PCS Property Solutions Ltd

Land at Barnsley Road, Grange Moor, Wakefield

Stage 1 Road Safety Audit Designers Response

sanderson associates consulting engineers

Control Sheet

CLIENT: PCS Property Solutions Ltd

PROJECT TITLE: Land at Barnsley Road,
Grange Moor, Wakefield

REPORT TITLE: Stage 1 Road Safety Audit Designers Response

PROJECT REFERENCE: 151716

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ISSUE NUMBER: 03

DATE: July 2024

Issue & Approval Schedule	Issue 01 Final	Name	Signature	Date
	Prepared by	Simon Burkinshaw	Signed version available upon request	02/07/2024
	Checked by	Karen Smith		02/07/2024
	Approved by	Karen Smith		02/07/2024

Issue Record	Issue	Date	Status	Description	Signature	
	02	05/07/2024	Final	Amended to include Overseeing Organisation Reponses	Prepared	Karen Smith
					Checked	Simon Burkinshaw
					Approved	Karen Smith
	03	22/07/2024	Final	Amended to include updated plans	Prepared	Karen Smith
					Checked	Simon Burkinshaw
					Approved	Karen Smith

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1. Road Safety Audit Response Report

F1 Project Details

Table F.1 Project details	
Report Title:	Stage 1 Road Safety Audit Designers Response
Date:	02 July 2024
Document reference and revision:	151716-007-02
Prepared by:	Sanderson Associates Consulting Engineers
On behalf of:	PCS Property Solutions Ltd

Table F.2 Authorisation sheet	
Project:	Land at Barnsley Road, Grange Moor, Wakefield
Report Title:	Stage 1 Road Safety Audit Designers Response
Prepared By:	
Name:	Simon Burkinshaw FHIE
Position:	Principal Engineer
Signed:	Signed version available upon request
Organisation:	Sanderson Associates Consulting Engineers
Date:	02 July 2024
Approved By:	
Name:	Karen Smith FIHE
Position:	Associate Director
Signed:	Signed version available upon request
Organisation:	Sanderson Associates Consulting Engineers
Date:	02 July 2024

F2 Introduction

Sanderson Associates Consulting Engineers has been instructed by PCS Property Solutions Ltd Ltd in relation to proposals for a proposed development at the current Grange Moor Coachworks site, on Barnsley Road, Grange Moor.

The Stage 1 Road Safety Audit is in relation to the alterations to existing site accesses and Grange Moor Roundabout including provision of shared cycle/footways and proposed speed limit reductions.

The Audit site visit took place on site on Thursday 6th June 2024 in the afternoon.

F3 Key personnel

Table F.3 Key Personnel	
Overseeing Organisation:	Adam Darwin, Group Engineer, Highway Development Management (HDM) - Kirklees Council
RSA team:	Audit Team Leader – Adriano B. Cappella IEng, FIHE, MCIHT, MSoRSA, HA RSA Certificate of Competency Audit Team Member – Lisa Allen MSc, BEng(Hons), MCIHT, MSoRSA, HA RSA Certificate of Competency
Design Organisation:	Fairhurst Group LLP T/A Sanderson Associates Consulting Engineers Simon Burkinshaw FIHE - Principal Engineer Karen Smith FIHE – Associate Director

F4 Road safety audit decision log

Table F.4 Road Safety Audit Decision Log				
RSA Problem	**RSA Recommendation**	**Design Organisation Response**	**Overseeing Organisation Response**	**Agreed RSA Action**
Problem 2.1.1 **Location 1** - The proposed right turn facility from Barnsley Road into the Blacksmith Arms car park (Drawing Nos. 151716-001 Rev C & 151716-007 Rev C). **Summary -** Swept path requirements of larger delivery vehicles waiting within the right turn facility leading to the Blacksmiths Arms public house car park could lead to a potential increased risk of nose to tail shunt type vehicular collisions occurring, whereby vehicle occupants could sustain personal injury. **Detail:** The scheme drawings indicate the provision of a right turn facility on Barnsley Road for drivers turning right into the Blacksmiths Arms public house car park area. Whilst a vehicle is not shown to be stationary within the right turn facility leading to the public house car park area, it is not unreasonable to suggest that vehicles, particularly larger delivery vehicles waiting to turn right, may encroach into the south east bound lane of the Barnsley Road carriageway. Concern arises that the potential swept path requirements of larger	It is Recommended that swept path analysis exercises should be undertaken, particularly for larger delivery vehicles waiting in the right turn facility. Should the swept path analysis exercises demonstrate that stationary larger delivery vehicles encroach into the south east bound carriageway when waiting to turn right into the public house car park, it is further Recommended that the right turn facility should be modified, in order to reduce or mitigate the above described potential collision scenario.	The RSA Problem and Recommendation is not accepted. It considered that the proposed arrangement is a significant improvement over the existing arrangement which is not provided with any right turn provision. On the existing arrangement all right turning vehicles are at risk of the type of accident detailed in the RSA problem. Whilst the design does not cater for the occasional larger vehicle it does provide increased provision for the majority of vehicles turning right at this location.	The RSA Problem and Recommendation is not accepted, and the Design Organisation Response is partially accepted. It is agreed that the proposed design provides benefits over the current situation, which does not include any right turn lane/pocket at present. The existing situation would also be improved by the reduced speed limit, improved visibility, and more compact roundabout geometry, which should reduce circulating and exit speeds. It is also considered that the RSA Recommendation is not viable, as there is minimal scope to increase the size of the right turn pocket further, and certainly not enough to allow it to accommodate HGV's, due to the required improvements to the pedestrian/cycle refuge island to the north (and providing a suitable offset to the crossing point from the circulatory	No further action required.

vehicles encroaching into the south east bound carriageway of Barnsley Road when waiting to turn right into the pubic house vehicular access, could lead to a potential increased risk of nose to tail shunt type vehicular collisions occurring, whereby vehicle occupants could sustain personal injury.			carriageway) that is a key design element of the scheme. However, for the proposals to provide betterment over the current situation, the right turn pocket needs to be able to fully harbour light vehicles (e.g. at least a large car and ideally light vans up to 7.5T). Therefore, the designers have provided an additional swept path drawing 151716-016, which confirms that both a large car and a 7.5T (7.2m long) panel van can be fully accommodated within the proposed right turn pocket. Therefore, this demonstrates that the proposal provides a significant benefit over the current situation.	
Problem 2.2.1 **Locations 2 & 3 -** Wakefield Road and Liley Lane approaches to the Grange Moor Roundabout (Drawing No. 151716-007 Rev C). **Summary -** Departure from Design Standard with regard to the right turning arrows located within the approach lanes to the roundabout junction could result in drivers, particularly those drivers originating	It is Recommended that the carriageway markings should be amended to accord with the guidance in DMRB CD 116 Geometric Design of Roundabouts, in order to reduce or mitigate the above described potential collision scenario.	The Audit Team's Recommendation is accepted. A comprehensive scheme of lining/signage will be provided at detailed design stage.	The RSA Problem is acknowledged, but the Recommendation is not accepted, and the Designers Response is partially accepted. As confirmed in the RSA Brief, the existing roundabout already includes right turn arrows in the off-side lanes, and these have been in place	Final details of road markings and signage to be agreed at the detailed design stage and subject to review through the Stage 2 RSA process.

