

OLD OAK COMMON

Lineside Road Rail Access Point (RRAP)
South West Access – Jewson's Yard
Feasibility Report

152270-ARC-REP-ECV-000024

JULY 2020

ELR: **MLN1**

Mileage: **4m 514yds**

OS Reference: **TQ 202 811**

Revision Number: **A01**



**CIVIL
ENGINEERING**

CONTACTS



BEN NAYLOR

Project Manager

e ben.naylor@arcadis.com

Arcadis.
1st Floor, 2 Glass
Wharf,
Temple Quay,
Bristol
BS2 0FR



KAMAL MATHARU

**Contractor's Responsible
Engineer**

e kamal.matharu@arcadis.com

Arcadis.
34 York Way,
Kings Cross,
London
N1 9AB



MARK EADEN

Contractor's Engineering Manager

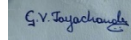
e mark.eaden@arcadis.com

Arcadis.
34 York Way,
Kings Cross,
London
N1 9AB

Old Oak Common

RRAP Optioneering – Jewson's Yard

Author Jayachandra Guttur Veeranna



Checker Susie Howells



Reviewer Kamal Matharu



Approver Mark Eaden



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A01	10 th July 2020	J Guttur Veeranna	First Issue for Acceptance

This report dated 10 July 2020 has been prepared for Network Rail (the "Client") in accordance with the terms and conditions of appointment dated 02 November 2018(the "Appointment") between the Client and **Arcadis Consulting (UK) Limited** ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

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APPENDICES

Appendix A

Drawing

Project title	Old Oak Common, SW RRAP Options AR011 – Jewson's Yard	Project Number	152270
Location	Old Oak Common, London		
ELR	MLN1	Mileage	4m 514yds
OS grid reference	TQ 202 811	Structure Number	N/A
RRD Reference Nr.	OOC/NRL/REQ/RO/000347	V1, 16/03/2018	
DRRD Reference Nr.	N/A		
CR-T Reference Nr.	152270-NWR-CRT-EMG-000007	A02 16/04/2018	
Other documents associated with this submission	152270-ARC-REG-EMG-100001 GRIP 4 TIDP 152270-ARC-REP-ECV-000025 North Pole Depot 152270-ARC-REP-ECV-000026 Options Report		

1 Introduction

1.1 Project Overview

The following is the instruction received by Arcadis from Network Rail.

Further to the submission of GRIP Stage 4, under Change Alteration AR011, Arcadis have been asked to look into incorporation of a design of the South West Access points as follows:

Option A. Jewson's Yard: Progress an option which includes purchase of part or all of the yard to allow for the requirements regarding space recorded in the NR '*Access Point Strategy v0.2*'.

Option B. North Pole Depot Access: To take consideration of GRIP 4 track alignment. To be based on currently available survey information. Not to encroach upon depot lines and to maintain 2.5m from running edge of depot lines to compound fence line. This is to be located in the vicinity of the Western Access to North Pole depot from OOC. Note: vehicle moves would likely pass through the depot from the West.

This report covers the feasibility of Option A: Jewson's Yard. Option B: North Pole Depot can be found in report 152270-ARC-REP-ECV-000025. An Options Report, comparing the two, can be found in report 152270-ARC-REP-ECV-000026. Both documents are submitted alongside this one.

1.2 Brief General Description

This feasibility report covers the proposed Road Rail Access Points (RRAPs) for South West access located off Horn Lane (A4000) near the Jewson's Yard. Permanent way is not being modified in this location as part of Old Oak Common works.



Figure 1 – Approximate location of proposed SW RRAP at Jewson's Yard (Google Earth 2020)

The proposed RRAP at Jewson's Yard for South West access consists of three options which are described in Section 2.1 of this report. Arcadis have recommended Option 1, due to the ease of access to the Up and Down Main, and the accessibility of a 75t tonne crane (PKR750) to aid with constructability. A location plan showing the vicinity where the RRAP needs to be installed is shown in Figure 1. An alternative location for the SW RRV access at the Hitachi North Pole Depot is investigated in a separate report, with an optioneering report summarising and comparing both options submitted alongside this document

This feasibility study has been carried out based on NR Routeview, available OS tiles and Railway Infrastructure Alignment Acquisition System (RILA) data. Topographical survey data is currently not available for the proposed RRAP location.

2 General Description of Proposed Works

2.1 Proposed locations

This section describes the three options proposed for locating RRAP near Jewson's Yard (Figure 2). Vehicle tracking has been undertaken for all options, and the largest vehicle which can access the track has been allowed for (either PKR750 or RB 25, details of which can be found in the Options Report).

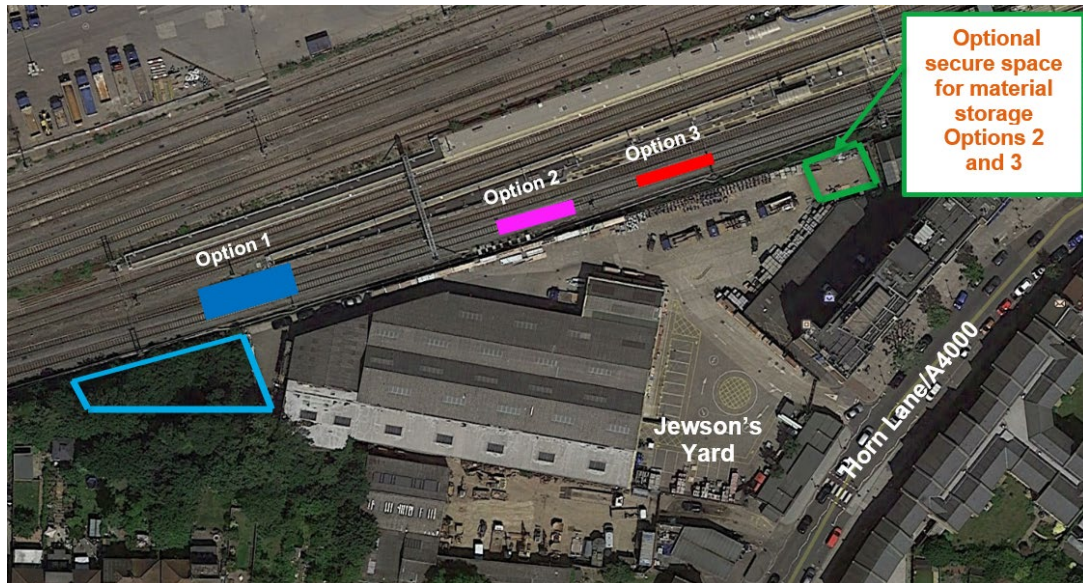


Figure 2 - Site Plan showing the 3 proposed options for Jewson's Yard

2.1.1 Option 1 - Recommended Option:



Figure 3 - Option 1 Jewson's Yard site

This option proposes positioning the RRAP near the country end, close to Jewson's Yard boundary fence as shown in Figure 3 . The RRAP shall access onto both Up Main and Down Main lines. The length of the RRAP shall be 16.2 m.

