

**RWE Renewables UK Dogger Bank  
South (West) Limited**

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South (East) Limited**

# **Dogger Bank South Offshore Wind Farms**

**Environmental Statement**

**Volume 7**

**Appendix 24-3 Abnormal Indivisible Load Access Report**

**June 2024**

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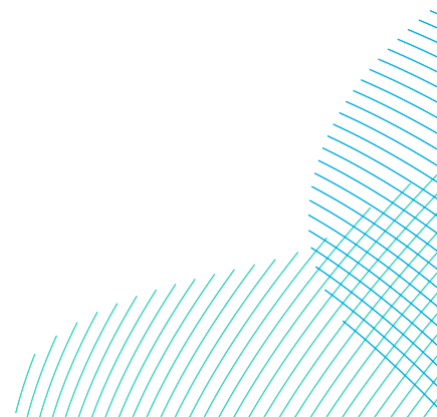
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# Abnormal Indivisible Load Access Report for Dogger Bank South Offshore Wind Farms

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Prepared for Royal Haskoning





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## Executive Summary

The contents of this report include land transport feasibility investigations into achieving heavy load access for a transformer of between 210-230te nett transport weight required at the Proposed Dogger Bank South (DBS) East and DBS West offshore wind farms, collectively known as DBS offshore wind farms. Three potential substation access locations have been investigated in terms of possible Abnormal Indivisible Load (AIL) access requirements as the final substation locations remain to be confirmed at present.

Due to the overall transport weight of the load being considered (plus carrying trailer) being in excess of 150te gross weight, the move will require a Special Order from National Highways (NH), formally Highways England. It should be noted that Government policy is to maximise the use of water for the movement of Special Order (above 150te gross) AIL's wherever possible. National Highways require that access via the nearest available water access should be considered. National Highways have provided an Agreement in Principle (AiP) Reference 840 from the Port of Hull, a copy of which can be found in the Appendix.

No specific works were initially included in the work specification in term of marine access at the established heavy lift port of Hull as the port is well established for heavy lift delivery. However, during the course of routine discussions with Associated British Ports (ABP) Hull it has come to our attention that there are some concerns with future heavy lift delivery requirements in the Albert Dock at Hull which is the area of the port required for heavy AILs looking to travel west from Hull. Whilst these are not considered insurmountable, they should be monitored as the project progresses. It is understood that ABP Hull has some concerns with the structural integrity of the quay in Albert Dock and that further geotechnical surveys and investigations remain ongoing to confirm requirements. It may also be necessary for any haulage/lifting provider to indemnify ABP or for alternative delivery options at the port to be investigated.

A selection of transport configurations from three potential haulage contractors have been submitted to the structural authorities who have structures on the preferred route, which is via the A63, A1034 and A1079 via Market Weighton and Beverly. Due to contractual requirements necessary in terms of processing feasibility investigations in the National Highways Yorkshire and North East Region, it has been necessary for a formal BE16 Special Order application to be submitted to National Highways AIL Team in Birmingham to enable their regional area team contractors to respond to the requirements. The preferred route to the general vicinity of the 3 substation locations is that which was used for the delivery of 4 x 256te nett transformers to the current Dogger Bank Substation during 2022, and which it is understood is due to be again used for similar loads in 2023. The preferred route is therefore recently proven on 24 axle girder frame trailers and has been reconfirmed by National Highways as being acceptable for the proposed DBS offshore wind farms onshore substation loads detailed within this report.

No formal clarification has been obtained from East Riding of Yorkshire Council in terms of structures on the preferred route in terms of the final approach to the potential substations and it will be necessary to obtain confirmation from East Riding of Yorkshire Council as to the suitability of their structures for the proposed loads and attempts to do this will continue and be reported on separately when obtained.

In respect to the proposed access to Substation Access A1.1 there are three structures on the A164 between the A1079 junction and the proposed substation access point. These are small span and are not expected to be an issue, but confirmation remains outstanding at this time.



In respect to the proposed access to Substation Access A4.2 the status of the bridge that carries the A164 south over the A1079 remains to be confirmed by East Riding of Yorkshire Council.

The preferred route is considered negotiable for 24 axle girder frame trailers subject to street furniture removal as detailed in this report. Whilst confirmatory swept path assessments (SPAs) could be undertaken to confirm specific requirements, this is not considered necessary at this time as the route is recently proven. The exact street furniture removal requirements will be confirmed closer to the time of movement once the final substation site has been confirmed and once final transform dimensions and transport arrangements are confirmed but in general there are presently no major concerns with respect to route negotiability.

There are major works underway along potential delivery routes at the A63 Castle Street in Hull being implemented by National Highways and Jocks Lodge improvement scheme planned by the East Riding of Yorkshire Council. The Jocks Lodge scheme remains to be confirmed in terms of final design and timing and it will have an impact AIL access in the future for DBS Offshore Wind Farms, whichever substation location is selected. It is recommended that dialogue is maintained with East Riding of Yorkshire Council to confirm ongoing progress of the scheme and impact on AIL access.

The A63 Castle Street scheme can be avoided, and it is not considered to be a major risk to AIL access in the future for DBS offshore wind farms.

The report is intended to be a summary of the Abnormal Indivisible Load (AIL) route access at the current time and is not a guarantee that the route will be cleared in the future. Specific movements will need to be assessed at the time on an individual basis. If any further information is required, it is available on request.



## 1. Introduction

- 1.1. The contents of this report include land transport feasibility investigations into achieving access to DBS offshore windfarms on-shore substation sites, for multiple transformers weighing between 210-230te nett transport weight, with an anticipated delivery in 2026.
- 1.2. Three potential substation access locations have been investigated in terms of possible Abnormal Indivisible Load (AIL) access requirements as the final substation location remains to be confirmed at present. These are referred to as the following locations:
  - i. Zone 1. Access A1.1, approximate grid reference; TA 03586 37545
  - ii. Zone 4. Access A4.1, approximate grid reference; TA 01500 37551
  - iii. Zone 4. Access A4.2, approximate grid reference; TA 02458 36753
- 1.3. This report identifies a preferred route to the three substation locations from the Port of Hull but does not constitute a formal agreement for movement. Any future movement to the substations will require the appointed haulage contractor to notify the relevant statutory authorities in the appropriate fashion by way of a formal Special-Order application.
- 1.4. The report is intended to be a summary of the AIL route access at the current time and is not a guarantee that the route will be cleared in the future. Specific movements will need to be assessed at the time on an individual basis. If any further information is required, it is available on request.
- 1.5. Due to the sites being proposed locations no review of site access has been undertaken. Further detailed on-site access delivery and installation requirements will need to be progressed as the projects progress.



## 2. National Highways Agreement in Principle and Legislative Requirements

### 2.1. *Definition of Abnormal Indivisible Load (AIL)*

2.1.1. The Department for Transport, of which National Highways (NH), is a government-owned company with responsibility for managing the core road network in England, state that the strict definition of an AIL refers to a load which cannot, without undue expense or risk of damage, be divided into two or more loads for the purpose of carriage on roads and which, owing to its dimensions or weight, cannot be carried on a vehicle which complies in all respects with the 'standard vehicle regulations' these are:

- The Road Vehicles (Construction and Use) Regulations 1986 (as amended)
- The Road Vehicles (Authorised Weight) Regulations 1998 (as amended)
- The Road Vehicles Lighting Regulations 1989 (as amended).

2.1.2. All equipment should be stripped of their ancillaries before they are transported. NH will only accept that further dismantling is not required where it cannot be economically achieved due to the requirement for its construction within specific factory environments or where extremely high tolerances have to be maintained.

### 2.2. *Legislation*

2.2.1. Conventional heavy goods vehicles (HGV) have an operating weight limit of 44 tonnes. The category known as abnormal indivisible loads (AIL) covers those vehicles where the gross weight exceeds 44 tonnes. An Abnormal Load is defined as that which cannot be carried under Construction and Use (C&U) Regulations. Items which, when loaded on the load carrying vehicle exceed the weights encompassed by the C&U Regulations, but do not exceed Special Order Permission Limits, are governed by Special Types General Order (STGO) categories 1 to 3 depending on size.

2.2.2. Where dimensions exceed 6.1m in width, 30m in rigid length or 150 tonnes gross weight, Special Order from NH is required.

2.2.3. Special Order category AIL movements are authorised by NH Abnormal Loads team based in Birmingham.

2.2.4. STGO loads orders grant consent for loads that satisfy the following criteria:

<u>Category 1 weight</u>	44 – 50 tonnes and 11.5te axle weights
<u>Category 2 weight</u>	50 – 80 tonnes and 12.5te axle weights
<u>Category 3 weight</u>	80 – 150 tonnes and 16.5te axle weights
<u>Width Restriction</u>	3.0m (C&U) –5m (VR1 Required)– 6.1m (SO required)
<u>Length Restriction</u>	18.65m (C&U) – 30.0m (SO required)

### 2.3. *Water Preferred Policy Requirements*

2.3.1. The Department for Transport has adopted a 'water-preferred' policy for the transport of AILs. This means that, where an application is sought for the movement of a Special Order or VR1 category load (more than 5.0m width) by road, the Department, via NH, will refuse the application where it is feasible for a coastal or inland waterway route to be used instead of road. NH advise that this decision is based on a number of factors including whether the load is divisible, the availability of a suitable route, the amount of traffic congestion that is likely to be caused and the justification for the load to be moved.



- 2.3.2. The National Highways Abnormal Loads Team is the department responsible for the authorisation of Special Order AIL's and government policy is that the closest available port of access should be used for the delivery of such oversize items.
- 2.3.3. In consideration of the water-preferred policy to maximise the use of water for the movement of Special Order (Above 150te gross) AIL's wherever practicable, Wynns has sought confirmation from NH as to the port of access they would require to be utilised for the delivery of transformers to the proposed DBS offshore wind farm onshore substations.
- 2.3.4. NH have advised (letter dated 13.12.22, AIP reference 840) that Special Order deliveries to DBS offshore wind farm onshore substation should be considerate of access from the Port of Hull. This is included in Appendix 3.