from overseas, attempting to enter the circulatory area in the wrong direction. This could lead to a potential increased risk of head on collisions occurring within the circulatory carriageway area of the roundabout junction, whereby vehicle occupants could sustain personal injury. **Detail -** The Audit Brief advises a Departure from Design Standard in that the scheme drawing indicates the provision of right turning directional arrow carriageway markings within the approaches of the northern and western arms of the roundabout junction. Concern arises that the provision of right turning arrows within the approaches of the northern and western arms of the roundabout junction could result in drivers, particularly those drivers originating from overseas, becoming confused regards which way to proceed into the circulatory area of the roundabout junction. As a result, this situation could lead to a potential increased risk of head on type collisions occurring within the circulatory carriageway area of the roundabout, whereby vehicle occupants could sustain personal injury.	If for whatever reasons the above recommendation cannot be adopted, then it is Recommended that approval for the current proposals should be sought and agreed with the Overseeing Organisation, i.e. the Local Highway Authority, Kirklees Council, via the DMRB GG 119 compliant Road Safety Audit Response Report and Table F.4 Decision Log.		for over 20 years, without any apparent issues. In practice, the potential problem that has been described is considered to be very low risk, and is unlikely to ever occur. It is noted that the site is nowhere near an airport or ferry terminal. Therefore, any foreign driver who may arrive at the junction, would already have driver for a long distance, and should be well aware of how to drive safely on UK roads. Furthermore, the existing and proposed arrow arrangements are necessary to provide optimum lane utilisation, and ensure that suitable information is provided to drivers of the correct lane choice. There is also not considered to be any other more suitable option, as the only other alternative suggested in TSM Chapter 5 para. 9.2.1 would be to provide ahead arrows in both lanes, with additional destination text and signage. However, this arrangement is	

			likely to be less informative than the existing & proposed arrow arrangements. In conclusion, the RSA problem is considered to be very low risk (if any, as evidenced by the existing operation of the junction), and the RSA recommendation is not accepted. Therefore, the proposed road marking arrangement should be retained. However, the final details will need to be considered at the details design stage, and subject to further review as part of the Stage 2 RSA. This should also include prominent roundabout signage, and chevron markings at the roundabout, to ensure driver compliance.	
Problem 2.3.1 **Location 4** - The southern priority T-junction for the proposed development site in Barnsley Road (Drawing Nos. 151716-001 Rev C & 151716-012 Rev A). **Summary -** Potential restrictions to the proposed visibility splay for drivers emerging from the southern priority T-junction of the proposed development site could result in a potential	It is Recommended that that the visibility splays should be kept clear of any impediments such as the existing identified site features, in order to reduce or mitigate the above described potential collision scenario.	The Audit Team's Recommendation is accepted. It should be noted that the visibility drawing 151716-012 A provided with the Audit brief shows 4.5m x 120 m visibility splays. The full extents of the visibility splays are provided within existing or new highway.	The RSA Recommendation and Designers Responses are generally accepted. However, it is important to note that whilst the visibility splays will need to be kept clear of any significant obstructions, and be fully contained within the proposed highway boundary, it may be necessary	All visibility requirements to be reviewed at the detail design stage, to ensure that there are no highway features that adversely affect visibility, with all visibility splays and sight lines contained

increased risk of side impact vehicular collisions occurring, whereby vehicle occupants could sustain personal injury. **Detail -** The scheme drawing indicates that an existing vehicular access will be modified in order to create a new priority T-junction, which will become the new southern access for the proposed development site in Barnsley Road. In order to accommodate the ghosted right turn facility within the centre of Barnsley Road, carriageway widening will be required. In effect, this will result in the proposed visibility splay of 4.5 x 120 metres being set back significantly when compared to the situation for the existing vehicular access. The site visit has established the presence of an existing dense hedgerow and stone wall, both of which could impact upon the proposed junction visibility scheme for drivers seeking to emerge from the proposed southern access/egress junction. Concern arises that any potential restrictions to the proposed visibility splay of 4.5 x 120 metre visibility splay could lead to a potential increased risk of side impact vehicular collisions occurring, between drivers emerging from the proposed development site and north west bound Barnsley Road		The footway on the southern site of the access has been widened to include up to the back of the visibility splay to ensure that this is kept clear of obstructions.	to provide some street furniture within the splays as permitted by good practice guidance and standards (See section 3.4 of CD109). However, any such features will need to be considered at the details design stage, and subject to review as part of the Stage 2 RSA. To confirm that the visibility splays will be fully contained within the proposed highway boundary, the designers have provided additional drawings 151716-017 Rev A & 151716-018 that confirm that the site access visibility splays will be contained within the new highway boundary following completion of the works.	within the highway boundary.

