# **SP MANWEB**

Reinforcement to the North Shropshire Electricity Distribution Network



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November 2018

#### **The Planning Act 2008**

The Infrastructure Planning (Applications: Prescribed Forms and Procedure)
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Regulation 5(2)(a)

# Reinforcement to the North Shropshire Electricity Distribution Network Environmental Statement Appendix 1.1: Transport and Highways Technical Note

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SP Manweb plc, Registered Office: 3 Prenton Way, Prenton, CH43 3ET. Registered in England No. 02366937

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#### **Transport and Highways Technical Note**

# J210179: Reinforcement to the North Shropshire Electricity Distribution Network

#### October 2018

#### 1. Introduction

#### 1.1 Background

- 1.1.1 'ttc' have been instructed by SP Manweb to undertake the Traffic and Transport appraisal associated with the application for an Order granting development consent for the Reinforcement to the North Shropshire Electricity Distribution Network. An Environmental Impact Assessment (EIA) Scoping Report<sup>1</sup> was produced and was submitted to the Local Highway Authority (Shropshire Council) and the Planning Inspectorate (PINS) on 8<sup>th</sup> March 2017.
- 1.1.2 As part of the consultation feedback received on the EIA Scoping Report from PINS in April 2017, it was noted that the location of the proposed construction accesses and their respective access routes from the Local Highway Network should be identified, along with the number of associated construction traffic movements. A full copy of the response from PINS on the traffic and transport elements of the EIA Scoping Report is provided within Annex A to this Technical Note.
- 1.1.3 Following receipt of the Scoping Opinion<sup>2</sup> from PINS, consultation was undertaken with the relevant authorities and it was agreed that likely transport and traffic effects resulting from the construction of the overhead line could be scoped out of the EIA. However, since this agreement was received the Proposed Development has evolved and additional elements are now included which have not been consulted on from a transport and traffic perspective, hence the detail and content below included in this note.

#### 1.2 The Proposed Development

- 1.2.1 The Proposed Development comprises a new 132kV electrical circuit between Oswestry and Wem Substations in North Shropshire, together with associated temporary construction works. The circuit would be a combination of underground cables and overhead line. Works are also required at the existing Oswestry and Wem Substations to accommodate the new circuit.
- 1.2.2 The Proposed Development includes the following elements:
  - Works within the boundary of the existing SP Manweb Substation at Oswestry including underground cable and the installation of electrical switchgear and associated equipment;
  - Approximately 1.2km of 132kV underground cable between Oswestry Substation and a 132kV terminal structure at Long Wood (SJ 31132 29877);

 $<sup>^{1}\,\</sup>underline{\text{https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020021/EN020021-000027-Scoping\%20Report.pdf}$ 

 $<sup>^2\</sup> https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020021/EN020021-000012-Scoping%20Opinion.pdf$ 



- Approximately 21.3km of 132kV of overhead line supported by Trident wood poles from the terminal structure at Long Wood (SJ 31132 29877) to the existing SP Manweb Substation at Wem; and
- Works within the existing SP Manweb Substation at Wem including the installation of a new 132kV to 33kV transformer.
- 1.2.3 The Proposed Development also includes work to facilitate the new electrical circuit including:
  - Undergrounding six short sections of existing SP Manweb lower voltage overhead lines in order to ensure safe electrical clearance for the new overhead line; and
  - Temporary works required for the construction of the new overhead line including seven temporary laydown areas, welfare unit, security cabin, access tracks, vegetation clearance and reinstatement planting.
- 1.2.3 The construction compound for the Proposed Development would be located at the existing SP Manweb depot at Maesbury Road, Oswestry Industrial Estate, where site offices and welfare facilities are already in place. As this is an existing depot this compound is not included within the application. The construction compound would cater for the following:
  - Bulk delivery (HGV) and storage of materials, the main components being wood poles, wood baulks, conductor, stay wire, crossarm assemblies and insulators; and
  - Storage of construction plant and equipment.

#### 1.3 Scope of Technical Note

- 1.3.1 This Transport and Highways Technical Note consolidates the project information that has been discussed with the Local and Strategic Highway Authorities. The information presented within this Technical Note includes:
  - 1. The assumptions and methodologies used to determine the level of traffic associated with the construction of the Proposed Development which have been separated into the following categories;
    - a. The level of materials and construction traffic travelling to the existing SP Manweb depot at Maesbury Road, Oswestry.
    - b. The level of construction traffic travelling to the OHL route from the depot.
  - 2. The access locations along the OHL route from the Local Highway Network; and
  - 3. The proposed routes to be used by construction traffic travelling between the Maesbury Road Depot and the OHL route along the strategic highway network.
- 1.3.2 In addition to the above, this note also presents further project information that has not been consulted with the Local and Strategic Highway Authorities and covers the following items:
  - The movement of a single 132kV Transformer, which is now required at the Wem substation. Details concerning relevant policy, procedure and notice periods for the movement of an Abnormal Indivisible Load have been included, along with details of a proposed route;
  - Details of the proposed diversion of six short sections of existing lower voltage overhead line:
  - Details of the proposed section of 132kV cable; and
  - Minor accommodation works at Oswestry and Wem substations.
- 1.3.3 The information presented within this Technical Note demonstrates that the additional activities outlined above will not have a significant impact on the highway network. It is considered that any impacts can be satisfactorily mitigated through the implementation of a Construction Traffic



Management Plan (CTMP) which will subsequently be agreed with the Local and Strategic Highway Authorities.

#### 1.4 Report Structure

- 1.4.1 The report has been structured as follows:
  - Section 2: Construction Programme
  - Section 3: Lower Voltage Cable Diversions
  - **Section 4:** Works at Oswestry Substation
  - Section 5: Underground Section of the Proposed 132kV Line
  - Section 6: OHL Section of the Proposed 132kV Line
  - Section 7: Works at Wem Substation
  - Section 8: Consultation to Date
  - Section 9: Summary and Conclusions

#### 2. Construction Programme

- 2.1 It is currently anticipated that (subject to consent being granted) work on site would commence in 2020. Construction is anticipated to take approximately 12 months. The construction phase is therefore anticipated to be completed and the Proposed Development operational in 2021.
- 2.2 The proposed order of works is summarised in **Table 1** as follows:

**Table 1 – Outline Construction Programme** 



2.3 A detailed copy of the construction programme is presented within **Annex G**.

### 3. Lower Voltage Cable Diversions

#### 3.1 Description of the Works

- 3.1.1 In the six locations where the new 132kV OHL would cross existing lower voltage OHL, these lower voltage lines would be taken down and relocated underground to ensure safe electrical clearance for the new OHL. These locations are close to Top House Farm north of Middleton, Rednal Mill Cottage, Dandyford Farm near Lower Hordley, near Wackley Lodge, near Coppice Farm at Moor House Farm, and south of Pools Farm near Wem.
- 3.1.2 The works will be conducted in two phases, as follows:
  - Phase 1: Installation of Lower Voltage Cables Lower voltage cables would be installed in agreed locations to divert required sections of lower voltage OHL.
  - Phase 2: Dismantling and removal of the Installation of lower voltage cables All conductor, fittings, wood poles, stay wires etc. would be dismantled and removed from site to the main construction compound.



#### 3.2 Access

- 3.2.1 Access would typically be required for an excavator (JCB and/or tracked 360 degree excavator) JCB or similar agricultural 'loader', 4x4 lorry (often with Hiab) and 4x4 pick-ups. Access would also be required for 1 tractor, 1 mobile elevated working platform (MEWP) and cable trailers.
- 3.2.2 Each of the 6 diversion locations would be accessed via the construction access points being utilised for the OHL construction. Details of the access locations and the extent of the works are outlined below:
  - **Diversion 1:** Top House Farm north of Middleton ~820m of OHL being replaced by ~1.1km of underground cable [accessed from a combination of **AC4** and **AC6**]
  - **Diversion 2:** Rednal Mill Cottage ~130m of OHL being replaced by ~220m of underground cable [accessed from a combination of **AC13** and **AC14**]
  - **Diversion 3:** Dandyford Farm near Lower Hordley ~300m of OHL being replaced by ~330m of underground cable [accessed from **AC16**]
  - **Diversion 4:** near Wackley Lodge ~180m of OHL being replaced by ~180m of underground cable [accessed from **AC28**]
  - Diversion 5: near Coppice Farm at Moor House Farm ~300m of OHL being replaced by ~330m of underground cable [accessed from AC36]
  - Diversion 6: south of Pools Farm near Wem ~490m of OHL being replaced by ~650m of underground cable [accessed from AC44]

#### 3.3 Traffic Generation

3.3.1 The diversions will take circa 60 working days to complete and will generate up to 324 trips, equating to 5 trips per day. Of the 324 trips generated, 86 trips will be made by HGV in order to deliver materials, plant equipment, concrete and an excavator. This equates to approximately 1 to 2 HGV movement per day. A breakdown of the trips by activity and vehicle type are included within **Annex B**.

#### 4. Works at Oswestry Substation

#### 4.1 Description of the Works

4.1.1 Works at Oswestry Substation would comprise the installation of electrical switchgear and associated equipment (including 132kV cable sealing ends and 132kV circuit breaker) and an underground cable, which would be routed from a vacant bay within the substation, under the A5 and continue towards Long Wood (grid reference SJ 31132 29877). Further details of the underground cable works are presented within **Section 5**.

#### 4.2 Access

4.2.1 The works site would be accessed via the existing Oswestry Substation access situated on Harlech Road. The access has been designed to accommodate HGVs and therefore no further modifications would be required. Materials/plant would be delivered to the site via the A5 and B4580.

#### 4.3 Traffic Generation

4.3.1 The works at Oswestry Substation will take circa 40 working days to complete and will generate up to 202 trips, equating to 5 trips per day. Of the 202 trips generated, 40 trips will be made by



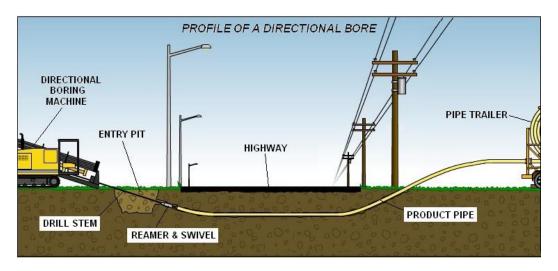
HGV in order to deliver materials, plant equipment, concrete and an excavator. This equates to approximately 1 HGV movement per day. A breakdown of the trips by activity and vehicle type are included within **Annex C**.

#### 5. Underground Section of the Proposed 132kV Line

#### 5.1 Description of the Works

- 5.1.1 The section of the proposed electrical circuit that exits Oswestry Substation and passes south and then east towards Long Wood near Middleton, is to be undergrounded in order to avoid physical constraints and likely visual impacts arising from a new OHL close to two existing 132kV OHL. It also avoids a planned extension to an existing employment area to the north-east of the town. The route for the underground cable (as shown in plans in **Annex D**) runs parallel to the western edge of the A5(T) for a distance of approximately 600m before passing south-east under the A5(T) (100m). For the remaining 700m it heads south parallel to the eastern edge of the A5(T) then east towards Long Wood where it transfers to an OHL at pole no.1.
- 5.1.2 For the A5(T) crossing SP Manweb intend to use horizontal directional drilling (referred to as HDD). HDD works by sending a boring head from a send pit (entry pit) to navigate along a predetermined alignment to a receive pit. After a small diameter passageway exists, the machine is outfitted with a reaming head to widen the tunnel. Fluids keep the machinery cool and lubricated while underground material is collected along its path. Certain drill heads are made for cutting through solid rock. The drill head can also be steered to form large radius bends. The entry and receive pits would be located either side of the A5(T) and within the Order Limits.
- 5.1.3 **Diagram 1** below illustrates a typical HDD profile.

Diagram 1 – Illustration of a Typical HDD Profile



5.1.4 The HDD would also cross under an existing high pressure gas main.

#### 5.2 Access

5.2.1 Access to the works site will be gained from the Oswestry Substation site access and from Construction Access AC2 (as shown in plans in **Annex D**). The former will be used to excavate the trench on approach to the A5 from the west and the HDD under the A5. The latter will be used to excavate the trench on the eastern side of the A5 and as the trench is progressed east

5



- towards Long Wood. This approach will ensure that the undergrounding works do not significantly impact the operation of the A5.
- 5.2.2 Access AC2 would be widened to 7.3m for the first 15 m from the edge of the A5 and the radii increased to 15m to accommodate the delivery of HGV construction vehicles. All construction traffic would enter from the north and exit to the south (left in/left out) to minimise the level of conflict with other road users. Further traffic management measures will be included within a separate Construction Traffic Management Plan (CTMP) document.

