



**DOGGER BANK
WIND FARMS**



**Dogger Bank C/Sofia
Proposed Onshore Converter Station
Construction Access Road

Highway Access Appraisal**

1 Introduction

This report has been prepared by specialist Transport and Infrastructure Design Consultants SCP. It considers traffic and transportation matters relating to the planning application made by Doggerbank Offshore Wind Farm Project 3 Projco Limited (the Projco) and Sofia Offshore Wind Farm Limited (SOWFL) (the Applicants), for consent pursuant to construct a new site access for use during the construction stage of the project.

A Development Consent Order (the DCO) was granted for Dogger Bank Wind Farm C (previously known as Dogger Bank Teesside A Offshore Wind Farm) and Sofia Offshore Wind Farm (previously known as Dogger Bank Teesside B Offshore Wind Farm) (the Projects), including the onshore transmission works required to export electricity to the grid in August 2015.

This Application proposes a new additional construction access taken from the existing southern access to the Wilton International site to provide access to the Onshore Converter Stations (OCS) for both projects, welfare and construction compound (PCC15) and haul road to be used to lay the High Voltage Alternating Current (HVAC) cable leading to Lackenby Substation to the west.

Planning application drawing **60617518-ACM-XX-00-DR-CE-3001 rev C** shows the location of the new access proposed with the access consented by the DCO. It also shows the Wilton International Security Gatehouse location.

2 The Effects of the Development

The Applicants are seeking consent for an additional access off the private Wilton International access road (southern Wilton access), which is located in the south of the Wilton International site and connects to the A174 via a grade separated junction. This application seeks to provide a new access taken from a location south of the security gate, outside of the Wilton International security cordon, off Wilton International's private access road. The access to the site will include its own security situated with the DCO Limits and as such the security arrangements are not included within this application but will be provided as part of the discharge of requirements process for the DCO.

The use of the two accesses can be described as follows:

- **Consented access** – the access located within the Wilton International site and approved under the DCO. This will be used during the construction, operation and demobilisation phases of the Projects. It will be the main access for the OCSs post-construction.
- **Proposed access** – This access will only operate during the construction phase of the Applicants' Projects. It will and be the main access to the OCSs during the construction phase. It is located on the Wilton International southern entrance road (private road) offset from the access into the Wilton Centre Offices. This proposed access is outside of the Wilton International site security cordon, but still accessed off the private road. After the construction stage the access will be removed and the area reinstated. The detail of the site access is shown on drawing **60617518-ACM-XX-00-DR-CE-3005 rev C**.

The proposed access provides a direct route into the site for construction traffic and will avoid potential delays incurred by construction vehicles having to pass through Wilton International's security cordon. This time benefit offers business efficacy for both Wilton International and the Project. At peak this equates to over 200 km per day reduction in vehicle distance travelled compared to the consented access.

By filtering construction traffic away from the security cordon, this new access will also reduce delays that would otherwise occur under the DCO, to the 800 peak hour vehicles users accessing the Wilton International site and passing through security, who would otherwise be delayed by construction traffic using the consented access.

It reduces the walk distance into the site from the local bus stops and footpaths by around 500 m. Access by bike is similarly shortened with cycles using the carriageway.

The proposed access is required for a number of reasons, including:

- It is located closer to the A174 junction and provides a more direct access onto the grade separated junction.
- It will provide a more direct access to the OCSs, compound and haul road. This will reduce vehicle mileage, time and pollution.
- It avoids the need to pass through the Wilton International guard house and security. This will reduce the time taken for contractors to access the site and minimise the impact on Wilton International (security) staff.
- It will significantly reduce impact to those working at Wilton International whose main route into the Wilton International site is via this existing southern entrance. It is more directly linked to the near-by off-road walk/cycle route and local bus stops. It therefore provides a more direct access for workers travelling to the site by sustainable transport modes.
- The access is remote from the traffic signal controlled cross roads within the Wilton International site and as such presents a lower risk to other road users.
- The proposed access geometry is the same as that consented, namely:
 - 7.0 m wide road for use by vehicles and cycles.
 - 20 m junction radii.
 - Visibility splays of 4.5 x 43 m. This is achieved by removing the Wilton International site occupant sign.
 - Additionally, the proposed access includes a 1.5m wide footway on the southern side.

The design has regard to the design standards for a type 4a road, as described in the Tees Valley Design Guide and Specification document, which best reflects the nature and 30 mph speed limit of the Wilton International access road.

These plans do not change the traffic generation of the Projects or the network assignment as consented by the DCO. The impact of the traffic has already been considered acceptable on the public highway and the junction with the A174 and as such no additional assessment is required. For the purposes of fully assessing the maximum potential impacts of the proposed additional access point, the following assumes that all construction traffic will use the proposed access. However, it is possible that the predicted movements will be split between the consented and the proposed access. It is expected that Abnormal Indivisible Loads (AILs) will access the Site using the access awarded consent by the DCO, however, the proposed access is an alternative option for some heavy loads.