### 3. **Abnormal Indivisible Load Movements - Highways Act 1980**

#### 3.1. *Recovery of Excessive Maintenance Costs - Section 59 Agreements*

3.1.1. Section 59 of the Highways Act 1980 allows the highways authority to raise a charge against a user of the highway to cover repair works necessitated by excessively heavy or unusual loads being carried on the road by that user. This provision is typically used where the passage of heavy lorries to and from industrial premises or building sites causes excessive damage to the road, requiring expensive remedial works by the Council. Under Section 59, the Council may charge on such costs to the organisation responsible for the damage, the amount payable being calculated as the excess cost of repair compared to normal maintenance costs for the road. Rather than wait to be charged such excessive repair costs, the Council and the third party may enter into an agreement under Section 59 whereby the third party accepts liability and makes payment of an agreed sum to the Council to cover the excessive repair costs.

3.1.2. The removal and replacement of street furniture required for the mobilisation of out of gauge vehicles into existing sites then these are generally managed under Temporary Traffic Regulation Order (TTRO) and Street Works Legislation. These are normally, but not necessarily, organised by the haulage contractor. These requirements are generally to ensure that the supervisors and operatives are competent and that the works will be carried out to a prescribe standard with the appropriate traffic management in place. In some circumstance the Highway Authority or Local Authority will insist that their preferred contractors will carry out such work.

#### 3.2. *The Removal and Replacement of Street Furniture*

3.2.1. Where the removal and replacement of street furniture is required for the mobilisation of out of gauge vehicles into existing sites then these are generally managed under TTRO and Street Works Legislation. These are normally, but not necessarily, organised by the haulage contractor. These requirements are generally to ensure that the supervisors and operatives are competent and that the works will be carried out to a prescribe standard with the appropriate traffic management in place. In some circumstance the Highway Authority or Local Authority will insist that their preferred contractors will carry out such work.



#### 4. Transport Configurations

- 4.1. Based on the information available to date the nett weight of the transformers considered for delivery to DBS offshore wind farm onshore substation and therefore included within this report is 230te.
- 4.2. Due to the size of the components, it is not possible to transport them under the regulations governing Construction and Use (C&U) vehicles (44 tonne gross, 18.65m long and 2.9m wide). It is also not possible to transport within the Special Types General Order (STGO) regulations as the gross load will be in excess of 150te. It will therefore be necessary to comply with legislation regarding Special Order movements.
- 4.3. As stated, the movement of abnormal indivisible loads is controlled by the requirements of the Department for Transport (DfT) who stipulate varying notice procedures and notice period's dependent upon overall dimensions.
- 4.4. Based on information currently available it is assumed that the road transport configuration required for routes to DBS offshore wind farm onshore substation would consist of two ballast tractors, a 18 - 24 axle girder frame trailer with axle loads in the region of 15.71te - 19.9te over a track width of a minimum of 3m.
- 4.5. There are three haulage contractors currently operating girder frame trailers (of sufficient capacity for the proposed 230te unit) in the UK electricity supply industry with equipment able to carry a transformer of this weight and with the knowledge to position the unit correctly on the plinth. These are Allelys Heavy Haulage Ltd, Mammoet, and Collett & Sons Heavy Haulage. All three haulage contractors have provided indicative trailer arrangements for inclusion in the formal route clearance works.
- 4.6. The specific trailer details are not included in this report due to the information being commercially sensitive to each haulage contractor and thus it is recommended it is not forwarded to other parties. However, specific trailer information can be made available under separate cover if required.



## 5. Marine Access at the Port of Hull

- 5.1. No specific works were initially included in the work specification in terms of marine access at the established heavy lift port of Hull as the port is well established for heavy lift delivery. However, during the course of routine discussions with Associated British Ports (ABP) Hull it has come to our attention that there are some concerns with future heavy lift delivery requirements in the Albert Dock at Hull which is the area of the port required for heavy AILs looking to travel west from Hull. Whilst these are not considered insurmountable, they should be monitored as the project progresses.
- 5.2. It is understood that ABP Hull has some concerns with the structural integrity of the quay in Albert Dock and that further geotechnical surveys and investigations remain ongoing to confirm requirements.
- 5.3. Subject to the survey findings, it may be necessary for any haulage/lifting provider to indemnify ABP or for alternative delivery options at the port to be investigated.
- 5.4. It is understood that the concerns are in respect to the loadings imparted by the use of mobile cranes loading the quay.
- 5.5. It may be possible to consider alternative access via roll on roll off (ro-ro) barges, subject to confirmation of suitable offloading areas and available dock width to enable barges to position end on to the quay.
- 5.6. Wynns have sought clarification from ABP Hull as to the exact requirements at the port and whether ro-ro options may be feasible and ABP have advised that at present investigations remain ongoing and therefore they are not able to formally respond. This will need to be clarified before the port can be used in the future.
- 5.7. It is understood that the 2022 Dogger Bank transformers exited Albert Docks via the gate onto Manor House Street as this is preferable to the western gate onto Neptune Street. ABP would prefer heavy AILs to be offloading in the main area of the port at the Alexandra Dock or Kings George Docks which are to the east of the overall port complex. These areas have historically been used for AILs to Saltend Power Station and substation. Unfortunately, it has historically not been feasible to route from the eastern dock area west, as required for DBS offshore wind farms, due to the A63 lifting bridge (Myton Eastern Approach Bridge Ref 8516). The same principle also applies for the National Grid Substation at Creyke Beck which has used the Albert Dock in the past. The wider status of the A63 is discussed in Section 8.2.
- 5.9. It is also not feasible to route from ABP Goole Docks, which would be available from a marine perspective, due to the M62 River Ouse Bridge being limited in terms of heavy AIL capacity. This would also not be acceptable to NH in line with the Water Preferred Policy discussed in Section 2.

## 6. Structural Route Information

### 6.1. *Route 1 from Albert Docks Hull*

6.1.1. The route considered in the structural checks from the Port of Hull is described below. The end of the route is amended three times to account for the three potential substation access locations being considered.

#### **Proposed Route to Zone 1. Access A1.1, approximate grid reference; TA 03586 37545**

- Exit Hull Port Complex onto Manor House Street
- At the roundabout take the 1st exit onto Kingston Street
- Continue English Street
- Continue Jackson Street
- Merge onto Clive Sullivan Way A63
- Continue A63
- Take the A1034 exit towards York/ Market Weighton/ South Cave
- At the roundabout continue onto A1034
- At the roundabout take the 3<sup>rd</sup> exit, A1079.
- Take the A164 towards Beverley
- Turn right at traffic lights towards A164 towards Beverley
- Continue A164 to proposed Substation Access A1.1 - approximate grid reference; TA 03586 37545

#### **Proposed Route to Zone 4. Access A4.1, approximate grid reference; TA 01500 37551**

- As route to Zone Access A1.1 to A1079
- Continue A1079 to layby to proposed Substation Access A4.1, approximate grid reference; TA 01500 37551

#### **Proposed Route to Zone 4. Access A4.2, approximate grid reference; TA 02458 36753**

- As route to Zone Access A1.1 to A1079
- Turn left at the A1079/A164 towards Beverley
- At traffic lights turn left A163 towards Humber Bridge
- Turn right at approximate grid reference, TA 02587 36700 towards, A1079 towards York.
- Arrive at proposed Substation Access A4.2, approximate grid reference; TA 02458 36753 on Cloverleaf Slip Road.

6.1.2. No structures have been highlighted as causing any major concern to date although no formal clarification has been obtained from East Riding of Yorkshire Council. It will be necessary to obtain confirmation from East Riding of Yorkshire Council as to the suitability of their structures for the proposed loads and attempts to do this will continue and be reported on separately when obtained.

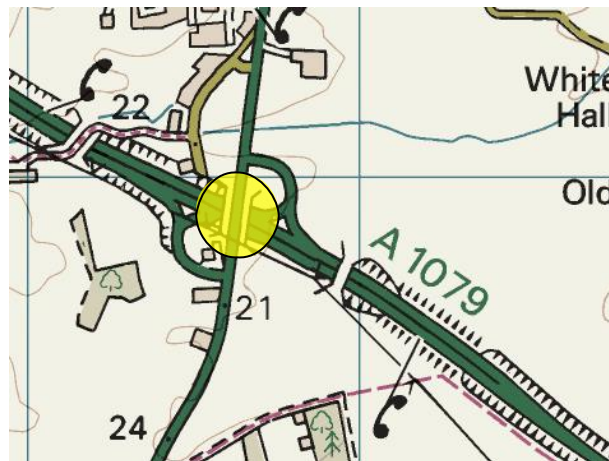
6.1.3. In respect to the proposed access to Substation Access A1.1 it is noted that the following structures are on the A164 between the A1079 junction and the proposed substation access point.

- Manor Farm Underpass (Ref 03-02-61 at approximate grid reference TA 02666 37124)
- Bramle Hill Farm (Ref 03-27-72 at approximate grid reference TA 02669 37142)
- Minster Way Culvert (Ref 03-37-25 at approximate grid reference; TA 03227 37520)

6.1.4. In respect to the proposed access to Substation Access A4.2 no formal clarification has been obtained from East Riding of Yorkshire Council as to the status of the bridge that carries the A164 south over the A1079. This is known as Jocks Lodge Junction and information on the proposed Bridge Upgrades can be found in Section 7 of this report. At present it has not been confirmed that the proposed loads can cross over the bridge by East Riding of Yorkshire Council.



6.1.5. Location Plan 1 below shows the junction and bridge location.



Location Plan 1

ESRN	S-TA026368-1
Name	JOCKS LODGE
Unique ID	03-26-68
Owner / Stakeholder	East Riding of Yorkshire Council
Category	Road Bridge
Type	Simply Supported Span
Class	Under And Over Bridge
Length	34.8 m

6.1.6. It is understood that the 2022 transformers delivered to the Dogger Bank Substation, that is under construction to the east of the Jocks Lodge junction, originally sought to cross this bridge from the south from the A164 but this was rejected by East Riding of Yorkshire Council and it is for this reason that the route via the A1034 and Market Weighton was used but the status for current DBS Offshore Wind Farm loads needs to be reconfirmed.

6.1.7. Therefore, at present, the route to location Zone 4. Access A4.1 is the only one of the three that has a confirmed AIL route to.

6.1.8. Humberside Police have been approached for comment on the route submitted for consultation. No specific issues have been identified by Humberside Police.

