YG-DCO-128

Yorkshire Green Energy Enablement (GREEN) Project

Volume 8

Document 8.25.2 Applicant's Response to Examining Authority's Second Written Questions (ExQ2) Appendices

Final Issue A
July 2023

Planning Inspectorate Reference: EN020024

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

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Version History

Document	Version	Status	Description / Changes
11/07/2023	A	Final	First Issue

1. About this document

1.1 Introduction

1.1.1 This document provides the appendices to National Grid Electricity Transmission plc's (National Grid) (the Applicant) response to the Examining Authority's (ExA) Second Written Questions (ExQ2) on the Yorkshire Green Energy Enablement Project (Yorkshire GREEN or the Project).

1.1.2 Responses to all questions are set out **Applicant's Response to Examining Authority's Second Written Questions (ExQ2) (Document 8.25.1)**. Where an appendix is referred to in responding to a question in that document, the appendix reference alone is provided (for example, "Appendix A"). A full schedule of appendices is provided in **Table 1.1** below.

1.2 Schedule of appendices

1.2.1 A schedule of appendices is set out below.

Table 1.1 – Schedule of appendices

Appendix reference	Question	Title
Appendix A	Q3.0.8	National Grid's approach to the use of bird diverters on its overhead lines
Appendix B	Q4.3.22	Technical Note - Tadcaster East Cable Sealing End Compound Access Option
Appendix C	Q7.0.1	Galvanizers Association Corrosion Map
Appendix D	Q7.0.1	Just Spray - A Guide To Powder Coating Steel
Appendix E	Q14.0.6	Traffic and Transport workshop: meeting notes

Appendix A National Grid approach to the use of bird diverters

National Grid's approach to the use of bird diverters on its overhead lines.

Bird Diverters

1. An overhead line comprises conductors which transmit electricity and an earthwire which offers protection from lightning strikes and can also carry a communications cable. The conductors (wires) used to transmit electricity hang from the arms of the pylons via insulators. These are often hung in bundles of two, three or four conductors with spacers between them at intervals. The conductors of high voltage overhead lines are more visible and pose less risk to birds than the much smaller diameter earthwire which on an overhead line constructed using steel lattice pylons is suspended from the peaks of pylons. Bird diverters, also known as deflectors, can be fitted to the earthwire of overhead lines.

2. There are different designs of diverters and some of National Grid's overhead lines have 'orange ball' diverters installed which are visible from a long distance. The much smaller 'spiral' bird diverter is now more commonly used. It is effective in making the line visible to birds but has much less effect on the landscape and in views.

3. It is easier and safer to install diverters on the earthwire of overhead lines when the line is being built. The diverters can be installed as the earthwire is being fixed and before electricity is switched to run through the conductors.

4. It is also possible to install diverters on the earthwire of an existing overhead line. This is undertaken generally by workers in a winch hanging from a helicopter or there may be opportunities to install them when the line is temporarily out of service for maintenance (during an 'outage').

Considering Bird Diverters on New Overhead Lines

5. National Grid's publication 'Our approach to the design and routeing of new transmission lines' explains the matters which it considers when developing a new overhead line route. It seeks to avoid sites designated for their high nature conservation value, such as sites of Special Scientific Interest, Special Protection Areas and Ramsar sites which may be important to birds.

6. National Grid consults in each case with the statutory nature conservation organisation (SNCO) and interested parties about possible impacts on sites designated for bird interest and on bird species, particularly large birds as advised by EN-5, such as swans and geese, and also other species that may be susceptible to collision risk.

7. National Grid is aware of the potential for distress caused by collisions, including where birds affected are not protected species, and will also consider relevant local factors on a case-by-case basis (for example waterfowl on water bodies visited by the public, racing pigeons).

8. Diverters can reduce the risk of bird collisions, but they also introduce additional landscape and visual impacts because they make the earthwire more visible. Diverters also require additional installation and maintenance activities which can introduce further risk. The installation of diverters will be considered when there is a clear benefit in terms of avoidance of harm to statutory interests or significant local interests.

9. Diverters do not always reduce collisions and their use is most appropriate where an overhead line crosses bird flyways or is near features that attract birds, such as water bodies or feeding areas.

10. Installation will be considered on the basis of evidence of collision risk and how efficient diverters would be as a solution.

11. National Grid will carry out appropriate surveys to assess collision risk, considering available information and, where required, specific site surveys.

12. The survey findings will influence the choice of route corridor and alignment for a new overhead line aiming to avoid routes that introduce significant collision risk (embedded mitigation). The advice of the relevant SNCO will be sought.

13. The use of bird diverters will be proposed where it will result in the avoidance of an adverse effect on statutory interests (sites or species). The design and the positions of diverters on the earthwire will be specified taking account of the species concerned and the availability and suitability of different styles of diverter.

14. Where there is little or no risk of collisions affecting statutory interests, diverters will not be proposed.

15. Where available evidence suggests that collisions may occur, but there is uncertainty over whether statutory interests would be affected, National Grid will propose a period of post-construction monitoring of the overhead line leading to a possibility that diverters may need to be retrofitted. A protocol for monitoring will be included in the application so that it is clear that installation of diverters may be an outcome of the consent.

16. National Grid will consider the risk of collisions affecting non-statutory interests on a case-by-case basis, taking account of representations from the SNCO, the relevant local authority and other interested parties. National Grid's consideration may lead to a proposal to install diverters; to a proposal for monitoring prior to taking a decision; or to not install diverters.

Installing Bird Diverters on Existing Overhead Lines

17. National Grid acknowledges that birds may collide with existing overhead lines when the risk was not foreseen at the time of application. The risk of collisions may arise due to changes in behaviour of birds because of alterations in land use or climate over time or may be due to shorter-term incidents such as flooding of fields due to neglect of drainage.

18. Where evidence of a sustained pattern of collisions is brought to its attention, National Grid will take advice from professional ornithologists, the relevant SNCO and if appropriate from other relevant bodies such as the Royal Society for the Protection of Birds and the local planning authority. If statutory interests are potentially affected, National Grid will consider a contribution to the reasonable cost of assembling further evidence.

19. If the problem can be addressed at source, such as amending cropping patterns, improving drainage or moving a feature attracting birds, National Grid will bring this to the attention of the relevant landowner or managing agency (such as Environment Agency or internal drainage board). It will liaise with them to investigate possible change to remove or reduce the source of bird attraction and risk of collision.

20. If the problem cannot be addressed at source, and evidence suggests that installation of diverters would significantly reduce collision risk which affects statutory interests, National Grid will seek to install diverters. It will undertake any environmental assessment and seek to obtain any additional consents or landowner agreements that may be required (installation of diverters is generally 'permitted development' on existing lines). The installation of diverters may be delayed until National Grid's operational arrangements allow safe working.

21. If non-statutory interests are affected, National Grid will seek to install diverters if it considers that the benefits outweigh the risks and costs of installation taking account of its statutory duties.

Appendix B Technical Note - Tadcaster East Cable Sealing End Compound Access Option

YG-DCO-101-I(B)

Yorkshire Green Energy Enablement (GREEN) Project

Volume 8

Document 8.9.2-I(B) Appendix I Part 2 – Technical Note – Tadcaster East Cable Sealing End Compound Access Option

Final Issue B
June 2023

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Version History			
Date	**Version**	**Status**	**Description / Changes**
26/04/2023	A	Final	First Issue
21/06/2023	B	Final	Second Issue – Proposed Access Option Alignment Update

Executive summary

Purpose of this Technical Note

This Technical Note, Tadcaster East Cable Sealing End Compound Access Option, has been prepared to explain further why a diversion to the existing private right of access at the proposed Tadcaster East Cable Sealing End Compound (CSEC) has not been proposed as part of the Application and the constraints relating to the option to divert that right of access. The **Technical Note Tadcaster East Cable Sealing End Compound Design** (both technical notes are located in **Appendix I** to the **Applicant's Response to Examining Authority's First Written Questions (ExQ1) Appendices (Document 8.9.2)**) provides further detail on the rationale and evolution of the design of the Tadcaster East CSEC including the constraints to the design, which explains why the private right of access is not possible to be retained in its current location. The two technical notes taken together provide further detail on why it has been necessary to seek the extinguishment of an existing private access on land at the proposed Tadcaster East CSEC.

The Tadcaster East CSEC is approximately 3km southwest of the market town of Tadcaster in North Yorkshire and forms part of the Yorkshire Green Energy Enablement (GREEN) Project (referred to as Yorkshire GREEN or the Project) to strengthen the existing network in the north and northeast of England. The site is located at approximate latitude 53.8694, longitude 1.2971 and GPS coordinates 53° 52' 10,1064'' North, 1° 17'50.1'' West. The site location is shown in Figure 1.

The swept paths and proposed access option shown throughout the technical note and within the appendices have been updated to connect to the existing right of way. This update does not change the findings and conclusion of this technical note.

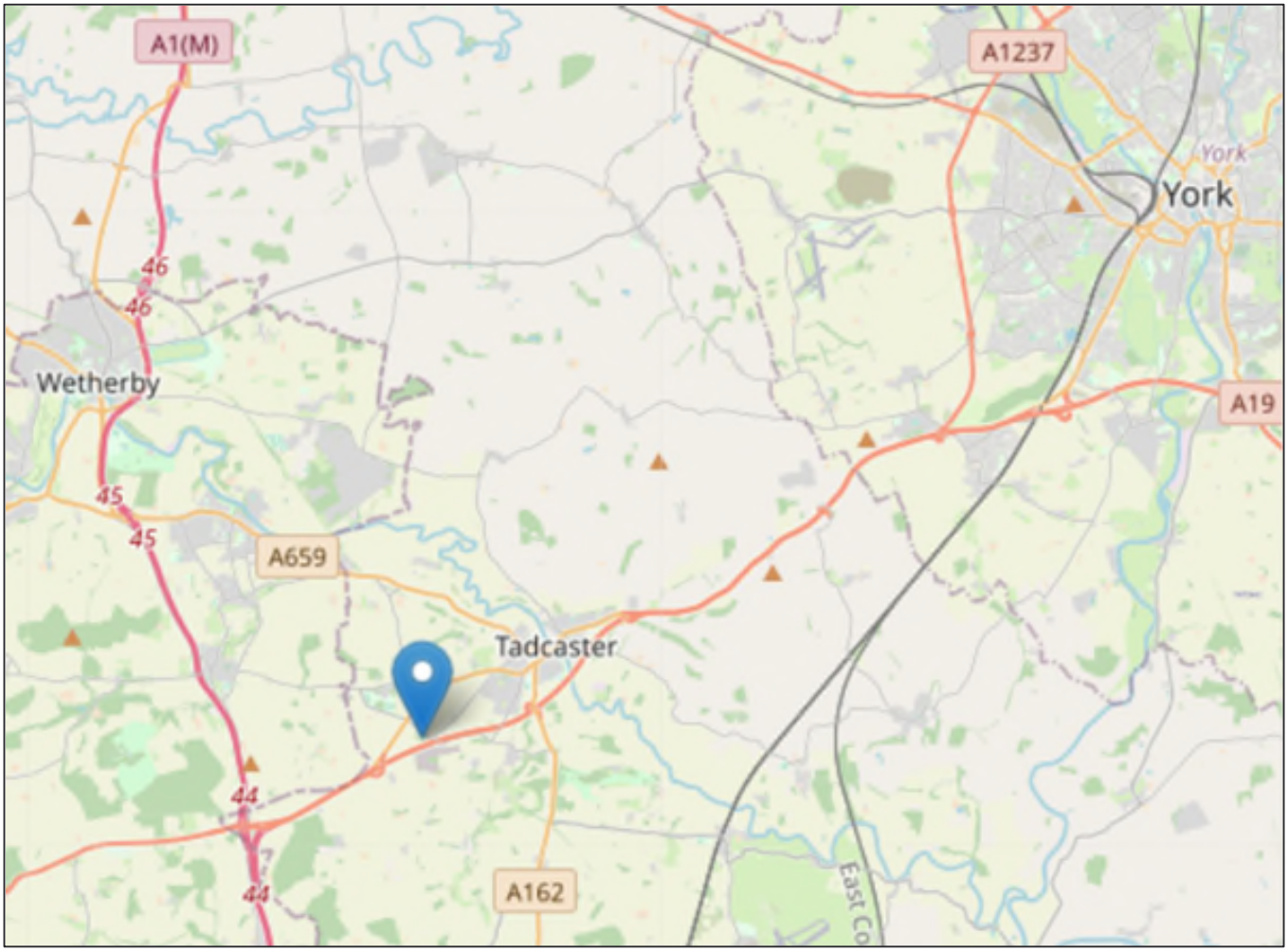


Figure 1: Site Location

Key Constraints

As part of the design, a potential diversion of the existing private access, to go around the new proposed CSEC, was reviewed. The items discussed within this Technical Note include the key constraints on site that affect the safety and constructability of this diversion to the right of access. The constraints include the following:

- National Gas Networks medium pressure gas main diversion;
- New telecoms mast and access road;
- A64 embankment and National Highways boundary to the south of the site;
- The cut/ fill of the proposed access diversion and the risk of encroachment on National Highways' land;
- Sloping existing ground, requiring civil works for the new embankment south of the CSEC, constraining the corridor between the CSEC and highway; and
- Proximity of a sloping road to the A64 embankment

Constraints Summary

The site is constrained by multiple issues affecting several asset owners and adding to the cost and complexity of providing an alternative access route. National Grid have investigated the possibility of an access option around the proposed CSEC. The proposed solution would be technically difficult to construct and would bring about safety concerns in both the construction and operation of the diversion of the access road, such that it is not considered feasible or proportionate to provide. In addition, there is currently an existing access to the site off the A659, which is considered to be a suitable alternative.

1. Tadcaster East CSEC Access

1.1 Purpose of Technical Note

1.1.1 This Technical Note has been prepared to explain further why a diversion to the existing private right of access at the proposed Tadcaster East Cable Sealing End Compound (CSEC) has not been proposed as part of the Application and the constraints relating to the option to divert that right of access. The **Technical Note Tadcaster East CSEC Design** (both technical notes are located in **Appendix I** to **Applicant's Response to Examining Authority's First Written Questions (ExQ1) Appendices (Document 8.9.2)**) provides further detail on the rationale and evolution of the design of the Tadcaster East CSEC including the constraints to the design, which explains why the private right of access is not possible to be retained in its current location. The two technical notes taken together provide further detail on why it has been necessary to seek the extinguishment of an existing private access on land at the proposed Tadcaster East CSEC.

1.2 Introduction

1.2.1 The Tadcaster East CSEC is located at an existing National Grid Overhead Line (OHL) pylon XC481. This location is fixed due to the connection point of the electrical circuit. Refer to **Technical Note Tadcaster East Cable Sealing End Compound Design** (located in **Appendix I** to the **Applicant's Response to Examining Authority's First Written Questions (ExQ1) Appendices (Document 8.9.2)**), for further information on the selection of pylon XC481 and the orientation of the CSEC.

1.2.2 The base level of the pylon legs has also governed the finished site level of the new CSEC platform, which is required to be a level surface for operation. This, in combination with the existing site sloping towards the highway embankment, would require earthwork embankments to achieve the required level.

1.2.3 Due to the proposed installation of the Tadcaster East CSEC, an existing private right of access will be permanently severed and is proposed to be extinguished. A further assessment of the option to divert the access south around the new Tadcaster East CSEC, to reconnect the severed access, has been undertaken and the conclusions of this are presented below. Figure 2 shows the CSEC and the severed private right of access.

