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Prepared on behalf of

Accent Housing Ltd

Proposed Residential Development,
Plane Street, Primrose Hill,
Huddersfield

Designers Response to Stage 1 Road Safety Audit

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Disclaimer

The methodology adopted and the sources of information used by Sanderson Associates (Consulting Engineers) Ltd in providing its services are outlined within this Report.

Any information provided by third parties and referred to herein has not been checked or verified by Sanderson Associates (Consulting Engineers) Ltd, unless otherwise expressly stated within this report.

This report was checked and approved on the 30th June 2020 and the Report is therefore valid on this date, circumstances, regulations and professional standards do change which could subsequently affect the validity of this Report.

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Report Ref:	11293/JT/003/02		June 2020
Author:	John Turner		
Checked & Approved:	Karen Smith MIHE	**Date:**	30 June 2020

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11293-006 – Swept path analysis of site access turning manoeuvre

1 Introduction

1.1 Sanderson Associates (Consulting Engineers) Ltd has been appointed by Accent Housing Ltd to carry out a Stage 1 Road Safety Audit of the proposed site access arrangements and internal layout for a proposed residential development at Plane Street, Primrose Hill, Huddersfield.

1.2 The works are proposed in relation to a residential development of 30 no. dwellings, which would comprise a mix of 2 and 3 bedroom dwellings. The dwellings would be operated by a Housing Association and rented as affordable homes. The development will be accessed via a new access from Plane Street towards the east of the site. There will be no direct frontage access to Plane Street.

1.3 The designer's responses are detailed in italics below each of the Audit teams raised Problems / Recommendations.

2 Designers Response to Items Raised for the Stage 1 Road Safety Audit

B2 GENERAL

B2.1 **Problem:** Site Access

Location: Site Access

Summary: The 2.4x43m visibility splay to the west of the site access is shown passing over the existing site boundary wall. Whilst it is assumed that the wall will be set back behind the proposed visibility splay, this is not shown on the plans and the ability to do so may be affected by the proposed attenuation tank and easement. Should the wall not be set back, this may restrict visibility at the site access below acceptable minimum levels, which could result in turning type collisions at the junction.

Recommendation: It is recommended that the site access visibility splays are kept clear of any significant vertical obstructions, including walls and larger street furniture (e.g. the existing waste bin)

2.1.1 ***Designers Response:****-The Auditors recommendation is accepted. The visibility from the site access will be kept clear of significant obstructions. As part of the proposed development, the wall along the site frontage is to be demolished in the location of the access and therefore once the site is operational this will not obstruct the required visibility. The drawing attached to this report (Ref: 11293-004) demonstrates the visibility which can be achieved from the proposed site access. During pre-application discussions with Kirklees Council Highways Development Management, officers agreed that they are willing to accept the shortfall of visibility at this particular location. Therefore the visibility from the proposed access is considered to be acceptable in this particular instance.*

B2.2 GENERAL

B2.2 **Problem:** Site Access

Location: Site Access

Summary: There is only 1 visitor parking space provided towards the western end of the site access road, adjacent to the proposed turning head. As such, visitors or

those residents with only 1 parking space may choose to park within the immediate vicinity of the turning head. Should this occur, this could prevent refuse vehicles and other larger vehicles from turning in the highway. This could then result in these large vehicles needing to reverse a long distance around a relatively tight bend and subsequent junction to exit the site, which could result in collisions with other road users.

Recommendation: It is recommended that additional visitor parking spaces are provided towards the western end of the site access road, which appears possible by amending the single visitor parking bay in front of No. 19-20. It also recommended that the swept path analysis is undertaken to confirm that refuse vehicles can turn at the extended end of Plane Street next to the site access junction, in the event that the access road still becomes blocked and this area is required to allow a refuse vehicle to turn without reversing all the way back to Malvern Rise.

Designers Response:*-The Auditors recommendation is acknowledged and the request to provide additional visitor parking is understandable. However, the currently proposed level of visitor parking within the development is deemed sufficient for the development. The visitor parking spaces near to the proposed site access are within a short walking distance of the all of the dwellings and therefore it is not expected that should these spaces be available, someone would choose to park in the turning area. Notwithstanding this, adding additional on-street parking immediately adjacent two properties gives the impression that these spaces are dedicated for those dwellings.*

Should parking within the turning head become a problem once the development is operational and the refuse vehicle cannot use it to turn, then the developer will have to fund a TRO to restrict parking within the turning head.