#### 5.3 Traffic Generation

5.3.1 The underground cable works will take circa 40 working days to complete and will generate up to 386 trips, equating to 10 trips per day. Of the 386 trips generated, 226 trips will be made by HGV in order to deliver materials, remove excavated material, deliver plant equipment, concrete and an excavator. This equates to approximately 6 HGV movements per day. A breakdown of the trips by activity and vehicle type are included within **Annex E**.

#### 6. OHL Line Works

#### 6.1 Description of the Works

- 6.1.1 OHL construction follows a standard sequence of activities. For single-circuit wood pole lines these activities include:
  - Preparation of accesses;
  - Excavation of foundations;
  - Delivery of poles;
  - Erection of poles;
  - Delivery of conductor drums and stringing equipment;
  - Insulator and conductor erection and sagging; and
  - Clearance and reinstatement.
- 6.1.2 The OHL is 21km in length and is comprised of 176 structures. To facilitate the construction of the OHL, seven temporary laydown areas have been identified. These are spread along the OHL route and would be used to service the construction of specific sections of the OHL. Each temporary laydown area would be used for a period of up to 3 months (except for the laydown area located near Wem Substation, which may be used for a period of up to 6 months). They are located at:
  - East of the A5(T) near Long Wood at Middleton;
  - In Middleton between Cabin House and Top House Farm;
  - At Brookfield Farm, at the southern end of Coalpit Lane;
  - At Dandyford Farm near Lower Hordley;
  - At Top House Farm;
  - At Coppice Farm, southwest of Loppington; and
  - On the western edge of Wem, in the field south of Wem Substation.



#### 6.2 Access

#### **Construction Traffic Route to SP Manweb Depot**

- 6.2.1 All plant equipment would be delivered to the SP Manweb depot at Maesbury Road before the start of the construction period and would be stored at the depot for the duration of the construction programme.
- 6.2.2 Wood poles and cable drums would be sourced from within north-western Europe and delivered to the UK via ports on to the east of England, these materials would then be transported to the existing depot using the Motorway and the strategic highway network, which includes the A5 and A483 locally, to access the compound.
- 6.2.3 Materials and plant equipment would then be moved from the depot either straight to site via the construction accesses or potentially the temporary laydown areas, and then to the site via smaller vehicles.
- 6.2.4 Once construction is complete, all plant would then be returned via the strategic highway network.

#### **Construction Traffic Routes from SP Manweb Depot to OHL Route**

- 6.2.5 From the Maesbury Road depot the route traffic would take from the depot to each temporary lay down area and individual access tracks for the OHL route has been identified.
- 6.2.6 For the purposes of this Technical Note the 21km OHL route has been divided into fourteen 1.5km sections, in keeping with the construction traffic information presented within the EIA Scoping Report, which identified the levels of construction traffic associated with a 1.5km section of the route. **Table 2** below provides a breakdown of the sections in relation to the temporary laydown areas and construction accesses.

Table 2 – Sections in relation to the temporary laydown areas and construction accesses

Line Section	From	То	Lay Down Area	Construction Accesses
1	0.0km	1.5km	1 – East of A5, 2 – Middleton	AC2 – AC5
2	1.5km	3.0km	3 – Brookfield Farm	AC6 – AC7
3	3.0km	4.5km	3 – Brookfield Farm	AC8 – AC9
4	4.5km	6.0km	3 – Brookfield Farm	AC10
5	6.0km	7.5km	4 – Dandyford Farm	AC11 – AC14
6	7.5km	9.0km	4 – Dandyford Farm	AC15 – AC17
7	9.0km	10.5km	5 – Top House Farm	AC18 – AC20
8	10.5km	12.0km	5 – Top House Farm	AC21 – AC23
9	12.0km	13.5km	5 – Coppice Farm	AC24 – AC26
10	13.5km	15.0km	6 – Coppice Farm	AC27 – AC28
11	15.0km	16.5km	6 – Coppice Farm	AC29 – AC36
12	16.5km	18.0km	6 – Coppice Farm	AC37 – AC39
13	18.0km	19.5km	6 – Coppice Farm	AC40 – AC41
14	19.5km	21.0km	7 – Ellesmere Road	AC42 – AC44

6.2.7 Following the identification of the routes to the OHL, a level of traffic has been assigned to each route and is displayed in **Annex D**. It can be seen that each route section would experience an uplift of 9 vehicles a day during a construction.

#### **Local Access**

6.2.8 Access for construction of the 132kV OHL would be required and maintained to each pole position and temporary laydown area during the construction phase. Existing field entrances



from existing access tracks and minor roads would be used. Construction accesses would typically be 3m – 5m wide and will follow existing farm tracks wherever possible. Where appropriate temporary trackway systems or temporary stone improvements on existing access tracks may be used. Any such access track improvements would be removed following construction.

- 6.2.9 During construction the wooden poles are transported on general purpose four wheel drive cross-country vehicles which have incorporated lifting devices.
- 6.2.10Typically access is required for an excavator (JCB and/or tracked 360 degree excavator) JCB or similar agricultural 'loader', 4x4 lorry (often with Hiab) and 4x4 pick-ups. During the stringing phase of the works, there is also a need for access for one tractor, one tensioner and one MEWP (mobile elevated working platform) and cable trailers to gain access to several locations along the line. These works are sequential and this plant would move from one location to the next until the stringing is completed.
- 6.2.11Drums of conductors would be delivered as close as possible to the angle or tension pole sites from which the conductors are pulled. If necessary tractors adapted to carry such loads are used to transport drums to the pole sites.
- 6.2.12A total of 43 access points (labelled AC2 to AC44 (AC1 being located at Oswestry Substation)) from the Local Highway Network have been identified, along with seven temporary lay down areas to store construction materials. The number of access points reflects the strategy of avoiding breaching hedgerow boundaries for construction purposes wherever possible. Plans illustrating the location of each access and lay down area are provided in **Annex D**.

#### 6.3 Traffic Generation

#### **Construction Traffic to SP Manweb Depot**

- 6.3.1 Based on the information presented within **Annex F**, the following plant would be delivered to the SP Manweb depot and equates to a total of 8 deliveries:
  - Trailer/Wood chipper x 1
  - Agricultural tractor/trailer x 1
  - Excavator x 1
  - HiAb Lorry x 1
  - Tipper/Grab Lorry x 1
  - Road Sweeper x 1
  - Track excavator / low loader x 1
  - Winch Tensioner x 1

#### **TOTAL 8 trips**

- 6.3.2 Wood poles would be delivered to the depot via articulated lorries which can accommodate up to 40 poles per vehicle. Along the 21km route there would be 176 structures (130 x single pole structures; 44 x double pole structures; and 2 x terminal poles), equating to 226 wood poles.
- 6.3.3 There would therefore be up to 6 two-way (12 trips) deliveries to the SP Manweb depot at Maesbury Road. It is not expected that these deliveries would be undertaken during one day. However, as a worst case scenario if all the deliveries were undertaken on a single day, amount to 20 trips, when distributed throughout the day this would equate to approximately two vehicle trip every hour (for a 10.5 hour working day).



6.3.4 Given the plant and materials identified would be delivered via the strategic highway network, the proposed delivery numbers would not be discernible from the existing levels of traffic and are therefore considered to be insignificant.

#### **Construction Traffic from SP Manweb Depot to OHL Route**

- 6.3.5 It is estimated that each 1.5km section of the route would require approximately 16 individual wood poles.
- 6.3.6 The level of construction traffic required for the OHL was identified in Table 15.2 of the EIA Scoping Report. The table outlined the number of vehicles required for the construction of a 1.5km section of OHL, broken down by vehicle type and construction stage, based upon SP Manweb's past project experience. A copy of the table has been provided in **Annex F** of this technical note. It should be noted that since the EIA Scoping and in response to consultation feedback, the route of the OHL has been amended altered slightly, although the traffic volumes and main access routes remain unchanged.
- 6.3.7 Based on these figures the amount of construction traffic, which would be distributed along the Local Highway Network to the site via the construction accesses has been determined and is detailed in **Annex G**. In summary, the construction of each 1.5km section of OHL would generate a maximum of 44 trips a week, with each 1.5km section taking approximately 2 weeks to construct. Therefore, the weekly maximum vehicle movements associated with the construction period equates to a worst case scenario of 9 trips a day (over a five day working week) or approximately 1 trip an hour based on a typical working day.
- 6.3.8 The generation of 9 trips a day, which would be spread over several local access points, is therefore not expected to be significant and would not be discernible by existing users of the Local Highway Network.

#### 7. Works at Wem Substation

#### 7.1 Description of the Works

- 7.1.1 The modifications required within the existing Wem Substation boundary comprise the installation of a 132kV cable gantry, line isolator, associated busbars, a 132kV to 33kV transformer, 33kV cable and a 33kV circuit breaker
- 7.1.2 The plant to be installed at the Wem Substation is a 132kV cable gantry, line isolator, associated busbars, a 132kV to 33kV transformer, 33kV cable to existing 33kV outdoor bay and a 33kV circuit breaker. This would all be located within the existing substation boundary. An indicative layout of these works is provide shown in the Construction Report (**DCO Document 7.2**).

#### 7.2 Access

- 7.2.1 The works site would be accessed via the existing Wem Substation access situated on the B5063 Ellesmere Road. The access has been designed to accommodate HGVs and therefore no further modifications would be required. Materials/plant would be delivered to the site via the A5 and A495.
- 7.2.2 For the delivery of the 132kV Transformer, it is anticipated that the unit will be sourced outside of the UK and would be delivered to Ellesmere Port and then transferred to the substation by road. The route between the port and the substation will need to be agreed, but it is proposed that the following be considered by the Local and Strategic Highway Authorities:
  - Ellesmere Port M53 A55 North Wales Express Way A483 A5 A495 B5063 Wem Substation
- 7.2.3 The proposed route is considered to be the most direct route via the classified highway network and between Ellesmere Port and Oswestry, the route accords with the preferred route



- identified to service the mid Wales Wind Farm project. As such, it is considered highly likely that the route would be capable of accommodating the delivery.
- 7.2.4 The 132kV Transformer is abnormal with regards to weight only and in all other respects (length, width, height), is expected to conform to Construction and Use standards. The Transformer would be delivered to the substation on the back of a modular trailer to ensure maximum permitted axle weights (12,500kg) are adhered to. The trailer would be hauled using a single ballast tractor.
- 7.2.5 The combined unit and trailer weight is expected to be 80,000kg and would be therefore be classed as a Category 2 Special Types General Order (STGO) configuration. Category 2 STGO's are subject to the following restrictions and notification procedure:
  - Speed is limited to 40mph on the motorway, 35mph on the dual carriageway and 30mph on all other roads
  - 2 clear days' notice with indemnity to Highway & Bridge Authorities
- 7.2.6 General traffic management measures relating to the abnormal load delivery will be included within the CTMP, though a more detailed management plan will be submitted to the highway authorities and police by the appointed haulier along with confirmation of the vehicle configuration (axle loads/spacings and dimensions).
- 7.2.7 In the event that any of the details specified above are amended, then further advice will be sought from the highway authorities.

#### 7.3 Traffic Generation

7.3.1 The works at Wem substation will take circa 120 working days to complete and will generate up to 554 trips, equating to 5 trips per day. Of the 554 trips generated, 72 trips will be made by HGV in order to deliver materials, plant equipment, concrete and an excavator. This equates to approximately 1 HGV movement per day. A breakdown of the trips by activity and vehicle type are included within **Annex H**.

#### 8. Consultation to Date

- 8.1 As requested in the Scoping Opinion consultation has been undertaken with Highways England (HE) and the Local Highway Authority, Shropshire Council (SC).
- 8.2 The correspondence with both HE and SC is provided in **Annex I** and it has been noted that SC has requested that consideration be given to use of the local roads (C-classified and non-classified roads) by construction vehicles from the SP Manweb depot to the construction accesses and temporary laydown areas. The use of these local roads by construction traffic has been considered in this assessment and the routing included has sought to minimise the use of these roads wherever practicable.
- 8.3 The information set out in **Section 6** of this Technical Note regarding the construction of the OHL has been sent to both parties and they have provided written confirmation that they consider that the construction traffic associated with the project would **not** have a detrimental impact on the operation or safety of the highway network.
- 8.4 SC have also requested that a CTMP be submitted and as noted within this Technical Note, this will be produced and agreed with both HE and SC before any construction work commences. The CTMP would include measures to ensure the construction traffic maintains a safe and useable network, whilst keeping disruption to the local population a minimum. Any issues raised during consultation with SC regarding traffic and transport would be addressed.