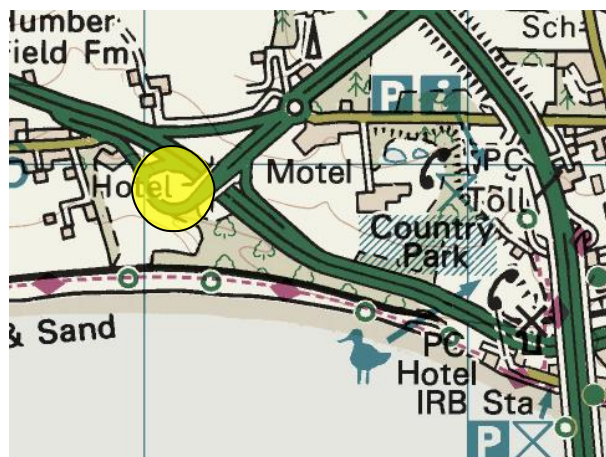
6.1.9. A police escort would be required for the loads with private escort arrangements also in place and it is recommended that further discussions are undertaken with respect to confirming escort requirements prior to deliveries with the police force closer to the time of requirement.

6.2. *Route 2 from Albert Docks Hull*

6.2.1. Access via the A15 and A164 from the A63 has also been considered as a possible option to enable access to the substations, especially for site access point Zone 4. Access A4.2, which is located to the south of Jocks Lodge Bridge and, which as stated in 6.1, has not been cleared to date by East Riding of Yorkshire Council.

6.2.2. The route considered via the A164 from the Port of Hull is shown below and it is worthy to note that the A164 northbound has been used as far as the junction with the B1233 Harland Way roundabout where the route diverges east to Cottingham. Available records indicate the last transformer delivery to Creyke Beck took place in 2013 and was for a unit of approximately 186te nett, transported on a 16-axle girder frame trailer.

- Exit Hull Port Complex onto Manor House Street
- At the roundabout take the 1st exit onto Kingston Street
- Continue English Street
- Continue Jackson Street
- Merge onto Clive Sullivan Way A63
- Continue A63
- Turn left A15.
- Continue A15
- At the roundabout take the 1st exit, A164 towards Beverley
- Continue A164 to Jocks Lodge junction with A1079 and merge with routes discussed in 6.1.



Location Plan 2

ESRN	S-TA012259-1
Name	16422 Western Interchange
Unique ID	16422
Owner / Stakeholder	National Highways Yorkshire & North East Region
Category	Road Bridge
Type	Continuous Span
Class	Under And Over Bridge
Length	55.4 m

6.2.3. National Highways Yorkshire and North East region have advised that the Western Interchange that carries the A15 over the A63 shown above is presently failing with 12% at bending and 5% at supports for the proposed loads. As the routes detailed in 6.1 are acceptable to National Highways Yorkshire and North East, they do not wish to consider this option further at present. It may be possible that alternative trailer arrangements could be considered, or more detailed structural assessments undertaken to secure structural clearance over this structure but no further discussion on this have been progressed.



6.2.4. As previously stated, feedback is still awaited from East Riding of Yorkshire Council with the results of their structures along the A164. Available information indicates that Eppleworth Road Bridge on A164 is understood to have been a concern with East Riding of Yorkshire Council in the past for some heavy AILs.

## 7. Route Negotiability Information

### 7.1. *Route 1 from Albert Docks Hull to A1079 Zone 4 Access A4.1*

7.1.1. The following notes and photographs highlight the negotiability of the route from Hull to the proposed onshore substation locations. There are areas where street furniture removal will be necessary, and these will need consideration for overall transport width depending on final transport configuration selected for movement. At present it is assumed that a 18 to 24 axle trailers will be needed to access the substation. Where confirmatory swept path assessments (SPA) are advised as being necessary, this applies to these trailers at present although the smaller trailer would be preferable to reduce street furniture removal costs.

7.1.2. Photographs 1 and 2 show egress from Albert Dock via Neptune Street. This is not the preferred egress but is shown for reference.



Photograph 1

Neptune Street - ABP Hull - Albert Dock security control gated access from ABP Port of Hull complex to public highway



Photograph 2

Neptune Street - Load turns left to join, Jackson Street. Street furniture removal required if this egress is to be used.

7.1.3. The preferred access from Manor House Street is discussed in the following sections. This route is understood to have been that used for 2022 delivery of transformers to the existing Dogger Bank Substation on a 24-axle girder frame trailer with street furniture removal.



Photograph 3

Manor House Street - Load to travel from left of camera to turn left into Manor House Street from ABP Hull Port Complex. Small traffic island, negotiable. Caution with lamppost on inside of the turn.



Photograph 4

Manor House Street - Load to travel from right of camera to turn left into Manor House Street from ABP Hull Port Complex. Small traffic island, negotiable. Caution with lamppost on inside of the turn.



Photograph 5

Manor House Street - Load to turn left into English Street, note various street furniture items at traffic island. Swept Path Assessment (SPA) recommended to determine which/all street furniture that requires removal to negotiate turn although it has been accessed by 24 axle trailers during 2022 deliveries to Dogger Bank Substation, and no major issues are expected.





Photograph 6

Manor House Street – Load to travel towards camera to turn left into Kingston Street, note various items of street furniture at traffic island. Swept Path Assessment (SPA) recommended to determine which/all street furniture that requires removal to negotiate turn although it has been accessed by 24 axle trailers during 2022 deliveries to Dogger Bank Substation.



Photograph 7

Kingston Street – Load to continue straight at roundabout to join, English Street.



Photograph 8

English Street – cars parked along carriageway. Recommended for Temporary Traffic Restriction Order (TTRO) to enforce parking restrictions prior to and during transportation of transformers.





Photograph 9

Jackson Street - Load to travel from behind camera, note overhead wires/cables. No problems expected.



Photograph 10

Jackson Street - Load to travel from behind camera to turn left to merge A63. Negotiable.

7.1.4. Along the A63 Westbound there has been a caution noted by National Highways Yorkshire & North East for five of the overhead structures with limited clearance (0.109m minimum) from the load height of 4.901m, they are as per below.

Structure Name	Approx Grid Reference	Headroom	Min Clearance (m)
Welton Junction	SE 95661 27049	5.1	0.199
Elloughton Footbridge	SE 94687 28229	5.01	0.109
Dale Road Diversion	SE 94826 27995	5.06	0.159
The Outgang	SE 93875 29185	5.11	0.209
Brantingham Road	SE 93232 29905	5.12	0.219



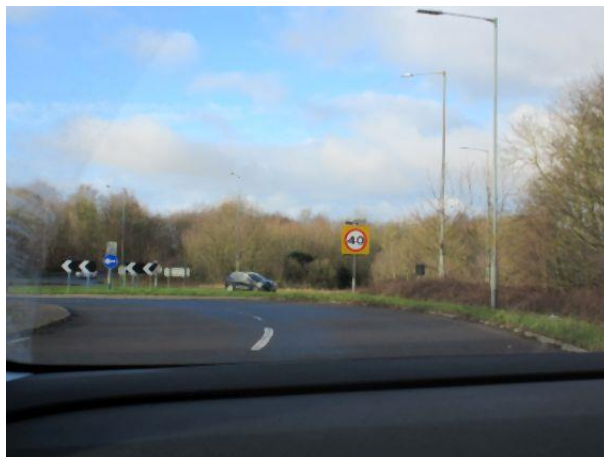
Photograph 11

A63 - Large layby to side of carriageway, may be utilised for traffic management to alleviate congestion.



Photograph 12

A63 - slip road to join A1034 towards Market Weighton/South Cave. Negotiable.



Photograph 13

A1034 roundabout at end of A63 slip road - Negotiable.



Photograph 14

A1034 - roundabout exit towards Market Weighton and South Cave, Negotiable. Note street furniture to splitter islands.



Photograph 15

A1034 - note overhead foliage. Dependent on season, tree lopping may be required.



Photograph 16

A1034 - note overhead wires. As load will be taking up the majority of the carriageway TTRO for Parking Restrictions recommended for clear passage.



Photograph 17

A1034 - note street furniture in centre of carriageway for pedestrian crossing, retroreflective self-righting bollards may require removal depending on final width of transport configuration.



Photograph 18

A1034 - Load to travel away from the camera, designated parking to either side of the carriageway. Load taking up majority of the carriageway.



Photograph 19

A1034 - Street furniture in centre of carriageway splitter island, retroreflective self-righting bollards may require removal depending on final width of transport configuration.





Photograph 20

A1034 - Note overhead foliage. Dependent on season, tree lopping may be required. Banked verge to left hand of carriageway.



Photograph 21

A1034 - Load travelling away from the camera, note street furniture to both sides of the carriageway. Negotiable.



Photograph 22

A1034 - Note overhead wires.



Photograph 23

A1034 - Note overhead foliage. Dependent on season, tree lopping may be required. Full occupation of carriageway required.



Photograph 24

A1034 - Note overhead wires.



Photograph 25

A1034 - A1034 - Note overhead wires. Dependent on season, tree lopping may be required.





Photograph 26

A1034 - Load to travel away from the camera. Right hand bend. Negotiable with full occupation of the carriageway.



Photograph 27

A1034 - Note overhead foliage. Dependent on season, tree lopping may be required.



Photograph 28

A1034 - Load travels away from the camera, note street furniture to both sides of the carriageway. Negotiable. Negotiable with full occupation of the carriageway.



Photograph 29

A1034 – Load moves away from the camera, winding road turning right and then left. Change of gradient throughout residential area. Negotiable with full occupation of the carriageway.



Photograph 30

A1034 – approximate grid reference; SE 89980 39529 – Load to travel away from the camera. Left hand bend with concrete post and metal railings alongside verge to the left. SPA recommended to confirm negotiability but has been accessed in 2022 by 24 axle trailer.



Photograph 31

A1034 – Note Street sign to left of carriageway – Road liable to flooding – Caution depending on weather conditions at time of travel.



Photograph 32

A1034 - Load to take third exit, turning right from A1034 into A1079 away from camera. Negotiable. Could be contraflowed if preferred by haulage contractor with police agreement.



Photograph 33

A1034 - Load to take third exit, turning right from A1034 into A1079. Negotiable.



Photograph 34

A1079 - Note foliage to side of carriageway and chevron tight bend to the left. Negotiable.





Photograph 35

A1079 - Bishop Burton College to lefthand of carriageway, movement times should be discussed and agreed with police and local authorities to minimise disruption, and in particular college access.



Photograph 36

A1079 - change in gradients and winding carriageway with pond to right of camera. Load to take up majority of the carriageway. Fence and railings to right of photograph. Negotiable with full occupation of the carriageway.