The swept path analysis drawing attached (Ref: 11293-006) demonstrates that a refuse vehicle will be able to turn at the site access at the extended termination of Plane Street. Therefore in a situation where the site access is blocked, refuse vehicles will be able to turn and not have to reverse the long distance back towards Malvern Rise.

B2.3 **GENERAL**

B2.3 **Problem:** Site Access Road

Location: Site Access Road

Summary: There is a relatively tight bend on the site access road, where it would not be possible for a refuse vehicle to pass a car. Whilst this is not necessarily a significant issue on its own due to the low traffic flows that is expected along the road, it is unclear if there will be adequate forward visibility around the bend to allow drivers to give-way before they meet an oncoming vehicle at the bend. As such, this could lead to head on collisions at the bend

Recommendation: It is recommended that adequate forward visibility is provided at the bend that allows drivers to observe an oncoming vehicle; and then wait as necessary before the bend to allow oncoming vehicles to pass.

Designers Response: *The Auditors recommendation is acknowledged. However, the forward sight stopping distance has been based on the centre line radius of the road being 15m and therefore it is expected that vehicles will be travelling at 15mph or less. Based on Table 7.1 of Manual for Streets there is therefore a requirement to provide forward sight stopping distance of 17m. The drawing attached to this report (Ref: 11293-005) demonstrates that forward sight stopping distance of 17m can be achieved at the internal bend within the site.*

B2.4 **GENERAL**

B2.4 **Problem:** East end of Plane Street

Location: East end of Plane Street

Summary: It is proposed to extend Plane Street to the east to allow the new site access to be formed to it. However, there will be a significant level drop on the north side of this extended section of Plane Street opposite the site access, which would be hazardous to any errant road user. Should an eastbound vehicle travelling towards the site access lose control and leave the carriageway on the north side, there is risk of a severe incident occurring due to the significant level drop.

Recommendation: It is recommended that restraint measures are incorporated on the northeast end of Plane Street to protect all road users from this hazard.

Designers Response: *The Auditors recommendation is accepted. A vehicle restraint system will be installed at the northeast end of Plane Street to protect all road users. Details of this will be agreed at the Detailed Design Stage.*

