

Tillbridge Solar Project EN010142

Volume 7 Framework Construction Traffic Management Plan Part 2 of 2 Appendix C: Abnormal Indivisible Loads Management Plan

Document Reference: EN010142/APP/7.11

Regulation 5(2)(q) Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

tillbridgesolar.com

April 2024 Revision Number: 00

Table of Contents

1.	Introduction	.1
1.1	Background	.1
1.2	Site Location	.2
2.	AIL - Proposed Routing	.3
2.1	Port of Entry and Overview of Proposed Route	.3
2.2	Port of Immingham / Humber Road	.4
2.3	A160	.4
2.4	A180 / M180	.4
2.5	A15	.5
2.6	A631	.5
2.7	School Lane / Site entrance	.5
2.8	B1398 Middle Street	.6
3.	Proposed AIL Configuration	.7
4.	AIL Route Constraints and Mitigation	.8
4.2	A631 / B1398 Roundabout	.8
4.3	A631 / School Lane	.8
5.	AIL Route Constraints and Mitigation	10
6.	Cable Drum Delivery – Proposed routing	12
6.2	A15	12
6.3	A46	12
6.4	A57	13
6.5	Laneham Road	13
6.6	Rampton Road / Cottam Road	13
6.7	A1500	14
6.8	B1241	14
6.9	Fillingham Lane	14
6.10	Gainsborough Road	14
6.11	Willingham Road / Upton Road	15
6.12	Cow Lane	15
7.	Cable drum delivery – Proposed vehicle	15
8.	Cable drum delivery – Route Constraints and Mitigation	17
8.2	A57 Burton Roundabout	17
8.3	Junction of A57 / Laneham Road	17
8.4	B1241 Stow	17
8.5	B1241 Willingham-by-Stow	18
8.6	Fillingham Lane / Willingham Road	18
9.	Cable drum delivery route assessment – Summary & Conclusions	19
Appe	endix A – Vehicle Tracking	21

Tables

Table 3-1: AIL configuration	7
Table 7-1: Cable Drum delivery – Vehicle configuration	16

1. Introduction

1.1 Background

- 1.1.1 The Tillbridge Solar Project (the Scheme) will comprise the construction, operation (including maintenance), and decommissioning of ground-mounted solar photovoltaic (PV) arrays. The Scheme will also include associated development to support the solar PV arrays.
- 1.1.2 The Scheme is made up of the Principal Site, the Cable Route Corridor and works to the existing National Grid Cottam Substation. The Principal Site comprises the solar PV arrays, electrical substations, grid balancing infrastructure, cabling and areas for landscaping and ecological enhancement.
- 1.1.3 The associated development element of the Scheme includes but is not limited to access provision; a Battery Energy Storage System (BESS), to support the operation of the ground mounted solar PV arrays; the development of on-site substations; underground cabling between the different areas of solar PV arrays; and areas of landscaping and biodiversity enhancement.
- 1.1.4 The Scheme also includes a 400kV underground Cable Route Corridor of approximately 18.5km in length connecting the Principal Site to the National Electricity Transmission System (NETS) at the existing National Grid Cottam Substation. The Scheme will export and import electricity to the NETS.
- 1.1.5 A full description of the Scheme is included in **Chapter 3: Scheme Description** of the Environmental Statement [EN010142/APP/6.1]. An overview of the Scheme and its environmental impacts is provided in the Environmental Statement **Non-Technical Summary** [EN010142/APP/6.4].
- 1.1.6 This report covers two aspects of the Scheme:
 - a. Route assessment for the abnormal load delivery of transformers to the substations; and
 - b. Route assessment for the delivery of cable drums to the temporary contractors' compounds.
- 1.1.7 The Abnormal Indivisible Load (AIL) Route Assessment (Section 2 to 5) is a desk-based study that provides a high-level overview of the preferred transport route for the delivery of transformers from port of entry to the two substation locations. As well as providing an overview of the route, it also considers any public road improvements or temporary works that may be required at specific locations.
- 1.1.8 The Cable Drum Delivery Route Assessment (Sections 6 to 9) is also a desk-based study that provides a high-level overview of the preferred transport route for the delivery of cable drums from port of entry to the eight proposed temporary contractors' compounds. Note additional temporary contractors' compounds are proposed at the Principal Site, however, this report only considers compounds where AILs would be delivered to.

- 1.1.9 A desk-based study relies upon using pre-existing information to inform proposed outcomes. The vehicle tracking exercise have been completed using Ordnance Survey (OS) mapping procured from external sources. In addition to completing the vehicle-tracking against information contained within the OS mapping, satellite imagery and street-view information was investigated as to corroborate and further inform the final assessment outcomes. The desk-based study did not assess any 3D topographical surveys to inform the assessment of the vertical road alignment from the port of entry to the port of delivery as none were procured or available. There are acknowledged limitations associated with a desk study, namely:
 - a. Reliance on the validity of pre-existing information in terms of its relevancy (i.e. does the existing information accurately reflect the current conditions)?
 - b. From obtaining primary information (e.g. procuring topographical surveys), an improved understanding of the site-context is developed which can better inform the outcome of any assessment.
 - c. The AIL and Cable Drum Route Assessments were used to inform Chapter 16: Transport & Access of the Environmental Statement (ES) [EN010142/APP/6.1].

1.2 Site Location

- 1.2.1 Two 33/400kV substations are proposed within the Principal Site.
 - a. Substation A is to be located off School Lane, approximately 7km east of Gainsborough.
 - b. Substation B is to be located off B1398 Middle Street, approximately 11km east of Gainsborough.
- 1.2.2 For both Substation A and B, electrical transformers and their associated equipment are required to be transported from the nearest sea-port of entry to each respective location. At this stage of the scheme development, the exact specification of each transformer is not known. An assumption, based on AECOM's considerable experience in energy infrastructure development, has been made in relation to the transformer geometry and weight.
- 1.2.3 The proposed port of entry is Port of Immingham, and the locations of the substations, as well as the proposed abnormal route are shown in Figure 2 of the Framework Construction Traffic Management Plan (CTMP) [EN010142/APP/7.11].
- 1.2.4 For locations of the proposed temporary compounds for cable contractors, refer to Section 6 below.

