Access Strategy Note

Project name:	Land south of Eccles Substation, Coldstream
Author:	JK
Date:	28th October 2025
Project number:	P24-0160

1. Background

1.1. This Access Strategy Technical Note, prepared by Pegasus Group for Bishops Dal Energy Storage Limited, outlines the decisions and actions taken to develop the proposed access strategy for the Bishops Dal BESS project, as required by the Scottish Borders Roads Authority.

1.1. A Construction Traffic Management Plan (CTMP) has been submitted which considers the transport matters associated with the construction and operation of a proposed Battery Energy Storage Scheme (BESS) on land to the south of Eccles Substation, Scottish Borders, Scotland, TD12 4LU.

1.2. The proposed development site (The Site) comprises an area of 13.20 hectares of agricultural land to the south of the A697 in Coldstream, TD12 4JA. The site lies circa 5km to the northwest of Coldstream and 34km southeast of Carfraemill and the A68 (Trunk Road).

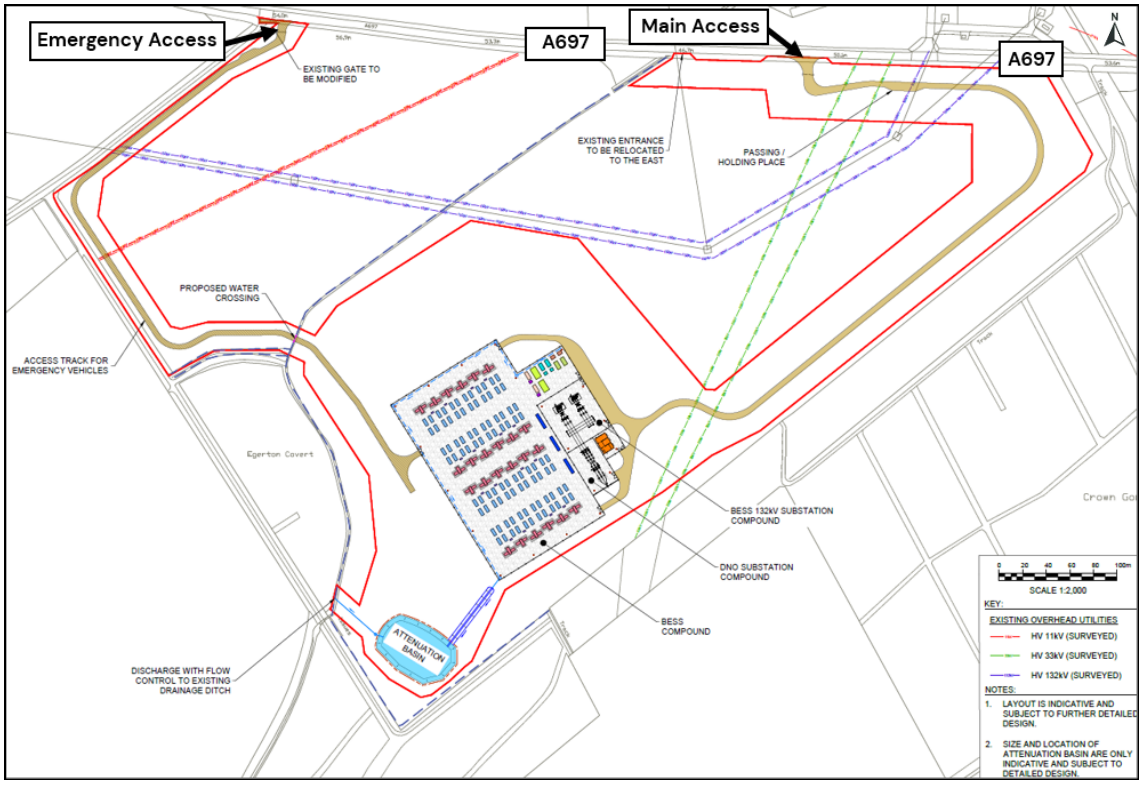
1.3. Proposals include primary access to The Site via a new priority access south off the A697 located approximately 100m to the west of Eccles Substation access which replaces the existing field access 100m further to the west. The existing field access will be removed, and the verge reinstated.

1.4. A secondary emergency vehicle access will be provided approximately 450m to the west of the primary access point with a route which travels southwest and then southeast to allow access to the BSEs (in the event of an emergency) from the west. This accords with the National Fire Chiefs Council (NFCC) 'Gridscale Battery Energy Storage System planning – Guidance for FRS' document[1] which is followed by the Scottish Fire and Rescue Service.

1.5. Further details of the layout of the BESS scheme proposal are shown on **Plate 1.1** below extracted from the Site Layout Plan Ref: 05389-RES-LAY-DR-PT-001 Rev6 and included in **Appendix A** of the CTMP.

