# NETWORK RAIL

## Bridge Detailed Examination Report

| | | |
|---|---|---|
| **ELR: COL** | **Contract Mileage: 189m 0798yds 36.27chs** | **Struc. Ref: 63** |
| **Examination Type: Bridge Detailed** | **NR ID: 12010420** | **Exam Date: 12-Dec-2019** |
| **Area: Central East** | **BRS: 0** | **OS Ref: SJ83889748** |
| **Structure Name: Whitworth Street** | **Type: BU** | **Exam ID: 2573685** |
| **Route: London Road - Ordsall lane** | | **Complete Exam: No** |

## Section A: To Be Completed By The Examining Organisation

| HIDDEN PARTS NOT EXAMINED (EXCLUDING FOUNDATIONS) | Part | Reason |
|---|---|---|
| | Piers, part barrel soffit, internal curtain wall | Tenanted arch; cladding and tiling,sheeting |

| ITEM | DESCRIPTION | LOCATION | Est. Cost £ +/- 20% | Priority Within | Quantity | Severity | Probability | Risk Score | Works Category |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Investigate the long fracture, bulged and dropped brick, movement under load to the barrel soffit, us over the take away business; dowel, recase. Also dowel the hollow frv us. phs 13-17. | Barrel soffit and frv , US. | 12000.00 | 1yr | 1 unit | 5 | 3 | S15 | Brickwork/Stone Repairs |
| 2 | Cut back vege and treat roots phs 1,21,26,27, 29,30 | US DS elevations | 3000.00 | 3yrs | 1 unit | 2 | 3 | S6 | Vegetation |
| 3 | Masonry repairs inc point ojs, replace spalled fractured missing lth phs 18,20,21,25-29 | US DS elevations inc us lm buttress and abut corner; ds elevation | 5000.00 | 3yrs | 1 unit | 2 | 4 | S8 | Brickwork/Stone Repairs |
| 4 | General items; a. inform track ram of splits and shakes to timber sleepers; b. clean and paint ds handrails c. supply and install bridge id plate | Structure | 3000.00 | 1yr | 3 unit | 2 | 1 | S2 | Other |
| 5 | This examination covers a small area / arch to the us with a filled area and ret wall to the ds. Previous detailed appears to examine the wrong DS elevation. Ensure that all the structural elements in this area are adequately covered in the exam process. | structure | 1000.00 | 1yr | 1 unit | 2 | 2 | S4 | Other |

**History of Live Significant Defects**

| No | Description | Location | Exam Date | Access Gained | Exam Type | Rec Raised | Risk Score | Access Req'd | Deter - ioration | Repaired | Flagged for Closure | Engineer Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 23/07/12 | N | V | N/A | N/A | Y | Baseline | N | N | Unexamined parts |
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 08/02/14 | N | V | N | 4 | Y | NV | N | N | check at next detailed exam |
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 24/07/14 | N | D | Y | 5 | Y | NV | N | N | Downside face of structure previously included in this defect now examined by this detailed exam using rope access |
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 19/11/15 | N | V | N | 5 | Y | NV | N | N | No change |
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 14/03/17 | N | V | NV | 5 | Y | NV | N | N | Unable to view. see Work id 1531834 in CARRS |

**ELR: COL** **Contract Mileage: 189m 0798yds 36.27chs** **Struc. Ref: 63**

**History of Live Significant Defects**

| No | Description | Location | Exam Date | Access Gained | Exam Type | Rec Raised | Risk Score | Access Req'd | Deter - ioration | Repaired | Flagged for Closure | Engineer Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 03/11/17 | N | V | Y | 5 | Y | NV | N | N | No change |
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 18/05/19 | N | V | N | 5 | Y | NV | N | N | N/A Visual exam, no defects to cladding reported, expose at next detailed |
| 1 | Unexamined parts | Part Soffit and internal face of Piers and Bedstones | 12/12/19 | N | D | N | 4 | Y | Y | N/A | N | Large part of cladding to barrel soffit removed; piers remain unexamined. |
| 2 | vegetation / buddleia growing to piers and parapet face | Upside and Downside Both piers and parapet faces | 18/05/19 | Y | V | Y | 6 | N | Baseline | N | N | deveg |
| 2 | vegetation / buddleia growing to piers and parapet face | Upside and Downside Both piers and parapet faces | 12/12/19 | Y | D | Y | 6 | N | NV | N | N | no action |
| 3 | Long barrel fracture, bulge dropped brick,movement under load | US barrel soffit | 12/12/19 | Y | D | Y | 15 | N/A | Baseline | N/A | N | new; over tenanted arch takeaway |
| 4 | Spalled, oj, lth, fractured masonry | US LM Buttress,,abut quoin, ds elevation | 12/12/19 | Y | D | Y | 8 | N | Baseline | N/A | N | new |

## Engineers Notes

Single span brick tenanted arch in fair condition apart from island fracture, bulged dropped with reported live load

[redacted]

# NETWORK RAIL

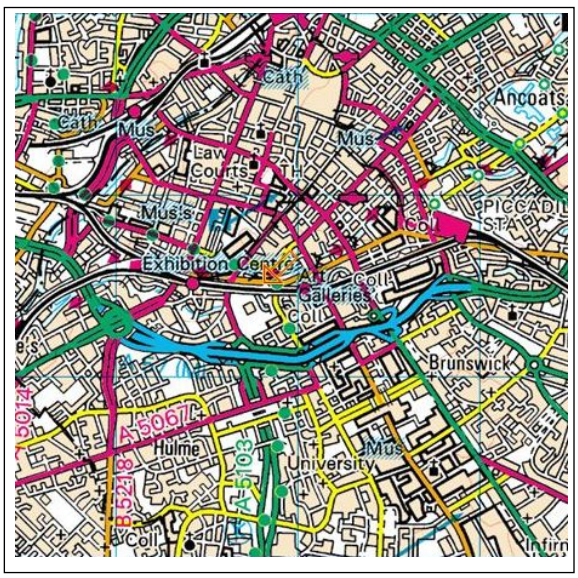
## Bridge Detailed Examination Report

| | | | | | |
|---|---|---|---|---|---|
| **ELR: COL** | **Contract Mileage: 189m 0798yds 36.27chs** | | | **Struc. Ref: 63** | |
| **Struc Type BU** | **NR ID** 12010420 **Rpt ID** 14790 **OS Ref** SJ83889748 | | | **Exam ID** | 2573685 |
| **Dimensions** | Height 6.50m Length 5.21m Span 9.50m No. Spans: 1 | | | **Exam Date** | 12/12/2019 |
| **Primary Material** | RBE - Brick | | | **Last Detailed** | 24/6/2014 |
| **Secondary Material** | Not Recorded | | | **Last Visual** | 3/11/2017 |
| **Structure Carries** | Rail | **Over** | Land | | |
| **Line** | London Road - Ordsall lane | | | | |
| **Name:** | Whitworth Street | | | | |