- 8.5 It is noted however, that since this consultation there has been:
  - a slight amendment in the alignment of the route of the OHL cable;
  - a minor change in the local access routes and proposed temporary laydown areas; and
  - the introduction of additional project work streams.
- 8.6 Fundamentally, however, the average daily traffic volumes over the course of the construction period have remained largely unchanged, at 10 movements per day. It is therefore considered that there is no material change in the impact on the highway network resulting from these changes.
- 8.7 Ongoing discussions between SP Manweb and SC have made SC aware of the changes to the Proposed Development and the opinion that the changes would have no material effect on transport and traffic.

#### 9. Summary and Conclusions

- 9.1 This Transport and Highways Technical Note has been produced to determine the impact of construction traffic from the Reinforcement to the North Shropshire Electricity Distribution Network and provides the following summaries:
  - Details of the proposed construction programme;
  - The proposed works, traffic generation and access requirements at Oswestry and Wem Substations, including the movement of the 132kV Transformer, have been presented;
  - Details of the proposed underground cable section between Oswestry Substation and Long Wood, including methodology, access requirements and traffic generation;
  - The route from the Maesbury Road depot to the individual construction accesses and temporary laydown areas along the strategic and local highway network has been identified;
  - The proposed works, traffic generation and access requirements for the lower voltage line diversions:
  - The level of construction traffic identified within the Scoping Report has been assigned to the routes and access to determine the uplift in vehicle traffic as a result of the construction phase;
  - It has been identified that construction traffic would result in an average additional 10 vehicle movements a day over the course of construction, which when broken down would equate to an additional 1 vehicle per hour;
  - The level of construction traffic has been determined not to have detrimental impact on the operation or the safety of the strategic and local highway network; A CTMP will be submitted that would include measures to ensure the construction traffic maintains a safe and useable network, whilst keeping disruption to the local population a minimum; and
  - Ongoing discussions between SP Manweb and SC have made SC aware of the changes to the Proposed Development since the initial consultation and the opinion that the changes would have no material effect on transport and traffic.
- 9.2 As a result of the above, it has been identified that construction traffic associated with the construction of the project would not be significant enough to have a detrimental impact on the operation or safety of the strategic and local highway network.

George Bailes MSc BSc MCIHT

Director

The Transportation Consultancy

12th October 2018



#### **Supporting Figures & Appendices**

Annex A – Response from PINS

Annex B – Lower Voltage Diversion: Traffic Generation

Annex C – Works as Oswestry Substation: Traffic Generation

Annex D - Construction Access Location Plans and Routes

Annex E - Underground 132kV Cable: Traffic Generation

Annex F - OHL 132kV Cable: Traffic Generation

Annex G – Construction Traffic Flows by Access Over the 12 Month Construction Programme

Annex H – Works at Wem Substation: Traffic Generation

Annex I – Confirmation from Highways England and Shropshire Council



#### Annex A

# **Response from PINS**

#### Traffic and Transport (see Scoping Report Chapter 15)

- 3.97 The SoS welcomes the development of the assessment of transport impacts in association with the local highways authority and the Highways Agency (HA). The SoS would expect on-going discussions and agreement, where possible, with such bodies.
- 3.98 Paragraph 15.5.4 of the Scoping Report identifies that approximately 22 local construction accesses would be required for the Proposed Development. Paragraph 3.5.6 notes that an access is required for each pole. The number of poles required is not identified in the Report. This will need to be specified in the ES, and the access for each pole will need to be described and identified on relevant figures.
- 3.99 The ES should report on traffic movements between the construction compounds and the locations from which materials are to be sourced. The study area for the traffic and transport assessment, including the wider network that will be utilised (paragraph 15.5.2), should be identified on a relevant figure in the ES.
- 3.100 Paragraph 15.6.3 notes that management of PRoW that intersect the overhead line route may be required during stringing operations, but that significant effects are not anticipated. This conclusion should be justified in the ES.
- 3.101 Paragraph 15.7.8 of the Scoping Report identifies traffic management as a potential standard mitigation measure. If the Applicant intends to mitigate impacts according to a Construction Traffic Management Plan, information on this should be provided in the ES and the measures should be secured in the DCO.



### Annex B

# **Lower Voltage Diversion: Traffic Generation**

Typical Traffic Generation Diversions	during proposed	d construction works for LV
Activity/ Vehicle	Visits off Highway based on 60 working days (approx.)	Purpose
4 x 4 Pickup	120	Supervisor/ Project Manager Vehicles
LWB Van	120	Transport for site operatives
Excavator	12	Excavations for foundations and cable trenches
Articulated Lorry	12	Delivery of Excavator and Telehandler
Tipper/Grab Lorry	36	Removal of excavated material/ Delivery of loose material
HiAb/Flat bed Lorry	24	Delivery of materials and small plant/equipment to site
Sub Total	324	Average 5 movements per day



### Annex C

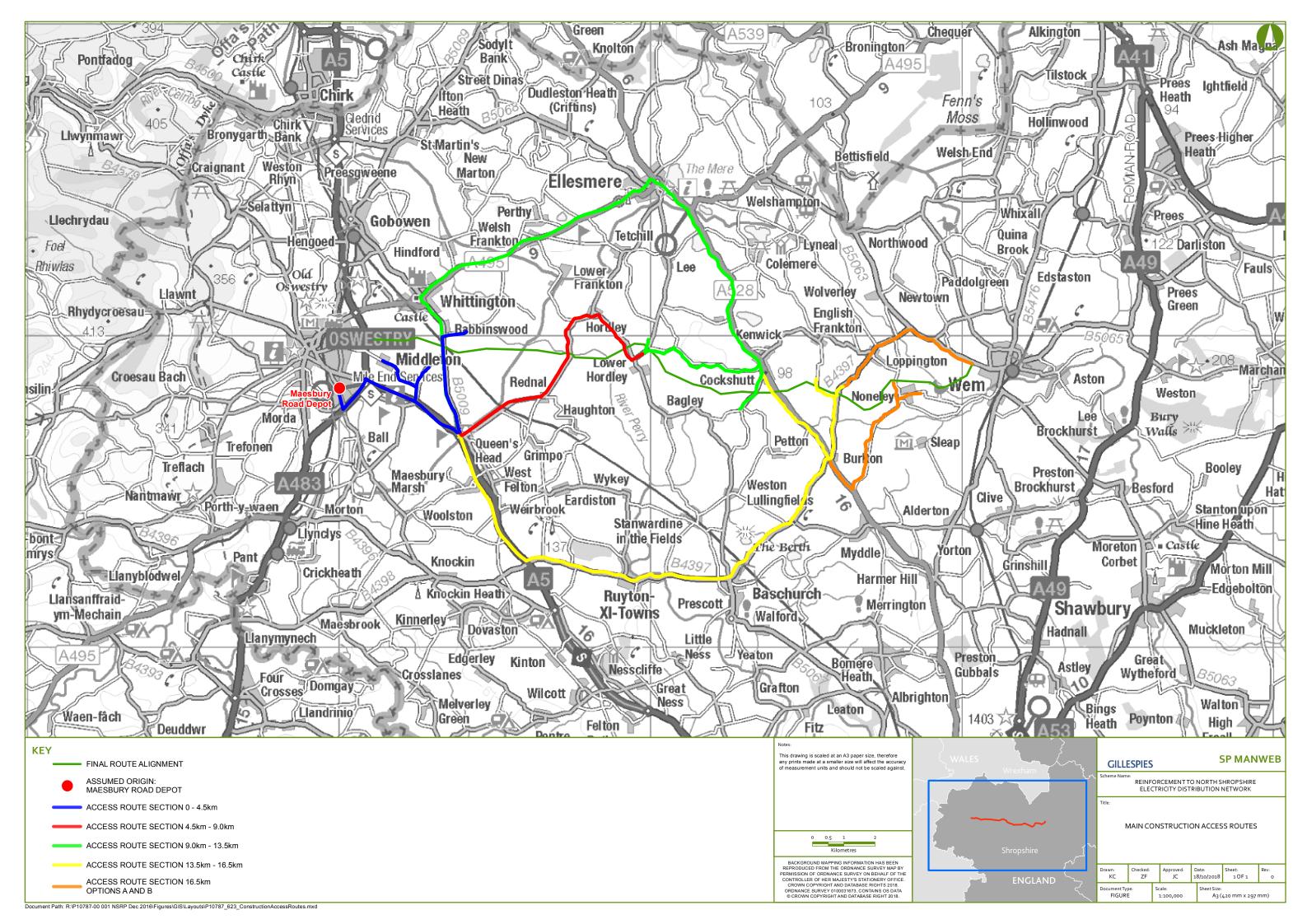
# **Work at Oswestry Substation: Traffic Generation**

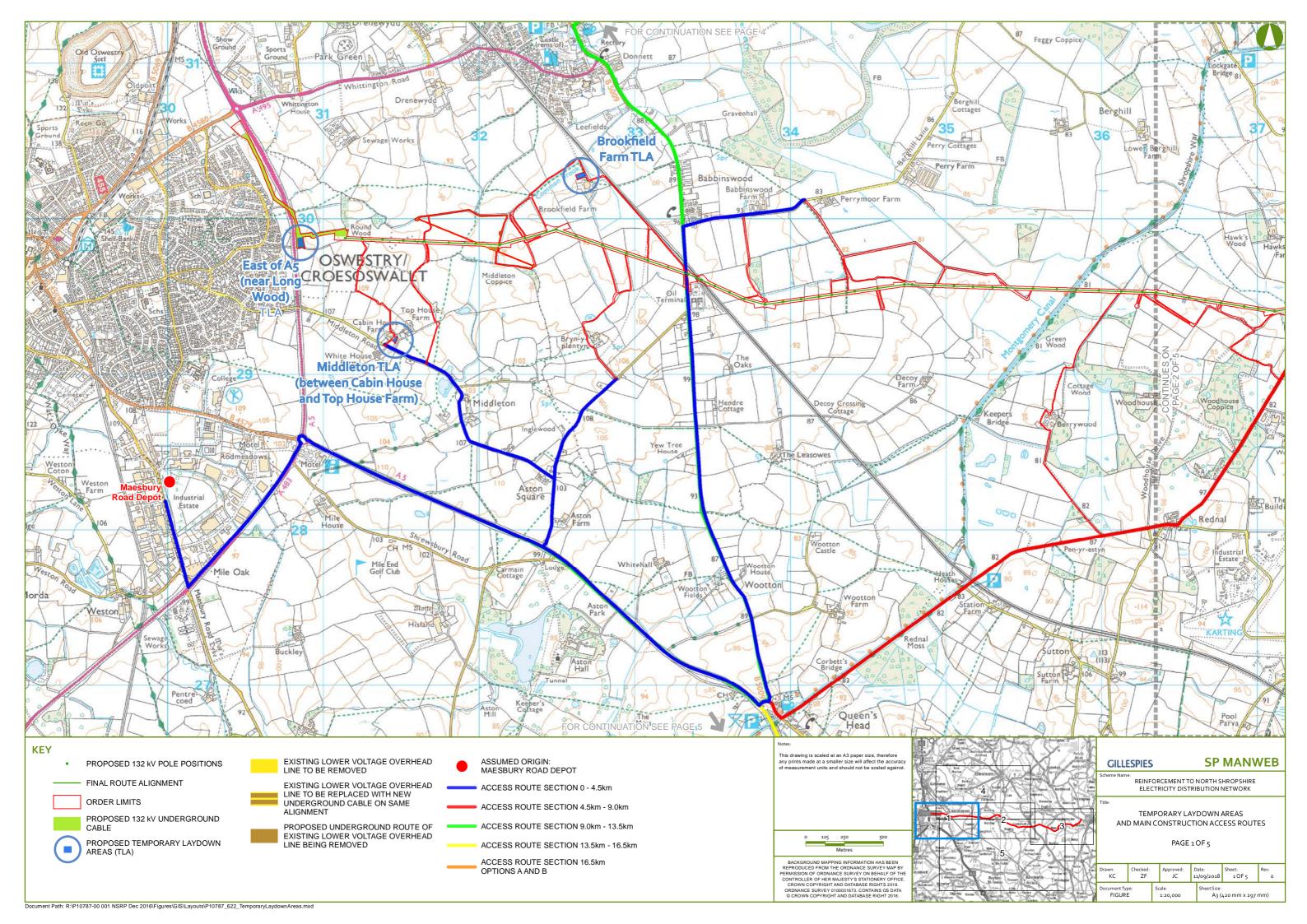
Substation Activity/ Vehicle	Visits off Highway based on 40 working days (approx.)	Purpose
4 x 4 Pickup	80	Supervisor/ Project Manager Vehicles
LWB Van	80	Transport for site operatives
Excavator	2	Excavations for foundations
Telehandler	2	Offloading of materials. Erection of structures.
Articulated Lorry	6	Delivery of Excavator and Telehandler
Tipper/Grab Lorry	12	Removal of excavated material/ Delivery of loose material
Concrete Delivery Lorry	8	Concrete for foundations
HiAb/Flat bed Lorry	12	Delivery of materials and small plant/equipment to site
Sub Total	202	Average 5 movements per day

