written comments would be provided in due course [scope of report was deemed acceptable in the days following the meeting]. Some detailed comments were discussed. It was agreed that all the comments would be collated in a further	Relevant comments on the TA included discussion on committed development – covered in Annex I of the TA, and carious minor clarifications. Discussions with NH, NELC and NLC have been ongoing.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		working draft TA for review by the highway authorities.	
National Highways and NELC	Meeting 03/03/22	The approach to committed development was discussed and agreed. This meeting also included a site visit. North Lincolnshire sent their apologies.	The approach to committed development was agreed. Further discussions with NH, NELC and NLC have been had.
National Highways, NLC and NELC	Meeting 09/06/22	Discussion on draft TA (issued 31 May 2022).	n/a
National Highways, NLC and NELC	Meeting 06/09/22	Discussion on draft of TA. Main outstanding issue was the slip road assessments	Assessment provided in Annex L of TA.
Humberside Police (PI15)	Statutory Consultation 19/01/22-23/02/22	Concern about HGVs passing housing on Queens Road.	The flows forecast on Queens Road are a function of the most direct route to the port and have been assessed on that basis accordingly.
Humberside Police (PI15)	Statutory Consultation 19/01/22-23/02/22	Concern about assessment assuming no traffic on Kings Road.	Clearly at present some HGV traffic associated with the port uses Kings Road, but the predominant demand for Ro-Ro traffic will be to the A180 and Kings Road is not on a desire line. No significant effects are therefore likely in this regard.
Humberside Police (PI15)	Statutory Consultation 19/01/22-23/02/22	Car Parking of HGVs on local roads	As set out in Section 4.4 of the TA (Appendix 17.1 to this ES) the site layout provides for sufficient space on site to accommodate all expected inbound movements per day. There is also a discussion on measures in terms of notification of drivers which

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
			can be implemented. In addition, there is capacity in existing roadside services (see TA (Appendix 17.1 to this ES), section 4.4) which can also accommodate demand.
British Transport Police (PI21)	Statutory Consultation 19/01/22-23/02/22	Need to consider design of interaction with railway crossings	The interaction with railway crossings has been dealt with to the same standards as the existing crossings within the Port with appropriate advance warning signs.
DFDS (PI22 & PI32)	Statutory Consultation 19/01/22-23/02/22	Traffic management - concern over impact at Queens Road and Border Control Post (BCP).	The TA included in Appendix 17.1 to this ES considers the impact of the proposals with all known growth in the area at Section 6.2. The assessments include analysis of junction operation in the area and concludes there will be no adverse impact on junction operation. Since the PEIR was submitted a ministerial statement has been released stating that the BCP will no longer be required to check the additional vehicles until at least the end of 2023 and even if it was used, daily traffic flows will be immaterial to the assessment as confirmed in the TA, Annex I Para 1.18).

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
DFDS (PI22 & PI32)	Statutory Consultation 19/01/22-23/02/22	Concern about traffic impact on Immingham Delivery Office (DN40 1BL)	The TA (Appendix 17.1 to this ES) considers the cumulative impact of the proposals with all known growth in the area at Section 6.2. The assessments include analysis of junction operation in the area and concludes there will be no adverse impact on junction operation.
Exolum Pipeline (PI28)	Statutory Consultation 19/01/22-23/02/22	Loss of access to Foreshore, highway safety on alternative route and design / capacity of East Gate	Traffic surveys have been undertaken at the internal port junctions which will be potentially affected by the proposals, and these have been assessed as can be seen in Annex L of the TA (Appendix 17.1 to this ES).
National Grid (PI24)	Statutory Consultation 19/01/22-23/02/22	Raises no off-site impact points.	Noted.
Associated Petroleum Terminals (APT) (Immingham) Ltd. (PI30)	Statutory Consultation 19/01/22-23/02/22	Concern about distribution of traffic East and West	This is covered in the TA (Appendix 17.1 to this ES) at Section 5.4.
APT (Immingham) Ltd. (PI30)	Statutory Consultation 19/01/22-23/02/22	Traffic Impact on access to Immingham Oil Terminal (IOT)	The TA (Appendix 17.1 to this ES) considers the cumulative impact of the proposals with all known growth in the area at Section 6.2. The assessments include analysis of junction operation in the area and concludes there will be no adverse impact on junction operation. In addition to this, ABP are providing warning signals and box junction line

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
			marking to be used for emergency access at the junction.
APT (Immingham) Ltd. (PI30)	Statutory Consultation 19/01/22-23/02/22	Scheme will result in changes to access arrangements for APT.	The scheme has been amended to maintain access for maintenance requirements.
DFDS (PI22 & PI32)	Statutory Consultation 19/01/22-23/02/22	West Gate already congested and there is a concern that traffic will use west gate rather than east gate.	The distribution and assignment of HGV traffic is covered in the TA (Appendix 17.1 to this ES) at Section 5.4. In summary the shortest and most attractive route for all HGV traffic will be via East Gate. This avoids West Gate. The impact on the change in flows at West Gate in an hourly sense demonstrates minimal impact on West Gate Security.
DFDS (PI22 & PI32)	Statutory Consultation 19/01/22-23/02/22	The increased HGV traffic will cause unacceptable impacts on other road and port users, local residents and businesses.	Junction assessments on the public highway and within the port estate have been assessed within Annex K and Annex L of the TA (Appendix 17.1 to this ES).
DFDS (PI22 & PI32)	Statutory Consultation 19/01/22-23/02/22	Need for wider mitigation	The assessments include analysis of junction operation in the area and concludes there will be no material impact on junction operation and therefore no mitigation is required as can be seen in Annex K of the TA (Appendix 17.1 to this ES).

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
National Highways (PI33)	Statutory Consultation 19/01/22-23/02/22	Request for ongoing TA work	The ongoing TA work was provided to NH as necessary during the process of the traffic assessment.
Systra (PI33)	Statutory Consultation 19/01/22-23/02/22	Request for ongoing TA work from Systra (acting for NH)	The ongoing TA work was provided as necessary to Systra during the process of the traffic assessment.
UK Health Security Agency (PI37)	Statutory Consultation 19/01/22-23/02/22	Raises traffic related air quality impacts	The Air Quality assessment is provided in Chapter 13 of this ES.
North Lincolnshire Council (PI38)	Statutory Consultation 19/01/22-23/02/22	Confirms agreement with Scope of TA	Noted.
DFDS (PI39)	Statutory Consultation 19/01/22-23/02/22	Wider traffic concerns and BCP	Since the PEIR was submitted a ministerial statement has been released stating that the BCP will no longer be required to check the additional vehicles until at least the end of 2023 and even if it was used, daily traffic flows will be immaterial to the assessment as confirmed in Annex I of the T (Para 1.19).
C.RO (PI41)	Statutory Consultation 19/01/22-23/02/22	Concern over the road capacity conclusion only being stated and not explained; the lack of consideration over the neighbouring commercial or port users in the same network.	The TA (Appendix 17.1 to this ES) considers the cumulative impact of the proposals with all known growth in the area at Section 6.2. The assessments include analysis of junction operation in the area and concludes there will be no material impact on junction operation.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
			The neighbouring commercial or port users have been picked up in the base flow surveys.
C.RO (PI41)	Statutory Consultation 19/01/22-23/02/22	Concern was raised regarding the impact of the development on the capacity of the Killingholme Branch Line.	There will be no impact on the Killingholme Branch line, no further train paths are required and the access arrangement to the terminal will not affect capacity.
North East Lincolnshire Council (PI45)	Statutory Consultation 19/01/22-23/02/22	Highways - confirm discussions on the scope of the Transport Assessment is ongoing	The TA (Appendix 17.1 to this ES) has been written alongside discussions with NELC to confirm the scope of the assessment.
Royal Mail (PI27)	Statutory Consultation 19/01/22-23/02/22	Concern was raised regarding the impact of the development on the local road network, which could affect Royal Mails ability to meet its statutory obligations as a Universal Service Provider.	The TA (Appendix 17.1 to this ES) considers the cumulative impact of the proposals with all known growth in the area at Section 6.2. The assessments include analysis of junction operation in the area and concludes there will be no material impact on junction operation
Network Rail (PI29)	Statutory Consultation 19/01/22-23/02/22	Further discussions requested if construction and operational traffic routes take in Network rail assets to ensure the development will not have an adverse impact on railway operations. Detailed specifications and Traffic Management Plans should be provided and agreed before development can commence.	ABP is consulting with Network Rail in respect of appropriate Protective Provisions for inclusion in the draft DCO.

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Q3, Q8, Q9, Q33	Statutory Consultation 19/01/22-23/02/22	Unfortunate that provision of a rail connection is not included in the proposal.	Rail is not considered to be a feasible or viable mode for Ro-Ro traffic at the present time, although this will be kept under continuous review and the layout does not in any way prejudice use of rail. The reasons behind this are set out in detail in the TA (Appendix 17.1 to this ES) at Section 5.5.
Q13	Statutory Consultation 19/01/22-23/02/22	Praise for the proposed development because it should take the pressure off south coast ports and reduce long distance south to north inland journeys, especially by road transport.	Noted. This is beyond the specific scope of the TA (Appendix 17.1 to this ES), but it is clear that the market for movements will predominantly be North of England as highlighted in Table 9 (Section 5.3) of the TA (Appendix 17.1 to this ES). The Need and Alternative chapter (Chapter 4) of this ES considers large distribution centres in the Midlands and the North of the UK to be the most likely destinations which the IERRT project would serve.
Q21, PTC1, PTC2, PTC3, PTC4	Statutory Consultation 19/01/22-23/02/22	Concern was raised regarding the additional lorries and where they will park. It was suggested that a lorry park should be included in the development.	The proposal includes for a total of approximately 1,440 trailer bays and 80 pre-gate HGV parking and pre-loading lanes once they are checked in and therefore offers significant scope to accommodate all inbound HGV movements.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
Q21, PTC1	Statutory Consultation 19/01/22-23/02/22	The routing arrangement have to be enforced by the authorities if they are to be effective.	Enforcement of HGV routeing is not considered necessary. The TA (Appendix 17.1 to this ES) considers the most likely routes that HGVs will take and assesses those accordingly at Section 5.5.
Q41, Q49, Q57, Q59, Q66, PTC4	Statutory Consultation 19/01/22-23/02/22	Look to reduce number of workers commuting to the Port by Car. Suggests that cycle paths, alternative pedestrian access and bus routes are needed from the surrounding area.	As required by the National Policy Statement for Ports the application includes a travel plan (Appendix 17.2 to this ES) to encourage non-car use including car sharing. Overall, though staff numbers are relatively minor (around 150 per day).
Q6, Q24, Q72, Q73, Q75, Q76, Q78	Statutory Consultation 19/01/22-23/02/22	The existing system is adequate and agree with the proposed traffic routing	Noted.
Q33, Q40, Q48, Q51, Q69, Q70, Ex6, Ex8, Q39, Q77, Q94, EX16, PCT1	Statutory Consultation 19/01/22-23/02/22	Existing infrastructure is not sufficient to take additional levels of traffic and improvements are needed to the wider network. Specific mention is made to improvements to the A-M180/A160/A1173. A bypass around Ulceby and upgrades to the A180 are needed. Upgrades are also needed to the network on the East side including Queens Road and Kings Road and junction improvements for East Dock Road and widening of the Eastgate to remove the queuing risk.	The TA (Appendix 17.1 to this ES) considers the cumulative impact of the proposals taking into account all agreed committed developments the area at Section 6.1. The assessments include analysis of junction operation in the area and concludes there will be no material impact on junction operation. Improvements are also proposed to the East Gate port entrance and exit point. A second entry lane will be provided to allow a higher volume of