The existing OLE structures within the vicinity of the proposed RRAP will need to be moved at least 10 m away from the RRAP end (refer to paragraph 2.5 for more detail).

Based on the available data (NR Route View, OS tiles and RILA), existing troughs adjacent to the track along the Jewson's Yard boundary will need to be moved into a URX under the access to the RRAP.

The existing boundary fence needs to be modified to allow for placing a new concrete approach slab to the RRAP, and Jewson's material storage adjacent to the track will need to be removed to allow access. A sliding security gate has been proposed in front of the RRAP. However, if an access gate can be inserted where shown in Figure 9, a low height Armco barrier can be installed adjacent to the rail. This will help with lifting materials from the compound onto the track during RRV shifts. If not, the fence will need to remain at 1.8m high and removed when required, with a gate across the RRAP.

There is an opportunity for a parcel of land to the west of Option 1 to be explored for usage. This would allow secure space for material and vehicle storage, along with improved manoeuvrability. This has been detailed in the drawing alongside this submission and would add approximate 755 m² of compound space.

It is suggested that an Armco barrier (or similar) be erected adjacent to Jewson's building to prevent accidental damaged caused by vehicle movement.

It is unknown if a Fire Exit for Jewson building is present at this location, this will need to be confirmed. If located it require 24hr access and would prohibit the insertion of a gate where shown in Figure 3.

2.1.2 Option 2:

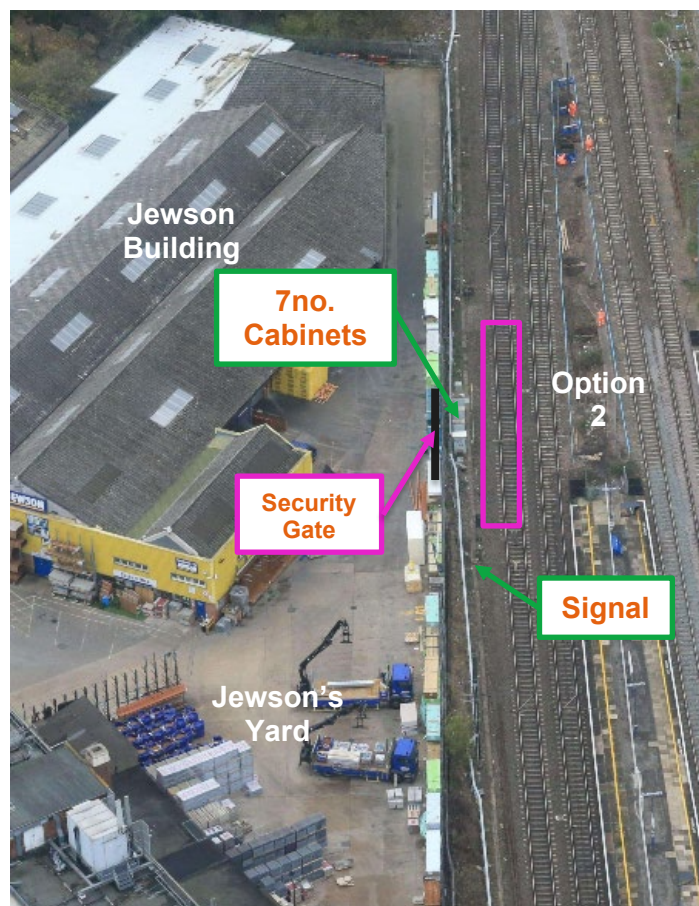


Figure 4 - Option 2 Jewson's Yard site

This option proposes placing the RRAP in the centre of Jewson's Yard, as shown in Figure 4. The RRAP shall span on to Down Main line only due to gradients in between the Up and Down Mains. The length of the RRAP shall be 10.8 m (and will not accommodate a PKR750).

The existing OLE gantry is 10 m away from the proposed RRAP, therefore does not require any adjustments. Based on the available data (NR Route View, OS tiles and RILA), existence of troughs and location cases are identified and would need alteration. The existing boundary

fence and Jewson's materials storage needs to be modified to allow for placing a new concrete approach slab for the RRAP.

A sliding security gate has been proposed in front of the RRAP. However, if an access gate can be inserted where shown in Figure 9, a low height Armco barrier can be installed adjacent to the rail. This will help with lifting materials from the compound onto the track during RRV shifts. If not, the fence will need to remain at 1.8m high and removed when required, with a gate across the RRAP.

A longer RRAP of 16.2m can be accommodated at this location if the OLE Gantry towards Country end is removed and placed 10m away from the edge of RRAP, or if the signal towards the London end is moved.

2.1.3 Option 3:

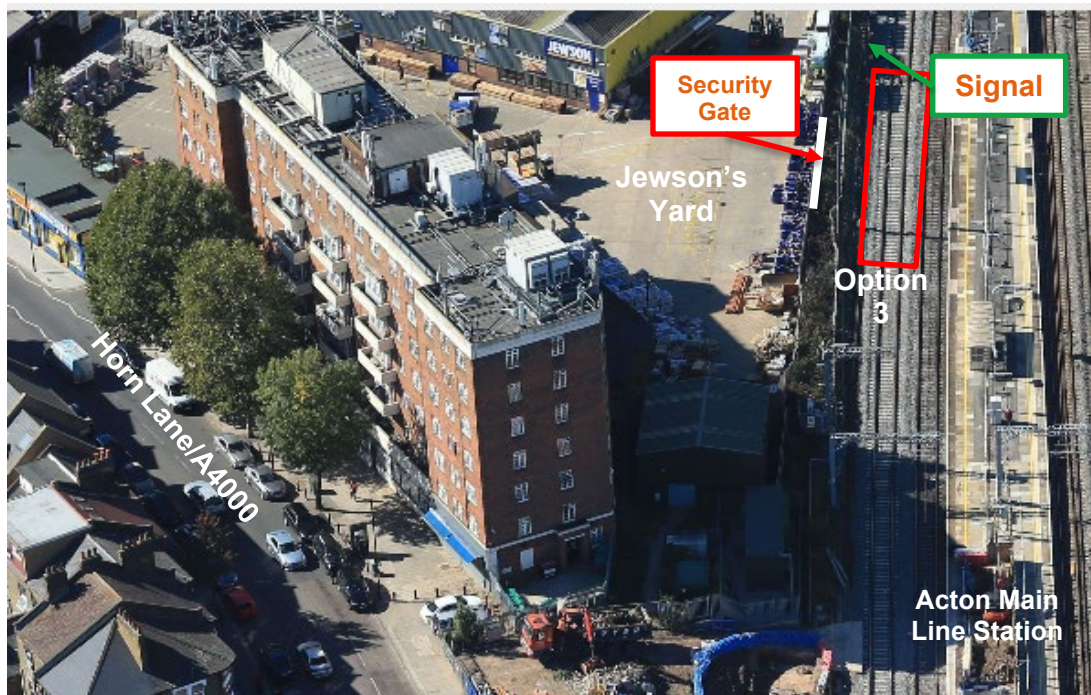


Figure 5 - Option 3 Jewson's Yard site

Option 3 proposes installing the RRAP near the London end of Down Main line in front of Jewson's Yard building, close to the existing access road as shown in Figure 5. The RRAP shall span only on Down Main line due to the proximity of Acton Main Line station platform. The clearance between rail of Up Main line and the edge of existing platform is less than the 1.5 m required for manoeuvring RRV and hence it is suggested to not have RRAP on Up Main line. The length of the RRAP shall be 10.8 m.