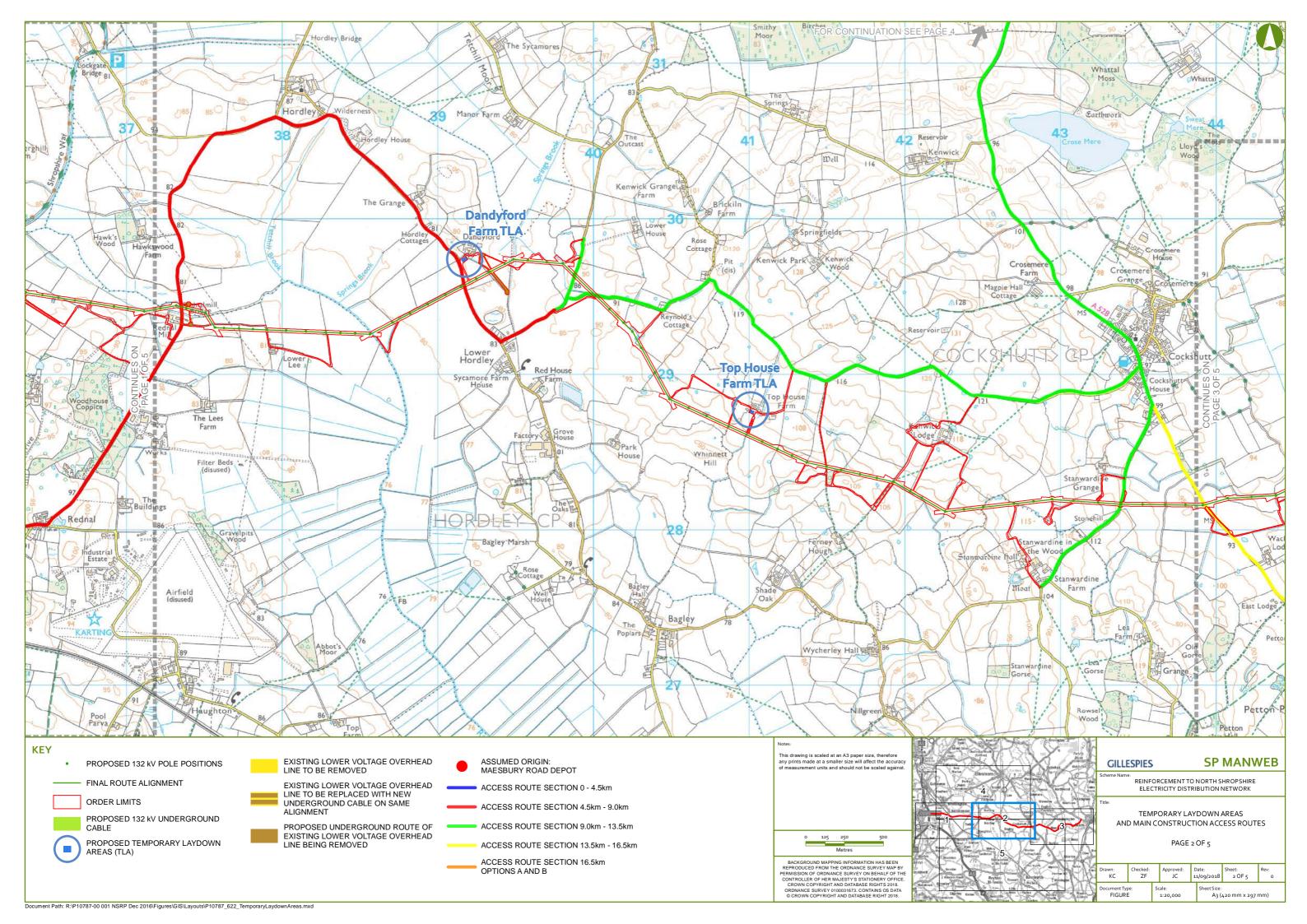


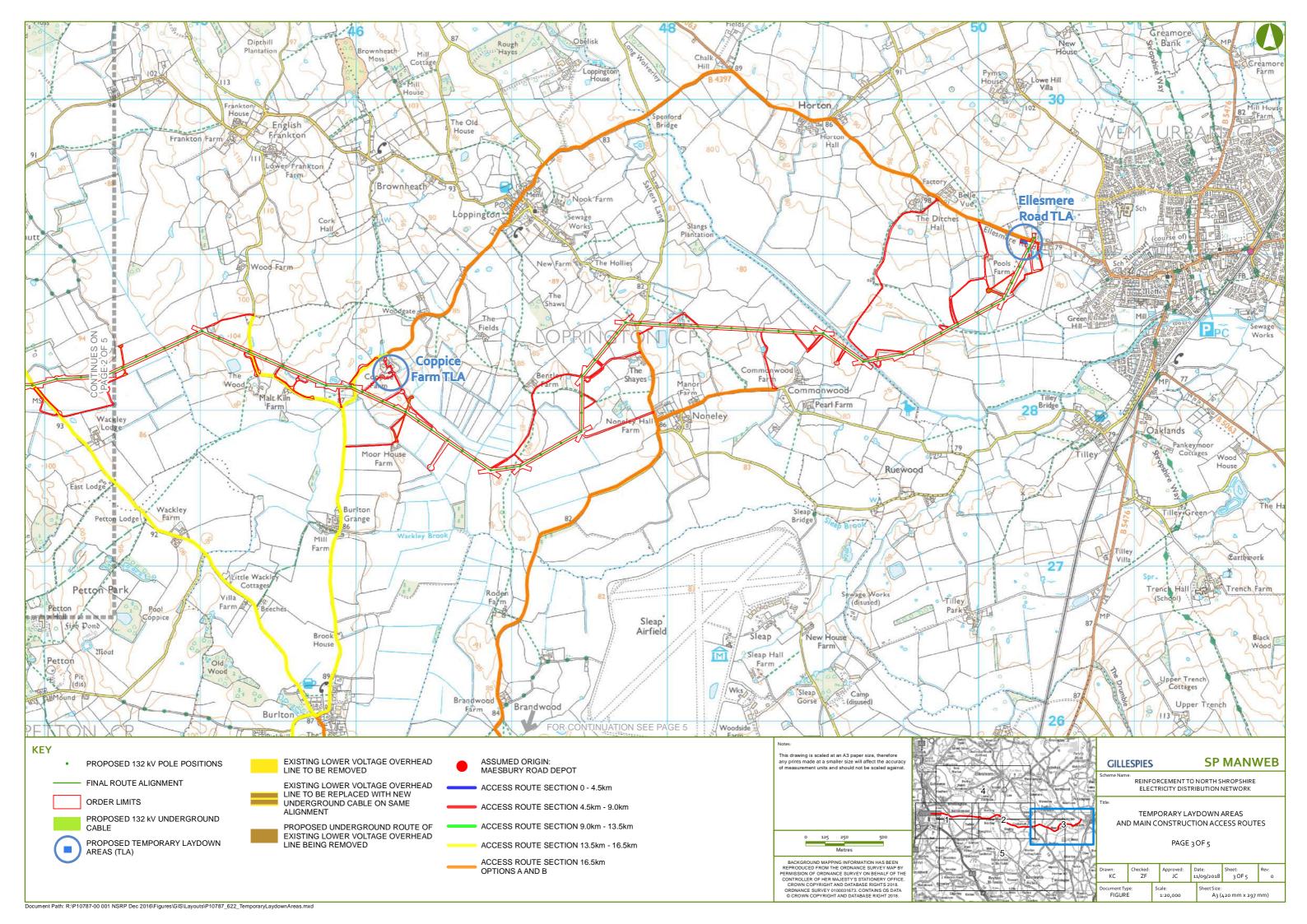
### Annex D

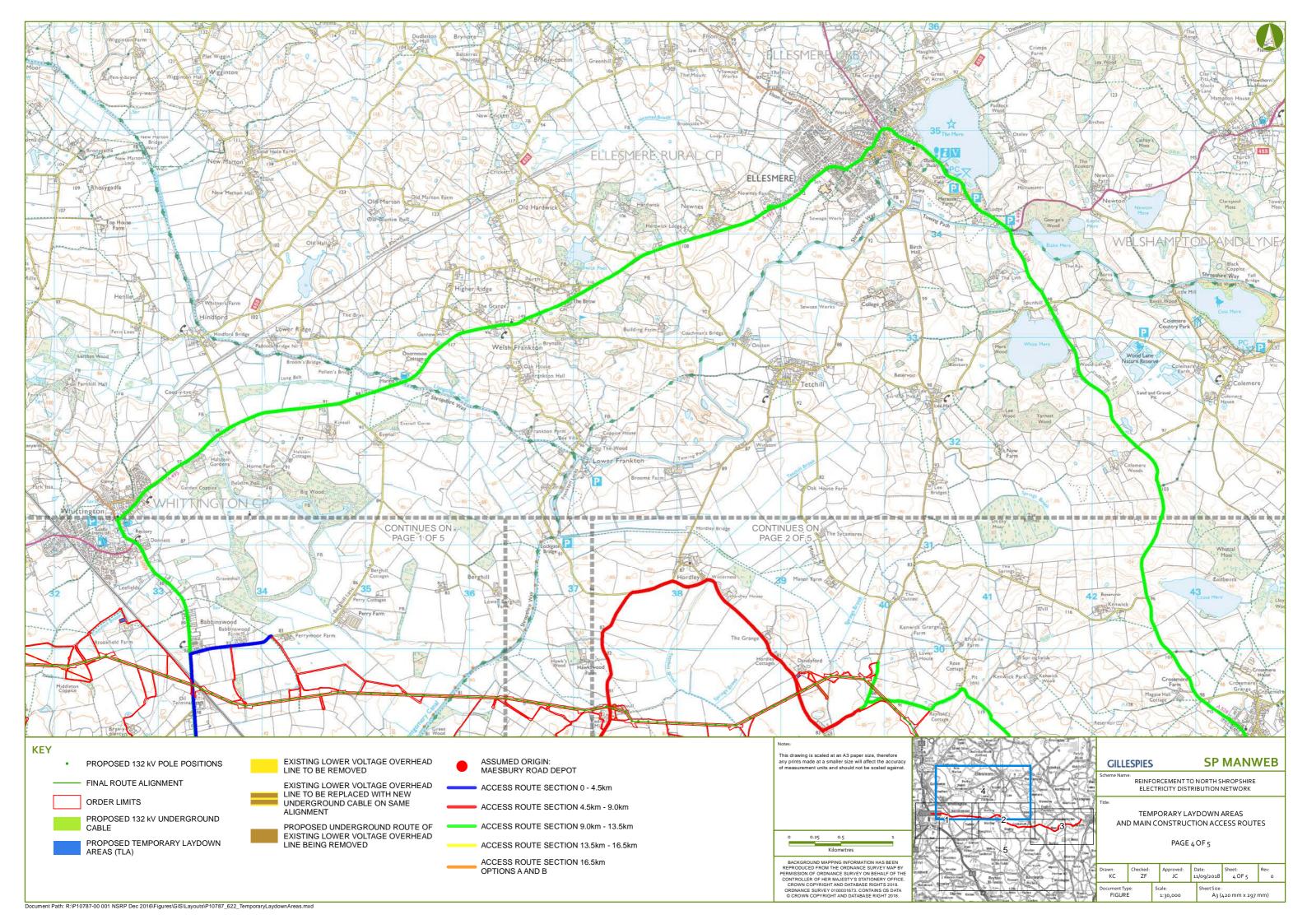
# **Construction Access Location Plans and Routes**