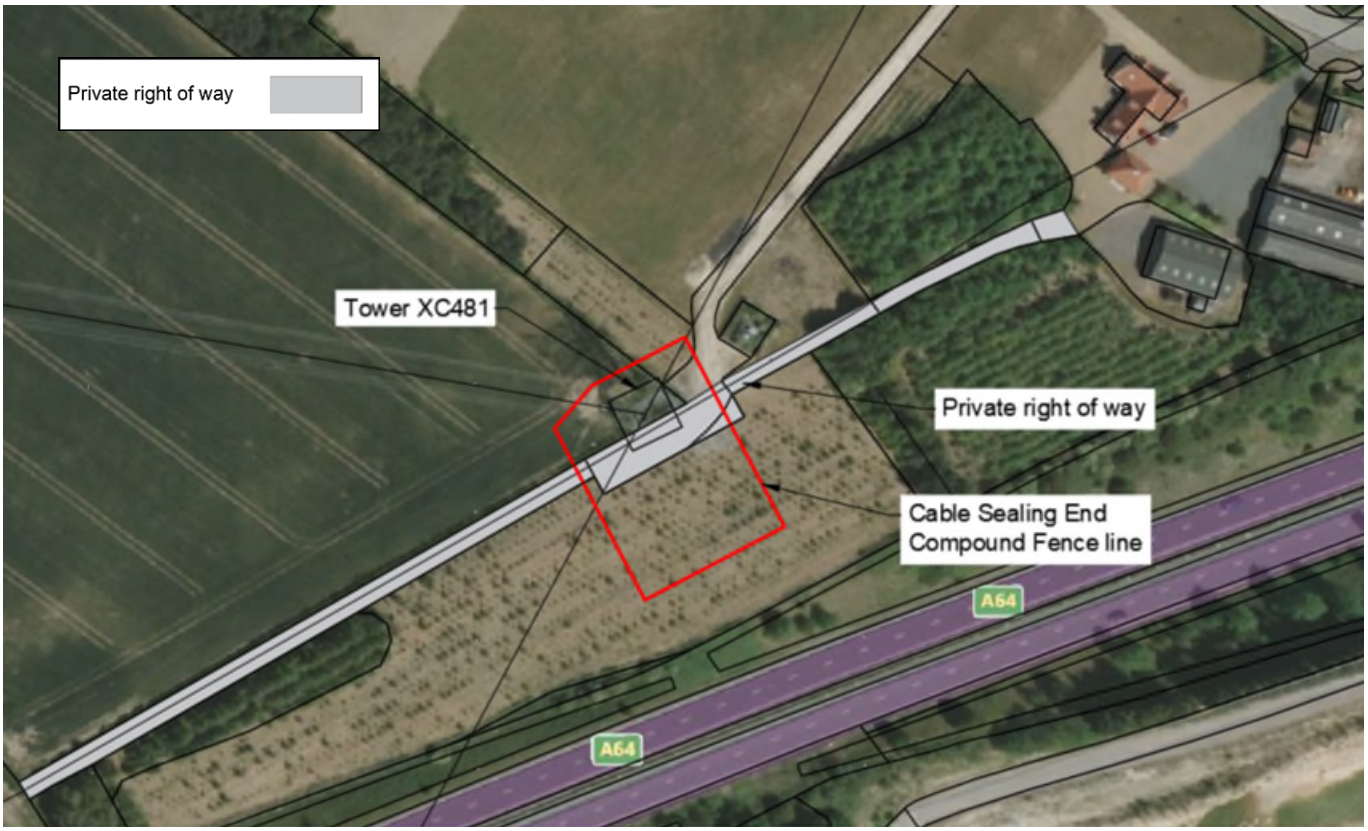


Figure 2: CSEC Location

1.2.4 The option to divert the private right of access to the south of the CSEC (the 'Access Option') requires a diversion of approximately 160m in length. This would diverge south of the existing third-party access track, just prior to the new Tadcaster East CSEC location. The diversion would continue around the CSEC at an alignment parallel to its fence line. The diversion would reconnect to the existing third-party access on the west side of the new proposed CSEC.

1.2.5 The Access Option is shown in blue in Figure 3. The Cut/Fill profile is shown in Annex A of this technical note. The road starts at a level of 50.19m and slopes down to around 45.63m after 110m. The average level difference between the existing ground and Access Option level is -0.017m. After 110m the road slopes upwards with an average level difference of -0.063m between existing ground and Access Option level.

Figure 3: Access Option Layout

1.2.6 Figure 4 shows the vertical profile of the Access Option and the existing ground profile along the length of the road alignment. Refer to Annex A for the alignment. The Access Option has gradients of 3.4%, 2.96% and 5% between approximate chainage 0m and 115m. Between chainage 115m and 160m, the Access Option has its maximum gradient of 6.7%.

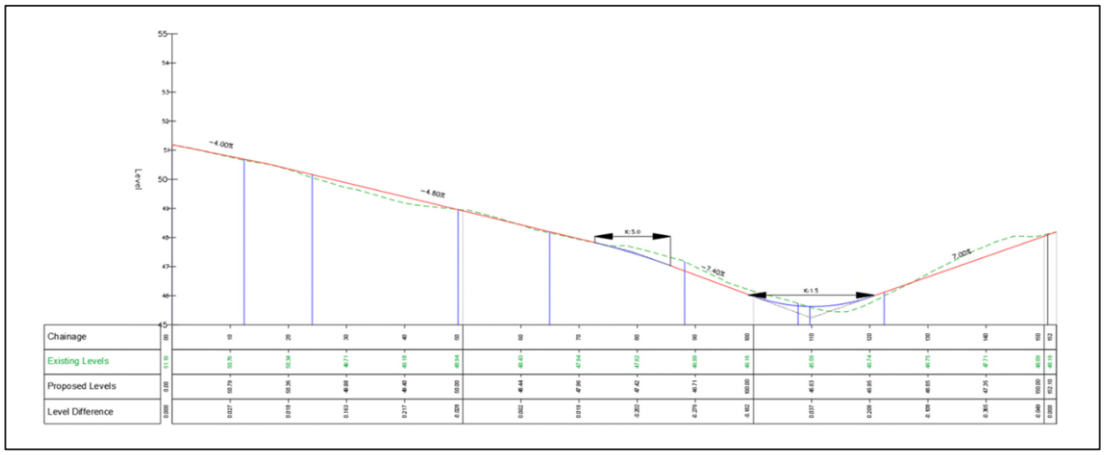


Figure 4: Access Option Vertical Profile

1.2.7 National Grid anticipates that the access would primarily be used for agricultural use (although it is noted that the existing easement grants a right at all times and for all purposes, see further detail below), and therefore a swept path analysis of a tractor

trailer has been conducted. In addition, swept path analysis was conducted for a 7.5T rigid vehicle, which could potentially be used for small equipment or material deliveries. Both vehicles used for the proposed alignment swept path modelling are shown in Figure 5 and Figure 6. A drawing depicting the swept path alignment for the 7.5 tonne rigid vehicle is shown in Annex A. A drawing depicting the swept path alignments for the tractor and trailer is shown in Annex B. This shows that the Access Option would potentially be feasible for these types of vehicles, subject to constraints.

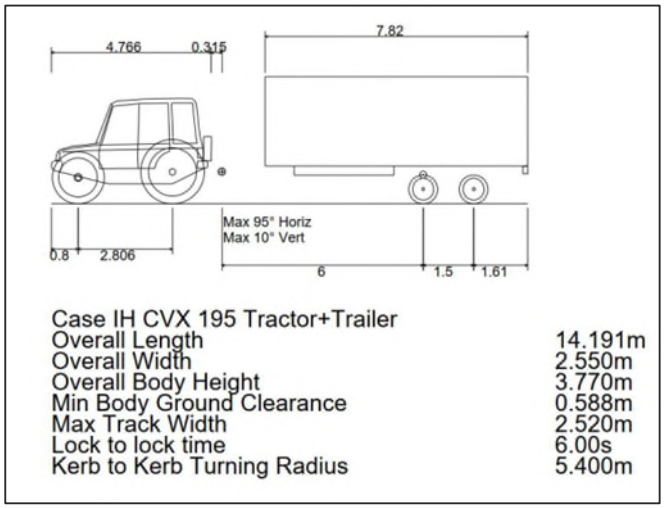


Figure 5: Details of the tractor + trailer vehicle assumed to complete the swept path analysis

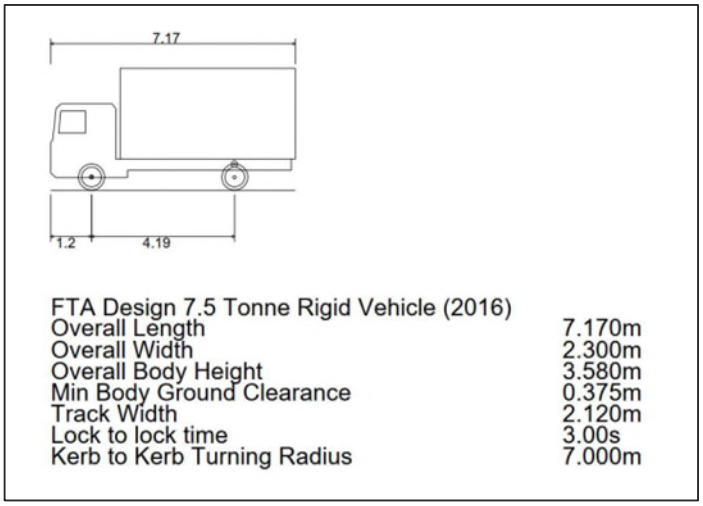


Figure 6: Details of the Rigid vehicle assumed to complete the swept path analysis

1.2.8 However, as it would not be possible to restrict the use of the Access Option (as the existing easement grants a right at all times and for all purposes) to these types of vehicles or enforce the prevention of larger vehicles using it throughout its lifetime, it would be necessary to design the Access Option so it could be used by any road legal vehicle. Accordingly, additional vehicle swept path analysis was carried out using the maximum legal length (UK) articulated vehicle. Figure 7 shows the details of the vehicle.

1.2.9 To further investigate the construction feasibility required to facilitate the maximum legal length (UK) articulated vehicle, an access was modelled based on this vehicle's swept

path, including the earthworks which would be required, shown in Annex C. Figure 8 shows the swept path of the maximum legal length (UK) articulated vehicle on the proposed Access Option. This vehicle cannot navigate around the CSEC within the boundaries of this Access Option. A wider access with more extensive earthworks would be required to allow for its use. Further detail on this is provided below.

1.2.10 The earthworks extend past the A64 boundary fence, onto the highway embankment, encroaching onto National Highways' operational land. In addition, the required earthworks for the access overlap with the area required for the CSEC earthworks and the existing telecoms compound. Figure 8 highlights the extensive works that would be necessary to construct an access suitable for the maximum legal length (UK) vehicle.

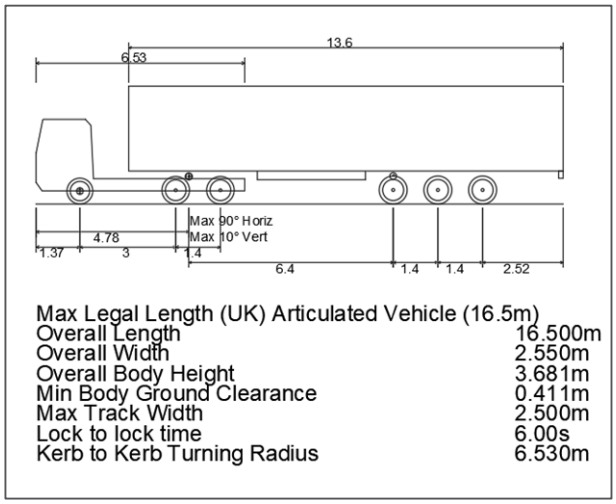


Figure 7: Details of the Max Legal Length (UK) assumed to complete swept path analysis

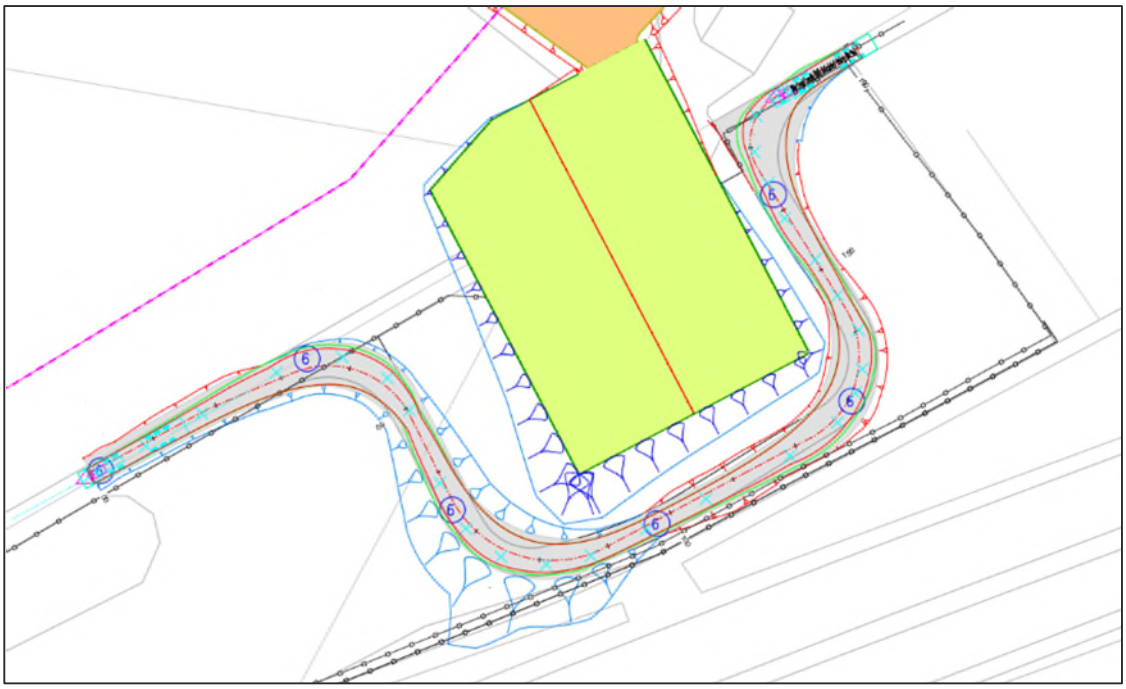


Figure 8: Earthworks required for Maximum Legal Length vehicle

1.2.11 There is an existing alternative northern access into the landholding for which the southern access would be severed. Figure 9 shows the proposed CSEC, the severed private right of way and the northern access to the landholding.

Figure 9: Northern Access Location

1.2.12 As part of the Project the existing northern access bellmouth would be upgraded, see Figure 10. The upgraded bellmouth is proposed to have 15m radii connecting to the A659 and the road widened to 7m for permanent access. Refer to **Document 5.3.3F ES Chapter 3 Appendix 3F - Construction Traffic Management Plan Annex 3F.A.4, Examination Library Reference [APP-099]** for further details on the proposed access bellmouth in this location.

Figure 10: Upgraded Northern Access Bellmouth

1.3 Key Issues

1.3.1 The Access Option that can accommodate all vehicles is not technically feasible as it encroaches substantially into the highway embankment and onto National Highways' operational land, and into the compound for the telecoms mast, as shown in figure 8 and Annex C.

1.3.2 As it is not feasible to provide an Access Option that has no restrictions for traffic, this section identifies the main issues and risks associated with the Access Option if it were designed to accommodate a tractor and trailer, and 7.5T rigid vehicle only. However, as explained above, it is considered that an Access Option to accommodate a tractor and trailer, and 7.5T rigid vehicle only would not be deliverable as it would not be possible to restrict the use of the Access Option to these vehicle types or enforce the prevention of larger vehicles using it throughout its lifetime and this would not meet the requirements of the existing easement which grants a right at all times and for all purposes. An access which would accommodate larger vehicles, as shown in Figure 8, presents similar issues and risks as those identified below, albeit on a larger scale.

Gas main

1.3.3 An existing Northern Gas Networks (NGN) medium pressure gas main runs northeast to southwest through the CSEC platform and the Access Option. Figure 11 shows the existing gas main.

Figure 11: Existing Gas Main Interaction

1.3.4 A gas main diversion has been proposed by the gas supplier, Northern Gas Networks Limited. Figure 12 shows how the proposed NGN gas main diversion would be affected by the proposed Access Option. The gas main diversion would run for approximately 21.96m under the Access Option. A 6m easement corridor has been specified by Northern Gas Networks, this is shown in Annex A. The easement corridor would affect the Access Option for approximately 57.15m.