**Elevation Photograph**




**Map Extract**



A tactile examination was undertaken by XEIAD on the 05.05.19, 12.05.19, 06.12.19, 11.12.19, 12.12.19, 23.05.21 & 08.07.21 hand tools from ground level, MEWP and Rope Access techniques were utilised for this examination.
The examination was carried out during day shifts and night shift under T3 possession and isolation
The weather was fair.
The examination was undertaken by Chris Reid STE4, Joe Duckworth, Eli Culyer and Dwain jones. .
Report by Chris Reid

The structure is between Manchester Oxford Road Station (LM) and Deansgate Station (HM)
Nearest postcode - M15 4GB

The Structure is a single span brick tenanted arch part of a larger viaduct which carries 3no. electrified tracks adjacent to public highway and pedestrian walkways. Overall the structure was in a fair condition

I confirm that the previous detailed and visual examination reports have been reviewed and the dates of the said reports are given in this report.
Previous detailed COL 63 – 24.07.14
Previous visual COL 63 – 03.11.17

NOTE: Structure shares a pier with adjacent structure I confirm that the previous detailed and visual examination reports have been reviewed and the dates of the said reports are given in this report also.
Previous detailed COL 62A – 9.03.14
Previous visual COL 62A – 23.10.18

The previous examination was incomplete “Unable to examine Soffit and Internal Faces of Piers/ Bedstones. This is as the arch has been cladded with corrugated sheeting since previous detailed examination, and Pier Faces are also cladded”.

Note: keys are required go gain access to inside structure. NR representative was met on site before examination with keys for shutters.

Additionally the enabling works for the soffit was carried before examination 11.12.19, However billboard present on the downside was not removed until revisit on 08.07.21. It has been advised by Network Rails David Murphy that the exam date complies with the 2019 dates so that the structure is examined at the correct time in the future. (6 year period from 2019)

Finally, The previous report was incorrect. The inclusion of the downside arch is actually apart of COL 64. The report now shows the correct structure layout.
The wall to the Downside end of the arch may not be part of this structure. It has been examined, but it has not included in the BCMI.

See texts and sketches for full details of defects.

Has all the structure been examined? No (if no, see report for details)

Areas of cladding not removed before examination.
Both pier faces and bed stones hidden by tiles inside structure.
Has the structure been viewed under load? Yes

[redacted]

**ELR: COL** **Contract Mileage: 189m 0798yds 36.27chs** **Struc. Ref: 63**

## Element Status Table

| Element Name | Status | Condition |
|---|---|---|
| **Arch Ring** | Examined | Fair |
| **Ballast Plates and Boards** | N/A | N/A |
| **Bearing** | N/A | N/A |
| **Cross Girders** | N/A | N/A |
| **Floor / Deck** | N/A | N/A |
| **Longitudinal Timbers** | N/A | N/A |
| **Main Girders** | N/A | N/A |
| **Parapets and Pilasters** | Examined | Fair |
| **Rail Bearers** | N/A | N/A |
| **Spandrels** | Examined | Fair |
| **Water Proofing** | Not Included | Cannot Determine |
| **Abutments** | N/A | N/A |
| **Bedstones and Cills** | Not Examined | Cannot Determine |
| **Columns and Cylinders** | N/A | N/A |
| **Piers** | Not Examined | Cannot Determine |
| **Trestles and Crossheads** | N/A | N/A |
| **Wing and Retaining Walls** | N/A | N/A |
| **Debris** | N/A | N/A |
| **Drainage** | N/A | N/A |
| **Gutters And Downpipes** | N/A | N/A |
| **Handrails** | Examined | Fair |
| **OLE** | Examined | Fair |
| **Painting** | Examined | Fair |
| **Pointing** | Examined | Poor |
| **Revetment Walls** | N/A | N/A |
| **Rivets and Bolts** | N/A | N/A |
| **Rubbish** | Examined | Fair |
| **Signage** | Examined | Poor |
| **Track/Road** | Examined | Fair |
| **Vegetation** | Examined | Fair |

## Record of Observations Under Load

| Load Type | General Area Observed | Result Of Observation | Date & Time |
|---|---|---|---|

## Avongards

| | |
|---|---|
| **Are Avongards Present?** | No |

**ELR: COL** **Contract Mileage: 189m 0798yds 36.27chs** **Struc. Ref: 63**

| Date Tabs | |
|---|---|
| **Are Date Tabs Present?** | No |

| Plumbing Points | |
|---|---|
| **Are Plumbing Points Present?** | No |

**Environmental Factors Present: No**

| Item number | Description | Location |
|---|---|---|
| | | |

**Record of Condition by Element**

| Element Name | Status | Condition |
|---|---|---|
| Arch Ring | Examined | Fair |
| Parapets and Pilasters | Examined | Fair |
| Spandrels | Examined | Fair |
| Water Proofing | Not Included | Cannot Determine |
| Bedstones and Cills | Not Examined | Cannot Determine |
| Piers | Not Examined | Cannot Determine |
| Handrails | Examined | Fair |
| OLE | Examined | Fair |
| | | |
| Painting | Examined | Fair |
| Pointing | Examined | Poor |
| Rubbish | Examined | Fair |
| | | |
| Signage | Examined | Poor |
| | | |
| Track/Road | Examined | Fair |
| Vegetation | Examined | Fair |

ENGINEERS RECOMMENDATIONS FROM PREVIOUS EXAMINATION REPORT
Previous visual – 03.11.17

RECOMMENDATION No 1: Arrange sample access to soffit & internal face of piers & bedstones for next detailed examination (repeat recommendation)..
LOCATED: Soffit & internal face of Piers & Bedstones.
STATUS: Access to soffit has been made however on arrival to examination no sample access created to examine internal piers.
[See photo P5,6,7]

LIVE SIGNIFICANT DEFECTS FROM PREVIOUS EXAMINATION REPORT
Previous visual – 03.11.17

DEFECT No 1: Unexamined parts.
Located: Soffit and internal face of Piers and Bedstones.