The existing OLE structure is 10 m away from the proposed RRAP unit. Based on the available data (NR Route View, OS tile and RILA), existence of troughs are identified and would need altering. The existing boundary fence and Jewson's material storage needs to be modified to allow for placing new concrete slab for RRAP.

A longer RRAP of 16.2m can be accommodated at this location if either the OLE post or Signal 179 is removed and placed 10m and 5m respectively from the edge of RRAP. Refer to Sections 2.5 and 2.6 for the feasibility of moving these assets.

A sliding security gate has been proposed in front of the RRAP. However, if an access gate can be inserted where shown in Figure 9, a low height Armco barrier can be installed adjacent to the rail. This will help with lifting materials from the compound onto the track during RRV shifts. If not, the fence will need to remain at 1.8m high and removed when required, with a gate across the RRAP.

2.2 Design Assumptions

The following assumptions have been made:

- Jewson's Yard to remain operational by Jewson.
- Access Point class and Security assumed to be Class 3 Access Point along with Security Level 2 (refer to the Options Report).
- Existing permanent way components are in good condition.
- The OLE wire heights are the correct height above rail and a minimum of 4.165m above the track at RRAP locations.
- The permanent way layout and other NR assets are not amended or altered.
- No rail welds will be present within the proposed RRAP area.
- All levels are based on RILA data.
- Jewson's Yard surfacing is in a good state of repair and will not require resurfacing. The load capacity of the surfacing will be adequate for the RRV loading.

2.2.1 Road Rail Vehicle (RRV)

RRAP Option 1 has been designed for use by the SRS PKR750 or equivalent (refer to 152270-ARC-REP-ECV-000026 for details of RRVs and why they were selected). Vehicle tracking and provision of a 16.2m length RRAP has allowed for this.

For Options 2 and 3, where the SRS PKR750 cannot be accommodated due to space constraints resulting in a 10.8m RRAP (unless signal or OLE relocation is undertaken); the SRS RB25 is considered. This would mean vehicles requiring a RRAP longer than 10.8m would not be able to access the track at this location.

2.3 Number and Layout of Tracks

2.3.1 Access to Up-Main

The existing permanent way layout for this section consists of a four-track layout (Down Main and Up Main lines and Up Relief and Down Relief lines).

The proposed RRAP shall provide access onto the Down Mainline, and the Up Mainline where possible. Among the options proposed in Section 2.1, Option 1 will have RRAP on both Up Main and Down Main lines. While Options 2 and 3 will have a RRAP only on the Down Main line. For vehicles to access the Up Main from Options 2 and 3, they would need to travel over 1800m to the west to the nearest S&C point to switch over. This would add significant travel time for the vehicle and further reduce the short window allocated for a shift, therefore this is not recommended.

2.3.2 Cant

Based on the RILA data available for this section, it is observed that the Down Main line has a cant of approximately 80 mm while the Up-Main line has a cant value of 70 mm. This could limit the type of vehicle that can access onto the RRAP. Common maintenance vehicles such as the Colmar T10000 and the Komatsu PW160-8 Megarailer can still access the track with a cant of up to 100mm, which is sufficient in this case, but other vehicles may not be able to utilise the access point. Particular consideration needs to be given to the type of vehicle that may be required for construction. Prior to selection of any option it is suggested that clarification of the types of vehicles to use this RRAP to be confirmed.

2.3.3 Gradient between tracks

Road Rail Vehicles accessing the Up Main require a gradient between tracks of shallower than 1 in 20 to prevent the vehicle body from grounding out. Option 1 is the only location that achieves this, unless the permanent way is altered by lowering the Down Main.

2.3.3.1 Option 1

The clear distance between rails of Up Main and Down Main lines at this section is approximately 2.19 m and the gradient between the tracks varies from 1 in 44 to 1 in 63 along the length of the RRAP. This gradient value is well within the minimum recommended value of 1 in 20.

2.3.3.2 Option 2

The clear distance between rails of Up Main and Down Main lines at this section is approximately 1.92 m and the gradient between the tracks varies from 1 in 15 to 1 in 20 along the length of the RRAP. This gradient value is steeper than the minimum recommended value of 1 in 20, therefore it is unlikely a RRAP onto the Up Main would be feasible. Please note: these values have not been validated by a topographical survey.

There is an opportunity to lower the Down Main by approximately 50mm at this spot to reduce the gradient in the 6ft, to gain access to the Up Main. This has not been explored further in this report.

2.3.3.3 Option 3

Option 3 only has the option of mounting the Down Main due to the platform proximity, therefore the gradient between tracks has not been calculated.

2.4 Vehicular Access from Public Highway

Access from the public highway to the compound area will be off Horn Lane/A4000.

The vehicle access from Horn Lane/A4000 to Jewson's Yard compound area is through the private road between the William Hill (Acton House) building and Jewson Acton Yard (Figure 6). The gate width is assumed to be more than 7m wide which is sufficient for large vehicle movement. This private road off Horn Lane is the only access road available to Jewson's Yard between Horn Lane/A4000 and provides access to all three options proposed for RRAPs (Figure 7). The RRVs can access Jewson's Yard from either north or south along the Horn Lane/A4000.

Vehicle tracking has been carried out and is suitable for the vehicles specified in this report – including access onto and off the highway, and to each RRAP. It is important that agreement with the local highway authority be made to ensure no additional risk is placed on the road user, although at present large Jewson delivery vehicles serve the site. Visibility at this exit is not anticipated to be an issue.