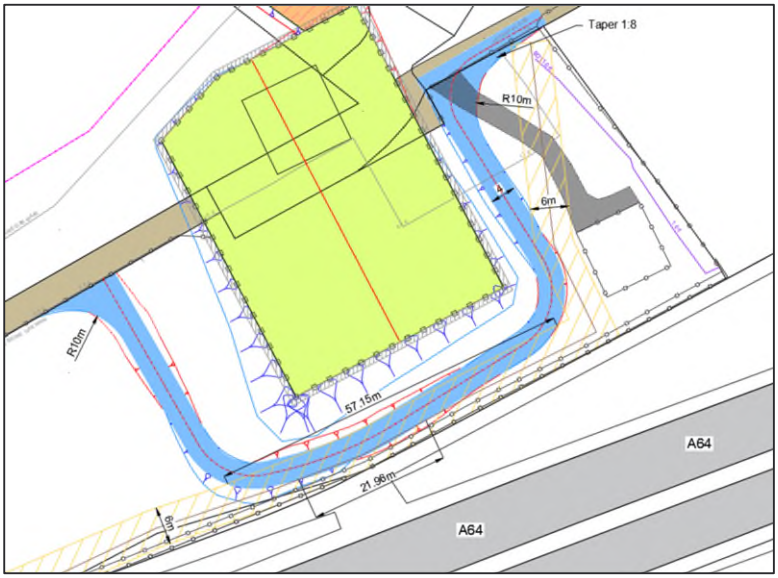


Figure 12: Gas main and Access Option

1.3.5 Northern Gas Networks Limited have stated the depth of the existing gas main is at 1.2m. Figure 13 shows a section through the Access Option and NGN gas main diversion south of the CSEC. The gas diversion is to be installed at 1.2m below the existing ground, as stipulated by Northern Gas Networks Limited. If the diverted access was included, with the anticipated earthworks associated with this, the gas main would be at a depth of 0.87m below the road formation level. This is significantly less than the required depth set by NGN and mitigation measures, if available, would need to be put in place for this to be acceptable. For example, encasement of the diverted gas pipe in reinforced concrete may be required. This would be subject to NGN approval as it would reduce, for example, accessibility to the gas pipe for maintenance purposes.

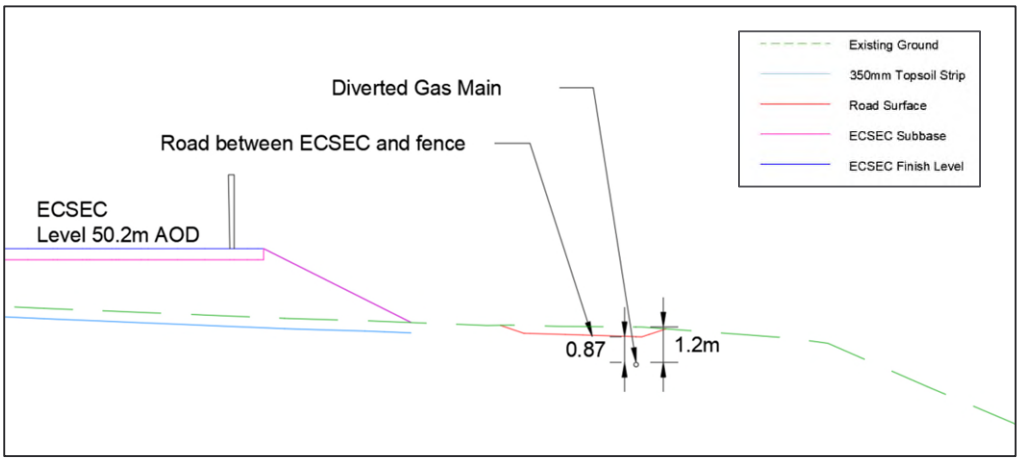


Figure 13: Gas main under the Access Option

Telecoms mast

1.3.6 A telecoms mast and associated access track have recently been constructed to the southeast of the proposed Tadcaster East CSEC platform. The gate used to enter the telecoms access road is located approximately 4.25m from the proposed CSEC fence and would affect the potential width of the Access Option. Figure 14 shows the gate, the CSEC and the dimension between the two. The CSEC also has a 1m stone path around

the perimeter. Due to this interaction, the telecoms access road and the Access Option would have to be shared to fit within the site constraints. This would need to be discussed with the telecoms asset owner and their approval would need to first be obtained.

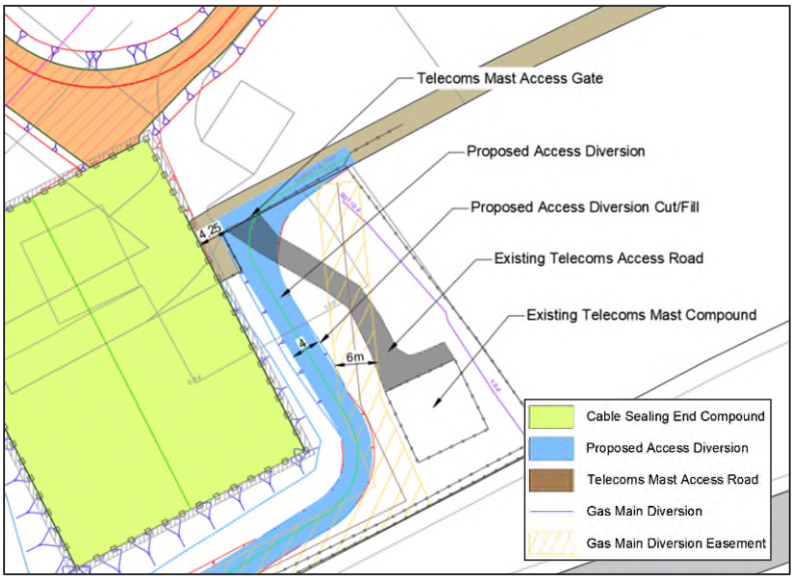


Figure 14: Telecommunications access Road Gate

Sloping topography of existing site

1.3.7 To maintain an adequate alignment slope, the Access Option requires cut and fill earthworks. As the earthworks required for the Access Option give an overall net cut, the excess cut volumes would need to be stored or taken off site. To store the spoil on site would mean obtaining a suitable location to do so. Removing the spoil from site would result in increased vehicle movements and any contaminated soil would have to be dealt with appropriately.

1.3.8 The cut/ fill areas would also extend over the gas main diversion, meaning agreements would need to be sought with NGN. Due to the constrained site and the close proximity of the gas main, there are limited options to mitigate the potential risk of striking the gas main during construction.

Proximity of A64 road and highways embankment

1.3.9 The area south of the CSEC is constrained by the highways boundary fence line, south of the required earthworks of the CSEC platform and the Access Option. This fence line demarcates the boundary to the embankment of the existing A64.

1.3.10 Due to the existing topography, sloping towards the highway embankment, any diversion will also slope in this direction. This results in the Access Option being in close proximity to the highway embankment, raising issues with the operational safety of the proposal. These risks are outlined below:

- The Access Option requires vehicles to travel downhill, towards the A64 embankment, and turn just before the fence line. There is no existing barrier in place to stop a vehicle moving if unable to turn or stop adequately in time, risking the vehicle falling down the embankment and onto the A64;

- The wheel loading on the Access Option will apply additional surcharge to the top of the highways embankment. The stability of the highways embankment slope would need to be confirmed with National Highways due to this;
- The Access Option may also have an impact on surface water runoff to the A64; potentially diverting any runoff along its alignment and down the highway embankment; and
- As noted above, the earthworks required for the option for any road legal vehicle would extend past the A64 boundary fence, onto the highway embankment, encroaching onto National Highways' operational land (see Figure 9 above and Annex C).

1.3.11 Figure 15 shows the highways boundary fence to the south of the Access Option and the required earthworks embankments within the corridor (to accommodate a tractor and trailer, and 7.5T rigid vehicle only).

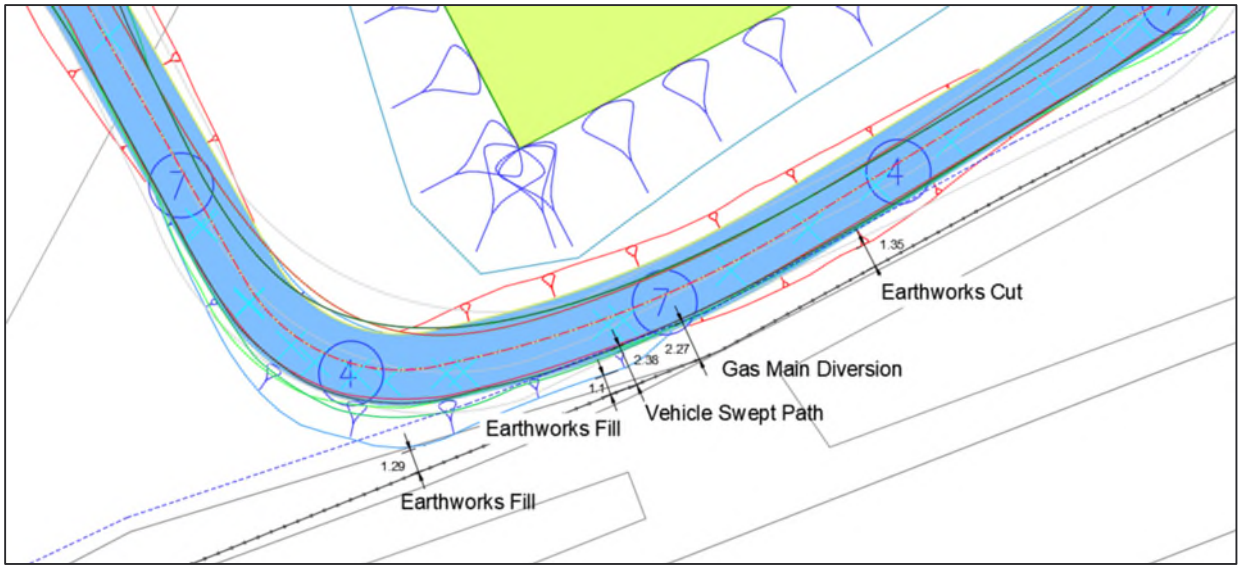


Figure 15: Highways Boundary Fence

1.4 Conclusion

1.4.1 In conclusion, it is not technically feasible to provide the Access Option that can accommodate all vehicles as it encroaches substantially into the highway embankment and onto National Highways operational land, and the Telecoms compound. National Grid consider it would also not be possible to restrict the use of the Access Option to accommodate a tractor and trailer, and 7.5T rigid vehicle only as the existing easement grants a right at all times and for all purposes and it would not be possible to restrict the use of the Access Option to these vehicle types or enforce the prevention of larger vehicles using it throughout its lifetime.

1.4.2 In addition to this, there are multiple constraints on site that add to the complexity of providing the Access Option for agricultural and rigid 7.5t vehicles such that it is not considered feasible or proportionate.

1.4.3 A summary of the constraints in respect of the Access Option for agricultural and rigid 7.5t vehicles only is shown in Table 2.1. A summary is not provided for the larger vehicles as it is not considered technically feasible to provide for such an access.

Table 1.1– Summary of Constraints for Access Option (tractor and trailer and 7.5T rigid vehicle only)

Constraint	Description
Potential encroachment on highways land	The highways boundary fence for the A64 would be in close proximity to the proposed Access Option. The Access Option would direct vehicles towards the embankment of a busy A road. This gives rise to safety concerns over the proposal, with potential heavy vehicles driving downhill, towards a busy section of the Strategic Road Network. (As noted above, the earthworks required for the option for any road legal vehicle would extend past the A64 boundary fence, onto the highway embankment, encroaching onto National Highways' operational land, see Figure 8 and Annex C).
Gas Main Diversion	The proposed Access Option would affect the proposed NGN gas main diversion, giving rise to concerns over safety during construction and operation. The Access Option would need prior agreement from NGN.
Telecoms Mast	The proposed Access Option would affect the existing telecoms mast compound access road. This would require prior approval from the mast asset owner and an agreement over the use of the access. (The access for all vehicles would encroach into the Telecoms compound).
Sloping topography of existing site	The topography of the site would cause excess spoil. This would lead to an increase in spoil volume for disposal and an increase in vehicle movements associated with the Project.
Surface water runoff onto highway embankment	Surface water drainage of the catchment area may be diverted along the alignment of the proposed Access Option, potentially causing excess surface water runoff down the highway slope and onto the A64. A complex drainage design may be required to ensure the feasibility of the Access Option, and National Highways would need to be satisfied this could be achieved without adverse effects on the A64.

1.4.4 The constraints outlined above explain why a diversion for the existing right of access has not been proposed as part of the Application. The works and risks associated with the Access Option are disproportionate to the benefits it would provide. This is particularly the case given there is an alternative access to the required area, already existing in the northern field, with access off the A659. This access is also proposed to be upgraded as part of the Project, acting as a permanent access to the western CSEC in the area, which would also be suitable for field access to the west of the eastern CSEC.

Annex A

Existing access track

Taper 1:8

Existing fencing and gate to be modified to suit the new road arrangement

Note: The proposed access option must accommodate the existing Telecom's mast access road

The proposed access option clashes with the existing Telecom's mast access road

Existing Telecoms mast compound

ECSEC
AREA 1850m²
49.949m AOD

Existing access track

HIGH PRESSURE GAS MAIN

MEDIUM PRESSURE GAS MAIN

Highways embankment
Steep Slope. Hazard for nearby vehicles

6m

6m

A64

A64

A64

A64

A64

A64

A64

Plan View
Scale 1:250

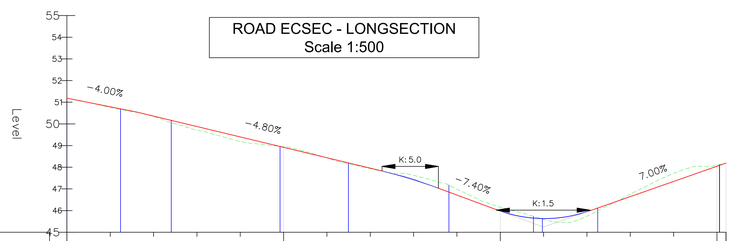
7.17

1.2 4.19

FTA Design 7.5 Tonne Rigid Vehicle (2016)

Overall Length	7.170m
Overall Width	2.300m
Overall Body Height	3.580m
Min Body Ground Clearance	0.375m
Track Width	2.120m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	7.000m

ROAD ECSEC - LONGSECTION
Scale 1:500



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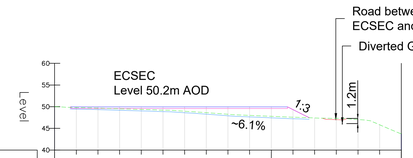
Proposed Levels	0.00	50.79	50.36	49.88	49.40	50.00	48.44	47.96	47.42	46.71	100.00	45.63	45.95	46.65	47.35	150.00	152.00
Level Difference	0.000	0.027	0.018	0.163	0.217	-0.028	0.002	0.019	-0.202	-0.276	-0.182	0.037	0.208	-0.108	-0.365	-0.049	0.000

SECTION A - LONGSECTION
Scale 1:500



Chainage	00	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Existing Levels	50.03	49.81	49.67	49.52	49.37	49.20	48.95	48.62	48.25	47.98	47.77	47.57	47.40	47.31	47.04	45.82	43.81
Proposed Levels		49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	50.00	49.32		45.97			
Formation Levels		49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.32					

Notes

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6. Telecoms and exiting gas main locations shown using Utility Trace Survey, refer to drawing 06_210116_229.