2. AIL - Proposed Routing

2.1 Port of Entry and Overview of Proposed Route

- 2.1.1 This route assessment report is partly based on a proposed route laid out in a previous abnormal load route assessment carried out in January 2023 by Colletts for the nearby Gate Burton Energy Park.
- 2.1.2 Much of the same route is proposed here for the Scheme, albeit the Colletts assessment did not include the sections noted below along the A631 and B1398. The same route has been chosed as to ensure consistency between the different developers plans where appropriate as part of Scheme coordination works.
- 2.1.3 AECOM has conducted a desk-study review of the proposed route, and carried out indicative vehicle tracking at several 'pinch points' along the route, to ascertain whether any road widening and/or temporary works are required. Pinch points were determined from assessing the results of vehicle-tracking works against road geometry and associated infrastructure information contained within OS mapping. Information relating to the assumed vehicle geometry and configuration can be found in Section 3 of this report.
- 2.1.4 The proposed route, as well as the locations of specific vehicle tracking at 'pinch points' are shown on AECOM drawing 60682158-ACM-XX-00-DR-CE-1301, contained in **Appendix A**.
- 2.1.5 Whilst it is noted that there are potentially alternative ports of entry and alternative routes to Site, this report only considers the route as detailed below. The justification behind the choice of the Port of Immingham is that it is the closest port of entry to the proposed Substation locations and will provide the most efficient and cost effective route for final delivery of the required transformer equipment.
- 2.1.6 The proposed port of entry is Port of Immingham, located approximately 10km north-west of Grimsby. The proposed route then follows the public road network from the port to each of the two substation locations.
- 2.1.7 The proposed route to Substation A is approximately 50km in length, and will be used to transport the load from the port to the Site. The proposed route consists of the following key locations:
 - a. Leaving Port of Immingham by West Gate / Humber Road;
 - b. Joining the A160 (Humber Road) and heading west;
 - c. Leaving the A160 and joining the A180 / M180 heading west;
 - d. Leaving the M180 and joining the A15 heading south;
 - e. Leaving the A15 and joining the A631 heading west; and
 - f. Leaving the A631 and joining School Lane. The proposed substation entrance is located off School Lane, approximately 450m south of the junction with the A631.

- 2.1.8 The proposed route to Substation B is approximately 46km in length, and for the majority of its length, will follow the same route as for Substation A. The proposed route consists of the following key locations:
 - a. Leaving Port of Immingham by West Gate / Humber Road;
 - b. Joining the A160 (Humber Road) and heading west;
 - c. Leaving the A160 and joining the A180 / M180 heading west;
 - d. Leaving the M180 and joining the A15 heading south;
 - e. Leaving the A15 and joining the A631 heading west; and
 - f. Leaving the A631 and joining the B1398 (Middle Street) heading south. The proposed substation entrance is located off B1398 Middle Street, approximately 550m south of the junction with the A631.

2.2 Port of Immingham / Humber Road

2.2.1 The route leaves Port of Immingham via the West Gate and continues west along Humber Road. This section of road is a two-lane carriageway and passes under a railway bridge. Although no sign is present on the bridge advising on its height, this has been measured on site (by others) as 5.1m.

2.3 A160

- 2.3.1 The route continues along Humber Road to Mandy Roundabout, where it takes the second exit onto the A160 Humber Road. Indicative vehicle tracking has been carried out at the location, but it is not anticipated that any works will be required at Mandy Roundabout following the vehicle tracking exercise (refer drawing 60682158-ACM-XX-00-DR-CE-1302).
- 2.3.2 The route continues west along the A160. This section of road is a dual carriageway, and passes under 1no. road bridge. It is assumed that the clearance under this bridge is sufficient, following the vehicle tracking exercise and interrogation of available satellite and street-view imagery.
- 2.3.3 At Habrough Roundabout, the route takes the second exit, and continues west then south along the A160. Indicative vehicle tracking has been carried out as this location, but it is not anticipated that any works will be required at Habrough Roundabout following the vehicle tracking exercise and interrogation of available satellite and street-view imagery (refer drawing 60682158-ACM-XX-00-DR-CE-1303).

2.4 A180 / M180

- 2.4.1 The route continues south along the A160, then joins the A180 at the Brocklesby Interchange.
- 2.4.2 Indicative vehicle tracking has been carried out at this location, but it is not anticipated that any works will be required at Brocklesby Interchange following the vehicle tracking exercise and interrogation of available satellite and street-view imagery (refer to drawing 60682158-ACM-XX-00-DR-CE-1304).
- 2.4.3 The route continues west along the A180, which then becomes the M180.

2.4.4 This section of road is a dual carriageway / motorway, and passes under 11 road bridges, which are all assumed to provide sufficient clearance following interrogation of available satellite and street-view imagery.

2.5 A15

- 2.5.1 The route leaves the M180 at the Broughton Interchange and takes the first exit south onto the A15.
- 2.5.2 Indicative vehicle tracking has been carried out at this location, but it is not anticipated that any works will be required at Broughton Interchange following the vehicle tracking exercise and interrogation of available satellite and street-view imagery (refer drawing 60682158-ACM-XX-00-DR-CE-1305).
- 2.5.3 The route continues south along the A15. This section of road is a two-lane carriageway, and passes under one road bridge, which is assumed to provide sufficient clearance following interrogation of available satellite and street-view imagery.

2.6 A631

- 2.6.1 The route continues south along the A15 to Caenby Corner Roundabout, where it takes the third exit onto the A631. Indicative vehicle tracking has been carried out at this location, but it is not anticipated that any works will be required at Caenby Corner Roundabout (refer drawing 60682158-ACM-XX-00-DR-CE-1306).
- 2.6.2 The route continues west along the A631 to the A631/B1398 roundabout.
 - a. For Substation A, the route takes the second exit to continue west along the A631; and
 - b. For Substation B, the route takes the first exit onto the B1398.
- 2.6.3 Indicative vehicle tracking has been carried out at this location, and some temporary works may be required. Refer Section 4 below for details.

2.7 School Lane / Site entrance

- 2.7.1 For Substation A, the route continues west along the A631 then turns left onto School Lane.
- 2.7.2 Indicative vehicle tracking has been carried out at this location, and some widening of the existing junction, as well as widening to School Lane is anticipated. Refer to Section 4 below for details.
- 2.7.3 The proposed substation entrance is off School Lane (refer to drawing 60682158-ACM-XX-00-DR-CE-1015 for proposed substation location). The finalised location of the access bellmouth off School Lane to the proposed Substation is to be confirmed, however the geometry of any access will follow the same principles followed in the design of accesses across the Scheme detailed in **Appendix A** of the **Framework CTMP [EN010142/APP/7.11]**.

2.8 B1398 Middle Street

2.8.1 For Substation B, the route heads south from the A631/B1398 roundabout, and along the B1398 Middle Street. The proposed entrance into the permanent substation access road is located approximately 550m south of the roundabout. Refer to drawing 60682158-ACM-XX-00-DR-CE-1311.