vehicular traffic, whereby vehicle occupants could sustain personal injury.				
Problem 2.3.2 **Locations 5 & 6** - The Wakefield Road western arm and the Liley Lane northern arm of the Grange Moor roundabout junction (Drawing No. 151716-014 Rev A). **Summary -** Swept path requirements of larger vehicles turning left on both arms of the roundabout junction encroach into the adjacent traffic lanes. This situation could lead to a potential increased risk of side swipe type vehicular collisions occurring, whereby vehicle occupants could sustain personal injury. **Detail -** The scheme drawing indicates the swept path analysis exercises undertaken for larger vehicles turning left from the Wakefield Road western arm and the Liley Lane northern arm of the Grange Moor roundabout junction. It is evident from the swept path analysis drawings that larger vehicles turning left from Wakefield Road western arm into Liley Lane and from Liley Lane into Wakefield Road eastern arm, encroach into the adjacent traffic lanes when undertaking these respective manoeuvres.	It is Recommended that the junction geometry at these locations should be modified, in order to reduce or mitigate the above described potential collision scenario.	The Audit Team's Recommendation is not accepted. The proposals identified on Drawing 151716-007 Rev E provide entry lane widths, entry path radius and circulatory carriageway width all in accordance with CD116. It is considered that increasing the entry lane widths would compromise other design principles applied to this roundabout. Neither is it considered that increasing the width would necessarily fully mitigate or prevent lane encroachment occurring when considering driver behaviour in these circumstances. The positioning of a larger vehicle when turning left in the locations identified by the Audit Team would restrict any other vehicle pulling alongside and accessing the roundabout. It is considered that the lane width reduction would act as a deterrent when viewed against the existing	The RSA Problem and Recommendation is not accepted, and the Designers Response is accepted. One of the aims of the scheme is to reduce entry path radii, to help reduce entry speeds. This has been achieved by providing more constrained arm geometry on the approaches, increasing the size of the splitter islands (also required for pedestrian/cycle safety reasons) and making the roundabout more compact. Therefore, the proposed RSA recommendation would be contrary to these aims and would not assist in reducing entry speeds. As suggested in the Designers Response, a large vehicle waiting at the give-way line on the short sections of two-lane flared approaches would block access to the adjacent lane. Therefore, side swipe incidents would not occur, as proceeding vehicles would not be able to feed into the adjacent lane.	Road marking details to be considered further at the detailed design stage, and subject to review as part of the Stage 2 RSA. Should acceptable road marking arrangements not be identified at the detailed design stage, the alternative option of reducing the two-lane flared approaches to single lane flared approaches could be pursued instead.

Concern arises that this situation could lead to a potential increased risk of side swipe type vehicular collision occurring, whereby vehicle occupants could sustain personal injury.		geometry and the on-site observations of the Design Team.	It is noted that the identified problem could be alternatively addressed by reducing the central lane markings to a single 4m line at the give-way line (or potentially removing them in their entirety), to remove any lane encroachment by large vehicles. However, this change is not recommended at this time, as this would prevent any arrow markings being providing in advance of the give-way line. A further alternative option would be to amend the flared approaches to single lane flared entries, but this is also not recommended as this would reduce the traffic capacity on these arms to some extent. Therefore, the current lane markings should be retained, and no lane widening should be pursued. However, the final road marking details will need to be considered at the details design stage, and subject to review as part of the Stage 2 RSA.	
Problem 2.4.1 **Location 7 -** The proposed crossing facility on the Wakefield Road eastern arm of the Grange Moor Roundabout (Drawing No. 151716-007 Rev C).	It is Recommended that the existing vegetation should be cut back and removed, in order to ensure the intervisibility at	The Audit Team's Recommendation is accepted.	The RSA Problem, Recommendation and Designers Response are accepted.	Site clearance, planting, and visibility requirement to be considered

Summary - Potential restriction to intervisibility at the uncontrolled crossing facility on the northern side of Wakefield Road could lead to a potential increased risk of vehicular and pedestrian collisions occurring, whereby pedestrians could sustain personal injury. **Detail -** The scheme drawing indicates the provision of an uncontrolled crossing facility on the Wakefield Road eastern arm of the Grange Moor Roundabout. The site visit has established that the existing overgrown vegetation at the rear of the existing footway would significantly impact upon the intervisibility between vehicles turning left from Liley Lane into Wakefield Road and pedestrians crossing from the northern side of the Wakefield Road carriageway. Concern arises that the restriction to the intervisibility at this location could lead to a potential increased risk of vehicular and pedestrian collisions occurring, whereby pedestrians could sustain personal injury.	this location remains clear of any impediments, thus reducing and mitigating the above described potential vehicular and pedestrian collision scenario.	A site clearance drawing will be provided at detailed design stage, which will show the area within the intervisibility to be cleared. Proposals at detailed design stage will include suitable low level planting in this area.	As stated in the Designer Response, vegetation will need to be cleared as part of the works, with only low level planting used to replace this, to ensure that adequate pedestrian/vehicle intervisibility is provided at all crossing points and cycleway transitions.	further at the detailed design stage, and subject to review as part of the Stage 2 RSA.
Problem 2.4.2 **Location 8 -** The proposed shared use footway/cycleway at the northern	It is Recommended that the existing low level wall should be	The Audit Team's Recommendation is accepted.	The RSA Problem, Recommendation and	At the detailed design stage, ensure

egress junction (Drawing No. 151716-001 Rev C). **Summary -** An existing low level wall could restrict the future width of the proposed shared use footway/cycleway, which could lead to a potential increased risk of pedestrian and pedal cyclist collisions occurring with the existing feature, as well as a potential increased risk of pedal cyclist and pedestrian collisions occurring, whereby pedestrians and pedal cyclists could sustain personal injury. **Detail -** The scheme drawing indicates the provision of a shared use footway/cycleway on the northern side of the northern egress junction. The site visit has established the presence of an existing low level wall on the northern side of the proposed egress junction, which could impact the future width of the proposed shared use footway/cycleway at this location. Concern arises that should the existing low level wall remain within the proposed shared use footway/cycleway, this situation could lead to a potential increased risk of pedal cyclist and pedestrian collisions occurring with the existing feature whereby pedestrians and pedal cyclists could sustain personal injury.	completely removed when the proposed shared use footway/cycleway is constructed, thus optimising the future available width for pedestrian and pedal cyclist use.	It should be noted that design drawings show a section of this wall to be removed, and a minimum footway width of 3m provided for the footway.	Designers Response are accepted. However, the Designers Response comments are reiterated, as the low height wall that has been mentioned is not located with the visibility splays or within the min. 3m width cycle/footway, which is achieved by moving the kerb line out from its current location to achieve the increased cycle/footway width.	that the wall does not obstruct visibility or the cycle/footway width.