Figure 6 - Access from Horn Lane / A4000 to Jewson's Yard Compound Area. (Source: Google Street View 2020, Imagery Date: June 2019)

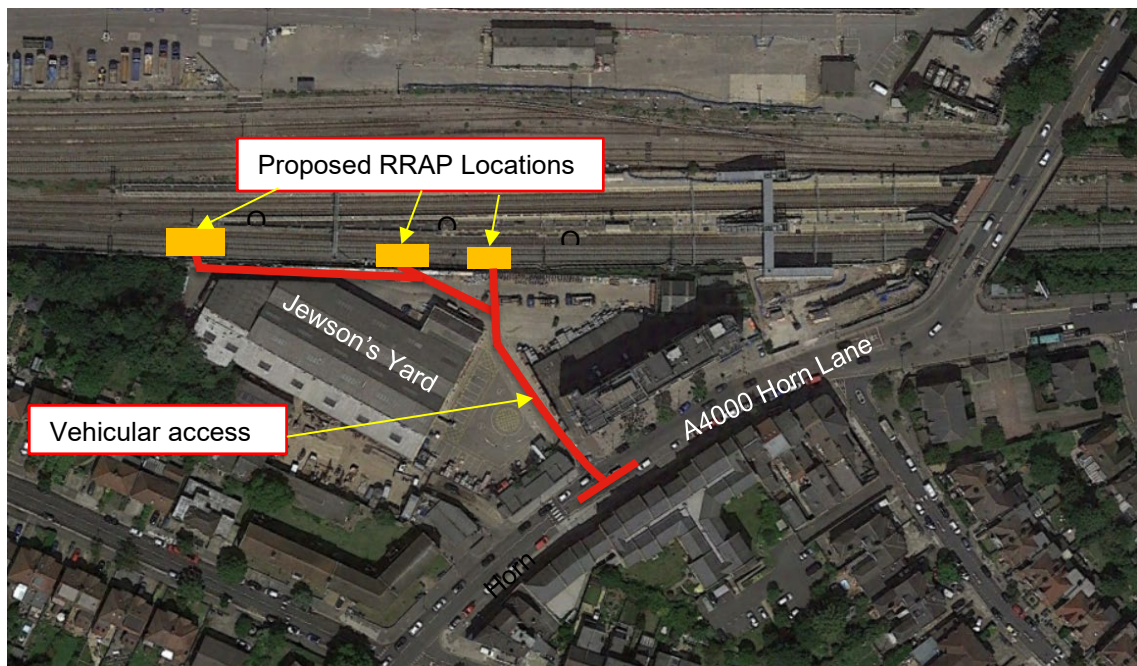


Figure 7 - Access from Horn Lane / A400 (shown in Red)

2.5 OLE

OLE is present for this section of track. The proposed RRAP where possible has been positioned 10m away from the existing OLE structures.

The existing OLE masts for Option 1 are to be relocated to maintain the 10m clearance where required. This would have a significant impact on the existing OLE layout, as these OLE masts are anchor structures for wire runs that travel towards high chainage and are registered at Mk3B headspan arrangements for the Down Main and Down Relief lines. This area appears to have undergone some modifications as part of Crossrail or other projects. Further information on the latest OLE layout would be required to explore this option further.

2.6 Signalling

For facilitating Option 2, it is required to remove the 7no. signal cabinets for placing the RRAP and allowing the movement of the RRV. To permit the RRAP extension of Option 3 from 10.8m to 16.2m to allow the PKR750 for construction activities, Signal no. 179 is required to be moved. This section details the feasibility of altering these assets.

The signal and cabinets are located adjacent to the Down Main line, in the vicinity of RRAP Options 2 and 3. As per Location Area Plan from 2017 (S39/27/2/2 version ADN1) it can be understood that the location cases in the proposed area are M4/56.

The LAP shows a single signalling case for the suite M4/56 which drives the signals SN179 and SN178BR and some associated signalling equipment.

The LOC suite M4/56 is positioned between the two signals that it controls and to the London side of the OLE gantry which is close by. It would be preferred to keep it close to the main signal (SN179) but a move to the countryside of the gantry should be feasible.

This would be a move of less than 10 metres. If it is decided to move the suite 10 metres towards London then it may be the distance to the Banner Repeater (SN178BR) that causes some concern, however this is not expected to be an issue. A move in the London direction may even be preferable as the suite is then closer to the main signal, SN179.

Issues with moving LOC suites are the degree of signalling design & testing required, but this suite is relatively minor.

It can be assumed that one signalling case requires an ATP Encoder case, an FSP and an ARS fibre case, so the requirement of the remaining cases is unknown. Other disciplines to confirm the purpose of this and the possible replacements.

If proposing a move, the new position of the suite should be safely accessible, i.e. a walking route from the RRAP should be provided.

Further information and investigation are required to provide a more accurate response.

2.7 Land

The land mentioned in this report is not currently owned by Network Rail.

For the proposed RRAP at Option 1, the land available within the Jewson's Yard boundary is limited, and the exploration of utilising the adjacent undeveloped land would present an opportunity (Figure 8). This would improve the manoeuvring of RRVs and potentially unlock a small additional parcel of land for storage or parking.

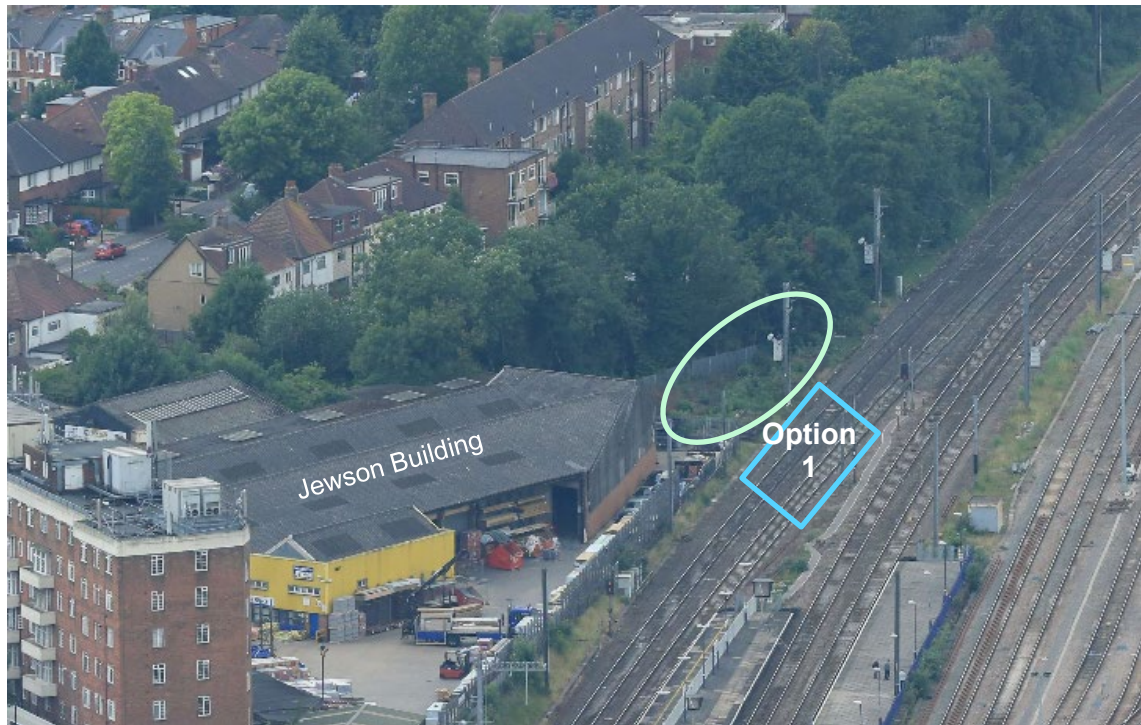


Figure 8 - View of the Adjoining area (green)

2.8 Compound

2.8.1 Storage

Material storage laydown area and vehicle parking has been allocated to the east of the yard (seen in Figure 2). The space available for this is approximately 120m².