Key to symbols

- Proposed Access Option
- Proposed Station
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- Gas Main Diversion
- Gas Main Diversion Easement
- 1.0 d HV Electricity Utility
- Existing Fencing
- Existing Gate

Longsections

- Existing Ground
- 350mm Topsoil Strip
- Road Surface
- ECSEC Subbase
- ECSEC Finish Level

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02	27/01/2023	OJ	SECOND ISSUE FOR TOPIC PAPER USE	PM	JW
01	20/05/2022	PS	FIRST ISSUE	PM	PM

Client

nationalgrid

Master Scheme No:	Sub-Scheme No:	Site:
33754	TBC	TEE-OFF TADCASTER

Scheme Name: YORKSHIRE GREEN

Document Title:

TADCASTER ECSEC ACCESS ROAD BETWEEN COMPOUND AND FENCE LINE SHEET 1 OF 3

Created by:	Date:	Checked by:	Date:	Approved by:	Date:
P.Skirzewska	20/06/2023	O.Jeffcock	20/06/2023	P.McLoughlin	20/06/2023

Development Eng:	Document Type:	Scale:	Format:	Sheet(s)	Rev:
S.Fowler	SKETCH	AS	A0	1 OF 3	05

National Grid Document Number: –

FEED Document Number: 100102545-MMD-09-XX-SK-C-0001-01

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Annex B

Existing access track

Taper 1:8

Existing fencing and gate to be modified to suit the new road arrangement

Note: The proposed access option must accommodate the existing Telecom's mast access road

The proposed access option clashes with the existing Telecom's mast access road

Existing Telecoms mast compound

ECSEC
AREA 1850m²
49.949m AOD

Existing access track

HIGH PRESSURE GAS MAIN

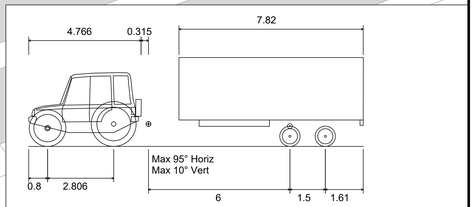
Highways embankment
Steep Slope. Hazard for nearby vehicles

6m

6m

A64

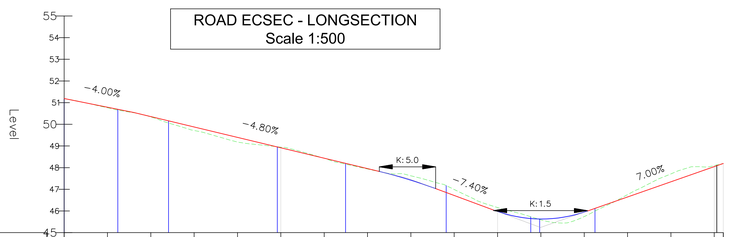
Plan View
Scale 1:250



Case IH CVX 195 Tractor+Trailer

Overall Length	14.191m
Overall Width	2.550m
Overall Body Height	3.770m
Min Body Ground Clearance	0.588m
Max Track Width	2.520m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	5.400m

ROAD ECSEC - LONGSECTION
Scale 1:500



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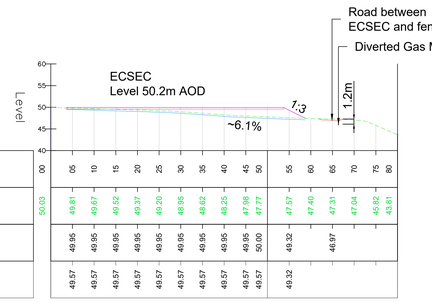
Existing Levels	51.19	50.76	50.34	49.71	49.18	48.94	48.43	47.94	47.62	46.89	46.16	45.59	45.74	46.75	47.71	48.09	48.19
Proposed Levels	0.00	50.79	50.36	49.88	49.40	50.00	48.44	47.96	47.42	46.71	100.00	45.63	45.95	46.65	47.35	150.00	152.19
Level Difference	0.000	0.027	0.018	0.163	0.217	-0.058	0.002	0.019	-0.202	-0.276	-0.182	0.037	0.208	-0.108	-0.365	-0.049	0.000

SECTION A - LONGSECTION
Scale 1:500



Chainage	00	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Existing Levels	50.03	49.81	49.67	49.52	49.37	49.20	48.95	48.82	48.25	47.98	47.77	47.57	47.40	47.31	47.04	45.82	43.61
Proposed Levels		49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	50.00	49.32		46.97			
Formation Levels		49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.32					

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6. Telecoms and exiting gas main locations shown using Utility Trace Survey, refer to drawing 06_210116_229.
7. Although not shown on the alignment, the inner radius of the bend will require additional civil works and road surfacing to ensure feasibility and reduce risk of clash with CSEC earthworks embankments. As this is on the northern side, it is less constrained than the southern side of the road, however additional works are still necessary to ensure feasibility of the road to accommodate a tractor trailer vehicle.

Key to symbols

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- A64 Road
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- Earthworks - Fill
- CSEC Stone Path
- Existing Gas Pipeline (High Pressure)
- Exsiting Gas Main
- Gas Main Diversion
- Gas Main Diversion Easement
- HV Electricity Utility
- Existing Fencing
- Existing Gate

Longsections

- Existing Ground
- 350mm Topsoil Strip
- Road Surface
- ECSEC Subbase
- ECSEC Finish Level

Reference drawings

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01	27/01/2023	OJ	FIRST ISSUE	PM	JW

Client

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Master Scheme No:	Sub-Scheme No:	Site:
33754	TBC	TEE-OFF TADCASTER

Scheme Name: YORKSHIRE GREEN

Document Title:

TADCASTER ECSEC ACCESS ROAD BETWEEN COMPOUND AND FENCE LINE SHEET 2 OF 3

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Development Eng:	Document Type:	Scale:	Format:	Sheet(s):	Rev:
S.Fowler	SKETCH	AS	A0	2 OF 3	03

National Grid Document Number: –

FEED Document Number: 100102545-MMD-09-XX-SK-C-0001-02

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Annex C

Existing access track

ECSEC
AREA 1850m²
49.949m AOD

Existing fencing and gate to be modified
to suit the new road arrangement

Note: The proposed access option must accommodate the existing Telecom's mast access road

The proposed access option clashes with the existing Telecom's mast access road

Existing Telecoms mast compound

Existing access track

The required earthworks extend beyond the A64 boundary fence, onto the highway embankment

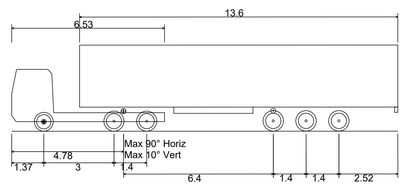
Highways embankment
Steep Slope. Hazard for nearby vehicles

6m

HIGH PRESSURE GAS MAIN

A64

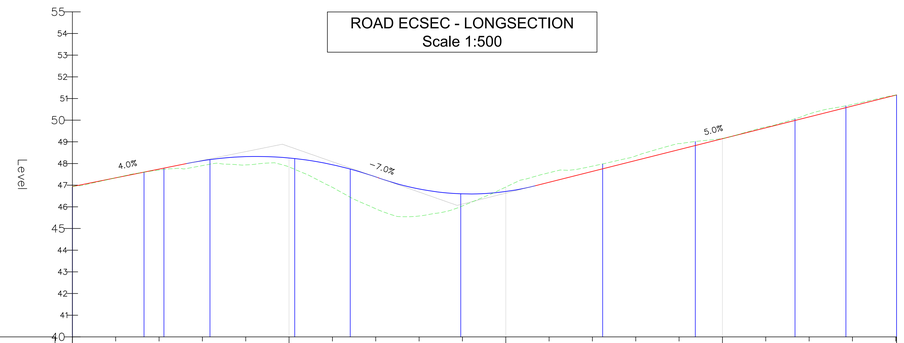
Plan View
Scale 1:250



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

ROAD ECSEC - LONGSECTION
Scale 1:500



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Existing Levels	46.94	47.34	47.70	47.90	47.93	47.84	46.90	45.91	45.58	46.04	46.91	47.57	47.88	48.35	49.02	49.16	49.69	50.29	50.72	51.17 / 51.16
Proposed Levels	0.00	47.34	47.74	48.13	48.32	50.00	47.94	47.38	46.82	46.60	100.00	47.13	47.64	48.14	48.64	150.00	49.65	50.15	50.65	190.18 / 51.16
Level Difference	0.000	-0.001	0.042	0.225	0.383	0.415	1.041	1.470	1.248	0.560	-0.204	-0.440	-0.242	-0.209	-0.277	-0.012	-0.037	-0.139	-0.070	0.000 / 0.003

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Client

nationalgrid

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Scheme Name: YORKSHIRE GREEN

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TADCASTER ECSEC ACCESS ROAD BETWEEN COMPOUND AND FENCE LINE SHEET 3 OF 3

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P.Skirzewska	20/06/2023	O.Jeffcock	20/06/2023	P.McLoughlin	20/06/2023

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National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152

YG-DCO-101-I(B)

Yorkshire Green Energy Enablement (GREEN) Project

Volume 8

Document 8.9.2-I(B) Appendix I Part 2 – Technical Note – Tadcaster East Cable Sealing End Compound Access

Final Issue AB
AprilJune 2023

Planning Inspectorate Reference: EN020024

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

Contents

Yorkshire Green Energy Enablement (GREEN) Yorkshire Green Energy Enablement (GREEN) Project Document control

Version History			
Date	**Version**	**Status**	**Description / Changes**
26/04/2023	A	Final	First Issue
21/06/2023	B	Final	Second Issue – Proposed Access Option Alignment Update

Executive summary

Purpose of this Technical Note

This Technical Note, Tadcaster East Cable Sealing End Compound Access Option, has been prepared to explain further why a diversion to the existing private right of access at the proposed Tadcaster East Cable Sealing End Compound (CSEC) has not been proposed as part of the Application and the constraints relating to the option to divert that right of access. The **Technical Note Tadcaster East Cable Sealing End Compound Design** (both technical notes are located in **Appendix I** to the **Applicant's Response to Examining Authority's First Written Questions (ExQ1) Appendices (Document 8.9.2)**) provides further detail on the rationale and evolution of the design of the Tadcaster East CSEC including the constraints to the design, which explains why the private right of access is not possible to be retained in its current location. The two technical notes taken together provide further detail on why it has been necessary to seek the extinguishment of an existing private access on land at the proposed Tadcaster East CSEC.

The Tadcaster East CSEC is approximately 3km southwest of the market town of Tadcaster in North Yorkshire and forms part of the Yorkshire Green Energy Enablement (GREEN) Project (referred to as Yorkshire GREEN or the Project) to strengthen the existing network in the north and northeast of England. The site is located at approximate latitude 53.8694, longitude 1.2971 and GPS coordinates 53° 52' 10,1064'' North, 1° 17'50.1'' West. The site location is shown in Figure 1.

The swept paths and proposed access option shown throughout the technical note and within the appendices have been updated to connect to the existing right of way. This update does not change the findings and conclusion of this technical note.

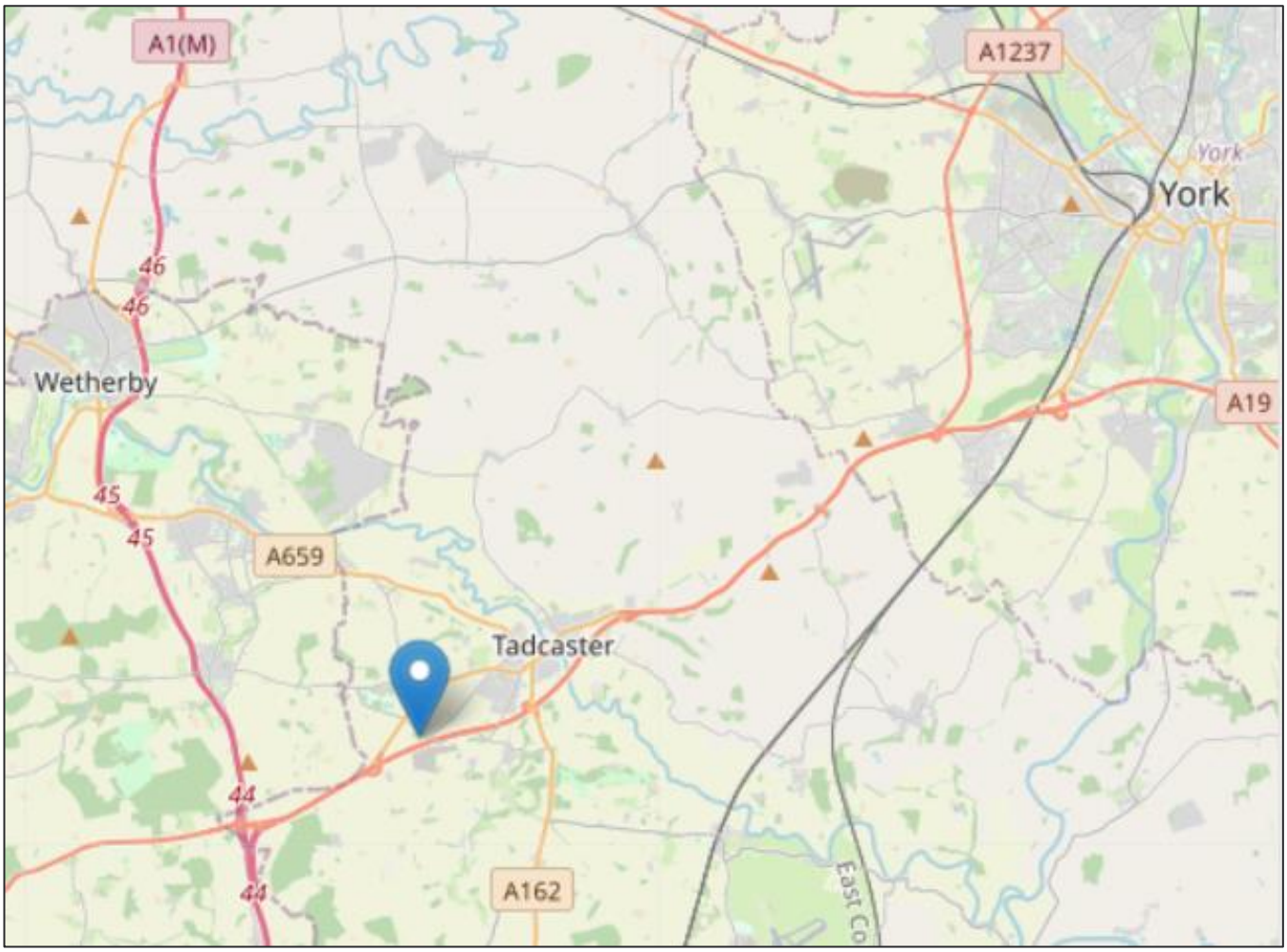


Figure 1: Site Location

Key Constraints

As part of the design, a potential diversion of the existing private access, to go around the new proposed CSEC, was reviewed. The items discussed within this Technical Note include the key constraints on site that affect the safety and constructability of this diversion to the right of access. The constraints include the following:

- National Gas Networks medium pressure gas main diversion;
- New telecoms mast and access road;
- A64 embankment and National Highways boundary to the south of the site;
- The cut/ fill of the proposed access diversion and the risk of encroachment on National Highways' land;
- Sloping existing ground, requiring civil works for the new embankment south of the CSEC, constraining the corridor between the CSEC and highway; and
- Proximity of a sloping road to the A64 embankment

Constraints Summary

The site is constrained by multiple issues affecting several asset owners and adding to the cost and complexity of providing an alternative access route. National Grid have investigated the possibility of an access option around the proposed CSEC. The proposed solution would be technically difficult to construct and would bring about safety concerns in both the construction and operation of the diversion of the access road, such that it is not considered feasible or proportionate to provide. In addition, there is currently an existing access to the site off the A659, which is considered to be a suitable alternative.

1. Tadcaster East CSEC Access

1.1 Purpose of Technical Note

1.1.1 This Technical Note has been prepared to explain further why a diversion to the existing private right of access at the proposed Tadcaster East Cable Sealing End Compound (CSEC) has not been proposed as part of the Application and the constraints relating to the option to divert that right of access. The **Technical Note Tadcaster East CSEC Design** (both technical notes are located in **Appendix I** to **Applicant's Response to Examining Authority's First Written Questions (ExQ1) Appendices (Document 8.9.2)**) provides further detail on the rationale and evolution of the design of the Tadcaster East CSEC including the constraints to the design, which explains why the private right of access is not possible to be retained in its current location. The two technical notes taken together provide further detail on why it has been necessary to seek the extinguishment of an existing private access on land at the proposed Tadcaster East CSEC.

1.2 Introduction

1.2.1 The Tadcaster East CSEC is located at an existing National Grid Overhead Line (OHL) pylon XC481. This location is fixed due to the connection point of the electrical circuit. Refer to **Technical Note Tadcaster East Cable Sealing End Compound Design** (located in **Appendix I** to the **Applicant's Response to Examining Authority's First Written Questions (ExQ1) Appendices (Document 8.9.2)**), for further information on the selection of pylon XC481 and the orientation of the CSEC.

1.2.2 The base level of the pylon legs has also governed the finished site level of the new CSEC platform, which is required to be a level surface for operation. This, in combination with the existing site sloping towards the highway embankment, would require earthwork embankments to achieve the required level.

1.2.3 Due to the proposed installation of the Tadcaster East CSEC, an existing private right of access will be permanently severed and is proposed to be extinguished. A further assessment of the option to divert the access south around the new Tadcaster East CSEC, to reconnect the severed access, has been undertaken and the conclusions of this are presented below. Figure 2 shows the CSEC and the severed private right of access.