B2.5 GENERAL

B2.5 **Problem:** Site Access

Location: Site Access

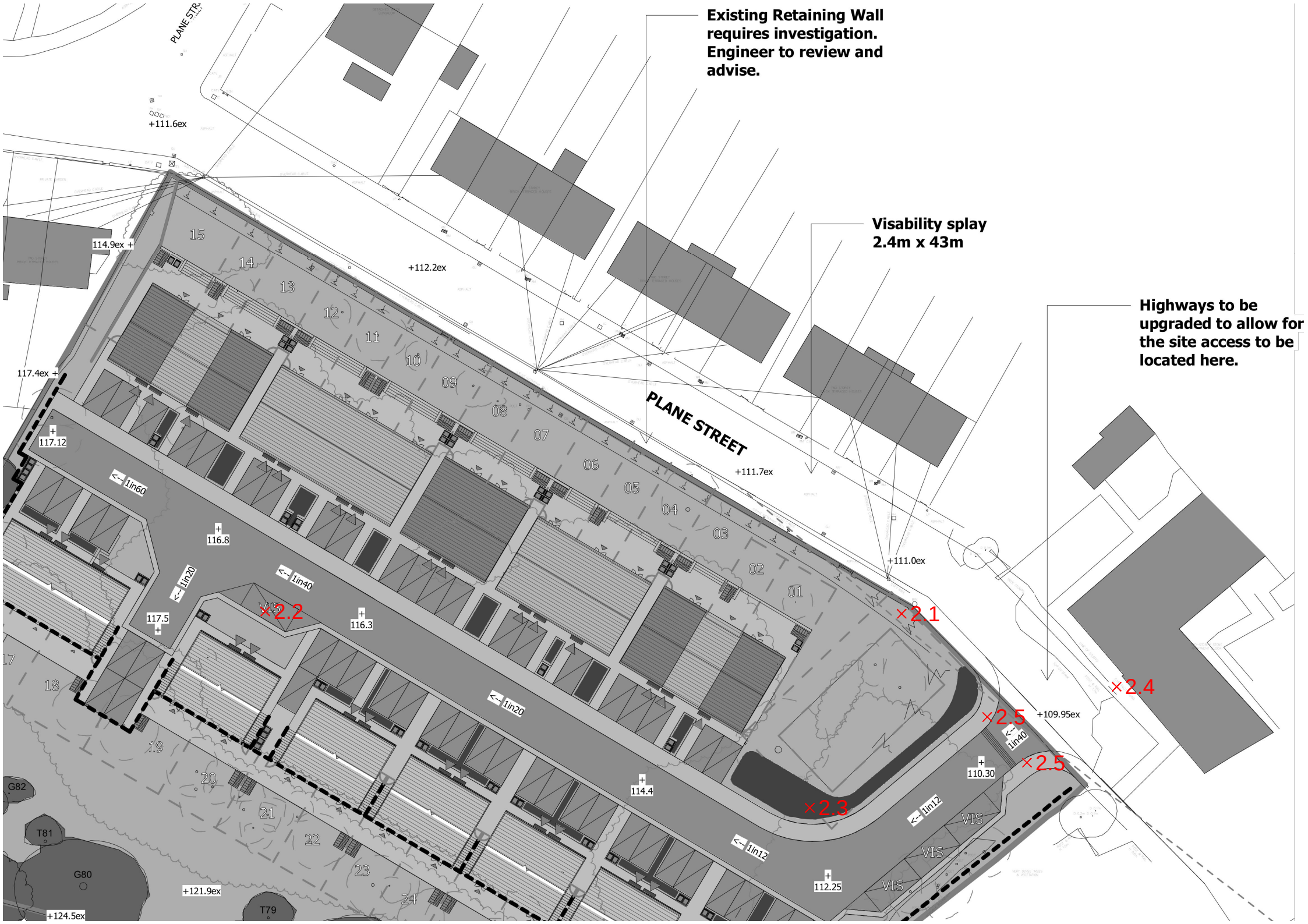
Summary: No dropped crossing or tactile paving is shown at the site access. The lack of adequate pedestrian crossing facilities at the site access could result in blind/partially sighted pedestrians being struck by turning traffic at the junction.

Recommendation: Pedestrian crossing facilities and associated tactile paving should be provided across the site access. These crossing facilities should be located such that adequate visibility is provided, to allow pedestrians to see and be seen passed the visitor parking bays on the site access road.

Designers Response: *The Auditors recommendation is accepted. The amended site layout plan demonstrates the position of a proposed dropped kerb pedestrian crossing with tactile paving. This has been positioned so that it is on the pedestrian desire line on the footway on Plane Street and also to maintain visibility between pedestrians and drivers at the junction of the new site access and Plane Street. Details of the crossing will be agreed at Detailed Design stage.*