As described in paragraph 2.1.1, if the land to the west of Option 1 is to be utilised, it could become a secure storage space for Option 1 instead of the above.

2.8.2 Security

Security for the compound and RRAP is required to prevent unauthorised people accessing the track and other NR assets. In order to maintain maximum compound use by Jewson, sliding gates have been proposed parallel to the track, with adjoining 1.8m high palisade fencing maintained. There is an option for Network Rail to insert a gate in the locations shown in Figure 9. The space behind these gates will then be secure to be accessed by Network Rail personnel only, and it is more likely to achieve Security Class 2 and RRAP Level 3. Another benefit will mean a low height Armco barrier can be installed parallel to the track instead of a palisade fence, resulting in easier access for lifting equipment onto the track. As you can see in the figure, the gate for Option 1 would take the least space away from Jewson. However, it is unknown if there is a Fire Escape around the rear of the building, in which case it would be essential for access and escape routes not to be blocked, this will need to be confirmed.

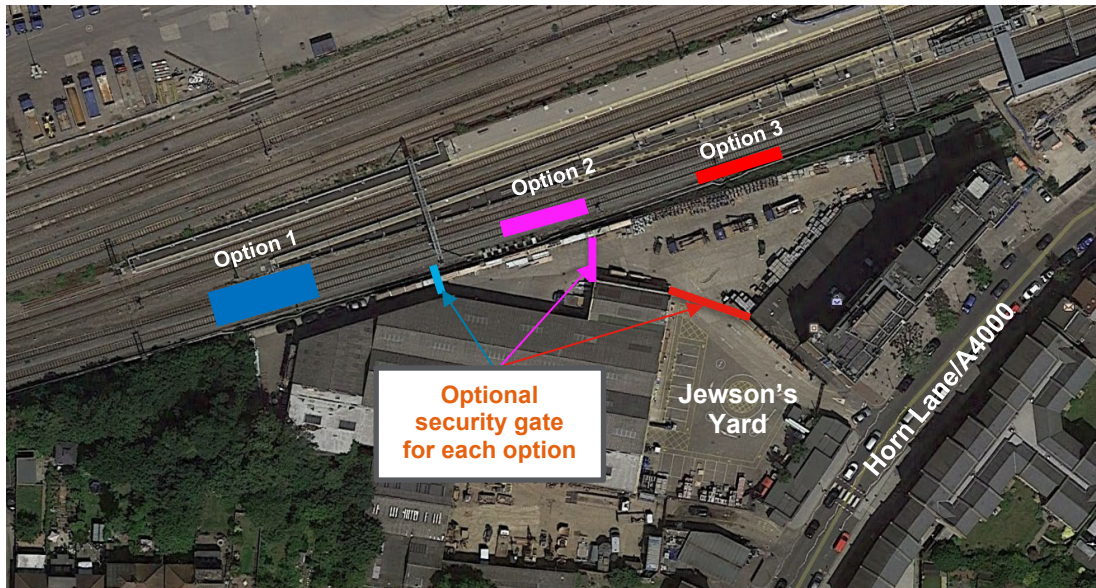


Figure 9 - Security gate options

It is suggested the compound includes permanent switchable lighting as per the requirements described in RRAP Classification chapter of Options report 152270-ARC-REP-EC-000026.

2.9 Principal Materials to be used

- Strail (or similar approved) RRAP Matting
- Palisade fencing and gate
- Armco (or similar approved) barrier
- Lighting units.

2.10 Alternative Solutions to the Remit Considered

NR Route View images from the year 2015 indicate the presence of a RRAP adjacent to the Down Main line, 30m east of the western end of Jewson's Yard and underneath to the newly constructed Acton Main Line pedestrian overbridge (see Figure 10). While the same RRAP is not found in the latest images of the years 2016 and 2018. It is not known what this RRAP was used for, but it is assumed it was to aid construction of the footbridge.