In addition, concern arises that retention of the existing low level wall will restrict the future available width of the proposed shared use footway/cycleway, which could lead to a potential increased risk of pedestrian and pedal cyclist collisions occurring, whereby pedestrians and pedal cyclists could sustain personal injury.				
Problem 2.4.3 Location 9 - The access to the shared use footway/cycleway on the eastern side of Liley Lane (Drawing No. 151716-007 Rev C). Summary - The presence of the pedestrian refuge island where the carriageway narrows could lead to a potential increased risk of vehicular and pedal cyclist collisions occurring, whereby pedal cyclists could sustain personal injury. **Detail -** The scheme drawing indicates the provision of an access point to the shared use footway/cycleway on the eastern side of Liley Lane. This proposed access point is directly adjacent to a proposed pedestrian refuge island where the width of the south bound vehicular traffic lane will effectively reduce to 3.0 metres. At this point, pedal cyclists may choose to veer slightly to their offside before turning left onto the shared use footway/cycleway, in order to execute	It is Recommended that the access point to the shared use footway/cycleway on the eastern side of Liley Lane should be relocated further to the south of its currently intended position. It would appear that relocating the access point to the north of the pedestrian refuge island may not be achievable due to existing site constraints.	The Audit Team's Recommendation is accepted. Revised drawing, 151716-007 Rev E, now shows a revised location of the access point to the shared use footway/cycleway.	The RSA Problem and Recommendation are accepted, and the Designers Response and amended plan are accepted. However, in addition to these changes, it is suggested that a minimum of 3-4 full flush kerbs are provided at the cycle transitions, to enable easy access/egress for cyclists, and reduce the need for the more perpendicular movements described by the RSA Team.	Cycle lane transition designs to be developed further at the detailed design stage, and subject to review as part of the Stage 2 RSA.

a more perpendicular movement which would provide greater comfort and stability for pedal cyclists. With the pedestrian refuge island in place, a south bound drivers ability to compensate for this scenario and react accordingly will be limited. Concern arises that this situation could lead to a potential increased risk of pedal cyclist and vehicular traffic collisions occurring, whereby pedal cyclists could sustain personal injury. In addition, there could be a potential increased risk of south bound drivers swerving to their right in order to avoid a pedal cyclist ahead, and subsequently collide with the pedestrian refuge island. This could lead to vehicle occupants sustaining personal injury.				

F5 Design Organisation and Overseeing Organisation statements

Table F.5 Design Organisation Statement	
On behalf of the design organisation I certify that: 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.	
Name	Karen Smith
Signed	Karen Smith
Position	Associate Director
Organisation	Sanderson Associates Consulting Engineers
Date	22/07/2024

Table F.6 Overseeing Organisation Statement	
On behalf of the Overseeing Organisation I certify that: 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and 2) the agreed RSA actions will be progressed.	
Name	Adam Darwin
Signed	Adam Darwin
Position	Group Engineer, Highway Development Management (HDM)
Organisation	Kirklees Council
Date	22/07/2024

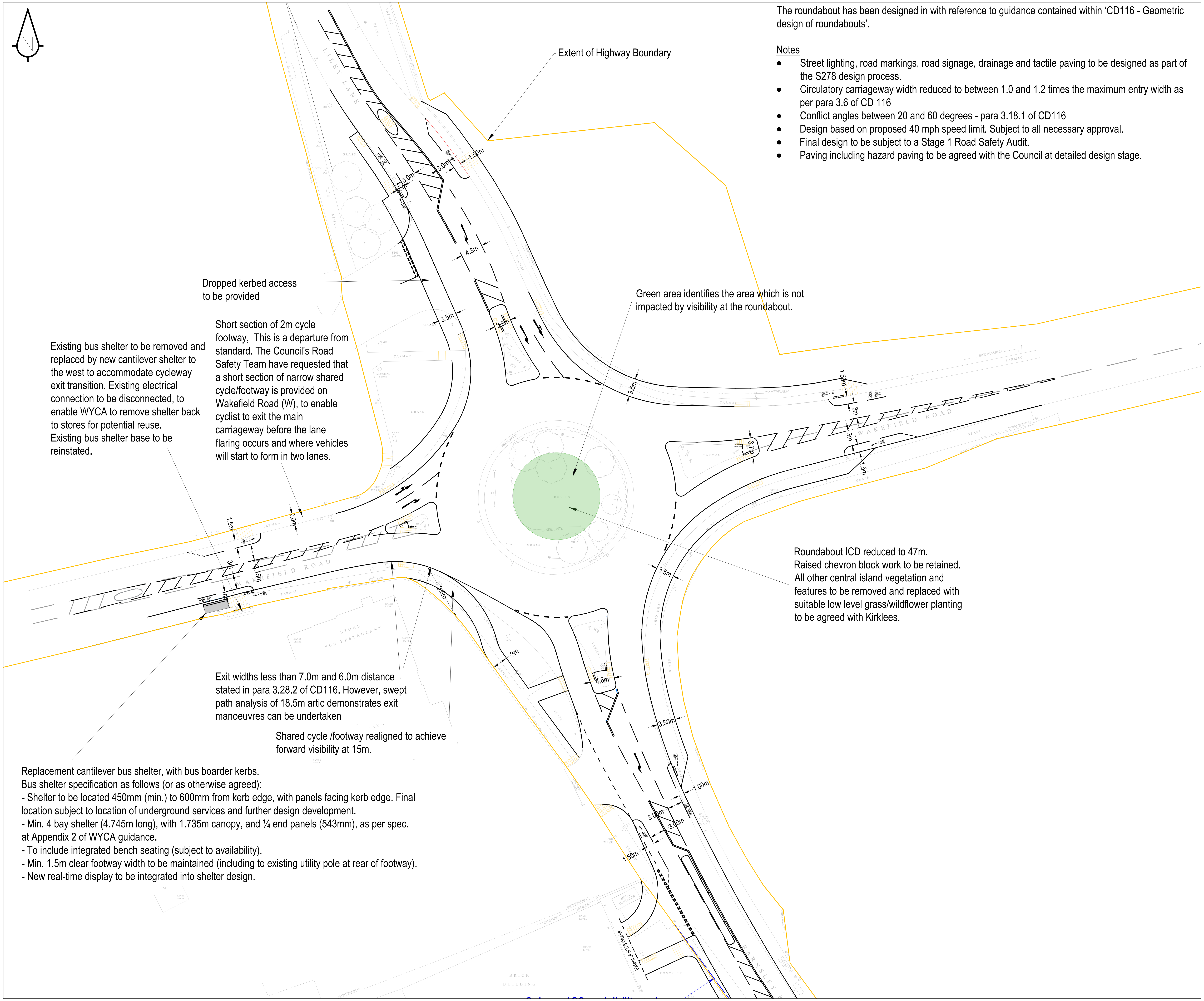
Appendix A

151716-007 Rev E

151716-016

151716-017 Rev A

151716-018



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- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.

- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or it's vehicle libraries.