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			traffic to access the Port during each hour.
Q22, Q26, Q33, Q35, Q41, Q59, Q70, Q86, Q87, Ex12, Ex18, Ex19, Ex20, PTC2, PTC3	Statutory Consultation 19/01/22-23/02/22	Concerns over existing levels of traffic on the network and increased congestion with other Port uses. Specific concerns were raised in respect of existing vehicles travelling through Ulceby to the bulk storage in Goxhill and as a result of the roadworks, diversions and accidents on the A180. Also, the amount of existing vehicular traffic going through the village of Stallingborough, which needs to be reduced or diverted. Traffic to and from the A180 and the Kings Road/Queens Road area is also a concern. Queues often form at the junction of Laporte Road and Queen's Road just outside of the East Gate. A roundabout was a suggested solution.	The IERRT project will not generate any additional movements through the villages of Stallingborough or to the north-east towards Goxhill. It is beyond the scope of this assessment to deal with any pre-existing issues within Stallingborough. The operation of Laporte Road has been assessed in the TA (Annex K) and that assessment concludes no mitigation is required
Q37	Statutory Consultation 19/01/22-23/02/22	Concerns raised regarding the climate crisis and that facility should be rail served with road usage should be kept to a minimum	This ES has assessed the significance of terrestrial transport emissions produced from the IERRT project in the Climate Change chapter (Chapter 19) of this ES.
Q39, Q41, Q64, Q67, Ex13	Statutory Consultation 19/01/22-23/02/22	Routing suggestions from the East Dock Gate include using Laporte Road - Kiln Lane - A1173 -A180 and	The distribution and assignment of HGV traffic is covered in the TA (Appendix 17.1 to this ES) at Section

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		also to turn left at the roundabout passed the refuse collection point and onto the A180. Concern was raised regarding the bridge over the railway about 700 m from the East Gate and the circuitous route from there to the A180. Concern was also raised regarding traffic using the West Gate as the road between the gate and the A160 roundabout may struggle to cope due to the layout.	5.4. In summary the shortest and most attractive route for all HGV traffic will be via East Gate. This avoids West Gate. The impact on the change in flows at West Gate in an hourly sense demonstrates minimal impact on West Gate Security.
Ex4	Statutory Consultation 19/01/22-23/02/22	Do not think they would be affected by the project except for potentially by traffic.	Traffic impact has been fully assessed in Annex K of the TA (Appendix 17.1 to this ES) and this ES chapter and found to be acceptable.
Ex7	Statutory Consultation 19/01/22-23/02/22	Improvements to the network is also being taken up with NELC separately.	Noted. The TA (Appendix 17.1 to this ES) includes, as committed development, the highway schemes that have been progressed by NELC (Section 6.1).
Ex15	Statutory Consultation 19/01/22-23/02/22	Suggest the route to A180 should be via Stallingborough Industrial Estate	This distribution of the traffic is assessed in the TA (Appendix 17.1 to this ES) at Section 5.4.
Ex19	Statutory Consultation 19/01/22-23/02/22	Concern was raised regarding the impacts of the current entrance at the far end of the VW compound becoming an outgate.	This is not part of the scheme and there is no provision in the consent to provide an access at the western end of the site. The current access will be permanently closed.

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Ex20	Statutory Consultation 19/01/22-23/02/22	Visibility at the Laporte/Queens Road junction is being blocked by HGVs parking in the bus stop area.	This has been assessed and is reported in Annex K of the TA (Appendix 17.1 to this ES). All junctions will operate within capacity. The proposals for East Gate will include the removal of the bus layby (maintaining the bus stop on road) which will remove this parking area.
Ex16	Statutory Consultation 19/01/22-23/02/22	Further information requested regarding access to the eastern jetty and changes to the access road.	This has been assessed and is reported in Annex K of the TA (Appendix 17.1 to this ES). All junctions will operate within capacity.
Ex17	Statutory Consultation 19/01/22-23/02/22	Further clarity on the number of movements to the proposed Eastern storage area. Concerns were raised regarding congestion and the ability to respond to an emergency.	The eastern storage area no longer forms part of the proposals.
Q77	Statutory Consultation 19/01/22-23/02/22	Concern was raised regarding the increased levels of traffic and whether this will cause issues for access/egress from the Yara sites.	The internal junctions have been assessed and the results can be seen in Annex K of the TA attached at Appendix 17.1 to this ES.
PI2, Q91	Statutory Consultation 19/01/22-23/02/22	Raised concern about existing vehicle safety, specifically HGVs mounting the pavement. Reducing speed limit from 40 to 30 would reduce the risk from accidents.	There are no identified highway safety issues that require changes to speed limits.
Q82, Q88, Q92, Q93	Statutory Consultation 19/01/22-23/02/22	It was suggested that a new slip road should be completed from the IERRT Development to facilitate	The internal junctions have been assessed and the results can be seen in Annex K of the TA attached at Appendix 17.1 to this ES. This

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		smooth connections to the existing road network	concludes all internal junctions will operate within capacity.
Q91	Statutory Consultation 19/01/22-23/02/22	Tarmacking from the East Gate along Queens Road was suggested.	The proposals will include the maintenance of relevant port roads. Resurfacing of the public highway is a matter for the relevant highway authority.
Q94	Statutory Consultation 19/01/22-23/02/22	Concern was raised over the loss of the access road for the Exolum East Terminal, the increased traffic with no mention of altering the East Gate access and the poor road access adjacent to the ABP weighbridge that is already a danger.	The internal junctions have been assessed and the results can be seen in Annex K of the TA in Appendix 17.1 to this ES. This concludes all internal junctions will operate within capacity.
PTC4	Statutory Consultation 19/01/22-23/02/22	A question was raised as to whether the roads/ junctions have been properly assessed in terms of their capacity/ state of repair/ viability to accommodate the additional traffic via the ports east gate.	The local junction capacities have been assessed and the results can be seen in Annex K of the TA in Appendix 17.1 of this ES. All junctions will function within capacity.
National Highways, NELC and NLC	Virtual Meeting 09/06/22	NH requested to see further appendices to allow review of modelling and to include junction parameter measurements.	Model outputs and spreadsheets were provided to NH for review,
NELC	Virtual Meeting 17/06/22	The meeting discussed the interaction of the Costal Path and East Gate	It was agreed that the two schemes did not conflict. Whilst ongoing discussions would take place between NELC and ABP, no specific assessment in the ES is necessary.

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NELC	Email 17/06/22	NELC would like consideration using a sensitivity test for bus construction days and the variance that this would generate from 70 two-way HGV movements.	This is addressed om Section 5.1 of the TA (Appendix 17.1 to this ES).
NELC	Email 17/06/22	NELC have requested that the local network peaks are confirmed against observed data.	Local network peaks have been assessed and confirmed as can be seen in Section 5.4 of the TA (Appendix 17.1 to this ES).
NELC	Email 17/06/22	NELC generally agree with the 85 / 15 split for access.	Noted.
NELC	Email 17/06/22	NELC expressed concern about HGVs routeing through Immingham. They require strong evidence that this route will be discouraged.	ABP have identified that East Gate is not currently being signposted on the local or strategic highway network. ABP are therefore separately pursing agreements through Section 278 of the Highways Act 1980 to deliver a change to the existing signage arrangement to improve directional signage to the Port of Immingham generally. .
NELC	Email 17/06/22	NELC identified an additional committed development site which was not included in the TA they received.	The development has been added to the committed development list in Section 6.1 of the TA and assessed accordingly (Appendix 17.1 to this ES).

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NELC	Email 17/06/22	NELC have requested that the A1173 / SHIIP junction is also assessed.	The A1173 / SHIIP junction has been assessed and the results can be seen in Annex K of the TA (Appendix 17.1 to this ES). The junction will function within capacity.
NELC	Email 17/06/22	NELC would like access to the traffic models used for the Kings Road / A1173, A1173 / Kiln Lane and A1173 / SHIIP junctions.	The models used to assess the relevant junctions have been supplied to NELC and incorporated in the final TA (Annex K).
NELC	Email 17/06/22	NELC identified that the modelling Ratio of Flow to Capacity (RFC) results are higher than 0.85 for the A1173 / Kiln Lane junction. They would be more comfortable with the proposed 'no mitigation required' suggestion if sustainable travel credentials were improved.	The models have been re-run since the working draft TA was submitted to NELC. The results for the A1173 / Kiln Lane are now at 0.85 and so the 'no mitigation required' conclusion has been maintained.
NELC	Email 17/06/22	NELC would like to see some consideration given to modernising the portside area to be accessible by sustainable modes.	Plans to improve pedestrian and cycle facilities are being progressed by ABP separately to the IERRT project.
NLC	Email 24/06/22	NLC stated that there is an addendum to the Publication Draft of the Local Plan that was being consulted on at the time.	Noted.
NLC	Email 24/06/22	NLC asked if a Construction Phase Management Plan will be produced prior to works starting. It was also asked if the average movements stated for construction traffic are the	A Construction Environmental Management Plan (CEMP; Application Document Reference number 9.2) is being included within the application which will include the

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		worst-case scenario and the length of time that these movements could last for.	headline issues relating to construction traffic which will be controlled within the DCO. This document will include a commitment to prepare a more detailed CTMP when the contractor is engaged.
NLC	Email 24/06/22	NLC require traffic data to support the peak periods stated as the PM peak in the area is widely accepted as 16:00-17:00.	This has been fully reviewed as part of the ongoing TA assumptions. The peak hour analysis is provided Section 5.4 of the TA (Appendix 17.1 to this ES).
NLC	Email 24/06/22	NLC agree with the suggested 85/15 split.	Noted.
NLC	Email 24/06/22	NLC has asked if Able Logistics Park has been included as a committed development.	The development has been added to the committed development list in Section 6.1 of the TA (Appendix 17.1 to this ES) and incorporated into the assessments.
National Highways	JSJV note (for NH) 6 July 2022	JSJV require the PIC analysis to consider the most recently available complete five-year period for the SRN before baseline conditions were impacted by the Covid pandemic as well as the 2020 and 2021 data to supplement the results.	The requested PIC analysis can be seen in Section 3.5 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	JSJV suggest that a CTMP should be produced and agreed with NH, prior to the determination of this planning application.	A CEMP (Application Document Reference number 9.2) is being included within the application which will include the headline issues relating to construction traffic which

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
			will be controlled within the DCO. This document will include a commitment to prepare a more detailed CTMP when the contractor is engaged.
National Highways	JSJV note (for NH) 6 July 2022	JSJV request that full details are provided with supporting evidence substantiating the assumption of 150 employee trips arrivals / departures.	Evidence supporting the assumption of 150 employee trips can be seen in Table 17.8 of this chapter of the ES and in paragraphs 17.8.31 to 17.8.34 of this chapter.
National Highways	JSJV note (for NH) 6 July 2022	JSJV request that evidence is provided for review that show what the 'typical operators activities' HGV arrival / departure profile is based on.	The data used to calculate 'typical operators' activity' has been summarised in Table 7 (Section 5.3) of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	JSJV have reservations between the end user profile presented and the arrival / departure profile based on the Port of Immingham profile. Comprehensive evidence should be presented that details the HGV profile assumed.	The higher profile for each peak has been assumed as detailed in paragraph 5.4.6 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	JSJV request that the peak hour is investigated, specifically considering the SRN to ensure that the peak hour selected is considered robust.	Local network peaks have been assessed and confirmed as can be seen in Section 5.4 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	JSJV request that a full breakdown of HGV routeing data is submitted within the TA for review.	The base data used to route the HGV traffic can be seen in Annex H of the TA (Appendix 17.1 to this ES),

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National Highways	JSJV note (for NH) 6 July 2022	JSJV recommend that DTA provide certainty that the 2025 forecast year would be representative of the development opening year.	DTA have provided NH with the application schedule which has provided NH with certainty that 2025 is accurate for the development opening year.
National Highways	JSJV note (for NH) 6 July 2022	JSJV request the A1173 / SHIIP roundabout is included within the junction assessments.	The A1173 / SHIIP junction has been assessed and the results can be seen in Annex K of the TA (Appendix 17.1 to this ES). The junction will function within capacity.
National Highways	JSJV note (for NH) 6 July 2022	JSJV require confirmation of the exact dates that the SRN MTC surveys were captured and for this data to be supplied for review.	The dates of all the surveys undertaken can be seen in Figure 3 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	JSJV require full details to be provided of the Assessment of Roundabout Capacity And DelaY (ARCADY) model validation, including the methodology undertaken to derive queue lengths and resultant impacts on the capacity assessment.	The ARCADY models have been checked against the queues from the turning surveys as described in paragraph 1.10 of Annex K of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	JSJV require full details of the proposed use of the area immediately south of the proposed jetty within the development and of the terminal buildings, including the amount of parking proposed.	These are provided on the scheme drawings.