[1] Grid Scale Battery Energy Storage System-planning Guidance for FRS

Plate 1.1 – Site Layout



Source: Infrastructure Layout Drawing annotated by Pegasus Group

1.6. A Scoping Meeting was held with the where the principles of access, the location and form, were discussed and agreed with the LRA Officer.

1.7. Comments were received on the CTMP from the Roads Authority (LRA) dated 3 April 2025 which requested further information be provided for the public record. The response is quoted as follows:

> *"During the preapplication process, Roads Planning noted the density of BESS facilities on this section of the A697, each with corresponding accesses. It was also noted that our position was one of opposition towards new accesses onto an A class road in rural areas, unless there is strong justification.*
>
> *As this proposed BESS site is immediately adjacent to another site which already benefits from an upgraded access, I will require an explanation as to why an agreement cannot be reached to use this existing access.*
>
> *Furthermore, we expressed concerns with the proposed emergency access south of Puncheon Bridge. Having visited the location there are existing trees and hedges/fences within the proposed visibility splay to the west, which appear to be outwith the verge and the applicant's control. Further information should be provided in this regard."*

1.8. A meeting has been held on the 25 September 2025 with the Scottish Borders Planning and Roads officers to discuss and agree the further information required. It was agreed that a supplementary Access Strategy Note would be provided which addresses the above LRA comment by providing the information in the form of this Access Strategy Note which comprises the following:

- Access Review – existing locations
- Access constraints and opportunities
- Highway safety review
- Justification for internal road and emergency-only access

1.9. The following sections outline the key considerations that informed the proposed access strategy for the BESS development, which is regarded as providing optimal and safe access throughout all three phases of the project.

2. The BESS Development

2.1. The BESS development comprises three phases:

- Construction and installation
- Operation and ongoing maintenance
- Decommissioning and removal of equipment and obsolete infrastructure.

2.2. The construction phase is considered to have the greatest impact in terms of transport.

2.3. This first phase includes and enabling highway access construction and/or modification works. Plant and bulk materials will be transported to site and has the potential to increase traffic on the construction traffic route. It should be noted however the construction effects are short lived and will be managed to limit the potential for local disruption.

Traffic Impact Summary

2.4. BESS development traffic impacts are temporary and typically short-lived, in this case 21 months, with low levels of traffic followed by a long operational phase with very low levels of traffic which continues for the majority of the development life-cycle, followed by a further short decommissioning phase . A BESS site can have a typical 25-40 year operational phase where traffic levels are very low .

2.5. While exact vehicle movement figures would be dependent upon arrangements made by the end contractor, it is anticipated that there will be a maximum of circa 26 two-way HGV movements per day (13 HGV deliveries) throughout the construction period. After commissioning, it is anticipated that the vehicle trip generation of the site will be very low, for ad-hoc equipment maintenance. This would typically be up to one vehicle trip per week be made by light van or 4x4 type vehicle.

Access Requirement

Proposals include primary access to The Site via the A697 and a secondary emergency vehicle access which accords with the National Fire Chiefs Council (NFCC) 'Gridscale

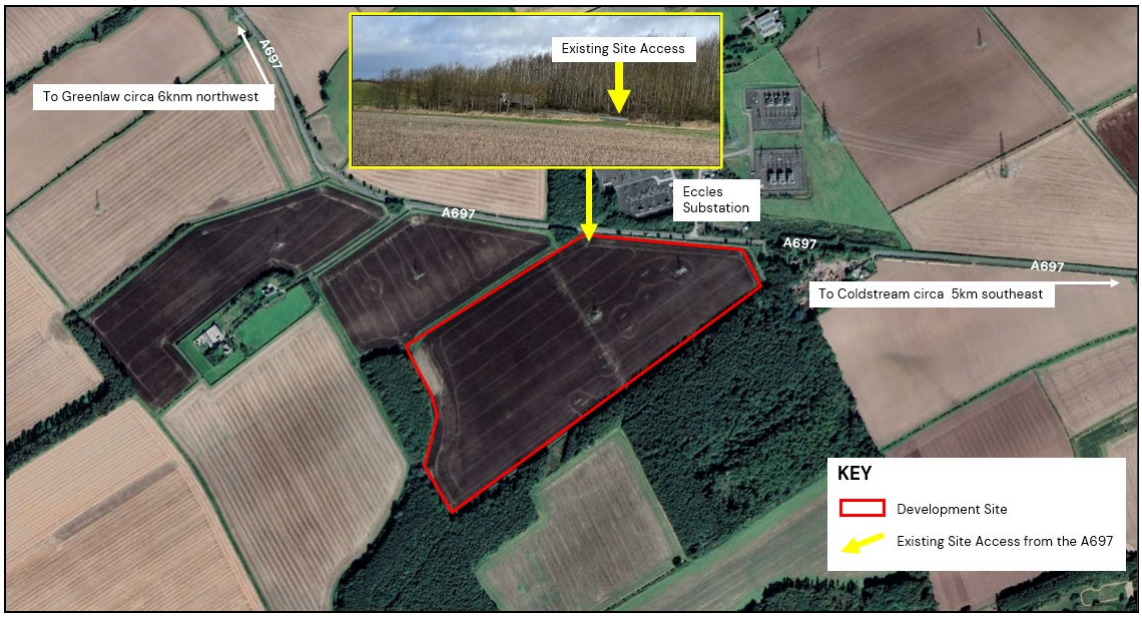
Battery Energy Storage System planning – Guidance for FRS' document[2] which is followed by the Scottish Fire and Rescue Service.

3. Access Review

3.1. The proposed development site is located circa 5km northwest of the town of Coldstream and is bound by the A697 to the north, agricultural fields to the west, further agricultural fields, and woodland to the south and a private road leading to a residential property to the west. The development site has an existing access from the A697 which is located in the northwestern corner of the field.

3.2. **Plate 3.1** below shows the site's location relative to Coldstream, Greenlaw, and the A697.

Plate 3.1 - Site Location (Aerial View)



Source: Google Earth Image annotated by Pegasus Group

A697

3.3. The A697 is a two-way single carriageway measuring approximately 7.3 metres in width and is subject to a 60mph posted speed limit. There are no footways adjacent to the carriageway, nor any street lighting in the vicinity of The Site.

3.4. The A697 serves as a main route for people travelling south from the Scottish Borders area into England as well as providing access to residential villages and towns along its route, such as Coldstream and Greenlaw.

3.5. It provides access to the existing Eccles substation, north of The Site (accessed circa 100m to the east) as well as existing businesses located along the route that use the route for

[2] Grid Scale Battery Energy Storage System-planning Guidance for FRS

deliveries (both import and export). Therefore, the road is already subject to heavy goods vehicles (HGVs) and articulated loads.

3.6. The A697 also provides access to the development site for the current agricultural use located in the northwestern corner, south off the A697. Subject to the intensification of use, retention of an existing access may involve minor modifications or a major redesign to accommodate future development traffic, depending on the development traffic impact.

3.7. In this case the initial view was to consider the retention of the existing access with minor modification to formalise and secure the access with gates.

Access Constraints and Opportunities

3.8. In developing the site access strategy, the existing access was appraised to determine the feasibility of retention for the future proposed BESS development, as the principle of access is already established.

3.9. A site visit was undertaken in February 2024 to inform the access strategy and the CTMP. A topographical survey of the site and the adjacent A697 was commissioned by the client which has also informed the site access strategy and the development design evolution.

3.10. The existing access was noted to be located at a low point on the A697, in a dip in the road with the carriageway rising to the east and west. There was also an area of landscaping adjacent to the access which blocks visibility to the left on approach to the access and appeared to have the potential to obstruct visibility at the access.

3.11. The A697 is a Trunk Road and access design must comply with the Design Manual for Roads and Bridges (DMRB)[3]. The Standards for Highways guidance applies to all countries of the United Kingdom including Scotland. The Design Manual for Roads and Bridges (DMRB) CD 109 Section 3.1, states that the required stopping sight distance must provide intervisibility between a driver's eye height, assumed to fall between 1.05m (car) and 2.00m (HGV) above the carriageway, and an object height of 0.26m to 2.00m, measured along the road's centreline and within the defined visibility envelope, illustrated in Figure 3.1 of DMRB CD 109.

3.12. Topographical data collected in January 2024 confirmed the extent to which the existing access is located within the low point or 'dip' in the carriageway, at an approximate elevation of 46.7m AOD (Above Ordnance Datum).

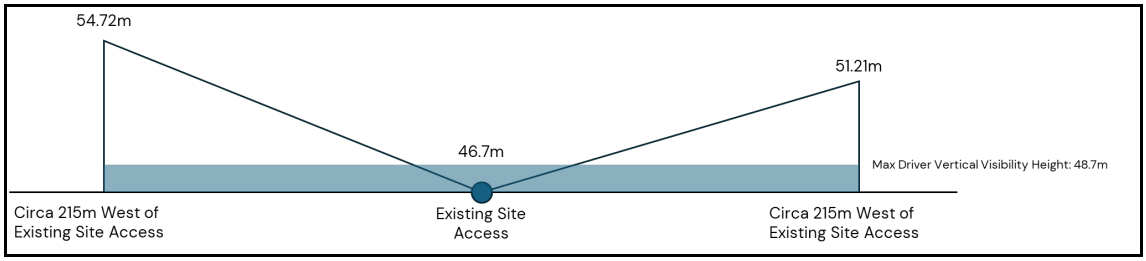
3.13. The access location level of 46.7m AOD is the lowest point on the carriageway along the site frontage, and it is significantly lower than the levels at the target points/extent of the required 215m visibility splays:

- 54.72m AOD to the west of the existing access; and
- 51.21m AOD to the east of the existing access.

3.14. The site access level of 46.70m AOD and the carriageway levels west and east are illustrated in **Plate 2.2** below relative to the driver's horizontal and vertical visibility envelope.

[3] DMRB

Plate 2.2 – Existing Site Access Levels



3.15. The carriageway levels indicate respective increases of approximately 8.02m and 4.51m in comparison to the access level. The available horizontal visibility from the existing site access, considering the standard HGV driver eye height (vertical visibility), measures 65.95m to the west and 62.41m to the east.

3.16. At the required 215m visibility distance as prescribed by DMRB for a 60mph road, the measured level differences of roughly 8m and 4.5m exceed the permissible maximum driver eye height of 2.00m above carriageway level, equivalent to 48.7m AOD in this context, which may adversely affect visibility.

3.17. Additionally, hill fog or low-lying cloud covering elevated terrain is a concern in these conditions, as it can further limit vertical visibility, compromise vehicular intervisibility, and significantly hinder safe navigation.

3.18. These elevation differences mean the existing access does not meet DMRB minimum sight distances and likely won't be considered safe for increased use by the LRA.

3.19. Given the above the existing field access at Bishops Dal is considered unsuitable for retention for formal use and temporary intensified traffic volumes due to non-compliance visibility requirements set out in DMRB CD 109.

Alternative Access Opportunities

3.20. The development site has a site frontage measuring circa 320m along the A697, south of Eccles substation. There is adequate development site frontage along the A697 within which to relocate the access.

3.21. The A697 is a straight road adjacent to the site, with no bends within the 215m visibility splay that would affect driver intervisibility when considering relocating the access to the east.

3.22. As discussed in relation to the existing field access the land rises to the west by circa 8m at the western 215m visibility extent. As the land rises to the east, moving the site access to the east away from the dip in levels affords better intervisibility for drivers on the main route and at the site access.

Access Constraints

3.23. DMRB requires the access junctions have adequate separation between both adjacent and opposite junctions and therefore the access for Eccles Substation represents a constraint to the east. As a direct access serving a single facility DMRB still regards the access as a

junction, as will be the case for any proposed relocated access which could potentially be a staggered junction arrangement.

3.24. DMRB states that a staggered junction is:

> *A junction arrangement where the major road is continuous through the junction and two opposing minor roads form priority junctions that are offset from one another.*
> *NOTE: Two opposing priority junctions are not staggered when the layout of any central treatments do not overlap or the junction spacing is greater than the major road SSD.*

3.25. The stagger distance is measured between the centre line position of the two minor junctions along the major road. DMRB (CD 123 paragraph 2.23)[4] sets out a 50m minimum right/left stagger distance for priority junctions with no major road central treatment.

3.26. This measurement is the same for left/right staggered junctions, however right/left arrangements are preferred.

3.27. The relocated access can therefore not be within 50m of the Eccles Substation access.

3.28. The adjacent Zenobe development access represents a further constraint to access to the east as there must be separation between this access and any proposed site access for both highway safety purposes.

3.29. DMRB does not include any specific junction spacing distances for adjacent junctions, the guidance can be interpreted to be a minimum at least equal to the stagger distance, to junctions not located where visibility splays could cross and would be subject to prior agreement with the LRA.

3.30. Given that there is a limited 100m development site frontage onto the A697 to the east of Eccles Substation and towards the Zenobe site access junction it is concluded that there is insufficient space within which a relocated access can be constructed.

3.31. Scottish Borders Council have expressed a preference for the Bishops Dal and Zenobe projects to share a single point of access. However, the applicant has no land ownership or control over the adjacent (Zenobe) access, nor any mechanism to compel or secure shared use. As such, a shared arrangement is not deliverable in practical or legal terms.

3.32. Additionally, management of a shared access arrangement would be difficult to agree, secure or control with any level of certainty that it would not have a detrimental impact on the highway safety of the adjacent A697.

Road Safety

3.33. To inform the access location a road safety review has been undertaken using Personal Injury Collision (PIC) data obtained from the Crashmap website which holds records of all recorded incidents from the Department for Transport (DfT). Recent data suggests that road safety is not a material consideration given that there have been no recorded

[4] DMRB CD 123

incidents on the one kilometre stretch of the A697 outside the development site and either side in the most recently available five years.

3.34. However, to be strictly robust in considering the proposed access location the entire dataset of records available on Crashmap were reviewed and are tabulated on **Table 3.1** and are indicated on **Plate 3.2**.

Plate 3.2 – Road Safety Study Area Review

Date	Severity	Location	Vehicle		Casualty	
			No	Type	No	Type
18.11.2016	Serious	A697 Permawood Treatment Plant access	2	Cars	1	Cars
22.07.2012	Slight	A697, 190m west of Hatchednize Farm	1	Unknown	1	Pedestrian
06.07.2012	Slight	A697 jct with Hatchednize Farm access	1	Car	1	Driver
01.07.2011	Serious	A697, 475m west of Eccles substation	1	Motorcycle	1	Driver
24.08.2008	Serious	A697, 240m west of Hatchednize Farm	2	Motorcycles	1	Unknown
01.06.2008	Slight	A697, c.500m east of Eccles Substation	1	Car	1	Driver
28.05.2008	Slight	A697, near farm access 540m west of Eccles Substation	1	Car	1	Driver
03.03.2006	Slight	A697, 50m east of Hatchednize Farm	1	Car	1	Driver
16.04.2003	Slight	A697, c.85m east of Eccles Substation	1	Unknown	1	Unknown
06.09.2002	Slight	A697, on bend c.770m west of Eccles Substation	2	Cars	1	Unknown
09.06.2002	Serious	A697, on bend c.640m west of Eccles Substation	2	Cars	2	Unknown
26.11.2001	Serious	A697, on bend c.610m west of Eccles Substation	1	Unknown	1	Unknown
30.05.2001	Slight	A697, on bend c.660m west of Eccles Substation	2	Unknown	2	Unknown

Source: Crashmap.co.uk (search date 20.12.2024)

3.35. There have been no recorded incidents within the illustrated area in the most recent two years January 2023 to December 2024.

Plate 3.2 – Road Safety Study Area Review

Source: Crashmap.co.uk (search date 20.12.2024)

3.36. The data shows a low incident rate with no recorded incidents since 2016 which occurred outside the Permawood Treatment Plant, circa 160m to the east of the site boundary. Prior

to this there was an incident recorded in 2003 circa 85m east of Eccles Substation access which cannot be attributed to a turning manoeuvre.

3.37. It is therefore concluded that there are no road safety concerns along the site frontage which could be exacerbated by a relocated access eastwards, and in the area to the west of Eccles Substation where there have been no recorded incidents since records began 26 years ago.

Emergency Site Access

3.38. In accordance with the National Fire Chiefs Council (NFCC) Gridscale Battery Energy Storage System planning – Guidance for FRS document a secondary emergency access will be provided to serve the site from an alternate direction to the main site access.

3.39. Initial consideration was given to a potential emergency site access from the east, via field access route options

3.40. The emergency access route would be as follows:

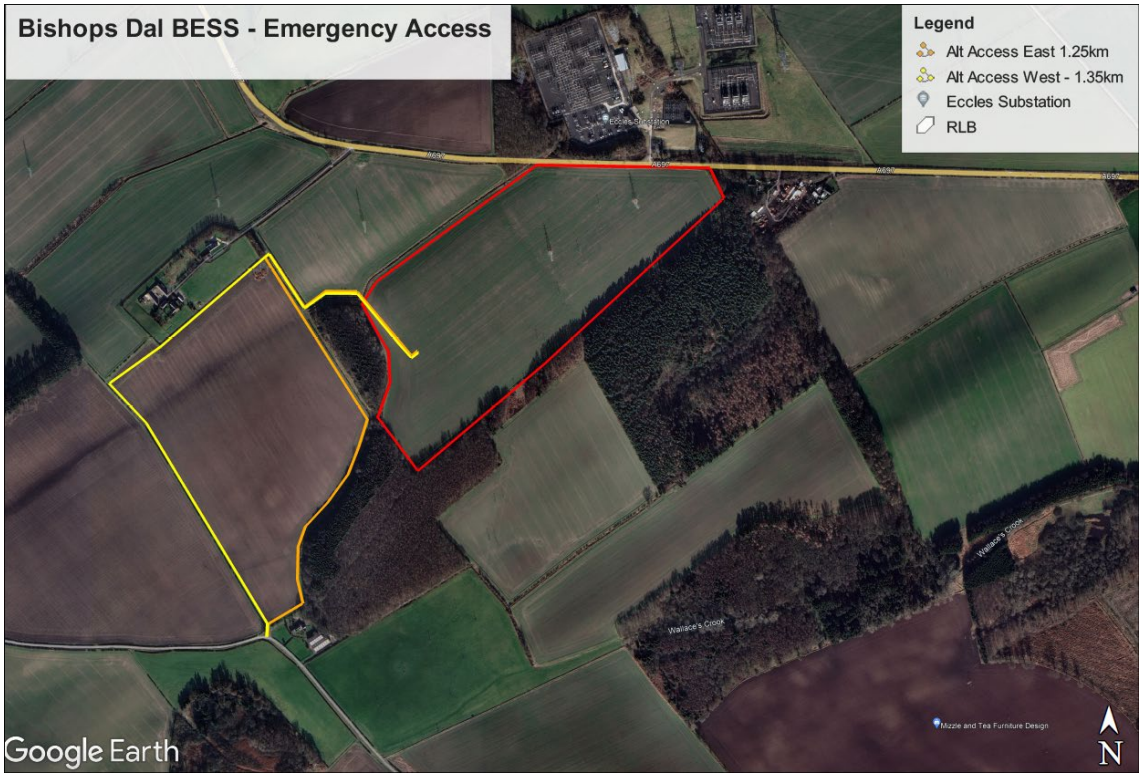
- via the A698 from Coldstream,
- at the junction with the A697/698 - turn left to continue to follow the A698 towards Birgham
- After a distance of circa 2.4km turn right into an un-named road , signposted for National Cycle Route 1.
- Follow the unnamed road north for a distance of circa 1.7km to a field access which leads north. Access into a field is required.

3.41. The emergency access route was considered to be too indirect, not obvious which could cause wayfinding issues in the event of an emergency.

3.42. Additionally, the applicant has no land ownership or control over the adjacent field to the south of the development site, nor any mechanism to compel or secure use of the field access from the un-named road to the south. As such, the southern emergency access arrangement is not deliverable in practical or legal terms.

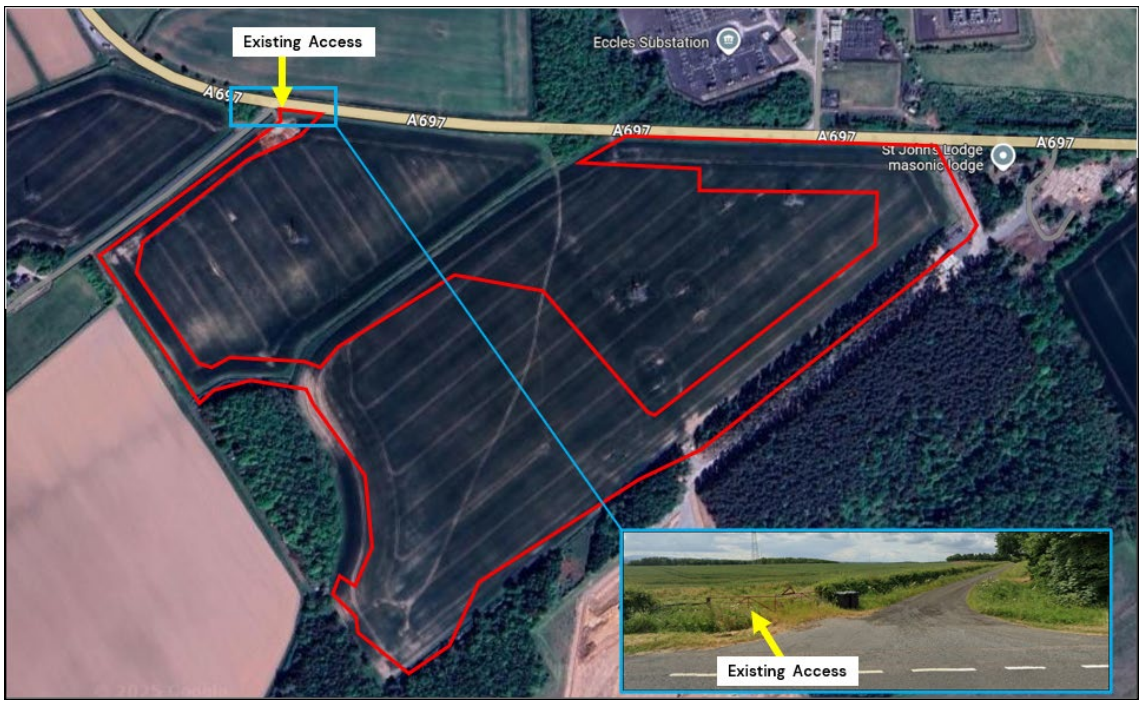
3.43. The eastern emergency access route options, routing from the south are shown in **Plate 3.3** below.

Plate 3.3 – Emergency access Options



3.44. The applicant entered into negotiations and secured additional land in the adjacent field to the west of the development site. This led to an amendment of the development site boundary to that included in the planning submission and detailed in the CTMP. The evolved development site is provided in **Plate 3.4.**

Plate 3.4 – Final development site area and existing field access



3.45. The existing field access was assessed in terms of highway safety for an emergency only access.

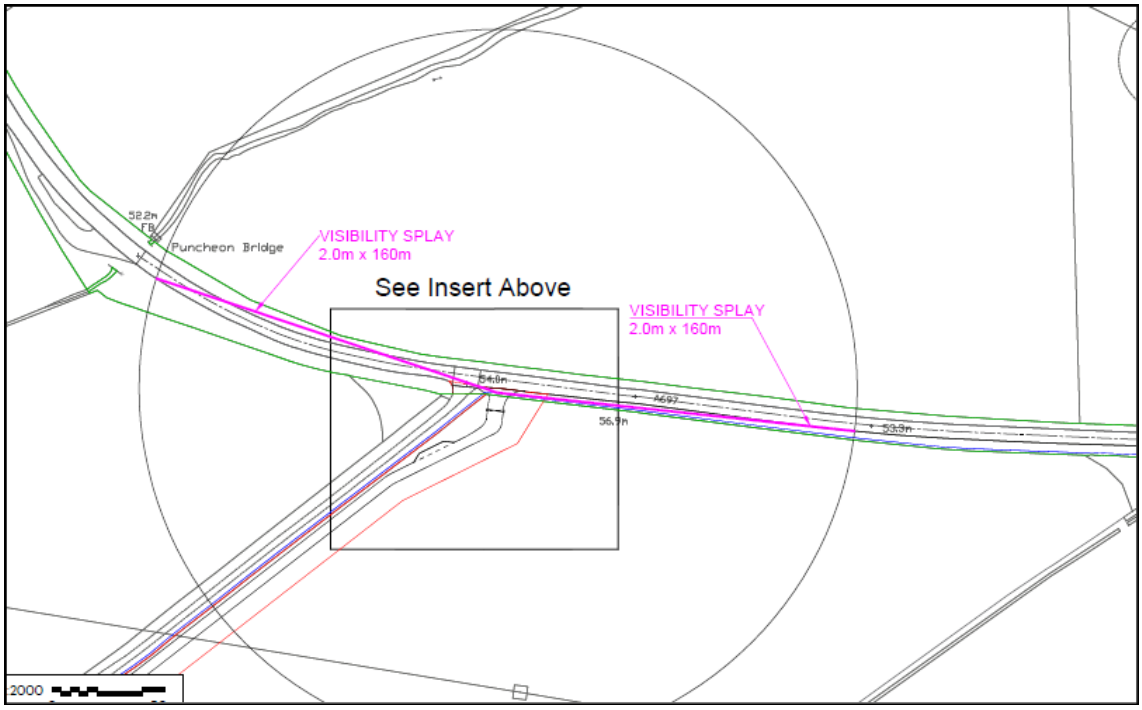
3.46. The location is close to a bend in the road to the west; however, it is an existing farm access which is used for agricultural purposes. Emergency access use only would lead to a very minor (hopefully never) uplift in use; however, the access would be modified/enhanced in accordance with DMRB standards to provide a formal emergency access.

3.47. Visibility was assessed against the DMRB standards and visibility is provided for a direct access on a 60mph road with a one-step below departure 2.0m by 160m. The visibility splay for the minor uplift in development emergency use has been agreed in principle with the Roads Authority during the meeting 25 September 2025.

3.48. It is worth noting that in the event of an emergency (a fire) the emergency services are highly likely to close the road for the duration of the incident to protect the lives of road users during potential low visibility situations caused by smoke across the highway.

3.49. The emergency access design and visibility is shown on **Plate 3.5** below, extracted from drawing reference P24-0160-TR-SK02 Rev A provided in **Appendix A.**

Plate 3.5 – Indicative Emergency Access Layout



3.50. The addition of the emergency access from the A697 to the development site access strategy is intended solely for the use of emergency vehicles in the event of an incident. It is located in the northwestern edge of The Site area, circa 430m west of the proposed main site access which is located 100m west of Eccles Substation.

3.51. In the event of an emergency The Site may be accessed from the A697 via two internal access tracks which provide access to the BSE from the west and from two locations in the east which accords with the NFCC guidance.

4. Summary and Conclusion

Summary

4.1. This Technical Note provides a concise overview of the design evolution of the access strategy for the proposed future BESS development.

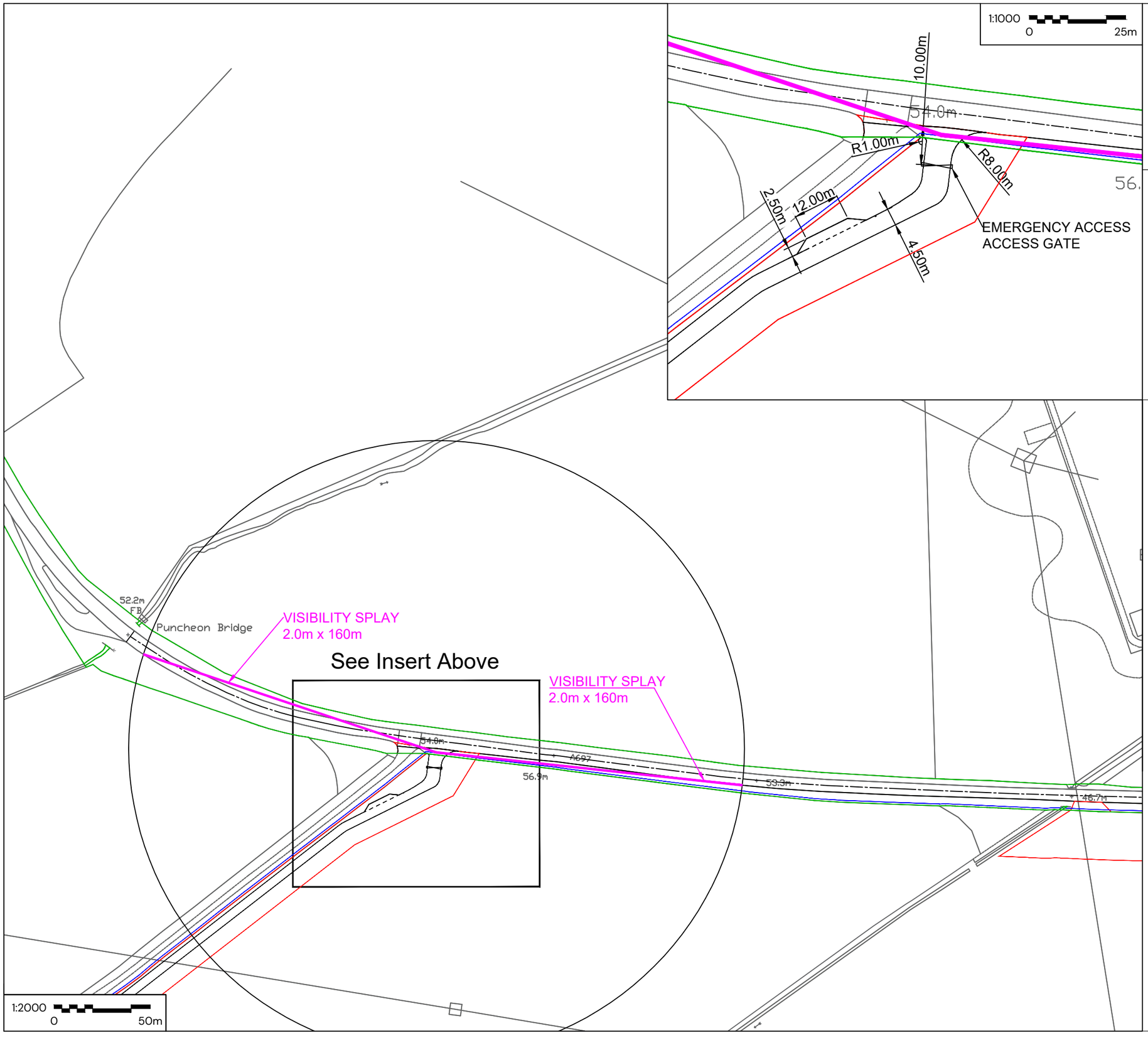
4.2. It presents the rationale supporting the access strategy and demonstrates that the access strategy accords with both DMRB and NFCC guidance.

Conclusion

4.3. This Access Strategy Technical Note is submitted to Scottish Borders Council for their review and consideration in response to a request for further information for the CTMP.

4.4. We therefore request that the LRA updates its position to “no objection” or “no objection subject to conditions”, in recognition of the comprehensive evidence base of this TN and the assessments undertaken which underpin the CTMP.

Appendix A – Indicative Emergency Access Drawing



KEY:

N

REDLINE BOUNDARY

CLIENT OWNERSHIP

ADOPTED PUBLIC HIGHWAY EXTENT

VISIBILITY SPLAY BASED ON DMRB REQUIREMENTS FOR A DIRECT ACCESS & 'ONE STEP BELOW' REQUIREMENTS FOR A 60MPH ROAD (2.0 x 160m)

NOTES:

1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE USED FOR COSTING OR CONSTRUCTION. PEGASUS GROUP ACCEPT NO LIABILITY FOR THE MISUSE OF THIS DRAWING FROM ITS INTENDED PURPOSE.
2. THIS DRAWING IS BASED UPON DRAWING 05389-RES-LAY-DR-PT-001 REV 6 PRODUCED BY RES ON 26 NOVEMBER 2024.
3. VISIBILITY SLAYS OF 2.0 x 160m HAVE BEEN SOURCED FROM DMRB - CD 109 TABLE 2.10 AND AGREED WITH THE ROADS AUTHORITY ON 25.09.2025 FOR USE ON THE EMERGENCY ACCESS

REV	DATE	DESCRIPTION	REVISED BY	APPROVED BY
A	20.10.25	Visibility Splay provided in accordance with DMRB One-Step Departure, agreed with Roads Authority on 25.09.2025	AJ	JK

DRAWING NAME:
INDICATIVE SITE LAYOUT OF EMERGENCY ACCESS - GEOMETRY AND VISIBILITY

PROJECT:
LAND SOUTH OF ECCLES SUBSTATION
SCOTTISH BORDERS

CLIENT:
RES

DATE:	SCALE:	DRAWN BY:	APPROVED BY:
05.12.2024	SEE INSERTS	AJ	JK

DRAWING NUMBER: P24-0160-TR-SK02 REV A

PG OFFICE: BIR

PEGASUS GROUP