Rev	Amendment	Drawn	Date	Checked
E	Bus stop provision amended	SB	19.07.24	KS
D	Layout amendments Stage 1 RSA	SB	02.07.24	KS
C	Layout amendments following comments from Kirklees	SB	21.05.24	KS
B	Layout amendments following comments	AA	16.04.24	KS
A	Notes added	AA	18.03.24	KS

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Client

PCS Property Solutions Ltd

Project Title

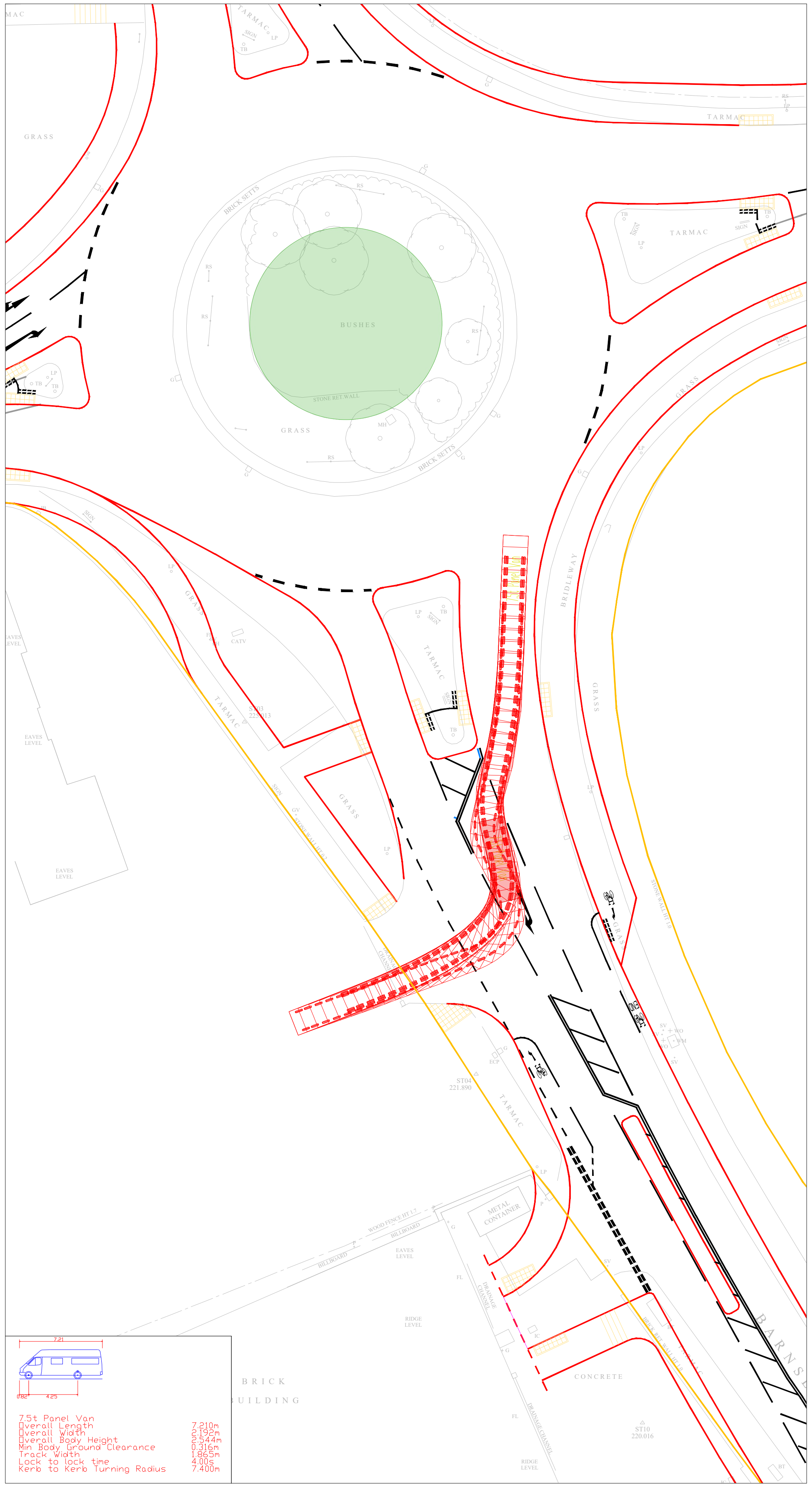
Land at Grange Moor, Wakefield

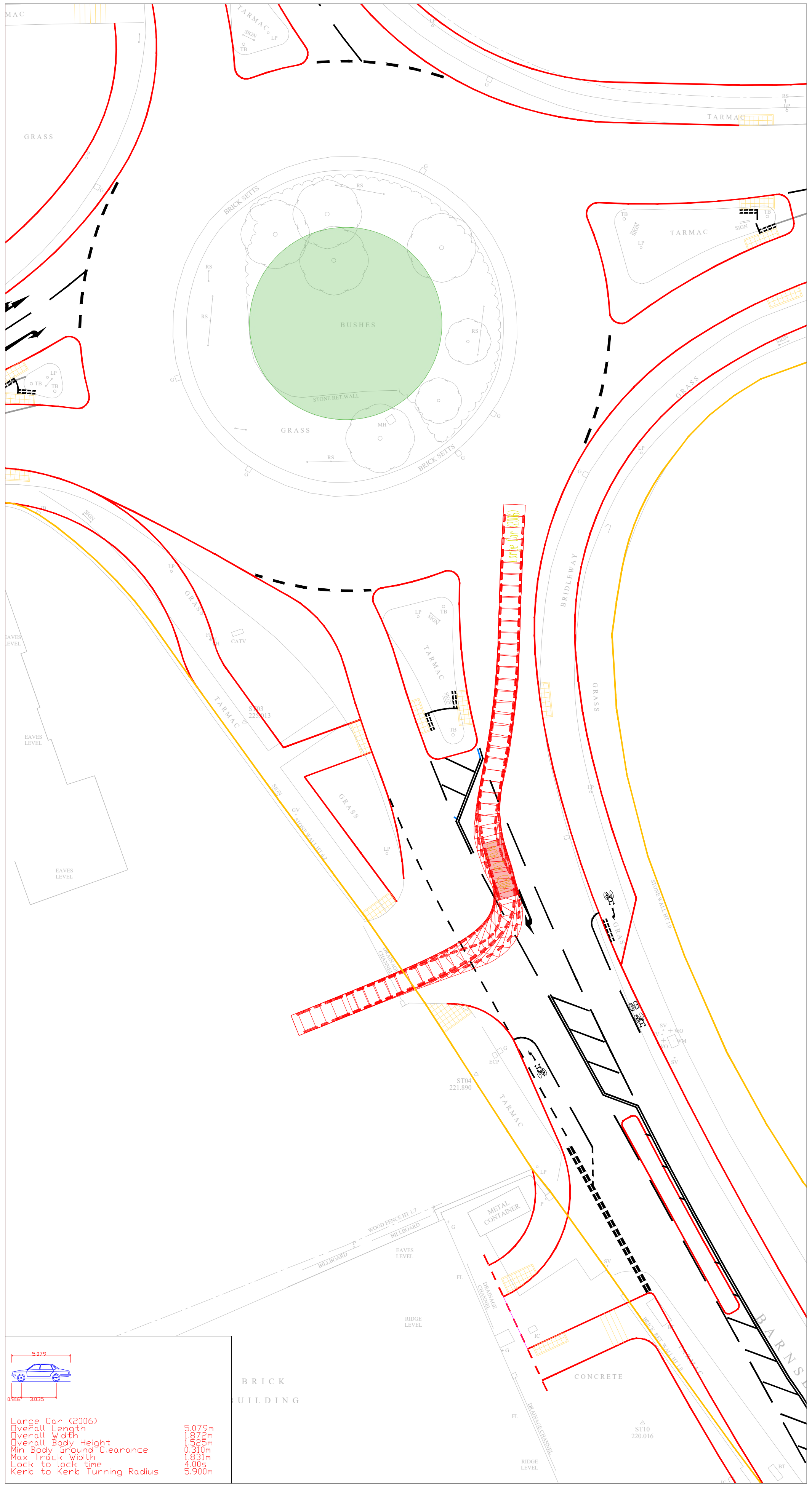
Drawing Title

Proposed Junction Improvements

Scale	1:500	Drawn By	AA
Drawing Size	A2	Checked By	SB
Date	February 2024	Approved By	KS
Drawing Number	151716-007	Rev	E

FILE REF:





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Rev	Amendment	Drawn	Date	Checked

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Project Name

Land at Grange Moor, Wakefield

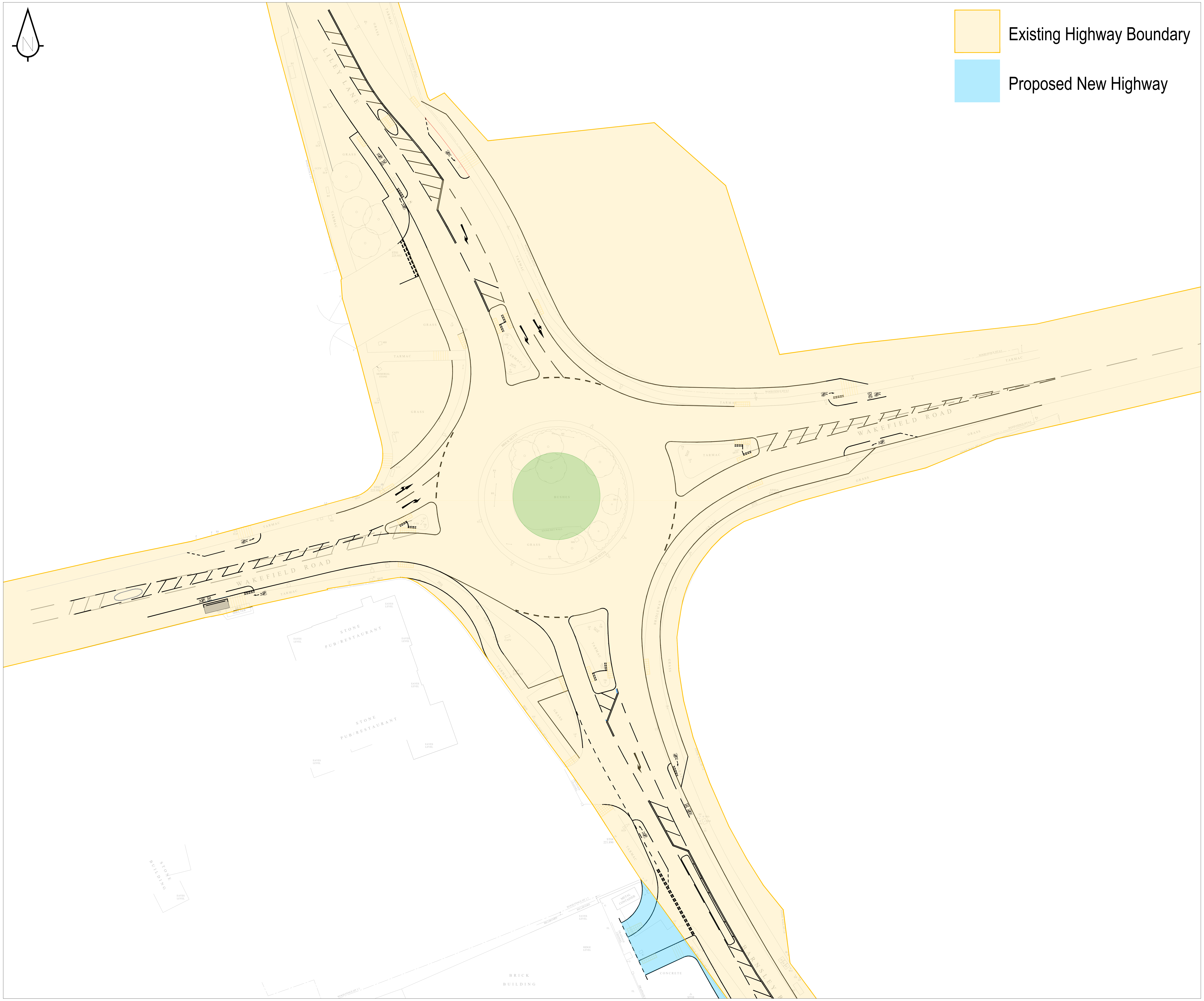
Drawing Title

Vehicle Swept Paths

Scale	1:500	Drawn By	SB
Drawing Size	A3	Checked By	KS
Date	July 2024	Approved By	KS

Drawing Number	Rev
151716-016	

FILE REF:



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Rev	Amendment	Drawn	Date	Checked
A	Bus stop provision amended	SB	19.07.24	KS