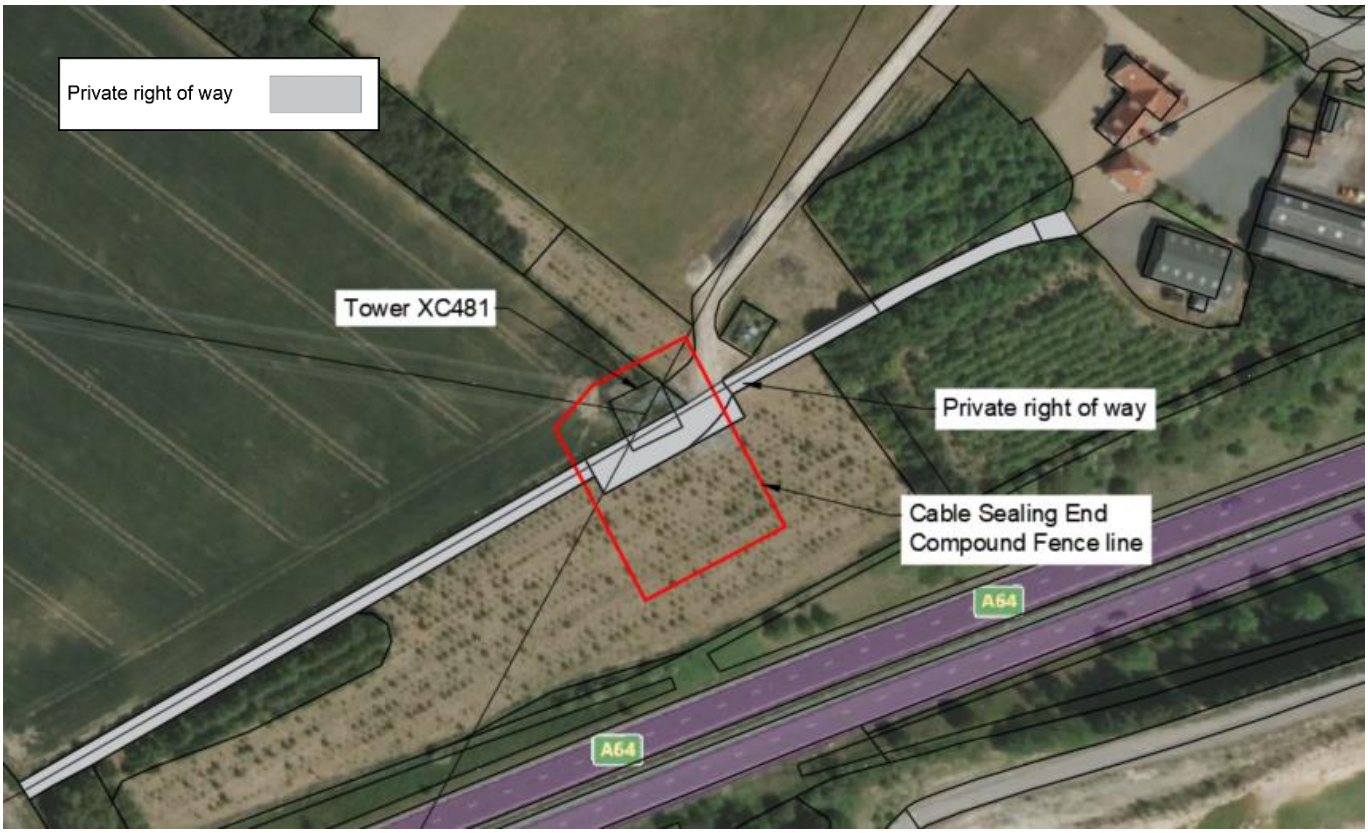


Figure 2: CSEC Location

1.2.4 The option to divert the private right of access to the south of the CSEC (the 'Access Option') requires a diversion of approximately 160m in length. This would diverge south of the existing third-party access track, just prior to the new Tadcaster East CSEC location. The diversion would continue around the CSEC at an alignment parallel to its fence line. The diversion would reconnect to the existing third-party access on the west side of the new proposed CSEC.

1.2.5 The Access Option is shown in blue in Figure 3. The Cut/Fill profile is shown in Annex A of this technical note. The road starts at a level of 50.19m and slopes down to around 45.63m after 110m. The average level difference between the existing ground and Access Option level is -0.017m. After 110m the road slopes upwards with an average level difference of -0.063m between existing ground and Access Option level.

Figure 3: Access Option Layout

1.2.6 Figure 4 shows the vertical profile of the Access Option and the existing ground profile along the length of the road alignment. Refer to Annex A for the alignment. The Access Option has gradients of 3.4%, 2.96% and 5% between approximate chainage 0m and 115m. Between chainage 115m and 160m, the Access Option has its maximum gradient of 6.7%.

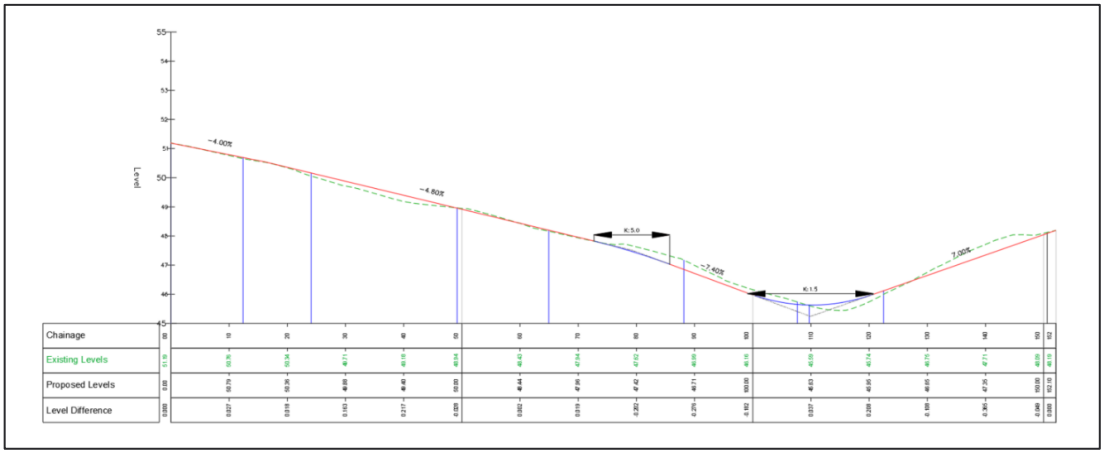


Figure 4: Access Option Vertical Profile

1.2.7 National Grid anticipates that the access would primarily be used for agricultural use (although it is noted that the existing easement grants a right at all times and for all purposes, see further detail below), and therefore a swept path analysis of a tractor

trailer has been conducted. In addition, swept path analysis was conducted for a 7.5T rigid vehicle, which could potentially be used for small equipment or material deliveries. Both vehicles used for the proposed alignment swept path modelling are shown in Figure 5 and Figure 6. A drawing depicting the swept path alignment for the 7.5 tonne rigid vehicle is shown in Annex A. A drawing depicting the swept path alignments for the tractor and trailer is shown in Annex B. This shows that the Access Option would potentially be feasible for these types of vehicles, subject to constraints.

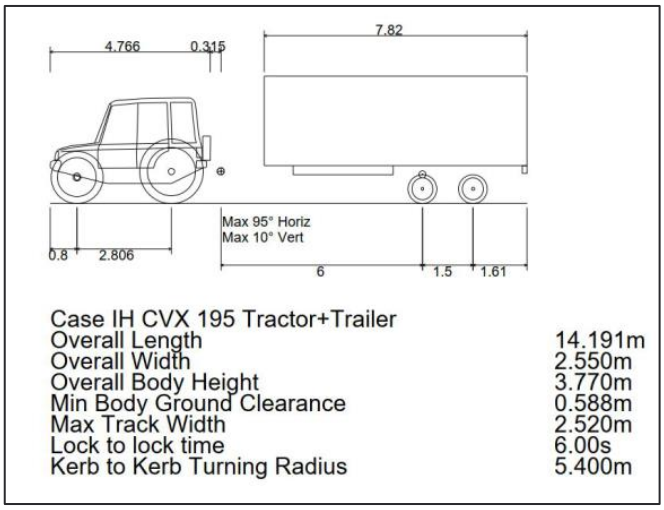


Figure 5: Details of the tractor + trailer vehicle assumed to complete the swept path analysis

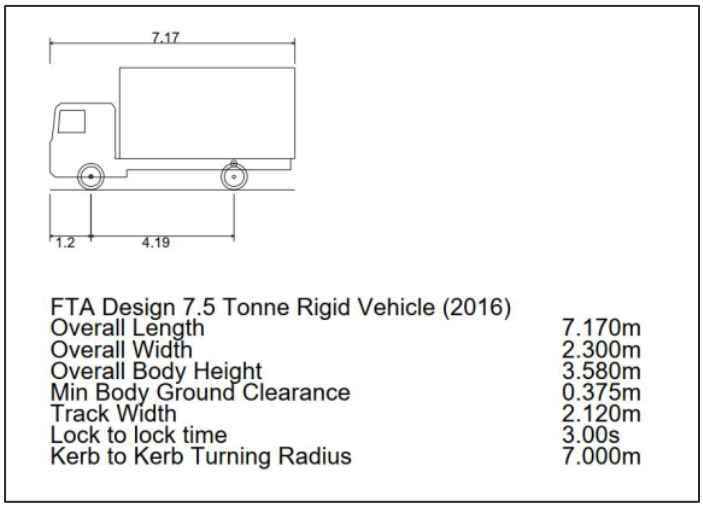


Figure 6: Details of the Rigid vehicle assumed to complete the swept path analysis

1.2.8 However, as it would not be possible to restrict the use of the Access Option (as the existing easement grants a right at all times and for all purposes) to these types of vehicles or enforce the prevention of larger vehicles using it throughout its lifetime, it would be necessary to design the Access Option so it could be used by any road legal vehicle. Accordingly, additional vehicle swept path analysis was carried out using the maximum legal length (UK) articulated vehicle. Figure 7 shows the details of the vehicle.

1.2.9 To further investigate the construction feasibility required to facilitate the maximum legal length (UK) articulated vehicle, an access was modelled based on this vehicle's swept

path, including the earthworks which would be required, shown in Annex C. Figure 8 shows the swept path of the maximum legal length (UK) articulated vehicle on the proposed Access Option. This vehicle cannot navigate around the CSEC within the boundaries of this Access Option. A wider access with more extensive earthworks would be required to allow for its use. Further detail on this is provided below.

1.2.10 The earthworks extend past the A64 boundary fence, onto the highway embankment, encroaching onto National Highways' operational land. In addition, the required earthworks for the access overlap with the area required for the CSEC earthworks and the existing telecoms compound. Figure 8 highlights the extensive works that would be necessary to construct an access suitable for the maximum legal length (UK) vehicle.

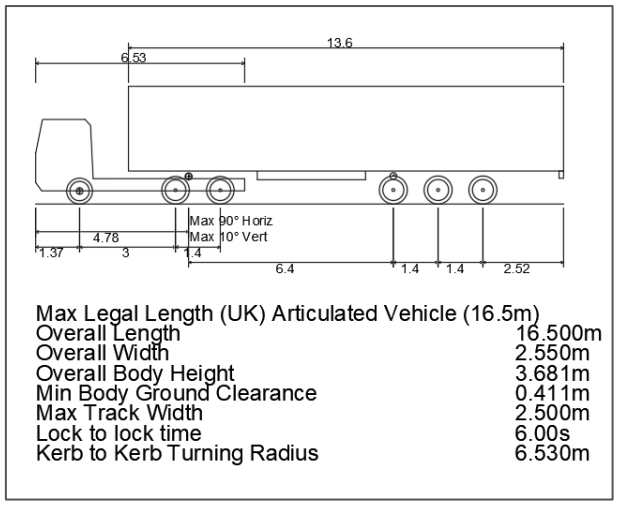


Figure 7: Details of the Max Legal Length (UK) assumed to complete swept path analysis

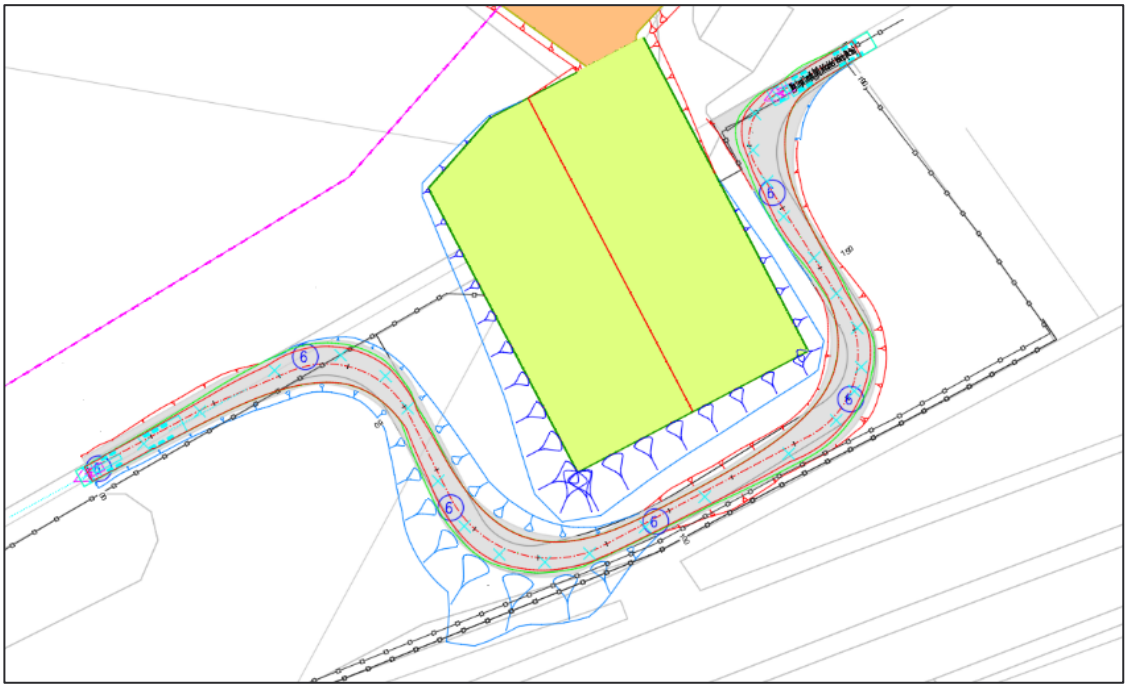


Figure 8: Earthworks required for Maximum Legal Length vehicle

1.2.11 There is an existing alternative northern access into the landholding for which the southern access would be severed. Figure 9 shows the proposed CSEC, the severed private right of way and the northern access to the landholding.

Figure 9: Northern Access Location

1.2.12 As part of the Project the existing northern access bellmouth would be upgraded, see Figure 10. The upgraded bellmouth is proposed to have 15m radii connecting to the A659 and the road widened to 7m for permanent access. Refer to **Document 5.3.3F ES Chapter 3 Appendix 3F - Construction Traffic Management Plan Annex 3F.A.4, Examination Library Reference [APP-099]** for further details on the proposed access bellmouth in this location.

Figure 10: Upgraded Northern Access Bellmouth

1.3 Key Issues

1.3.1 The Access Option that can accommodate all vehicles is not technically feasible as it encroaches substantially into the highway embankment and onto National Highways' operational land, and into the compound for the telecoms mast, as shown in figure 8 and Annex C.

1.3.2 As it is not feasible to provide an Access Option that has no restrictions for traffic, this section identifies the main issues and risks associated with the Access Option if it were designed to accommodate a tractor and trailer, and 7.5T rigid vehicle only. However, as explained above, it is considered that an Access Option to accommodate a tractor and trailer, and 7.5T rigid vehicle only would not be deliverable as it would not be possible to restrict the use of the Access Option to these vehicle types or enforce the prevention of larger vehicles using it throughout its lifetime and this would not meet the requirements of the existing easement which grants a right at all times and for all purposes. An access which would accommodate larger vehicles, as shown in Figure 8, presents similar issues and risks as those identified below, albeit on a larger scale.

Gas main

1.3.3 An existing Northern Gas Networks (NGN) medium pressure gas main runs northeast to southwest through the CSEC platform and the Access Option. Figure 11 shows the existing gas main.

Figure 11: Existing Gas Main Interaction

1.3.4 A gas main diversion has been proposed by the gas supplier, Northern Gas Networks Limited. Figure 12 shows how the proposed NGN gas main diversion would be affected by the proposed Access Option. The gas main diversion would run for approximately 21.96m under the Access Option. A 6m easement corridor has been specified by Northern Gas Networks, this is shown in Annex A. The easement corridor would affect the Access Option for approximately 57.15m.