STATUS: Access to soffit has been made however on arrival to examination no sample access created to examine internal piers.
[See photo P5,6,7]

ONLY RELEVANT LIVE SIGNIFICANT DEFECTS TAKEN FROM PREVIOUS VISUAL (COL 62A) – 23.10.18
DEFECT No 8: vegetation and moss growth from abutment faces and saplings to DS HM end of beam.
Located: Abutments and DS HM end of beam
STATUS: No deterioration
[See photo P35,36]

PRINCIPAL DIMENTIONS
Height – 6.50m
Length – 5.21m
Span – 9.50m
Cover – approx. 1.5m

Clearances:
Upside – 1.600m
Downside – 2.600m

Parapet height:
Upside – 1.80m
Downside – 2.20m

Safety fences height:
Upside – 1.30m
Downside – 1.50m

PHOTO LIST
P1 - Upside elevation
P2 - Downside elevation
P3 - Track view looking towards high mileage
P4 - Track view looking towards low mileage
P5 - General view of soffit
P6 - General view LM pier (PNE)
P7 - General view HM pier (PNE)

SKETCHES
Under load form
Sketch 1 – Location
Sketch 2 - Site Layout
Sketch 3 - Soffit defect sketch
Sketch 4 - upside elevation defect sketch
Sketch 5 - Downside elevation defect sketch
Sketch 6 - LM pier face defect sketch

SUMMARY OF DEFECTS

ARCH RINGS – Overall fair condition

Part not examined due to cladding not being fully removed before examination.
1no longitudinal fracture with movement under load, area of bulging and 1no displaced brick.
Refer to sketch 3 & 4

SPANDRELS – Overall fair condition

Weathering and open joints present
Refer to sketches 4

PIERS – Not examined

Parts not examined due to shop walls being tiled. P6 & 7
Vertical fracture with open joints and spall present to upside LM return.
NOTE – LM pier is also part of (COL62A) this was examined as part of COL62A examination (23.05.21) defects have been recorded in this report.
Refer to sketch 4, 5 & 6

POINTING – Overall fair condition

Approx. 32m2 open joints up to 40mm deep.
Refer to sketches 4,5 & 6

PARAPETS – Overall fair condition

No downside parapet.
General view upside trackside parapet. P45
2no vertical joint fractures either side of stanchion open 1-2mm. P46

BEDSTONES & CILLS – Not examined

Bed stones not examined due to shop walls being tiled and plaster boarded.

WATERPROOFING – Not included

Unable to determine condition, however signs of dampness and slight seeping of material present to fracture in soffit.
Refer to sketch 3

HANDRAILS – Overall fair condition

General view downside metallic handrails and recess. P47
Paint loss up to 50% with underlying corrosion up to 1-2mm deep.

General view upside safety handrails. P48
No sign of failure at time of examination

PAINTING – Overall fair condition

Paint loss up to 50% to downside handrails in recess.

TRACK & ROAD CONDITION – Overall fair condition

Timber sleepers slight rot with splits and shakes. Timbers probed up to 5mm deep. P49

VEGETATION – Overall fair condition

Minor vegetation present to both sides of structure. Approx. 3m2 but is not preventing tactile examination at the moment.

RUBBISH – Overall fair condition

Small amount of rubbish collecting next the foot of the trackside parapets..

SIGNAGE – Overall poor condition

No structure ID found at this structure.

OLE – Overall fair condition

Stanchion present on upside – securely attached to structure with early signs of corrosion up to 1mm. P50 Redundant OLE on downside LM spandrel corroded throughout up to 1-3mm deep. Still fastened securely. P51 OLE Gantry present on top of structure on the downside adjacent to the parapet and is not attached to the structure.

## KEY

### General

Dia. – Diameter
G.L – Ground Level
M.H – Manhole
N.F.D – No Further Deterioration
WL – Water Level
Col – Column
No. – Number
O/S – Old Standing
S.S.D – Shows Slight Deterioration

### Masonry and Concrete

H – Hollow
H/L – Hairline
L.T.H – Loose to Hammer
O.J – Open Joints
DT – Date Tab
Sp. – Spall

**Fractures**
V.F – Vertical Fracture
V.S.F – Vertical Stepped Fracture
B.J.F – Bed Joint Fracture
D.F – Diagonal Fracture
D.S.F – Diagonal Stepped Fracture
HF – Horizontal Fracture
X<>mm – displaced by <> mm. *(+/- indicates direction of displacement)*

New / Worsened Fracture (line thickness to reflect fracture width) *(Red Line)*

Old Standing Fracture – NFD (line thickness to reflect fracture width) *(Blue Line)*

Spalling / Missing Brickwork *(Light Grey)*

Open Joints *(Yellow)*

Bulging / Out of Plumb / Displacement *(Brown)*

Indications of wetness *(Light Blue)*

H — Hollow / Drummy *(Black outline of area with "H")*

Date Tab / Avonguard (must also show installation date & reading) *(Black)*

### Metal

MG – Main Girder
XG – Cross Girder
BF – Bottom Flange
TF – Top Flange
CI – Cast Iron
WI – Wrought Iron
Corr – Corrosion
Lam – Lamination
LOS – Loss of Section
KE – Knife Edge

Corrosion / Lamination *(Light Orange)*

Fractures / Tears / Cracked Welds *(Red Line)*

Loss of Section / Buckling *(Red)*

Version 1.1 April 2008

## Record of observations under moving load

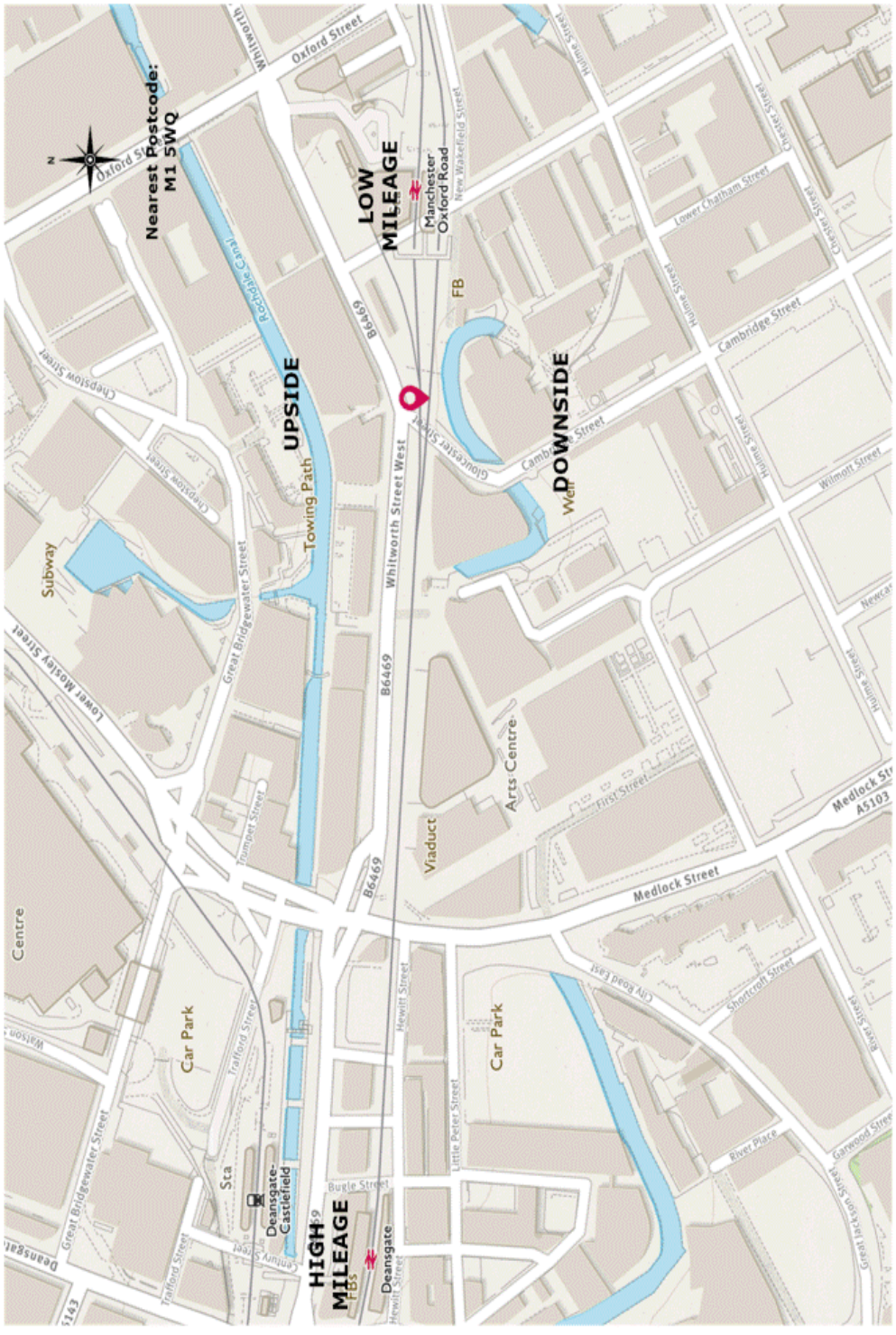
**Note:** The general observation under moving load of part of a structure does not necessarily mean that all defects have been identified as a result of that observation.

| Load type | General area observed | Result of observation |
|---|---|---|
| Loco-hauled passenger train | Soffit | 3mm movement observed to reported fractured. See sketch 3 |
| | | |
| | | |
| | | |
| | | |
| | | |

**For example:**
Low mileage bearings
Span 1 downside rail bearers
Span 2 arch soffit
Topside, general
Upside waybeam fixings
Etc.

**For example:**
Pumping at bearings
Excessive deflection
Fractures opening 1mm
No defects observed
Loose holding-down bolts
Etc.

Sketch 1 - Location

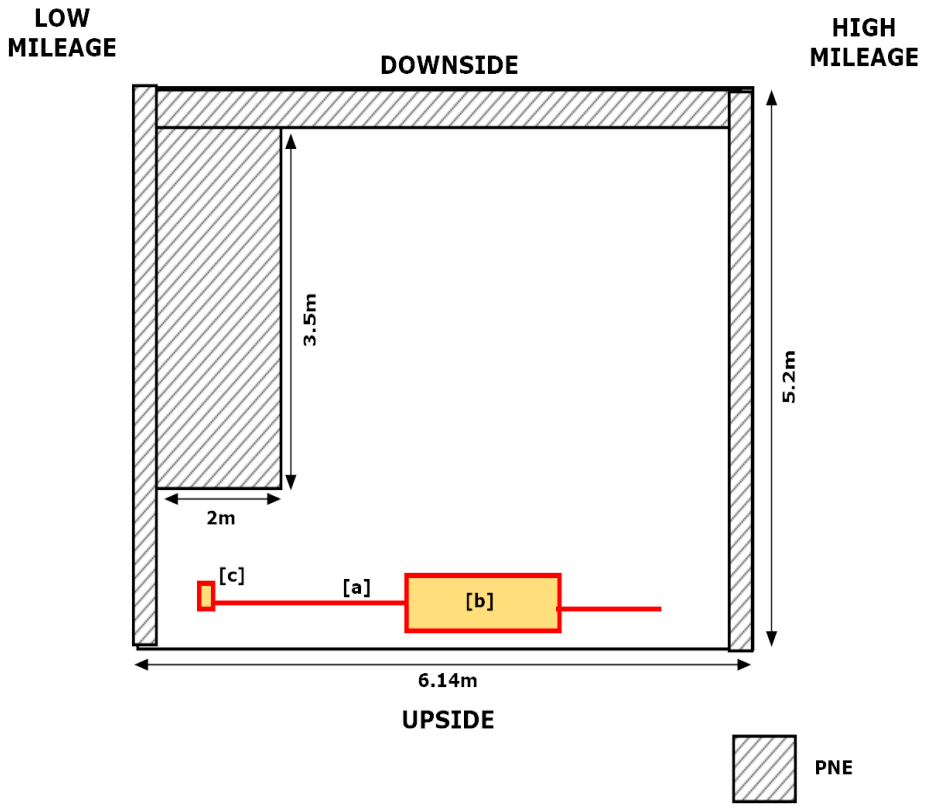


Sketch 2 - Site Layout




N.T.S. - Measurements in mm unless stated

## Sketch 3 - Soffit defect sketch




**General comments**

**General view of soffit. P8-12**
**PNE - Cladding to upstairs toilet not removed before examination.**

**Exposed brick faces weathered up to 2-3mm deep max.**
**Isolated areas of soot deposits up to 3m2 total.**

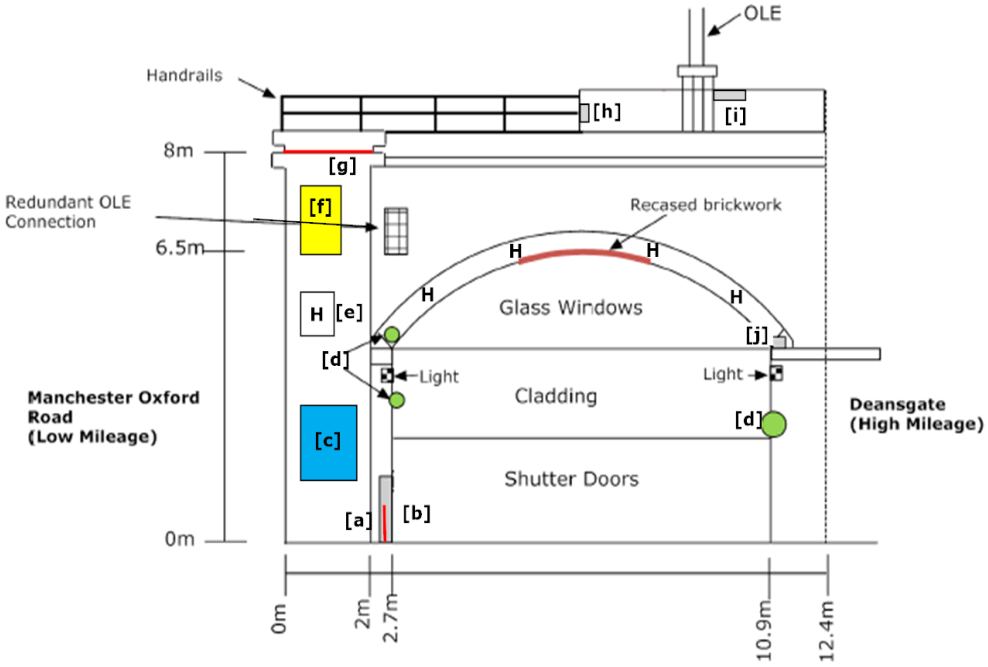
**a] - NEW - Longitudinal fracture 5.6m long open 1-3mm with movement under load up to 3mm also. The fractures forks into two around both sides of area of bulging. Fracture also wet with some minor material deposits present. P13-15**

**b] - NEW - area of bulging 1000x300x8mm. (hollow). P15**

**c] - NEW - 1no of brick displaced 40mm, LTH. P16**

N.T.S. - Measurements in mm unless stated
All defects old standing unless stated otherwise.

## Sketch 4 - upside elevation defect sketch




**General comments**

**General view upside elevation. P1**

**General weathering to face rings up to 5mm throughout and Hollow approx. 3m2. P17**
**Minor saplings present these did not prevent full tactile examination.**

**a] NEW - Vertical fracture 500mm long open 1.5mm, open joints up to 40mm. P18**

**b] Spall 1100x200x50mm.**

**c] wetness and moss growth 3m2**

**d] Saplings adjacent to both sides of piers and face rings**

**e] NEW - area of hollow 0.3m2. P19**

**f] NEW - Isolated area of spall and open joints 0.5m2 up to 40mm deep. P20**

**g] NEW - Separation fracture caused by root 2.3m long open up to 40mm max. P21**

**h] NEW - 1no missing brick. P22**

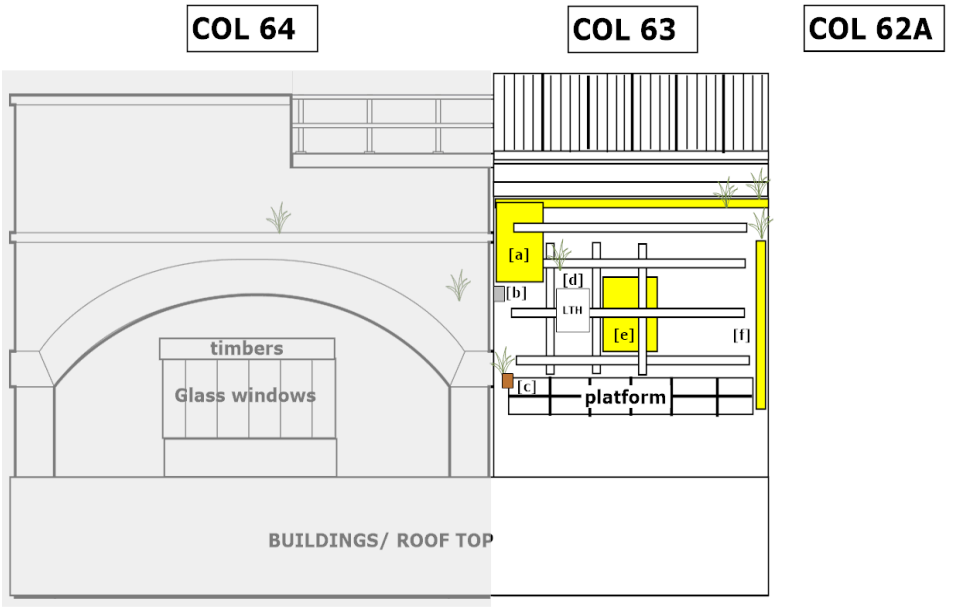
**i] NEW - 2no spalled coping stones 2000x40x40. P23**

**j] Spall 200x200x100.**

N.T.S. - Measurements in mm unless stated
All defects old standing unless stated otherwise.

## Sketch 5 - Downside elevation defect sketch

LOW MILEAGE →




**General comments**

**General view downside elevation. P1**

**General weathering to face rings up 5mm deep with isolated open joints 2m2 up to 10-40mm deep**
**Isolated areas of open joints to parapet face up to 1m2 total up to 20mm deep**
**2no satellite dishes fixed to structure**

**Billboard REMOVED (08.07.21) to complete exam, brackets remain intact for installation. P30**
**Platform for billboard secure and in date for safe access. P31,32,33**
**Structure adjacent to building/rooftop. P34**
**Light vegetation growing from structure 3m2 total, doesn't not prevent tactile exam..**

**[a] NEW - Isolated open joints 0.75m2 up to 40mm deep. P24**

**[b] NEW - 3no. missing bricks and 3no LTH, light vegetation growth also present. P25**

**[c] NEW - 1no brick displaced brick 30mm caused by root. P26**

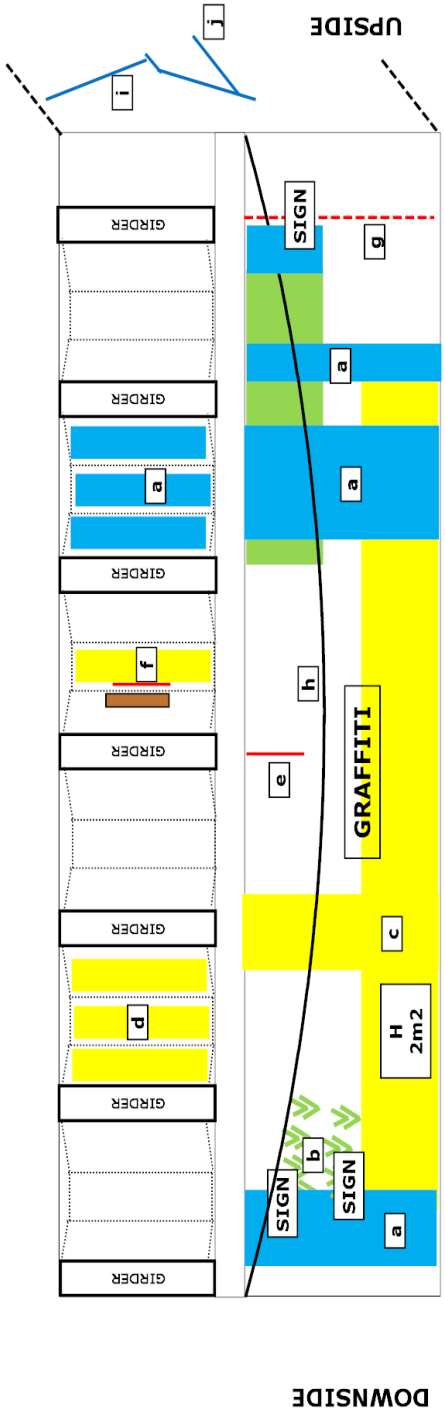
**[d] NEW - VF 200mm long open 1mm with 4no bricks LTH, 4 spalled bricks 30mm deep. Root present. P27**

**[e] NEW - Isolated open joints 5m2 up to 10-40mm deep with iso spalled bricks 40mm deep. P28**

**[f] NEW - Isolated open joints to quoin 1.5m long up to 40mm deep. P29**

N.T.S. - Measurements in mm unless stated
All defects old standing unless stated otherwise.

## Sketch 6 - LM pier face defect sketch (Roadside)




NOTE - Defects have been reviewed from structure COL 62A as the structure shares the same pier. Prev. det. - 09/03/2014

**General Comments**

General view of LM pier (roadside). P35

Wetness staining present throughout, moss growth present to upside end approx 6m2.
General wearing to brick faces up to 15mm deep, with odd brick spalled to 25mm max.
Numerous signs located on pier face.
Non offensive graffiti present.

a] NEW - Wetness approx. 15m2
b] NEW - Vegetation growth coming from pier face with signage present behind. P36
c] NEW - Open joints throughout approx 20m2 throughout up to 10-30mm deep. P37
d] NEW - Open joints 3m2 up to 10-40mm deep. P38
e] Vertical stepped fracture 1.3m long open 1-2mm (previously not found). P39
f] NEW - Vertical fracture 600mm open 1mm, with side bulging 0.25m2 up to 20mm and open joints 1m2 up to 10-30mm. P40
g] intermittent Vertical fracture 2m long total open 1-3mm. no date tabs found. P41
h] NEW - Hanging cable not fastened at mid point. P42
i] Diagonal fracture 2.8m long open hl. P43
j] Horizontal fracture 1.5m long open 1-2mm, displaced 3mm. P44

N.T.S. - Measurements in mm unless stated otherwise
ALL defects old standing no further deterioration unless stated otherwise




**P1 - Upside elevation - 11.12.19**




**P2 - Downside elevation - 12.12.19**




**P3 - Track view looking towards high mileage - 12.12.19**




**P4 - Track view looking towards low mileage - 12.12.19**



P5 - General view of soffit - 12.12.19



P6 - General view LM pier (PNE) - 12.12.19



P7 - General view HM pier (PNE) - 12.12.19



P8 - General view of soffit - 12.12.19



P9 - General view of soffit - 12.12.19



P10 - General view of soffit - 12.12.19



P11 - General view of soffit PNE - 12.12.19



P12 - General view of cladded soffit in upstairs toilet - 12.12.19



P13 - Longitudinal fracture - soffit upside - 12.12.19



P14 - Longitudinal fracture - soffit upside - 12.12.19



P15 - Longitudinal fracture next to bulge - 12.12.19



P16 - 1no displaced brick - soffit LM - 12.12.19



P17 - Typical wreathing and hollow to upside face rings - 06.12.19



P18 - Vertical fracture and open joints, upside LM pier - 06.12.19




**P19 - Area of hollow, upside LM pier - 06.12.19**



**P20 - Open joints and spall, upside LM pier - 06.12.19**



P21 - Separation fracture caused by vegetation, upside coping LM pier - 06.12.19



P22 - 1no missing brick, upside LM parapet - 06.12.19



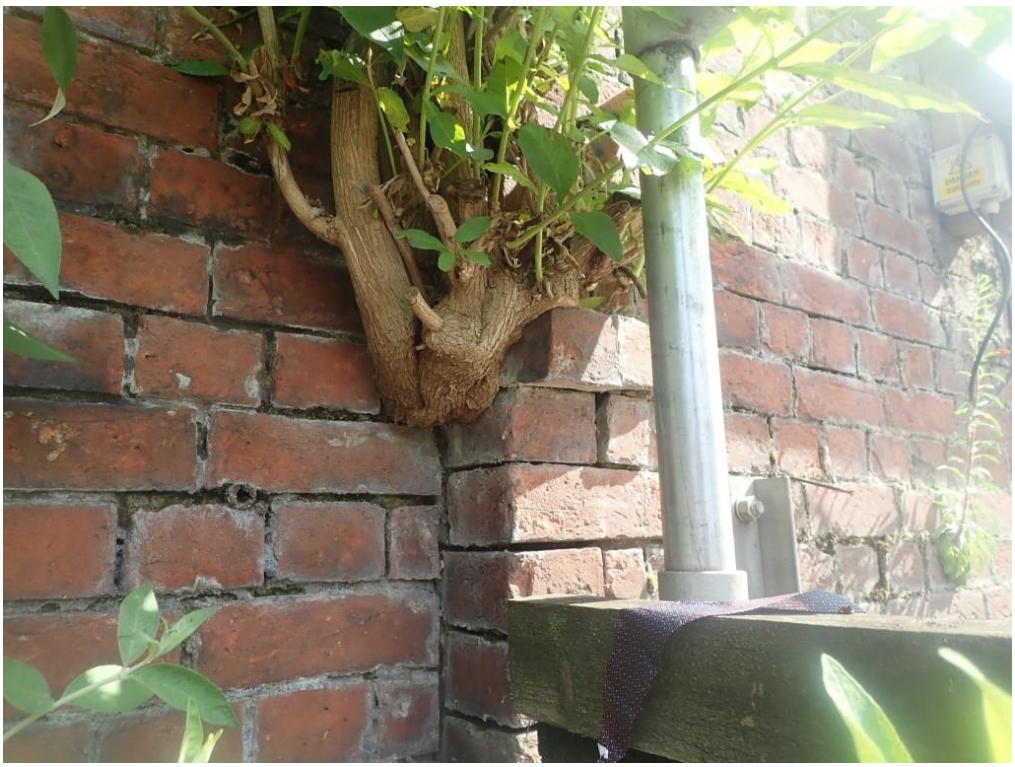
P23 - Spall to coping, upside - 06.12.19



P24 - Open joints downside elevation below copings - 08.07.21



P25 - Missing brickwork and LTH, downside elevation - 08.07.21



P26 - Displaced brick caused by root, downside elevation - 08.07.21



P27 - Vertical fracture, 4no LTH & spall, downside elevation - 08.07.21



P28 - Open joints and spall to downside elevation - 08.07.21



P29 - Open joints to LM quoin, downside elevation - 08.07.21



P30 - Billboard removed for return visit - 08.07.21



P31 - General view downside billboard platform - 08.07.21



P32 - General view of billboard fastenings - 08.07.21




**P33 - Date tag for billboard platform - 08.07.21**



**P34 - General view of roof top adjacent to downside elevation - 08.07.21**




**P35 - General view of LM pier roadside - 08.07.21**




**P36 - Vegetation and signage LM pier face -23.5.21**



P37 - Typical open joints span 62A HM pier face -23.5.21



P38 - Open joints to top of pier, span 62A HM pier -23.5.21



P39 - Vertical stepped fracture, span 62A HM pier -23.5.21



P40 - Vertical fracture with bulge and open joints, span 62A HM pier -23.5.21




**P41 - Vertical fracture Upside end, Span 62A HM pier face -23.5.21**



**P42 - Hanging cables present, Span 62A HM pier face -23.5.21**



P43 - Diagonal fracture upside pier return -23.5.21



P44 - Horizontal fracture, displaced, upside pier return -23.5.21




**P45 - General view of upside trackside parapet - 12.12.19**




**P46- Typical vertical joint fracture, upside trackside parapet - 12.12.19**




**P47 - General view of downside handrails - 12.12.19**




**P48 - General view upside safety handrails - 12.12.19**




**P49 - General view of timbers sleepers with splits and shakes - 12.12.**



**P50 - General view of upside stanchion with corrosion - 06.12.19**



**P51 - General view of upside redundant OLE - 06.12.19**

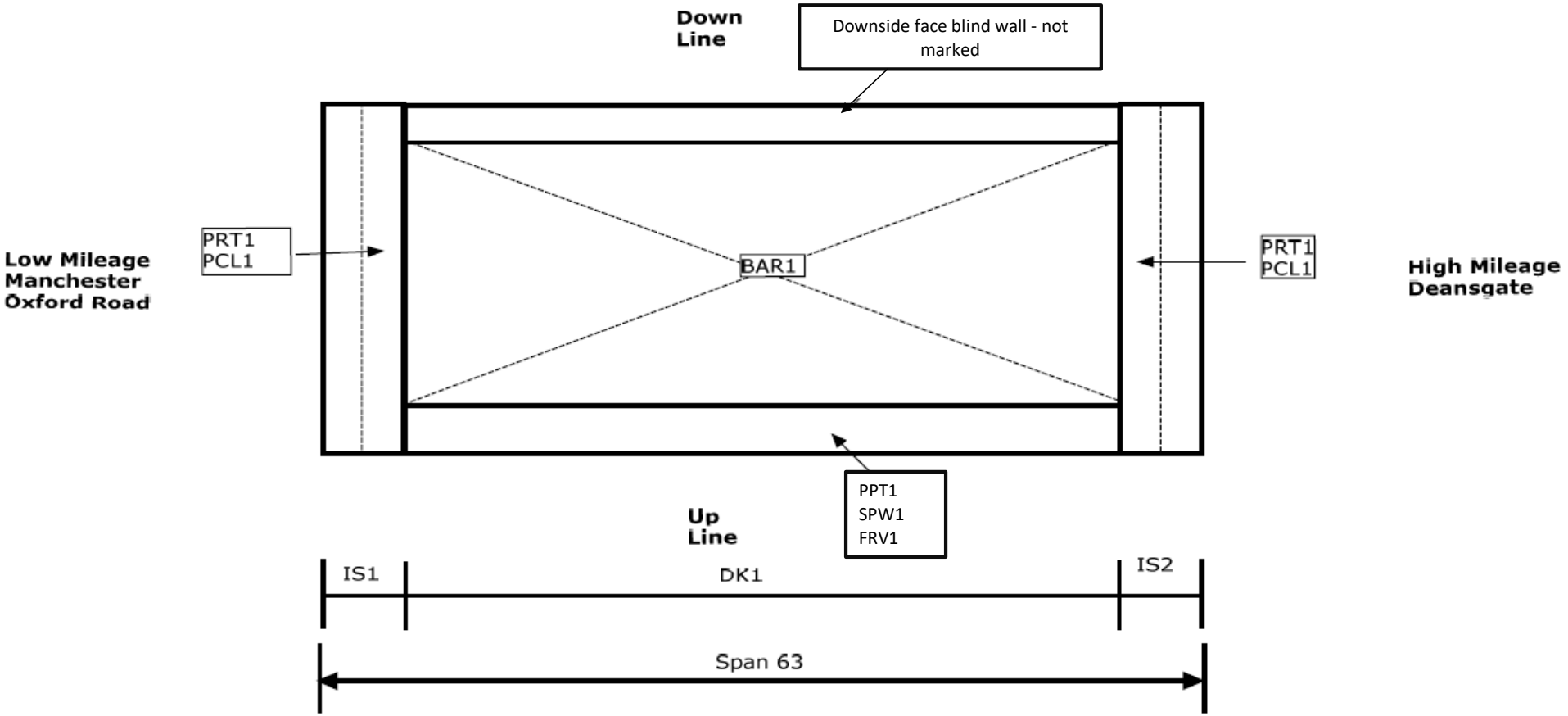
# NETWORK RAIL BCMI EXAMINATION REPORT FORM

| Territory | ELR | Structure No | Start Mileage | Group | Type | RAR ID | Structure Name | Exam Date | Task Year | Exam Type | Examiners Name | Weather |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TLNW | COL | 63 | 189.0798 | BB | BBV | | WHITWORTH STREET VIADUCT | 12/12/2019 | 18_19 | D | Chris Reid | Fair |

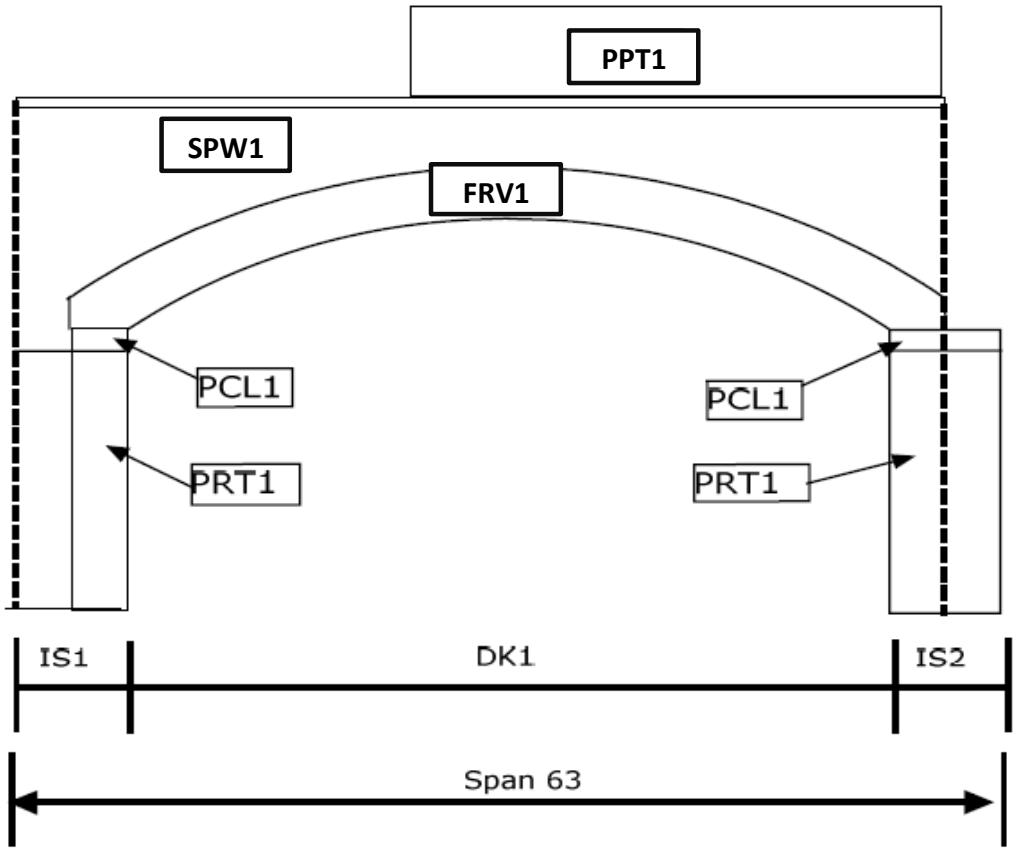
| Major Element | | Minor Element | | | Metal / Masonry / Concrete / Timber | | Coated Metal / Cracked Masonry | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| Code | No | Code | No | Material | S/Ex 1 | S/Ex 2 | S/Ex 1 | S/Ex 2 | V | Note: This free text area of the report should be used extensively and can be enlarged as necessary. |
| IS | 1 | PRT | 1 | B | E3 | D3 | M7 | J10 | ✓ | hollow, spall, 3No vertical fractures, diagonal fracture and horizontal fracture |
| IS | 1 | PCL | 1 | B | B6 | A1 | A1 | A1 | ✓ | Weathering and staining throughout |
| | | | | | | | | | | |
| DK | 1 | BAR | 1 | B | F3 | EX3 | J9 | A1 | ✓ | Bulging, 1NO, displaced LTH brick, hollow with longitudinal fracture |
| DK | 1 | FRV | 1 | B | E6 | D3 | A1 | A1 | ✓ | Hollow and spall |
| DK | 1 | SPW | 1 | B | B3 | A1 | A1 | A1 | ✓ | General weathering |
| DK | 1 | PPT | 1 | B | EX3 | B3 | A1 | A1 | ✓ | 1no missing brick |
| | | | | | | | | | | |
| IS | 2 | PRT | 1 | B | NE | NE | NE | NE | ✓ | tiled and cladded from both sides |
| IS | 2 | PCL | 1 | B | NE | NE | NE | NE | ✓ | tiled and cladded from both sides |

# NETWORK RAIL BCMI EXAMINATION REPORT FORM

| Major Element | | | | |
|---|---|---|---|---|
| Code | No | Material | Span No | V |
| IS | 1 | B | 1 | ✓ |
| DK | 1 | B | 1 | ✓ |
| IS | 2 | B | 1 | ✓ |


Down Line
Downside face blind wall - not marked
Low Mileage
Manchester
Oxford Road
PRT1
PCL1
BAR1
PRT1
PCL1
High Mileage
Deansgate
PPT1
SPW1
FRV1
Up Line
IS1
DK1
IS2
Span 63

**Low Mileage**
**Manchester**
**Oxford Road**




**High Mileage**
**Deansgate**

**NETWORK RAIL BCMI EXAMINATION REPORT FORM**

| Territory | ELR | Structure No | Start Mileage | Group | Type | RAR ID | Structure Name | Exam Date | Task Year | Exam Type | Examiners Name | Weather |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TLNW | COL | 63 | 189.0798 | BB | BBV | | WHITWORTH STREET VIADUCT | 12/12/2019 | 18_19 | D | Chris Reid | Fair |

| Major Element | | Minor Element | | | Metal / Masonry / Concrete / Timber | | Coated Metal / Cracked Masonry | | | Comments | Scores | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Code | No | Code | No | Material | S/Ex 1 | S/Ex 2 | S/Ex 1 | S/Ex 2 | V | Note: This free text area of the report should be used extensively and can be enlarged as necessary. | Min El BCMI | Maj El BCMI | BCMI |
| DK | 1 | BAR | 1 | B | F3 | EX3 | J9 | A1 | ✓ | Bulging, 1NO, displaced LTH brick, hollow with longitudinal fracture | 55 | 56 | 61 |
| DK | 1 | FRV | 1 | B | E6 | D3 | A1 | A1 | ✓ | Hollow and spall | 20 | | |
| DK | 1 | PPT | 1 | B | EX3 | B3 | A1 | A1 | ✓ | 1no missing brick | 60 | | |
| DK | 1 | SPW | 1 | B | B3 | A1 | A1 | A1 | ✓ | General weathering | 90 | | |
| IS | 1 | PCL | 1 | B | B6 | A1 | A1 | A1 | ✓ | Weathering and staining throughout | 80 | 67 | |
| IS | 1 | PRT | 1 | B | E3 | D3 | M7 | J10 | ✓ | hollow, spall, 3No vertical fractures, diagonal fracture and horizontal fracture | 60 | | |