Also supporting this application is drawing **60617518-ACM-XX-00-DR-CE-3008** which shows the swept paths of articulated and rigid vehicles using the proposed access.

Construction phase – The mobilisation and construction phase of the Projects will generate the highest level of traffic volume, with site personnel using the welfare facilities, material deliveries and visitors travelling to the

Primary Compound. There will also be trips generated to the works associated with the OCSs themselves and the HVAC cable laying.

The HVAC haul road takes access through the Primary Construction Compound (CCH), the Primary Construction Compound with welfare facilities is accessed to the south side of the OCS's from the southern end. During construction the OCSs can be accessed via either route, but the access which is the subject of this application is envisaged as the main access for the reasons outlined.

The traffic projections are set out in the latest Transport Assessment (supporting planning application R/2020/0355/FFM). This report demonstrates that at peak the maximum traffic the proposed access will be expected to be used by:

- **Heavy Good Vehicles** - a daily peak of 220 two-way movements. 56% arriving/departing from the A1053 to the north-west and 44% arriving/departing from the A174 to the south-west.
- **Light Commercial Vehicles** – daily two-way movements total 283. 26% via the A174 to the north-west; 30% via the A174 to the south-west; 17% via the A1042 to the east and then north; 13% east and the north via the A1085; finally 14% east and then south via the A174.
- The total all-vehicle two-way peak hour traffic generation is 111. It should also be recognised that the site hours of operation are 07:00-19:00 hrs Monday to Saturday. Therefore, in common with many construction sites, the peak hour traffic will take place outside the peak times of the Wilton Centre, being predominantly office based, and used by visitors (160 parking spaces).
- The construction traffic will combine with traffic using the south access into the Wilton International site, in the peak hour around 800 vehicles currently use this access.

The aforementioned Transport Assessment demonstrated that the Works, when compared the 2014 ES, are likely to have no greater impact on the road network on any given day. The Transport Assessment demonstrated that this is true both in terms of comparing overall construction traffic volumes and also considering percentage increase against baseline traffic.

Additionally OCS and HVAC cable delivery will generate occasional Abnormal Indivisible Loads (AILs) which will also need to access the site. Whilst this can be done via either the consented or the proposed access, the expectation is that AILs will access the site using the consented access from the Wilton International /A174 roundabout to the east. The option of using the proposed access is an alternative option for some AILs.

The Consented Access (access 40) into the Compound and OCS area

This access is located within the Wilton International security cordon to the north of the Wilton International southern access road. There are two directions of approach to the consented access.

Access work 10i - from the south, via the grade separated A174 junction. You head north into Wilton International's site via the security guardhouse. This is the most appropriate access as it minimises conflict with other traffic associated with the Wilton International site and avoids the need to negotiate the signal controlled junction, within the complex.

Access work 10h - from the east using the eastern main Wilton International access, accessed directly from the A174/A1042 roundabout then traveling west along Southway to the OCS site. With a left turn at the traffic signal cross roads and a right turn into the consented access.

The Proposed Access (access 43)

The access will primarily operate as a left in/right out arrangement, but for contingency reasons will allow occasional other movements. In terms of its proximity and interaction with the Wilton Centre and Wilton International traffic, this is envisaged as being materially less than the Consented arrangement, this is because:

- Entry is a left turn movement – the peak hour within the peak period of construction work will generate one vehicle every 30 seconds. Access into the site is a free flowing left turn, this will not interfere with traffic entering Wilton International, who will share the ahead/left lane. Access to the Wilton Centre has its own right turn lane, which means traffic to the Wilton Centre does not hold up ahead/left traffic, the right turn lane is around 40m long and can accommodate up to 7 cars.
- Exit is via a right turn movement – the right turn exit movement means that traffic entering or exiting Wilton International has priority and will not be delayed. Construction traffic egress will be able to exit within the gaps in traffic flow created by the security guardhouse approximately 100m to the north. The low frequency of traffic movement will not materially delay exiting traffic from the Wilton Centre.

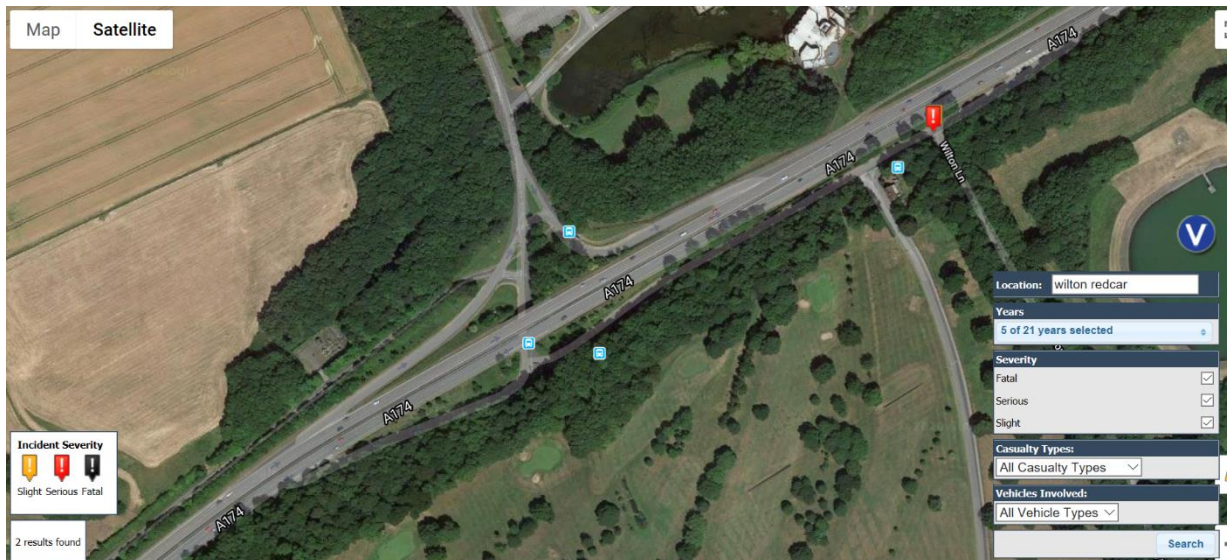
The OCS and Compound site security arrangements, on the proposed access, are at least 90m from the Wilton International main access road, allowing room for vehicles to stand clear of the main access road whilst being processed through security.

After the construction and commissioning phases of the Projects, the proposed access which is the subject of this planning application will be removed and the area reinstated.

3 Mitigation

The safety of road users is very important. The proposed access ensures that the construction traffic is focused on the A174 grade-separated junction, a very safe form of junction because it separates turning movements. This is reflected in the low number of accidents. **Figure 1** shows that in 5 years to December 2019, there have only been two collisions on the Wilton International access road and junction with the A174, including the slip roads. Both accidents occurred in the west bound exit slip road at its junction with Wilton Lane, one resulting in serious injury and the other slight. In contrast over the same period, the roundabout to the east has six reported injury collisions at or approaching the roundabout, four serious, two slight.

Figure 1 – report of road accidents local to the Wilton International southern access with the A174



Source: SCP analysis of Crashmap

The site access is a staggered cross roads to Wilton Centre, the junction centrelines are staggered by approximately 15 m. There are no cross movements anticipated between the site and the Wilton Centre, therefore the junctions operate as two “T” junctions, all with movements to/from the A174 only, again simplifying movements and reducing conflicts.

Entry to the new access is by left turn movement only, and this has been assessed as having no adverse material impact on ahead traffic to either the main Wilton International site or the segregated right turning traffic into the Wilton Centre. Indeed in comparison to the consented access, the proposed access will reduce the volume of traffic passing through the Wilton International security cordon and will therefore minimise delays to existing users of this Wilton International access. However, it will be important to ensure:

- Drivers of deliveries do not arrive at the site and queue on the access road before the site is opened. This is achieved by setting the security gates back at least 90m from the road.
- The security arrangements within the site are located sufficiently away from the Wilton International access road to ensure there is more than sufficient room to queue to enter the site such that traffic does not back up into the private road.

These points will be addressed through the DCO Discharge of Requirements and any necessary planning conditions attached to permission for this Development if approved.

On exit the construction traffic is required to give way to traffic exiting Wilton International’s main site, with traffic exiting the Wilton Centre giving way to both traffic flows. To prevent left turn exit movements, directional signs will be erected on exit from the site.

4 Conclusion

In conclusion the Development will:

- Provide the most direct access to/from the A174;
- Reduce construction vehicle journey time and length;
- Not have a material adverse impact on other road users;

- Provide a shorter access to site for staff and contractors arriving on foot, bike and by bus, thereby supporting the objective to minimise access by cars/vans;
- Avoid the need to pass through the Wilton International security cordon, and the associated delays for construction traffic;
- Reduce delays to existing users of the southern Wilton International access, when compared to the consented access and the need for construction traffic to also pass through the Wilton International security cordon;
- Use the means of access onto the public highway with the lowest accident rates and it reduces use of the Wilton International internal roads, in particular avoiding the signal-controlled cross road junction; and,
- Reduce vehicle distances travelled (over 200 km per day at peak) and associated carbon emissions.

Therefore, the proposed access offers a sound alternative option to access the OCS construction sites, the compound and its associated welfare facilities and the haul road from which the HVAC cable will be installed.