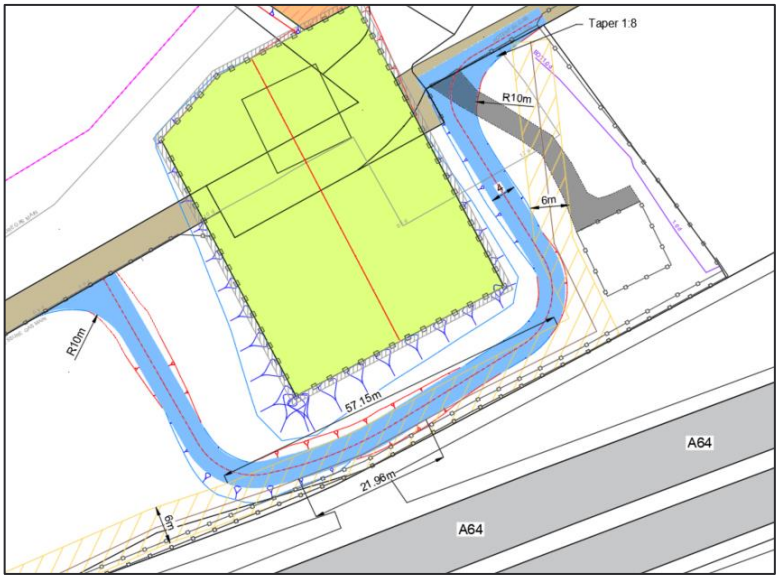


Figure 12: Gas main and Access Option

1.3.5 Northern Gas Networks Limited have stated the depth of the existing gas main is at 1.2m. Figure 13 shows a section through the Access Option and NGN gas main diversion south of the CSEC. The gas diversion is to be installed at 1.2m below the existing ground, as stipulated by Northern Gas Networks Limited. If the diverted access was included, with the anticipated earthworks associated with this, the gas main would be at a depth of 0.87m below the road formation level. This is significantly less than the required depth set by NGN and mitigation measures, if available, would need to be put in place for this to be acceptable. For example, encasement of the diverted gas pipe in reinforced concrete may be required. This would be subject to NGN approval as it would reduce, for example, accessibility to the gas pipe for maintenance purposes.

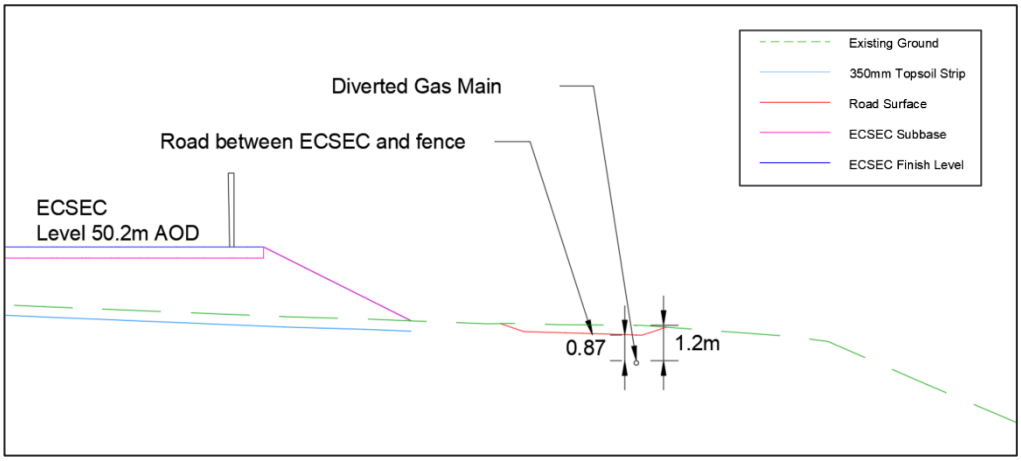


Figure 13: Gas main under the Access Option

Telecoms mast

1.3.6 A telecoms mast and associated access track have recently been constructed to the southeast of the proposed Tadcaster East CSEC platform. The gate used to enter the telecoms access road is located approximately 4.25m from the proposed CSEC fence and would affect the potential width of the Access Option. Figure 14 shows the gate, the CSEC and the dimension between the two. The CSEC also has a 1m stone path around

the perimeter. Due to this interaction, the telecoms access road and the Access Option would have to be shared to fit within the site constraints. This would need to be discussed with the telecoms asset owner and their approval would need to first be obtained.

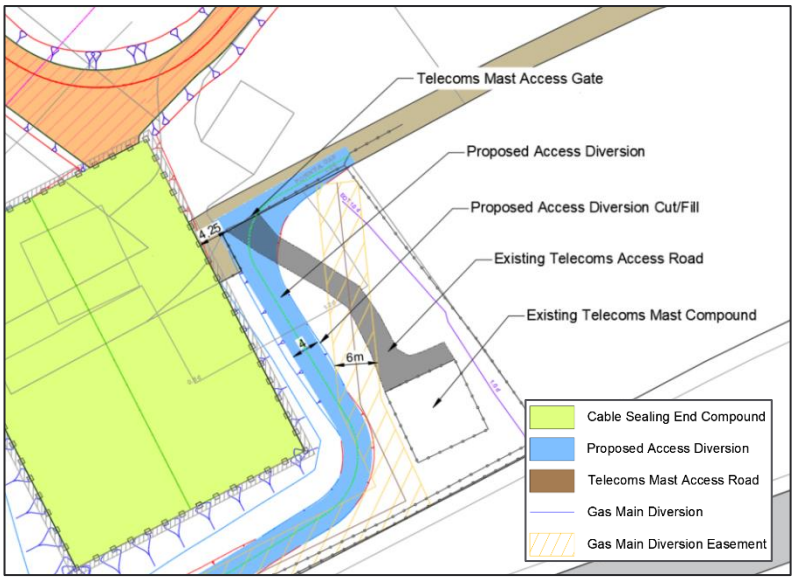


Figure 14: Telecommunications access Road Gate

Sloping topography of existing site

1.3.7 To maintain an adequate alignment slope, the Access Option requires cut and fill earthworks. As the earthworks required for the Access Option give an overall net cut, the excess cut volumes would need to be stored or taken off site. To store the spoil on site would mean obtaining a suitable location to do so. Removing the spoil from site would result in increased vehicle movements and any contaminated soil would have to be dealt with appropriately.

1.3.8 The cut/ fill areas would also extend over the gas main diversion, meaning agreements would need to be sought with NGN. Due to the constrained site and the close proximity of the gas main, there are limited options to mitigate the potential risk of striking the gas main during construction.

Proximity of A64 road and highways embankment

1.3.9 The area south of the CSEC is constrained by the highways boundary fence line, south of the required earthworks of the CSEC platform and the Access Option. This fence line demarcates the boundary to the embankment of the existing A64.

1.3.10 Due to the existing topography, sloping towards the highway embankment, any diversion will also slope in this direction. This results in the Access Option being in close proximity to the highway embankment, raising issues with the operational safety of the proposal. These risks are outlined below:

- The Access Option requires vehicles to travel downhill, towards the A64 embankment, and turn just before the fence line. There is no existing barrier in place to stop a vehicle moving if unable to turn or stop adequately in time, risking the vehicle falling down the embankment and onto the A64;

- The wheel loading on the Access Option will apply additional surcharge to the top of the highways embankment. The stability of the highways embankment slope would need to be confirmed with National Highways due to this;
- The Access Option may also have an impact on surface water runoff to the A64; potentially diverting any runoff along its alignment and down the highway embankment; and
- As noted above, the earthworks required for the option for any road legal vehicle would extend past the A64 boundary fence, onto the highway embankment, encroaching onto National Highways' operational land (see Figure 9 above and Annex C).

1.3.11 Figure 15 shows the highways boundary fence to the south of the Access Option and the required earthworks embankments within the corridor (to accommodate a tractor and trailer, and 7.5T rigid vehicle only).

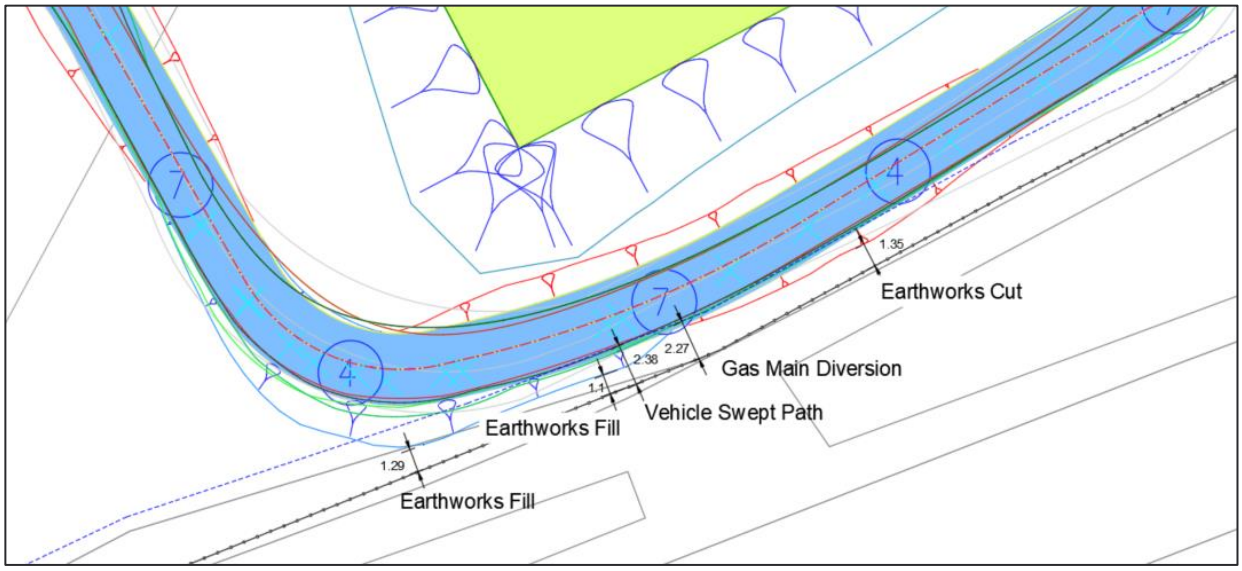


Figure 15: Highways Boundary Fence

1.4 Conclusion

1.4.1 In conclusion, it is not technically feasible to provide the Access Option that can accommodate all vehicles as it encroaches substantially into the highway embankment and onto National Highways operational land, and the Telecoms compound. National Grid consider it would also not be possible to restrict the use of the Access Option to accommodate a tractor and trailer, and 7.5T rigid vehicle only as the existing easement grants a right at all times and for all purposes and it would not be possible to restrict the use of the Access Option to these vehicle types or enforce the prevention of larger vehicles using it throughout its lifetime.

1.4.2 In addition to this, there are multiple constraints on site that add to the complexity of providing the Access Option for agricultural and rigid 7.5t vehicles such that it is not considered feasible or proportionate.

1.4.3 A summary of the constraints in respect of the Access Option for agricultural and rigid 7.5t vehicles only is shown in Table 2.1. A summary is not provided for the larger vehicles as it is not considered technically feasible to provide for such an access.

Table 1.1– Summary of Constraints for Access Option (tractor and trailer and 7.5T rigid vehicle only)

Constraint	Description
Potential encroachment on highways land	The highways boundary fence for the A64 would be in close proximity to the proposed Access Option. The Access Option would direct vehicles towards the embankment of a busy A road. This gives rise to safety concerns over the proposal, with potential heavy vehicles driving downhill, towards a busy section of the Strategic Road Network. (As noted above, the earthworks required for the option for any road legal vehicle would extend past the A64 boundary fence, onto the highway embankment, encroaching onto National Highways' operational land, see Figure 8 and Annex C).
Gas Main Diversion	The proposed Access Option would affect the proposed NGN gas main diversion, giving rise to concerns over safety during construction and operation. The Access Option would need prior agreement from NGN.
Telecoms Mast	The proposed Access Option would affect the existing telecoms mast compound access road. This would require prior approval from the mast asset owner and an agreement over the use of the access. (The access for all vehicles would encroach into the Telecoms compound).
Sloping topography of existing site	The topography of the site would cause excess spoil. This would lead to an increase in spoil volume for disposal and an increase in vehicle movements associated with the Project.
Surface water runoff onto highway embankment	Surface water drainage of the catchment area may be diverted along the alignment of the proposed Access Option, potentially causing excess surface water runoff down the highway slope and onto the A64. A complex drainage design may be required to ensure the feasibility of the Access Option, and National Highways would need to be satisfied this could be achieved without adverse effects on the A64.

1.4.4 The constraints outlined above explain why a diversion for the existing right of access has not been proposed as part of the Application. The works and risks associated with the Access Option are disproportionate to the benefits it would provide. This is particularly the case given there is an alternative access to the required area, already existing in the northern field, with access off the A659. This access is also proposed to be upgraded as part of the Project, acting as a permanent access to the western CSEC in the area, which would also be suitable for field access to the west of the eastern CSEC.

Annex A

Existing access track

Taper 1:8

Existing fencing and gate to be modified to suit the new road arrangement

Note: The proposed access option must accommodate the existing Telecom's mast access road

The proposed access option clashes with the existing Telecom's mast access road

Existing Telecoms mast compound

ECSEC
AREA 1850m²
49.949m AOD

Existing access track

HIGH PRESSURE GAS MAIN

MEDIUM PRESSURE GAS MAIN

Highways embankment
Steep Slope. Hazard for nearby vehicles

6m

6m

A64

A64

A64

A64

A64

A64

A64

Plan View
Scale 1:250

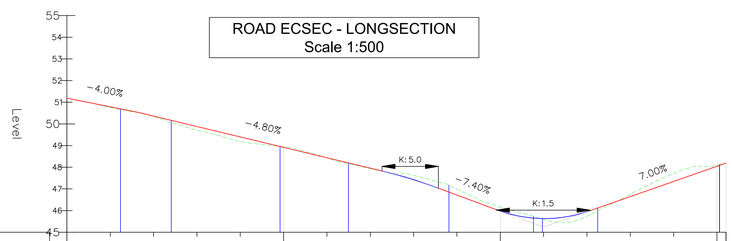
7.17

1.2 4.19

FTA Design 7.5 Tonne Rigid Vehicle (2016)

Overall Length	7.170m
Overall Width	2.300m
Overall Body Height	3.580m
Min Body Ground Clearance	0.375m
Track Width	2.120m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	7.000m

ROAD ECSEC - LONGSECTION
Scale 1:500



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Proposed Levels	0.00	50.79	50.36	49.88	49.40	50.00	48.44	47.96	47.42	46.71	100.00	45.63	45.95	46.65	47.35	150.00	152.00
Level Difference	0.000	0.027	0.018	0.163	0.217	-0.028	0.002	0.019	-0.202	-0.276	-0.182	0.037	0.208	-0.108	-0.365	-0.049	0.000

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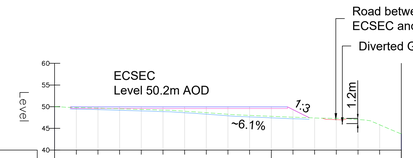

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Proposed Levels		49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	50.00	49.32		45.97			
Formation Levels		49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.57	49.32					

Notes

1. This drawing is for development purposes only and should not be used for construction.
2. All dimensions are in millimeters unless otherwise stated.
3. Do not scale any items or information from this drawing.
4. The site is located at OS Grid Reference 446050, 441680 (easting, northing).
5. Gas main diversion required due to clash with CSEC. Diversion provided by Northern Gas Networks, refer the drawing R2/001934. A 6m easement has been provided. Please note, the location of the diversion was provided in pdf format only, therefore, the exact georeferenced location cannot be confirmed at this point. The location shown on this sketch should be taken as indicative only.
6. Telecoms and exiting gas main locations shown using Utility Trace Survey, refer to drawing 06_210116_229.

Key to symbols

- Proposed Access Option
- Proposed Station
- Permanent Access Road
- Existing Telecoms Mast Access Road
- Proposed Access Option and Telecoms Mast Access Road Clash
- Highways Embankment
- A64 Road
- Earthworks - Cut
- Earthworks - Fill
- CSEC Stone Path
- Existing Gas Pipeline (High Pressure)
- Exsiting Gas Main
- Gas Main Diversion
- Gas Main Diversion Easement
- 1.0 d HV Electricity Utility
- Existing Fencing
- Existing Gate

Longsections

- Existing Ground
- 350mm Topsoil Strip
- Road Surface
- ECSEC Subbase
- ECSEC Finish Level

Reference drawings

1. 100102545-MMD-09-XX-DR-E-0168 - Overall Electrical Layout
2. 100102545-MMD-09-XX-DR-C-0131 - Overall Civill Layout
3. R2/001934 - Northern Gas Network Diversion

Rev	Date	Drawn	Description	Ch'k'd	App'd
05	20/06/2023	PS	UPDATED FOLLOWING CLIENT COMMENTS	OJ	PM
04	14/06/2023	PS	UPDATED FOLLOWING CLIENT COMMENTS	OJ	PM
03	01/02/2023	OJ	UPDATED FOLLOWING CLIENT COMMENTS	PM	JW
02	27/01/2023	OJ	SECOND ISSUE FOR TOPIC PAPER USE	PM	JW
01	20/05/2022	PS	FIRST ISSUE	PM	PM

Client

nationalgrid

Master Scheme No:	Sub-Scheme No:	Site:
33754	TBC	TEE-OFF TADCASTER

Scheme Name: YORKSHIRE GREEN

Document Title:

TADCASTER ECSEC ACCESS ROAD BETWEEN COMPOUND AND FENCE LINE SHEET 1 OF 3

Created by:	Date:	Checked by:	Date:	Approved by:	Date:
P.Skirzewska	20/06/2023	O.Jeffcock	20/06/2023	P.McLoughlin	20/06/2023

Development Eng:	Document Type:	Scale:	Format:	Sheet(s)	Rev:
S.Fowler	SKETCH	AS	A0	1 OF 3	05

National Grid Document Number: –

FEED Document Number: 100102545-MMD-09-XX-SK-C-0001-01

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Annex B

Existing access track

Taper 1:8

Existing fencing and gate to be modified to suit the new road arrangement

Note: The proposed access option must accommodate the existing Telecom's mast access road

The proposed access option clashes with the existing Telecom's mast access road

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ECSEC
AREA 1850m²
49.949m AOD

Existing access track

HIGH PRESSURE GAS MAIN

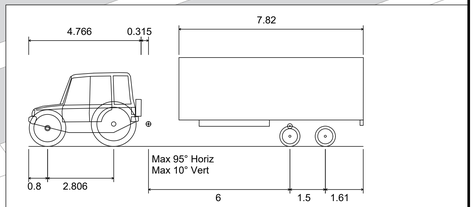
Highways embankment
Steep Slope. Hazard for nearby vehicles

6m

6m

A64

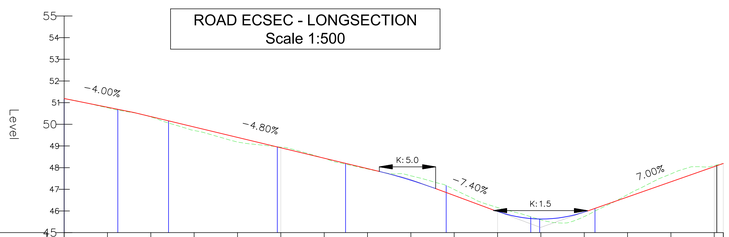
Plan View
Scale 1:250



Case IH CVX 195 Tractor+Trailer

Overall Length	14.191m
Overall Width	2.550m
Overall Body Height	3.770m
Min Body Ground Clearance	0.588m
Max Track Width	2.520m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	5.400m

ROAD ECSEC - LONGSECTION
Scale 1:500



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Proposed Levels	0.00	50.79	50.36	49.88	49.40	50.00	48.44	47.96	47.42	46.71	100.00	45.63	45.95	46.65	47.35	150.00	152.19
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SECTION A - LONGSECTION
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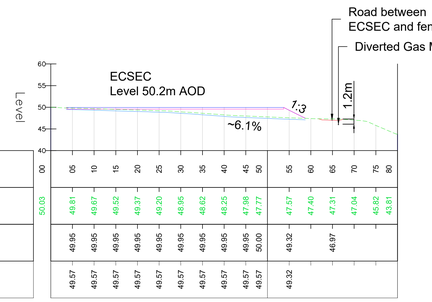

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Existing Levels	50.03	49.81	49.67	49.52	49.37	49.20	48.95	48.82	48.25	47.98	47.77	47.57	47.40	47.31	47.04	45.82	43.61
Proposed Levels		49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	49.95	50.00	49.32		46.97			
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6. Telecoms and exiting gas main locations shown using Utility Trace Survey, refer to drawing 06_210116_229.
7. Although not shown on the alignment, the inner radius of the bend will require additional civil works and road surfacing to ensure feasibility and reduce risk of clash with CSEC earthworks embankments. As this is on the northern side, it is less constrained than the southern side of the road, however additional works are still necessary to ensure feasibility of the road to accommodate a tractor trailer vehicle.

Key to symbols

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- Proposed Station
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- Existing Telecoms Mast Access Road
- Proposed Access Option and Telecoms Mast Access Road Clash
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02	14/06/2023	PS	UPDATED FOLLOWING CLIENT COMMENTS	OJ	PM
01	27/01/2023	OJ	FIRST ISSUE	PM	JW

Client

nationalgrid

Master Scheme No:	Sub-Scheme No:	Site:
33754	TBC	TEE-OFF TADCASTER

Scheme Name: YORKSHIRE GREEN

Document Title:

TADCASTER ECSEC ACCESS ROAD BETWEEN COMPOUND AND FENCE LINE SHEET 2 OF 3

Created by:	Date:	Checked by:	Date:	Approved by:	Date:
P.Skirzewska	20/06/2023	O.Jeffcock	20/06/2023	P.McLoughlin	20/06/2023

Development Eng:	Document Type:	Scale:	Format:	Sheet(s):	Rev:
S.Fowler	SKETCH	AS	A0	2 OF 3	03

National Grid Document Number: –

FEED Document Number: 100102545-MMD-09-XX-SK-C-0001-02

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Annex C

Existing access track

ECSEC
AREA 1850m²
49.949m AOD

Existing fencing and gate to be modified
to suit the new road arrangement

Note: The proposed access option must accommodate the existing Telecom's mast access road

The proposed access option clashes with the existing Telecom's mast access road

Existing Telecoms mast compound

Existing access track

The required earthworks extend beyond the A64 boundary fence, onto the highway embankment

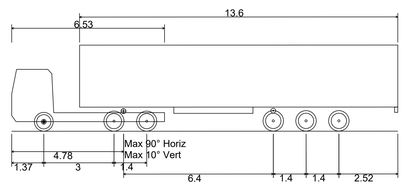
Highways embankment
Steep Slope. Hazard for nearby vehicles

6m

HIGH PRESSURE GAS MAIN

A64

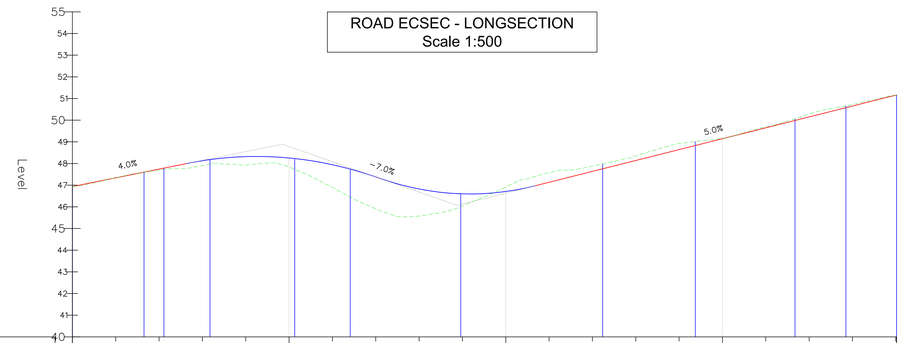
Plan View
Scale 1:250



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

ROAD ECSEC - LONGSECTION
Scale 1:500



Chainage	00	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190
Existing Levels	46.94	47.34	47.70	47.90	47.93	47.84	46.90	45.91	45.58	46.04	46.91	47.57	47.88	48.35	49.02	49.16	49.69	50.29	50.72	51.17 / 51.16
Proposed Levels	0.00	47.34	47.74	48.13	48.32	50.00	47.94	47.38	46.82	46.60	100.00	47.13	47.64	48.14	48.64	150.00	49.65	50.15	50.65	190.18 / 51.16
Level Difference	0.000	-0.001	0.042	0.225	0.383	0.415	1.041	1.470	1.248	0.560	-0.204	-0.440	-0.242	-0.209	-0.277	-0.012	-0.037	-0.139	-0.070	0.000 / 0.003

Notes

1. This drawing is for development purposes only and should not be used for construction.
2. All dimensions are in millimeters unless otherwise stated.
3. Do not scale any items or information from this drawing.
4. The site is located at OS Grid Reference 446050, 441680 (easting, northing).
5. Gas main diversion required due to clash with CSEC. Diversion provided by Northern Gas Networks, refer the drawing R2/001934. A 6m easement has been provided. Please note, the location of the diversion was provided in pdf format only, therefore, the exact georeferenced location cannot be confirmed at this point. The location shown on this sketch should be taken as indicative only.
6. Telecoms and exiting gas main locations shown using Utility Trace Survey, refer to drawing 06_210116_229.

Key to symbols

- Proposed Access Option
- Proposed Station
- Permanent Access Road
- Existing Telecoms Mast Access Road
- Proposed Access Option and Telecoms Mast Access Road Clash
- Highways Embankment
- A64 Road
- Earthworks - Cut
- Earthworks - Fill
- CSEC Stone Path
- Existing Gas Pipeline (High Pressure)
- Exsiting Gas Main
- Gas Main Diversion
- Gas Main Diversion Easement
- HV Electricity Utility
- Existing Fencing
- Existing Gate

Longsections

- Existing Ground
- 350mm Topsoil Strip
- Road Surface
- ECSEC Subbase
- ECSEC Finish Level

Reference drawings

1. 100102545-MMD-09-XX-DR-E-0168 - Overall Electrical Layout
2. 100102545-MMD-09-XX-DR-C-0131 - Overall Civill Layout
3. R2/001934 - Northern Gas Network Diversion

Rev	Date	Drawn	Description	Ch'k'd	App'd
03	20/06/2023	PS	UPDATED FOLLOWING CLIENT COMMENTS	OJ	PM
02	14/06/2023	PS	UPDATED FOLLOWING CLIENT COMMENTS	OJ	PM
01	20/05/2023	OJ	FIRST ISSUE	PM	PM

Client

nationalgrid

Master Scheme No:	Sub-Scheme No:	Site:
33754	TBC	TEE-OFF TADCASTER

Scheme Name: YORKSHIRE GREEN

Document Title:

TADCASTER ECSEC ACCESS ROAD BETWEEN COMPOUND AND FENCE LINE SHEET 3 OF 3

Created by:	Date:	Checked by:	Date:	Approved by:	Date:
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Appendix C Galvanizers Association Corrosion Map

Figure C.1 – Corrosion Map showing Monk Fryston location. Source: Galvanizers Association

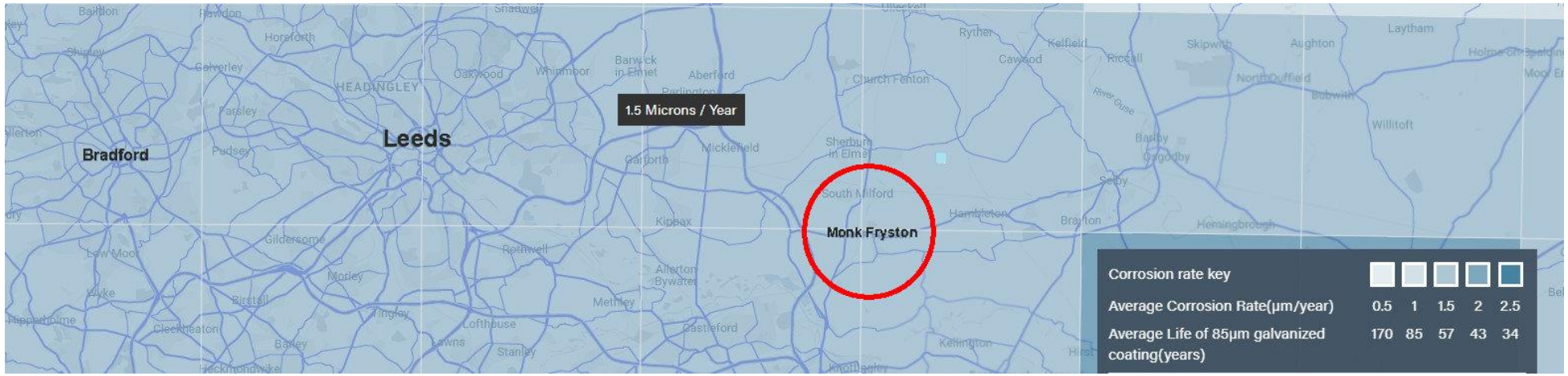
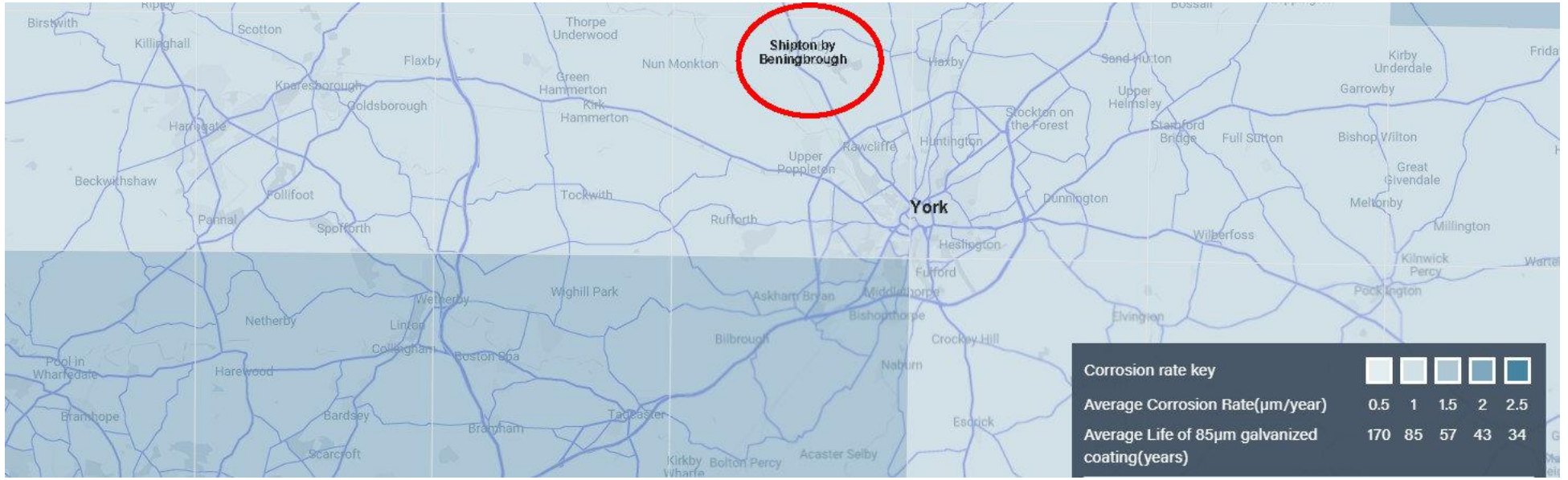


Figure C.2 – Corrosion Map Showing Overton and Shipton Areas. Source: Galvanizers Association



Appendix D Just Spray - A Guide To Powder Coating Steel

A Guide To Powder Coating Steel

07 Jul 2021 Lee Hodgkins

If you're hoping to make your property stand out, from a business perspective or simply because you're after something a little more unique, there are many surfaces, including facades and interior doors, that can be utilised in a range of ways in order to make this happen. When these materials become tired or lack the appearance you wish to achieve, they can easily be updated through on site spraying services, allowing you to change the colour, effects and patterns of your cladding while also protecting the materials for many years to come.

A particular technique for achieving long-lasting and effective results that has become increasingly sought after is powder coating steel. This is because it not only provides an attractive aesthetic but it als strate. Before deciding whether this could be a good option for you erent things you'll need to consider before going ahead with this

All You Need To Know About Powder Coating Steel

It's important to find professionals who not only have a lot of experience in steel coatings but also understand the problems that can occur and how to rectify them effectively. As there is a lot to consider when enquiring about powder coatings, we have combined all of the information you may need to know, including the problems that can occur if the project is not completed by experienced technicians.

What Is Powder Coating Galvanised Steel?

Put simply, galvanising is the process in which steel is covered in a protective layer of zinc, which is most commonly done through a hot-dip technique. The steel substrate is submerged in a molten sol y cover the entire surface. There are various benefits to galvanising ste erties and durability; take a look at this article from the Galvanisers

What Are Powder Coatings?

The main difference between a regular liquid and powder coating is the finish that it creates. Once a powder coating is applied, it is cured under intense heat, which in turn creates another skin type layer to the substrate, adding an extra form of protection. Powder coatings produce a seamless finish with the added benefit of protection against external elements – often keeping surfaces rust-free for periods of up to 50 years. Powder coatings are generally applied to metals, including steel or iron, making galvanised steel the perfect candidate. Combining a galvanised substrate with the powder technique creates a duplex coating, helping to maximise the lifespan of a building's structure.

How Can You Powder Coat Galvanised Steel?

There are a few rules to follow when preparing galvanised steel, which is why employing experienced technicians is an absolute must. To prepare the substrate effectively, the following stages must be followed:

- Any damage or defects to the galvanised steel should be removed or rectified before the powder coating is applied, which should be done within 12 hours of galvanisation for best results.
- The surface must be thoroughly cleaned and dry before the coating is applied. Take care not to use highly acidic solutions to clean the steel, as this can result in stripping the zinc from the surface.
- In order for the steel to take the coating effectively, the surface must be profiled and free of any protrusions before applying the powder. This can be done via a range of methods, but again, care must be taken not to remove the zinc layer from the steel's surface.
- The substrate should be primed before applying the powder coating to ensure optimum adherence. An example of this could be the use of a phosphate treatment, applied to the steel for a few minutes before being washed away and left to dry, ready for the powder coating.

For an in-depth look at how to thoroughly prepare galvanised steel for powder coatings, take a look at this detailed guide from Wagner Companies.

The Benefits Of Powder Coating Steel

Powder coating is used for multiple reasons, whether it is to protect the cladding or to decorate with a vast range of colours and finishes. When completed by professionals, you can utilise the array of colours available to create features, patterns and colour match to existing cladding or to your branding. Just some of the many advantages to having powder coating include the following:

- **Durable** – one of the most long-lasting and colour durable solutions available, providing you with vibrant colours that will last for many years to come.
- **Environmentally friendly** – liquid applications contain solvents that pollute the environment; this is due to volatile organic compounds.
- **Reduces health hazards** – there is less chance of nose, mouth or throat irritation. Not only this, but the powder coating can also easily be removed from the skin, making it less likely to cause irritation.
- **Cost-effective** – the components of powder coating are cheaper than liquid solvents, making it a more cost-effective solution.
- **Cleaner to use** – as powder coatings are easy to clean, it ensures that your property remains in immaculate condition.

However, it is important to note that powder coating steel requires the cladding to be taken off the property at to a specialist booth for off-site spraying.

What Problems Might Occur?

While powder coatings are regularly applied to galvanised substrates, there are still several issues that can occur if it is not done correctly. Research is ongoing into the three main problems that are associated with this technique, so they have improved since the method was first developed in the 1960s, but nevertheless, it continues to be an issue. The most common of these include:

- **Pin Holing** – This problem refers to the minute gas bubbles that form during the curing period once the coating has been applied. They look unattractive and can also create exposed areas on the surface that are not as durable.
- **Poor Adhesion** – During the hot-dip galvanising process that we mentioned earlier, the last stage involves the substrate being quenched in water to allow easier handling. This, unfortunately, interferes with the phosphate priming treatment that needs to take place before the powder coating is applied – making it essentially ineffective. In order for the priming treatment to work, the quenching process must be avoided for any galvanised surfaces that are also going to be powder coated. This ensures that the phosphate treatment and, ultimately, the finished powder coating, adheres correctly to the steel substrate.
- **Incomplete Curing** – As mentioned, once the powder coating is applied, it needs to be sufficiently cured under the correct level of heat. Enough curing time needs to be allowed for the coating to be fully effective.

For a much more in-depth look at the science behind these common problems, take a look at Powder Coating Online for extensive explanations.

How Long Does Powder Coating Steel Last?

In terms of the longevity of the coating, it will depend on many factors as to how long it will remain in excellent condition. Some of these factors will include the quality of the preparation, the type of coating and what environment the product will be exposed to. In general, your powder coating will last up to 20 years, but if your property is exposed to large sums of UV, then this may break down the coating faster.

The different powder coatings will also have varying lifespans, so if thsi is an option that you consider, it will be important to make sure that you speak with our professionals about which is best for your property, as certain materials, colours and areas may require certain powder coatings. For example, coatings that include fluoropolymers and urethanes can last a lot longer. However, regardless of the coating you choose, they are designed to provide long-lasting solutions and protection against adverse weather conditions.

Effective Alternatives To Powder Coatings

As mentioned previously, one of the major drawbacks to powder coating steel is that this method requires the cladding to be removed from the building and taken to a booth for off-site spraying. This can take a considerable amount of time and leave your property unprotected while the spraying is being complete.

For this reason, we always recommend having on site spraying to achieve protective and aesthetic coatings. The Just Spray team can achieve this by visiting your site with specialist equipment and spraying your property with specialist coatings to provide durability, longevity and aesthetically pleasing effects. Through onsite spraying, the team can also complete metal effects, allowing you to achieve modern and professional aesthetics on your cladding.

If your property needs a revamp in colour, or your cladding requires repairs and specialist coatings, we highly recommend taking a look at our recent projects for inspiration and contacting the Just Spray team to arrange your cladding spraying.

Project – Repair and Respray in Milton Keynes

Interested In Specialised Coating?

We recently carried out a project in Brighton in which we were enlisted by a company to rectify a previous powder coating completed by a different spraying specialist. Unfortunately, the galvanised steel coating had been applied incorrectly, which meant that it quickly began to deteriorate. For more information on the above project, along with our application process and photos, head over to our case study page!

Here at Just Spray, we have a range of specialist coatings, which we regularly carry out through our cladding spraying services as well as cladding repairs and much more. If powder coatings are something that you are interested in, don't hesitate to give the team a call, and we'd be more than happy to advise!

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28 Jun Structural Steel: Powder Coating Or Galvanising?

Posted at 10:38h in Structural Steel Fabrication by Tom Baker

When fabricating steel products, it's crucial to consider the finish applied to the product after fabrication. The two most common steel finishes are **powder coating** and **galvanising**.

If you're wondering whether to have your steel sections galvanised or powder coated, there are a lot of factors to consider, including the intended use of the steel, whether **structural steel**, **mild steel** or stainless steel.

This blog post will outline the benefits and disadvantages of the two most popular finishing choices in **steel fabrication**.

WHAT IS POWDER COATING?

Powder coating is a dry process which requires an electrostatic charge in the metal to allow the powder to bind to the surface of the metal.

The metal then undergoes a baking process; the heat enables the powder to complete the binding process, forming a protective layer to shield the steel from the elements.

WHAT IS GALVANISING?

Galvanising is a process in which the steel is submerged in a bath of molten zinc.

The zinc creates a thick layer around the steel, preventing corrosion such as rust from damaging the product's structural integrity.

THE DIFFERENCES BETWEEN GALVANISING AND POWDER COATING

Galvanising and powder coating are two very distinct processes. However, both are great at protecting the **structural steel beams** and columns from succumbing to corrosion.

A key difference between these two is that whilst galvanising alone can only provide you with a metallic silver finish, powder coatings come in a variety of stock colours. Professional **steel fabricators** like Baker Steel Trading can even offer colour-matching services when applying the powder coating to help match your steel product with the surrounding space, whether interior or exterior.

PRICING

The pricing differences between galvanising and powder coating can make a big difference in the right choice for you and your product.

There are generally two areas you'll want to consider when looking at pricing:

The Initial Cost

The upfront price of galvanising steel is, on average, higher than that of powder coating. However, the cost of galvanising has been steadily decreasing, as technological improvements have made the galvanising process much easier and more cost-effective.

Ongoing Cost of Maintenance

Whilst the initial cost of powder coating may be lower, it is unlikely to match the 80+ years that galvanised steel regularly lasts, lasting only 20 years on average. The shorter lifespan of a powder coated structural steel section means it's going to need more frequent and thorough maintenance, which can significantly increase the ongoing costs compared to galvanised steel.

DURABILITY

Both of these processes create an extremely durable steel beam that can take a heavy

amount of use and wear in all settings, including large-scale industrial use. However, a powder finish is prone to chipping and cracking if not given due care and attention during the steel fabrication process, leaving the underlying steel exposed to the moisture in the environment, eventually leading to rust.

Galvanisation, however, creates a thick zinc coating around the steel, protecting it through some of the toughest wear you can throw at it. You won't have to worry about chips or cracks damaging the protective layer with galvanised steel.

ENVIRONMENTAL ISSUES

When it comes to the environmental impact of the finish applied to your steel, both coating options are considered eco-friendly in the scheme of things.

Powder Coating

The environmental impact of powder coating on a steel product is low because a dry powder is used, containing no solvents. Dry powder coating emits zero or negligible amounts of volatile organic compounds (VOCs). VOCs are harmful to both the environment and human health.

Galvanised Steel

There is little to no environmental impact when it comes to galvanisation; this is because the zinc used in the coating is a reusable material. Additionally, because there is very little waste involved, any solution that falls off the steel remains in the bath to coat the next product.

RUST

Powder coating and galvanising both provide significant protection against rusting.

However, as galvanisation is more resistant to corrosion over time, it is much better at delivering sustained protection. A few cracks in a powder coating can allow moisture to seep in and begin rusting the underlying steel.

ENVIRONMENTAL ISSUES

When it comes to the texture of the finish, powder coating provides a superior look and feel over the alternative.

Powder coating is also a very customisable choice, as you car the colours that best suit your product.

GALVANISED STEEL AND POWDER COATING?

It's possible to powder coat on top of already galvanised steel, providing exceptional protection against both the environment and wear.

Before powder coating, the steel would be best to undergo a blasting and pre-treatment process. Blasting uses fine particles to remove imperfections on the surface of the galvanised steel, while pre-treatment deeply cleans the surface to allow for excellent powder coat adhesion.

For **expert steel fabrication**, project managed from start to finish, **speak to Baker Steel Trading**. We'd be happy to support you with any and all of your steel fabrication requests, from product supply through to **on-site erection and welding**.

CONTACT US TO GET A FREE ESTIMATE

REQUEST A QUOTE

Appendix E Traffic and Transport workshop: meeting notes

AGENDA & MEETING NOTES

PROJECT NUMBER	62282600	**MEETING DATE**	07 June 2023
PROJECT NAME	Yorkshire Green Energy Enablement (GREEN) Project	**VENUE**	County Hall, Racecourse Lane, Northallerton, DL7 8AD
CLIENT	National Grid	**RECORDED BY**	CA
MEETING SUBJECT	Highways		

PRESENT	North Yorkshire Council: Michael Reynolds (MR), Paul Roberts (PR), Jayne Charlton (JC), Melisa Burnham (MB) and Hannah Benson (HB). National Grid: Beth Kington (BK), Martyn Beecroft (MB), Steve Fowler (SF) and Chris Appleton (CA).
APOLOGIES	Click here to enter text.
DISTRIBUTION	As above
CONFIDENTIALITY	**Public**

ITEM	SUBJECT	ACTION	DUE
1	MR introduced the scheme and individuals at the workshop	n/a	n/a
2	BK provided an overview of the scheme and the DCO application submitted by National Grid.	n/a	n/a
3	PR discussed previous engagement between National Grid and North Yorkshire Council, acknowledging the previous agreement to undertake speed surveys in order to establish DMRB compliant visibility splays at site access points across the scheme.	n/a	n/a
4	MR and PR expressed concerns over the wording of the DCO application, with specific regard to a National Grid's ability to undertake works to the adopted highway under deemed powers, without North Yorkshire Council having the ability to control the operation of its road network. BK, MB and SF all assured the Council that this is not the case, highlighting that the Requirements and articles of the draft DCO necessitate that National Grid to engage/consult with the Local Authority prior to works on the highway network taking place. Examples of the relevant articles/requirements were highlighted to the Council.	n/a	n/a

5	MR and PR discussed the reason for some of the 1991 Act being disapplied. BK provided assurances that where National Grid has excluded certain sub-clauses, that this because those points are effectively covered elsewhere within an alternative articles or requirements, as detailed in full in the Explanatory Memorandum. MR and PR suggested that they would require assurances that the Council would not be experience disbenefit or suffer from diminished powers of control as a result of the current draft DCO wording. BK suggested that in order to satisfy themselves, the Authority may wish to pose the question to PINS and National Grid will formally respond to provide written assurances supporting their intension to engage and work proactively with the Local Authority in this respect.	NYC to consider posing questions on this issue to PINS formally.	n/a
6	CA further discussed the National Grid intention to liaise with the Local Authority prior to any intention to implement any streetworks or temporary TROs. It was agreed that an appropriate strategy will need to be agreed with Officers, which considers other planned works on the local road network and highway safety for all.	An appropriate strategy will need to be agreed with Officers	Post examination, at the appropriate time.
7	MB and SF discussed the proposed access points across the North Yorkshire Council authority area and presented details on-screen to facilitate discussion over each location with the Council. It was agreed that the DMRB compliant visibility splays are appropriate (in light of further advice provided in the North Yorkshire Council Highway Design Guide). PR and JC advised that further future discussions would be required at the detailed design stage to agree specifics relating to access onto major routes such as the A19 and A659 corridors. MB, SF and CA all advised that National Grid will be required to discuss/agree the detailed design of all access points and would seek to agree an approved finish with the Local Highway Authority. It was emphasised that Requirement 14 of the draft DCO details that no vehicular access construction can commence until layout and design has been submitted to and approved by the LHA.	n/a	n/a
8	CA discussed the HGV routing strategy and advised that no commercial vehicles will use the A19/East Lane junction at Shipton (hence no geometric improvements are required to facilitate the development). Some access will be taken from Corbyn Lane near Wigginton, however, this forms part of the City of York local road network and swept path analysis has demonstrated its suitability.	n/a	n/a

9	SF discussed the proposed HGV routing of a modest number of commercial vehicles along Butts Lane and through the village of Lumby, setting out details of technical considerations that National Grid has undertaken during development of the draft DCO. PR suggested that it would be a worthwhile exercise to consider the alternative and undertake optioneering of a new haul road from the north, to avoid any impact upon local residents within the village. This is an ongoing action National Grid are progressing, but is subject to landowner agreement.	National Grid to progress consideration of the alternative haul road option relating to Lumby and discuss with Officers of NYC at the earliest opportunity.	To be discussed with officers of NYC at the earliest opportunity.
10	CA discussed points that had been raised during consultation, with regards a potential reduction of the existing speed limit on the A63 corridor and set out that this was previously discussed with North Yorkshire Council, but was dismissed by the Local Authority on the grounds that the highway safety characteristics of the road network and A63/Butts Lane/Rawfield Lane intersection does not justify such an action. It was agreed with Officers that the left-in/left-out solution, proposed within the draft DCO application, is appropriate to mitigate the potential minor affect that construction traffic will have on the local road network at this location, without the need to prohibit deliveries to site during peak hours. It was emphasised that mitigation measures are outlined included in Section 7 of the CTMP (including a Delivery Management System). This conclusion is backed up by the personal injury collision data recorded in the vicinity of the intersection.	n/a	n/a
11	CA raised the potential for HGVs to use the Overton Road/Station Lane simple priority 'T' junction to access the wider road network and discussed that the available visibility to both the left and right is constrained by the horizontal alignment of the adjacent route, which actually heavily restricts the speed of oncoming traffic in either direction of travel. In light of this, the available stopping sight distance for motorists, is more than adequate to ensure that safe egress can be maintained during the construction phase. This conclusion is backed up by the personal injury collision data recorded in the vicinity of the intersection.	n/a	n/a

12	CA discussed that the Construction Traffic Management Plan submitted with the Draft DCO application, represents a final draft of this document and that the contractor will liaise with the Council during the construction phase to assist in the monitoring of targets, routing strategy, etc. It was emphasised that this further consultation with the Local Highway Authority will occur through the CTMP, which itself will be secured by Requirement 5 of the draft DCO. North Yorkshire Council agreed to send through comments on the CTMP (which were later received on 27th June 2023).	National Grid have received the comments from NYC on the CTMP.	National Grid have considered the comments and will provide a full response shortly.
13	CA, PR and JC agreed that the Statement of Common Ground could be updated to reflect that agreement has been reached on all highways points, with the exception of those relating to the Construction Traffic Management Plan (in order to allow for a more detailed review of the contents) and the acceptability of Butts Lane to facilitate HGV movements through the village of Lumby (to allow National Grid further time to consider an alternative haul road option from the north).	National Grid to update SoCG to reflect position in light of 7 June 2023 workshop. National Grid to progress consideration of the alternative haul road option relating to Lumby. NYC to review the CTMP and send comments to National Grid.	SoCG to be distributed to NYC and submitted to PINs by Deadline 5. National Grid to progress consideration of the alternative haul road option relating to Lumby and discuss with Officers of NYC at the earliest opportunity

NEXT MEETING

An invitation will be issued if an additional meeting is required.

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