APPENDIX A

Drawing Reference: Stage 1 RSA Marked up Plan


Existing Retaining Wall requires investigation. Engineer to review and advise.
Visability splay 2.4m x 43m
Highways to be upgraded to allow for the site access to be located here.
PLANE STREET
PLANE STR.
+111.6ex
114.9ex +
+112.2ex
117.4ex +
+117.12
+111.7ex
+111.0ex
+109.95ex
+116.8
+117.5
+116.3
+114.4
+110.30
+112.25
+121.9ex
+124.5ex
<-- 1in60
<-- 1in20
<-- 1in40
<-- 1in12
VIS
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×2.2
×2.3
×2.4
×2.5
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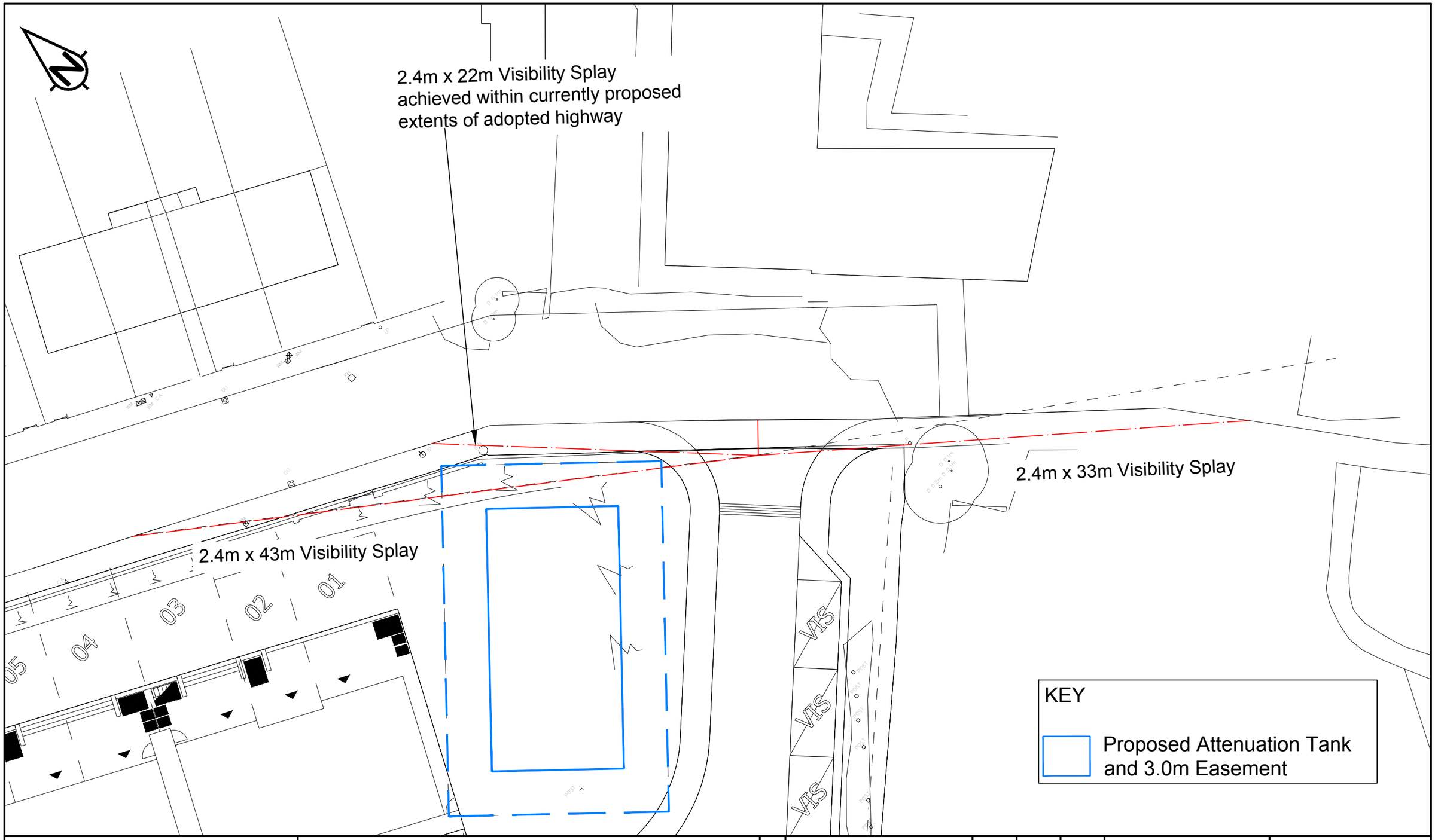
Appendix B

Sanderson Associates Drawings:

11293-004 – Visibility Splays at Site Access

11293-005 – Forward Visibility on Internal Layout

11293-006 – Swept path analysis of site access turning manoeuvre



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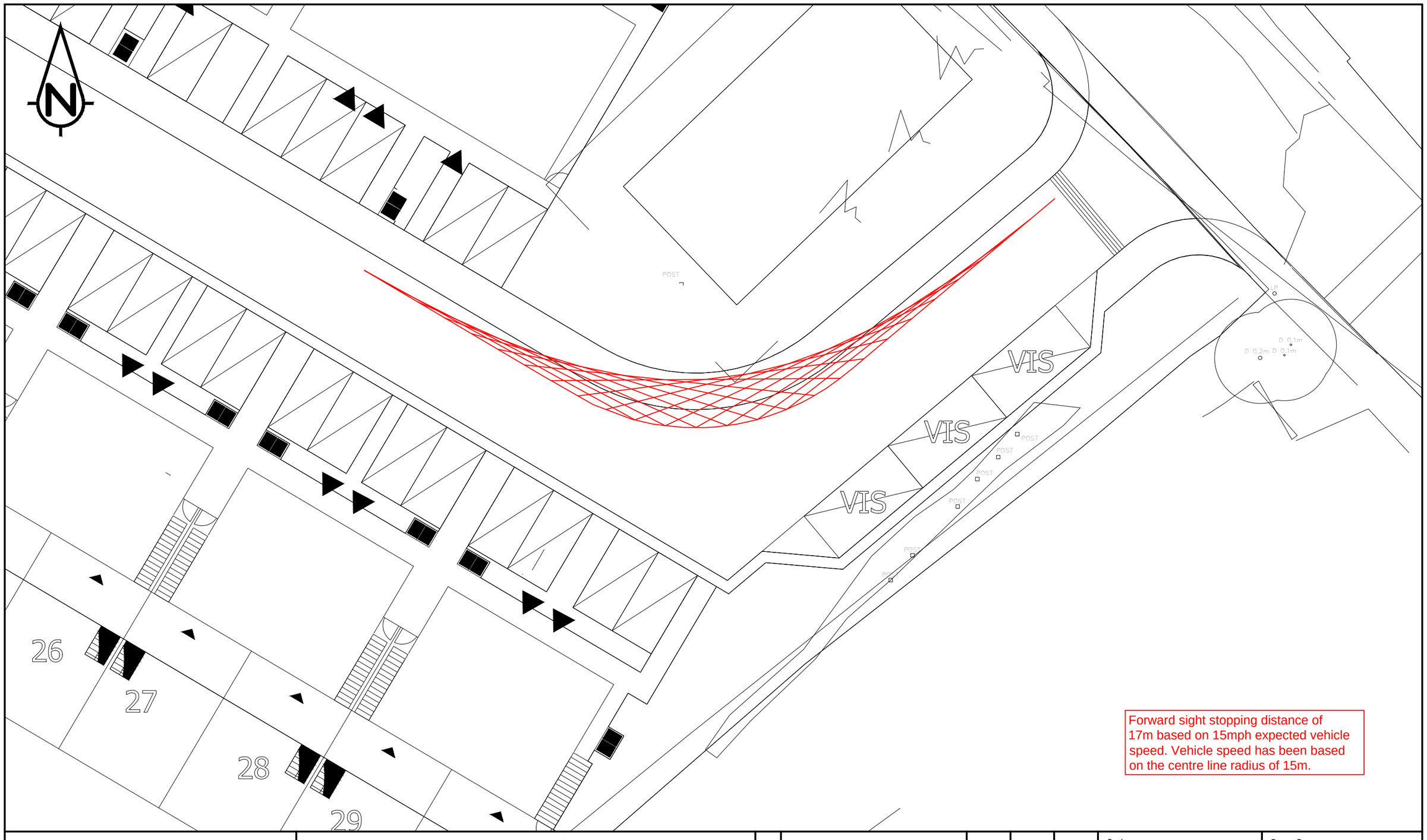
Proposed Residential Development, Plane Street, Huddersfield

Visibility Splays from Proposed Access

Rev	Amendment	Drawn	Date	Checked

Scale 1:250		Drawn By JT	
Drawing Size A3		Checked By KS	
Date 19.06.20		Approved By KS	
	Drawing Number 11293-004		Rev –

FILE REF:



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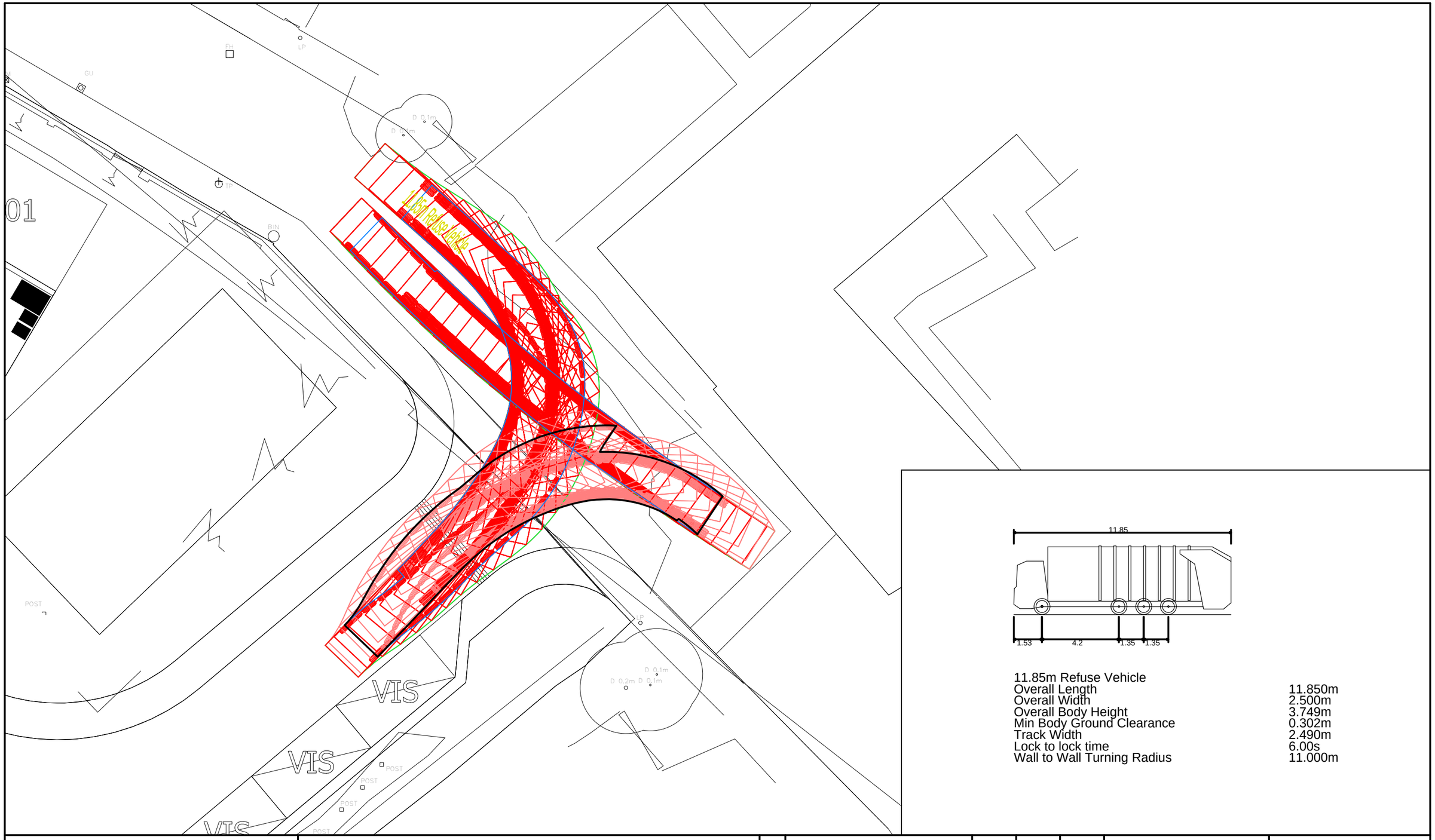
Proposed Residential Development, Plane Street, Huddersfield

Forward Visibility on internal access road

Rev	Amendment	Drawn	Date	Checked

Scale 1:200		Drawn By	JT
Drawing Size	A3	Checked By	KS
Date	24.06.20	Approved By	KS
	Drawing Number 11293–005		Rev –

FILE REF:



11.85m Refuse Vehicle	
Overall Length	11.850m
Overall Width	2.500m
Overall Body Height	3.749m
Min Body Ground Clearance	0.302m
Track Width	2.490m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.000m

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Proposed Residential Development, Plane Street, Huddersfield

Swept Path Analysis of refuse vehicle turning at proposed site access

Rev	Amendment	Drawn	Date	Checked

Scale	1:200	Drawn By	JT
Drawing Size	A3	Checked By	KS
Date	24.06.20	Approved By	KS
	Drawing Number 11293-006		Rev –

FILE REF: