

BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Project Name:	Proposed Residential Development, Sykes Meadows, Cliffe Lane, Gomersal				
Client:	KCS Development Ltd				
BGH Reference:	15-398-004.01				
Subject:	Transport Assessment Second Addendum				
Date:	Tuesday 20 th August 2019				
Prepared by:	R Donaldson	Checked by:	G Bowman	Overview by:	A Cooper

Introduction

1. This note is a second addendum to the Transport Assessment (TA) prepared by Bryan G Hall (BGH) dated January 2019 and submitted with the outline planning application for a proposed residential development of 92 dwellings, on land known as Sykes Meadows to the north of Cliffe Lane, Gomersal, West Yorkshire. The application was validated on 19th March 2019 under application number 2019/60/90902/E.
2. An addendum was previously prepared and submitted in June 2019 to present updated bus service information (document reference 15-398-003.01). This second addendum has been prepared to detail the remaining highways related changes to the proposals which have occurred since the submission of the TA in January 2019, following extensive discussions with Kirklees Council. This included a meeting at Kirklees Council's offices in Huddersfield on Wednesday 22nd May 2019.

Site Access

3. A drawing of the proposed site access arrangement is included at Appendix BGH18 of the original TA dated January 2019 (drawing number 15/398/SKH/003 Rev B), which incorporates a 5.5m wide access with 2m wide footways to both sides and 4m radii kerbs. Following the results of swept path analysis of a Kirklees refuse vehicle using the access, the access has been amended to better accommodate the refuse vehicle and address Kirklees Highway's concerns.
4. Two alternative options were presented to Kirklees for consideration. Drawing number 15/398/SKH/005 Rev B attached is the option Kirklees consider to be acceptable, which has a carriageway width of 6m, kerb radii of 6m and 2m footways to both sides. The footways narrow to 1.8m and 1.75m at the junction radii in order to accommodate the increased carriageway width and radii. The agreed drawing is attached at **Appendix BGH1**, and the refuse vehicle swept paths are at **Appendix BGH2**.
5. An updated Stage 1 Road Safety Audit of the revised access arrangement has been undertaken, which is attached at **Appendix BGH3** along with the Designer's Response prepared by BGH.

6. The only safety concern raised by the audit team is with pedestrians ‘rushing out’ from the end of the existing public right of way and into the carriageway on Cliffe Lane in the vicinity of the proposed site access junction. Following discussions with Kirklees’ Highways and Public Rights of Way teams, it was agreed that this is a long established path with no such incidents reported, therefore no specific feature to prevent this is necessary.
7. Notwithstanding, Kirklees have requested that a pair of bollards are provided at the Cliffe Lane end of the right of way to prevent vehicular access directly from Cliffe Lane, as alternative access is to be provided from within the site. This is reflected on the revised access drawing.

Internal Site Layout

8. A copy of the amended site layout is included at **Appendix BGH4** for reference.

Number of Dwellings

9. Following discussions with Kirklees regarding housing density requirements for the site, the proposed number of dwellings on the site is now 98, which is only 6 dwellings more than the 92 dwellings on which the original TA is based.
10. Tables 1 and 2 below present the additional trips predicted to be generated by a further 6 dwellings on the site, using the TRICS trip rates and the higher trip rates which Kirklees requested to be used in the TA, respectively.

Table 1: Residential Trip Rates and Generation Using TRICS Trip Rates

	Trip Rates and Generation – 6 Dwellings – TRICS Trip Rates					
	Morning			Evening		
	In	Out	Two-Way	In	Out	Two-Way
Trip Rate	0.086	0.529	0.615	0.388	0.233	0.621
Trip Generation	1	3	4	2	1	3

Table 2: Residential Trip Rates and Generation Using Kirklees Trip Rates

	Trip Rates and Generation – 6 Dwellings – Kirklees Trip Rates					
	Morning			Evening		
	In	Out	Two-Way	In	Out	Two-Way
Trip Rate	0.2	0.6	0.8	0.6	0.2	0.8
Trip Generation	1	4	5	4	1	5

11. Based on the TRICS trip rates, a further 6 dwellings on the site are predicted to generate an additional 4 two-way trips during the morning peak hour and 3 two-way trips during the evening peak hour. Based on the higher Kirklees trip rates, a further 6 dwellings on the site are predicted to generate an additional 5 two-way trips during both the morning and evening peak hours.
12. It is therefore considered that the additional trips generated by a further 6 dwellings on the site will not materially affect the outcome of the operational assessment presented in the original TA.

Parking Provision

13. The parking provision has been increased in line with Kirklees Highways requirements. A total of ten visitor parking spaces have been added to the layout split over three locations in the form of on-street parking laybys.

Shared Surface

14. At the request of Kirklees Highways, the eastern section of the site is to be a shared surface arrangement. Swept path analysis of a Kirklees refuse vehicle utilising the turning areas is attached at **Appendix BGH5**, which shows that the refuse vehicle can successfully turn within the site.

Bin Collection Points

15. Kirklees have requested that bin collection points are provided at the ends of each of the shared private drives, along with collection points for each individual dwelling at the ends of driveways. Due to Kirklees' requirements for housing density and parking on the site, it is not possible to provide this for every dwelling. Therefore, the revised layout at **Appendix BGH4** illustrates the best solution on balance with the other requirements.
16. Two collection points per dwelling will be provided within a communal area at the ends of each of the shared private drives adjacent to the highway. Where possible, the other dwellings on the site will also have two collection points each located adjacent to the highway, as shown on the revised layout plan. This is not possible for property numbers 4 to 11 and 62 to 66, due to density and parking requirements, therefore shared collection points are proposed for these dwellings.

Travel Plan

17. The Travel Plan has been amended to include the following based on comments received from Kirklees':
 - Amended to refer to as 'Framework (Interim) Travel Plan';
 - Reference to Travel Plan monitoring fee of £2,000 per year for 5 years included (to be paid through a Section 106 agreement);

- Commitment to contribute to Metro Cards for affordable dwellings only (up to a maximum of 20 tickets, to be paid through a Section 106 agreement);
- Commitment to multi-modal traffic surveys of the site access junction in years 1, 3 and 5 of the monitoring period to supplement the resident travel survey data, for the purpose of assessing the performance of the Travel Plan and reviewing targets; and
- Further information on monitoring methodology and measures provided.

Summary and Conclusions

18. This note has been prepared by Bryan G Hall as a second addendum to the Transport Assessment submitted with the planning application for a proposed residential development, on land known as Sykes Meadows to the north of Cliffe Lane, Gomersal, West Yorkshire.
19. Following the submission of the Transport Assessment, discussions have taken place with Kirklees Highways which have resulted in a number of changes to the proposed site layout and access arrangement. This second addendum to the Transport Assessment provides details of the highways related amendments made to the proposals, to allow Kirklees Council to determine the planning application.

Appendices

Appendix BGH1 – Revised Proposed Access Arrangement

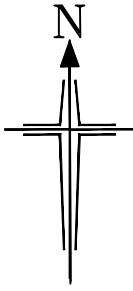
Appendix BGH2 – Refuse Vehicle Swept Path Analysis of Access

Appendix BGH3 – Updated Stage 1 RSA and Designer's Response

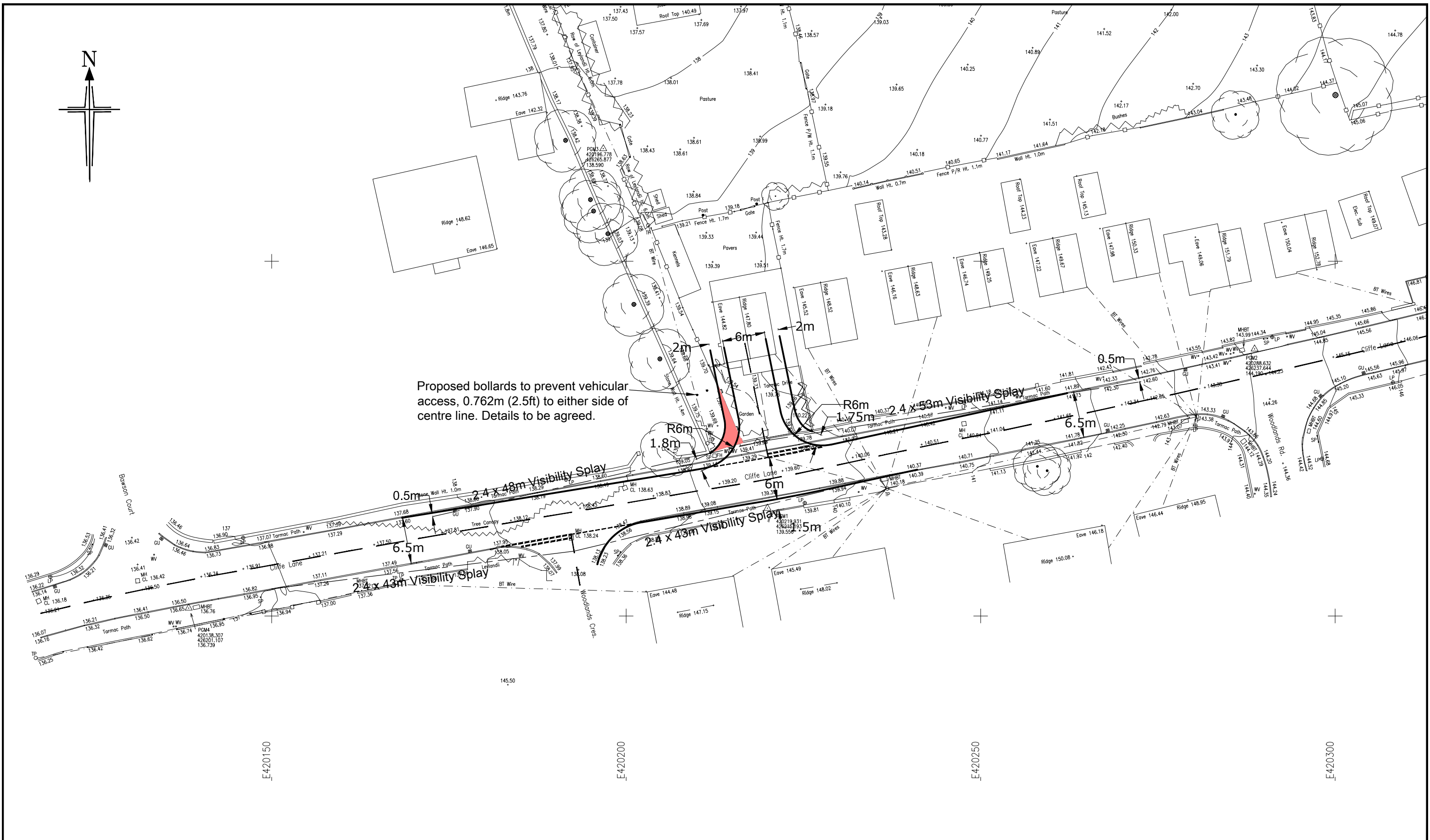
Appendix BGH4 – Revised Site Layout Plan

Appendix BGH5 – Refuse Vehicle Swept Path Analysis of Internal Turning Areas

APPENDIX BGH 1



Proposed bollards to prevent vehicular access, 0.762m (2.5ft) to either side of centre line. Details to be agreed.



Client:

KCS DEVELOPMENTS

Project:

CLIFFE LANE, GOMERSAL

B	Pedestrian guardrail replaced with bollards following meeting with Kirklees Council on 22-05-19	RD	GB	10-06-2019			
A	Proposed staggered pedestrian guardrail added following Stage 1 RSA	RD	GB	24-04-2019			
Rev:	Amendment:	Drn:	Chk:	Date:			
Drawn:	RD	Chkd:	GB	Appvd:	CT	Date:	21-02-2019
Scale:	1:500	Job No:	15-398	Drawing No:	15/398/SKH/005	Revision:	B

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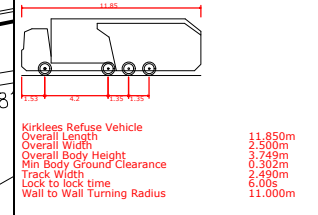
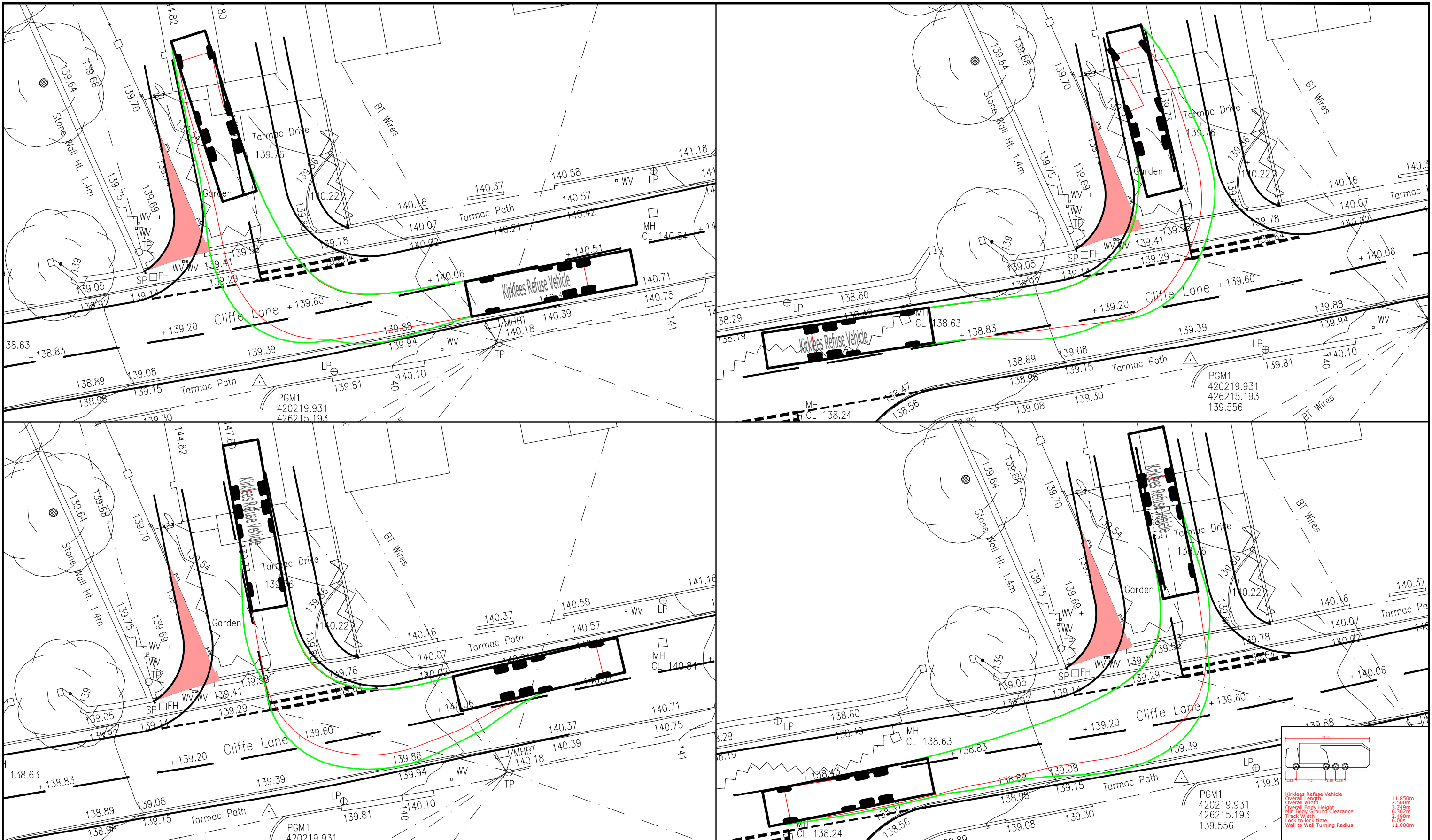
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26/36 Wharfedale Road
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T 0203 553 2336

Title

PROPOSED ACCESS ARRANGEMENT
OPTION 2 - 6m WIDE ACCESS

APPENDIX BGH 2



Client: KCS DEVELOPMENTS		Project: CLIFFE LANE, GOMERSAL	
BRYAN G HALL CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS Copyright Reserved Bryan G Hall Ltd.		Suite E15 Josephs Well Hanover Walk LEEDS LS3 1AB T 0113 246 1555 F 0113 234 2201	
E highways@bryanghall.co.uk W www.bryanghall.co.uk		Lighterman House 26/36 Wharfedale Road LONDON N1 9RY T 0203 553 2336	
Title: SWEPT PATH ANALYSIS OF KIRKLEES REFUSE VEHICLE OPTION 2 - 6m WIDE ACCESS (BASED ON 15/398/SKH/005)		Rev: Amendment:	Drn: Chk: Date:
Drawn: RD	Chkd: GB	Appvd: CT	Date: 21-02-2019
Scale: 1:250	Job No: 15-398	Drawing No: 15/398/ATR/003	Revision:
Size: A3 - 420 x 297			

APPENDIX BGH 3



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CLIFF LANE, GOMERSAL, PROPOSED
ACCESS JUNCTION

Stage 1 Road Safety Audit
Client: KCS Development Ltd

24/04/2019

Quality Management

Issue Record

ISSUE	REVISION	DESCRIPTION	DATE	PREPARED BY	CHECKED
1	1	Draft	24 April 2019	<i>M Morley</i>	<i>A Bawn</i>
Document number - RSI-MM-0918-003 Issue 1.1					

Cliff Lane, Gomersal, Proposed Access Junction

Stage 1 Road Safety Audit

24/04/2019

Overseeing Organisation

KCS Development Ltd

Client

KCS Development Ltd

Design Organisation

Bryan G Hall

Road Safety Audit Team Organisation

Road Safety Initiatives LLP

www.roadsafetyinitiatives.co.uk

Registered Address

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APPENDIX A – Scheme Documents Issued for Road Safety Audit

APPENDIX B – Location Plans

1 Introduction

- 1.1.1 This report results from a Stage 1 Road Safety Audit carried out on the on the proposed access junction in Cliffe Lane, Gomersal, associated with a new residential development. This is at the request of Richard Morton, KCS Developments Ltd (Overseeing Organisation). A previous Stage 1 Road Safety Audit was carried out on an earlier design of the proposed site access junction in September 2018.
- 1.1.2 The terms of reference of the Road Safety Audit are as described in DMRB GG 119. The Road Safety Audit Team has examined and reported only on the road safety implications in the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.
- 1.1.3 The Road Safety Audit Team membership consisted of:
- | | |
|-------------|---|
| Team Leader | Martin Morley, BSc (Hons), MCIHT, MSoRSA
Certificate of Competency in Road Safety Audit gained in Feb 2013
Partner, Road Safety Initiatives LLP |
| Team Member | Alan Bawn, BSc (Hons), CEng, MICE
Consultant, Road Safety Initiatives LLP |
- 1.1.4 The Road Safety Audit was undertaken in accordance with the Road Safety Audit Brief provided by Robbie Donaldson and James Pointon (Design Organisation, Bryan G Hall) and approved by Richard Morton, KCS Developments Ltd. The Road Safety Audit comprised an examination of the documents provided and listed in Appendix A.
- 1.1.5 The Road Safety Audit Team visited the site together on Monday 17th September 2018 between 13:55 and 14:30 hours. It was cloudy and the road surfaces were dry at the time of the site visit. Traffic flows in Cliffe Lane were light. Very few pedestrians and cyclists were observed during the site visit.
- 1.1.6 Matters which the Terms of Reference exclude from this report, but which the Road Safety Audit Team wishes to draw to the attention of the Overseeing Organisation, will be supplied in a separate document in the covering email to this Road Safety Audit Report.
- 1.1.7 All Road Safety problems are referenced to the design drawings and the locations have been indicated on the plans supplied with the Road Safety Audit Brief in Appendix B.
- 1.1.8 This Road Safety Audit will review the road safety aspects of the proposed access junction at No. 271 Cliffe Lane. A detached house (No. 271 Cliffe Lane) would be demolished as part of the works.
- 1.1.9 A previous Stage 1 Road Safety Audit was carried out in September 2018 on an earlier design of the proposed site access junction. In the latest design, the proposed access junction would have a visibility splay of 2.4m x 48m to the west and 2.4m x 53m to the east. To achieve the intended visibility splays, the northern footway of Cliffe Lane will be widened. To compensate for the relocation of the northern kerblines, there will be subtle kerblines realignment on the south side of Cliffe Lane (and consequential slight narrowing of the southern footway).
- 1.1.10 The objective of the scheme is to provide an access junction in association with a new residential development of around 92 dwellings.

- 1.1.11 The proposed scheme has been amended following discussions with Kirklees Highways and hence this update to the previous Stage 1 Road Safety Audit is required. A list of design changes since the previous scheme was provided by the Design Organisation and is listed below:
- Access width increased from 5.5m to 6m;
 - Access radii increased from 4m to 6m to both sides;
 - Footway widths on radii reduced from 2m to 1.8m on western side and from 2m to 1.75m on the eastern side; and
 - Visibility to west reduced from 2.4m x 52m to 2.4m x 48m.
- 1.1.12 The Road Safety Audit Team was not informed of any Departures from Standard.

2 Items Raised at the Previous Road Safety Audit


2.1.1 The road safety implications of an earlier design of the proposed site access junction in Cliffe Lane, Gomersal, were the subject of a Stage 1 Road Safety Audit by Road Safety Initiatives LLP in September 2018.

2.1.2 The items raised at the previous Stage 1 Road Safety Audit are detailed in the table below:

Previous Stage 1 RSA Item	Previous Stage 1 Road Safety Audit Problem and Recommendation (September 2018)	Previous Stage 1 RSA Designers Response (October 2018)	Current Stage 1 RSA Comment (April 2019)
2.1.1	<p>LOCATION: Existing vehicle access road leading from Cliffe Lane to 'Holmfield'.</p> <p>The drawing supplied is unclear if or how the existing vehicle access to 'Holmfield' will be closed to traffic at Cliffe Lane. Conflicts may occur should a vehicle crossover be retained directly adjacent to the new development access junction. Related to this point, it is also not obvious how the existing public footpath will be tied-in with the new junction in Cliffe Lane. Pedestrians may be struck by turning traffic at the new junction.</p> <p>RECOMMENDATION</p> <p>It is recommended that the 'Holmfield' vehicle access is taken from the development access road and that the existing vehicle access in Cliffe Lane is stopped up.</p>	<p>Problem and recommendation accepted.</p> <p>Access to Holmfield is to be provided via a new private access from the new site access road as recommended. The current access onto Cliffe Lane will be closed to vehicles, with access to be retained for pedestrians using the public footpath only. This is shown on the proposed site layout plan, which was not supplied to the audit team.</p>	<p>An aspect of Problem 2.1.1 remains and is included in the next chapter as item 3.1.1.</p>
2.2.1	<p>LOCATION: Development access road and vehicle access to 'Holmfield'.</p> <p>The intended road lighting additions and improvements have not been indicated within the information supplied. Inadequate or inconsistent road lighting may contribute to darkness collisions, taking account of the additional pedestrians and cyclists and turning traffic at the new junction.</p> <p>RECOMMENDATION</p> <p>It is recommended that a road lighting review is undertaken and that appropriate road lighting is provided within the development and that, if required, the lighting is upgraded at the new junction in Cliffe Lane.</p>	<p>Problem and recommendation accepted.</p> <p>Street lighting design will be carried out at the detailed design stage.</p>	<p>Street lighting design is to be carried out at the detailed design stage. Problem 2.2.1 is resolved.</p>

3 Items Raised at this Stage 1 Road Safety Audit

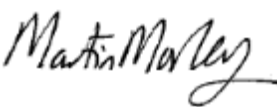

3.1 WALKING, CYCLING AND HORSE RIDING

PROBLEM 3.1.1	
Location	Existing public footpath leading to Cliffe Lane from 'Holmfield'.
Summary	A pedestrian could 'rush out' into the carriageway from the public footpath, possibly leading to a collision.
<p>The Designers Response to the previous Road Safety Audit says that the existing vehicle access to 'Holmfield' will be closed to traffic at its junction with Cliffe Lane. Cars from 'Holmfield' will be able to use a new private vehicular access, that would join the proposed access road within the development itself.</p> <p>Pedestrian access to / from the public footpath will be retained at Cliffe Lane however. A pedestrian e.g. a child running (or a cyclist) could 'rush out' into the carriageway from the public footpath, the end of which will be directly adjacent to the new junction. A collision between a pedestrian and a passing vehicle could result.</p>	
	
RECOMMENDATION	
<p>It is recommended that there is a measure to prevent someone running or cycling into the junction from the public footpath (the former 'Holmfield' vehicle access). For example, a staggered barrier could be installed or the southern end of the public footpath could be closed at Cliffe Lane, with pedestrians re-routed to use the western footway of the proposed access road.</p>	

**** END OF IDENTIFIED PROBLEMS AND RECOMMENDATIONS MADE AT THIS STAGE 1 ROAD SAFETY AUDIT ****

4 Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG 119.

ROAD SAFETY AUDIT TEAM LEADER	
Name:	Martin Morley
Signed:	
Position:	Partner
Organisation:	Road Safety Initiatives LLP
Date:	24 April 2019
ROAD SAFETY AUDIT TEAM MEMBER	
Name:	Alan Bawn
Signed:	
Position:	Consultant
Organisation:	Road Safety Initiatives LLP
Date:	24 April 2019

Appendices, Figures and Tables

Appendix A: Scheme Documents Issued for Road Safety Audit

DRAWING/DOCUMENT NUMBER	REV	TITLE
15/398/SKH/005	-	Proposed Access Arrangement Option 2 – 6m Wide Access
15/398/LOC/004	-	Stage 1 RSA Location Plan
15/398/ATR/003	-	Swept Path Analysis of Kirklees Refuse Vehicle Option 2 – 6m Wide Access (Based on 15/398/SKH/005)

In addition the following information was made available to the Road Safety Audit Team:

- 2017 Existing Vehicular Flows and Speeds (diagrams); and
- Reported Injury Collisions, “Vicinity of Spen Bank, Kirklees, RTC five years prior to date (05.11.2018)” including a Table Summary, Yearly Trend and a Geographical Plot.

Appendix B: Location Plans

Numbers refer to problems identified in the text.



3.1.1

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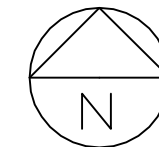
**STAGE 1 ROAD SAFETY AUDIT
PROPOSED SITE ACCESS JUNCTION, CLIFFE LANE, GOMERSAL
DESIGNER'S RESPONSE – REV A**

The following table summarises the findings of the Stage 1 Road Safety Audit performed on the above scheme dated 24th April 2019 and provides the Designer's Response to each point raised by the audit team.

1	2	3	4	5
Point N° in Safety Audit	Point accepted (Yes/No)	Recommendation Accepted	If NO in Column 2 Give Reasons	If Yes in Column 2 Give Comments/Action
3.1.1	No	No	<p>The existing PRoW is an established path which has been in place for a long period of time, with no reported incidents of pedestrians or cyclists rushing out from the end of the path into the carriageway. It is therefore not considered necessary to provide a feature to specifically attempt to prevent this.</p> <p>However, following a meeting with officers from Highways Development Management and the Public Rights of Way team on 22nd May 2019, it is proposed to provide a pair of bollards to prevent vehicular access directly from Cliffe Lane as currently takes place. An alternative access to Holmfield is to be provided from within the site.</p> <p>The proposed access drawing has been updated to show the bollards at the separation distance of 2.5ft either side of the centre line of the access, as agreed at the meeting (15/385/SKH/005 Rev B). Exact details of the bollards are to be agreed.</p>	

NAME:	Robbie Donaldson
SIGNED:	<i>R. Donaldson</i>
POSITION:	Senior Engineer
DATE:	07/06/2019

APPENDIX BGH 4



All site dimensions shall be verified by the contractor on site prior to work commencing

Do not scale from this drawing
Only work to written dimensions

This drawing is the property of Ellis Healey Architecture and copyright is reserved by them. The drawing is not to be copied or disclosed by or to any unauthorised persons without the prior written consent of Ellis Healey Architecture.

NOTES

Site layout subject to detailed level and topographical review. Refer to engineers drawings for levels and details.
For landscaping details refer to landscape architects drawings and details.



SCHEDULE OF ACCOMODATION		
TYPE 2A - 2 BED SEMI-DETACHED - 680 SQ FT (63.1 sq m) 2 no. off street parking spaces	27	
TYPE 3A - 3 BED DETACHED - 905 SQ FT (84 sq m) 2 no. off street parking spaces	24	
TYPE 3B - 3 BED SEMI-DETACHED - 984 SQ FT (91.4 sq m) 2 no. off street parking spaces	18	
TYPE 3C - 3 BED DETACHED - 1,081 SQ FT (100.4 sq) 2 no. off street parking spaces and detached garage	6	
TYPE 3D - 3 BED DETACHED - 1137 SQ FT (105.6 sq m) 2 no. off street parking spaces and detached garage	4	
TYPE 4A - 4 BED DETACHED - 1,162 SQ FT (107.9 sq m) 2 no. off street parking spaces and integral garage	5	
TYPE 4B - 4 BED DETACHED - 1,318 SQ FT (122.4 sq m) 2 no. off street parking spaces and integral garage	1	
TYPE 4C - 4 BED DETACHED - 1,382 SQ FT (128.3 sq m) 2 no. off street parking spaces and detached garage	13	
TOTAL	98	

Bin store location
Bin collection point (max 12 bins)
Garden shed/cycle storage

Parking Note:
Parking as shown above with the exception of Type 2A - Plot 44, 45 & 46 which have 1 off street parking space. Garages internal dims 6 x 3m.
10 no. visitors parking spaces shown 6 x 2m (parallel parking spaces)

Rev G	Amended	02.08.19	(DPE)
Rev F	Mark areas added	30.07.19	(DPE)
Rev E	Layout updated to highways comments	22.07.19	(DPE)
Rev D	Layout updated to planning comments	04.07.19	(DPE)
Rev C	Layout updated to show new bin locations, bin collection points added and POS updated	08.03.19	(DPE)
Rev B	Updated to engineers comments	04.04.19	(DPE)
Rev A	Updated to comments	25.02.19	(DPE)
Destination	Details of Revision	Date	1:864x560

SITE AREAS	
SITE AREA	8.90 ACRES (3.60 HA)
27.2 dwelling per hectare/ 11 dwellings per acre	
PUBLIC OPEN SPACE	0.279 HA

Proposed new access subject to detailed design and approval. Refer to highways engineers drawings for details.

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architecture

PLANNING

PROJECT: PROPOSED DEVELOPMENT LAND AT FERRAND LANE GOMERSAL

TITLE: PROPOSED SITE PLAN

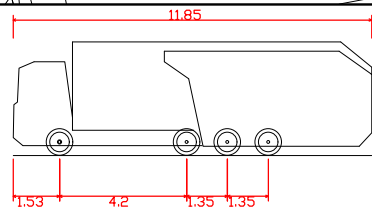
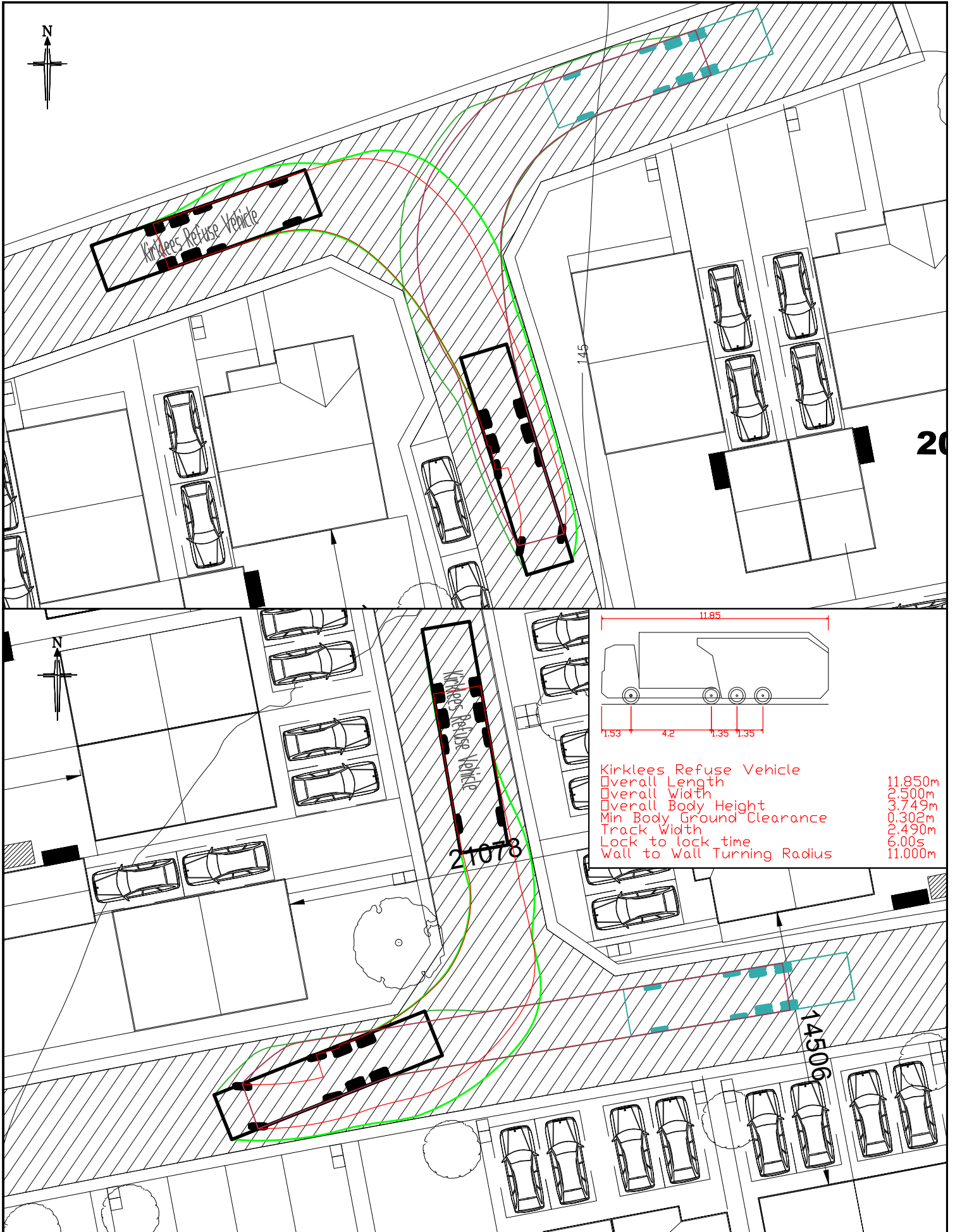
DRAWING NO: 1332 PL101G

BY/CHECKED: DPE DATE: JAN 2019

SCALE @A3: 1:1250

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Tel: 0113 3432000 E-mail: info@ellishealey.com

APPENDIX BGH 5



Kirklees Refuse Vehicle	11.850m
Overall Length	11.850m
Overall Width	4.506m
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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Client: KCS DEVELOPMENTS

Project: CLIFFE LANE, GOMERSAL

Title: SWEPT PATH ANALYSIS OF KIRKLEES
REFUSE VEHICLE (BASED ON PROPOSED
SITE PLAN 1332 PL 101F)

C	Amended to reflect updated layout	RD	GB	02-08-19
B	Amended to reflect updated layout	RD	GB	01-07-19
A	Amended to reflect updated layout with shared surface	RD	GB	12-06-19

Rev: Amendment: DRN: CHK: Date:

Status:

Drawing No: 15/398/ATR/002 Date: 04-01-2019 Scale: 1:250
A4 - 297 x 210

Job No: 15-398 Revision: C Drawn: RD Checked: GB

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