Photograph 37

A1079 - Note overhead foliage. Dependent on season, tree lopping may be required.



Photograph 38

A1079 - Load to travel from behind camera, turning right, third exit at roundabout to continue A1079 towards Beverley. Negotiable.



Photograph 39

A1079 - note overhead foliage to both sides of carriageway. Continues as single carriageway road. Load to take up majority of the carriageway. Note overhead bridge up ahead. No bridges or overhead structures have been signed as being under 4.95m clearance along the route.



Photograph 40

A1079 - Zone 4. Access A4.1, approximate grid reference; TA 01500 37551. Load approaches camera. Site access to be designed considerate of AIL delivery vehicles.



Photograph 41

A1079 – Zone 4. Access A4.1, approximate grid reference; TA 01500 37551. Site access to be designed considerate of AIL delivery vehicles.

7.2. *Route from A1079 to Zone 1. Access A1.1*

7.2.1. The following notes and photographs highlight the negotiability of the route from the A1079 as discussed in 7.1 to access point Zone 1. Access A1.1 which continues east to the Jocks Lodge A1079/A164 junction.



Photograph 42

A1079 – slip road exit towards A164 Beverley. Load moves away from camera. Jocks Lodge Bridge carries the A164 over A1079 as discussed in Section 8.1. Negotiable.



Photograph 43

A1079 – slip road exit towards A164 Beverley. Negotiable.





Photograph 44

Exit from A1079 eastbound to A164 at Jocks Lodge - approximate grid reference, TA 02665 37026 - Load turns right towards camera for access to Access A1.1. Street furniture removal will require removal and it may be preferable to contraflow the junction. Recommended that SPA is undertaken to confirm access requirements at the junction if this location if progressed further.



Photograph 45

A164 - Load to travel from behind camera continuing along A164 towards Beverley. Wider single carriageway with central reservation. Load takes up majority of carriageway. Entering residential area of town. Suitable traffic management and escorting to be in place for safe passage to proposed access A1.1.



Photograph 46

A164 - Load to turn right at roundabout taking third exit to continue A164. Recommended for load to contraflow traffic island under police escort for better negotiability.



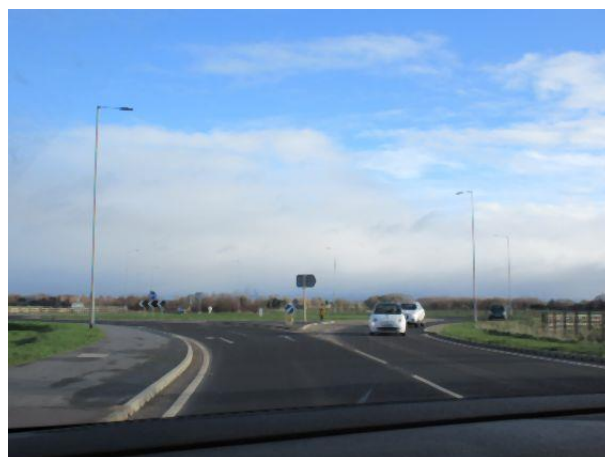
Photograph 47

A164 Lincoln Way roundabout. Load to continue straight on A164. Roundabout negotiable.



Photograph 48

A164 - Load to travel away from the camera. Single carriageway road, vehicle to take up majority of carriageway. New residential area under construction to left of camera. Suitable traffic management and escorting recommended.



Photograph 49

A164 - Load to travel away from the camera, turning right into proposed site access A1.1. It is recommended that if the new access to the site is to be from the roundabout, that access is considerate of AIL requirements. The existing roundabout is large and could reasonably be expected to be negotiated by the proposed load conventionally. Alternatively, contraflowing in to site may aid with AIL access and could be considered in final access design (for AILs only).



Photograph 50

Zone 1. Access A1.1, approximate grid reference; TA 03586 37545. Access design to be considerate of AIL requirements.

7.3. *Route from A1079 to Zone 1. Access A4.2*

7.3.1. The following notes and photographs highlight the negotiability of the route from the A1079/A164 junction as discussed in 7.2 to access point Access A4.2.



Photograph 51 (Image inserted from Google)

Exit from A1079 eastbound to A164 at Jocks Lodge - Load turns left towards A164 to access site A4.2. Street furniture removal will be required. Recommended that SPA is undertaken to confirm access requirements at the junction if this location if progressed further.



Photograph 52 (Image inserted from Google)

Load moves away from camera. Jocks Lodge Bridge carries A164 over A1079 as discussed in Section 8.1. Negotiable.



Photograph 53 (Image inserted from Google)

A164 at Jocks Lodge - Load turns right towards slip road from A164 to A1079 westbound to access site A4.2. Street furniture removal will be required. Recommended that SPA is undertaken to confirm access requirements at the junction if this location if progressed further. It may be preferable to contraflow the junction.



Photograph 54

Zone 4. Access A4.2, approximate grid reference;TA 02458 36753, load to travel in the direction of the camera upon exit from A1079, turning left into proposed site access.



7.3.2. In the event that Jocks Bridge is not able to accommodate the proposed loads to access this location, it would be possible to also consider contraflowing the dual carriageway section of the A1079 from the layby at approximate OS Ref TA 0190 3725 where the single carriageway/dual carriageway section changes. The following notes and photographs highlight the negotiability of the route as a reference only. Any use would be subject to further discussion with the highway authority and police.



Photograph 55

A1079 at the point where single carriageway becomes dual carriageway to the east at approximate OS Reference TA 0190 3725. Load to approach camera in contraflow if Jocks Bridge is not able to be used.



Photograph 56

A1079/A164 west slip road. Load to approach camera in contraflow if Jocks Bridge is not able to be used.

7.4. *Route 2 from Hull via A15 and A164*

7.4.1. The following notes and photographs highlight the negotiability of the route from the A63/A15 exit slip road to Jocks Lodge junction.



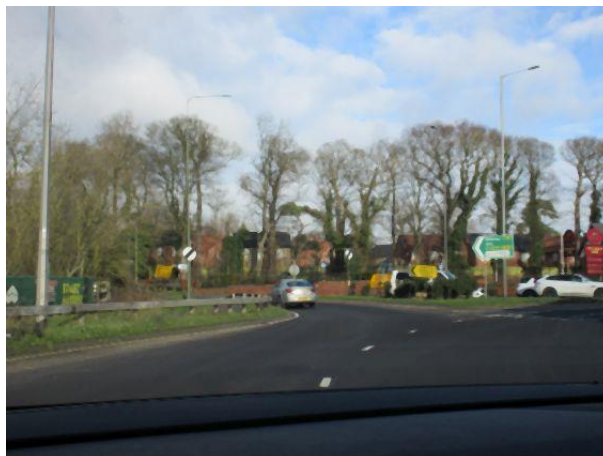
Photograph 57

A63 – slip road towards A15/A164. Caution with the barrier to left hand of carriageway and chevron directional signs to right. Negotiable.



Photograph 58

A63 – slip road towards A15/A164. Barrier to left hand of carriageway. Negotiable. Load to turn left at end of road to merge A15.



Photograph 59

Exit from A15 roundabout to A164 northbound – Load to travel from behind camera, turning left at first exit of roundabout to merge A164. Negotiable.



Photograph 60

A164 - Example of street furniture to central splitter island. Negotiable.



Photograph 61

A164 - single carriageway. Load to take up majority of carriageway, suitable traffic management and escort recommended.



Photograph 62

A164 - Load moves away from camera, taking second exit on roundabout to continue A164. Negotiable.





Photograph 63

A164/A1231 roundabout. Large roundabout with street furniture upon entry to traffic island and at splitter islands. SPA recommended to confirm negotiability and possible street furniture removal requirements of chevrons.



Photograph 64

A164 - Note Street furniture to central splitter island upon exit from roundabout. SPA recommended to confirm negotiability.



Photograph 65

A164 Riplingham Road roundabout. Large two-lane carriageway throughout. Negotiable.



Photograph 66

A164 – Note permanent and temporary street furniture to side of carriageway. Large traffic island. Negotiable with over sail on centre of roundabout.



Photograph 67

A164 Willerby Court Roundabout – Large traffic island. Negotiable.



Photograph 68

A164 Castle Road Roundabout – Load moves away from to camera to continue A164. Large traffic island. Negotiable.



Photograph 69

A164 - Eppleworth Road Bridge - approximate grid reference; TA 02301 32705. Structural status remains outstanding from East Riding of Yorkshire Council. It is understood this has been a concern in the past.



Photograph 70

A164/B1233 Harland Way Roundabout - Large traffic island, note street furniture on island. Negotiable. This is the point at which the AIL route to the National Grid Creyke Beck substation turns right onto the B1233. The route north of this point is therefore unproven for heavy transformer AILs.



Photograph 71

A164 on approach to Jocks Lodge junction with A1079 – Load to turn left at traffic lights to gain access to; Zone 4. Access A4.2. Load to turn left to gain access to; Zone 4. Access A4.1 and continue straight ahead to gain access to Zone 1.



Photograph 72

Demountable Street Furniture on both sides of the carriageway at approximate grid reference, TA 02587 36700 at the A164/A1079 south junction.

- 7.4.2. The junction has removable street furniture and will be accessible with appropriate items removed which will depend on the final transport arrangement selected for movement and the final substation location. An SPA could be undertaken to confirm access when turning left to Zone 4. Access A4.2 and A4.1 to confirm the exact requirements but it is considered negotiable.
- 7.4.3. For loads continuing straight ahead to Zone 1 it is recommended that the load contraflows the southbound carriageway to reduce street furniture removal.

## 8. Road Improvement Schemes

### 8.1. *A164 & Jocks Lodge*

- 8.1.1. The A164 is a major route serving the south of East Riding of Yorkshire, the west of the city of Hull and the Town of Beverley. It is a part of the East Riding of Yorkshire Councils Primary Route Network.
- 8.1.2. The A164 provides a vital link to the M62/A63 corridor carrying approximately 30,000 vehicles per day along sections of the route.
- 8.1.3. The A1079 is the primary route between the cities of Hull and York whilst also connecting to local settlements including Beverley and Market Weighton. The A1079 forms the main strategic corridor for commuters, freight, residents, and tourists travelling to and between York and Hull to access employment, education and retail facilities offered in the two cities.
- 8.1.4. The A1079 also forms an important link to the Hull and Humber Ports, with over 18% of port traffic using the route. The A1079 is single carriageway for much of its length although there are sections of dual carriageway such as the section to the south of Beverley around Jocks Lodge. On the approach to Jocks Lodge, the A1079 currently carries around 20,000 vehicles a day.
- 8.1.5. In order for vehicles to travel between the A164 and A1079 it is necessary to pass through Jocks Lodge junction. The existing junction is formed of a grade separated half-cloverleaf layout with the A1079 passing beneath the A164. The two junctions that connect each of the existing A1079 slip roads with the A164 are currently signal controlled. As shown in Location Plan 1.
- 8.1.6. Following a successful bid to the DfT's previous Large Local Major Scheme Fund the Council implemented a £10m scheme to improve capacity along the A164 corridor in 2013. This involved improvements to four roundabouts along the route with a new dual carriageway section introduced between Willerby and Cottingham. The Council also completed a new Southern Relief Road for Beverley in 2015, the western end of which terminates just north of the Jocks Lodge junction. The capacity improvements on the A164 and the completion of the Southern Relief Road means that the remaining single carriageway section of the A164 and Jocks Lodge junction form a bottleneck on the local highway network.
- 8.1.7. Planning applications for the upgrade scheme were submitted at the end of March 2020 having successfully secured £40million construction funding from the DfT 2022. At present accommodation works by utility companies is ongoing to make way for the main constructions works to be completed by late 2026.
- 8.1.8. There is clearly an impact on the possible AIL access requirements to the three substation access locations detailed in this report, not only for the possible clash with construction traffic requirements but also in terms of the longer-term impact on potential AIL delivery routes. East Riding of Yorkshire Council have been approached to clarify matters in relation to the scheme and its current anticipated requirements.
- 8.1.9. It is understood that the plans involve construction of a new roundabout to the east of the current bridge which will enable traffic to exit/join A1079/A164. As such it will be possible to avoid the need to cross over the current Jocks Lodge Bridge but there is no guarantee the new road alignments will be in place by the time of the DBS Offshore Wind Farms transformer deliveries.





Location Plan 3

Jock's Lodge Bridge and Proposed Roundabout to it's East.

- 8.1.10. Zone 4. Access A4.2, approximate grid reference; TA 02458 36753 is proposed to be upon the southern 'disused' cloverleaf slip road shown in the location plan above. East Riding of Yorkshire Council have not yet finalised the arrangements of the disused slip roads, however it is proposed that it will remain public highway up to the field access gate on the southbound slip road, meanwhile the remainder will be gated or fenced off as per below visual.



Location Plan 4

Proposed view looking south showing gated/fenced off disused cloverleaf slip road to be replicated on the southside to the agricultural access gate.

- 8.1.11. Whilst improvement works have begun the initial works were planned to begin further south on the A164 at Eppleworth Road Bridge than where presently now planned to begin by Skidby roundabout once diversions from the A63 Castle Street in Hull (See section 8.2) have been concluded.
- 8.1.12. In summary the Jocks Lodge scheme remains to be confirmed in terms of final design and timing and it will have an impact AIL access in the future for DBS Offshore Wind Farms, whichever substation location is selected. It is recommended that dialogue is maintained with East Riding of Yorkshire Council to confirm ongoing progress of the DBS Offshore Wind Farms and impact on AIL access.

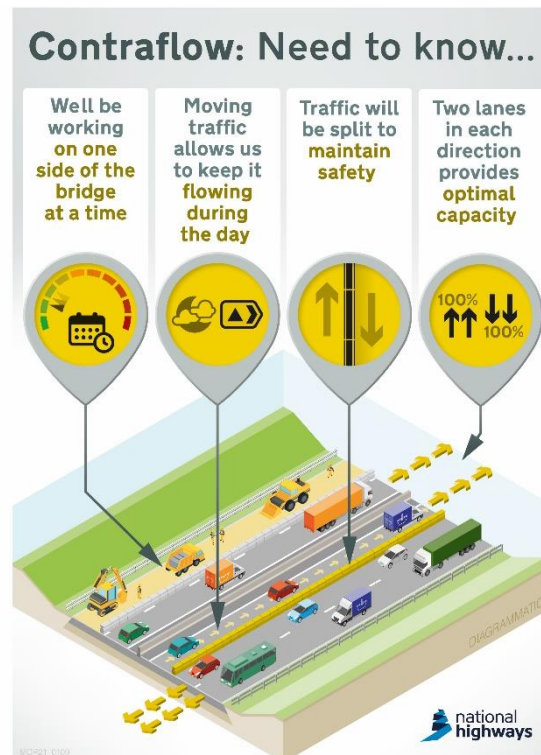


## 8.2. A63 Castle Street and Myton Swing Bridge

8.2.1. A63 Castle Street and Myton Swing bridge in Hull are also undergoing improvements with the diversions in place ongoing until Autumn 2025 as per below diversion plans.



8.2.2. Wynns have been advised by Balfour Beatty (the lead contractors on behalf of National Highways A63 Castle Street Improvement Scheme) that during Spring 2023 they are working on the westbound carriageway with contraflow in place meaning that AIL's were banned from driving through the carriageway as per below infographic.





- 8.2.3. Excavation works began in Summer 2021 to construct the new underpass, lowering the A63 at the Mytongate Junction as a part of the £355 million scheme.
- 8.2.4. There is a weight limit of 110te that remains in place on Myton Swing bridge and until works are completed the final loadings and weight limits cannot be confirmed. This restricts any access both now and in the future from the eastern docks (See section 5). Access from Port of Hull will in turn have to be from Albert Dock as described previously due to the limitations of access from the main port area to the A63 Castle Street over the Myton Swing Bridge. The current proposed route avoids the new A63 flyover, and it is proposed will continue to do so, providing access to the A63 to the west of the current improvement scheme.
- 8.2.5. To avoid the current roadworks, transformers being transported to Dogger Bank and Creyke Beck Substations exited the port via Manor House Street prior to turning left onto English/Jackson Street and continuing to merge A63. Once works are completed it would be advisable to see if continuing along Manor House Street onto Mytongate Junction to merge A63 will be feasible. This could remove a pinch point with street furniture removal requirements on the roundabout on Manor House Street.
- 8.2.6. Porter Street footbridge is now in place with the designed minimum clearance of 5.7 meters.
- 8.2.7. In summary the A63 Castle Street scheme can be avoided, and it is not considered to be a major risk to AIL access in the future for DBS offshore wind farms.



## 9. Summary and Conclusions

- 9.1. The contents of this report include land transport feasibility investigations into achieving heavy load access for a transformer of 210-230te nett transport weight required at the Dogger Bank South offshore wind farm on-shore substation sites. As the gross transport weight is over 150te nett, it will have to be carried under Special Order from the nearest available UK port, subject to the formal application procedure.
- 9.2. This report identifies a preferred route to the onshore substation locations from Port of Hull but does not constitute a formal agreement for movement. Any future movement to the onshore substation will require the appointed haulage contractor to notify the relevant statutory authorities in the appropriate fashion by way of a formal Special-Order application.
- 9.3. During the course of routine discussions with Associated British Ports (ABP) Hull it has come to our attention that there are some concerns with future heavy lift delivery requirements in the Albert Dock which is the area of the port required for heavy AILs looking to travel west from Hull. Whilst these are not considered insurmountable, they should be monitored as the Projects progress. It is understood that ABP Hull has some concerns with the structural integrity of the quay in Albert Dock and that further geotechnical surveys and investigations remain ongoing to confirm requirements. It may also be necessary for any haulage/lifting provider to indemnify ABP or for alternative delivery options at the port to be investigated.
- 9.4. A preferred route has been confirmed as structurally acceptable by National Highways Abnormal Loads Team to the A1079/A164 Jocks Lodge junction which is common to all possible substation locations, when accessed via the A1034 and Market Weighton to the west, which is the route used to delivery transformers to the Dogger Bank Substation currently under construction to the east of the A1079/A164 Jocks Lodge junction. This route has been proven during 2022 and is due to be again in 2023 for 24 axle girder frame trailers carrying 256te nett transformers.
- 9.5. No formal clarification has been obtained from East Riding of Yorkshire Council in terms of structures on the preferred route. It will be necessary to obtain confirmation from East Riding of Yorkshire Council as to the suitability of their structures for the proposed loads and attempts to do this will continue and be reported on separately when obtained.
- 9.6. In respect to the proposed access to Substation Access A1.1 there are three structures on the A164 between the A1079 junction and the proposed substation access point. These are small span and are not expected to be an issue, but confirmation remains outstanding at this time.
- 9.7. In respect to the proposed access to Substation Access A4.2 the status of the bridge that carries the A164 south over the A1079 remains to be confirmed by East Riding of Yorkshire Council.
- 9.8. An alternative route via the A15 and A164 from the south has been considered but at present is advised by National Highways Yorkshire and North East to not be acceptable at the link bridge that carries the slip road from the A63 over the A63 and onto the A15 (16422 Western Interchange Bridge).
- 9.9. The preferred route is considered negotiable for 24 axle girder frame trailers subject to street furniture removal as detailed in this report. Whilst confirmatory SPAs could be undertaken to confirm specific requirements, this is not considered necessary at this time as the route is recently proven. The exact street furniture removal requirements will be



confirmed closer to the time of movement once the final onshore substation site has been confirmed and once final transformer dimensions and transport arrangements are confirmed, but in general there are presently no major concerns with respect to route negotiability.