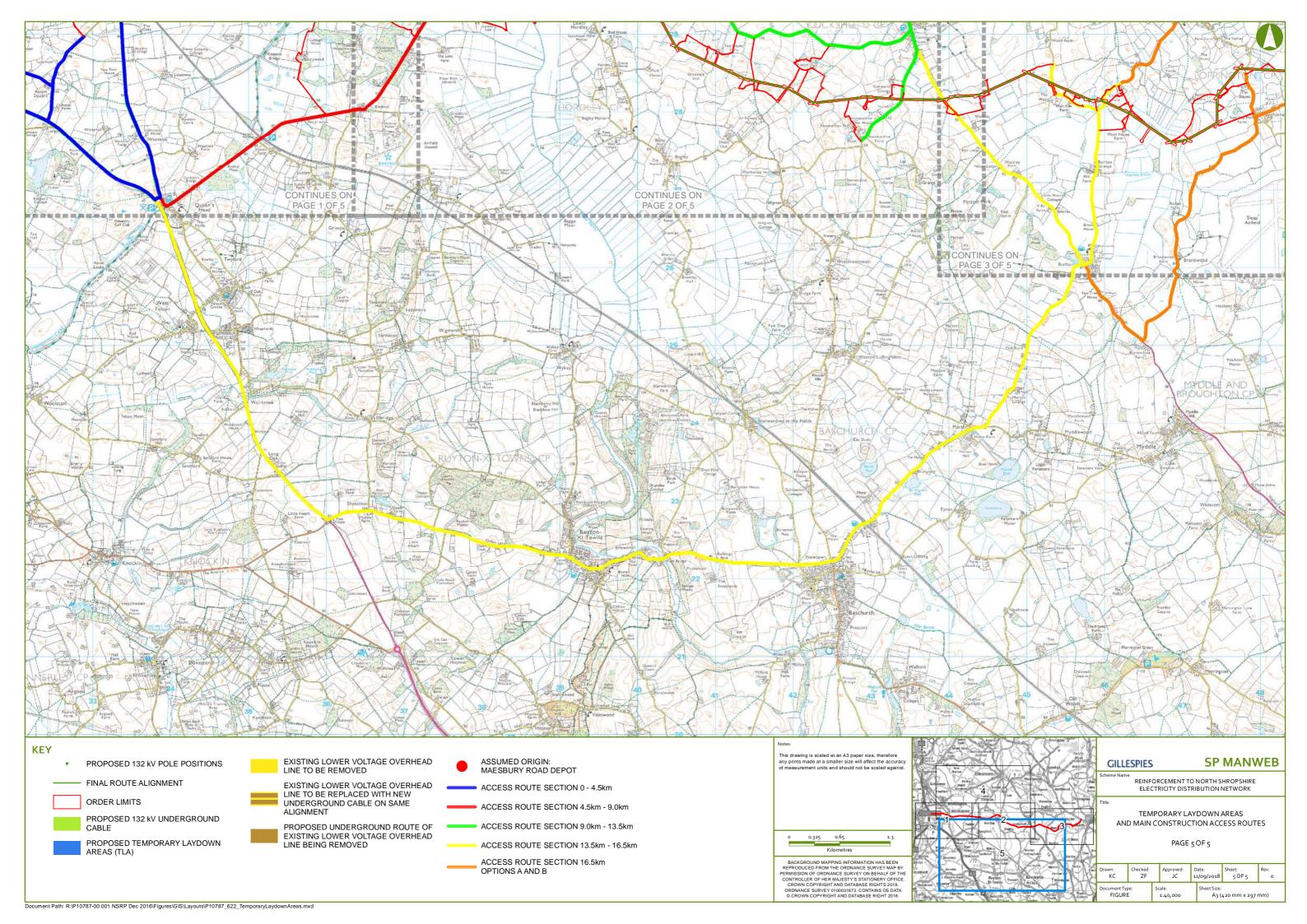














# Annex E

# **Underground 132kV Cable: Traffic Generation**

Activity/ Vehicle	Visits off Highway based on 40 working days (approx.)	Purpose
4 x 4 Pickup	80	Supervisor/ Project Manager Vehicles
LWB Van	80	Transport for site operatives
Excavator	2	Excavations for cable installation
Articulated Lorry	12	Delivery of Excavator, Directional drilling rig, cable winch equipment and Cable drums.
Tipper/Grab Lorry	200	Removal of excavated material/ Delivery of loose material
HiAb/Flat bed Lorry	12	Delivery of materials and small plant equipment to site
Sub Total	386	Average 10 movements per day



# Annex F

# **OHL 132kV Cable: Traffic Generation**

Activity/ Vehicle	Visits off Highway based on 10 working days (approx.)	Purpose
<b>Pre-construction survey</b>		works
4 x 4 Pickup	2	Surveyor vehicles
Sub Total	2	
<b>Pre-construction enablin</b>	g works	
4 x 4 Pickup	8	Supervisor/ Project Manager Vehicles
LWB Van	5	Transport for site operatives
Trailer/Wood chipper	2	Tree/ hedgerow felling and removal
Agricultural tractor/ trailer	2	Removal of felled timber from site
Excavator	2	Excavations for accesses and highway entry points
HiAb Lorry	1	Bringing materials to site
Tipper/ Grab Lorry	4	Bringing loose materials to site
Road Sweeper	2	Cleansing road surface after works
Sub Total	26	
Pole Erection and Condu	ctor Stringing	
4 x 4 Pickup	10	Supervisor/ Project Manager Vehicles
LWB Van	10	Transport for site operatives
Agricultural tractor / trailer	11	Bringing materials to pole positions
Excavator	2	Foundation excavation and pole erection
HiAb Lorry	4	Bringing materials to site
Tracker Excavator / low loader	3	Bringing materials to pole positions
Winch / Tensioner	4	Installation of conductors
Sub Total	44	
	Demobilisa	ition
4 x 4 Pickup	4	Supervisor / Project Manager Vehicles
LWB Van	2	Transport for site operatives
Agricultural tractor / trailer	1	Bringing materials to pole positions
Excavator	2	Foundation excavation and pole erection
HiAb Lorry	2	Bringing materials to site
Tipper / Grab Lorry	2	Bringing materials to/ from site
Road Sweeper	2	Cleansing road surface after works