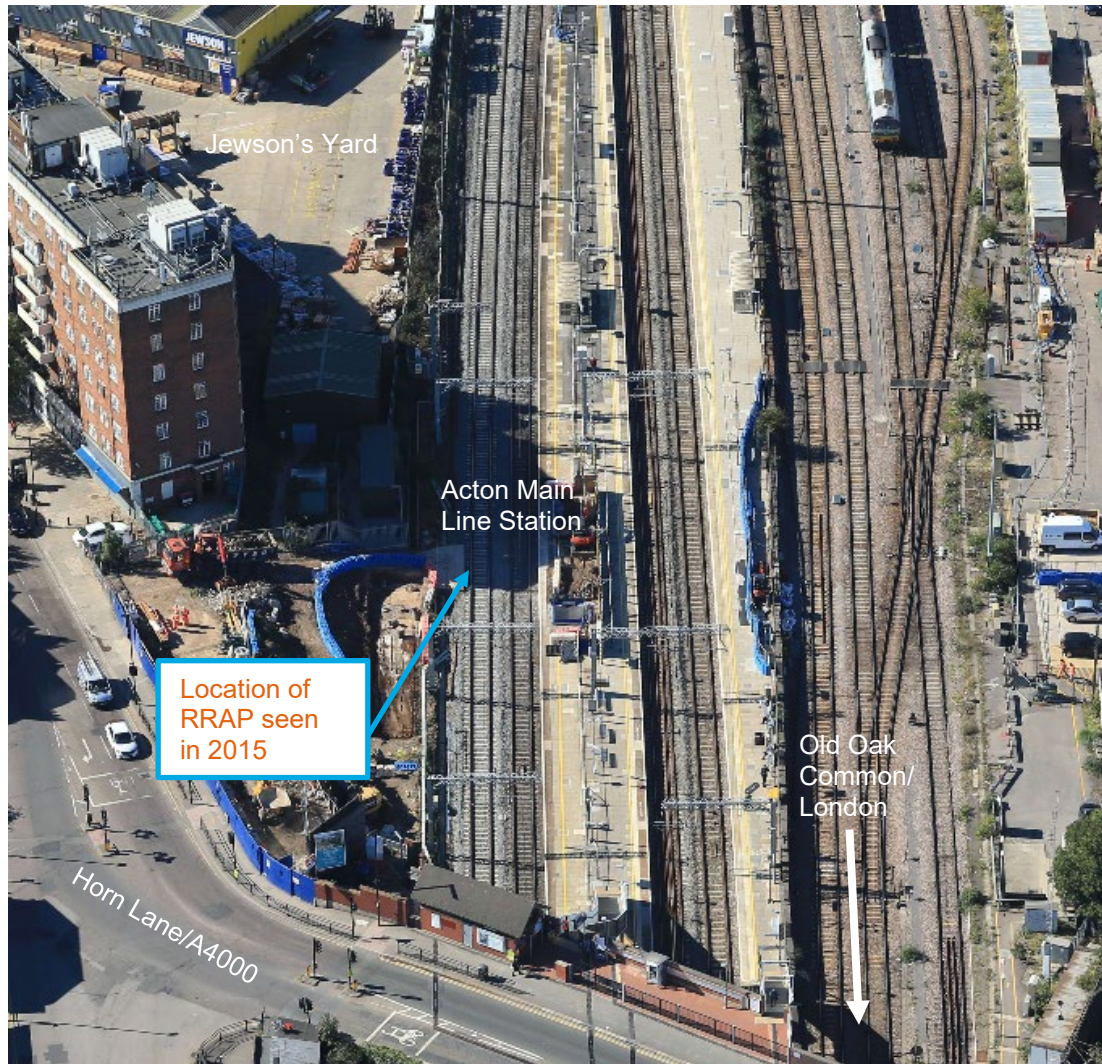


Figure 10 - Location of removed RRAP (Route View September 2018)

Options for RRAP location were limited by the presence of large OLE masts and gantries. Therefore Options 1, 2 and 3 were the only feasible locations.

An opportunity for Network Rail presents itself to utilise the entire yard and demolish the existing building, removing Jewson from the site. This would make vehicular access to Option 1 easier and there would be a large compound space for construction and future maintenance. This has not been explored as part of this report.

3 Summary

Table 1 summarises the three options.

Table 1 - Summary table

Option	Advantage	Disadvantage
1: Jewson's Yard (Country end)	NR can access Up and Down Main PKR 750 can access the track	Relocating OLE post Using Jewson Yard area (significant disturbance) Reversing space renders manoeuvring difficult, use of the neighbouring private land recommended (approx. 100m ²) for RRV movement ease (if necessary)
2: Jewson's Yard (Signal cabinet location)	Provision for longer RRAP of 16.2m by replacing OLE / Signal	NR cannot directly access the Up Main from this RRAP, without physically raising the Down Main Relocating signal cabinets (considered feasible) Using Jewson Yard area (moderate disturbance) PKR 750 cannot access the track without signal relocation
3: Jewson's Yard (London end)	Minimum disturbance to Jewson Yard Provision for longer RRAP of 16.2m by replacing OLE / Signal	NR cannot directly access the Up Main from this RRAP PKR 750 cannot access the track

With all these options a significant amount of space would be rendered unusable by Jewson; it is unclear how effectively the business could continue trading with these proposals. Safety of Jewson staff and visitors would need to be considered at the next stage, as large RRV movements through site is unexpected at a location like this, and collision with members of the public is a significant risk.

Option 1 is the recommended option, as it allows access onto the Up and Down main. It also allows access for a PKR750, which will aid with constructability of the rail. However, one OLE mast will be relocated, and it is recommended that the parcel of land adjacent is utilised to provide a compound. Options 2 and 3 present a slightly easier access through the yard, but do not allow access onto the Up Main. They also require relocating of a signal and cabinets.

Overall, placing a RRAP in Jewson Yard is achievable. The highway access is sufficient, there is space for a small amount of storage and vehicle parking, and it is probable that access can be provided onto both the Up and Down Mains.

If pursuing Option 1, it is recommended that usage of adjacent land next to Option 1 is investigated to increase the capability of the RRAP.

4 Safe by Design

The proposed arrangement has been developed to incorporate safe by design principles.

The design has been modelled in 3D to allow simple referencing and coordination with other disciplines and organisations.

Clashes with existing NR Assets have been avoided where possible. Where this is not possible, they have been highlighted as a hazard and protected as necessary (i.e. it is recommended a 1.8m high palisade fence is erected on the compound side of the signal, to prevent it getting struck during RRV activities).

It cannot be assumed that Network Rail have sole use of Jewson's Yard. Therefore, the design has tried to minimise the area to be used by Network Rail, and keep it separate from areas of private business or the public. This should reduce the risk of private vehicles or pedestrians