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National Highways	JSJV note (for NH) 6 July 2022	JSJV note that the current working draft TA does not confirm parking provision within the proposed development. JSJV would require this to be included within the TA.	The TA includes parking provision in section 4.4 (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 6 July 2022	Should the proposed development be also used as a passenger transport basis in addition to freight movement as initially proposed, this would have to be reflected in calculated trip generation and resultant junction impact assessment.	The maximum possible number of passengers (rather than vehicles) on the site will be limited by the Control of Major Accident Hazards (COMAH) Regulations to 100 at any one time and there will be a limit to that effect in the DCO. Given that these will replace other HGV movements, the overall impact in Passenger Car Unit (PCU) terms will be the same. This is confirmed in paragraph 5.2.7 of the TA (Appendix 17.1 to this ES).This position has been agreed with NH (their response 7 October 2022)
National Highways	JSJV note (for NH) 6 July 2022	JSJV have noted that there is no reference to a Travel Plan within the previously submitted SR or within subsequent correspondence between DTA and JSJV.	A Framework Travel Plan is submitted as part of the application (Appendix 17.2 to this ES).
National Highways, NELC and NLC	Virtual Meeting 20/07/22	This meeting discussed the issues raised about the working draft of the TA that was submitted to NH, NELC and NLC that have been summarised above.	As above.

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National Highways	JSJV note (for NH) 5 September 2022	Given the scale of the proposed development and its proximity to the Strategic Road Network, JSJV suggest that a CTMP should be recommended as a condition associated with the planning permission if granted. NH should approve the CTMP and Construction Worker Travel Plan (CWTP) documents prior to commencement of works.	The provision of a CTMP is provided for within the overall CEMP (Application Document Reference number 9.2) secured by a Requirement of the DCO, which requires the authorised development to be constructed in accordance with the CEMP or as otherwise amended with the agreement of the relevant planning authority and with National Highways provided that any such amendment would not result in new or different significant environmental effects other than those reported in the environmental statement.
National Highways	JSJV note (for NH) 5 September 2022	Whilst JSJV appreciate the current restrictions on passenger numbers enforced by the port, to satisfy NH by means of an enforceable restrictive limit that can be relied on in perpetuity. JSJV / NH will explore the suitability of the potential for a restrictive condition to be applied to the passenger transport proposals.	The DCO limits the number of public passengers in any one day to 100.
National Highways	JSJV note (for NH) 5 September 2022	JSJV request that full details be provided, with supporting evidence, substantiating the assumption of 150 employee trips arrivals / departures.	This is addressed in Para 4.3.2 of the TA (Appendix 17.1 to this ES).
National Highways	JSJV note (for NH) 5 September 2022	The analysis in the TA appears to assess only the number of lanes on	This has been addressed and updated. The final assessment is

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		the mainline and not the merge / diverge geometries as stipulated in CD122 'Geometric design of grade separated junctions'. The A160 / A180 and A180 / A1173 merge / diverge assessments show a need for upgrade with a step change indication triggered by traffic generation from the proposed development. JSJV do not agree with the DTA comment relating to the acceptability of 'Layout A with two lanes up and downstream on the mainline' for the merge / diverge slip roads identified at both junctions of concern.	provided in Annex L of the TA (Appendix 17.1 to this ES).
National Highways, NELC and NLC	Virtual Meeting 06/09/22	Meeting to discuss JSJV comments in their written note of 5 September	Reponses covered above.
JSJV on behalf of National Highways	Technical note, 7 October 2022	Agrees position in respect of passenger number limits	Noted
		Construction CTMP. Process to secure the document is agreed, NH require specific inclusion of criteria / scope.	These are included in Section 3.3 of the CEMP (Application Document Reference number 9.2).
		Agreement to signage strategy and delivery process	Noted. East Gate is not currently being signposted on the local or strategic highway network. ABP are separately pursing agreements through Section 278 of the Highways Act 1980 to deliver a change to the

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
			existing signage arrangement to improve directional signage to the Port of Immingham generally.
		Agreement to junction operation assessment	Noted.
		Requests further clarification on merge / diverge calculations.	This are provided in Annex L of the TA.
Member of the Public (Q1)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Hope infrastructure of roads are also developed to a higher standard.	The chapter and Annex K of the associated TA (Appendix 17.1 of this ES) fully assess the impact on the local road infrastructure and conclude wider improvements are not required.
Member of the Public (Q2)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Proposed traffic routing should consider tenants on main road leading to the Terminal.	Impacts on noise sensitive receptors has been considered in the Noise and Vibration chapter (Chapter 14) of this ES.
North East Lincolnshire Councillor (Q3)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Need more and better infrastructure to match port growth and jobs.	The chapter and Annex K of the associated TA (Appendix 17.1 of this ES) fully assess the impact on the local road infrastructure and conclude wider improvements are not required.
Member of the public (EX1)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Traffic on Queen's Road was raised and consideration of people living on that road.	The chapter and Annex K of the associated TA (Appendix 17.1 of this ES) fully assess the impact on the local road infrastructure and conclude wider improvements are not required.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
Member of the public (EX1)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Benefit of better signposting to east and west gates	Noted and this is proposed.
Network Rail (PI 25)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	We note the additional information provided in the re-consultation and advise that our previous comments of 22 February 2022 (attached for reference) remain applicable.	Noted as previous response. ABP is consulting with Network Rail in respect of appropriate Protective Provisions for inclusion in the draft DCO.
DFDS (PI 15)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Congestion into the dock will have an impact on the whole operation of the dock, causing a detrimental commercial effect on dock users. We would expect ABP to show what impact the increased congestion from the project will have on the wider Immingham area but they are yet to do so. While an additional lane is to be added outside the East Gate, it is not clear whether this will reduce the congestion caused by the additional vehicles that the IERRT will bring to an acceptable level. Removing one bottleneck at the East Gate may create bottlenecks elsewhere and the free flow of traffic both inside and outside the port estate need to be demonstrated by ABP. An example of other potential bottlenecks due to re-routing is the	This is fully assessed in Annex M of the TA (Appendix 17.1 of this ES). Specifically, the use of East Gate and the assessment of distribution of traffic is set out in Section 5.5 of the TA, and the operation of internal port junctions are assessed in Annex M.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		likely greater proportion of vehicles rerouted on the A160 corridor due to: a. Signage and suitability of roads; b. Existing behaviours associated with Stena operations at Killingholme; and c. The HGV refuelling station.	
DFDS (PI 15)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	ABP have not taken into consideration any increase of traffic at the West Gate whatsoever, instead presuming that all increased vehicle movements will use the East Gate. Firstly, the East Gate will not be able to handle the proposed number of vehicle movement (660,000) at peak times in the early morning and early evening. Although there will be an additional lane, there will still only be one gatehouse, which will not sufficiently ease the congestion problems around the East Gate caused by the increased vehicle movements. Secondly, some of the increased vehicle movements will still pass through the West Gates as that is the location of the haulage yards. ABP's strategy of using increased signage to encourage use of the East Gate is not adequate to	The assessment makes allowance for the use of West Gate – Section 5.5 of the TA (Appendix 17.1 of this ES).

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		avoid congestions at the West Gate as well as the East Gate.	
DFDS (PI 15)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Five junctions are forecast to operate over their capacity in 2032 once the ABP development flows are considered alongside the committed developments. These are: a. A160 Humber Road/ Eastfield Road Junction; b. A160 Humber Road/A1173 Manby Road Roundabout; c. A1173/ New Site Access Roundabout; d. A1173/ Kiln Lane Roundabout; and e. A180/A1173 Roundabout. These forecast congestions will have negative environmental effects and negative commercial impacts on other port users and cause congestion for the residents of Immingham. DFDS is of the view that further road improvements should be included to eliminate the impacts of HGVs and other vehicles on local roads.	The evidence which supports this statement is not clear and it directly contradicts the agreed findings of the TA (Appendix 17.1 of this ES) as set out specifically in Annex K.
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	The IOT Operators are concerned with the operation of the East Gate following observations during a site visit in March 2022 which highlighted	This is addressed in the DCO by the inclusion of changes to East Gate layout.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		queuing on Queens Road at the existing security gate house and the proximity of the Laporte Road junction. The PEIR for the IERRT Development had not identified this issue and had not therefore assessed the impact of the very significant increase in vehicular trips that the IERRT Development would generate.	
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	ABP has acknowledged the potential of queuing traffic on the public highway, and has proposed changes to the scheme to provide two entry lanes and two security gates at the East Gate. The Supplementary Consultation Report states that these improvements have been discussed with North East Lincolnshire Council and would be "regularised by means of a legal agreement with the Council". The IOT Operators assume that this means an agreement under section 278 of the Highways Act 1980.	The elements of the scheme which are within NELCs Highway Land will be undertaken under Section 278 of the Highways Act 1980.
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	ABP has not provided any evidence to suggest that traffic surveys have been undertaken at the East Gate, nor an assessment to demonstrate that the proposed widening would	The traffic surveys undertaken for the scheme are provided in Annex BD1 of the TA (Appendix 17.1 of this ES).

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		alleviate any significant queuing and therefore mitigate the impacts identified by the IOT Operators' technical advisors. Whilst a second lane would increase capacity at the security gates it would not be a doubling of capacity as lane utilisation is unlikely to be equal.	
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Figure 7 in the Supplementary Consultation Report indicates the security huts on either side of the widened access meaning that for UK vehicles, the nearside lane security hut would be on the wrong side for the driver. The opposite would be the case for left hand drive vehicles. This could introduce further delays or lead to drivers switching lanes on the approach to the security gates which, again, could cause delays. Furthermore, there is no evidence that the proximity of the Laporte Road junction and its interaction with the East Gate has been assessed. This has been highlighted by the IOT Operators' technical advisors as a highway safety concern,	At present all security gates into the port provide off-side security hatches. The scheme is specifically designed to increase flexibility and efficiency for inbound staff/regular users and also to improve capacity for left hand drive vehicles. The left hand lane will be designed primarily for vehicles that will be on ANPR/RFID with automatic barrier entry to the port.
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Currently there is a ghost island right turn lane just within the East Gate that serves the road that provides	A right turn lane is retained and shown on the DCO plans.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		access to the IOT Operators. Figure 7 suggests that this right turn lane is being removed, but this is not actually stated in the Supplementary Consultation Report and no commentary on the impact of such a change is provided.	
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	In addition, Figure 7 shows yellow box markings being installed across this junction yet there is no explanation within the Supplementary Consultation Report as to why such markings are required. Box markings are installed where queuing traffic can block a junction, and ABP should set out what assessment has been undertaken that suggests this will occur.	This was provided at the request of APT as an additional protective measure, but no queuing is expected in this location.
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	Given the significant numbers of lorries that approach the East Gate from Laporte Road, the IOT Operators' technical advisors consider that relying on just a signed route from the A180 might be insufficient. There is no evidence in the Supplementary Consultation Report, or publicly available updated environmental information, to justify the statement that a signing strategy	This position has been agreed with the Highway Authority.

Consultee	Reference, Date	Summary of Response	How comments have been addressed in this chapter
		is all that is required to mitigate the impacts of the IERRT Development on off-site public highways.	
APT (Immingham) Ltd. (PI 19)	Supplementary Statutory Consultation – 28 Oct – 27 Nov 2022	The IOT Operators consider it likely that protective provisions would be required to address concerns with access to the IOT Operator's onshore facilities. In paragraph 2.1(d) of our previous letter of 25 July 2022 it as suggested an alternate access should be provided off Laporte Road; a suggestion to which ABP are yet to provide a response.	The traffic modelling provided within this chapter of the ES and the Transport Assessment at Appendix 17.1 (specifically Annex M, paragraph 1.21 and 1.22) considers the capacity of the IOT access with the scheme in place. This clearly demonstrates that there will no adverse impact and therefore no requirement for improvement. However, ABP intend to provide an emergency traffic management system to this junction (see Chapter 2 of this ES) which will allow APT to have free access from the junction from their facility in the event of an emergency that they need to respond to at one of their facilities. This will essentially initiate a set of traffic lights which will stop the traffic on Robinsons Road. Follow up correspondence has been issued to APT to reflect this.

17.5 Implications of policy, legislation, and guidance

17.5.1 This section of the chapter sets out key aspects and implications of policy and guidance that are relevant to the assessment of likely impacts on traffic and transport. It builds upon the overarching chapter covering the Legislation, Policy and Consenting Framework (Chapter 5).

UK Legislation

17.5.2 The traffic and transport assessment is predominantly governed by the statutory framework provided by the Highways Act 1980 which directs the management and operation of the road network in England and Wales.

National Policy

National Policy Statement for Ports (NPSfP)

17.5.3 The NPSfP (DfT, 2012) provides in paragraph 5.4.4 that:

> *"If a project is likely to have significant transport implications, the applicant's Environmental Statement (ES) (see section 4.7) should include a TA, using the WebTAG methodology stipulated in Department for Transport (DfT) guidance, or any successor to such methodology. Applicants should consult Highways England and/or the relevant highway authority, as appropriate, on the assessment and mitigation. The assessment should distinguish between the construction, operation, and decommissioning project stages as appropriate."*

17.5.4 As well as a TA, paragraph 5.4.5 requires the applicant, where appropriate, to:

> *"Prepare a travel plan, including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts."*

17.5.5 Paragraph 5.4.8 states that:

> *"Transport assessment should include private traffic accessing and leaving the port, where significant, even where not generated by the development under application".*

17.5.6 This chapter and the accompanying TA (Appendix 17.1 to this ES) have been prepared in consultation with NH and the Local Highway Authorities following their advice.

National Planning Policy Framework (NPPF)

17.5.7 Whilst the NPPF (Ministry of Housing, Communities and Local Government, 2021) is not the primary governing policy document for the purposes of a harbour facility nationally significant infrastructure project (NSIP) it is still an important policy document for traffic and transport and has therefore been taken into account.

17.5.8 Paragraph 111 of the NPPF is clear that:

> "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe*".

17.5.9 Within this context, the NPPF provides in Paragraph 112 that applications (albeit planning applications) for development should:

> *a) Give priority first to pedestrian and cycle movements, both within the scheme and within neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
> *b) Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
> *c) Create places that are safe, secure, and attractive – which minimise the scope for conflicts between pedestrians, cyclists, and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
> *d) Allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
> *e) Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible, and convenient locations.*

17.5.10 Paragraph 113 of the NPPF goes on to state that:

> "*All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed*".

17.5.11 In reinforcing the principle of supporting sustainable development, paragraph 10 stipulates that at the heart of the Framework is

> *"A presumption in favour of sustainable development".*

DfT Circular 02/2013 – 'The strategic road network and the delivery of sustainable development'

17.5.12 DfT Circular 02/2013 (Highways Agency and DfT, 2013) sets out the way in which Highways England (now NH) engage with communities and the

development industry to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the strategic network.

17.5.13 Where development proposals are consistent with an adopted Local Plan, Highways England does not anticipate the need for engagement in a full assessment process at the planning application stage. However, where proposals are not consistent with the adopted Local Plan then a full assessment of the impact is necessary – paragraph 87 and 88.

17.5.14 NH require – as set out at paragraph 45 of the DfT Circular 02/2013 – that:

> *"In consultation with relevant infrastructure providers, statutory environmental advisors and consenting authorities, developers must ensure all environmental implications associated with their proposals, are adequately assessed and report so as to ensure that the mitigation of any impact is compliant with prevailing policies and standards. This requirement applies in respect of the environmental impact arising from the temporary construction works and permanent transport solution associated with the development, as well as the environmental impact of the existing trunk road upon the development itself."*

Local Policy

North East Lincolnshire Local Plan 2013-2032

17.5.15 The local plan is a key document which will guide the changing use of land in the Borough and define the purpose to which it is put in the future (North East Lincolnshire Borough Council, 2018). The local plan sets out the Council's vision and strategy for development, including why, where, and how the Borough will grow. The local plan is a plan for growth and aims to ensure North East Lincolnshire becomes a sustainable location in which people can live, work, and enjoy their recreation, both now and in the future.

17.5.16 Strategic Objective 7 considers transport around North East Lincolnshire:

> *"Improve accessibility to jobs and services by sustainable transport modes, including cycling and walking; reduce the overall need to travel with employment and housing growth spatially balanced; and provide the necessary infrastructure to support sustainable growth."*

17.5.17 Policy 36 promotes sustainable transport within North East Lincolnshire.

- *"To reduce congestion, improve environmental quality and encourage more active and healthy lifestyles, the Council will support measures that promote more sustainable transport choices. Where appropriate, proposals should seek to:*
  - *Focus development which generates significant movements in locations where the need to travel will be minimised;*
  - *Prioritise pedestrian and cycle access to and within the site;*

  - *Make appropriate provision for access to public transport and other alternative means of transport to the car, adopting a 400 m walk to bus stop standard;*
  - *Make suitable provision to accommodate the efficient delivery of goods and supplies; and,*
  - *Make suitable provision for electric vehicle charging, car clubs and car sharing when considering car park provision.*
- *Planning permission will be granted where any development that is expected to have significant transport implications delivers necessary and cost-effective mitigation measures to ensure that development has an acceptable impact on the network's functioning and safety. These measures shall be secured through conditions and/or legal agreements.*
- *Where appropriate, Transport Statements, Transport Assessments and/or Travel Plans should be submitted with applications, with the precise form being dependant on the scale and nature of development and agreed through early discussion with the Council.*
- *The priority areas where combinations of sustainable transport measure and highway improvements will be focused are:*
  - *Grimsby town centre;*
  - *Cleethorpes town and centre and resort area;*
  - *A180 corridor, (urban and industrial); and,*
  - *Urban area congestion hotspots and defined air quality management zones."*

17.5.18 Policy 38 considers parking within North East Lincolnshire.

- *Development proposals that generate additional parking demand should ensure that appropriate vehicle, powered two-wheeler and cycle parking provision is made. The form and scale of off-street parking required will be assessed against the following:*
  - *The accessibility of the development;*
  - *The type, mix and use of the development;*
  - *The availability and frequency of public transport services; and,*
  - *Local car ownership levels.*
- *Developers will be expected to have considered and incorporated measures to minimise parking provision without causing detriment to the functioning of the highway network, local amenity and safety.*
- *Where private and/or public on-site parking for public use is to be provided at least 5% of parking bays, should be designed, set out and reserved for people with mobility impairments. Such parking bays should be located as close to the main access to the building as possible.*
- *Where 100 or more parking places are to be provided to serve a commercial development, a minimum of three charging points should be provided for electric vehicles.*
- *Development proposals that make provision for surface parking areas to serve more than a single household, visitor, employee, or customer, should ensure that appropriate low maintenance landscaping is integrated into the design and layout of the sites.*

North East Lincolnshire Local Transport Plan 2016-2032

17.5.19 The North East Lincolnshire Local Transport Plan (LTP) sets out the vision for highways and transport in the borough. The document identifies a number of challenges present in the area and summarises how that challenge will be addressed.

Guidance

Institute of Environmental Assessment Guidance Note No 1

17.5.20 The Guidelines for the Environmental Assessment of Road Traffic (Institute of Environmental Assessment, 1993) (the 'IEA Guidelines') were published in January 1993 by the Institute of Environmental Assessment. These guidelines provide assistance on how to assess the environmental impacts of road traffic associated with new developments, irrespective of whether the developments are to be subject to formal EIA.

17.5.21 The purpose of the guidelines is to provide the basis for systematic, consistent, and comprehensive coverage for the appraisal of traffic impacts arising from development projects. Impacts that may arise include pedestrian severance and pedestrian amenity, driver delay, accidents and safety and noise, vibration, and air quality.

17.5.22 The GEART have been used to inform this assessment.

Planning Practice Guidance

17.5.23 Following directly on from paragraph 111 of the NPPF, the 'Travel Plans, Transport Assessment and Statements in decision taking' Planning Policy Guidance (Department for Communities and Local Government (DCLG), 2014) set out the approach required for preparing Transport Statements and this is discussed in detail in Section 2.2 of the TA (Appendix 17.1 of this ES)

The Strategic Road Network: Planning for the Future

17.5.24 This guidance document describes the approach which NH (formerly Highways England) takes to engage in the planning system and the issues looked at when considering draft planning documents. It also offers advice on the information which NH would like to see included in a planning proposal. The relevant paragraphs are summarised below.

> *"Transport assessments should generally be carried out in line with prevailing government guidance in agreement with us, through preapplication and scoping, such as a road safety audit (stage 1)".*
>
> *Para 37*

> *"We will expect to see measures implemented that fully mitigate any and all environmental impacts arising from and relating to the interaction between developments and the SRN. There are three aspects to this:*

- *The environmental impacts arising from the temporary construction works;*
- *The environmental impacts of the permanent transport solution associated with the development; and*
- *The environmental impact of the road network upon the development itself."*

Para 49

"To avoid potential delay or challenge, transport assessments/statements and environmental statements/impact assessments should be mutually consistent and pay due regard to each other."

Para 52

"If the development is in an approved local plan and has had an appropriate level of assessment of the impact of the development undertaken, we [Highways England] do not anticipate the need to repeat the full assessment process at the planning application stage."

Para 87

"If, however, the development proposed has not been subject to an appropriate level of assessment or is not included or consistent with an approved local plan, then we anticipate agreeing the scope of work required to make a full assessment. For those sites that have been considered at local plan stage, we will take into account any assessment already undertaken."

Para 88

"Formal pre-application discussions are an effective means of gaining a good, early understanding of the development, its benefits, its likely impacts and its infrastructure needs. By consulting with us pre-application, you will ensure that the transport assessment you prepare is appropriately scoped and is based on the most relevant and up-to-date data. It will also ensure that you are made aware of, and can take account of, any SRN issues that might have a bearing on the way in which the development is planned and/or delivered. This, in turn, helps avoid delays and difficulties further into the application process".

Para 94

17.6 Description of the existing environment

Local highway network

17.6.1 A plan of the local road network is provided on Figure 17.1 to this ES, and the wider network is shown on Figure 17.2 to this ES. This shows the context of the Port of Immingham which has two highway access points, East Gate and West Gate.

17.6.2 From West Gate – Humber Road is a single carriageway road which measures approximately 10 m in width. The road is subject to a 40 mph speed limit. Humber Road runs between the West Gate of the Port and the A160/ A1173 Manby Road/ Humber Road Roundabout

17.6.3 From East Gate – Queens Road is a single carriageway road which measures approximately 8.0 m in width. The road is subject to a 40 mph speed limit. There is a footway along the western side of the carriageway starting some 700 m south of the East Gate. Queens Road runs between the East Gate of the Port of Immingham and the A1173 Manby Road via a three-arm roundabout.

17.6.4 The A1173 Manby Road is a single carriageway road which measures approximately 8.0 m in width. The road is subject to the national speed limit of 60 mph. There is a footway along the A1173 which changes between the eastern and western sides of the carriageway between the A1173 Manby Road/ Queens Road Roundabout and the A1173 Manby Road/ Pelham Road Roundabout. Dropped kerbs with tactile paving are provided at all crossing points. The A1173 runs between the A160/ A1173 Manby Road/ Humber Road Roundabout and the A180/ A1173 Manby Road Roundabout.

17.6.5 The A160 is a dual carriageway road which measures approximately 26 m in width with an approximately 6.5 m wide central reservation. The road is subject to the national speed limit of 70 mph. The A160 runs between the A160/ A1173 Manby Road/ Humber Road Roundabout and the A180.

17.6.6 The A180 is a dual carriageway road which measures approximately 20 m in width. The road is subject to the national speed limit of 70 mph. The A180 runs between Grimsby and becomes the M180 motorway some 20 km south-west of the Port of Immingham.

17.6.7 The M180 motorway runs from Junction 5 of the M18 motorway before becoming the A180 near Immingham.

Existing rail infrastructure

17.6.8 There are two running lines passing through the port estate, both of which enter the Port boundary at Humber Road Junction. At this point the main running line (KIL1) travels in a north-easterly direction, curving north-westerly at West Junction where it exits the port estate to join the branch line to Killingholme (KIL2). KIL2 subsequently crosses Station Road by means of a level crossing. This is shown in Figure 17.4 to this ES.

17.6.9 ABP control and operate all the lines within the Port Estate.

17.6.10 KIL1 is the most heavily used part of the Immingham Dock rail infrastructure. It connects into facilities at the Humber International Terminal (HIT), Tata's Immingham Bulk Terminal (IBT), Simon Storage West, Henderson Quay, the Mineral Quay, and the Killingholme Branch Line (KIL2).

17.6.11 The national rail network, operated by Network Rail and leading to the Port of Immingham provides three routes from the East Coast Main Line (ECML) to the key intersection at Wrawby Junction, about 14 km (*circa* 9 miles) west of Immingham. These are the west facing South Humberside Line passing Scunthorpe and joining the ECML at Doncaster. The south-west facing

Brigg Line passes Gainsborough joining the ECML at Retford. The south facing Lincoln Line passes through Lincoln and joins the ECML at Newark.

17.6.12 East of Wrawby Junction is a three-track railway of four miles to Brocklesby Junction where passenger services to Grimsby and Cleethorpes branch to the south-west. Freight traffic to the Port branches north to Ulceby then loops past the two Immingham oil refineries and onto the Port.

17.6.13 East of the Killingholme line, Immingham Reception sidings can be accessed, traffic can continue east on to DFDS Nordic Terminal, DB Cargo sidings, then onto ABP Rail sidings to the east of the Lock. Simon Storage and Ridleys Sidings. Onward rail running lines continue on the Grimsby Light Railway (PYE2) to Great Coates, with onward rail traffic facing west on to the Down Cleethorpes Line. PYE2 is bi-directional and access to Immingham reception sidings can be via Great Coates.

17.6.14 The IERRT project straddles the existing railways line over which a bridge will be built.

Existing traffic flows

17.6.15 In order to inform the assessment, traffic count data has been collected on the local road network at various locations during 2021. The location of the survey work is shown at Figure 17.3 to this ES.

17.6.16 Full details of the data are provided in Annex BD1 of the TA (Appendix 17.1 to this ES). The data incudes continuous 7-day link flow data and more detailed turning movement counts at local junctions.

17.6.17 Traffic flow data is also available from the DfT for the A160 (from Rosper Road to A180), the A180, M180 and A15 from 2019.

17.6.18 The resulting baseline 24-hour flows on the network area are as follows:

Table 17.6. Summary of Baseline Link Flows (24-hour two-way)

Location	AADT	HGVs
West Gate	5,536	2,360
East Gate	5,834	803
Queens Road	3,883	566
Kings Road (North of Queens Road)	7,722	568
A1173 (South of Kings Road)	7,384	795
A1173 (Stallingborough Road)	16,854	1,318
A180 (East of A1173)	34,246	3,253
A160 (Adjacent South Killingholme)	10,536	5,048
A180 (West of A160)	31,706	8,990
M180 (West of A15)	37,748	9,634
A15 (North of M180)	22,467	2,082

17.6.19 Additionally, a series of turning surveys were obtained for the area within and surrounding the Port to support junction modelling assessments and these are reported in detail in Annex BD2 of the TA (Appendix 17.1 to this ES).

Road safety

17.6.20 Personal Injury Collision (PIC) data has been obtained for the latest 5-year period (21/08/2016-20/08/2021) from NELC. North Lincolnshire have requested the use of information on the website Crashmap. Two areas have been analysed – the first is the A160/ A1173 Manby Road/ Humber Road Roundabout and the area surrounding it, and the second is Queens Road, the A1173 Manby Road, and the A180/ A1173 Manby Road Roundabout. The dataset is assessed in detail in Section 3.5 of the TA (Appendix 17.1 to this ES).

17.6.21 Overall, it is concluded that there are no existing highway safety issues that would need to be addressed as part of this assessment.

Public transport provision

Bus services

17.6.22 The nearest bus stop to the site is located on Queens Road, at the junction with Laporte Road, approximately 250 m south of the East Gate into the Port of Immingham. The stop is serviced by the number 5M. This service runs between Immingham and Grimsby every Monday to Friday between 16.19 and 17:49 at a frequency of 30-minutes to 1-hour.

Rail services

17.6.23 The nearest railway station to the Port is Habrough Railway Station which is approximately 7.5 km west off the B1210. There are 4 cycle storage spaces located at the station and 13 car parking spaces. The services at the station are operated by East Midlands Railway, Northern Trains and TransPennine Express.

17.6.24 On weekdays, the station is served by an hourly TransPennine Express service between Cleethorpes and Manchester Airport. East Midlands Railway operate a two-hourly service between Grimsby Town and Leicester via Lincoln and Nottingham as well as a two-hourly service between Cleethorpes and Barton-on-Humber. On Saturdays, there are also three trains per day between Cleethorpes and Sheffield via Brigg which are operated by Northern Trains.

17.6.25 On Sundays, the TransPennine Express service is two-hourly in the morning but increases to hourly in the afternoon. During the summer months, there are three East Midlands Railway services between Nottingham and Cleethorpes and four services to Barton-on-Humber with no services on either of these routes in the winter.

Walking and cycling provision

17.6.26 As well as the footways mentioned above, all the residential roads in and around Immingham have lit footways on both sides of the carriageway. They are also all subject to a 30 mph speed limit making them safe routes for both pedestrians and cyclists to use.

17.6.27 Within the Port, some of the roads have footways with the remaining roads having proposed footways, the building of which have been delayed due to the Covid-19 pandemic. These footways give pedestrian access to the Port via East Gate.

17.6.28 There are a number of Public Rights of Way (PROWs) in the vicinity of the Port. There is a public footpath off Queens Road and a public Bridleway off Laporte Road, which forms part of the coastal path, both of which are approximately 500 m from East Gate. All the PROWs near to the Port are identified in Section 3.7 of the TA (Appendix 17.1 of ES).

17.7 Future baseline environment

17.7.1 In the absence of the IERRT project, it is assumed there will be economic growth both on the IERRT project site and in the wider port area which will result in increases in traffic movements.

17.7.2 The site of the IERRT project forms part of the operational Port of Immingham and has been in active use for port purposes for a number of decades. The current use of the site is for bulk cargo, steel sections, lorry, and automotive storage. In the absence of the IERRT, the site would continue to be utilised for port activity.

17.7.3 Whilst there are understood to be no material physical changes to the baseline (in terms of highway works or infrastructure improvements), the local network will experience growth in traffic over the assessment period. This will include growth from other port related activities and growth from other economic and residential development in the area.

17.7.4 The precise details of specific committed and cumulative developments have been discussed and agreed with consultees. The assessment has considered two scenarios a) year of opening (2025) and b) 10 years after year of application (in accordance with Circular 02/13) which is 2032.

17.7.5 To inform the assessment, the base traffic flows have been factored up using Trip End Model Presentation Program (TEMPro) Growth Rates. The relevant Middle Super Output Area (MSOA) has been used for each junction or link which has been assessed. The resulting factors are shown in Table 17.7 of this chapter of the ES. The wider traffic flows with growth applied are set out at Annex F of the TA (Appendix 17.1 to this ES).

Table 17.7. Future Year Growth Factors

Middle Super Output Area	Road Type	2019-2021		2021 – 2025		2021 – 2032	
		AM	PM	AM	PM	AM	PM
North East Lincolnshire 001	Minor	1.0189	1.0175	1.0298	1.0291	1.0773	1.0750
	Trunk	1.0281	1.0266	1.0401	1.0394	1.1049	1.1025
North East Lincolnshire 007	Minor	1.0133	1.0123	1.0269	1.0255	1.0683	1.0649
	Principal	1.0132	1.0121	1.0262	1.0248	1.0654	1.0620
	Trunk	1.0224	1.0214	1.0372	1.0358	1.0957	1.0921
North Lincolnshire 004	Trunk	1.0252	1.0239	1.0443	1.0434	1.1131	1.1108
North Lincolnshire 011	Motorway	1.0296	1.0289	1.0501	1.0500	1.1262	1.1260

17.7.6 Given the lack of any significant housing growth predicted in the immediate area, the predominant growth will occur from increased commercial activity in and around the Port of Immingham. Road based throughput has increased from the port by around 10% over the last ten years. On that basis the TEMPro growth rates of *circa* 7 to 10% on the local roads is consistent with historic growth.

17.8 Consideration of likely impacts and effects

17.8.1 This section identifies the potential likely effects on the traffic and transport receptors as a result of the construction and subsequent operation of the IERRT project which have been identified.

Construction phase

17.8.2 This section contains an assessment of the potential impacts of traffic and transport as a result of the construction phase of the IERRT project.

17.8.3 The construction of the IERRT project may be completed in a single stage, or it may be sequenced such that construction of the southernmost pier takes place at the same time as operation of the northernmost pier (see Chapter 3 of this ES). In the case of a sequenced construction, the duration of construction activity will be extended but it will not increase the scale of construction activity.

17.8.4 For the purposes of this assessment the worst case is that construction will take place in a single stage. For this, the construction of the development as set out in Chapter 3 of the ES is expected to commence in early 2024 and be completed by mid-2025. It will involve the importation of a variety of building materials including steel, concrete, steel reinforcement, aggregates, blocks and asphalt. Overall, it is expected that an average of 100 loads of material will be delivered on a daily basis. There will be some slightly higher peaks (for example if large concrete pours are underway) and by definition therefore days when less HGV traffic will be generated.

17.8.5 Around 120 to 150 construction workers are expected on site on a typical day. The Census 2011 journey to work data for the MSOA within which the site is located shows that around 80% of people drive to work. Applying this to the maximum number of staff indicated above equates to 120 daily trips (240 two-way light vehicle movements).

17.8.6 In total, therefore, forecast construction traffic movements are 240 light vehicles on a typical weekday and an average of 200 heavy vehicle movements (100 in and 100 out) per working day. For purposes of assessment a peak of 280 HGV movements per day are assessed.

17.8.7 To accommodate three new berths, it is anticipated that this will require dredging approximately 190,000 m³ of material. The dredged material is not considered suitable for beneficial use elsewhere, such as for reclamation purposes (see Waste Hierarchy Assessment (WHA), Appendix 2.1 to this ES). Therefore, the dredged material is proposed to be transported to licensed disposal sites offshore (depending on the type of material) by barge (see Proposed Development (Chapter 2) of this ES). On this basis no assessment or allowance for land-based movements arising from the dredge have been assessed.

17.8.8 Overall, the daily construction traffic movements (*circa* 520 movements) will be significantly lower than the operational traffic level set out in the following paragraphs (*circa* 2,000 movements). Furthermore, this level of traffic will be occurring for a temporary period of time. The environmental impacts will therefore be reduced from those set out below for the operational phase.

Likely Impacts and Effects – Construction Stage

17.8.9 The following sections of this chapter set out the impacts which have been identified, along with an indication of the significance of the resulting effects in the absence of any mitigation.

Severance

17.8.10 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic route. Whilst the IEA Guidelines refer to the effect of traffic on severance of 30%, 60% and 90% producing ‘slight’, ‘moderate’ and ‘substantial’ changes in severance respectively, it is suggested in the guidance that caution be applied to relying on these quanta of change as each case depends on specific local conditions.

17.8.11 Taking total traffic volumes – in accordance with the IEA Guidelines - the level of traffic related to the construction phase is less than 30% on all links. The magnitude of overall traffic increase can, therefore, in accordance with Table 17.2 of this chapter of the ES be categorised as negligible for the majority of links.

17.8.12 The effect on severance as a result of overall traffic increase can, therefore, in accordance with Table 17.4 of this chapter of the ES be categorised as **insignificant**.

Driver delay

17.8.13 The IEA Guidelines note that driver delay is only likely to be significant when the traffic on the highway network is at or close to the capacity of the system. Each of the roads considered within the assessment operate well within capacity threshold levels now and for future years.

17.8.14 It can, therefore, be concluded that there will be insignificant impact in respect of driver delay.

17.8.15 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the overall network consists of negligible / low sensitivity receptors (Table 17.1 of this chapter of the ES). The magnitude of the impact is insignificant (Table 17.2 of this chapter of the ES) and overall, this is considered to be an **insignificant** effect (Table 17.4 of this chapter of the ES). As already indicated, in common with standard assessment practice, minor effects or lower are not considered be significant in environmental assessment terms.

Pedestrian delay and amenity

17.8.16 Given the range of local factors and conditions which can influence pedestrian delay, the guidance suggests it is not considered wise to set down any thresholds, but instead it is recommended that assessors use their judgement to determine whether pedestrian delay is a significant impact.

17.8.17 There are no footways on the A160. On site observations confirm that pedestrian activity on Queens Road – where there are some footways - is relatively low. It is, therefore, concluded that the proposals will have an insignificant effect on pedestrian delay and amenity.

17.8.18 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the pedestrian routes within the vicinity of the site are considered to be low sensitivity receptors (Table 17.1 of this chapter of the ES). The magnitude of the impact is negligible (Table 17.2 of this chapter of the ES) and overall, this is considered to be an **insignificant** effect (Table 17.4 of this chapter of the ES). As already indicated, in common with standard assessment practice, minor effects or lower are not considered to be significant in environmental assessment terms.

Accidents and safety

17.8.19 The review of existing accident records that has already been referred to in the baseline environment section confirms that whilst incidents occurred at a number of locations along the access routes to and from the site of the proposed development there are no clusters identified and there were no patterns in the causal factors or specific locations of incidents, and none were related to deficiencies in highway layout or design.

17.8.20 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the low sensitivity of the receptor (Table 17.1 of this chapter of the ES) and negligible magnitude of impact (Table 17.2 of this chapter of the

ES) results in an **insignificant** effect (Table 17.4 of this chapter of the ES) of the proposals on highway safety.

Hazardous or abnormal loads

17.8.21 The construction period may need to accommodate HGVs which are carrying Abnormal Loads.

17.8.22 These will be managed through other regulations both on site and when the vehicle is travelling on the public highway.

17.8.23 Once a vehicle leaves the port the transport of any hazardous load is the responsibility of the haulier and prospective clients under the European Agreement concerning International Carriage of Dangerous Goods by Road (ADR) to ensure compliance with the regulations set out within that agreement.

17.8.24 On this basis, procedures will be in place for transporting such loads on the local road network to ensure any risks are minimised.

17.8.25 Any abnormal loads will be moved under standard procedures including notification to the police as necessary.

17.8.26 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the low sensitivity (Table 17.1 of this chapter of the ES) and negligible magnitude of impact (Table 17.2 of this chapter of the ES) results in an **insignificant** effect of hazardous or abnormal loads as a result of the proposals (Table 17.4 of this chapter of the ES).

Fear and intimidation

17.8.27 The IEA Guidelines identify indicative levels of traffic and HGV flows at which fear and intimidation is considered to be notable. Whilst the average traffic flow over an 18-hour day on the majority of road links resulting from the proposals is above the threshold identified in the IEA Guidelines, the existing footfall on adjacent roads is low.

17.8.28 Therefore, construction traffic will not be close to major pedestrian routes, and it is not considered that there will be a lack of protection, for example caused by narrow pavements widths.

17.8.29 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the low sensitivity (Table 17.1 of this chapter of the ES) and negligible magnitude of impact (Table 17.2 of this chapter of the ES) results in an **insignificant** effect (Table 17.4 of this chapter of the ES) of the proposals on fear and intimidation.

Operational phase

17.8.30 This section contains an assessment of the potential impacts to traffic and transportation as a result of the operational phase of the IERRT project.

17.8.31 The following impact pathways have been assessed:

- Light vehicle generation;
- Heavy goods vehicle generation;
- Traffic distribution; and
- Overall traffic impact.

Light vehicle generation

17.8.32 Land side staffing will include customs, security and stevedores and it is expected that up to 50 staff per shift over 3 shifts per day will be required. It is assumed that the three shifts will be 06:00-14:00, 13:30-21:30, and 21:00-06:00.

17.8.33 The staff forecasts have been provided by the end user and can be seen in Table 17.8 below.

Table 17.8. Typical Operators' Staff Requirements

Dau	06:00-14:00	13:30-21:30	21:00-06:00
Monday	47	41	40
Tuesday	47	41	40
Wednesday	47	41	40
Thursday	47	41	40
Friday	47	41	40
Saturday	25	20	20
Sunday	20	25	20

17.8.34 As can be seen above, it is likely that fewer staff would be required during the night shift, however, for robustness 50 staff per shift has been assessed. The assessment of traffic impact focusses on weekday movements and therefore no further reduction has been made to reflect lower weekend numbers.

17.8.35 At present, there are very few on site staff and so the staffing levels above are assumed to all be new. Again, for robustness all are assumed to arrive in single occupancy car movements. This therefore equates to 150 vehicles in and out over the day (300 two-way movements).

17.8.36 There will also be servicing and maintenance vehicles accessing the site throughout the day. This equates to an average of 5 vehicles in and out (10 two-way movements) in each hour between 07:00 and 19:00.

17.8.37 The profile of the light vehicle movements is shown in Table 17.9 of this chapter of the ES below.

Table 17.9. 24hr Traffic Profile for Staff and Service Vehicle Movements

Time	Inbound	Outbound	Total
00:00-01:00	0	0	0
01:00-02:00	0	0	0
02:00-03:00	0	0	0
03:00-04:00	0	0	0
04:00-05:00	0	0	0
05:00-06:00	50	0	50
06:00-07:00	0	50	50
07:00-08:00	5	5	10
08:00-09:00	5	5	10
09:00-10:00	5	5	10
10:00-11:00	5	5	10
11:00-12:00	5	5	10
12:00-13:00	5	5	10
13:00-14:00	50	5	55
14:00-15:00	5	50	55
15:00-16:00	5	5	10
16:00-17:00	5	5	10
17:00-18:00	5	5	10
18:00-19:00	5	5	10
19:00-20:00	0	0	0
20:00-21:00	50	0	0
21:00-22:00	0	50	100
22:00-23:00	0	0	0
23:00-24:00	0	0	0

17.8.38 Despite the above, a worst-case assessment has been carried out in which 50 movements in and out have been assumed to occur in each peak hour.

Heavy goods vehicle generation

17.8.39 HGV generation has been derived using the following assumptions:

- Days of operation = 364 days per year (52x7);
- Throughput of cargo units per year will be limited to 660,000 units
- Throughput of accompanied trailers, based on the split (28%) considered likely by the intended operator, per year = 184,800;
- Throughput of unaccompanied trailers, based on the split (72%) considered likely by the intended operator, per year = 522,720;
- Number of HGV movements per freight unit;
  - Unaccompanied will be dropped off and whilst generally an HGV will drop and collect in the same visit, an allowance of 10% has been allowed for single deliveries meaning 1 unit = 1.1 HGV movements;
  - Accompanied units all have a tractor unit attached so each unit = 1 HGV movement; and
- All freight traffic will travel to the site by road.

17.8.40 On this basis total HGV movements considered likely to be generated are as shown in Table 17.10 of this chapter of the ES below.

Table 17.10. Annual Throughput Assumptions

Parameter	Units In	Units out	Total
Annual Units	330,000	330,000	660,000
Accompanied units (28%)	92,400	92,400	184,800
Unaccompanied Units (72%)	237,600	237,600	475,200
HGVs for Unaccompanied Units	261,360	261,360	522,720
Total HGVs	353,760	353,760	707,520

17.8.41 Based on operations occurring over 364 days per year this equates to a total of 972 HGVs in and 972 HGVs out per day, a total of 1,944 movements.

17.8.42 The above generation assumes the terminal being fully utilised every day of the year in accordance with the terms of the DCO (i.e., up to 660,000 unit per year). In reality, therefore, the level of throughput will be lower than the levels indicated in Table 17.10 of this chapter of the ES and will be market driven. By utilising these throughput levels, the assessment undertaken is robust.

17.8.43 A profile of the predicted HGV traffic generation is provided below in Table 17.11 of this chapter of the ES based on a typical operators' activities, split between unaccompanied freight (which is generally spread across the day) and accompanied freight (which tends to be more focused on sailing times).

17.8.44 Table 17.12 of this chapter of the ES provides an alternative HGV profile that is based on the surveys of existing HGV profiles from the Port of Immingham as whole. The assessment has, for robustness, considered the highest peak hour from the two profiles – an AM peak of 07:00-08:00 using the Port of Immingham profile and an PM peak of 17:00-18:00 using the typical operator profile.

Table 17.11. 24 hr Traffic Generation Summary Based on a Typical Operator

Time	Inbound	Outbound	Total
00:00-01:00	2	1	3
01:00-02:00	2	1	3
02:00-03:00	1	1	2
03:00-04:00	1	1	2
04:00-05:00	1	3	4
05:00-06:00	3	9	12
06:00-07:00	12	22	34
07:00-08:00	19	32	50
08:00-09:00	26	25	51
09:00-10:00	31	221	252
10:00-11:00	36	90	125
11:00-12:00	41	73	114
12:00-13:00	44	74	118

Time	Inbound	Outbound	Total
13:00-14:00	50	79	129
14:00-15:00	63	70	133
15:00-16:00	90	63	153
16:00-17:00	107	62	169
17:00-18:00	121	52	173
18:00-19:00	145	41	186
19:00-20:00	128	29	157
20:00-21:00	38	16	54
21:00-22:00	6	6	12
22:00-23:00	3	2	5
23:00-24:00	2	1	3

Table 17.12. 24 hr Traffic Generation Summary Based on Port of Immingham Profile

Time	Inbound	Outbound	Total
00:00-01:00	6	5	11
01:00-02:00	6	7	13
02:00-03:00	5	7	12
03:00-04:00	9	7	16
04:00-05:00	18	13	31
05:00-06:00	45	20	65
06:00-07:00	71	39	110
07:00-08:00	78	43	121
08:00-09:00	63	57	120
09:00-10:00	61	70	131
10:00-11:00	63	74	137
11:00-12:00	66	77	143
12:00-13:00	68	73	141
13:00-14:00	77	79	156
14:00-15:00	76	85	162
15:00-16:00	73	75	149
16:00-17:00	57	76	133
17:00-18:00	41	63	104
18:00-19:00	31	39	69
19:00-20:00	16	27	43
20:00-21:00	13	13	26
21:00-22:00	10	10	20
22:00-23:00	11	8	19
23:00-24:00	7	7	14

Traffic distribution- Light vehicles

17.8.45 The light vehicle traffic predicted to be generated has been distributed on the highway network using the 2011 Census Journey to Work data for the MSOA North East Lincolnshire 001 which the site is located within. A summary of the journey to work data for the districts and the MSOA in which the site sits can be seen in Table 17.13 of this chapter of the ES below.

Table 17.13. Journey to Work Summary for MSOA North East Lincolnshire 001

Location	Percentage
North East Lincolnshire *North East Lincolnshire 001*	67.1% *17.6%*
North Lincolnshire	17.9%
West Lindsey	5.0%
East Lindsey	3.6%
East Riding of Yorkshire	1.5%
Kingston upon Hull	1.5%
Other	3.3%

17.8.46 In order to present a worst-case scenario in terms of junction capacity, all relevant junctions have been assessed as having 50 light vehicles travelling inbound and outbound from the site in the AM and PM peak periods.

17.8.47 The distribution of the light vehicles can be seen in Figure 17.5 to this ES with the assignment of the light vehicles in Figure 17.6 to this ES.

Traffic distribution – Goods vehicles

17.8.48 The wider distribution for commercial traffic on the strategic highway network has been derived using data included within the Base Year Freight Matrices (BYFM) published by the DfT (2012). The Matrices consist of the number of vehicles per average day between a set of origin-destination zone pairs for a 2006 base year. These zones are based on all 408 local authority districts, unitary authorities and London Boroughs and point zones for the 88 largest ports, of which the Port of Immingham is one, 5 main freight airports and 56 major concentrations of distribution centres.

17.8.49 The outputs from the model have been analysed through the ArcGIS package to determine the likely route of vehicles. The Geographic Information System (GIS) assumed routing has been sense checked using Google maps and a review of the suitability of the network.

17.8.50 The resulting distribution and assignment of heavy vehicles to and from the Port on the wider network can be seen in Table 17.14 of this chapter of the ES below.

Table 17.14. HGV Distribution and Assignment

Region	Distribution	Assignment	
East of England	2.6%	A1173 (Stallingborough Road)	
East Midlands	21.5%	M180 A1173 (Stallingborough Road) Hobson Way	20.5% 0.8% 0.2%
Greater London	1.5%	M180	
North East	0.9%	M180	
North West	7.4%	M180	
Scotland	2.9%	M180	
South East	1.4%	M180	
South West	1.3%	M180	

Region	Distribution	Assignment	
Wales	1.7%	M180	
West Midlands	12.2%	M180	
Yorkshire and the Humber	46.7%	M180 A15 Hobson Way	43.2% 3.1% 0.4%

17.8.51 The facility is to be located in close proximity to the East Gate of the Port on the eastern side of the port estate. As described above the assignment of traffic locally from the port is a function of the destination of the vehicles. Both GIS and Google Maps confirm the quickest route from the site of the facility to the M180 west is via the East Gate.

17.8.52 However, the access route through the Port and via the West Gate of the Port is marginally shorter in distance terms to the M180 and, therefore, it can be expected some traffic might chose that route, which will depend on matters such as day-to-day changes in flows and information provided by Satnav systems.

17.8.53 On this basis it is assumed that the majority of traffic (85%) will use East Gate, with a sensitivity assessment of 15% using West Gate. This is robust because it ensures that some assessment of impacts on the West gate exit and route to the A180 is assessed.

17.8.54 The flows for each gate are set out below using the end user profile, Table 17.15 of this chapter of the ES, and the Port of Immingham profile, Table 17.16 of this chapter of the ES.

Table 17.15. 24 hr Traffic Distribution Summary Based on End User Profile

Time	West Gate			East Gate		
	Inbound	Outbound	Total	Inbound	Outbound	Total
00:00-01:00	0	0	0	2	1	3
01:00-02:00	0	0	0	1	1	2
02:00-03:00	0	0	0	1	1	2
03:00-04:00	0	0	0	1	1	2
04:00-05:00	0	0	0	1	2	4
05:00-06:00	1	1	2	3	7	10
06:00-07:00	2	3	5	10	19	28
07:00-08:00	3	5	8	16	27	43
08:00-09:00	4	4	8	22	21	44
09:00-10:00	5	33	38	26	188	214
10:00-11:00	5	13	19	30	76	107
11:00-12:00	6	11	17	35	62	97
12:00-13:00	7	11	18	37	62	100
13:00-14:00	7	12	19	42	67	109
14:00-15:00	9	10	20	54	59	113
15:00-16:00	14	9	23	77	53	130
16:00-17:00	16	9	25	91	52	143
17:00-18:00	18	8	26	103	45	147

Time	West Gate			East Gate		
	Inbound	Outbound	Total	Inbound	Outbound	Total
18:00-19:00	22	6	28	123	35	158
19:00-20:00	19	4	24	109	25	133
20:00-21:00	6	2	8	32	14	46
21:00-22:00	1	1	2	5	5	10
22:00-23:00	0	0	1	3	2	4
23:00-24:00	0	0	1	2	1	3

Table 17.16. 24 hr Traffic Distribution Summary Based on Port of Immingham Profile

Time	West Gate			East Gate		
	Inbound	Outbound	Total	Inbound	Outbound	Total
00:00-01:00	1	1	2	5	4	9
01:00-02:00	1	1	2	5	6	11
02:00-03:00	1	1	2	4	6	10
03:00-04:00	1	1	2	8	6	12
04:00-05:00	3	2	5	16	11	27
05:00-06:00	7	3	10	38	17	55
06:00-07:00	11	6	17	60	33	93
07:00-08:00	12	6	18	66	37	103
08:00-09:00	9	9	18	54	48	102
09:00-10:00	9	10	19	52	59	111
10:00-11:00	9	11	20	53	63	116
11:00-12:00	10	12	22	56	65	121
12:00-13:00	10	11	21	58	62	120
13:00-14:00	12	12	24	66	67	133
14:00-15:00	11	13	24	65	72	137
15:00-16:00	11	11	22	62	64	127
16:00-17:00	9	11	20	49	65	114
17:00-18:00	6	9	15	35	53	88
18:00-19:00	5	6	11	26	33	59
19:00-20:00	2	4	7	14	23	37
20:00-21:00	2	2	4	11	11	22
21:00-22:00	2	1	3	9	8	17
22:00-23:00	2	1	3	9	7	16
23:00-24:00	1	1	2	6	6	12

17.8.55 The distribution of HGV vehicles on the local highway network can be seen in Figure 17.7 to this ES, with the assignment of the commercial vehicles in Figure 17.8 to this ES.

17.8.56 The assignment of all vehicles accessing and departing the IERRT in the peak periods, measured in Passenger Car Units (PCUs), is shown on Figure 17.9 to this ES.

17.8.57 The percentage change for total vehicles and then also, for completeness, for HGVs is shown in Table 17.17 of this chapter of the ES for the proposed operational traffic flows.

Table 17.17. Traffic Impact on the Surrounding Road Network for Proposed Traffic Flows

Locations	Base Traffic Flow – AADT		IERRT Traffic Generation		Percentage Increase	
	Totals	HGVs	Totals	HGVs	Total	HGVs
West Gate	5,536	2,360	353	292	6.4%	12.4%
East Gate	5,834	803	2,001	1,652	34.3%	205.8%
Queens Road	3,883	566	1,787	1,641	46.0%	289.8%
Kings Road (North of Queens Road)	7,722	568	94	0	1.2%	0.0%
A1173 (South of Kings Road)	7,384	795	1,758	1,641	23.8%	206.4%
A1173 (Stallingborough Road)	16,854	1,318	77	74	0.5%	5.6%
A180 (East of A1173)	34,246	3,253	30	0	0.1%	0.0%
A160 (Adj. South Killingholme)	10,536	5048	310	292	2.9%	5.8%
A180 (West of A160)	31,706	8,990	1,961	1,858	6.2%	20.7%
M180 (West of A15)	37,748	9,634	1,863	1,765	4.9%	18.3%
A15 (North of M180)	22,467	2,082	98	93	0.4%	4.5%

Likely impacts and effects – Operational stage

17.8.58 The following sections of this chapter set out the impacts which have been identified, along with an indication of the significance of the resulting effects in the absence of any mitigation.

Severance

17.8.59 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic route. Whilst the IEA Guidelines refer to the effect of traffic on severance of 30%, 60% and 90% producing 'slight', 'moderate' and 'substantial' changes in severance respectively, it is suggested in the guidance that caution be applied to relying on these quanta of change as each case depends on specific local conditions.

17.8.60 Taking total traffic volumes – in accordance with the IEA Guidelines – the level of traffic related to the operational phase is less than 30% on all links with the exception of the short section of Queens Road and Kings Road/A1173.

17.8.61 The magnitude of overall traffic increase can, therefore, in accordance with Table 17.2 be categorised as negligible for the majority of links (including the strategic network and A160.

17.8.62 The impact on the strategic network is dealt with further in Annex K and Annex L of the TA (Appendix 17.1 to this ES). In terms of the impact on the M180 and A15 elements of the strategic road network, the daily percentage change will be 6.4 and 0.6% respectively. The magnitude of overall traffic increase can, therefore, in accordance with Table 17.2 of this chapter of the ES be categorised as negligible. Combined with the fact that the A15 is – in accordance with Table 17.1 of this chapter of the ES – categorised as a receptor of negligible / low sensitivity meaning that the overall effect is **insignificant**.

17.8.63 The A160 / A180 are categorised as receptors of negligible / low sensitivity (Table 17.1 of this chapter of the ES). The magnitude of the impact is considered to be major (Table 17.2 of this chapter of the ES). Overall, therefore, just considering the change in HGV flows alone results in an effect considered to be, at worst, of moderate significance (Table 17.4 of this chapter of the ES). However, in reality the links are operating well within capacity and specifically designed to accommodate HGV access to the Immingham area and, therefore, the effect is therefore minor which results in the impact being is considered **insignificant.**

17.8.64 In terms of the A1173 and Queens Road, the magnitude of the change is Moderate. In accordance with Table 17.1 of this chapter of the ES – are receptors of negligible / low sensitivity, the overall effect is minor on these routes.

17.8.65 For completeness, the assessment been undertaken in respect of HGVs only. For HGVs, the increase is above 30% on Queens Road and the A1173. This increase is, however, due to the fact that base flows along

these roads are currently lower than the road has been designed for. The roads have long been an integral part of the key highway access to the port.

17.8.66 However, in reality the links are operating well within capacity and specifically designed to accommodate HGV access to the Immingham area and, therefore, the effect is therefore minor which results in the impact being is considered **minor.**

Driver delay

17.8.67 The IEA Guidelines note that driver delay is only likely to be significant when the traffic on the highway network is at or close to the capacity of the system. Each of the roads considered within the assessment operate well within capacity threshold levels now and for future years.

17.8.68 It can, therefore, be concluded that there will be negligible impact in respect of driver delay. As part of the TA (Appendix 17.1 to this ES), junction modelling has been undertaken on the external network and this is reported in Section 6.5 of the TA (Appendix 17.1 to this ES). The assessment concludes there are no adverse operational impacts in relation to driver delay as a result of the IERRT proposal.

17.8.69 A further assessment has been undertaken on both the security access points to the Port itself and the internal port junctions and roads affected by the development. These assessments are reported in Section 6.5 of the TA (see Appendix 17.1 to this ES) and conclude that there are no adverse operational impacts in relation to driver delay as a result of the IERRT proposal.

17.8.70 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the overall network consists of negligible / low sensitivity receptors (Table 17.1 of this chapter of the ES). The magnitude of the impact is minor / slight (Table 17.2 of this chapter of the ES) and overall, this is considered to result in an **insignificant / minor** effect (Table 17.4 of this chapter of the ES). As already indicated, in common with standard assessment practice, minor effects are not considered be significant in environmental assessment terms.

Pedestrian delay and amenity

17.8.71 Given the range of local factors and conditions which can influence pedestrian delay, the guidance suggests it is not considered wise to set down any thresholds, but instead it is recommended that assessors use their judgement to determine whether pedestrian delay is a significant impact.

17.8.72 There are no footways on the A160. On site observations confirm that pedestrian activity on Queens Road is relatively low. It is, therefore, concluded that the proposals will have an insignificant effect on pedestrian delay and amenity.

17.8.73 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the pedestrian routes within the vicinity of the site are considered to

be low sensitivity receptors (Table 17.1 of this chapter of the ES). The magnitude of the impact is minor / slight (Table 17.2 of this chapter of the ES) and overall, this is considered to result in an **insignificant / minor** effect (Table 17.4). As already indicated, in common with standard assessment practice, minor effects are not considered to be significant in environmental assessment terms.

Accidents and safety

17.8.74 The review of existing accident records above confirms that whilst incidents occurred at a number of locations along the access routes there are no clusters identified and there were no patterns in the causal factors or specific locations of incidents, and none were related to deficiencies in highway layout or design.

17.8.75 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the low sensitivity of the receptor (Table 17.1 of this chapter of the ES) and negligible magnitude of impact (Table 17.2 of this chapter of the ES) results in an **insignificant** effect (Table 17.4 of this chapter of the ES) of the proposals on highway safety.

Hazardous or abnormal loads

17.8.76 The Terminal will accommodate HGVs which may be carrying Hazardous and Abnormal Loads. Internal to the Port, the management of these loads will be the responsibility of the terminal operator and haulier.

17.8.77 Once a vehicle leaves the port the transport of any hazardous load is the responsibility of the haulier and prospective clients under the European Agreement concerning International Carriage of Dangerous Goods by Road (ADR) to ensure compliance with the regulations set out within that agreement.

17.8.78 On this basis, procedures will be in place for transporting such loads on the local road network to ensure any risks are minimised.

17.8.79 Any abnormal loads will be moved under standard procedures including notification to the police as necessary.

17.8.80 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the low sensitivity (Table 17.1 of this chapter of the ES) and negligible magnitude of impact (Table 17.2 of this chapter of the ES) results in an **insignificant** effect of hazardous or abnormal loads as a result of the proposals (Table 17.4 of this chapter of the ES).

Fear and intimidation

17.8.81 The IEA Guidelines identify indicative levels of traffic and HGV flows at which point fear and intimidation is considered to be notable. Whilst the average traffic flow over an 18-hour day on the majority of road links resulting from the proposals is above the threshold identified in the IEA Guidelines, the existing pedestrian footfall on adjacent roads is low.

17.8.82 Therefore, such traffic will not be close to major pedestrian routes, and it is not considered that there will be a lack of protection, for example caused by narrow pavements widths.

17.8.83 Adopting the methodology set out in Tables 17.1 to 17.4 of this chapter of the ES, the low sensitivity (Table 17.1 of this chapter of the ES) and minor/slight magnitude of impact (Table 17.2 of this chapter of the ES) results in a **minor / insignificant** effect (Table 17.4 of this chapter of the ES) of the proposals on fear and intimidation.

17.9 Mitigation measures

17.9.1 There are no specific off-site highway capacity mitigation measures required to ensure the IERRT project is acceptable in highway terms.

17.9.2 Improvements are proposed to the East Gate port entrance and exit point as described in Section 4.2 (paragraph 4.2.4) of the TA (Appendix 17.1 to this ES). A second entry lane will be provided to allow a higher volume of traffic to access the Port during each hour. On the adjacent highway, the bus stop will also be repositioned and the existing layby, which is occasionally used by HGVs for parking, will be removed. A pedestrian route between East Gate and the bus stop will be provided alongside the East Gate improvements.

17.9.3 The NPSfP (paragraph 5.4.12) encourages the use of demand management measures for spreading peak hour traffic impacts. The assessments of junction capacity can be seen in Annex I of the TA (Appendix 17.1 to this ES). This confirms that this is not required.

17.9.4 The capacity of the security gates has been assessed as part of the traffic impact assessment as can be seen in Annex J of the TA (Appendix 17.1 to this ES). This shows that the security gates currently function within capacity and will continue to do so following the development.

17.9.5 NPSfP Paragraph 5.4.22 requires consideration of the following mitigation:

- Control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements;

- Make sufficient provision for HGV parking, either on the port estate or at dedicated facilities elsewhere, to avoid 'overspill' parking on public roads during normal operating conditions. Developments should be designed with sufficient road capacity and parking provision (whether on- or offsite) to avoid the need for prolonged queuing on approach roads, and particularly for uncontrolled on-street HGV parking on nearby public roads in normal traffic operating conditions, and allowing reasonable estimates for peak traffic patterns and fluctuations during normal operations; and

- Ensure satisfactory arrangements, taking account of the views of road network providers and of the responsible police force(s), for dealing with reasonably foreseeable abnormal disruption. Where such effects are likely to cause queuing on the strategic road network or significant queuing on local roads, the applicant should include the outcome of consultation with the relevant police force(s) as to traffic management measures that will be brought into effect, what the procedures will be for triggering them, and attribution of costs.

17.9.6 Specific additional arrangements to deal with abnormal disruption are not considered necessary. As part of normal operation of a terminal such as this, if abnormal conditions prevent sailing, then there are mitigation methods to prevent a build-up of HGVs off-site. All HGVs are booked in through a booking system so if there is a delay of more than 30 minutes or a not scheduled cancellation then the operator will advise customers with a cancel and delay advice by email and Short Message Service (SMS). If there is a cancelled sailing, the reservations department will also call all freight customers to rebook. The same approach will be taken for travel passengers. All scheduled cancellations will be communicated long in advance.

17.9.7 The site layout has been designed to accommodate all peak inbound traffic movements. No specific off-site management for HGVs is therefore necessary, although there are existing and proposed lorry parks in the area which lorry drivers can use if it is needed – this has been considered further in Section 4.4 of the TA (Appendix 17.1 to this ES).

17.9.8 A Framework Travel Plan (FTP) has been produced as part of the application to ensure that any vehicle movements which can be reduced are committed to being reduced. The FTP is contained in Appendix 17.2 to this ES.

17.9.9 East Gate is not currently being signposted on the local or strategic highway network. ABP are separately pursing agreements through Section 278 of the Highways Act 1980 to deliver a change to the existing signage arrangement to improve directional signage to the Port of Immingham generally.

17.9.10 Rail is not currently considered to be a feasible or viable mode for Ro-Ro traffic, although this will be kept under continuous review and the layout does not in any way prejudice use of rail.

17.10 Limitations

17.10.1 The assessment has been undertaken based on the baseline traffic flows as recorded in November 2021 as representative. Although November is a neutral month, the long-term implications of the Covid-19 pandemic on traffic flows generally is uncertain.

17.11 Conclusions on residual effects

17.11.1 A summary of the impact pathways that have been assessed, the identified residual impacts and level of confidence is presented in Table 17.18 of this chapter of the ES.

17.11.2 The assessment undertaken has considered the impact of the maximum daily traffic associated with the IERRT project. The scope of impact matters to be assessed and impact significance have been based upon IEA Guidelines and best practice techniques.

17.11.3 From the assessment undertaken, it is concluded that there will be no residual adverse significant impacts in relation to traffic and transportation matters as a result of the proposals.

Table 17.18. Summary of potential impact, mitigation measures and residual impacts

Receptor	Impact pathway	Impact Significance	Mitigation measure	Residual Impact	Confidence
Construction Phase					
Severance	Pedestrians	Insignificant	None	Insignificant	Medium
Driver Delay	Road users	Insignificant	None	Insignificant	Medium
Pedestrian Delay and Amenity	Pedestrians	Insignificant	None	Insignificant	Medium
Accidents and Safety	Road users	Insignificant	None	Insignificant	Medium
Hazardous or Abnormal Loads	Road users and pedestrians	Insignificant	None	Insignificant	Medium
Fear and Intimidation	Pedestrians	Insignificant	None	Insignificant	Medium
Operational Phase					
Severance	Pedestrians	Insignificant/ minor	None	Insignificant/ minor	Medium
Driver Delay	Road users	Insignificant/ minor	None	Insignificant/ minor	Medium
Pedestrian Delay and Amenity	Pedestrians	Insignificant/ minor	None	Insignificant/ minor	Medium
Accidents and Safety	Road users	Insignificant	None	Insignificant	Medium
Hazardous or Abnormal Loads	Road users and pedestrians	Insignificant	None	Insignificant	Medium
Fear and Intimidation	Pedestrians	Insignificant/ minor	None	Insignificant/ minor	Medium

17.12 References

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17.13 Abbreviations/Acronyms

Acronym	Definition
AADT	Annual Average Daily Traffic
ABP	Associated British Ports
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
AM	Ante Meridiem (before noon)
APT	Associated Petroleum Terminals
ARCADY	Assessment of Roundabout Capacity And DelaY
ATC	Automatic Traffic Count
BCP	Border Control Post
BYFM	Base Year Freight Matrices
CEMP	Construction Environmental Management Plan
COMAH	Control of Major Accident Hazards

CTMP	Construction Traffic Management Plan
CWTP	Construction Worker Travel Plan
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DTA	David Tucker Associates
ECML	East Coast Main Line
EIA	Environmental Impact Assessment
ES	Environmental Statement
FTP	Framework Travel Plan
GEART	Guidelines for the Environmental Assessment of Road Traffic
GIS	Geographic Information System
HGV	Heavy Goods Vehicle
HIT	Humber International Terminal
IBT	Immingham Bulk Terminal
IEA	Institute of Environmental Assessment
IERRT	Immingham Eastern Ro-Ro Terminal
IOT	Immingham Oil Terminal
JSJV	Jacobs Systra Joint Venture
LA	Lifecycle Analysis
LTP	Local Transport Plan
MSOA	Middle Super Output Area
n/a	Not Applicable
NELC	North East Lincolnshire Council
NH	National Highways
NLC	North Lincolnshire Council
NPPF	National Planning Policy Framework
NPSfP	National Policy Statement for Ports
NSIP	Nationally Significant Infrastructure Project
PCU	Passenger Car Units
PEIR	Preliminary Environmental Information Report
PIA	Personal Injury Accident
PIC	Personal Injury Collision
PINS	Planning Inspectorate
PM	Post Meridiem (after noon)
PROW	Public Rights of Way

RFC	Ratio of Flow to Capacity
SMS	Short Message Service
SRN	Strategic Road Network
TA	Transport Assessment
TEMPro	Trip End Model Presentation Program
TRICS	Trip Rate Information Computer System
UK	United Kingdom
WebTAG	DfT suite of guidance on how to assess the expected impacts of transport policy proposals and projects
WHA	Waste Hierarchy Assessment

Cardinal points/directions are used unless otherwise stated.

SI units are used unless otherwise stated.

17.14 Glossary

Term	Definition
Baseline Conditions	Existing conditions and past trends associated with the environment in which a proposed activity may take place

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