Sub Total	15	
Total movements	87	
Average Movements per day	9	



### Annex G

# **Construction Traffic Flows by Access Over the 12 Month Construction Programme**

	Line Section	From	To	Lay Down Areas										-												25																	47 48		
	Divers	sion 1 (110	Om)	2,3	AC4 & AC6	Blue	A5, B5009	25	25   25	25						1 1	- 1						- 1															$\top$						$\top$	1 1
	Divers	rsion 2 (220	lm)	4	AC13 & AC14	Red	A5, Woodhouse Drive				25																											$\neg$							
	Divers	rsion 3 (330	lm)	4	AC16	Red	A5, Woodhouse Drive				25	5																										-							$\perp$
er Voltage Diversion	Divers	rsion 4 (180	lm)	6	AC28	Yellow	A5, B4397					25																										$\top$						$\top$	$\Box$
	Divers	rsion 5 (330	lm)	7	AC36	Yellow	A5, B4397						25																									$\neg$							
	Divers	rsion 6 (650	lm)	8	AC44	Orange	A5, B4397, B5063							25 25	5 25																							$\top$							$\Box$
swestry Substation	N/A	N/A	N/A	Oswestry Sub.	AC1	N/A	A5, B5480				25 25	5 25	25	25 25	5 25	25																						$\neg$							
Inderground Cable	N/A	N/A	N/A	Oswestry Sub.	AC1 - AC2	N/A	A5, B5480				48 48	8 48	48	48 48	8 48																														$\Box$
	1	0.0kr	1.5km	1,2	AC2 - AC5	Blue	A5, B5009									44	43																					$\top$							$\Box$
	2	1.5kr	1 3.0km	3	AC6 - AC7	Blue	A5, B5009										4	4 43	13																										$\Box$
	3	3.0kr	1 4.5km	3	AC8 - AC9	Blue	A5, B5009									$\Box$			44	43													$\neg \neg$												
	4	4.5kr	n 6.0km	3	AC10	Red	A5, Woodhouse Drive														44	43																							
	5	6.0kr	7.5km	4	AC11 - AC14	Red	A5, Woodhouse Drive															- 4	14 43																						
	6	7.5kn	9.0km	4	AC15 - AC17	Red	A5, Woodhouse Drive																	44	43																				
OHL	7	9.0kr	10.5km	5	AC18 - AC20	Green	A5, B5009, A495, A528																		4	43																			
OTIE	8	10.5k	n 12.0km	5	AC21 - AC23	Green	A5, B5009, A495, A528																				44	43																	
	9		n 13.5km	6	AC24 - AC26	Green	A5, B5009, A495, A528																					4	14 43																
	10		m 15.0km	6	AC27 - AC28	Yellow	A5, B4397									$\Box$														44	43														
	11		n 16.5km	7	AC29 - AC36	Yellow	A5, B4397																									44 43													
	12		n 18.0km	7	AC37 - AC39	Orange	A5, B4397, B5063									$\perp$																	44	43				$\bot$				$\Box$			$\perp$
	13		n 19.5km	7	AC40 - AC41	Orange	A5, B4397, B5063																											4	14 43										
	14		n 21.0km	8	AC42 - AC44	Orange	A5, B4397, B5063									$\perp$																				_	43								$\perp$
			N/A	Wem Sub.	AC44	Orange	A5, B4397, B5064											- 1	- 1		1 1								23	3 23	23	23 23	23	23 2	23 23	23	23 2	3 23	23	23 23	23	23	23 2	3 23	23
	N/A					Ref: Appendix B	TOTAL								'												WEE	s										3 23							
Wem Substation TRIPS PER DAY	N/A Line Section	From	То	Lay Down Areas	Accesses	Access Route	TOTAL  Main Access Roads	1	2 3	4					'												WEE	s										0 41							
Wem Substation  TRIPS PER DAY	N/A Line Section Divers		To Om)		Accesses AC4 & AC6		Main Access Roads A5, B5009	1		4 5					'												WEE	s																	
TRIPS PER DAY	N/A Line Section Divers Divers	From	To Dm)	Lay Down Areas	Accesses	Access Route Blue	TOTAL  Main Access Roads	1	2 3	4 5	5 6	5 7			'												WEE	s																	
TRIPS PER DAY	N/A  Line Section Divers Divers Divers	From sion 1 (110 rsion 2 (220	To 0m)	Lay Down Areas 2,3 4	Accesses AC4 & AC6 AC13 & AC14	Access Route Blue Red	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive	1	2 3	4 5	5 6	5 7	8		'												WEE	s																	
	N/A  Line Section Divers Divers Divers Divers Divers	From sion 1 (110 rsion 2 (220 rsion 3 (330	To   To	Lay Down Areas 2,3 4 4	Accesses AC4 & AC6 AC13 & AC14 AC16	Access Route Blue Red	Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive	1	2 3	4 5	5 6	5 7	8		'												WEE	s																	
TRIPS PER DAY	N/A  Line Section  Divers  Divers  Divers  Divers  Divers  Divers	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180	To   To	Lay Down Areas 2,3 4 4	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28	Access Route Blue Red	Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397	1	2 3	4 5	5 6	5 7	8	9 10	'												WEE	s																	
TRIPS PER DAY  er Voltage Diversion swestry Substation	N/A  Line Section  Divers  Divers  Divers  Divers  Divers  Divers	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 5 (330 rsion 6 (650	To   To	2,3 4 4 6 7	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC16	Access Route Blue Red Red Valous Valous Orange N/A	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397, B5063 A5, B5480	1	2 3	4 5	5 6	5 7	5	9 10	0 11	12											WEE	s																	
TRIPS PER DAY	N/A  Line Section  Divers  Divers  Divers  Divers  Divers  Divers  Divers	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 5 (330 rsion 6 (650 N/A	To   To   Dm   Im   Im   Im   Im   Im   Im   Im	Lay Down Areas  2,3  4  4  7  8	Accesses	Access Route Blue Red Red Yellow Orange	TOTAL  Main Access Roads A5, 85009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397, B5063	1	2 3	4 5	5 6	5 5 5	5	9 10 5 5 5 5	0 11	12											WEE	s																	
TRIPS PER DAY  er Voltage Diversion swestry Substation	N/A  Line Section  Divers  Divers  Divers  Divers  Divers  N/A	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 5 (330 rsion 6 (650 N/A N/A 0.0kr	To Dm)   m)   m)   m)   m)   m)   m)   m)	Lay Down Areas 2,3 4 4 6 6 7 8 Oswestry Sub.	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 AC1-AC2 AC2-AC5	Access Route Blue Red Red Vision Vision Orange N/A N/A Blue	TOTAL  Main Access Roads A5, 85009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B5480 A5, B5480 A5, B5480 A5, B5480	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	16								WEE	s																	
TRIPS PER DAY  ver Voltage Diversion  swestry Substation	N/A  Line Section Divers Divers Divers Divers Divers Divers N/A N/A	From sion 1 (110 rsion 2 (220 rsion 4 (180 rsion 5 (330 rsion 6 (65 kg)) N/A N/A 0.0km	To  Om)  im)  im)  im)  im)  im)  im)  im)	2,3 4 4 6 7 8 0swestry Sub.	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1	Access Route Blue Red Red Crange N/A N/A Blue Blue	TOTAL  Main Access Roads A5, 85009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397, 85063 A5, B5480 A5, B5480 A5, B5009 A5, B5009 A5, B5009	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1		15 16	5 17	18						WEE	s																	
TRIPS PER DAY  er Voltage Diversion swestry Substation	N/A  Line Section Divers Divers Divers Divers Divers Divers A N/A N/A 1 2 3	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 6 (650 N/A 0.0.km 1.5km 3.0km 3.0k	To Om) Im) Im) Im) Im) Im) Im) Im) Im) Im) I	2,3 4 4 6 7 8 0swestry Sub.	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 - AC2 AC2 - AC5 AC6 - AC7 AC8 - AC9	Access Route Blue Red Red Red Volume Orange N/A N/A Blue Blue	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397, B5063 A5, B5480 A5, B5480 A5, B5400 A5, B5009 A5, B5009 A5, B5009	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16		18	19					WEE	s																	
TRIPS PER DAY  er Voltage Diversion swestry Substation	N/A  Line Section Divers Divers Divers Divers Divers Divers Divers Divers 1	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 6 (650 N/A N/A 1.5km 3.0km 4.5km 4.5km 4.5km 4.5km 4.5km 4.5km	To  Dm)  m)  im)  im)  im)  m)  N/A  N/A  1.5km  3.0km  4.5km  6.0km	Lay Down Areas 2,3 4 4 6 6 7 8 Oswestry Sub. Oswestry Sub. 3 3 3 3	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 AC1 AC1 AC1 AC1 AC1 AC1 AC2 AC2 AC2 AC2 AC3 AC6 AC7 AC8 AC8 AC8 AC8 AC8 AC8 AC8 AC8 AC9 AC1 AC1 AC8 AC8 AC9	Access Route Blue Red Red Crange N/A N/A Blue Blue Red Red	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B5480 A5, B5480 A5, B5009 A5, Woodhouse Drive	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3	20 21	22			WEE	s																	
TRIPS PER DAY  ver Voltage Diversion  swestry Substation	N/A  Line Section Divers Divers Divers Divers Divers Divers Divers A/A N/A 1 2 3 4 5	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 5 (330 rsion 6 (650 N/A 0.0kr 1.5kr 3.0kr 4.5kr 4.5kr 6.0kr 6.0k	To    To   To   To   To   To   To   To	Lay Down Areas 2,3 4 4 6 7 7 8 Oswestry Sub. Oswestry Sub. 3 3 3 4	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 AC2 AC2-AC5 AC6-AC7 AC8-AC9 AC10 AC11-AC14	Access Route Blue Red Red Crange N/A N/A Blue Blue Red Red Red	TOTAL  Main Access Roads A5, 85009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B5480 A5, B5480 A5, B5480 A5, B5009	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3		22	23 2		WEE	s																	
TRIPS PER DAY  er Voltage Diversion swestry Substation	N/A  Line Section Divers Divers Divers Divers Divers Divers Divers Divers 1	From 1 (110 rsion 2 (22(2 rsion 1 (110 rsion 2 (22(2 rsion 4 (18k rsion 5 (33(rsion 6 (65(4 rsion 6	To	Lay Down Areas 2,3 4 4 6 6 7 8 Oswestry Sub. Oswestry Sub. 3 3 3 3	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 - AC2 AC2 - AC5 AC6 - AC7 AC8 - AC7 AC8 - AC9 AC10 AC11 - AC10 AC11 - AC14 AC15 - AC17	Access Route Blue Red Red N/A N/A N/A Blue Blue Blue Red Red Red	TOTAL  Main Access Roads A5, 85009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B5480 A5, B5480 A5, B5480 A5, B5009 A5, B5009 A5, Woodhouse Drive	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3	20 21	22	23 2	25	WEEK 26	s																	
TRIPS PER DAY  er Voltage Diversion  westry Substation	N/A  Line Section Divers Divers Divers Divers Divers Divers Divers 2 2 3 4 5 6 7	From sion 1 (110   rsion 2 (220   rsion 3 (330   rsion 5 (330   rsion 6 (650   N/A   N/A   1.5kr   3.0kr   4.5kr   4.5kr   9.0kr   9.0kr   9.0kr   9.0kr	To   To	Lay Down Areas  2,3  4  4  6  7  8  Oswestry Sub.  0.5westry Sub.  1,2  3  3  4  4  4  5	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 AC1 AC2 AC2 - AC5 AC6 - AC7 AC8 - AC7	Access Route  Red  Red  Red  Red  N/A  N/A  Blue  Blue  Blue  Red  Red  Red  Red  Red	TOTAL  Main Access Roads A5, 85009 A5, Woodhouse Drive A5, Woodhouse Drive A5, 84397 A5, 84397 A5, 84397, 85063 A5, 85480 A5, 85480 A5, 85009 A5,	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3	20 21	22	23 2		WEEN 26	27 :																	
TRIPS PER DAY  er Voltage Diversion westry Substation derground Cable	N/A Line Section Divers Divers Divers Divers Divers Divers A N/A N/A 1 2 3 4 4 5 6 7	From sion 1 (110 sion 2 (22t sion 1 (110 sion 2 (22t sion 1 (130 sion 4 (188 sion 5 (33t sion 6 (65t s	To   To   On   In   In   In   In   In   In   In	Lay Down Areas 2,3 4 4 4 6 7 8 Oswestry Sub. Oswestry Sub. 3 3 3 4 4 4 5 5	Accesses  AC4 & AC6  AC13 & AC14  AC16  AC28  AC36  AC44  AC1  AC1 - AC2  AC2 - AC5  AC6 - AC7  AC8 - AC7  AC10  AC11 - AC14  AC10  AC11 - AC14  AC10  AC11 - AC14  AC10  AC11 - AC14  AC15 - AC7  AC16 - AC7  AC17  AC18 - AC20  AC10  AC11 - AC21	Access Route Blue Red Red Red N/A N/A N/A Blue Blue Red Red Red Green	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397 A5, B5480 A5, B5480 A5, B5480 A5, B5480 A5, B5009 A5, B5009 A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, Woodhouse Drive A5, Woodhouse Drive A5, S009, A455, A528 A5, B5009, A455, A528	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3	20 21	22	23 2	25	WEEK 26	27 :	28 29	9 30															
r Voltage Diversion westry Substation dderground Cable	N/A  Line Section Divers Divers Divers Divers Divers Divers Divers Divers Divers A N/A 1 2 3 4 5 6 7 8 9	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 5 (330 rsion 4 (180 rsion 5 (330 rsion 4 (180 rsion 5 (330 rsion 6 (655 rsion 5 (330 rsion 6 (655 rsion 5 (330 rsion 6 (650 rsion 5 (330 rsion 6 (450 rsion 5 (450 r	To   To	Lay Down Areas  2,3 4 4 6 7 7 8 Oswestry Sub. 1,2 3 3 4 4 5 5 6	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC44 AC1 AC1 AC1 AC1 AC2 AC2 AC2 AC3 AC6 AC6 AC1	Access Route  Red  Red  Red  Red  N/A  N/A  Blue  Blue  Blue  Red  Red  Red  Red  Red	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397 A5, B4397 A5, B5480 A5, B5480 A5, B5480 A5, B5009 A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, Woodhouse Drive A5, S5009, A45, A528 A5, B5009, A455, A528	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3	20 21	22	23 2	25	WEEN 26	27 :		30	31														
r Voltage Diversion westry Substation dderground Cable	N/A	From sion 1 (110 rsion 2 (220 rsion 3 (330 rsion 4 (180 rsion 5 (330 rsion 4 (180 rsion 5 (330 rsion 6 (650 r	To   To   To   To   To   To   To   To	Lay Down Areas 2,3 4 4 4 6 7 8 Oswestry Sub. Oswestry Sub. 3 3 3 4 4 4 5 5	Accesses AC4 & AC6 AC13 & AC14 AC16 AC28 AC36 AC36 AC44 AC1 AC1 - AC2 AC2 - AC5 AC6 - AC7 AC8 - AC9 AC10 AC11 - AC14 AC15 - AC17 AC18 - AC20 AC21 - AC26	Access Route Blue Red Red Red N/A N/A N/A Blue Blue Red Red Red Green	TOTAL  Main Access Roads A5, B5009 A5, Woodhouse Drive A5, Woodhouse Drive A5, B4397 A5, B4397 A5, B4397, B5063 A5, B5480 A5, B5480 A5, B5009 A5, B5009 A5, B5009 A5, Woodhouse Drive A5, B5009, A495, A528	1	2 3	4 5	5 6 5 5	5 5 5	5	9 10 5 5 5 5	0 11 5 5 5	12 5 10	13 1	4 19	15 16	5 17	18	19 3	20 21	22	23 2	25	WEEN 26	27 :	28 29	30	31	32 33	34												
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TRIPS PER WEEK



### Annex H

# **Works at Wem Substation: Traffic Generation**

Activity/ Vehicle	Visits off Highway based on 120 working days (approx.)	Purpose
4 x 4 Pickup	240	Supervisor/ Project Manager Vehicles
LWB Van	240	Transport for site operatives
Excavator	2	Excavations for foundations
Telehandler	2	Offloading of materials. Erection of structures.
Articulated Lorry	10	Delivery of Excavator, Telehandler, Transformer and site cabins
Tipper/Grab Lorry	24	Removal of excavated material/ Delivery of loose material
Concrete Delivery Lorry	16	Concrete for foundations
HiAb/Flat bed Lorry	20	Delivery of materials and small plant/equipment to site
Sub Total	554	Average 5 movements per day



# Annex I

# **Consultation Response from HE and SCC**

#### George

From: Gemma Lawley < gemma.lawley@shropshire.gov.uk>

**Sent:** 01 February 2018 13:49

**To:** George

**Subject:** FW: 210179 Oswestry to Wem Overheadlines - Revised Traffic and Transport

Chapter and Appendix B

#### George,

Further to the exchange of emails below, sincere apologises for the delay in responding, just to let you know that I have just sent the email below to my colleague Eddie West, confirming that from a Highways perspective we do not consider that the constriction of the project will have a significant impact on the surrounding network, therefore it is acceptable that all matters are scoped within the EIA.

Any queries, please do not hesitate to contact me.

Kind Regards

Gemma

Gemma Lawley Developing Highways – Area Manager South and Central Shropshire Council

From: Gemma Lawley

Sent: 01 February 2018 13:44

To: Edward West

Subject: FW: 210179 Oswestry to Wem Overheadlines - Revised Traffic and Transport Chapter and Appendix B

Eddie,

Sincere apologises for not providing you with a response sooner regard the above, my colleague Richard Ayton has reviewed the information submitted a copy of his email is below.

However, in summary I can confirm;

Shropshire Council as Highway Authority have now had an opportunity to consider the supporting information attached to the consultation. It is considered that the extent of construction traffic trip generation identified within the Technical Note (average of 9 movements per day uplift per route section) is modest and not significant in terms of existing traffic flows on the local highway network. It is therefore appropriate that all matters relating to the construction of the project are scoped out within the proposed Environmental Impact Assessment.

However, it is recommended that consideration is given to the following observations;

Whilst It is accepted that the access routes identified within the Technical Note are mainly A and B roads (see Section 6 Table 1), many of the 11no Lay Down Areas and their access routes will also require construction traffic to negotiate local class 3 and unclassified roads. This omission from the Technical Note requires correction as it is

considered the following Lay Down Areas will involve construction traffic to negotiate local class 3 and unclassified road so will need to be considered further;

Lay Down Area 2 – Aston Road and Middleton Road.

Lay Down Area 4 – Perrymoor Farm Lane.

Lay Down Areas 5 and 6 – Woodhouse Lane (this is covered in Technical Note)

Lay Down Areas 6 and 7 – Hordley to Bagley Road

Lay Down Area 8 - Kenwick Lodge Lane west of Cockshutt (this is also National Cycle Route 38)

Lay Down Area 9 – Stanwardine Road south of Cockshutt.