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Client

PCS Property Solutions Ltd

Project Title

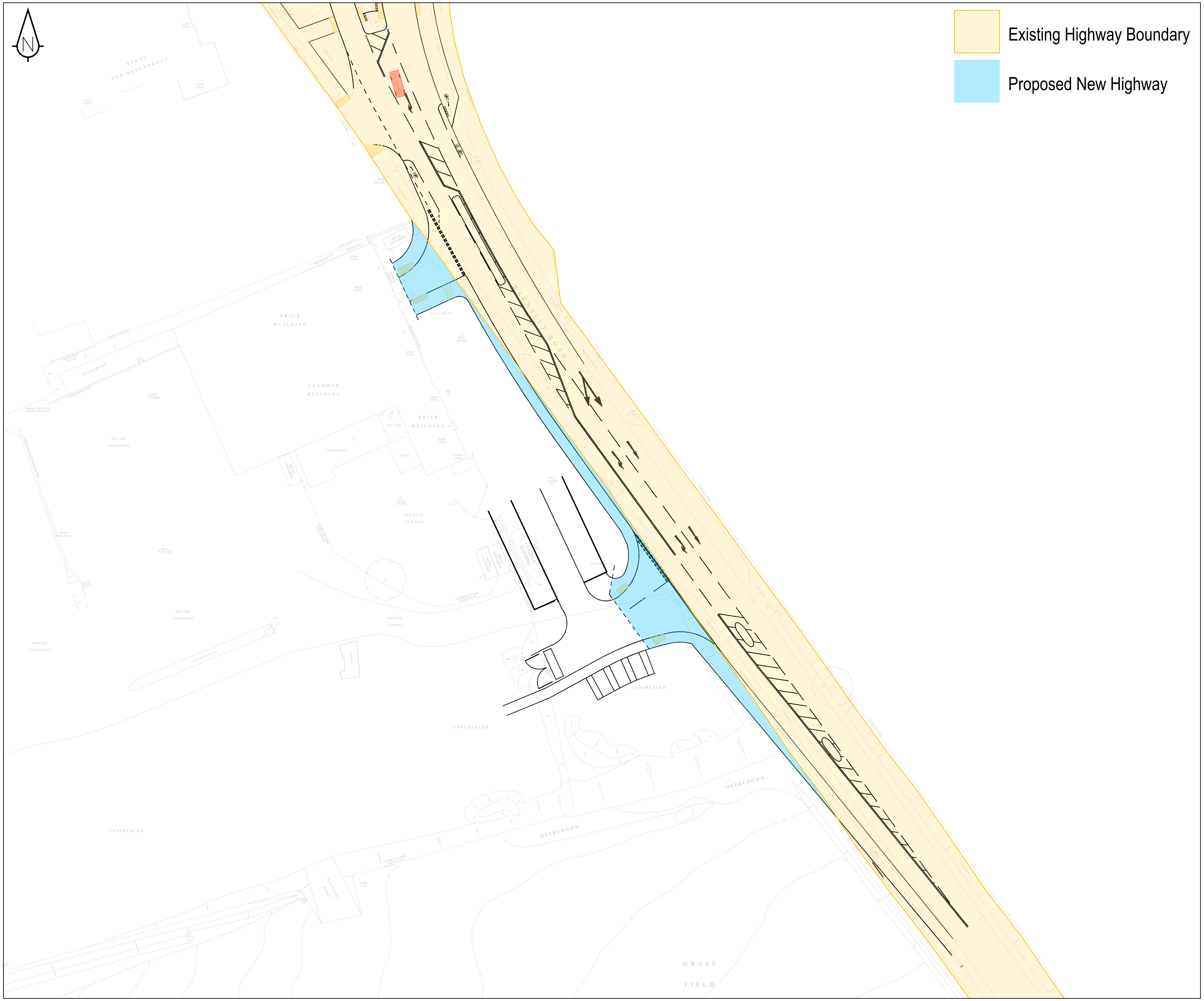
Land at Grange Moor, Wakefield

Drawing Title

Highway Boundary Details

Scale	1:500	Drawn By	SB
Drawing Size	A2	Checked By	KS
Date	July 2024	Approved By	KS
Drawing Number	151716-017 A	Rev	

FILE REF:



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Rev	Amendment	Drawn	Date	Checked

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Client

PCS Property Solutions Ltd

Project Title

Land at Grange Moor, Wakefield

Drawing Title

Highway Boundary Details

Scale	1:500	Drawn By	SB
Drawing Size	A2	Checked By	KS
Date	July 2024	Approved By	KS
	Drawing Number 151716-018	Rev	

FILE REF:

Appendix B

Covering Letter

ACORNS PROJECTS LIMITED

SAFETY, TRAFFIC, PROJECT MANAGEMENT & HIGHWAY ENGINEERING SERVICES

Adam Darwin
Highway Development Management c/o Kirklees Council
Huddersfield Customer Service Centre
PO Box 1720
Huddersfield
West Yorkshire
HD1 9EL

2nd July 2024

Dear Adam

LAND AT BARNSLEY ROAD, GRANGE MOOR, WAKEFIELD
PROPOSED SITE ACCESS ARRANGEMENTS
STAGE 1 ROAD SAFETY AUDIT

Please find enclosed the signed and dated PDF Version 2.0 of the Stage 1 Road Safety Audit for the Land at Barnsley Road, Grange Moor, Wakefield, Proposed Site Access Arrangements Project as requested.

As referred to in Paragraph 1.10 of the Stage 1 Road Safety Audit Report, there is one issue identified and observation made during the Stage 1 Road Safety Audit and site inspection, which the Terms of Reference exclude from the Stage 1 Road Safety Audit Report, but which the Audit Team wishes to draw to your attention as the Overseeing Organisation, i.e. the Local Highway Authority, Kirklees Council. To assist you, I have provided a scheme drawing with the location indicated accordingly:

1. The site visit has established that existing boundary vegetation was overgrown and was restricting the available footway width for pedestrians. Concern arises that pedestrians may have to step out into the vehicular carriageway in order to pass one another on the remaining available narrow footway width, particularly as intervisibility between opposing flows of pedestrians is impacted upon by the overgrown boundary vegetation. This situation could lead to a potential increased risk of vehicular and pedestrian collisions occurring, whereby pedestrians could sustain personal injury. It is Recommended that the existing overgrown vegetation should be cut back and removed as soon as practicable.

I look forward to receiving a formal response to the contents of this Covering Letter and to receiving the DMRB GG 119 compliant Road Safety Audit Response Report, together with the completed Table F.4 Road Safety Audit Decision Log, as contained within DMRB GG 119, for the purposes of retention on my file.

Please be aware that under DMRB GG 119, the Table F.4 Road Safety Audit Decision Log needs to be completed, discussed and agreed with yourselves as the Overseeing Organisation, i.e. the Local Highway Authority, Kirklees Council, in order to fulfil the Agreed RSA Action column.

Should you have any queries, please do not hesitate to contact me.

Yours Sincerely

Adriano B. Cappella
Director

Encl.