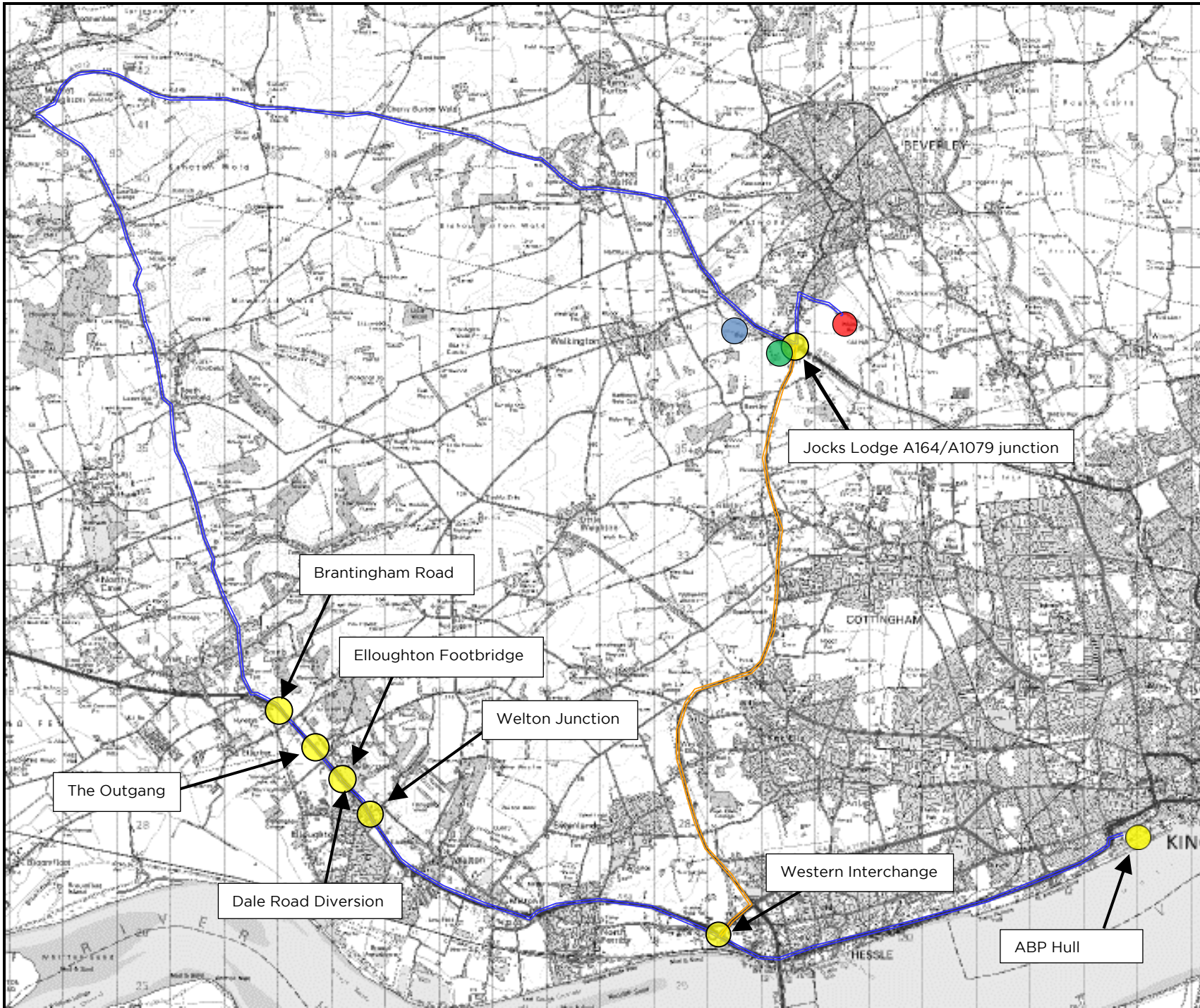
- 9.10. There are major works underway along potential delivery routes at the A63 Castle Street in Hull being implemented by National Highways and Jocks Lodge improvement scheme planned by the East Riding of Yorkshire Council.
- 9.11. The Jocks Lodge scheme remains to be confirmed in terms of final design and timing and it will have an impact AIL access in the future for DBS offshore wind farms, whichever substation location is selected. It is recommended that dialogue is maintained with East Riding of Yorkshire Council to confirm ongoing progress of the scheme and impact on AIL access.
- 9.12. The A63 Castle Street scheme can be avoided and it is not considered to be a major risk to AIL access in the future for DBS offshore wind farms.
- 9.13. The report is intended to be a summary of the AIL route access at the current time and is not a guarantee that the route will be cleared in the future. Specific movements will need to be assessed at the time on an individual basis. If any further information is required, it is available on request.
- 9.14. No review of onsite requirements has been undertaken. Further detailed on-site access delivery and installation requirements will need to be progressed by the appointed scheme contactor as the project progresses.



## Appendix 1

### Maps






Key		
	Route 1 to Dogger Bank South Proposed Substation	
	Route 2 to Dogger Bank South Proposed Substation	
	Point of Interest	
	Dogger Bank South Proposed Substation Access A1.1	
	Dogger Bank South Proposed Substation Access A4.1	
	Dogger Bank South Proposed Substation Access A4.2	

B		
A		
O	31.01.23	First Issue
Rev	Date	Amendments:

Revisions



**WYNN'S**  
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Client:



**Royal HaskoningDHV**  
Enhancing Society Together

Rightwell House  
Bretton  
Peterborough  
PE3 8DH

Project: Dogger Bank South

Title: Map 1 - Routes to Dogger Bank South

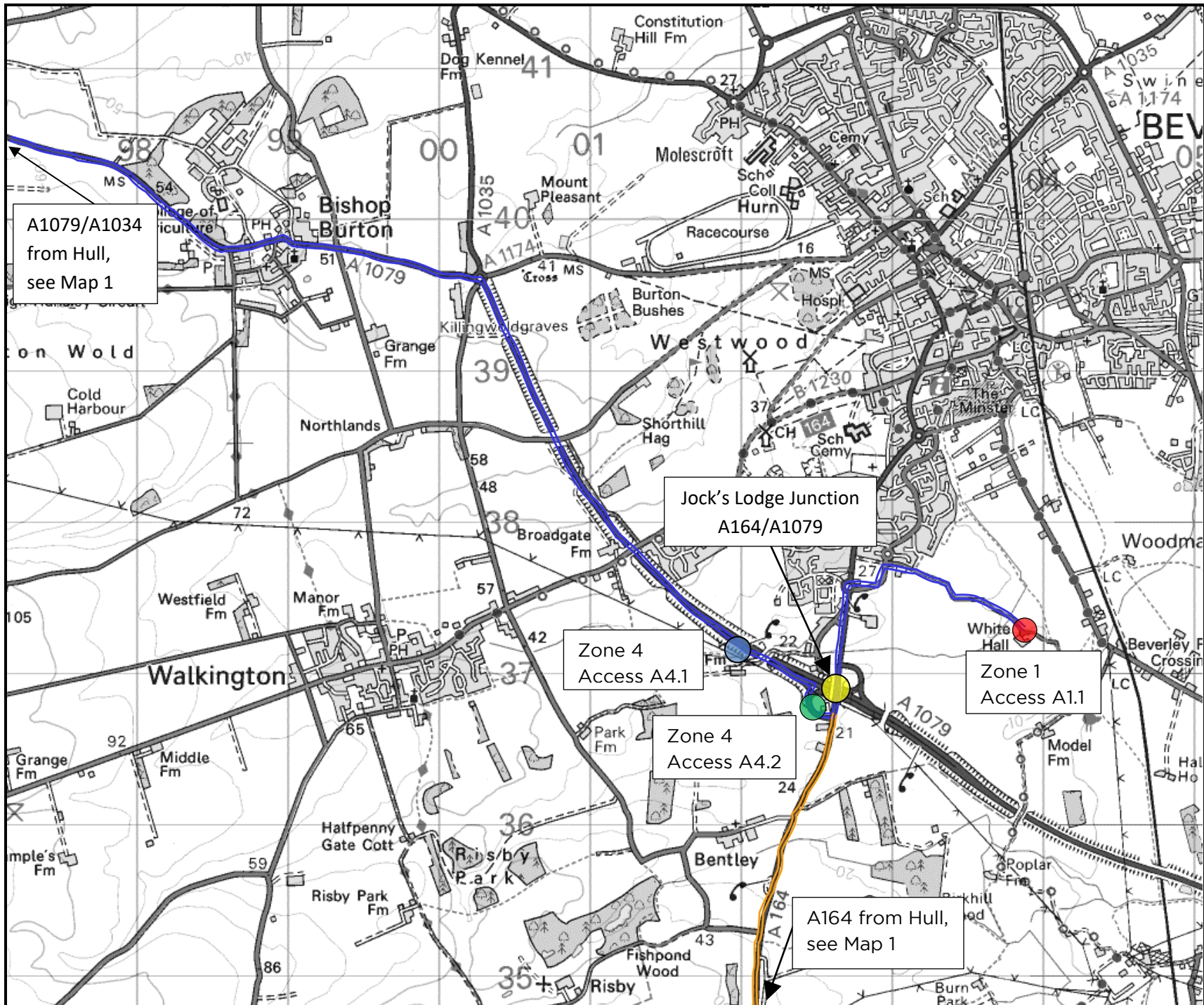
Drawing Status: Final Report

Scale (A4): NTS	Drawn by: ELK	Checked by: ARP
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Ref No.: 22.1132-Map1	Sheet: 1 of 2	Rev.: 0
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Key	
	Route 1 to Dogger Bank South Proposed Substation
	Route 2 to Dogger Bank South Proposed Substation
	Point of Interest
	Dogger Bank South Proposed Substation Access A1.1
	Dogger Bank South Proposed Substation Access A4.1
	Dogger Bank South Proposed Substation Access A4.2

B		
A		
O	31.01.23	First Issue
Rev	Date	Amendments:

Revisions		


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Client: 
 Rightwell House  
 Bretton  
 Peterborough  
 PE3 8DH

Project: Dogger Bank South

Title: Map 1 - Routes to Dogger Bank South

Drawing Status: Final Report

Scale (A4):	Drawn by:	Checked by:
NTS	ELK	ARP

Ref No.:	Sheet:	Rev.:
22.1132-Map1	2 of 2	0

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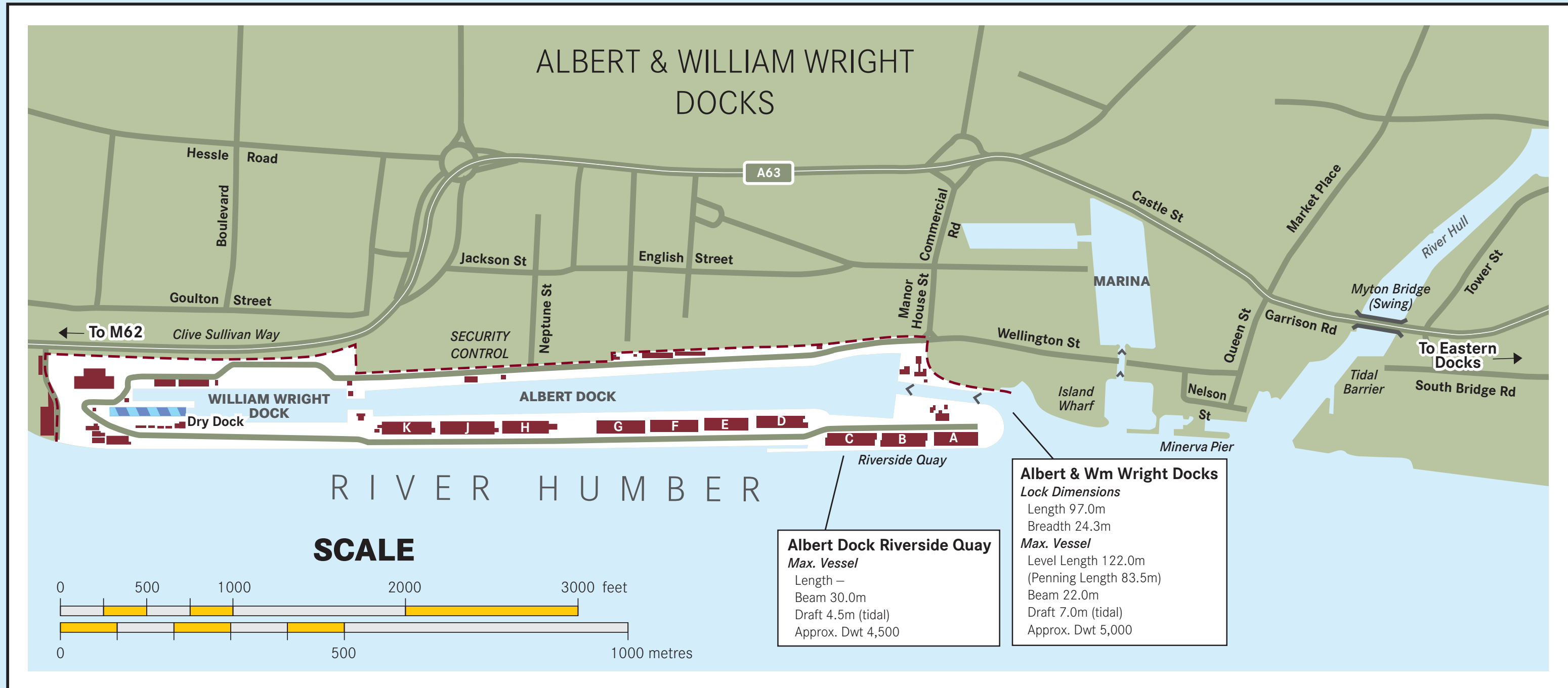
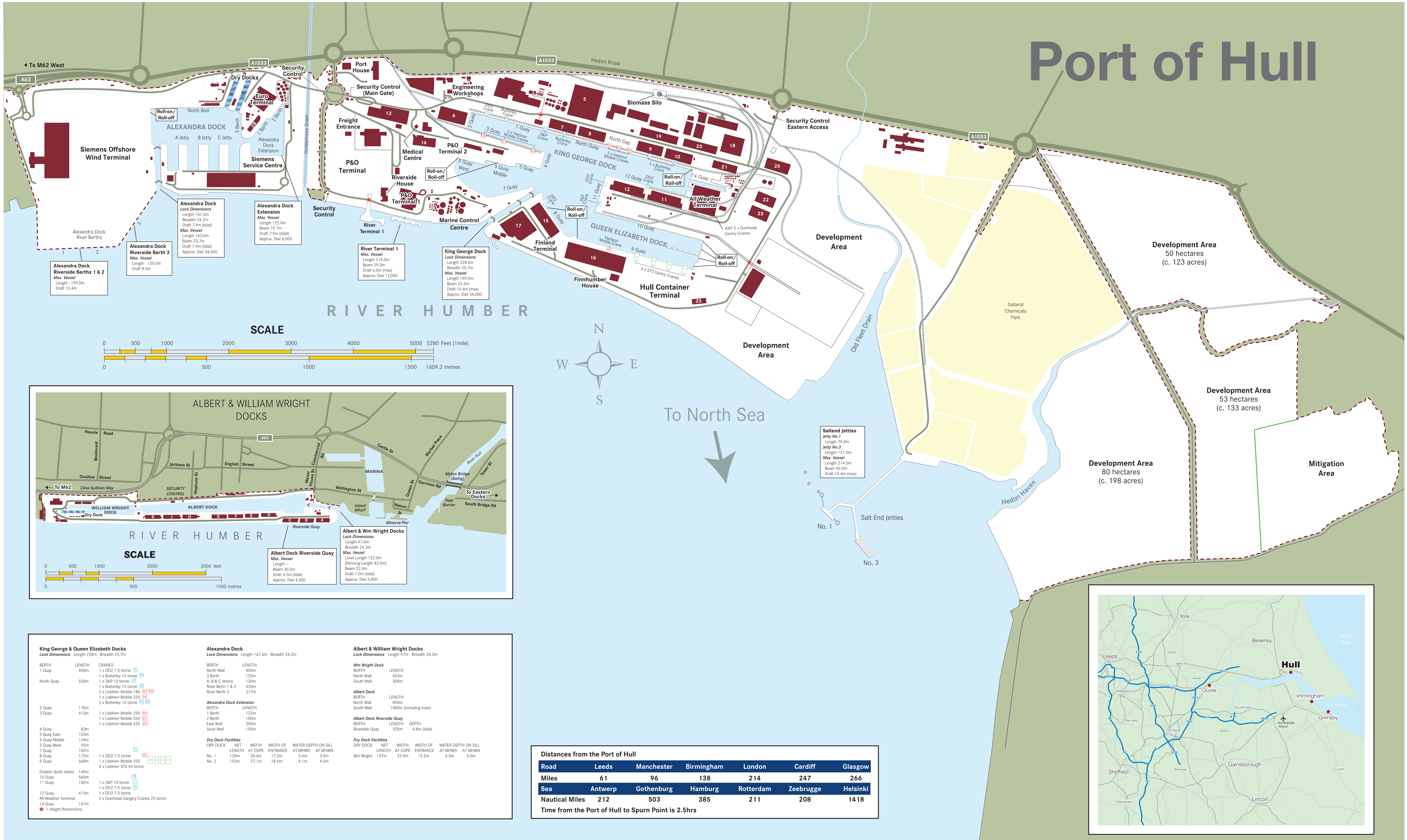


## Appendix 2

### Drawings



# Port of Hull



King George & Queen Elizabeth Docks			Alexandra Dock			Albert & William Wright Docks		
BERTH	LENGTH	CRANES	BERTH	LENGTH		BERTH	LENGTH	
1 Quay	400m	1 x DD2 7.5 tonne	North Wall	400m		North Wall	400m	
North Quay	530m	1 x S&P 10 tonne 1 x Butterley 15 tonne 2 x Liebherr Mobile 160 1 x Liebherr Mobile 320 2 x Butterley 15 tonne	3 Berth	120m		3 Berth	120m	
2 Quay	170m	1 x Liebherr Mobile 250	A, B & C Jetties	130m		South Wall	300m	
3 Quay	413m	1 x Liebherr Mobile 320 1 x Liebherr Mobile 420	River Berth 1 & 2	420m		Wm Wright Dock	850m	
4 Quay	83m		River Berth 3	217m		North Wall	1000m (including inset)	
5 Quay East	153m					South Wall	1000m (including inset)	
5 Quay Middle	124m					Albert Dock	137m	
5 Quay West	56m					River Side Quay	325m	
7 Quay	182m					Dry Dock	137m	
8 Quay	172m					NET	25.9m	
9 Quay	568m					WIDTH	15.2m	
Dolphin (both sides)	140m					WIDTH OF ENTRANCE	15.2m	
10 Quay	560m					WATER DEPTH ON SILL	6.5m	
11 Quay	182m					AT MHWS	6.5m	
						AT MHWN	5.0m	
12 Quay	415m							
All-Weather Terminal	167m							
14 Quay								

Distances from the Port of Hull						
Road	Leeds	Manchester	Birmingham	London	Cardiff	Glasgow
Miles	61	96	138	214	247	266
Sea	Antwerp	Gothenburg	Hamburg	Rotterdam	Zeebrugge	Helsinki
Nautical Miles	212	503	385	211	208	1418

Time from the Port of Hull to Spurn Point is 2.5hrs







## Appendix 3

### Selected Correspondence





Our ref: AIP 840  
Your ref: Dogger Bank South

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Shaftesbury House  
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Eccleshall  
Staffordshire  
ST21 6BZ

Sarah Hollender  
Strategy and Customer Manager National  
Highways  
9th Floor, The Cube  
199 Wharfside Street  
Birmingham  
B1 1RN

13<sup>th</sup> Dec 2022

Dear Andy,

**AGREEMENT IN PRINCIPLE: 840, DOGGER BANK SOUTH**

Further to your email dated 8<sup>th</sup> Dec 2022 requesting provision of an AIP for future abnormal load moves into the new Dogger Bank South Substation, I can confirm that an AIP can be provided for the movement of transformers from Hull Docks. Number of pieces is tbc and provisional dimensions detailed below:

Transformers with weight approx 230,000kgs nett (358,000kgs - 383,000kgs gross).

Delivery is expected in Summer 2026.

This will of course be subject to formal application nearer the time at which time National Highways will consult with all relevant parties and take into consideration their views and requirements.

Consequently, any Special Order issued is likely to include specific requirements relating to the day(s) on which movements will be authorised. The Special Order may also prescribe specific times during the day or night when movement will be permitted (which may take into account seasonal variations in traffic) in order to minimise traffic congestion, and disruption to other road users.

This Agreement in Principle is valid for a period of 7 years.

I trust this information is sufficient for your purposes, but please do not hesitate to get in touch if you require anything further.

Yours sincerely

Sarah Hollender  
Email: [REDACTED]@nationalhighways.co.uk

Our ref: Dogger Bank South  
Your ref: Dogger Bank South

Andy Pearce  
Wynns Limited  
Shaftesbury House  
High Street  
Eccleshall  
Staffordshire  
ST21 6BZ

Ioana Istrati  
Strategy and Customer Manager  
National Highways  
9<sup>th</sup> Floor, The Cube  
199 Wharfside Street  
Birmingham  
B1 1RN

11<sup>th</sup> January 2023

Dear Andy,

### **Dogger Bank South Substation**

Further to your email dated 6<sup>th</sup> January 2023 and your ESDAL Special Order application reference WYNL/85, requesting a feasibility study for future abnormal load movements into Dogger Bank South Substation.

We can confirm that the route has been cleared very recently for a 256te net transformer (approved in April 2022). The agreed route and vehicle details are attached for you.

National Highways Yorkshire and North-East Region has advised that there are no known changes to structural capacity along the route at this time but as usual full structural assessments and negotiability for the exact vehicle configuration will need to be re-assessed nearer the time. National Highways Yorkshire and North-East Region have also provided a list of 5 structures where the height clearance is lowest along the route; list of these structures are also attached.

I trust this information is sufficient for your purposes, but please do not hesitate to get in touch if you require anything further.

Yours sincerely

Ioana Istrati  
Assistant Strategy and Customer Manager, Abnormal Indivisible Loads Team  
Email: [REDACTED]@highwaysengland.co.uk Direct line: +44 (0) [REDACTED]

## Emily Key

---

**From:** Maunders, Michaela <[REDACTED]@balfourbeatty.com>  
**Sent:** 19 January 2023 08:53  
**To:** Emily Key  
**Subject:** National Highways response: Abnormal loads  
**Attachments:** MCR21\_109 - M180 Motorway Contraflow Graphic ALT2\_100percent version .jpg; MCR21\_0116 - A63 Castle Street Diversion - A1079 v2.0.jpg

Dear Ms Key,

Thank you for your email on Friday 6 January about abnormal loads. Your query has been passed to me as customer lead working on the A63 Castle Street improvement scheme on behalf of National Highways.

I notice in your email you refer to abnormal load deliveries in 2023. We've currently got two schemes on the ground, one to create a new junction at Mytongate which is a major scheme that isn't due to be complete until spring 2025. We've also got a second scheme on Myton swing bridge which is in place until autumn 2023.

On the A63 HGVs are banned from using lane 2 through the roadworks and wide loads are advised to straddle both lanes.

On the swing bridge wide and abnormal loads are banned currently from driving through on the westbound carriageway due to the contraflow arrangement we have on site. To explain this in a bit more detail we've got two lanes running in each direction but on the westbound this is split which means they can't straddle both lanes. This will change as work moves over to the eastbound side when abnormal loads will then be banned from using that carriageway. I've attached an image to help clarify this a bit more and the diversion route which abnormal loads needs to follow when the restrictions are in place.

There is also a weight limit of 110 tonnes on the swing bridge. Unfortunately at the moment I can't confirm if a weight restriction will remain on the swing bridge.

With regards Porter Street footbridge which is now in place the design minimum clearance is 5.7 metres. The bridge over the top was designed to account for SV196 loading on the proposed permanent alignment in accordance with UK NA to BS EN 1991, Figure NA.1. AIL loading was not considered

The above is provided for information only. As you'll no doubt be aware you'll need approval from the National Highways abnormal load team as well as the local authority teams who will also advise on the most suitable route and notify you of any restrictions.

I do hope that helps but if you do require any further information please don't hesitate to contact me.

To help us to identify and make improvements to our responses I would be grateful if you could please take our feedback survey by clicking [here](#).

Kind regards

**Michaela Maunders**

Customer Lead | A63 Castle St / A57 Link Roads | Balfour Beatty

T: +44 (0) [REDACTED] | E: [REDACTED]@balfourbeatty.com

A63 Project Office, Wellington Street West, Hull, HU1 2DG

[www.balfourbeatty.com](http://www.balfourbeatty.com) | [@balfourbeatty](#) | [LinkedIn](#)

---

**From:** Emily Key [REDACTED]@wynnslimited.com>

**Sent:** 06 January 2023 15:27

**To:** A63 Castle Street Hull <[A63CastleStreet.Hull@highwaysengland.co.uk](mailto:A63CastleStreet.Hull@highwaysengland.co.uk)>

**Cc:** Sarah Hollender [REDACTED]@nationalhighways.co.uk>; Ioana Alexandra Istrati [REDACTED]@nationalhighways.co.uk>; Andy Pearce [REDACTED]@wynnslimited.com>

**Subject:** AIL access - A63 upgrade plans

To whom it may concern,

As you may be aware Wynns work on behalf of numerous Electrical Generation & Transmissions companies throughout the UK in respect to investigating route access for Abnormal Indivisible Loads (AIL's) to its current / proposed Substations. We have been instructed by our client to undertake a feasibility study into AIL access requirements to a number of proposed onshore substation locations to new offshore windfarm connections. Through this we need to consider access for the potential transport configurations that may be used for delivery in the future as part of the substation(s) development scheme. The expected movement date is not confirmed at present, but it is not imminent. It is separate to movements that have recently taken place to Dogger Bank Substation and which we understand additional deliveries are due in early 2023.

I have found your details online with regards to the improvements works currently in progress in A63 upgrades and was hoping that you'd be able to support me in gaining understanding in some questions raised from this for our proposed transformer deliveries and the impact that it may have on possible heavy load routing.

- I note that the exit from the port of Hull (Albert Dock via Manor House Street/Commercial Road) to A63 Castle Street, will now have a grade separated junction. Is this being built with potential AIL's considered in the planning? Are you able to share the plans/drawings of the junction and structure capacity for information purposes?



- A63 Myton Swing Bridge is also having upgrades, is this having the weight limit increased with AIL's considered in the planning to allow for potential AIL's to pass over from the main Port of Hull to Castle Street?
- Can you confirm if loads as per attached transport configurations would be able to pass over the Myton Swing Bridge post works completed, I see the majority of works planned are due for completion in 2024-25. Can you confirm current expected completion dates?
- Are you able to share the height of the new 37-metre-long Porter Street footbridge which from present research appears to be in place and close to completion with only remedial works remaining?



Thank you in advance and look forward to hearing from you soon. I copy the National Highways AIL Team for information.

Kind Regards,



# Emily Key

Transport Planner

Tel: + 44 (0) [REDACTED]

Mobile: + 44 (0) [REDACTED]

Email: [REDACTED]@wynnslimited.com

Advance Notice of Leave:

Monday 13<sup>th</sup> February – Friday 17<sup>th</sup> February 2022

Find out more visit [www.wynnslimited.com](http://www.wynnslimited.com)



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## Emily Key

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**From:** Andrew Humphrey [REDACTED]@eastriding.gov.uk>  
**Sent:** 14 December 2022 11:53  
**To:** Emily Key; Jocks Lodge & A164 Improvements Scheme  
**Cc:** Andy Pearce; Jacqui Smythe  
**Subject:** RE: AIL access - A164 and Jock's Lodge Junction improvement scheme

Good Morning Emily,

With regards to your questions below point one Eppleworth Bridge, the scheme is no longer starting at Castle Road Roundabout, and is now starting from Skidby Roundabout. This omits the proposed new bridge to carry the north bound traffic.

Point 2 your understanding is correct both of the existing half cloverleaf slip roads are to be removed.

Point 3 We have not finalised the arrangement yet, it will remain public highway up to the driveway of Bentley Lodge to the north of the slip road and the field access to the south. Beyond that it maybe gated or fenced off. How far down the slip road would you be requiring access?

I look forward to seeing your plans for the scheme in the future.

Regards,

**Andrew Humphrey** | Principal Engineer |

**Phone** [REDACTED]  
**Web:** [www.eastriding.gov.uk](http://www.eastriding.gov.uk)  
**Twitter:** [www.twitter.com/East\\_Riding](https://www.twitter.com/East_Riding)  
**Facebook:** [www.facebook.com/eastridingcouncil](https://www.facebook.com/eastridingcouncil)



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**From:** Emily Key [REDACTED]@wynnslimited.com>  
**Sent:** 12 December 2022 16:48  
**To:** Andrew Humphrey [REDACTED]@eastriding.gov.uk>; Jocks Lodge & A164 Improvements Scheme [REDACTED]@eastriding.gov.uk>  
**Cc:** Andy Pearce [REDACTED]@wynnslimited.com>  
**Subject:** AIL access - A164 and Jock's Lodge Junction improvement scheme

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Good Afternoon Andrew,

As you may be aware Wynns work on behalf of numerous Electrical Generation & Transmissions companies throughout the UK in respect to investigating route access for Abnormal Indivisible Loads (AIL's) to its current / proposed Substations. We have been instructed by our client to undertake a feasibility study into AIL access requirements to a number of proposed onshore substation locations to new offshore windfarm connections. Through this we need to consider access for the potential transport configurations that may be used for delivery in the future as part of the substation(s) development scheme. The expected movement date is not confirmed at present, but it is not imminent. It is separate to movements that have recently taken place to Dogger Bank Substation and which we understand additional deliveries are due in early 2023.

I have had your details passed to me with regards to the improvements works currently in progress in East Riding regarding Jocks Lodge A164/A1079 upgrades, and was hoping that you'd be able to support me in gaining understanding in some questions raised from this for our proposed transformer deliveries and the impact that it may have on possible heavy load routing.

- The new road scheme which is showing upgrade works to Eppleworth Road Bridge appears to show that the northbound carriageway is having a New Bridge built as part of the dualling carriageway works, please can you confirm to what weight capacity this is being built to, and if this has taken into consideration potential AIL access requirements to this area.

Structure general details	
ESRN	: S-TA023327-1
Name	: EPPLEWORTH ROAD BRIDGE
Unique Id	: 03-22-37
Coordinates	: 502302 , 432704
Owner/Stakeholder	: <a href="#">East Riding of Yorkshire Council</a>
Category	: Road Bridge
Type	: Simply Supported Span
Class	: Under And Over Bridge



- From reading the project website it is to my understanding that the 2 circular slip roads from the A1079 to Jock's Lodge to the A164 are being removed and a roundabout is planned to be built to the East of the bridge, is this correct?



- One of our clients proposed sites would potentially require access from the 'disused' slip road access to the south of the bridge and I see from visuals and the fly through videos that there is potentially gated access remaining here, will this still be maintained by yourselves for access to be available should the need arise?



Formal application will be submitted on ESDAL for yours and your colleague's consideration as soon as transport configurations have been confirmed, however your support with the above questions for our clarity would be greatly appreciated.

Thank you in advance and look forward to hearing from you soon,

Kind Regards,

**Emily Key**

Transport Planner

Tel: + 44 ( [REDACTED] )  
Mobile: + 44 (0) [REDACTED]  
Email: [REDACTED]@wynnslimited.com

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