Many of these routes and the 43 no access points outlined in the Technical Note are constrained in terms of alignment, width and sightlines and may therefore require specific mitigation measures to ensure safe movements. It would be appropriate for a Construction Traffic Management Plan to be submitted to cover such measures where required.

Notwithstanding the above, new accesses onto the S.C. public highway network will require Highway Permits to be applied for through S.C.'s Streetworks team who may apply conditions prior to granting of approval for highway works. It should be noted charges are payable in connection with highway permitting and the construction of new accesses and it should also be noted that where considered unsafe or inappropriate then a permit will not be granted.

The following is not an exhaustive list, however measures which should be considered within a Construction Traffic Management Plan are:

Wheel washing facilities, dust control, road sweeping, noise/ vibration control, use of banksmen to ensure safe access/ egress of vehicles, convoy support vehicles for wide loads, wide load notifications, compliance with width and weight restrictions, working hours.

Attention is also drawn to the following:

- need to consider vehicle size on some constrained routes. It is noted that whilst a maximum of 20T vehicles has been specified, this may not be appropriate for some routes/ access points.
- Some of the access routes may comprise National Cycle Routes, bridleways and public footpaths which may require additional mitigation.
- Nesting season and wildlife restrictions (eg Great Crested Newts) apply to highway verges and boundaries.
- No construction traffic will be permissible in Wem town centre.

Any queries please do not hesitate to contact me.

Kind Regards

Gemma

Gemma Lawley
Developing Highways – Area Manager South and Central Shropshire Council

From: Richard Ayton

Sent: 31 January 2018 18:43

To: Gemma Lawley

Subject: RE: 210179 Owestry to Wem Overheadlines - Revised Traffic and Transport Chapter and Appendix B

#### Hi Gemma

I've been through all the documents, particularly TTC's Transport and Highway Technical Note, and in general terms I agree with your initial response to George Bailes of TTC dated 17/10.

In essence the extent of construction traffic trip generation identified within the Technical Note (average of 9 movements per day uplift per route section) is modest and not significant in terms of existing traffic flows on the local highway network.

However, whilst It is accepted that the access routes identified within the Technical Note are mainly A and B roads (see Section 6 Table 1), many of the 11no Lay Down Areas and their access routes will also require construction traffic to negotiate local class 3 and unclassified roads. This omission from the Technical Note requires correction and my initial review of the 11no Lay Down Areas and their associated access routes suggests this may be the case at the following locations:

Lay Down Area 2 – Aston Road and Middleton Road.

Lay Down Area 4 – Perrymoor Farm Lane.

Lay Down Areas 5 and 6 – Woodhouse Lane (this is covered in Technical Note)

Lay Down Areas 6 and 7 – Hordley to Bagley Road

Lay Down Area 8 – Kenwick Lodge Lane west of Cockshutt (this is also National Cycle Route 38)

Lay Down Area 9 – Stanwardine Road south of Cockshutt.

Many of these routes and the 43 no access points outlined in the Technical Note are constrained in terms of alignment, width and sightlines and may therefore require specific mitigation measures to ensure safe movements. I therefore feel it would be appropriate for a Construction Traffic Management Plan to be submitted to cover such measures where required.

Notwithstanding the above, new accesses onto the S.C. public highway network will require Highway Permits to be applied for through S.C.'s Streetworks team who may apply conditions prior to granting of approval for highway works. It should be noted charges are payable in connection with highway permitting and the construction of new accesses and it should also be noted that where considered unsafe or inappropriate then a permit will not be granted.

The following is not an exhaustive list, however measures which should be considered within a Construction Traffic Management Plan are:

Wheel washing facilities, dust control, road sweeping, noise/ vibration control, use of banksmen to ensure safe access/ egress of vehicles, convoy support vehicles for wide loads, wide load notifications, compliance with width and weight restrictions, working hours.

Attention is also drawn to the following:

- need to consider vehicle size on some constrained routes. It is noted that whilst a maximum of 20T vehicles has been specified, this may not be appropriate for some routes/ access points.
- Some of the access routes may comprise National Cycle Routes, bridleways and public footpaths which may require additional mitigation.
- Nesting season and wildlife restrictions (eg Great Crested Newts) apply to highway verges and boundaries.
- No construction traffic will be permissible in Wem town centre.

I would also be grateful if you could forward a copy of Appendix B within the report which is in a format which I have been unable to download. This will enable a more comprehensive review of the location of the access points and lay down areas.

I hope the above information is helpful however if you need any more information or clarification don't hesitate to ask.

#### Richard

From: Gemma Lawley

**Sent:** 25 January 2018 13:56

To: Richard Ayton < richard.ayton@shropshire.gov.uk >

Subject: FW: 210179 Owestry to Wem Overheadlines - Revised Traffic and Transport Chapter and Appendix B

Hi Richard,

As discussed, I need to respond to the email below, would you mind reviewing the attached and seeing if you can put together a draft response/comments.

On quick review it would appear that the construction routes are all via A roads and Woodhouse Lane? Not sure where that is, but on that assumption should be fine.

I will also send you a link to the wider document.

Kind Regards

Gemma

From: George Bailes [mailto:george@ttc-transportplanning.com]

Sent: 26 October 2017 16:25

To: Gemma Lawley

Cc: <u>Karen.Lees@gillespies.co.uk</u>; <u>Sarah.Gibson@gillespies.co.uk</u>; <u>Zac.Ford@gillespies.co.uk</u>; Edward West **Subject:** 210179 Owestry to Wem Overheadlines - Revised Traffic and Transport Chapter and Appendix B

Gemma,

Please find attached the revised Traffic and Transport document which includes the traffic volumes associated with the construction phase, detailing the amount of vehicles which will be arriving at the compound and stored at the compound before travelling to the overhead line during the construction phase, which is highlighted in Section 3 of the report.

You will note that these levels of vehicles are extremely minimal with 16 vehicle movements anticipated in total.

I would be grateful if you provide your view on the level of vehicle trips during the construction phase, which we don't anticipate will have a detrimental impact on the operation or safety of the local highway network.

Kind regards, George

## George Bailes BSc MSc MCIHT

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH

M: +447886652849

george@ttc-transportplanning.com
www.ttc-transportplanning.com

Twitter: @ttctransport



#### **EXCEED RESPECT VALUE INNOVATE**

From: George Bailes

Sent: 18 October 2017 15:33

To: 'Gemma Lawley'

Cc: 'Steven.Edwards@spenergynetworks.co.uk'; 'Karen.Lees@gillespies.co.uk'; 'Sarah.Gibson@gillespies.co.uk';

'Zac.Ford@gillespies.co.uk'; 'Edward West'

Subject: RE: 210179 Owestry to Wem Overheadlines - Traffic and Transport Appendix B

Gemma,

### Please find attached the following;

- **238 WGR LDCL RP 002** which is a series of drawings highlighting the fixed route, laydown areas and access points from the LHA;
- **Construction Routes v3** an interactive google earth file which highlights the routes taken to the line by construction traffic;
- **Construction Traffic by Access:** highlighting the amount of traffic using each route, which is colour coded to correspond with the Construction Routes v3 google earth file.

If you need to discuss anything, please don't hesitate to get in touch.

Kind regards, George

### George Bailes BSc MSc MCIHT

Director

The Transportation Consultancy
397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH
M: +447886652849
george@ttc-transportplanning.com

george@ttc-transportplanning.com www.ttc-transportplanning.com

Twitter: @ttctransport



### **EXCEED RESPECT VALUE INNOVATE**

From: George Bailes

Sent: 17 October 2017 12:46

To: 'Gemma Lawley'

Cc: Steven.Edwards@spenergynetworks.co.uk; Karen.Lees@gillespies.co.uk; Sarah.Gibson@gillespies.co.uk;

Zac.Ford@gillespies.co.uk; Edward West

Subject: RE: 210179 Owestry to Wem Overheadlines - Transport and Traffic

Gemma,

Many thanks for your prompt response, it is much appreciated.

Noted, regarding your position on the level of trips and I appreciate you pragmatic approach.

In regards to Appendix B we are still finalising this and will send it across when it is ready which includes a map of the access routes and will clarify the Woodhouse Drive/Lane issue.

I note the request regarding the Street team and new access points from the highway network and this will be picked up in the Construction Traffic Management Plan element of the work.

I'll forward through the revised note and Appendix B shortly.

Kind regards, George

## George Bailes BSc MSc MCIHT

Director

The Transportation Consultancy
397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH
M: +447886652849
george@ttc-transportplanning.com
www.ttc-transportplanning.com

Twitter: @ttctransport



**EXCEED RESPECT VALUE INNOVATE** 

From: Gemma Lawley [mailto:gemma.lawley@shropshire.gov.uk]

Sent: 17 October 2017 12:18

To: George Bailes

Cc: Steven.Edwards@spenergynetworks.co.uk; Karen.Lees@gillespies.co.uk; Sarah.Gibson@gillespies.co.uk;

Zac.Ford@gillespies.co.uk; Edward West

Subject: RE: 210179 Owestry to Wem Overheadlines - Transport and Traffic

George,

Thanks for your email below, unfortunately I am in a meeting all day tomorrow, so it is unlikely that I will be able to attend the meeting between your Client and Eddie West. I have kept it in my diary just in case things change.

I have briefly reviewed the technical note, and on the assumption that the number of Trips are approximately 9 a day, and access is via the main A and B roads, then from a Highways perspective we would not raise any concerns in principle. However, I would be grateful if you could confirm the location of Woodhouse Lane, as I am struggling to locate it on a map. Do you mean Woodhouse Drive, Rednal?

I would also be grateful if you could forward a copy of Appendix B, so we can review the location of the access points and lay down areas. Do you also have a map of the proposed access routes?

Moving forward with the Project, then I will need to involve our Streetworks team who deal with new accesses on to the Highway, we will need to review each access point to check that they are suitable for the intended purpose. It is likely that there will be a charge for permission to form a new access on to the Highway.

**Kind Regards** 

Gemma

Gemma Lawley
Developing Highways – Area Manager South and Central
Shropshire Council

**From:** George Bailes [mailto:george@ttc-transportplanning.com]

**Sent:** 17 October 2017 00:15

To: Gemma Lawley

Cc: Steven.Edwards@spenergynetworks.co.uk; Karen.Lees@gillespies.co.uk; Sarah.Gibson@gillespies.co.uk;

Zac.Ford@gillespies.co.uk

Subject: 210179 Owestry to Wem Overheadlines - Transport and Traffic

Importance: High

Dear Gemma,

I hope you are well.

You will recall I am the transport consultant examining the traffic and transport impacts of the Owestry to Wem 132khv overhead line project.

We produced a ES scoping chapter which identified the construction traffic associated with the works in February 2017 to which SCC highways provided no comment on.

As a result of PINS reviewing the ES scoping report we have been further asked to identify the routes on the local highway network which the construction traffic will use.

To this effect we have produced the attached technical note which determines the amount of traffic which will use the local highway network to access the overhead line route from the proposed depot. You will note from the tech note that the traffic generated by the construction phase will require a maximum number of nine vehicles a day and as a result we are proposing to scope out a full PIER assessment as a result of the findings presented in the Technical Note.

As the Local Highway Authority, and although you didn't provide any comments on the level of construction traffic in the ES scoping chapter we are still required to obtain your sign off on the level of traffic using the routes to overhead lines to satisfy PINS. To this effect please could you take a look over the attached technical note and provide me with your thoughts.

Please note that the tech note is in draft format, as we are currently revising the note to include the number of vehicle movements to the depot and it these vehicle numbers will be less than the numbers identified which are anticipated to be undertaken from the depot to the construction line to provide you with some level of reassurance.

Also be aware that we are currently in consultation with Highways England over the increase in traffic proposing to use the A5 and use of an existing farm access as access to the construction point and the HE haven't been concerned with the level of traffic involved, although we are yet to receive final approval from them.

The client (Mr Steven Edwards of SPEN) is attending a meeting at Shire Hall on this Wednesday at 10.30 with Eddie West who is the lead planner on the project. I would be grateful if you could provide comment on the technical note before Wednesday's meeting or spare some time to attend the meeting if possible and I apologies for the short notice.

The statutory consultation period starts in November 2017 and we require sign off from PINS (and hence yourselves) before we can start this process.

If you have any questions please don't hesitate to get in touch.