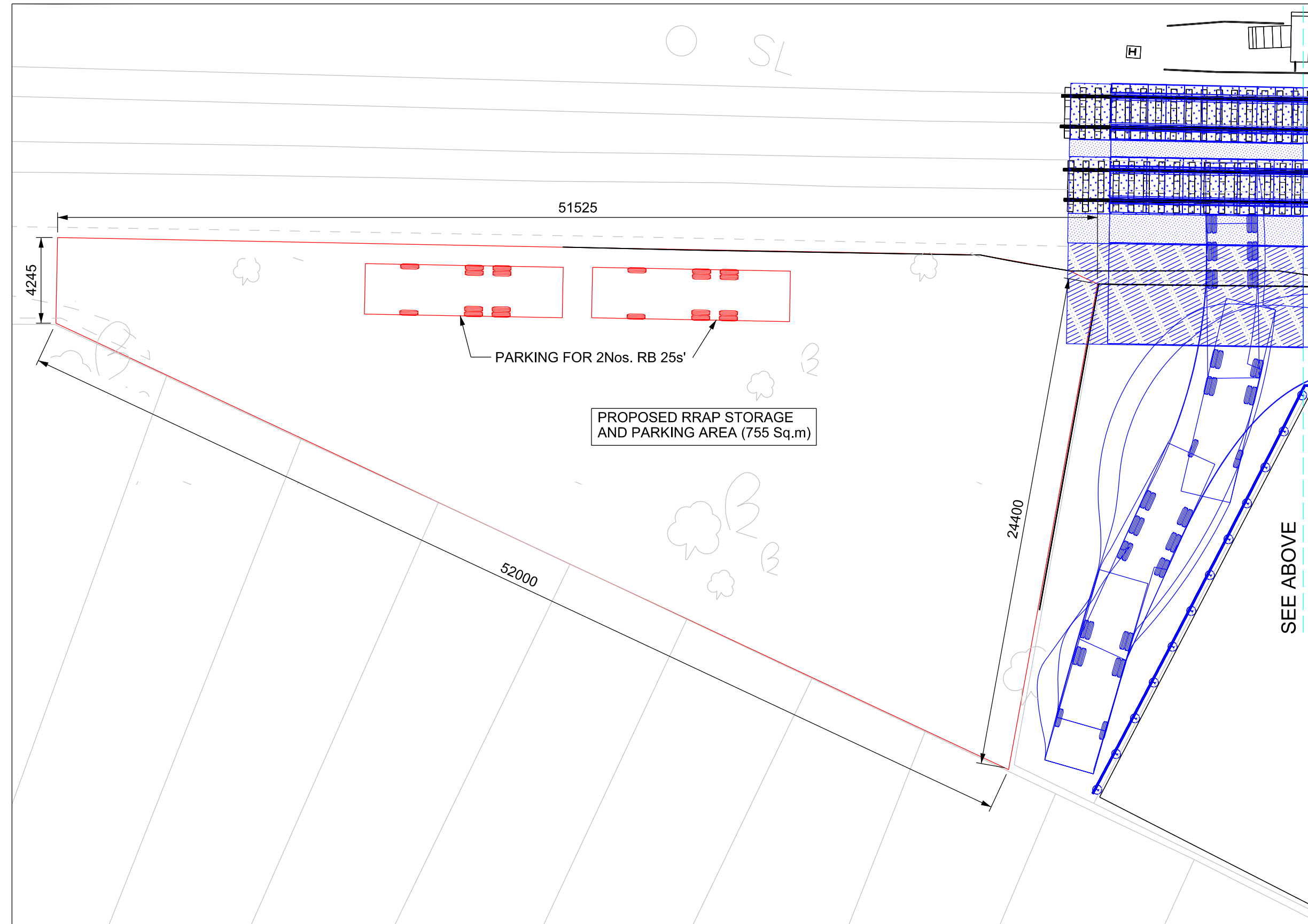
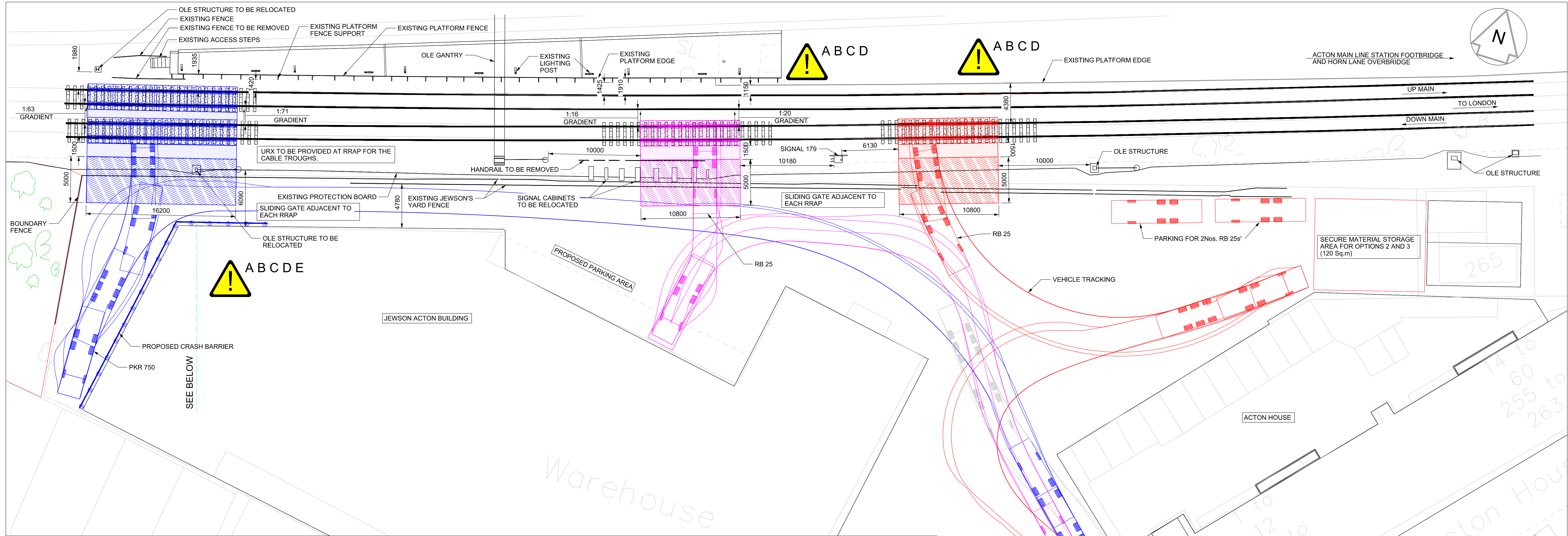
coming into contact with HGVs. Fire exits and other current safety measures of the site will need to be reviewed.

A Project Hazard Log and Designers Hazard Record are to be produced at GRIP4, to show a full list of what hazards have been identified through design and mitigated to eliminate or reduce the risk of injury.

APPENDIX A

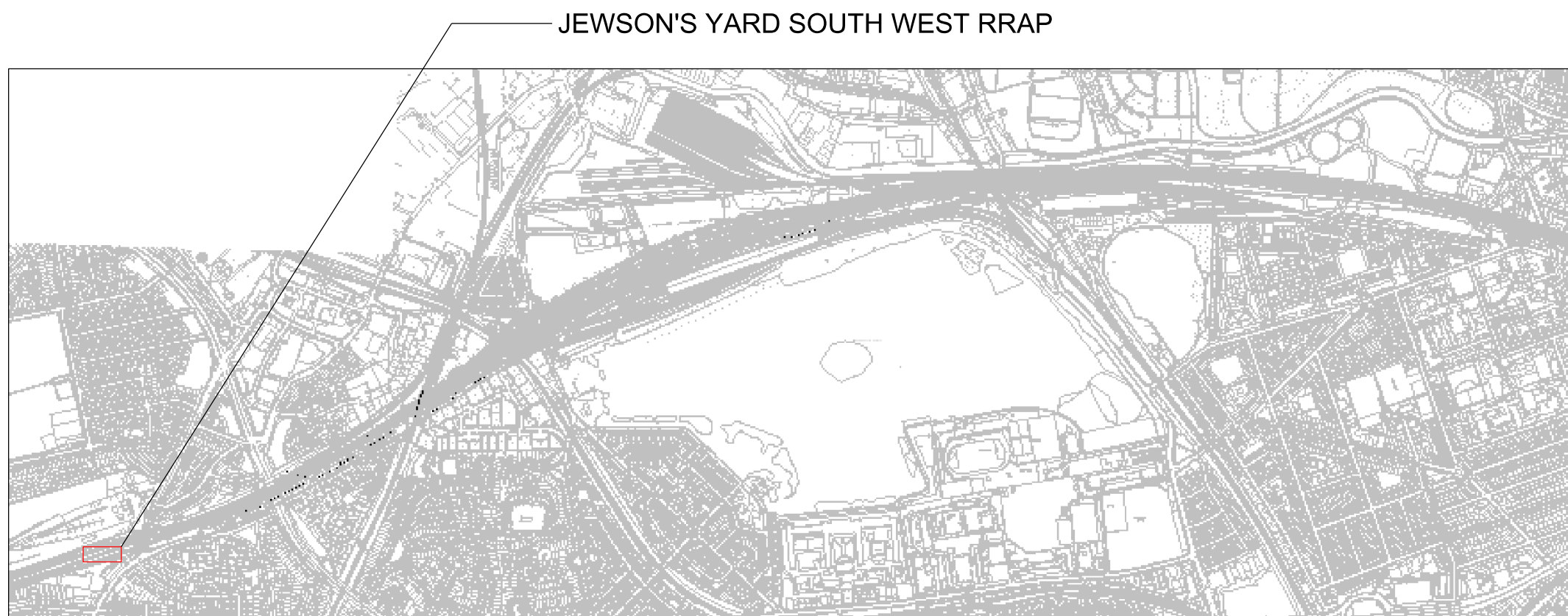
Drawing

152270-25067-P2R-MLN1-DRG-ECV-000025



PLAN AT JEWSON'S YARD SOUTH WEST RRAP
SCALE: 1:200

HAZARD SUMMARY TABLE		
SIGNIFICANT DESIGNER'S IDENTIFIED HAZARDS		LIFE SAVING RULES
FOR MORE DETAILED INFORMATION ON THE HIGHLIGHTED HAZARDS, REFER TO DESIGNER'S RISK ASSESSMENT FOR THIS PROJECT		
'EVERYDAY' LOW RISK HAZARDS AND THOSE HAZARDS WHICH SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING		
SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED DURING THE COURSE OF THE WORKS, THE CONTRACTOR SHALL NOTIFY ALL RELEVANT MEMBERS OF THE PROJECT TEAM		
<div>DRUGS / ALCOHOL</div> <div>TRAINING & COMPETENCY</div> <div>NO MOBILE PHONES</div> <div>CORRECT EQUIPMENT</div> <div>OBEY DRIVING RULES</div> <div>EARTHING</div> <div>EXCLUSION ZONE</div> <div>PLANS AND PERMITS</div> <div>SAFETY HARNESS AT HEIGHT</div> <div>ISOLATION</div>		
A!	BURIED SERVICES	<div></div>
B!	WORKING NEAR ELECTRIC UNITS	<div></div>
C!	WORKING CLOSE TO LIVE RAILWAY	<div></div>
D!	WORKING CLOSE TO LIVE OLE	<div></div>
E!	OBSTRUCTION TO VEHICULAR MOVEMENT DUE TO FENCE AND PLATFORM	<div></div>
• FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS H&S RISK ASSESSMENT REF.: 152270-25067-P2R-MLN1-RSA-ECV-000007		



KEY PLAN
SCALE: 1:15000

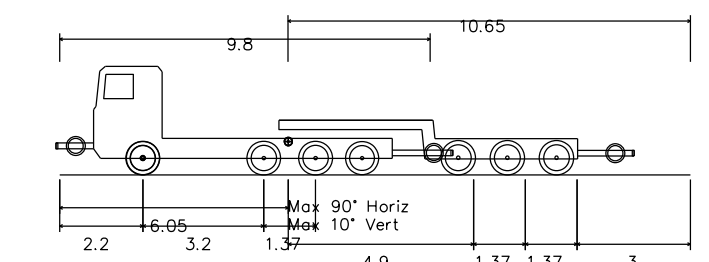
Legend/Notes

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METERS AND ARE ABOVE ORDNANCE DATUM.
- GRADING OF EXISTING GROUND LEVEL TO BE CARRIED OUT TO MEET PROPOSED SLAB LEVEL. GRADIENT TO BE NOT MORE THAN 1 IN 7.5 AT APPROACHES AND NOT MORE THAN 1 IN 3 AT THE SIDES.
- A COMPREHENSIVE CAT SCAN TO BE CARRIED OUT TO CONFIRM DEPTH, DIRECTION AND EXTENT OF SERVICES BEFORE CONSTRUCTION.
- BALLAST SHOULDER TO BE REINSTATED IN ACCORDANCE WITH NR/L2/TRK/001/MOD 03 TABLE 2.
- PROPRIETARY RRAP PANELS TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
- SLAB TO HAVE BRUSHED CONCRETE FINISH.
- EDGES OF CONCRETE SLABS TO BE FINISHED WITH ARRIS TROWEL TO ACHIEVE 5mm RADIUS.
- THIS DRAWING HAS BEEN PREPARED BASED ON THE AVAILABLE POINT CLOUD DATA.
- COORDINATION WITH RELEVANT DISCIPLINES TO BE ENSURED TO AVOID CLASHES WITH PROPOSED STRUCTURES.
- A DETAILED SITE INVESTIGATION SHALL BE CARRIED OUT TO IDENTIFY EXISTING SERVICES AND GROUND CONDITIONS IN GRIP 4 STAGE.
- RRAP DESIGNED IN ACCORDANCE TO NR/L2/RMV/P/0200/P301 ISSUE 3 AND THE NETWORK RAIL INFRASTRUCTURE ACCESS POINTS BEST PRACTICE DESIGN GUIDE CS075481.
- INFORMATION SIGNS TO BE DESIGNED IN ACCORDANCE TO GIRT7033 AND CS075481.

LEGENDS:-

- CONCRETE SLAB
- TYPE 1 FILL
- TAP STRAIL CROSSING UNITS
- EXISTING STRUCTURE
- PROPOSED RRAP - OPTION 1
- PROPOSED RRAP - OPTION 2
- PROPOSED RRAP - OPTION 3



SRS PKR750 Corrected
Overall Length 16.690m
Overall Width 2.550m
Overall Body Height 2.870m
Min Body Ground Clearance 0.427m
Max Track Width 2.550m
Lock to lock time 4.00s
Wall to Wall Turning Radius 10.850m

Rev	Date	Description of Revisions	Drawn	Chkd	Appr	Suitability
A01	10/06/20	First Issue		A.T	S.H	K.M

For Information

S3



Authorised Signed Date

Contractor(s)
Arcadis (UK) Ltd

Location
PADDINGTON-BRISTOL-PENZANCE

Type
CAD Drawing

Sub-type
General

Role
Civil Engineer

Sub-Role
General

Zone
Paddington to Reading

Phasing
Grip Stage 3

Project
Western and Wales

Contract No.
152270

Contract Title
OOC GWML Station

Drawing Title
Road Rail Access Points

South West - Jewson's Yard

General Arrangement

Designed
S. HOWELLS

Signed
pp.

Date
10/07/2020

Drawn
T. ANEESH

Signed
pp.

Date
10/07/2020

Checked
K. MATHARU

Signed
pp.

Date
10/07/2020

Approved
M. Eaden

Signed
pp.

Date
10/07/2020

Scale(s)
AS SHOWN

ELR & Mileage
MLN1

4m 514 Yards

Alternative Reference

Sheet
1 of 1

Drawing Number
152270-25067-P2R-MLN1-DRG-ECV-400025

Revision
A01

Arcadis UK

1st Floor

2 Glass Wharf

Temple Quay

Bristol

BS2 0FR

UK

T: +44 (0) 117 372 1200

arcadis.com