3. Proposed AIL Configuration

- 3.1.1 The indicative vehicle tracking carried out by AECOM is based on the vehicle size / arrangement shown below in **Table 3-1**.
- 3.1.2 This is an assumed 'typical' vehicle arrangement, for the purposes of the route assessment. The specific vehicle size/arrangement to be used will be determined by the heavy haulage contractor, and may differ from the one shown below. As such, the extent/requirement of any proposed road widening or temporary works along the route may differ to what is shown on AECOM drawings. However, the vehicle assessed is assumed to be the mostly likely configuration, due to AECOM's considerable experience working on a number of AIL assessments and experience working directly with a number of heavy haulage contractors historically.
- 3.1.3 The arrangement shown below also allows for an additional tractor unit at the rear of the trailer. However, the additional tractor unit is only required to negotiate steep inclines, and it is not anticipated that this will be required for the routes assessed in this report.

16 Axle Small Girder Trailer	Loaded Vehicle Dimensions
	Perspectific Description Desc
Overall Vehicle Length	60.233m (including rear tractor unit) 48.850m (not including rear tractor unit)
Rigid Length	24.933m
Width	3m (bogeys), 5m (girder section)
Height	TBC (dependant on load dimensions)
Trailer Gross Weight	264.1 Tonnes
Load per Axle	16.34 Tonnes

Table 3-1: AIL configuration

4. AIL Route Constraints and Mitigation

- 4.1.1 Following AECOM's desk study review of the proposed route, and indicative vehicle tracking carried out at specific 'pinch points', there are two locations where road widening and/or temporary/permanent works are required, to allow the proposed vehicle and load to pass.
- 4.1.2 These locations, along with the specific works required, are detailed as follows.

4.2 A631 / B1398 Roundabout

- 4.2.1 Refer drawings 60682158-ACM-XX-00-DR-CE-1307 and 60682158-ACM-XX-00-DR-CE-1310 in **Appendix A**.
- 4.2.2 At this location, some temporary works may be required to allow the proposed vehicle and load to pass.
- 4.2.3 For the proposed route to Substation A:
 - a. On the eastern side of the roundabout, an existing lamp post and reflective bollard may need to be temporarily removed or relocated, to allow the vehicle to over-sail the grass verge and traffic island.
 - b. On the roundabout central island, an existing road sign (keep-left chevrons) may need to be temporarily removed or relocated, to allow the vehicle to over-sail the island.
 - c. On the western side of the roundabout, an existing lamp post and reflective bollard may need to be temporarily removed or relocated, to allow the vehicle to over-sail the grass verge and traffic island.
- 4.2.4 For the proposed route to Substation B:
 - a. On the south side of the roundabout, an existing lamp post, reflective bollard, and road sign may need to be temporarily removed or relocated, to allow the vehicle to over-sail the gras verge and traffic island.
 - b. The proposed temporary works noted above are to be confirmed at detailed design stage, subject to confirmation of road geometry and the position of street furniture.

4.3 A631 / School Lane

- 4.3.1 Refer drawing 60682158-ACM-XX-00-DR-CE-1309 in Appendix A.
- 4.3.2 At this location, some permanent works are required to allow the proposed vehicle and load to pass.
- 4.3.3 The existing junction of A631 and School Lane requires to be widened to allow the proposed vehicle to turn off the A631 onto School Lane.
- 4.3.4 Widening of School Lane to a minimum of 4.0m is also required, as well as adequate passing places. For details of proposed road widening and passing places along School Lane, refer to separate public road improvement (PRI) drawing 60682158-ACM-XX-00-DR-CE-1058.

4.3.5 The proposed permanent works noted above are to be confirmed at detailed design stage, subject to confirmation of road geometry and the position of street furniture.

5. AIL Route Constraints and Mitigation

- 5.1.1 Based on the route overview noted above, there may only be a relatively small amount of temporary / permanent works required to allow the proposed vehicle to deliver the transformers to the substations using the proposed route.
- 5.1.2 However, this route overview and summary should be read in conjunction with the following notes and caveats:
 - a. The AIL route assessment has been based on the proposed location of the two substations shown in Figure 2 of the Framework CTMP [EN010142/APP/7.11].
 - b. Where road infrastructure (e.g. overbridges) is to be crossed, their respective geometry has been assessed through interrogating existing satellite and street view imagery and OS mapping. Final confirmation of each respective structures geometry will be confirmed in detailed design, with no differences in final assessment outcome expected.
 - c. The proposed port of entry is based on the least onerous route to Site, following a desktop review. Other potential ports of entry are possible, however it is unlikely that they will be chosen due to both the proximity of the assessed port of entry to the final delivery location and the relative simplicity of the route.
 - d. The proposed route from port of entry to Site is partly based on a previous route study carried out by Colletts for the nearby Gate Burton Energy Park document reference EN010131/APP/3.3. It is proposed to use some of the same route for the Scheme, though it is noted that the final route is subject to change.
 - e. The vehicle tracking shown on the drawings contained in Appendix A is based on an approximate vehicle size / arrangement anticipated for transformer delivery. The specific vehicle size / arrangement is to be determined by the heavy haulage contractor, and may differ to that shown on the drawings. As a result, the extents of required works may differ to what is shown on the drawings. However, the assumptions relating to vehicle configuration are considered to be the most likely due to AECOM's previous experience working on similar schemes.
 - f. The vehicle tracking shown on the drawings is indicative only, and definitive vehicle tracking of the specific delivery vehicle is required to be carried out by the heavy haulage contractor, to ensure that the desired manoeuvres are achievable, and to confirm the extents of required road widening, temporary works, etc. This is appropriate at this stage of Scheme development, as the appointment of a specific haulier will occur closer to the time of Scheme construction
 - g. The vehicle tracking drawings are based on Ordnance Survey mapping, and as such, are indicative only. All linework, street furniture, etc. are approximate only.

- h. This report is based entirely on a desk-top study, and does not incorporate any information obtained on site such as measurements, observations, etc.
- i. This report examines the proposed route entirely from a transport point of view, and does not take into consideration any aspects of land ownership, local authority jurisdiction, etc.
- j. It is noted that along the length of the route, over-hanging trees may be required to be trimmed to allow the vehicle and load to pass. Where vehicle tracking has been carried out at specific locations, extents of existing trees are shown indicatively. In the event of over-hanging trees, they will likely be located within the public highway boundary and will be the responsibility of the local authority to maintain.
- k. Existing overhead utilities along the proposed route have not been considered as part of this report. Given that the proposed vehicle and load will not exceed the height of a regular Heavy Goods Vehicle (HGV), it is not anticipated that any existing overhead lines will present a problem.
- I. This report is provided purely as an overview of the proposed route, highlighting potential areas of concern. It is recommended that a full route assessment report is produced by the heavy haulage contractor prior to any vehicle movements, based on vehicle specific information. The configuration of the vehicle assessed provides confidence that this assessment will provide an accurate baseline for the final haulier assessment.