Kind regards, George

## George Bailes BSc MSc MCIHT

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH M: +447886652849

george@ttc-transportplanning.com www.ttc-transportplanning.com

Twitter: @ttctransport



### **EXCEED RESPECT VALUE INNOVATE**

# George

From: Thomas, Patrick < Patrick.Thomas@highwaysengland.co.uk>

**Sent:** 16 February 2018 14:12

To: George Cc: Martyn Sutton

**Subject:** RE: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement

project

Follow Up Flag: Follow up Flag Status: Follow up

# George,

We have reviewed the note and I can confirm we are happy with the submitted construction traffic data as we do not consider it will have a significant impact on the SRN due to the low number of trips that will be produced and the short duration of the works.

In regards to permission to use the existing farm access on the A5, we note that you are to provide further information in this regard and look forward to receiving that in due course.

Regards Patrick

# Patrick Thomas, Asset Manager

Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN

**Tel**: +44 (0) 300 4703407 | **Mobile**: + 44 (0) 7500 099649

Web: <a href="http://www.highways.gov.uk">http://www.highways.gov.uk</a>

GTN: 0300 470 3407

**From:** George [mailto:george@ttc-transportplanning.com]

**Sent:** 05 February 2018 17:12

To: Martyn Sutton

Cc: Thomas, Patrick; Zac Ford < Zac.Ford@gillespies.co.uk> (Zac.Ford@gillespies.co.uk)

Subject: RE: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Martyn,

Appreciate you pragmatic approach to getting this one signed off.

We are trying to scope out the transport and highways matters from a full Environmental Impact Assessment (EIA) to be undertaken. Therefore I believe there are two items we require sign off/approval from the HE;

- 1- Level of construction traffic associated with the Reinforcement Project using the SRN
- 2- Permission to use existing farm access on A5.

## Item 1.

I have attached a note which determines the level of construction traffic that will proposed to be using the Local Highway Network and Strategic Highway Network during the construction phase of the reinforcement project.

Please note that we are only proposing to route via the A483 and A5 as part of the SRN which will provide a maximum increase of 9 vehicles a day for a two week period.

1

Please note that the LHA, Shropshire County Council (SCC) have commented the following; 'from a Highways perspective we do not consider that the construction of the project will have a significant impact on the surrounding network, therefore it is acceptable that all matters are scoped within the EIA.'

### Item 2.

Item 2 is the consent to use the farm access, you have provided comments on this and I will review and come back to you shortly.

If you could focus on Item 1 in the meantime I would be grateful.

Kind regards, George

## **George Bailes BSc MSc MCIHT**

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH M: +447886652849 george@ttc-transportplanning.com

www.ttc-transportplanning.com Twitter: @ttctransport



**EXCEED RESPECT VALUE INNOVATE** 

From: Martyn Sutton [mailto:Martyn.Sutton@kier.co.uk]

**Sent:** 31 January 2018 09:32

To: George

Cc: Thomas, Patrick

Subject: RE: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

### George,

I am happy to discuss the various issues with you as suggested.

Prior to our conversation are you aware of GD 04/12, Standards for Safety Risk Assessment on The Strategic Road Network? This could provide a mechanism to assist you in taking appropriate mitigation measures to ensure the safety of the travelling public on the SRN.

I have included a link to the document for your information:

http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol0/section2.htm

Regards Martyn

## Martyn Sutton I.Eng FIHE

**Development Management Engineer** 

**Kier Services I Highways I** M5 Junction 8 Motorway Compound, Hill View Road, Strensham, Worcestershire, WR8 9LJ

#### T: 01684 328974 | M: 07467117378 | www.kier.co.uk

Email: Martyn.Sutton@kier.co.uk

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From: George [mailto:george@ttc-transportplanning.com]

**Sent:** 30 January 2018 16:08

**To:** Thomas, Patrick < <a href="mailto:Patrick.Thomas@highwaysengland.co.uk">Patrick.Thomas@highwaysengland.co.uk</a> <a href="mailto:Cc: Martyn Sutton@kier.emhighways.co.uk">Cc: Martyn Sutton@kier.emhighways.co.uk</a>

Subject: RE: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Thanks Patrick,

I appreciate you pragmatic approach.

Martyn – Please see my email below. It would be good to have a chat through the various issues when you have a minute.

Kind regards, George

# **George Bailes BSc MSc MCIHT**

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH M: +447886652849 george@ttc-transportplanning.com

www.ttc-transportplanning.com

Twitter: @ttctransport



## **EXCEED RESPECT VALUE INNOVATE**

From: Thomas, Patrick [mailto:Patrick.Thomas@highwaysengland.co.uk]

**Sent:** 30 January 2018 16:05

To: George

Cc: Abakasanga, Ngozi

Subject: RE: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

George,

Thank you for your email. I am content for you to email Martyn Sutton direct, given the access challenges and the time constraints. Please copy me in.

The appropriate access layout is set out in the Design Manual for Roads and Bridges (DMRB), Martyn will be able to offer further guidance on this.

Regards Patrick

# **Patrick Thomas, Asset Manager**

Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN

**Tel**: +44 (0) 300 4703407 | **Mobile**: + 44 (0) 7500 099649

Web: http://www.highways.gov.uk

GTN: 0300 470 3407

**From:** George [mailto:george@ttc-transportplanning.com]

Sent: 30 January 2018 14:49

**To:** Thomas, Patrick **Cc:** Abakasanga, Ngozi

Subject: RE: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Patrick,

Many thanks for the email. I appreciate your response.

I'm slightly unclear on the way forward and I think we might have missed another item which we require some consent from the HE on.

Have you provided any comments on the level of vehicles associated with the construction phase which are proposed to use the A483 and A5 regardless if we receive consent to use the proposed access from the A5 as outlined below? We need your formal consent on this I believe.

Secondly, I understand your position on protecting the strategic highway network. Just so we are clear are we saying that an increase of 9 vehicles a day for a two week period would be unacceptable at the current access.

Is there any guidance on what standard we would need to upgrade the access to make it acceptable.

Would it be easier if I emailed Martyn direct and copied you in as it would be good to open some dialog and get this resolved asap.

Thanks for your assistance.

Kind regards, George

### George Bailes BSc MSc MCIHT

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH

M: +447886652849

george@ttc-transportplanning.com
www.ttc-transportplanning.com

Twitter: @ttctransport



#### **EXCEED RESPECT VALUE INNOVATE**

From: Thomas, Patrick [mailto:Patrick.Thomas@highwaysengland.co.uk]

Sent: 19 January 2018 16:34

To: George

Cc: 'Steven.Edwards@spenergynetworks.co.uk'; 'enquiries@spennorthshropshire.co.uk'; Abakasanga, Ngozi

Subject: FW: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Importance: High

Dear George,

The Kier Development management engineer has reviewed the proposal as set out in your 6/11/17 email, please find his comments below.

Apologies for the delay in our response.

Regards Patrick

# **Patrick Thomas, Asset Manager**

Highways England | The Cube | 199 Wharfside Street | Birmingham | B1 1RN

**Tel**: +44 (0) 300 4703407 | **Mobile**: + 44 (0) 7500 099649

Web: http://www.highways.gov.uk

GTN: 0300 470 3407

From: Martyn Sutton [mailto:Martyn.Sutton@kier.co.uk]

Sent: 17 January 2018 14:29

To: Thomas, Patrick

Subject: FW: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Importance: High

#### Hi Patrick,

I have reviewed the content of the email from George Bailes and comment as follows.

It should be noted that this assessment is a desk top study utilising google maps to assess the existing access as indicated below:



Notwithstanding the existing access may provide adequate visibility in both directions The Developer must ensure that it is adequate with regard to the proposed intensification of use, in both type of vehicles using it and frequency of use.

Paragraph 1.7 of TD 41/95 defines the requirements regarding the intensification of use of an existing access and must therefore be considered in this instance. A Transport Statement would inform the quantum of the intensification which could then be used to determine an appropriate junction design. Extract from TD 41/95 shown below:

1.7 The primary purpose of the trunk road network is to provide for the safe and expendious movement of long distance through traffic. That means strictly limiting the number of direct accesses to trunk roads. It means ensuring that the full implications for traffic and road safety are taken into account when proposals are made for new development in the vicinity of trunk roads. This is whether it involves new access or increased use of existing accesses, particularly onto dual carriageways where speeds are high. Limiting direct access remains a prime objective of the Overseeing Organisations.

### 1.0 It has been accounted for more than 50 years areas

I therefore conclude, based on the information provided, that It is unlikely that the existing field access could safely accommodate the suggested intensification of use and therefore mitigation measures are likely to be required.

Regards Martyn

### Martyn Sutton I.Eng FIHE

**Development Management Engineer** 

Kier Services I Highways I M5 Junction 8 Motorway Compound, Hill View Road, Strensham, Worcestershire, WR8 9LJ

T: 01684 328974 I M: 07467117378 I www.kier.co.uk

Email: Martyn.Sutton@kier.co.uk

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From: James Carroll On Behalf Of Area9 DEVCONTROL

Sent: 15 January 2018 09:07

To: Martyn Sutton < Martyn.Sutton@kier.emhighways.co.uk >

Subject: FW: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Importance: High

Hi Martyn,

Think you dealt with this one...

Cheers

**James** 

#### **James Carroll**

Development Management & Third Party Schemes Team Leader

Kier Services I Highways I Ansty Motorway Maintenance Depot, Coventry, Warwickshire, CV7 9JA T: 024 7662 2916 | M: 07467 117 289 | E: <u>James.Carroll@kier.co.uk</u> | <u>www.kier.co.uk</u>

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From: Thomas, Patrick [mailto:Patrick.Thomas@highwaysengland.co.uk]

Sent: 12 January 2018 16:21

To: Area9 DEVCONTROL <Area9.DEVCONTROL@kier.emhighways.co.uk>

Subject: (DUE 19JAN - AR) FW: 210179 Oswestry to Wem overhead Line reinforcement project

Importance: High

Dear Kier DC,

Further to the above. I note your comments and recently responded to the formal consultation

The Highways consultant, TTC, has been in touch with me regarding our views in relation to anticipated construction traffic and the use of the an agricultural access off the A5 for the project. I would be grateful if you could review the information presented in the attached email and provide me with your comments on those specific points by **Friday 19<sup>th</sup> January**.

Regards Patrick

From: George Bailes [mailto:george@ttc-transportplanning.com]

Sent: 06 November 2017 12:11

To: Jaffier, Robert; Thomas, Patrick
Cc: Zac.Ford@gillespies.co.uk

Subject: FW: 210179 Oswestry to Wem overhead Line reinforcement project

Hi Gents,

I hope you are both well.

I have been struggling to get a response from Area 9 on a small infrastructure project for Scottish Power. We need consent from you guys to satisfy PINS and timescales are becoming pretty tight now.

If you could assist or push this along for me I would be most grateful.

Kind regards, George

## **George Bailes BSc MSc MCIHT**

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH M: +447886652849

george@ttc-transportplanning.com www.ttc-transportplanning.com

Twitter: @ttctransport



### **EXCEED RESPECT VALUE INNOVATE**

From: George Bailes

**Sent:** 06 November 2017 12:07 **To:** 'Area9communications@kier.co.uk' **Cc:** Zac Ford (Zac.Ford@gillespies.co.uk)

Subject: 210179 Oswestry to Wem overhead Line reinforcement project

Dear Sir/Madam,

I am the transport consultant who has been appointed by Scottish Power Energy Network (SPEN) to examine the transport and traffic impacts of the construction traffic for the Oswestry to Wem Overhead Cables Reinforcement Project.

We are looking to scope out the Transport and Highways element of the works from the Environmental Impact Assessment and PINS have requested that due to the proximity to the A5 to the project that we seek confirmation from Highways England on the level of construction traffic using the Strategic Road Network.

To that effect, I have sent some information to Thomas O'Grady in September (email attached) seeking consent on the following level of vehicles resulting from the construction traffic using the A5.

- <u>Construction vehicles to the compound:</u> A total of 16 vehicle movements to deliver the construction materials and plant equipment to the compound near Oswestry before construction starts.
- <u>Construction vehicles from the compound to the overhead route</u>: Maximum of 9 vehicles a day over a two week construction period to use the A5, note that construction days are anticipated as 5 day week (Monday to Friday)
- Use of an existing farm access from the A5 for construction traffic to access the overhead construction line.

I haven't had a response to my attached email which I sent on the 13<sup>th</sup> September 2017. I believe the statutory period for a response is 21 days which is well over due.

Please could you provide some assistance as this is becoming critical to the project.

Kind regards, George

## **George Bailes BSc MSc MCIHT**

Director

The Transportation Consultancy 397 Birmingham Road, Bordesley, Redditch, Worcs, B97 6RH M: +447886652849 george@ttc-transportplanning.com www.ttc-transportplanning.com

Twitter: @ttctransport



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