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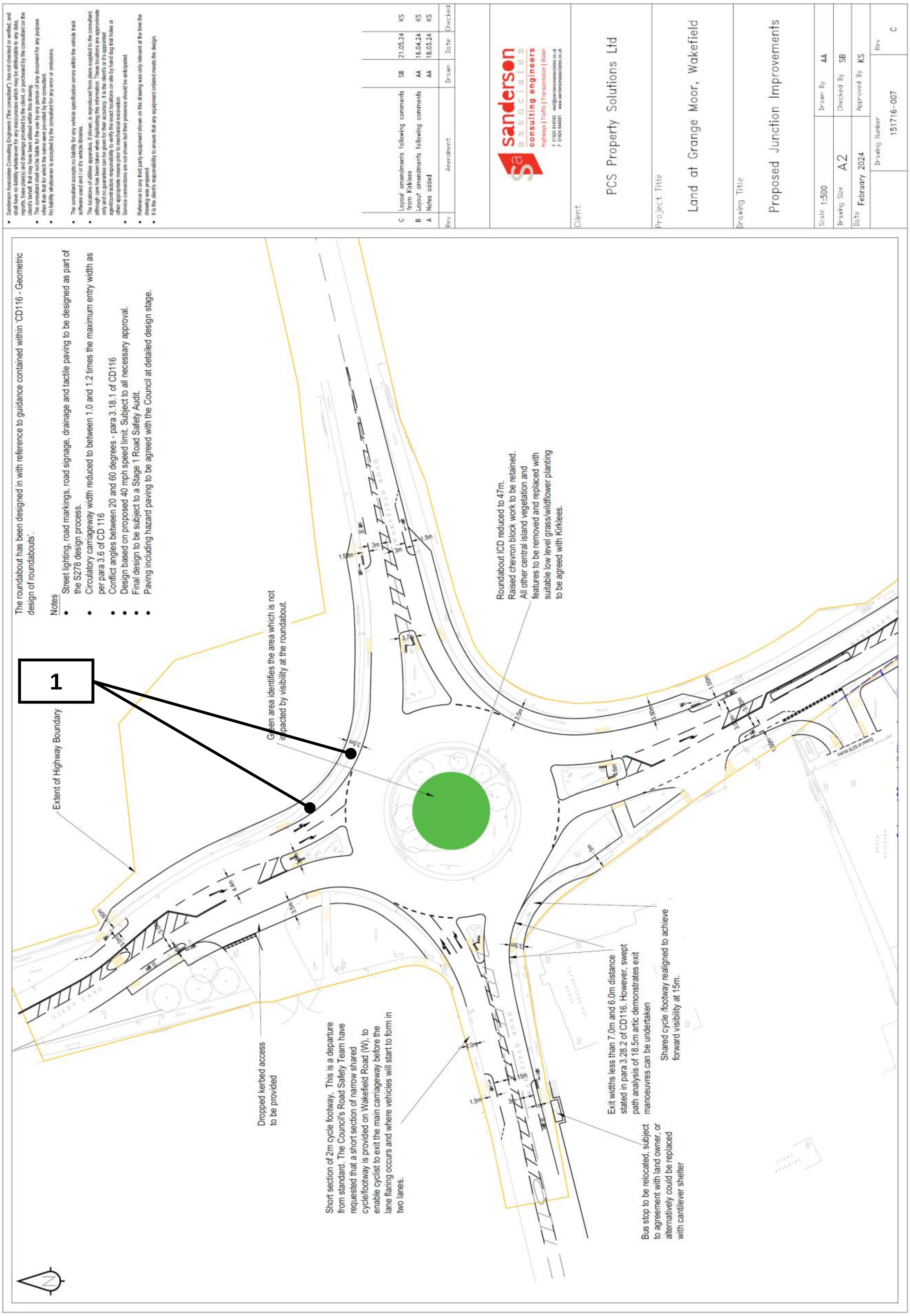
The roundabout has been designed in with reference to guidance contained within 'CD116 - Geometric design of roundabouts'.
Notes
• Street lighting, road markings, road signage, drainage and tactile paving to be designed as part of the S278 design process.
• Circulatory carriageway width reduced to between 1.0 and 1.2 times the maximum entry width as per para 3.6 of CD 116
• Conflict angles between 20 and 60 degrees - para 3.18.1 of CD116
• Design based on proposed 40 mph speed limit. Subject to all necessary approval.
• Final design to be subject to a Stage 1 Road Safety Audit.
• Paving including hazard paving to be agreed with the Council at detailed design stage.
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Extent of Highway Boundary
Green area identifies the area which is not impacted by visibility at the roundabout.
Dropped kerbed access to be provided
Short section of 2m cycle footway. This is a departure from standard. The Council's Road Safety Team have requested that a short section of narrow shared cycle/footway is provided on Wakefield Road (W), to enable cyclist to exit the main carriageway before the lane flaring occurs and where vehicles will start to form in two lanes.
Roundabout ICD reduced to 47m.
Raised chevron block work to be retained.
All other central island vegetation and features to be removed and replaced with suitable low level grass/wildflower planting to be agreed with Kirklees.
Exit widths less than 7.0m and 6.0m distance stated in para 3.28.2 of CD116. However, swept path analysis of 18.5m artic demonstrates exit manoeuvres can be undertaken
Shared cycle /footway realigned to achieve forward visibility at 15m.
Bus stop to be relocated, subject to agreement with land owner, or alternatively could be replaced with cantilever shelter
WAKEFIELD ROAD
LILEY LANE
• Sanderson Associates Consulting Engineers ("the consultant"), has not checked or verified, and shall have no liability whatsoever for any inaccuracies which may be attributable to any data, reports, base plan(s) and drawings provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.
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• Service connections are not shown but their presence should be anticipated.
• Reference to any third party equipment shown on this drawing was only relevant at the time the drawing was prepared.
• It is the client's responsibility to ensure that any equipment ordered meets the design.
C Layout amendments following comments from Kirklees SB 21.05.24 KS
B Layout amendments following comments AA 16.04.24 KS
A Notes added AA 18.03.24 KS
Rev Amendment Drawn Date Checked
sanderson associates
consulting engineers
Highways | Traffic | Transportation | Water
Client
PCS Property Solutions Ltd
Project Title
Land at Grange Moor, Wakefield
Drawing Title
Proposed Junction Improvements
Scale 1:500
Drawn By AA
Drawing Size A2
Checked By SB
Date February 2024
Approved By KS
Drawing Number 151716-007
Rev C

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