6. Cable Drum Delivery – Proposed routing

- 6.1.1 The proposed routing for the delivery of the cable drums to each of the eight proposed temporary contractors' compounds largely follows the same route as noted above for the AIL delivery of transformers to the substations.
- 6.1.2 The locations of the proposed temporary contractors' compounds are shown in **Figure 2** of the **Framework CTMP [EN010142/APP/7.11]**. The proposed transport routes to each of the compounds are shown in magenta.
- 6.1.3 AECOM has conducted a high-level review of the proposed routes, and carried out indicative vehicle tracking at several 'pinch points' along the routes, to ascertain whether any road widening and/or temporary works are required.
- 6.1.4 The review has considered the routes shown above, up to the proposed access points for the cable contractor temporary compounds.
- 6.1.5 It is anticipated that once delivered, the cable drums will be stored securely in the cable contractor's compounds, and then transported to the various works areas as and when required, by way of drum carrier or similar vehicle. The delivery of cable drums from the compounds to the works areas is outwith the scope of this assessment, and the final methodology for this (including proposed routing and vehicle arrangement) is to be provided by the appointed cable contractor. Once the cables have been delivered to the cable contractor's compounds, there will be no further trafficked movements outwith the Schemes order limits, with all subsequent cable drum movements being within said limits.
- 6.1.6 The proposed transport routes to the cable contractors' compound access points are as follows:

6.2 A15

- 6.2.1 From the A15/A631 roundabout, the route takes the second exit, and continues south along the A15. This section of road is a two-lane carriageway. There are no overbridges or other constraints along this section of the route.
- 6.2.2 From the A15/A1500 roundabout (Horncastle Lane Roundabout), the route takes the second exit, and continues south along the A15 to the A15/A46 roundabout (Riseholme Roundabout).
- 6.2.3 Indicative vehicle tracking has been carried out at these locations and on this basis there are no anticipated works required at the A15/A631 roundabout, the A15/A1500 roundabout, or the A15/A46 roundabout (refer to drawings 60682158-ACM-XX-00-DR-CE-1601, 1602 & 1609 in **Appendix A**).

6.3 A46

6.3.1 From the A15/A46 roundabout, the route takes the third exit, and continues west along the A46 to the A46/A57 roundabout.

- 6.3.2 This section of road is a dual carriageway, and passes under one road bridge, which is assumed to provide sufficient clearance.
- 6.3.3 Indicative vehicle tracking has been carried out at the A15/A46 roundabout and on this basis there are no anticipated works required at this location (refer drawing 60682158-ACM-XX-00-DR-CE-1609 in **Appendix A**).

6.4 A57

- 6.4.1 From the A46/A57 roundabout (Carholme Roundabout), the route takes the third exit, and continues north-west along the A57.
- 6.4.2 This section of road is a two-way carriageway. It passes through a roundabout (Burton Roundabout), and passes over the River Trent at Dunham Toll Bridge.
- 6.4.3 Indicative vehicle tracking has been carried out at the A46/A57 roundabout, and it is not anticipated that any works will be required at this location (refer drawing 60682158-ACM-XX-00-DR-CE-1610 in **Appendix A**).
- 6.4.4 Indicative vehicle tracking has been carried out the A57 Burton Roundabout, and some temporary removal of street furniture may be required (refer to Section 8 below for details).

6.5 Laneham Road

- 6.5.1 From the A57, the route turns north onto Laneham Road.
- 6.5.2 Indicative vehicle tracking has been carried out at the junction of A57/Laneham Road. In order to make the right-turn from A57 onto Laneham Road, the vehicle may need to use the 'wrong' side of the road to negotiate the existing traffic island. Additionally, some street furniture may need to be temporarily removed (refer to Section 8 below for details).
- 6.5.3 From the junction, the route continues north along Laneham Road. This section of road is a two-way carriageway. There are no overbridges or other constraints along this section of the route.

6.6 Rampton Road / Cottam Road

- 6.6.1 The route continues north along Laneham Road, which eventually becomes Rampton Road.
- 6.6.2 At its northern end, the route turns east onto Cottam Road. This section of road is a two-way carriageway, with no overbridges or other constraints.
- 6.6.3 Indicative vehicle tracking has been carried out at the junction of Rampton Road / Cottam Road and on this basis there are no anticipated works required at this location (refer drawing 60682158-ACM-XX-00-DR-CE-1613 in **Appendix A**).
- 6.6.4 Two of the proposed temporary compounds are accessed via proposed bellmouths to be constructed on Cottam Road. Refer to separate PRI drawings 60682158-ACM-XX-DR-CE-1028 & 1029.

6.7 A1500

- 6.7.1 From the A15/A1500 roundabout (Horncastle Lane Roundabout), a secondary route from that noted from Section 6.1 to 7.6 above, takes the third exit, and heads west along the A1500.
- 6.7.2 This section of road is a two-way carriageway, with no overbridges or other constraints.
- 6.7.3 One of the temporary compounds is accessed via a proposed bellmouth to be constructed on the A1500. Refer to separate PRI drawing 60682158-ACM-XX-00-DR-CE-1037.

6.8 B1241

- 6.8.1 From the A1500, the route turns north onto the B1241 at Sturton-by-Stow.
- 6.8.2 Indicative vehicle tracking has been carried out at the junction of A1500/B1241, and it is not anticipated that any works will be required at this location (refer drawing 60682158-ACM-XX-00-DR-CE-1603 in **Appendix A**).
- 6.8.3 The route continues north along the B1241. This section of road is a two-way carriageway.
- 6.8.4 Indicative vehicle tracking has been carried out through the village of Stow, and it is anticipated that the vehicle may have to briefly mount the footway in order to make a right turn in the village (refer to Section 8 below for details).
- 6.8.5 The route continues north along the B1241 to the village of Willingham-by-Stow, where one route turns west onto Gainsborough Road (for one of the temporary compounds) and one route turns east onto High Street (for another of the temporary compounds).
- 6.8.6 Indicative vehicle tracking has been carried out at this location, and it is anticipated that the vehicle may have to briefly mount the footway in order to make a right turn in the village (refer to Section 8 below for details).

6.9 Fillingham Lane

- 6.9.1 From the village of Willingham-by-Stow, one of the routes heads east out of the village and along Fillingham Lane.
- 6.9.2 This section of route is a single-track carriageway, with proposed passing places (refer to separate AECOM public road improvements drawings).
- 6.9.3 At its eastern end, Fillingham Lane becomes Willingham Road. Indicative vehicle tracking has been carried out at the location, and it is anticipated that road widening will be required to allow the vehicle to traverse the 'S-bend' (refer to Section 8 below for details).

6.10 Gainsborough Road

6.10.1 From the village of Willingham-by-Stow, one of the routes heads west out of the village via the B1241 High Street, and along Gainsborough Road.

6.10.2 Indicative vehicle tracking has been carried out at the junction of High Street / Gainsborough Road and on this basis there are no anticipated works required at this location (refer drawing 60682158-ACM-XX-00-DR-CE-1607 in **Appendix A**).

6.11 Willingham Road / Upton Road

- 6.11.1 From Willingham-by-Stow and Gainsborough Road, the route continues north along the B1241. Gainsborough Road becomes Willingham Road, and the route then turns onto Upton Road, and continues north to the village of Upton, where the road becomes High Street.
- 6.11.2 This section of road is a two-way carriageway, with no overbridges or other constraints.
- 6.11.3 In the village of Upton, High Street takes a sweeping right turn. Indicative vehicle tracking has been carried out at this location, but it is not anticipated that any works will be required at this location (refer drawing 60682158-ACM-XX-00-DR-CE-1608 in **Appendix A**).

6.12 Cow Lane

- 6.12.1 The route continues east out of the village of Upton, along Cow Lane.
- 6.12.2 This section of road is mostly a single-track road, and it is proposed to install passing places along its length. (refer separate PRI drawing 60682158-ACM-XX-00-DR-1057).
- 6.12.3 At its eastern end, one of the temporary compounds is accessed via a proposed bellmouth to be constructed. Refer to separate PRI drawing 60682158-ACM-XX-00-DR-CE-1044.

7. Cable drum delivery – Proposed vehicle

- 7.1.1 The proposed vehicle for cable drum delivery is shown below in **Table 7-1**.
- 7.1.2 This is an assumed 'typical' vehicle arrangement, based on previous studies for similar projects. The specific vehicle size/arrangement to be used may vary depending on the final selection of the cable drum manufacturer and heavy haulage contractor. The assumed typical vehicle arrangement is of a nature of which AECOM are confident will provide an accurate representation of the final chosen vehicle from the chosen haulier contractor.
- 7.1.3 It is anticipated that a vehicle of this type will be used to transport the cable drums from port of entry to each of the cable contractor's temporary compounds, whereupon drum carriers will then be used along the cable route during the installation of the cables. No drum carriers are anticipated to be used along the proposed transport routes.
- 7.1.4 Although the cable manufacturer is yet to be selected and appointed, AECOM have carried out initial calculations on likely cable parameters. The cable drums are anticipated to be no greater than 4.0m in diameter, with an approximate self-weight (excluding conductor cables) of 18 tonnes.

- 7.1.5 The largest conductor cables are anticipated to be 1600mm² stranded copper cables, with an approximate weight of 22 tonnes per drum, based on a 800m cable length per drum.
- 7.1.6 The above assumptions in respect of cable drum size and weight is considered a 'worst-case' scenario, and may be refined at detailed design stage to reduce size / loading.

Table 7-1: Cable Drum delivery – Vehicle configuration

Cable Drum

Loaded Vehicle Dimensions

	Length overall 23121		
Overall transport height 4766 Reducible to 4516			
Overall Vehicle Length	23.12m		
Rigid Trailer Length	18.65m		
Width	3.00m (excluding cable drum)		
	4.10m (including cable drum)		
Height	4.77m (with 4m diameter cable drum)		
Trailer Gross Weight	75 tonnes		
Load per Axle	2.81 tonnes		

8. Cable drum delivery – Route Constraints and Mitigation

- 8.1.1 Following AECOM's high-level review of the proposed routes, and indicative vehicle tracking carried out at specific 'pinch points', there are several locations where road widening and/or temporary/permanent works are required, to allow the proposed vehicle and load to pass.
- 8.1.2 These locations are as follows:

8.2 A57 Burton Roundabout

- 8.2.1 Refer drawing 60682158-ACM-XX-00-DR-CE-1611 in Appendix A.
- 8.2.2 At this location, some temporary works may be required to allow the proposed vehicle and load to pass.
- 8.2.3 The trailer and load will be in close proximity to two keep-left bollards, which may have to be temporarily removed to allow the vehicle body and load to over-sail the traffic islands. This is to be confirmed at detailed design stage, subject to confirmation of the road geometry and the position of street furniture.
- 8.2.4 The vehicle body and load may also require to over-sail the central island, though no street furniture is affected by this manoeuvre.

8.3 Junction of A57 / Laneham Road

- 8.3.1 Refer drawing 60682158-ACM-XX-00-DR-CE-1612 in **Appendix A**.
- 8.3.2 At this location, due to the geometry of the junction and the position of the traffic island, the vehicle is required to use the 'wrong' side of the road in order to make the right turn from the A57 onto Laneham Road.
- 8.3.3 The vehicle and load would also be required to over-sail the exiting verge and traffic island. The load overhang will be in close proximity to a keep-left bollard, that may need to be temporarily removed. This is to be confirmed at detailed design stage, subject to confirmation of road geometry and the position of street furniture.

8.4 B1241 Stow

- 8.4.1 Refer drawing 60682158-ACM-XX-00-DR-CE-1604 in Appendix A.
- 8.4.2 At this location, the vehicle may be required to mount the footway to make the right turn at Normanby Road.
- 8.4.3 The vehicle and load will be in close proximity to an existing road sign and lamp post, which may need to be temporarily removed to allow the vehicle and load to pass. This is to be confirmed at detailed design stage, subject to confirmation of road geometry and the position of street furniture.

8.5 B1241 Willingham-by-Stow

- 8.5.1 Refer drawing 60682158-ACM-XX-00-DR-CE-1605 in Appendix A.
- 8.5.2 At this location, at the junction of B1241 / High Street, one cable drum delivery route turns right onto High Street, and one cable drum delivery route turns left onto Gainsborough Road.
- 8.5.3 For the right turn onto High Street, the vehicle may be required to mount the footway, and will be in close proximity to an existing road sign, iron railing fence, and wall. On the opposite side of the road, the vehicle and load need to over-sail the footway, and will be in close proximity to an existing road sign and electric pole.
- 8.5.4 The proximity to existing features is to be confirmed at detailed design stage, subject to confirmation of road geometry and the position of street furniture.

8.6 Fillingham Lane / Willingham Road

- 8.6.1 Refer drawing 60682158-ACM-XX-00-DR-CE-1606 in Appendix A.
- 8.6.2 At this location, some road widening is required to allow the vehicle and load to negotiate the existing S-bend.
- 8.6.3 The extent of required widening is to be confirmed at detailed design stage, subject to confirmation of existing road geometry.

9. Cable drum delivery route assessment – Summary & Conclusions

- 9.1.1 Based on the route overview noted above, there may only be a relatively small amount of temporary / permanent works required to allow the proposed vehicle(s) to deliver cable drums to the proposed temporary compounds using the proposed routes.
- 9.1.2 However, this route overview and summary should be read in conjunction with the following notes and caveats:
 - a. The proposed locations of the eight temporary cable contractors' compounds are based on a desk-study carried out by AECOM. Their positions are approximate and based on factors such as accessibility and cable lengths. The specific locations of the compounds are to be determined at detailed design stage and are subject to change.
 - b. Where road infrastructure (e.g. overbridges) is to be crossed, their respective geometry has been assessed through interrogating existing satellite and street view imagery and OS mapping. Final confirmation of each respective structures geometry will be confirmed in detailed design, with no differences in final assessment outcome expected.
 - c. The proposed port of entry is based on the least onerous route to Site, following a desktop review. Other potential ports of entry are possible, and the specific port of entry to be used is subject to change. However it is unlikely that they will be chosen due to both the proximity of the assessed port of entry to the final delivery location and the relative simplicity of the route.
 - d. The vehicle tracking shown on the drawings contained in Appendix A is based on an approximate vehicle size / arrangement anticipated for cable drum delivery. The specific vehicle size / arrangement is to be determined by the heavy haulage contractor (based on cable drum size), and may differ to that shown on the drawings. As a result, the extents of required works may differ to what is shown on the drawings. However, the assumption relating to vehicle configuration is considered to be the most likely due to AECOM's previous experience working on similar schemes. As a result, the extents of required works may differ to what is shown on the drawing on similar schemes. As a result, the extents of required works may differ to what is shown on the drawing on similar schemes. As a result, the extents of required works may differ to what is shown on the drawings
 - e. The vehicle tracking shown on the drawings is indicative only, and definitive vehicle tracking of the specific delivery vehicle is required to be carried out by the heavy haulage contractor, to ensure that the desired manoeuvres are achievable, and to confirm the extents of required road widening, temporary works, etc.
 - f. The vehicle tracking drawings are based on Ordnance Survey mapping, and as such, are indicative only. All linework, street furniture, etc. are approximate only.
 - g. This report is based entirely on a desk-top study, and does not incorporate any information obtained on site such as measurements, observations, etc.

- h. This report examines the proposed routes entirely from a transport point of view, and does not take into consideration any aspects of land ownership, local authority jurisdiction, etc.
- i. It is noted that along the length of the routes, over-hanging trees may need to be trimmed to allow the vehicle and load to pass. Where vehicle tracking has been carried out at specific locations, extents of existing trees are shown indicatively.
- j. Existing overhead utilities along the proposed routes have not been considered as part of this report. Given that the proposed vehicle and load will not exceed the height of a regular HGV, it is not anticipated that any existing overhead lines will present a problem.
- k. This report is provided purely as a high-level overview of the proposed routes, highlighting potential areas of concern. It is recommended that a full route assessment report is produced by the heavy haulage contractor prior to any vehicle movements, based on accurate base information.

Appendix A – Vehicle Tracking

VEHICLE TRACKING FOR TRANSFORMER DELIVERY

Drawing 60682158-ACM-XX-00-DR-CE-1301	- AIL Route overview
Drawing 60682158-ACM-XX-00-DR-CE-1302 location 01	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1303 location 02	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1304 location 03	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1305 location 04	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1306 location 05	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1307 location 06 (westbound)	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1308a location 07	a - Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1309a location 08	a - Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1310 location 06 (southbound)	- Indicative AIL vehicle tracking
Drawing 60682158-ACM-XX-00-DR-CE-1311 location 09	- Indicative AIL vehicle tracking
VEHICLE TRCKING FOR CABLE DRUM DEL	<u>IVERY</u>
Drawing 60682157-ACM-XX-00-DR-CE-1600 overview	- Cable drum delivery - Route

Drawing 60682158-ACM-XX-00-DR-CE-1601 - Indicative cable drum delivery - Vehicle tracking location

Drawing 60682158-ACM-XX-00-DR-CE-1602 - Indicative cable drum delivery - Vehicle tracking location

Drawing 60682158-ACM-XX-00-DR-CE-1603 - Indicative cable drum delivery - Vehicle tracking location

Drawing 60682158-ACM-XX-00-DR-CE-1604 - Indicative cable drum delivery - Vehicle tracking location

Drawing 60682158-ACM-XX-00-DR-CE-1605 - Indicative cable drum delivery - Vehicle tracking location

Drawing 60682158-ACM-XX-00-DR-CE-1606 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1607 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1608 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1609 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1610 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1611 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1612 Vehicle tracking location	- Indicative cable drum delivery -
Drawing 60682158-ACM-XX-00-DR-CE-1613 Vehicle tracking location	- Indicative cable drum delivery -

REFERENCE DRAWINGS		
LOCATION 01	HUMBER ROAD / A160 ROUNDABOUT DRAWING 60682158-ACM-XX-00-DR-CE-1302	
LOCATION 02	A160 HABROUGH ROUNDABOUT DRAWING 60682158-ACM-XX-00-DR-CE-1303	
LOCATION 03	A160 / A180 BROCKLESBY INTERCHANGE DRAWING 60682158-ACM-XX-00-DR-CE-1304	
LOCATION 04	M180 / A15 INTERCHANGE DRAWING 60682158-ACM-XX-00-DR-CE-1305	
LOCATION 05	A15 / A631 ROUNDABOUT DRAWING 60682158-ACM-XX-00-DR-CE-1306	
LOCATION 06	A631 / B1398 ROUNDABOUT (WESTBOUND) DRAWING 60682158-ACM-XX-00-DR-CE-1307	
LOCATION 06	A631 / B1398 ROUNDABOUT (SOUTHBOUND) DRAWING 60682158-ACM-XX-00-DR-CE-1310	
LOCATION 07	A631 HARPSWELL LANE DRAWING 60682158-ACM-XX-00-DR-CE-1308	
LOCATION 08	A631 / SCHOOL LANE DRAWING 60682158-ACM-XX-00-DR-CE-1309	
LOCATION 09	B1398 MIDDLE STREET DRAWING 60682158-ACM-XX-00-DR-CE-1311	







1:50000

ISSUE/REVISION

Suitability Status
DCO SUBMISSION
Project Number
60682158
Sheet Title
ABNORMAL LOAD ROUTE ASSESSMENT - ROUTE OVERVIEW PLAN
head Number

- 25.10.23 FIRST ISSUE
Rev Date Description

Key Plan

Ordnance Survey, (c) Crown Copyright 2023. All rights rese

EP/JM/CGY Drn/Chk/Appr

Sheet Nu 60682158-ACM-XX-00-DR-CE-1301 Scale: 1:50000@A0 Rev: _

AECOM

Project TILLBRIDGE SOLAR PROJECT

Client TILLBRIDGE SOLAR LIMITED

 Consultant

 Aecom

 1 Tanfield

 Edinburgh

 EH3 5DA

 United Kingdom

 Fax +44 (0)131 301 8699

 Tel +44 (0)131 301 8600

 www.aecom.com

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS ISSUED BY THE ENGINEER.

PROPOSED AIL ROUTE TO SITE 01 LOCATION OF VEHICLE TRACKING DRAWING (Refer table)





- CONTRACTOR.
- FURNITURE, etc. ARE APPROXIMATE ONLY.



d: 2023-10-2 UK TILLBRII Ģ₫ HRELFALL(20 VID.THRELF DAVI ۔ ج Last Filen



Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 01 - A160 MANBY ROUNDABOUT

0682158-ACM-XX-00-DR-CE-1302		
cale: 1:250 @ A1	Rev: _	





- CONTRACTOR.
- TO ENSURE THE DESIRED MANOEUVRES ARE ACHIEVABLE, AND TO CONFIRM ANY REQUIRED ROAD WIDENING, TEMPORARY WORKS, etc.
- FURNITURE, etc. ARE APPROXIMATE ONLY.



-ast Plotted: 2023-12-01 60682158 UK TILLBRID 23-10-25) DAVID.THRELFALL(202) JSERS\GRAHAM.MCEW/ ; A p C Last Filen



Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- APPROXIMATE VEHICLE WHEEL TRACK
- --- APPROXIMATE OVER-SAIL OF VEHICLE BODY

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 02 A160 HABROUGH ROUNDABOUT

0682158-ACM-XX-00-DR-CE-1303		
cale: 1:250 @ A1	Rev:	



NOTES:

Ą

ISO

- 1. VEHICLE TRACKING SHOWN IS INDICATIVE ONLY, AND REPRESENTS APPROXIMATE VEHICLE SIZE / ARRANGEMENT ANTICIPATED FOR TRANSFORMER DELIVERY. SPECIFIC VEHICLE SIZE / ARRANGEMENT TO BE DETERMINED BY EQUIPMENT SUPPLIER AND HEAVY HAULAGE CONTRACTOR.
- 2. DEFINITIVE VEHICLE TRACKING OF SPECIFIC DELIVERY VEHICLE REQUIRES TO BE CARRIED OUT BY THE HEAVY HAULAGE CONTRACTOR, TO ENSURE THE DESIRED MANOEUVRES ARE ACHIEVABLE, AND TO CONFIRM ANY REQUIRED ROAD WIDENING, TEMPORARY WORKS, etc.
- 3. THIS DRAWING IS BASED ON ORDNANCE SURVEY MAPPING, AND AS SUCH IS INDICATIVE ONLY. ALL LINEWORK, DIMENSIONS, STREET FURNITURE, etc. ARE APPROXIMATE ONLY.
- 4. THIS DRAWING IS BASED ON THE ASSUMED AIL ROUTE TO SITE. FINAL ROUTE TO BE DETERMINED BY THE HEAVY HAULAGE CONTRACTOR.









Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 03 A160 / A180 INTERCHANGE

Sheet Number

0682158-ACM-XX-	00-DR-CE-1304
cale: 1:500 @ A1	Rev: _

Ordnance Survey, (c) Crown Copyright 2023. All rights reserved. Licence number 0100031673.



ast iler





Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 04 M180 / A15 INTERCHANGE

0682158-ACM-XX-	-00-DR-CE-1305
Scale: 1:250 @ A1	Rev: _

- CONTRACTOR.
- FURNITURE, etc. ARE APPROXIMATE ONLY.





Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY APPROXIMATE EXTENT OF OVER-SAIL AREA (AREA REQUIRES TO BE CLEAR OF ANY ABOVE-GROUND FEATURES)

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 05 A15 / A631 ROUNDABOUT

0682158-ACM-XX-0	00-DR-CE-1306
Scale: 1:250 @ A1	Rev: _

- CONTRACTOR.
- FURNITURE, etc. ARE APPROXIMATE ONLY.



023-TILL ast iler



Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS 1. STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- ----- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY APPROXIMATE EXTENT OF OVER-SAIL AREA (AREA REQUIRES TO BE CLEAR OF ANY ABOVE-GROUND FEATURES)

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 06 A631 / B1398 ROUNDABOUT (WESTBOUND) Sheet Number

60682158-ACM-XX-00-DR-CE-1307 Scale: 1:250 @ A1 Rev: _



TILLBRIDGE SOLAR PROJECT

TILLBRIDGE SOLAR LIMITED

- 1. ALL DIMENSIONS IN METRES UNLESS
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

- PROPOSED AIL ROUTE TO SITE
- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY

А	08.11.23	VEHICLE TRACKING AMENDED	EP/GMcE/CG
-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 07

60682158-ACM-XX-	00-DR-CE-1308
Scale: 1:250 @ A1	Rev: A



Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED ABNORMAL 2 LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

LEGEND

•	-	EXISTING TREE
	-	EXISTING HEDGE
	-	EXISTING ROAD
	-	PROPOSED AIL ROUTE TO SITE
	-	APPROX VEHICLE WHEEL TRACK
	-	APPROX VEHICLE OVER-SAIL
	-	APPROX VEHICLE OVER SAIL
	-	PROPOSED ROAD WIDENING
	-	PROPOSED PASSING PLACE

ISSUE/REVISION

А	01.11.23	JUNCTION AMNEDED TO LATEST LAYOUT	DWT/EP/CGY
-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 08 A631 / SCHOOL LANE JUNCTION

0682158-ACM-XX-	00-DR-CE-1309
Scale: 1:250 @ A1	Rev: _A

- CONTRACTOR.

023-TILI

≺ELFALL ID.THRF

Last Filen

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED ABNORMAL LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- ----- PROPOSED AIL ROUTE TO SITE
- EXISTING CARRIAGEWAY
- ----- APPROXIMATE VEHICLE WHEEL TRACK
- ---- APPROXIMATE OVER-SAIL OF VEHICLE BODY APPROXIMATE EXTENT OF OVER-SAIL AREA (AREA REQUIRES TO BE CLEAR OF ANY ABOVE-GROUND FEATURES)

ISSUE/REVISION

-	25.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 06 A631 / B1398 ROUNDABOUT (SOUTHBOUND) Sheet Number

60682158-ACM-XX-00-DR-CE-1310 Scale: 1:250 @ A1 Rev: _

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED ABNORMAL 2 LOAD ROUTE, REFER DRAWING 60682158-ACM-XX-00-DR-CE-1301.

KEY

- ----- PROPOSED AIL ROUTE TO SITE EXISTING CARRIAGEWAY EXISTING UNSURFACED FARM TRACK EXTENTS OF WIDEING AND SURFACING OF EXISTING UNSURFACED FARM TRACK APPROXIMATE VEHICLE WHEEL TRACK
- APPROXIMATE EXTENT OF OVER-SAIL AREA (AREA REQUIRES TO BE CLEAR OF ANY ABOVE-GROUND FEATURES)

ISSUE/REVISION

-	27.10.23	FIRST ISSUE	EP/JM/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

ABNORMAL LOAD ROUTE TO SITE VEHICLE TRACKING LOCATION 09 - ACCESS OFF A631 MIDDLE St.

0682158-ACM-XX-	00-DR-CE-1311
cale: 1:250 @ A1	Rev: _

	24.11.23	FIRST ISSUE	EP/GMcE/CGY
Rev	Date	Description	Drn/Chk/Ap

Suitability Status DCO SUBMISSION Project Number 60682158 Sheet Title CABLE DRUM DELIVERY ROUTE ASSESSMENT -ROUTE OVERVIEW PLAN

Sheet Number 60682158-ACM-XX-00-DR-CE-1600 Scale: 1:25,000@A0 Rev:

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY ------ VEHICLE WHEEL TRACK PATH - VEHICLE BODY OVERHANG CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -**VEHICLE TRACKING LOCATION 01** A15 / A631 ROUNDABOUT

0682158-ACM-XX-00-DR-CE-1601		
cale: 1:250 @ A1	Rev: _	

023-11-23) 00T/AECO .PROU

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE 2 DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY ------ VEHICLE WHEEL TRACK PATH - VEHICLE BODY OVERHANG
- CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY - VEHICLE **TRACKING LOCATION 02** A15 / A1500 ROUNDABOUT

0682158-ACM-XX-00-DR-CE-1602		
Scale: 1:250 @ A1	Rev:	

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE 2 DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY
- ------ VEHICLE WHEEL TRACK PATH
- VEHICLE BODY OVERHANG - CABLE DRUM OVERHANG
- (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY - VEHICLE TRACKING LOCATION 03 A1500/B1241 - STURTON BY STOW

0682158-ACM-XX-	-00-DR-CE-1603
cale: 1:250 @ A1	Rev: _

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE 2 DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY
- VEHICLE BODY OVERHANG
- CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 04 B1241 NORMANBY ROAD

0682158-ACM-XX-00-DR-CE-1604		
Scale: 1:250 @ A1	Rev: _	

ast

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE 2 DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY ------ VEHICLE WHEEL TRACK PATH - VEHICLE BODY OVERHANG
- CABLE DRUM OVERHANG
- (APPROX. 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 05 B1241 / HIGH STREET

0682158-ACM-XX-	00-DR-CE-1605
cale: 1:250 @ A1	Rev: _

TILLBRIDGE SOLAR PROJECT

TILLBRIDGE SOLAR LIMITED

- ALL DIMENSIONS IN METRES UNLESS
- FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO

PROPOSED CABLE DRUM DELIVERY ROUTE

-	24.11.23	FIRST ISSUE	JM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

VEHICLE TRACKING LOCATION 06 FILLINGHAM Ln / WILLINGHAM Rd

0682158-ACM-XX-0	00-DR-CE-1606
Scale: 1:250 @ A1	Rev:

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE
 EXISTING CARRIAGEWAY

- —— CABLE DRUM OVERHANG
- (APPROX. 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 07 B1241 GAINSBOROUGH ROAD

0682158-ACM-XX-(00-DR-CE-1607
cale: 1:250 @ A1	Rev: _

Ą ISO

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE
- EXISTING CARRIAGEWAY
- VEHICLE WHEEL TRACK PATH
- VEHICLE BODY OVERHANG - CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	GM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 08 UPTON HIGH STREET

0682158-ACM-XX-	00-DR-CE-1608
cale: 1:250 @ A1	Rev: _

d by: EUAN. C:\USERS\ Last Filer

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS 1. STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

 PROPOSED CABLE DRUM DELIVERY ROUTE
EXISTING CARRIAGEWAY
 VEHICLE WHEEL TRACK PATH
 VEHICLE BODY OVERHANG
 CABLE DRUM OVERHANG

(APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	JM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 09 A15 / A46 ROUNDABOUT

60682158-ACM-XX-	00-DR-CE-1609
Scale: 1:250 @ A1	Rev: _

ed: 2023-11-24 UK TILLBRIDG 2023-11-24) 00T/AECOI by: EUAN.PROUDFOC C:\USERS\EUAN.PROL ast

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- 1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- ----- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY ------ VEHICLE WHEEL TRACK PATH - VEHICLE BODY OVERHANG —— CABLE DRUM OVERHANG
- (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	JM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 10 A46 / A57 ROUNDABOUT

0682158-ACM-XX-00-DR-CE-1610		
Scale: AS SHOWN @ A1	Rev: _	

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS 1. STATED OTHERWISE.
- 2. FOR OVERVIEW OF PROPOSED CABLE DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY ------ VEHICLE WHEEL TRACK PATH
- VEHICLE BODY OVERHANG CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	JM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 11 A57 BURTON ROUNDABOUT

0682158-ACM-XX-00-DR-CE-1611		
cale: 1:250 @ A1	Rev: _	

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS 1. STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE 2. DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY ------ VEHICLE WHEEL TRACK PATH - VEHICLE BODY OVERHANG —— CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-	24.11.23	FIRST ISSUE	JM/EP/CGY
Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158

Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 12 A57/LANEHAM ROAD

0682158-ACM-XX-00-DR-CE-1612		
cale: AS SHOWN @ A1	Rev: _	

ler

Project

TILLBRIDGE SOLAR PROJECT

Client

TILLBRIDGE SOLAR LIMITED

Consultant

Aecom 1 Tanfield Edinburgh EH3 5DA United Kingdom Fax +44 (0)131 301 8699 Tel +44 (0)131 301 8600 www.aecom.com

Notes

- ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
- FOR OVERVIEW OF PROPOSED CABLE 2 DRUM DELIVERY ROUTES, REFER TO DRAWING 60682158-ACM-XX-00-DR-CE-1600.

KEY

- PROPOSED CABLE DRUM DELIVERY ROUTE EXISTING CARRIAGEWAY
- VEHICLE BODY OVERHANG
- CABLE DRUM OVERHANG (APPROX 0.7m EITHER SIDE)

ISSUE/REVISION

-				
	-	24.11.23	FIRST ISSUE	GM/EP/CGY
	Rev	Date	Description	Drn/Chk/Appr

Suitability Status

DCO SUBMISSION

Project Number

60682158 Sheet Title

CABLE DRUM DELIVERY -VEHICLE TRACKING LOCATION 13 RAMPTON ROAD/COTTAM ROAD

0682158-ACM-XX-00-DR-CE-1613		
Scale: 1:250 @ A1	Rev: _	