#### **Haweswater Aqueduct Resilience Programme**

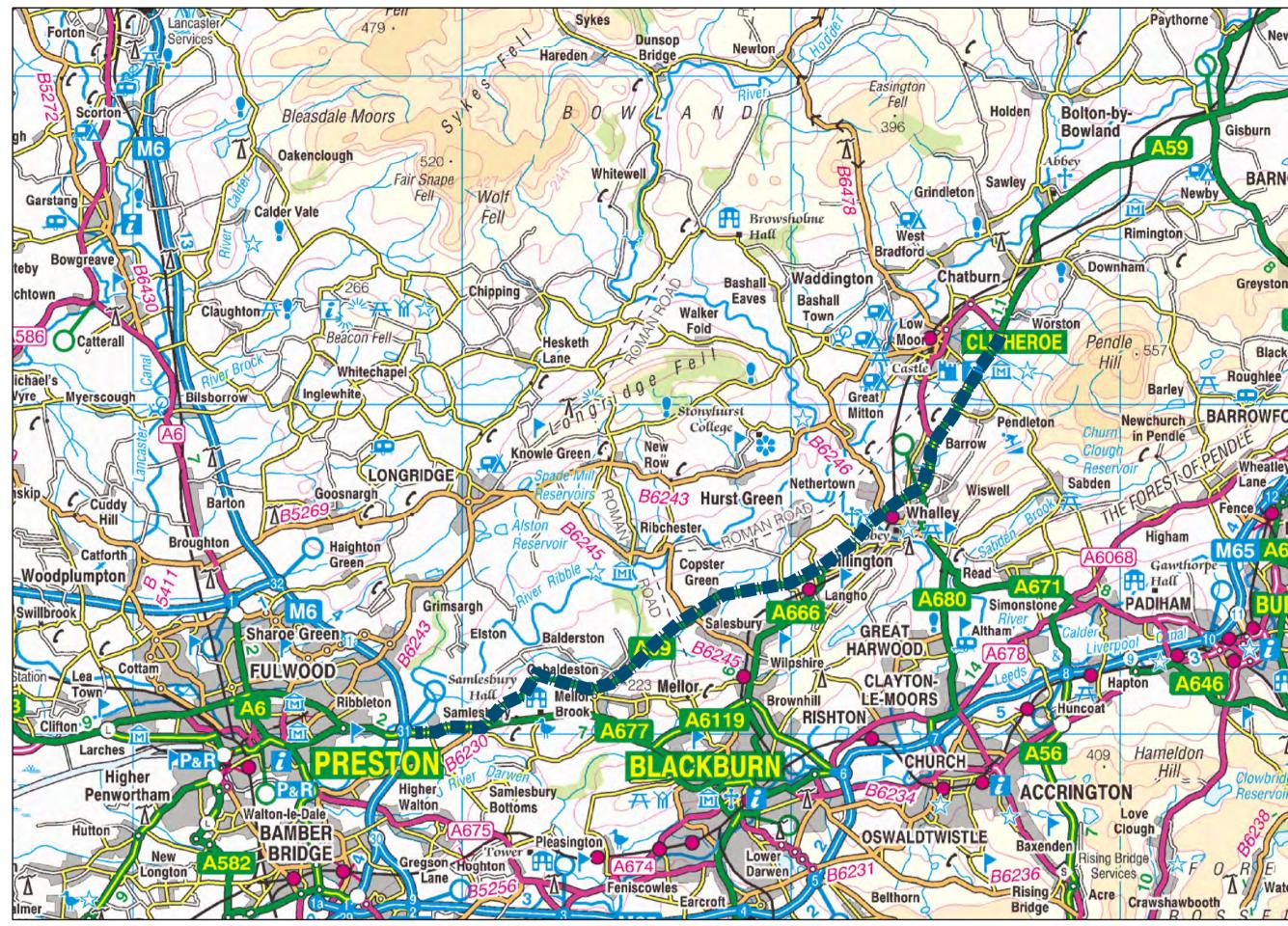


#### Appendix A1 – Proposed Routes

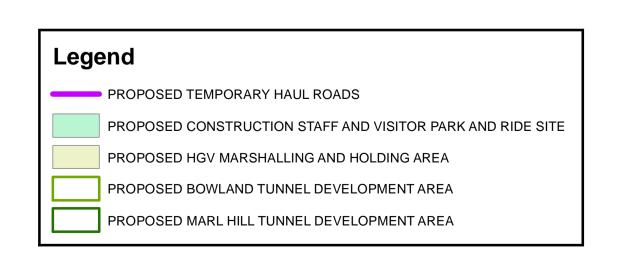
Figure A-1-01: Proposed Access Routes (MNA\_A-1-01)

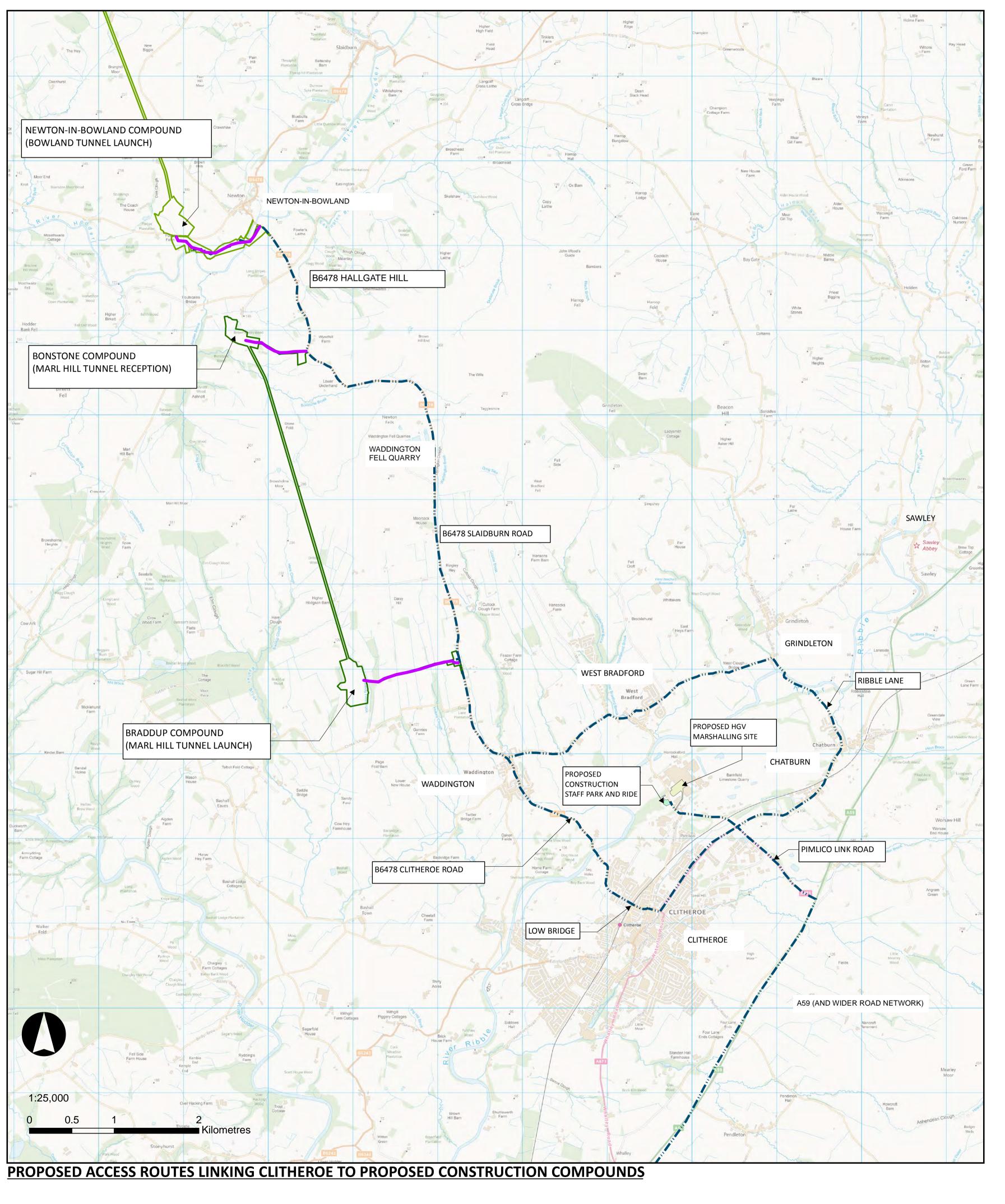
#### **APPENDIX A1**

#### FIGURE A-1-01: PROPOSED ACCESS ROUTES



PROPOSED ACCESS ROUTE LINKING THE M6 MOTORWAY NETWORK TO CLITHEROE





#### **Haweswater Aqueduct Resilience Programme**



#### Appendix A2 – Daily Two Way Vehicle Movements

Figure A-2-01: Option 1 – Construction Phase 1 (MNA\_A-2-01)

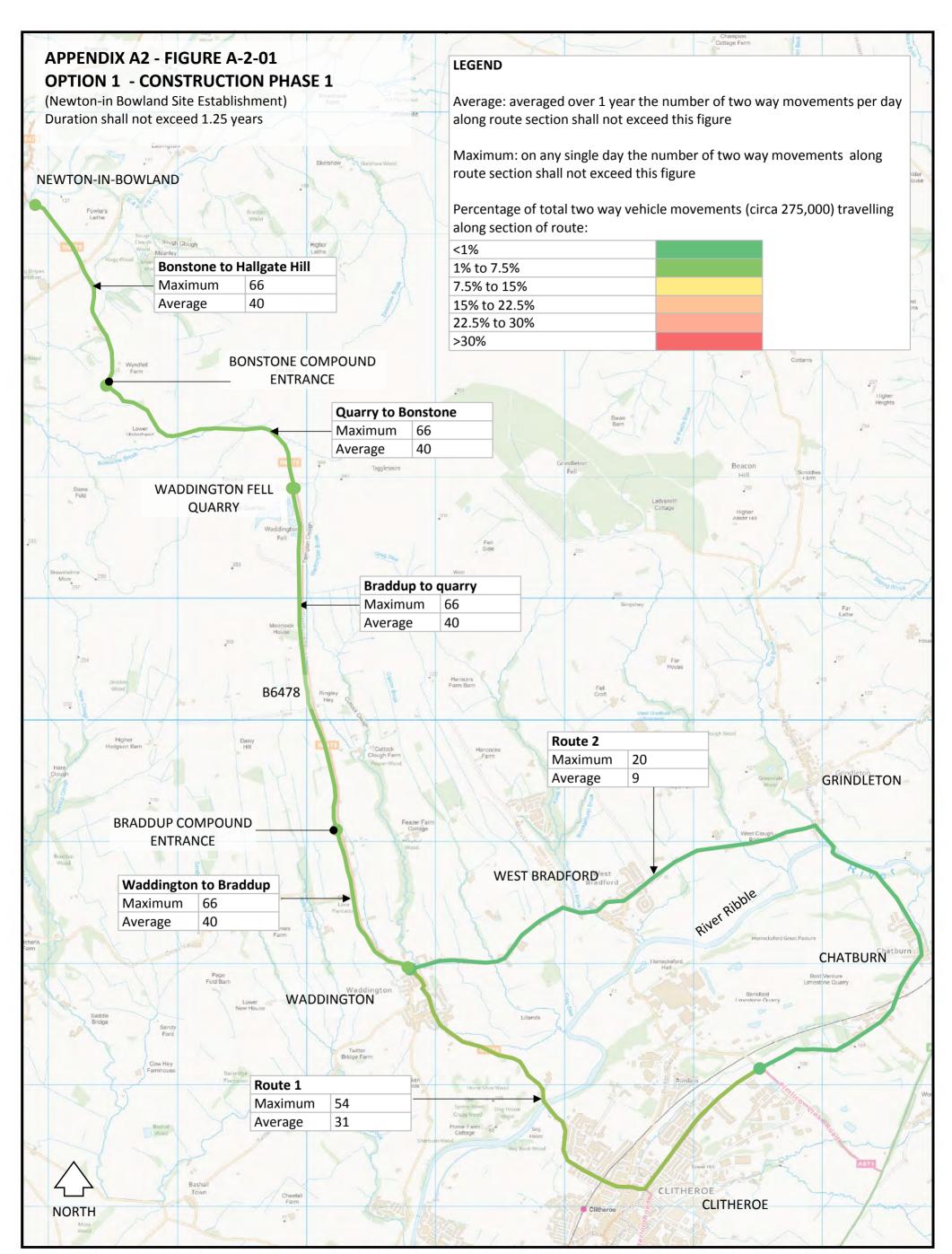
Figure A-2-02: Option 1 - Construction Phase 2 (MNA\_A-2-02)

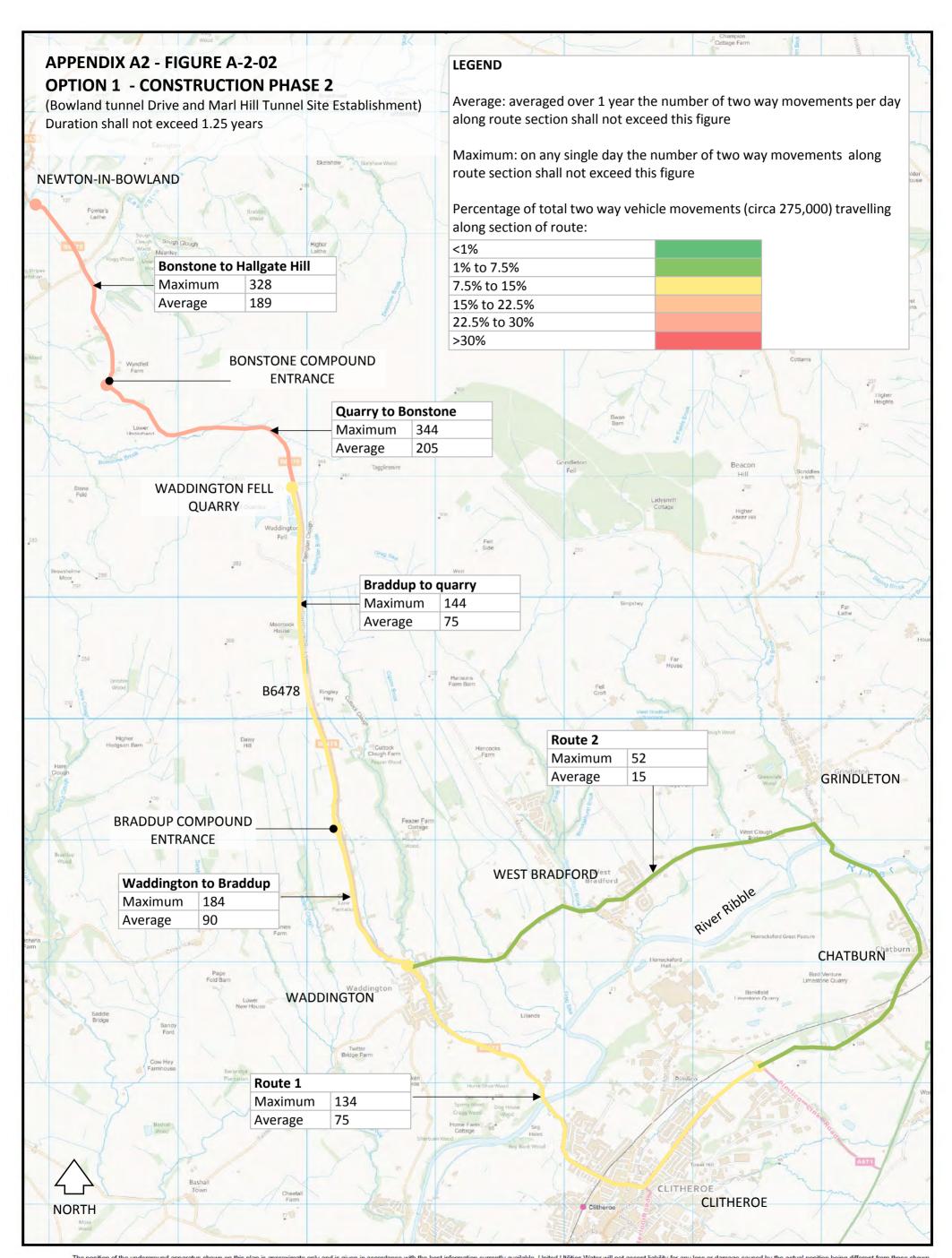
Figure A-2-03: Option 1 – Construction Phase 3 (MNA\_A-2-03)

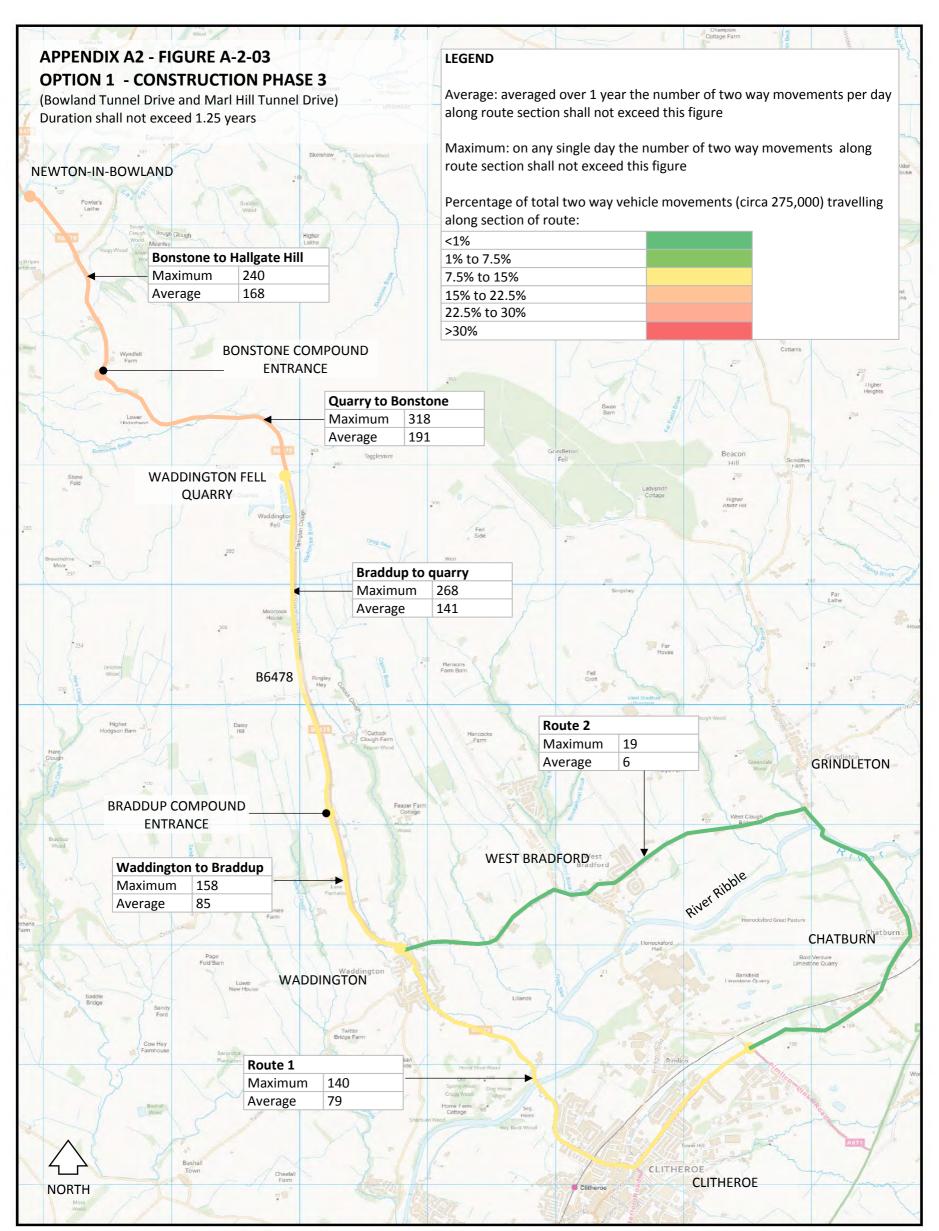
Figure A-2-04: Option 1 – Construction Phase 4 (MNA\_A-2-04)

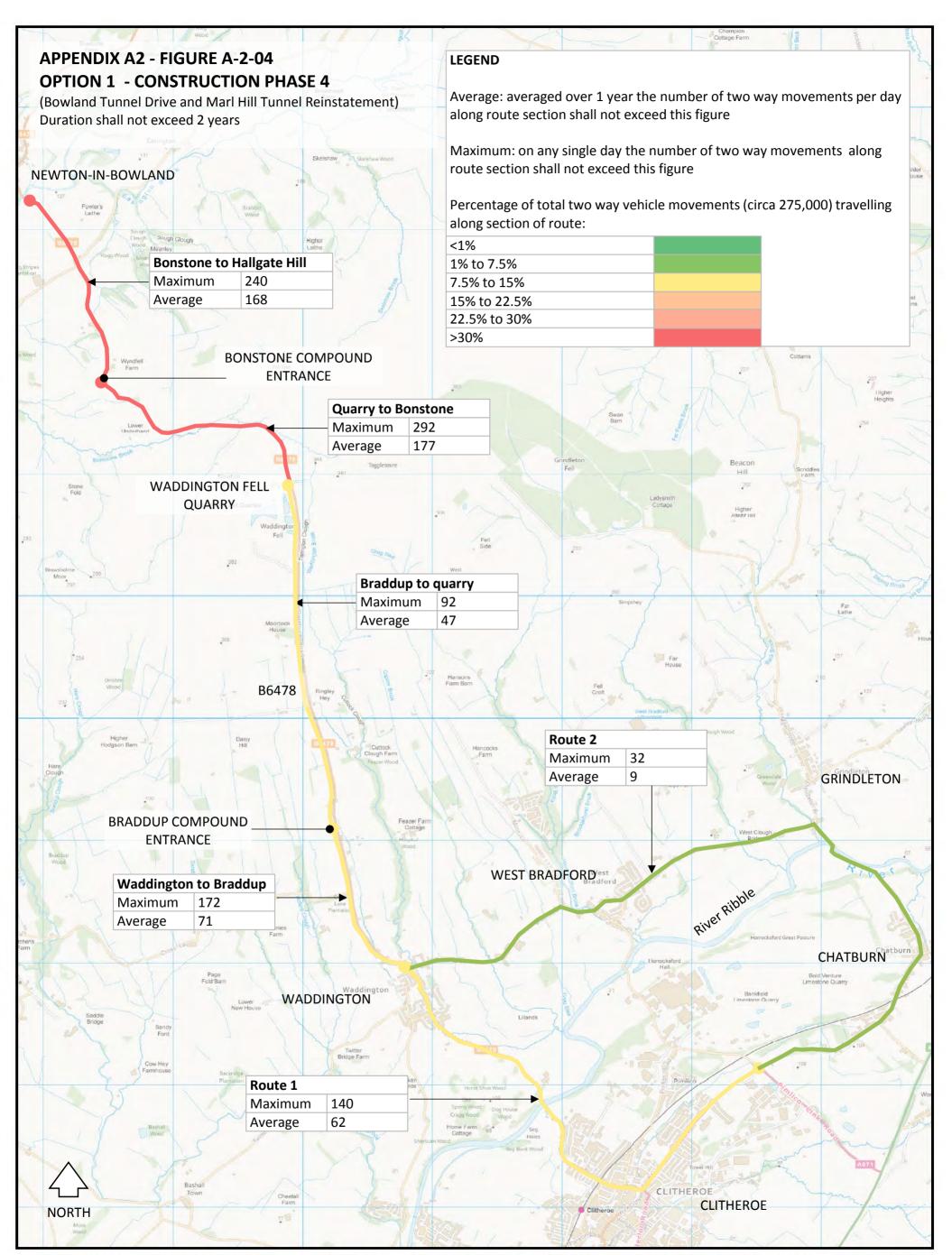
Figure A-2-05: Option 1 – Construction Phase 5 (MNA\_A-2-05)

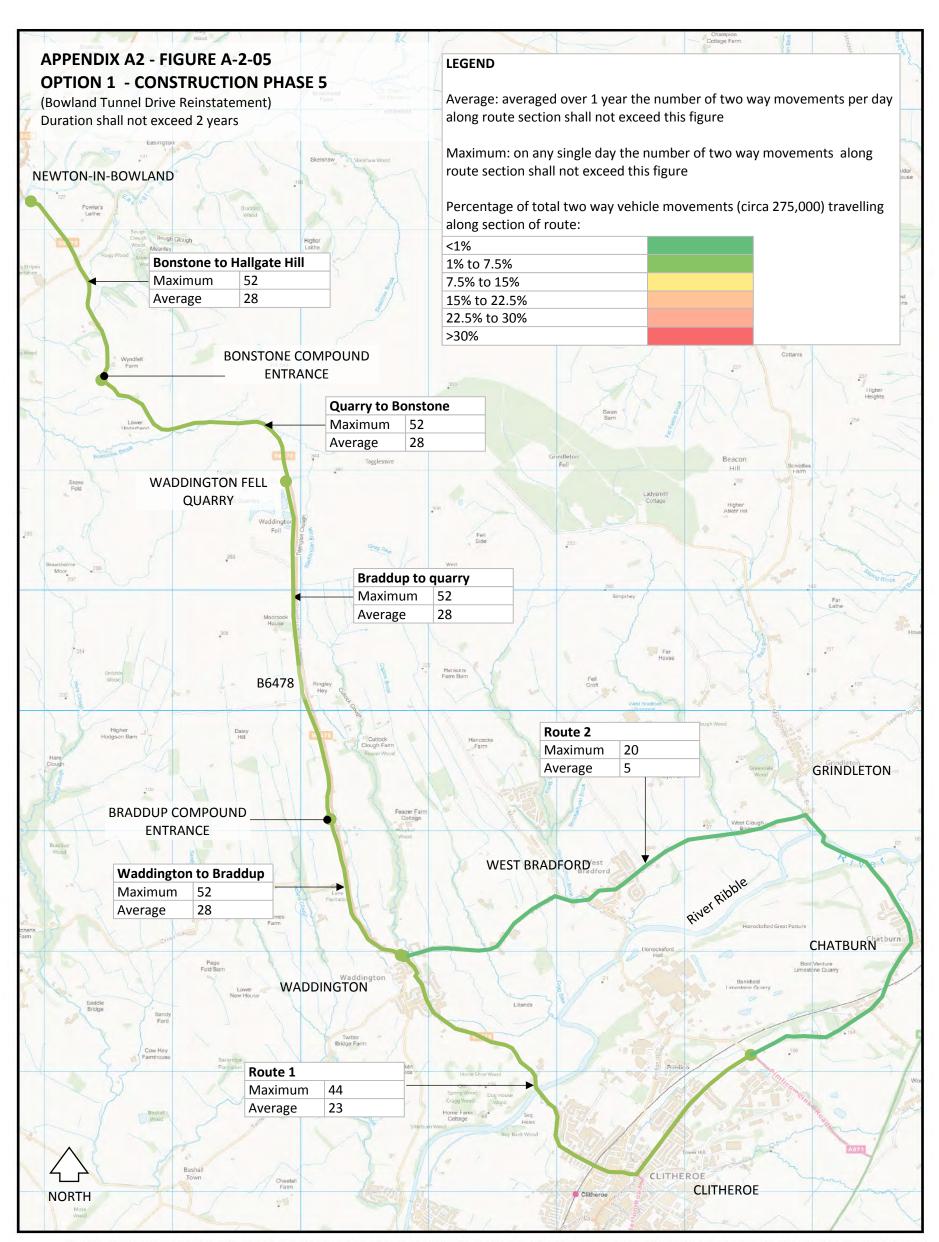
Figure A-2-06: Transport Planning Summary (MNA\_A-2-06)

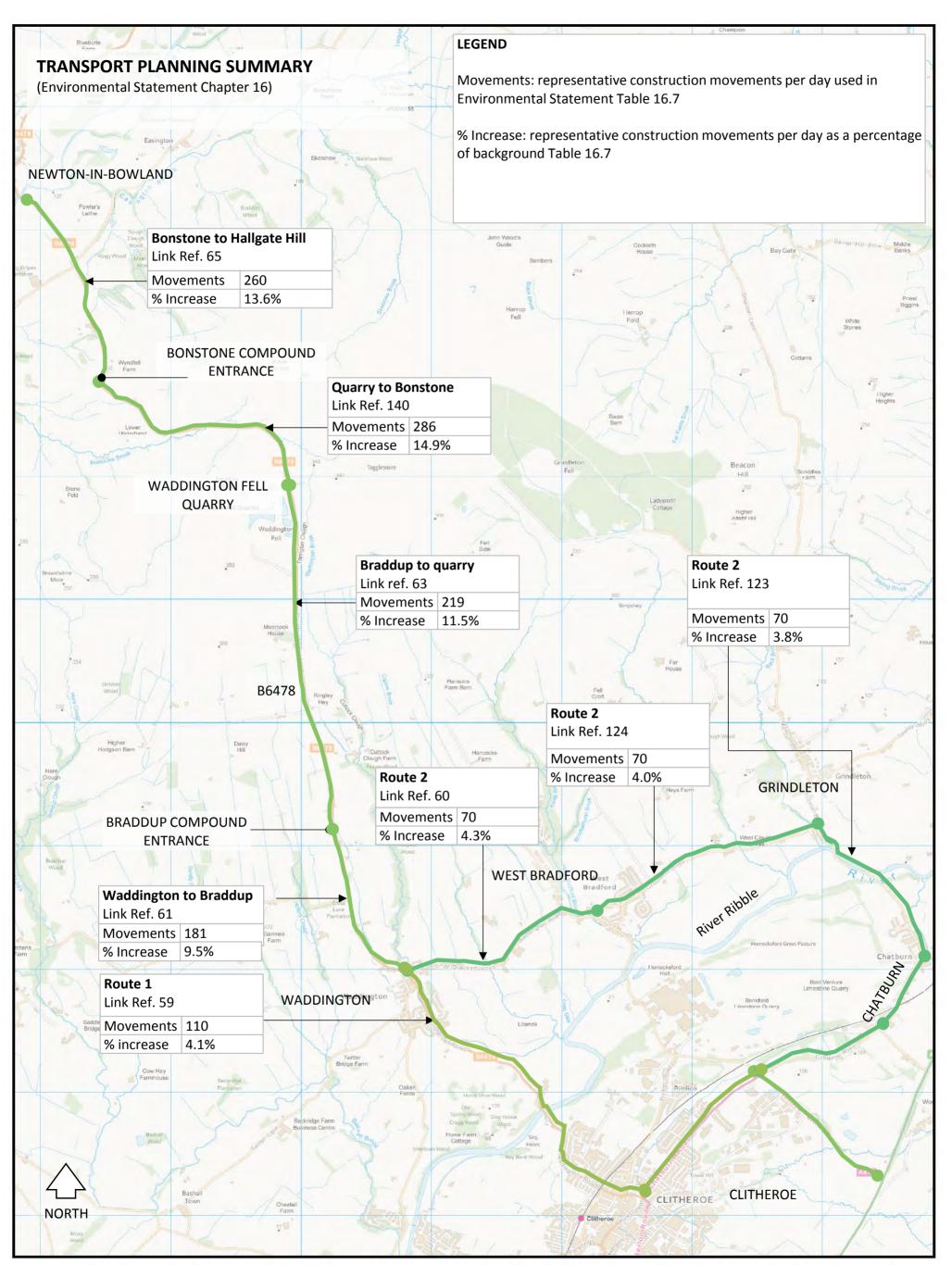












#### **Haweswater Aqueduct Resilience Programme**



#### Appendix A3 – Anticipated Vehicle Types

Figure A-3-01: HGV – 4 axle rigid max GVW 32 Tonne\* (rigid/tipper) (MNA\_A-3-01\_to\_06)

Figure A-3-02: HGV – 5/6 axle articulated tanker up to GVW 44 Tonne (MNA\_A-3-01\_to\_06)

Figure A-3-03: HGV – tractor unit, low loader step trailer up to GVW 44 Tonne (MNA\_A-3-01\_to\_06)

Figure A-3-04: 5/6 axle articulated flatbed up to GVW 44 Tonne (MNA\_A-3-01\_to\_06)

Figure A-3-05: Abnormal Indivisible Load Mobile Crane (MNA\_A-3-01\_to\_06)

Figure A-3-06: Abnormal Indivisible Load Tunnel Boring Machine Components (MNA\_A-3-01\_to\_06)

#### Figure A-3-01

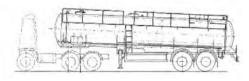
#### HGV - 4 axle rigid max GVW 32 Tonne\* (rigid/tipper)



Overall Width: 2.49
Overall Length: 8.79
Approx. Turning Diameter: 21.5
Approximate Height: 3.1

Figure A-3-02
HGV – 5/6 axle articulated tanker up to GVW 44 Tonne

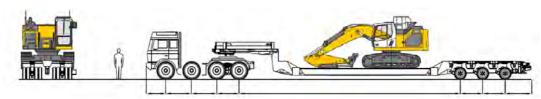




Overall Width: 2.55
Overall Length: 13
Approx. Turning Diameter: 16.5
Approximate Height: 3.7

Figure A-3-03

#### HGV - tractor unit, low loader step trailer up to GVW 44 Tonne



Overall Width: 3.05\*\*

Overall Length: 21.045

Approx. Turning Diameter: 19.6

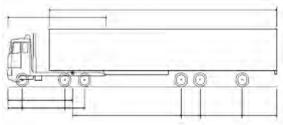
Approximate Height: 4

Note: Unloaded trailer width likley to be approx. 2.75m

\*\* Will vary depending upon load typically 2.9m width anticipated

#### Figure A-3-04

#### HGV - 5/6 axle articulated flatbed up to GVW 44 Tonne

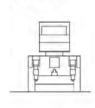


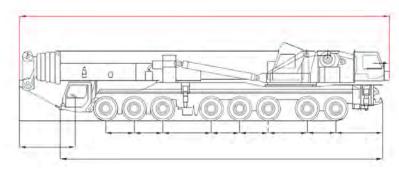
Overall Width: 2.55

Overall Length: 18.5

Approx. Turning Diameter: 17.5
Approximate Height: 3.6

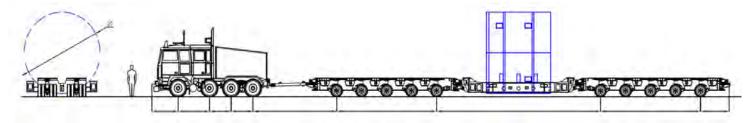
<u>Figure A-3-05</u> Abnormal Indivisible Load Mobile Crane





Overall Width: 3
Overall Length: 21.4
Approx. Turning Diameter: 32.9
Approximate Height: 4

Figure A-3-06
Abnormal Indivisible Load
Tunnel Boring Machine Components



Load diameter (Φ): 4.3
Tracor & Trailer Width: 3
Overall Length: 34.3
Approx. Turning Diameter: 64
Approximate Height: 4.6

#### **Haweswater Aqueduct Resilience Programme**



#### Appendix B1 – Swept path results and highway modifications

Figure B-1-01: Swept paths for proposed routes - B6478 Hallgate Hill Junction to Chapel Croft (MNA\_B-1-01)

Figure B-1-02: Swept paths for proposed routes - B6478 Hallgate Hill (Chapel Croft - Bonstone Access Junction) - Slaidburn Road (MNA\_B-1-02)

Figure B-1-03: Swept paths for proposed routes - B6478 Slaidburn Road (Smelt Mills Clough/Bonstone Brook) (MNA B-1-03)

Figure B-1-04: Swept paths for proposed routes - B6478 Slaidburn Road (Waddington Fell Quarry/ Titrington Brow) (MNA\_B-1-04)

Figure B-1-05: Swept paths for proposed routes - B6478 Slaidburn Road / Fell Road (MNA\_B-1-05)

Figure B-1-06: Swept paths for proposed routes - B6478 Slaidburn Road (Braddup Access Junction) (MNA\_B-1-06)

Figure B-1-07: Swept paths for proposed routes - B6478 Slaidburn Road (North Waddington) (MNA\_B-1-07)

Figure B-1-08: Swept paths for proposed routes - East of Waddington West Bradford Road (MNA\_B-1-08)

Figure B-1-09: Swept paths for proposed routes - West Bradford - West Bradford Road (MNA\_B-1-09)

Figure B-1-10: Swept paths for proposed routes - Grindleton Bridge - Chatburn (MNA\_B-1-10)

Figure B-1-11: Swept paths for proposed routes - Pimlico Link Road - Crow Trees Brow (MNA\_B-1-11)

Figure B-1-12: Swept paths for proposed routes - B6478 Waddington (MNA\_B-1-12)

Figure B-1-13: Swept paths for proposed routes - A671 Chatburn Road - B6478 Waddington Road (MNA B-1-13)

Figure B-1-14: Swept paths for proposed routes - Pimlico Link Road - A671 (MNA B-1-14)

B6478 Hallgate Hill (TA Link Ref. 65)

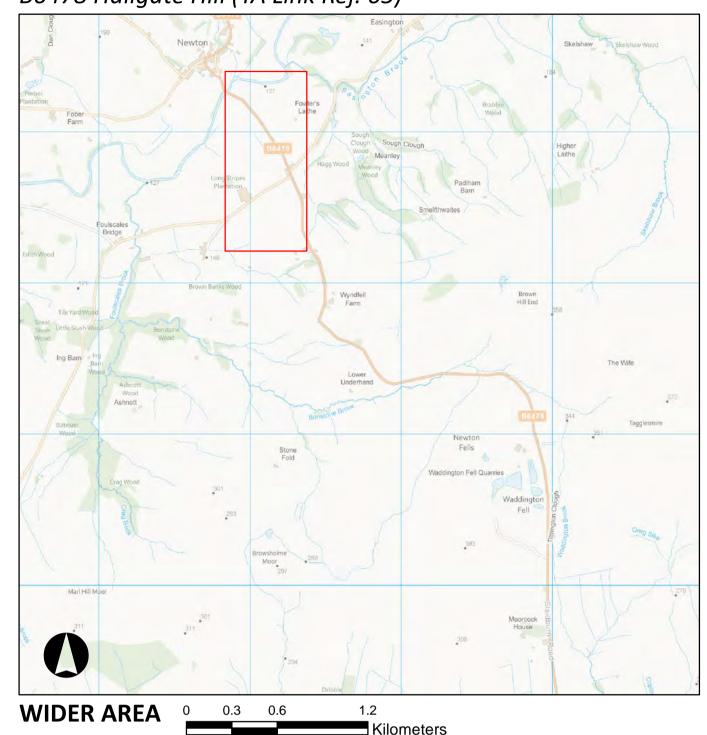




IMAGE 1: HGV TRIAL 11th NOVEMBER 2020
4 AXLE RIGID TIPPER HALLGATE HILL (SOUTHBOUND)
AT SIGNPOSTED ROAD NARROWING



IMAGE 2: HGV TRIAL 11TH NOVEMBER 2020
4 AXLE RIGID TIPPER HALLGATE HILL (SOUTHBOUND)
TYPICAL OBSERVED LANE DISCIPLINE

### Legend

- Road Modification Reference
- Proposed Road Modification



HGV - 4 axle rigid (rigid/tipper) from site (Southbound)



HGV - tractor unit, low loader step trailer from site (Southbound)



HGV - tractor unit, low loader step trailer to site (Northbound HGV - 4 axle rigid (rigid/tipper) from site (Southbound)

B6478 Hallgate Hill/Slaidburn Road (TA Link Refs. 65 + 140)

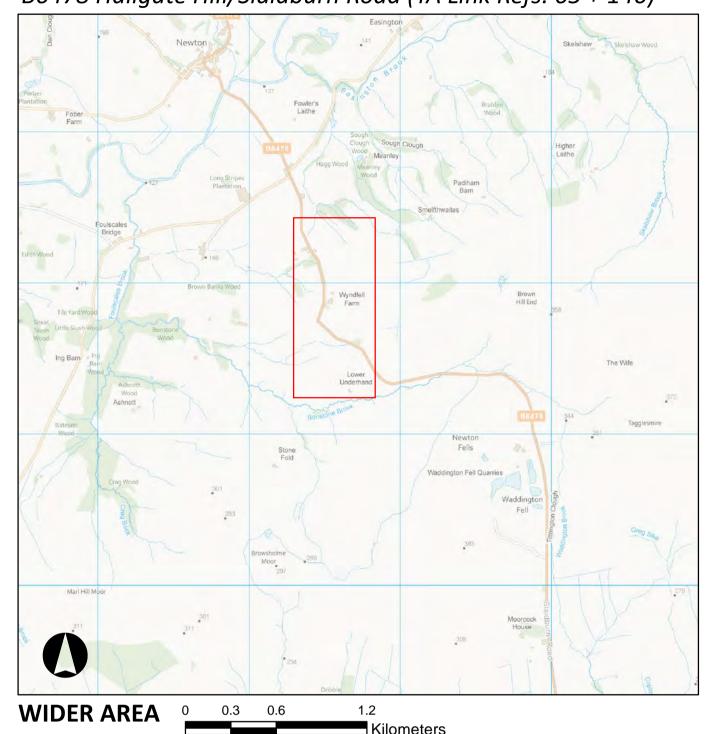




IMAGE 1: HGV TRIAL 11th NOVEMBER 2020
4 AXLE RIGID TIPPER HALLGATE HILL (SOUTHBOUND)
TYPICAL OBSERVED LANE DISCIPLINE

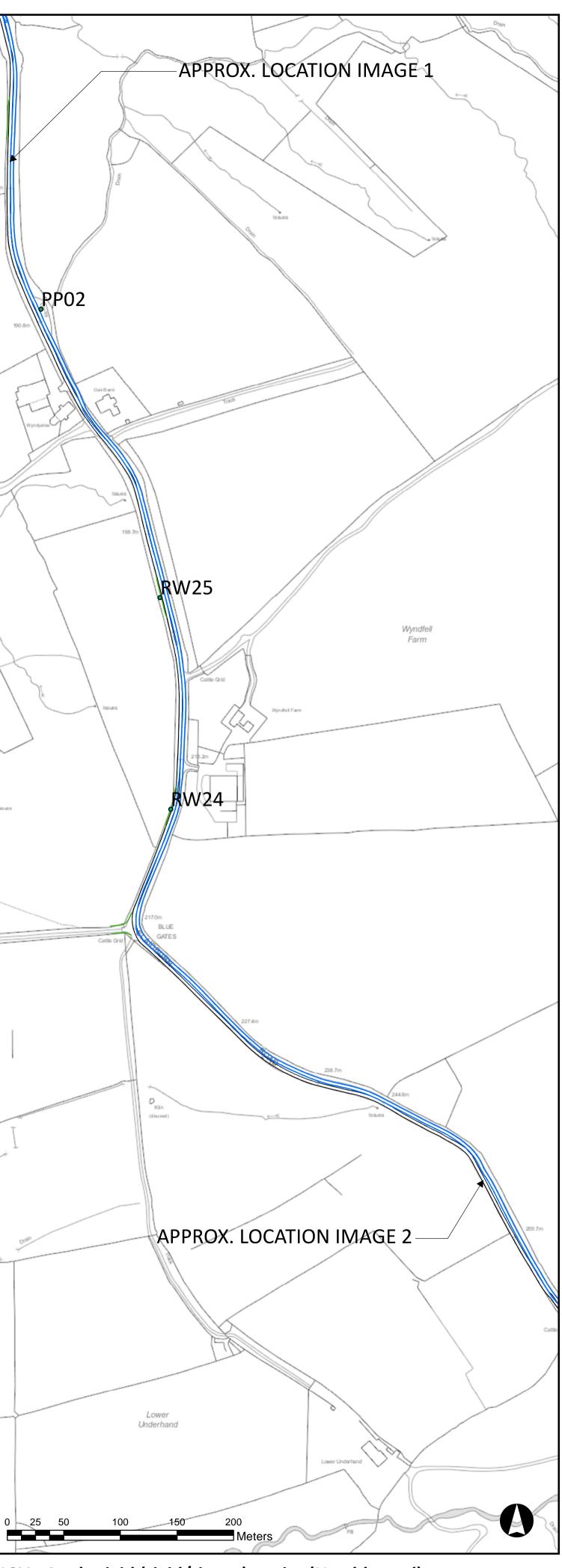


IMAGE 2: HGV TRIAL 11th NOVEMBER 2020
4 AXLE RIGID TIPPER SLAIDBURN ROAD (SOUTHBOUND)
TYPICAL OBSERVED LANE DISCIPLINE

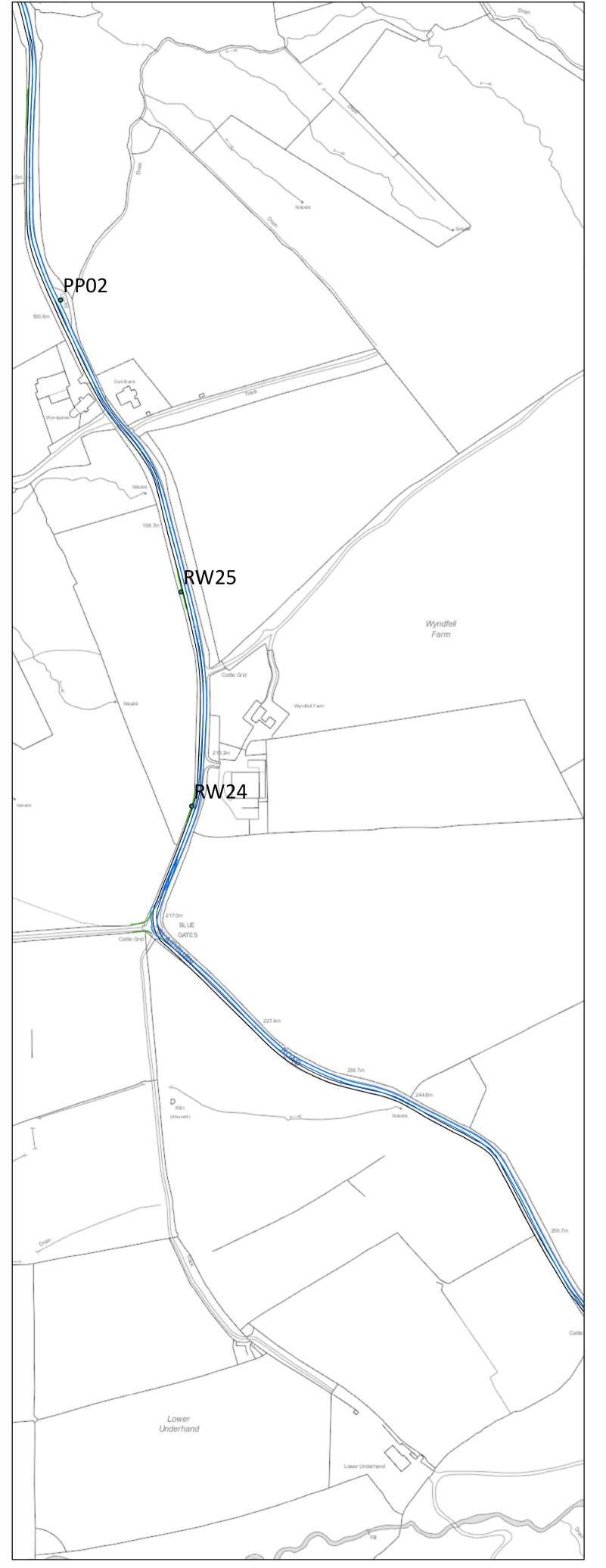
### Legend

• Road Modification Reference

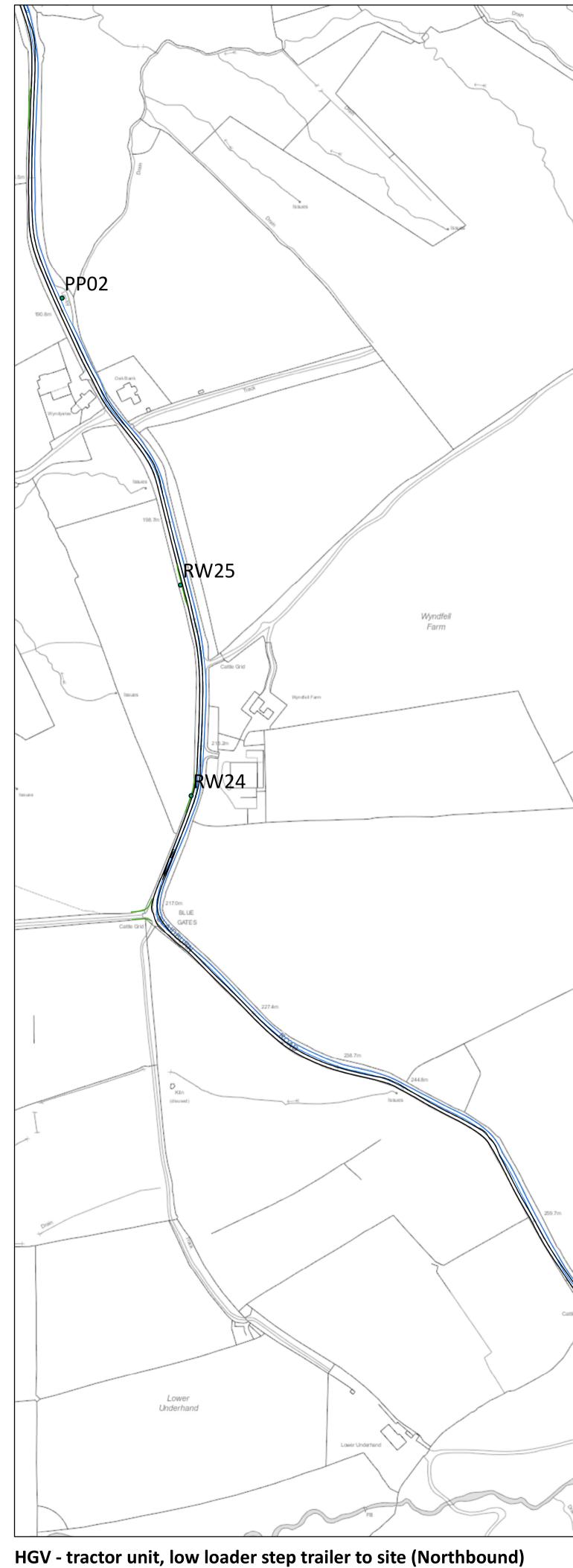
—— Proposed Road Modification



HGV - 4 axle rigid (rigid/tipper) to site (Northbound)
HGV - 4 axle rigid (rigid/tipper) from site (Southbound)



HGV - 4 axle rigid (rigid/tipper) to site (Northbound)
HGV - tractor unit, low loader step trailer from site (Southbound)

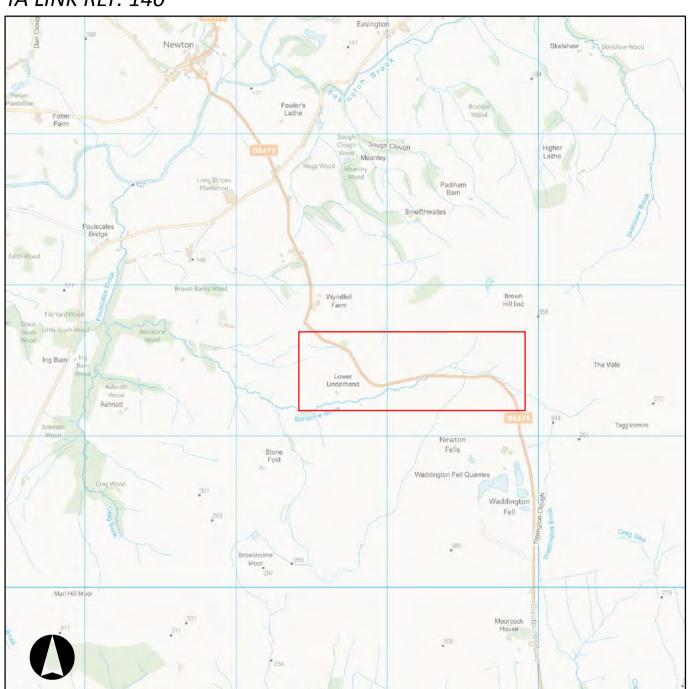


HGV - tractor unit, low loader step trailer to site (Northbound HGV - 4 axle rigid (rigid/tipper) from site (Southbound)

## <u>APPENDIX B1 - SWEPT PATHS FOR PRPOSED ROUTES</u>

#### **FIGURE B - 1 - 03**

B6478 SLAIDBURN ROAD (SMELT MILL CLOUGH/ BONSTONE BROOK) TA LINK REF. 140



WIDER AREA 0 0.3 0.6 1.2 Kilometer



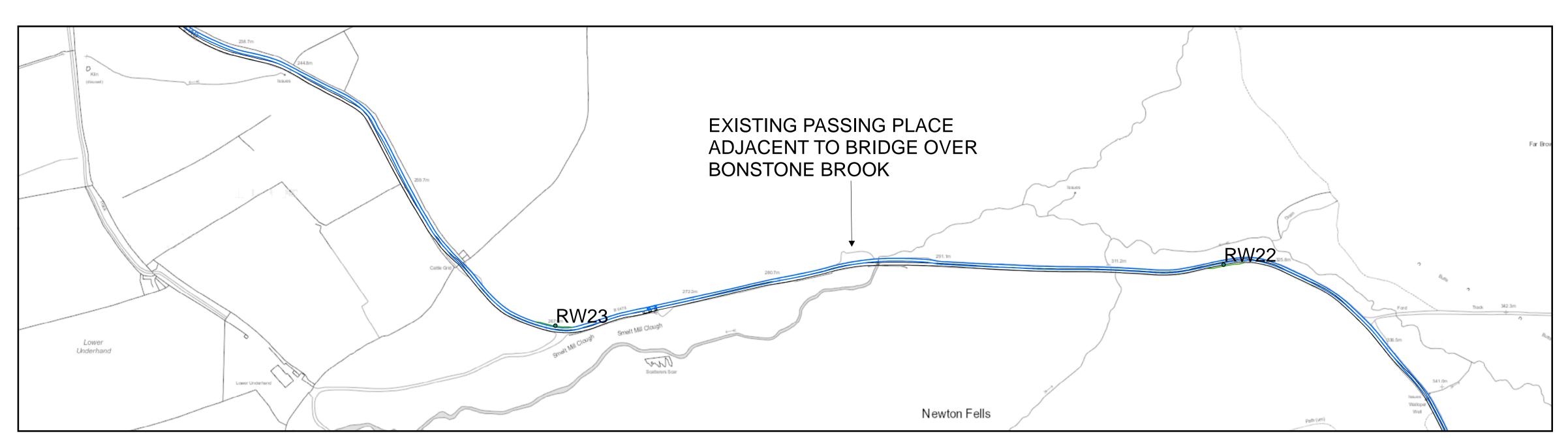
IMAGE 1: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID TIPPER SLAIDBURN RD (SOUTHBOUND) OBSERVED TYPICAL LANE DISCIPLINE



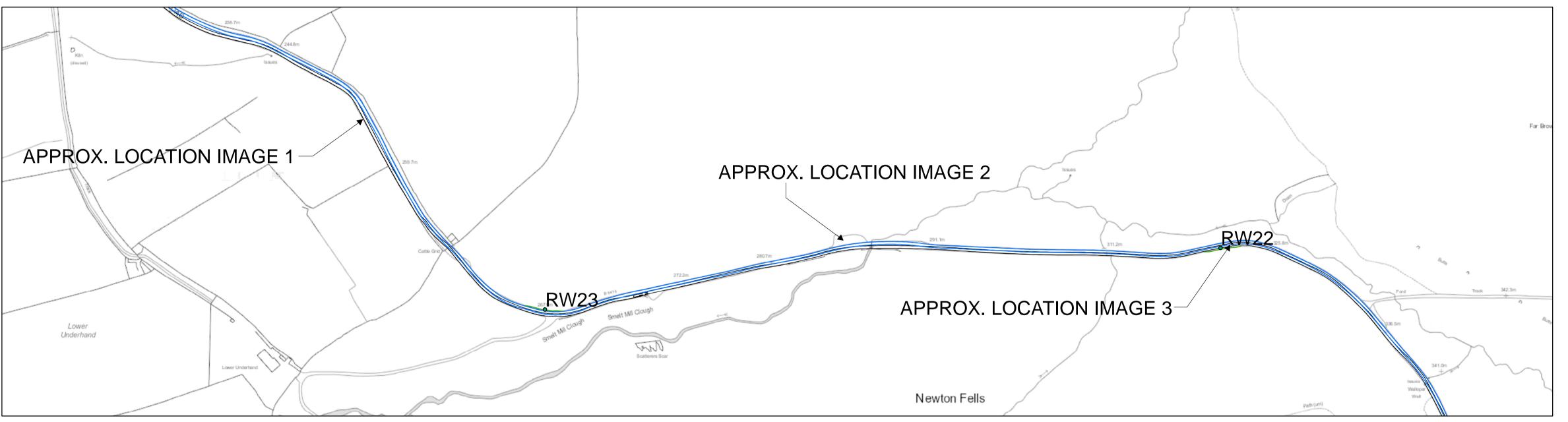
IMAGE 2: HGV TRIAL 11th NOVEMBER 2020
4 AXLE RIGID TIPPER SLAIDBURN RD (SOUTHBOUND)
BONSTONE BROOK PASSING PLACE



IMAGE 3: HGV TRIAL 11th NOVEMBER 2020
4AXLE RIGID TIPPER SLAIDBURN RD (SOUTHBOUND)
TYPICAL OBSERVED LANE DISCIPLINE

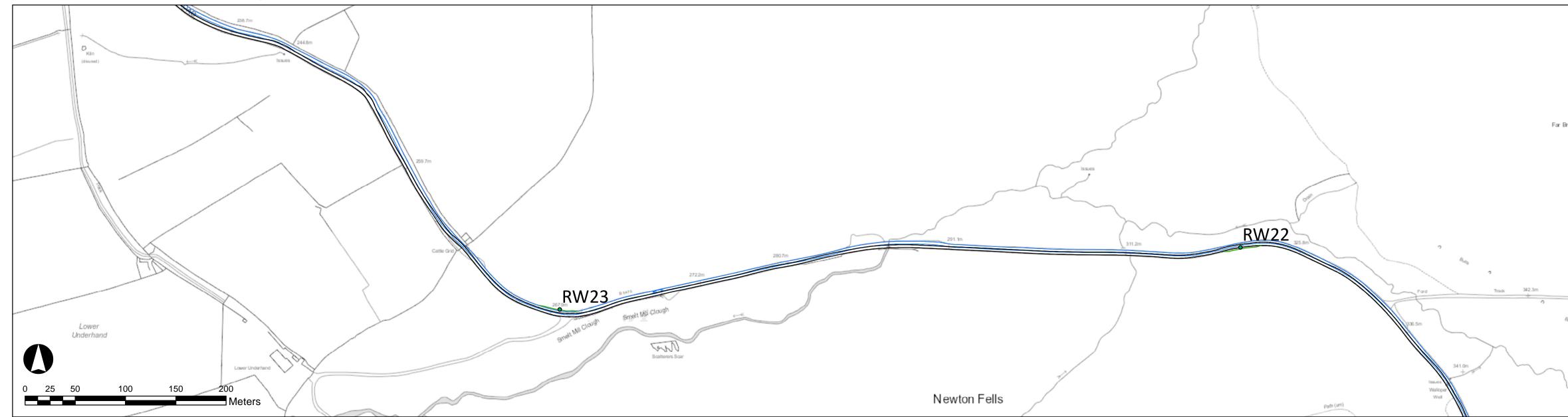


HGV - 4 axle rigid (rigid/tipper) to site (Northbound)HGV - 4 axle rigid (rigid/tipper) from site (Southbound)



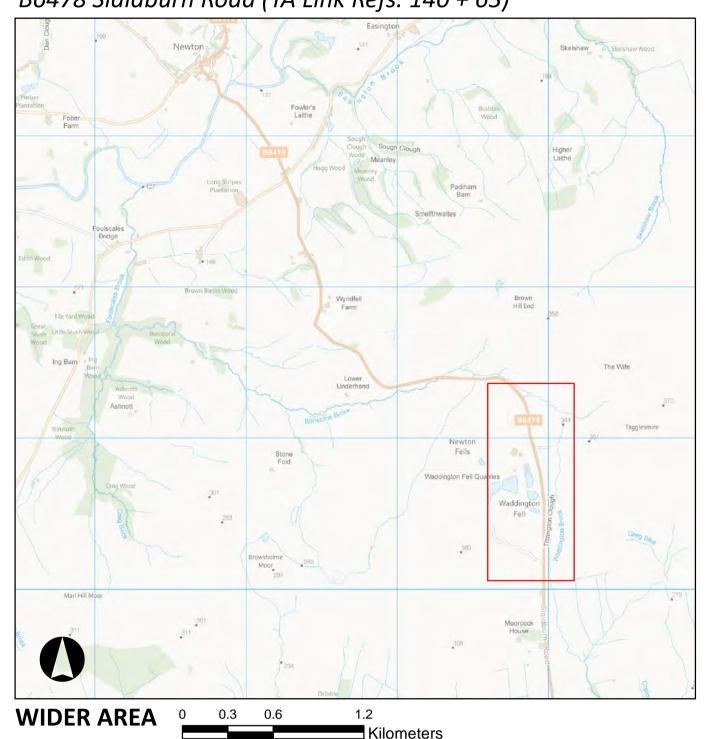
HGV - 4 axle rigid (rigid/tipper) to site (Northbound)

**HGV** - tractor unit, low loader step trailer from site (Southbound)



HGV - tractor unit, low loader step trailer to site (Northbound) HGV - 4 axle rigid (rigid/tipper) from site (Southbound)

B6478 Slaidburn Road (TA Link Refs. 140 + 63)





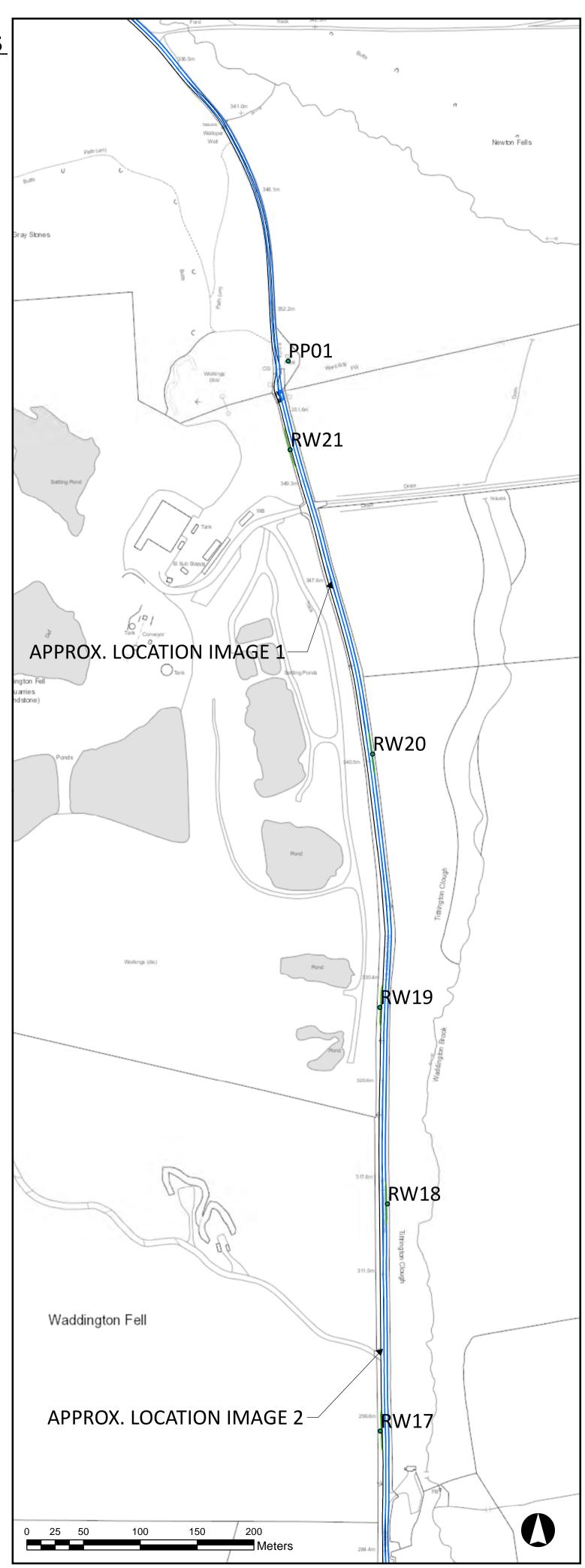
**IMAGE 1: HGV TRIAL 11th NOVEMBER 2020** 4 AXLE RIGID TIPPER HALLGATE HILL (SOUTHBOUND) TYPICAL OBSERVED LANE DISCIPLINE



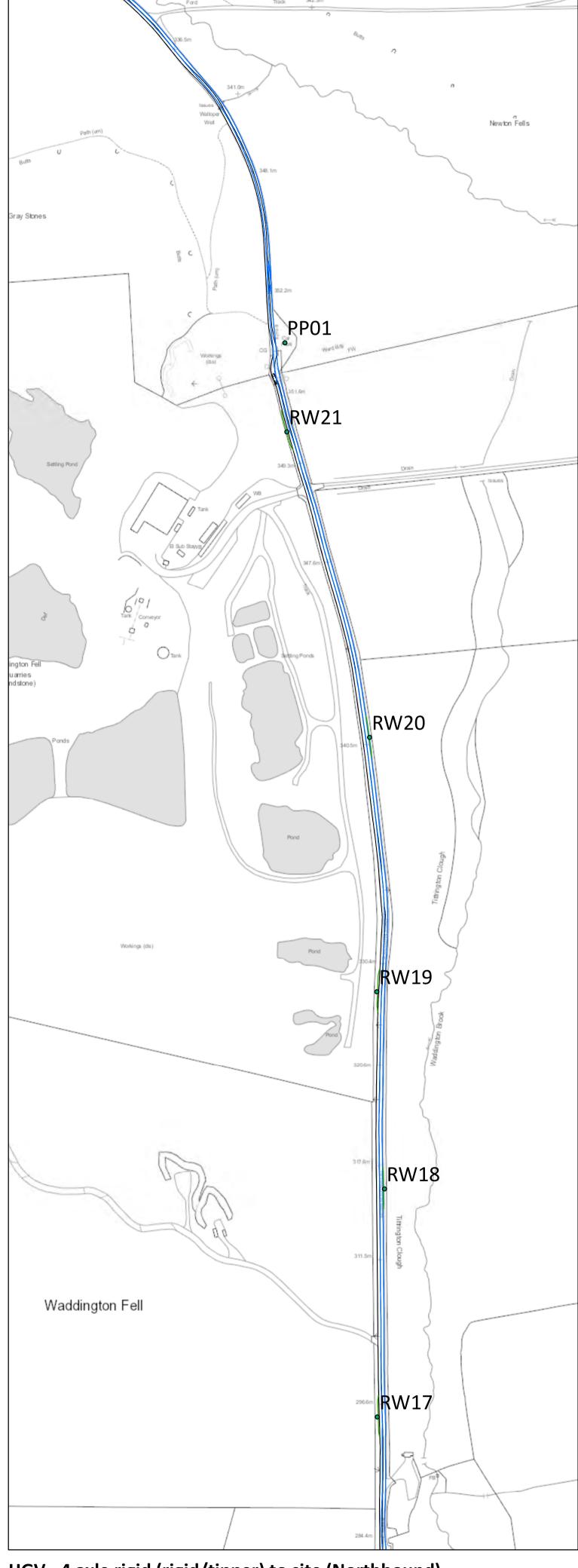
**IMAGE 2: HGV TRIAL 11th NOVEMBER 2020** 4 AXLE RIGID TIPPER SLAIDBURN ROAD (SOUTHBOUND) TYPICAL OBSERVED LANE DISCIPLINE

### Legend

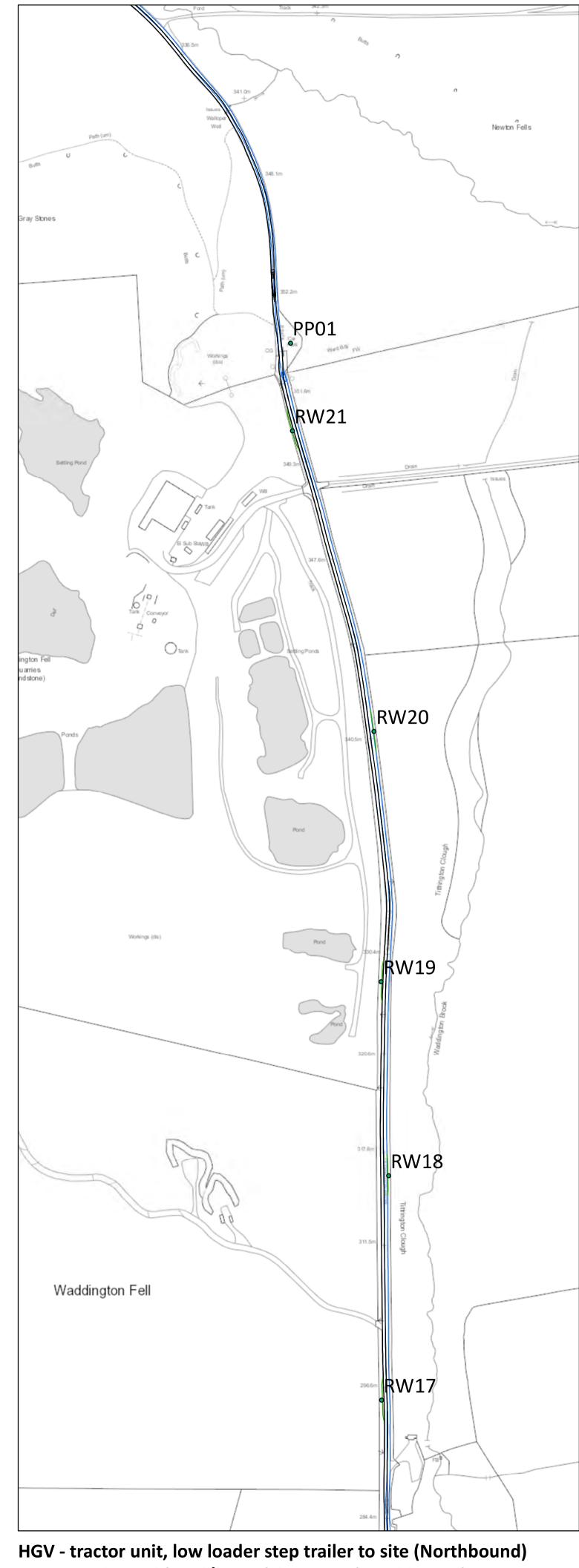
- Road Modification Reference
- Proposed Road Modification



**HGV - 4 axle rigid (rigid/tipper) to site (Northbound) HGV - 4 axle rigid (rigid/tipper) from site (Southbound)** 

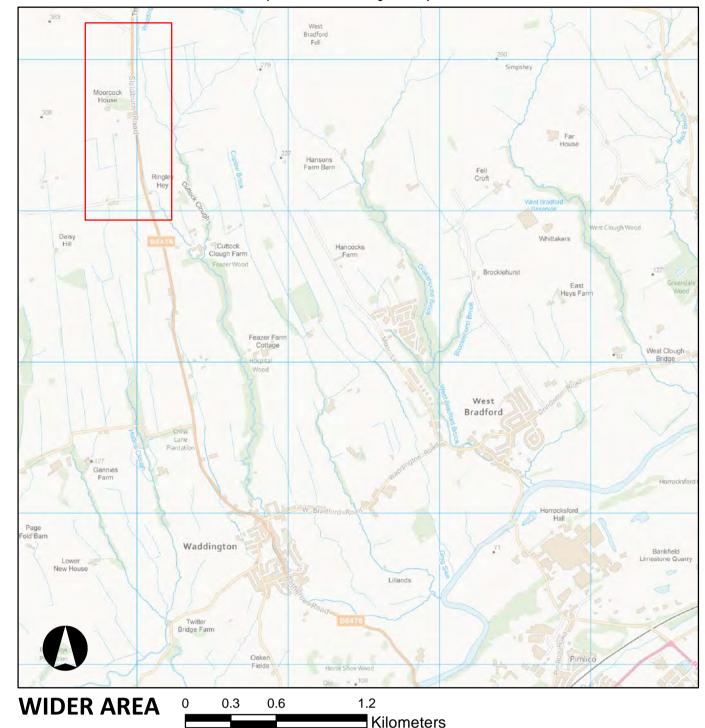


HGV - 4 axle rigid (rigid/tipper) to site (Northbound) **HGV** - tractor unit, low loader step trailer from site (Southbound)



**HGV** - 4 axle rigid (rigid/tipper) from site (Southbound)

B6478 Slaidburn Road (TA Link Ref. 63)





**IMAGE 1: HGV TRIAL 11th NOVEMBER 2020** 4 AXLE RIGID TIPPER SLAIDBURN RD (SOUTHBOUND) TYPICAL OBSERVED LANE DISCIPLINE

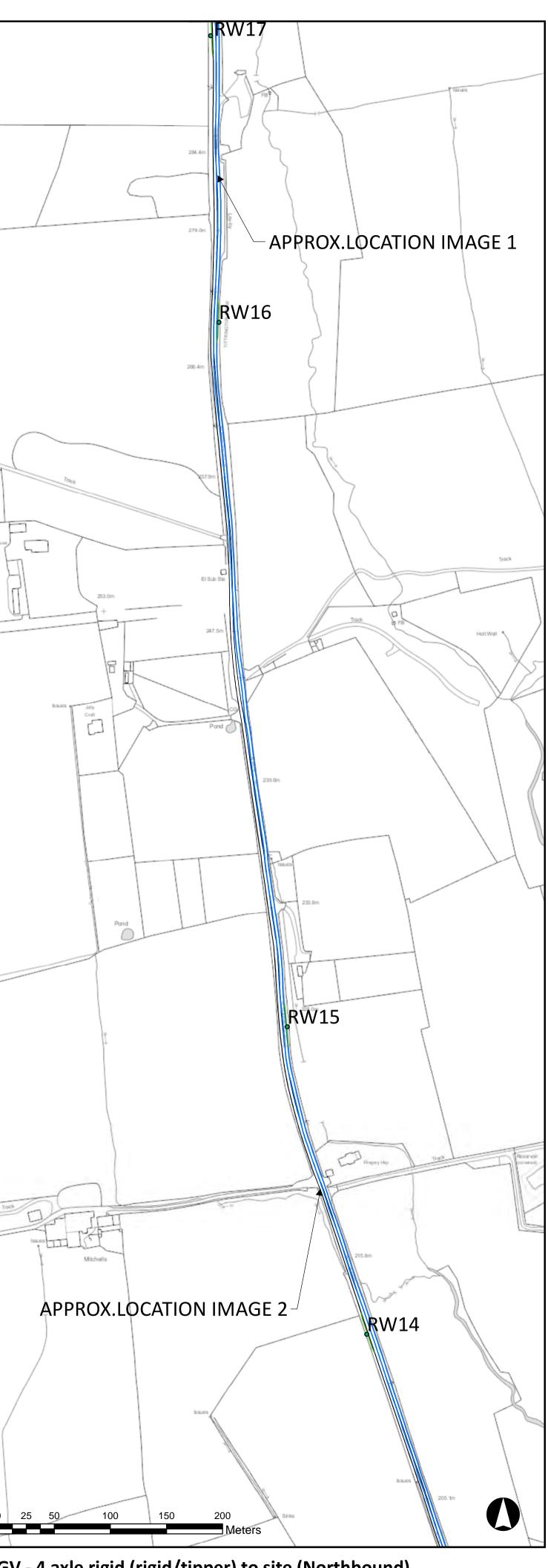


**IMAGE 2: HGV TRIAL 11th NOVEMBER 2020** 4 AXLE RIGID TIPPER SLAIDBURN ROAD (SOUTHBOUND) TYPICAL OBSERVED LANE DISCIPLINE

### Legend

Road Modification Reference

Proposed Road Modification



**HGV - 4 axle rigid (rigid/tipper) to site (Northbound) HGV - 4 axle rigid (rigid/tipper) from site (Southbound)** 

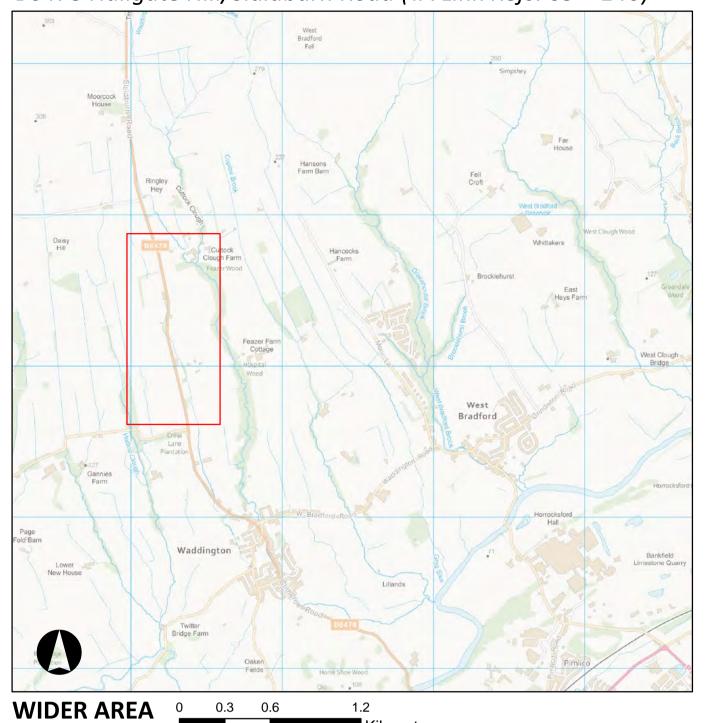


HGV - 4 axle rigid (rigid/tipper) to site (Northbound) **HGV** - tractor unit, low loader step trailer from site (Southbound)



**HGV - 4 axle rigid (rigid/tipper) from site (Southbound)** 

B6478 Hallgate Hill/Slaidburn Road (TA Link Refs. 65 + 140)





**IMAGE 1: HGV TRIAL 11th NOVEMBER 2020** 4 AXLE RIGID TIPPER SLAIDBURN RD (SOUTHBOUND) TYIPCAL OBSERVERED LANE DISCIPLINE

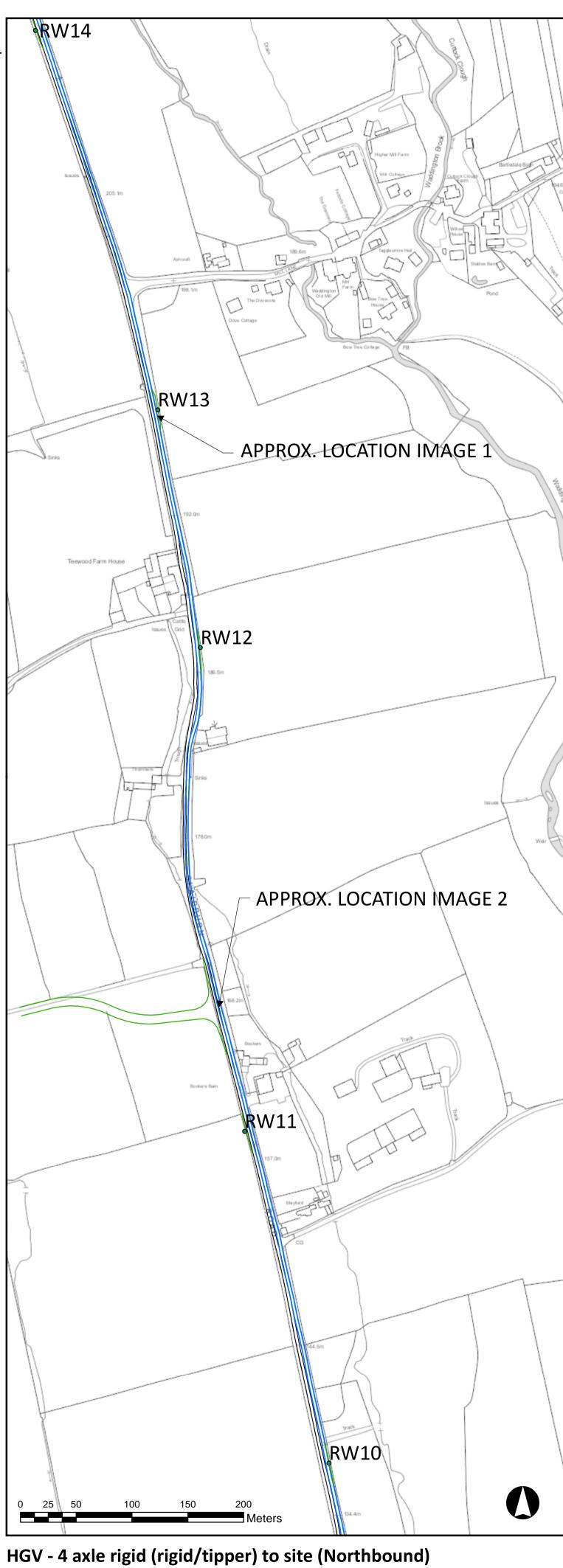


**IMAGE 2: HGV TRIAL 11th NOVEMBER 2020** 4 AXLE RIGID TIPPER SLAIDBURN ROAD (SOUTHBOUND) **LEAVES LANE TO AVOID HEDGEROW** 

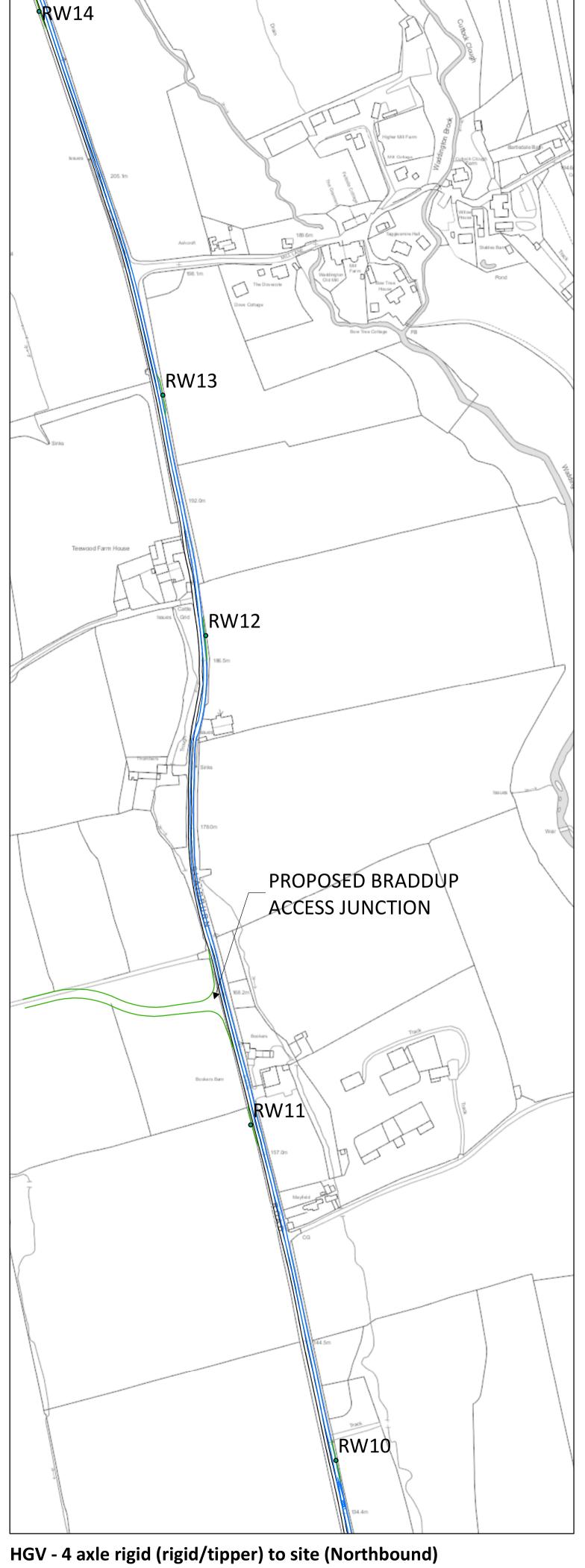
### Legend

Road Modification Reference

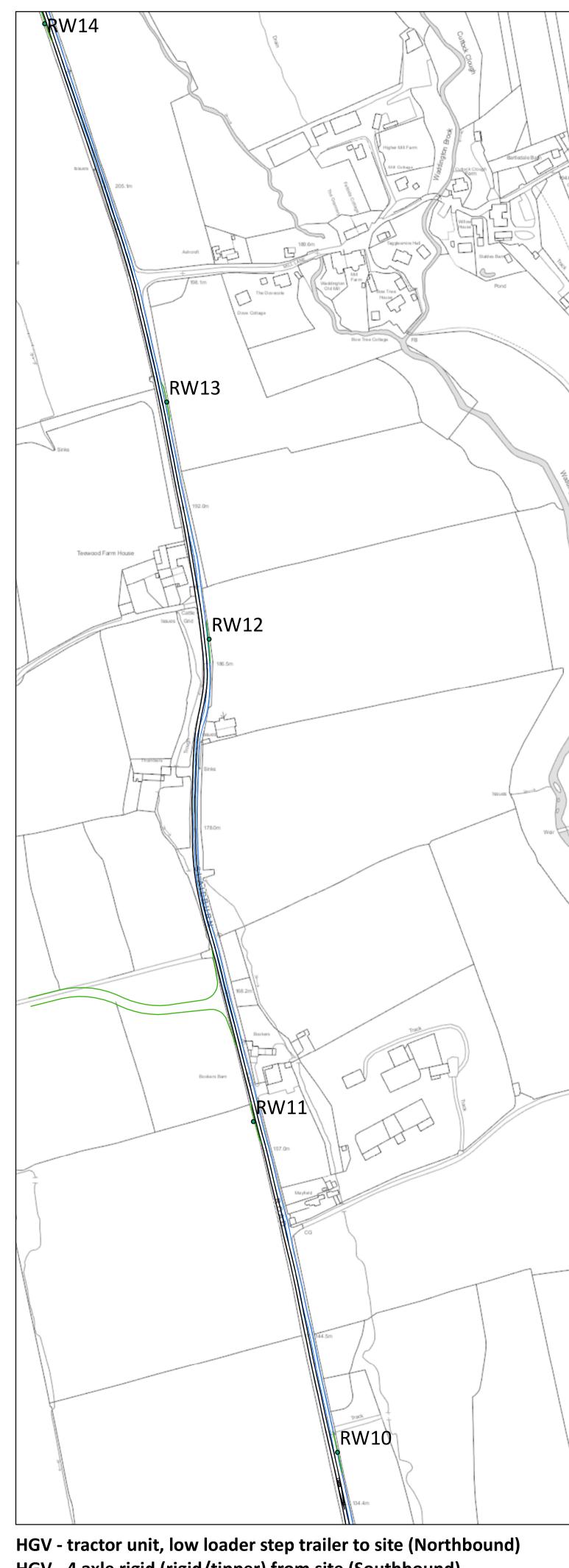
Proposed Road Modification



**HGV - 4 axle rigid (rigid/tipper) from site (Southbound)** 



**HGV** - tractor unit, low loader step trailer from site (Southbound)



**HGV** - 4 axle rigid (rigid/tipper) from site (Southbound)

B6478 Slaidburn Road - The Square Waddington (TA Link Res. 61) RW10

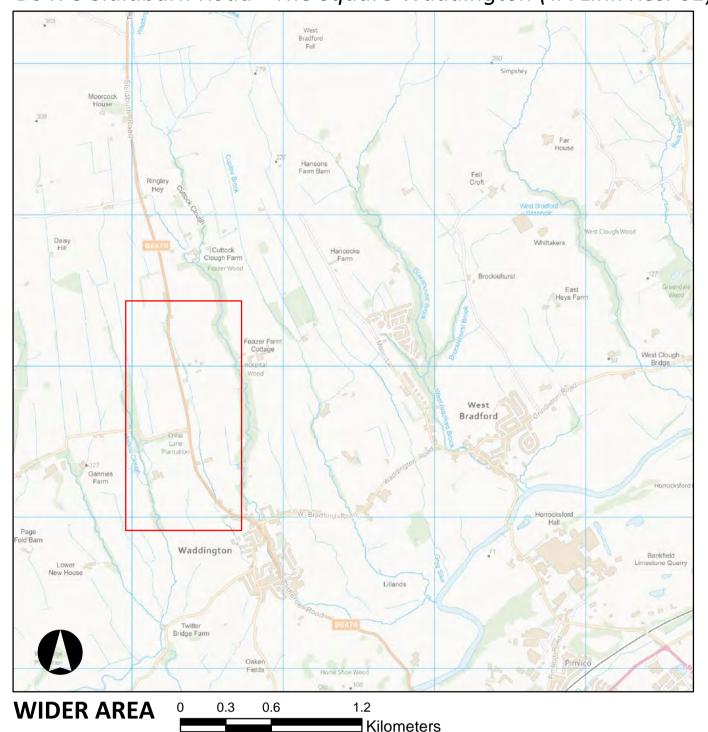




IMAGE 1: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID TIPPER SLAIDBURN RD (SOUTHBOUND) TYPICAL OBSERVED LANE DISCIPLINE

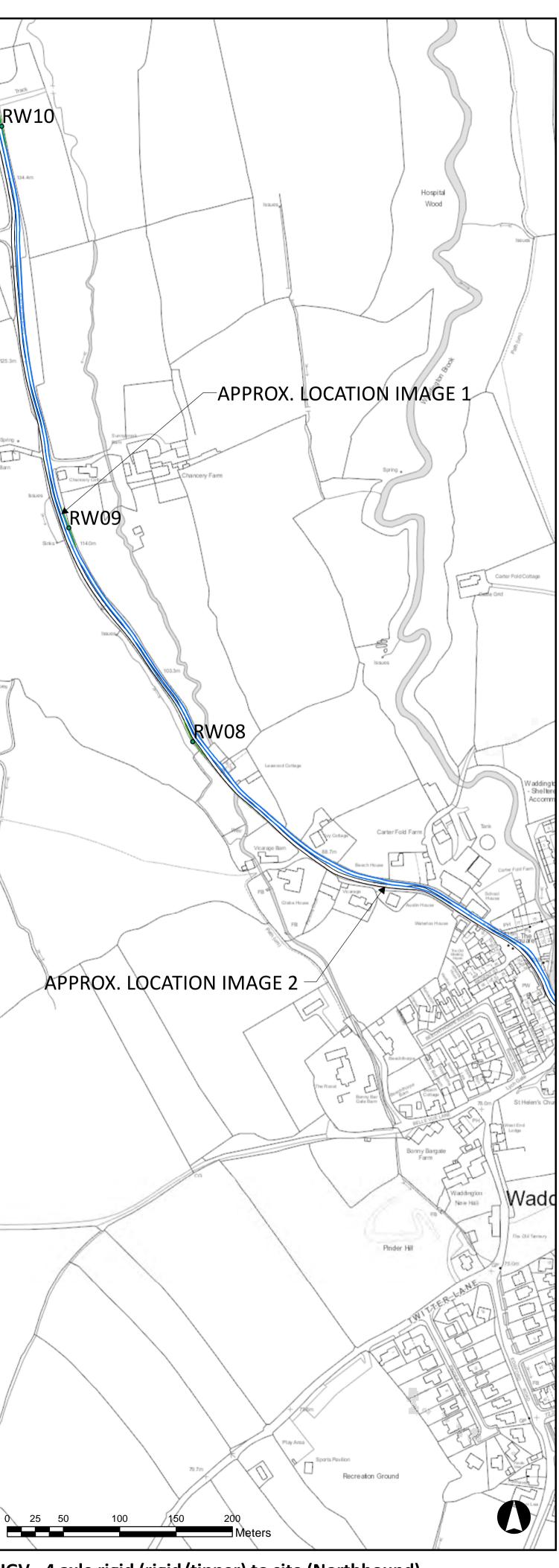


IMAGE 2: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID TIPPER THE SQUARE WADDINGTON (SOUTHBOUND) TURNING ONTO WEST BRADFORD RD

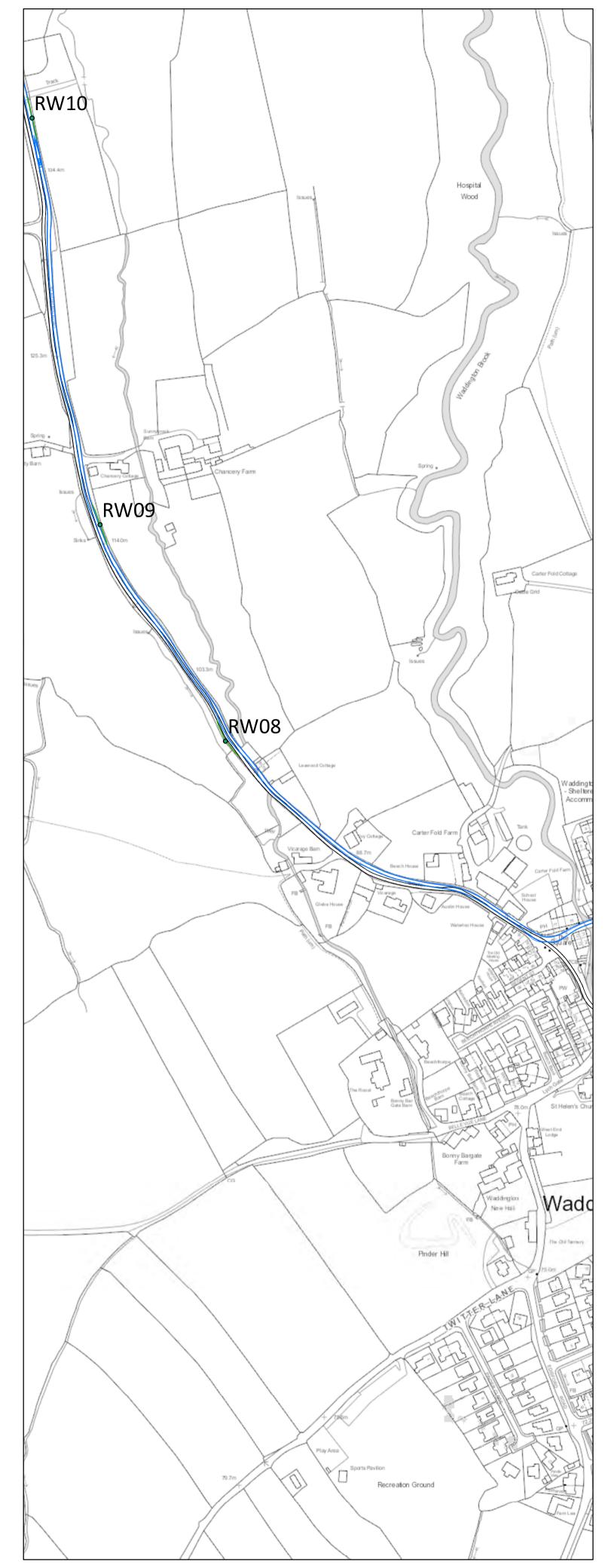
### Legend

• Road Modification Reference

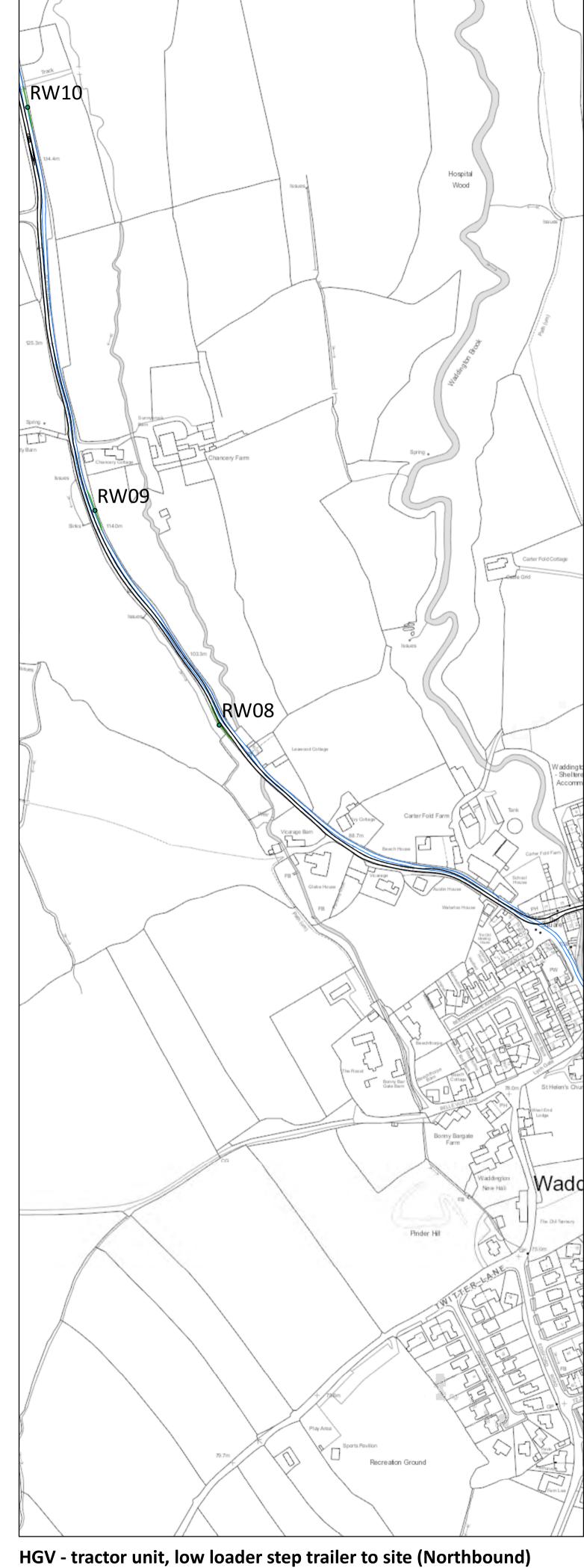
— Proposed Road Modification



HGV - 4 axle rigid (rigid/tipper) to site (Northbound)HGV - 4 axle rigid (rigid/tipper) from site (Southbound)

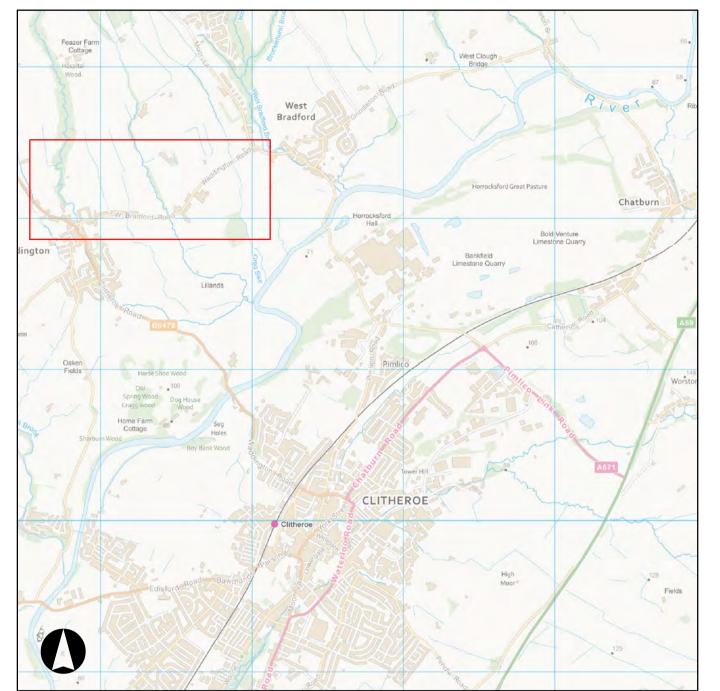


HGV - 4 axle rigid (rigid/tipper) to site (Northbound)
HGV - tractor unit, low loader step trailer from site (Southbound)



HGV - tractor unit, low loader step trailer to site (Northbound HGV - 4 axle rigid (rigid/tipper) from site (Southbound)

Waddington - West Bradord Road (TA Link Ref. 60)



WIDER AREA 0 0.3 0.6 1.2 Kilometers



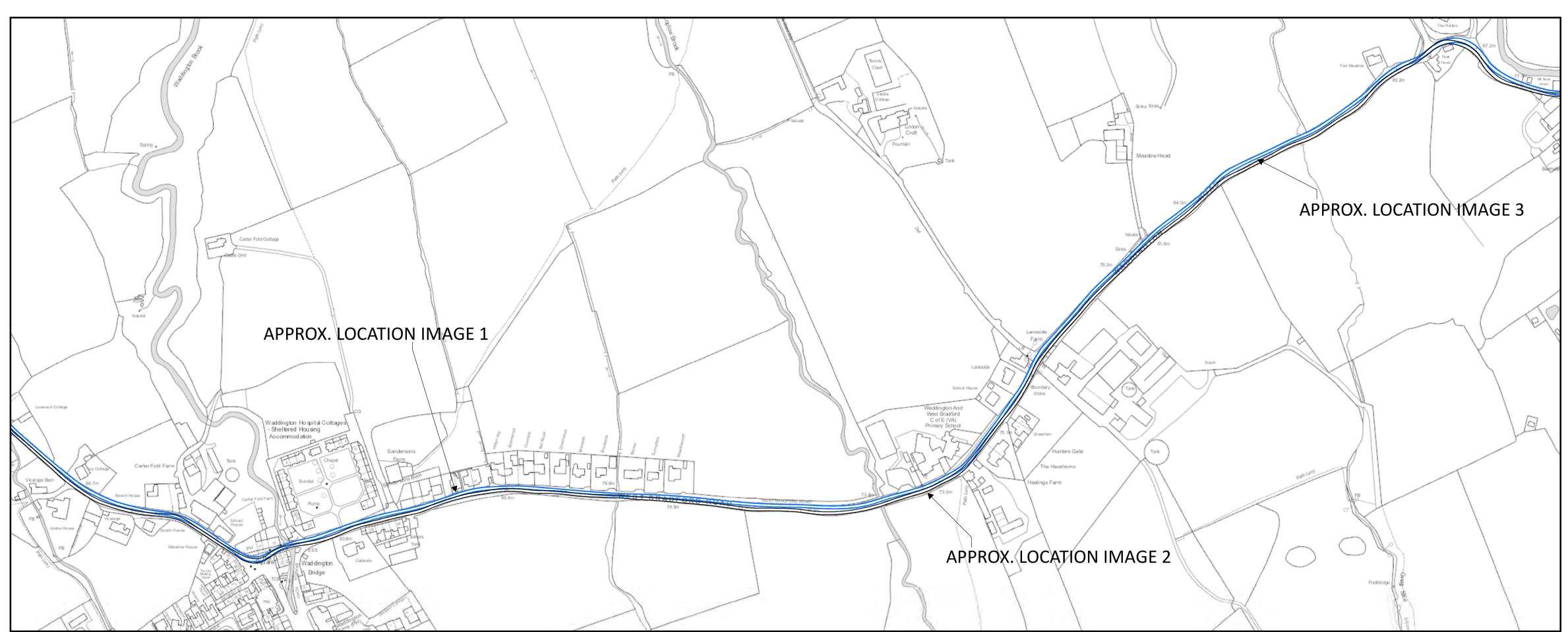
IMAGE 1: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID WEST BRADFORD RD (SOUTHBOUND) LEAVES LANE TO PASS PARKED CARS



IMAGE 2: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID WEST BRADFORD RD (SOUTHBOUND) WADDINGTON & W. BRADFORD PRIMARY SCHOOL

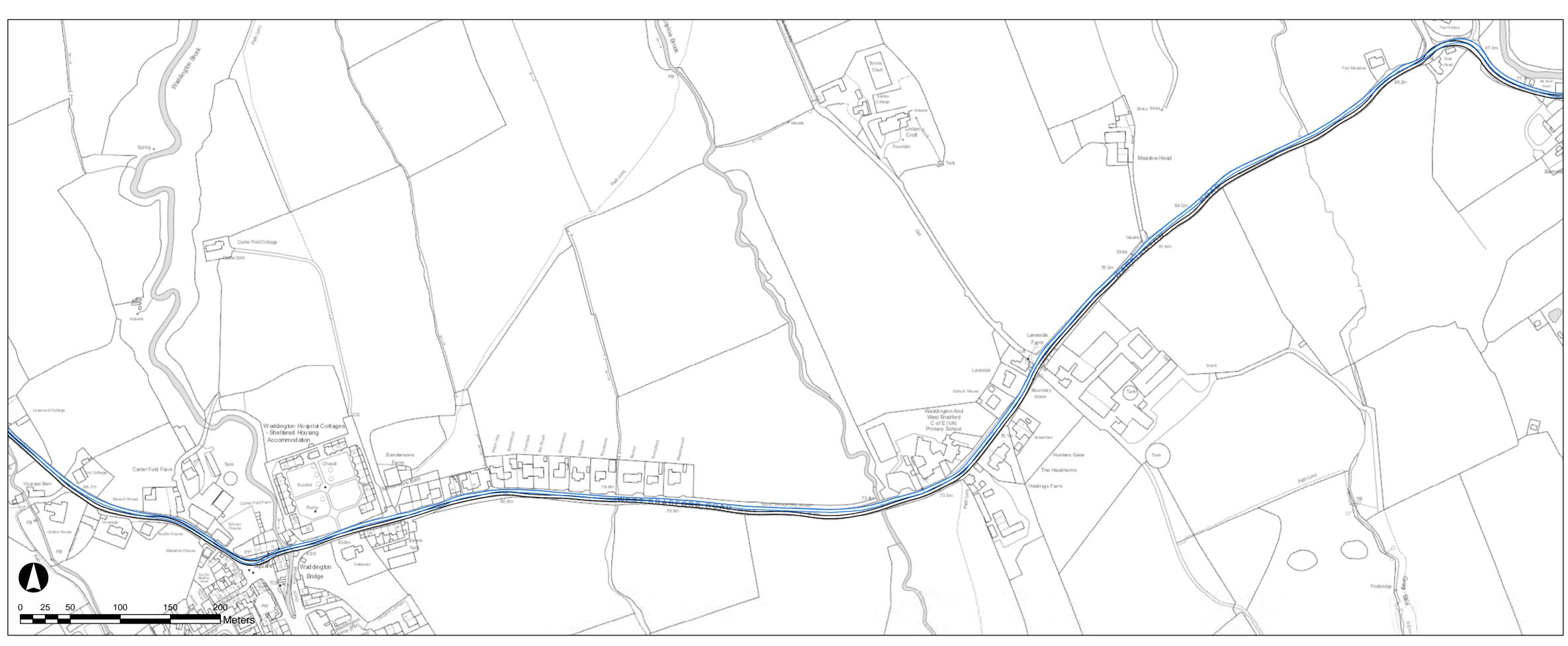


IMAGE 3: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID WEST BRADFORD RD (SOUTHBOUND) TYPICAL OBSERVED LANE DISCILPINE



HGV - tractor unit, 40' artic to site (Northbound)

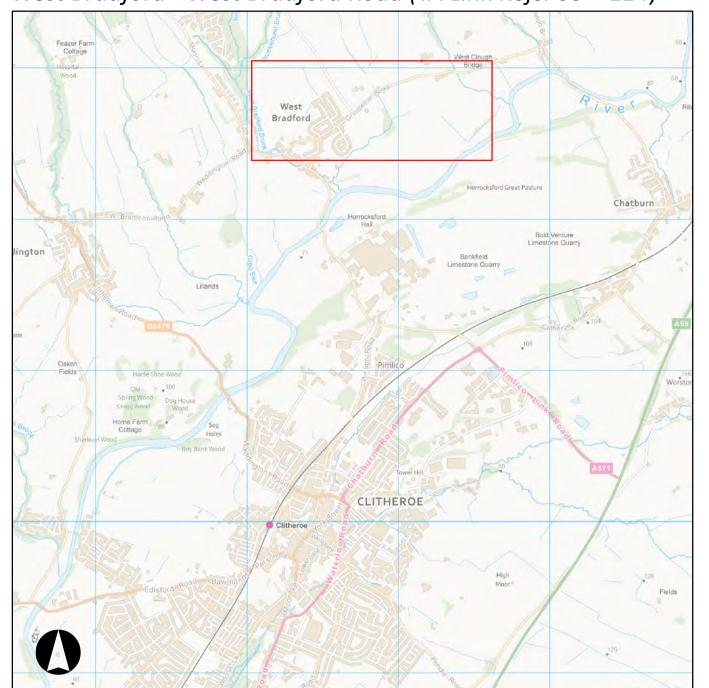
**HGV** - tractor unit, low loader step trailer from site (Southbound)



**HGV** - tractor unit, low loader step trailer to site (Northbound)

**HGV** - tractor unit, 40' artic from site (Southbound)

West Bradford - West Bradford Road (TA Link Refs. 60 + 124)



WIDER AREA 0 0.3 0.6 1.2 Kilometer



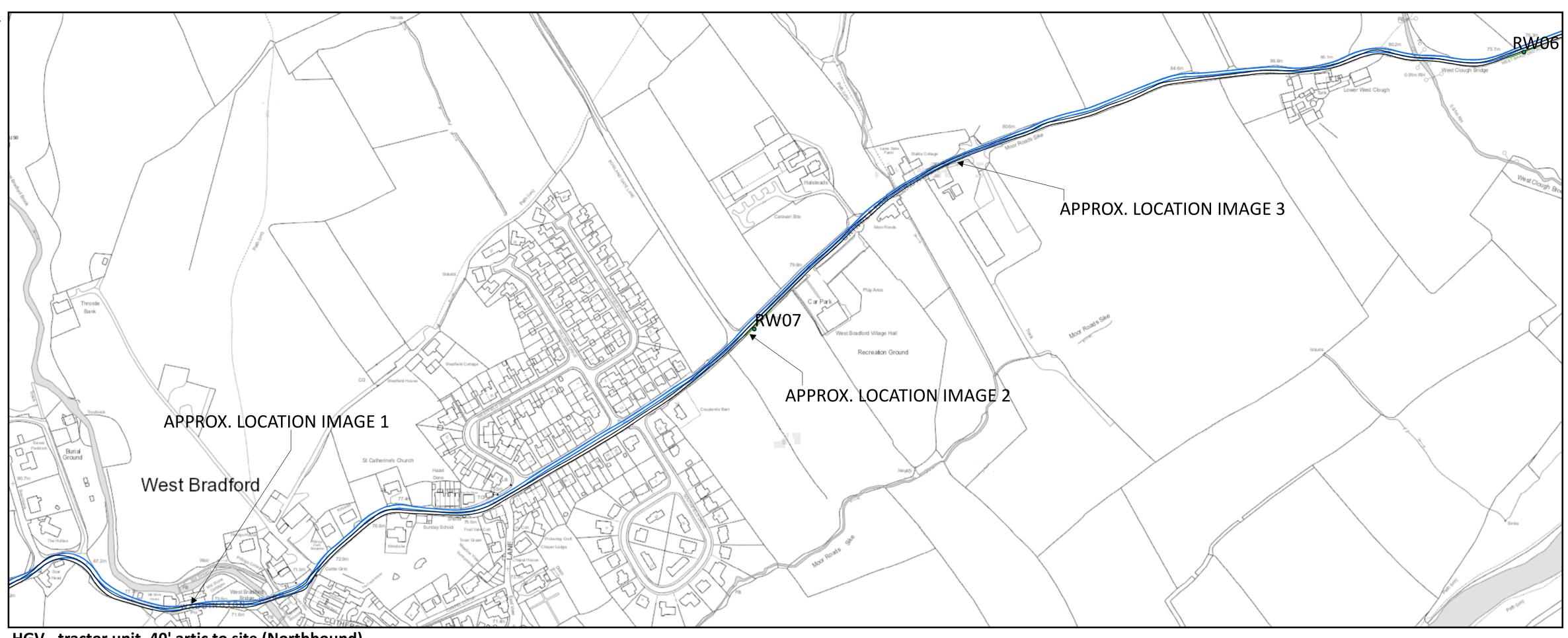
IMAGE 1: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID WEST BRADFORD (SOUTHBOUND) NARROW ROAD 3 MILLSTONES



IMAGE 2: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID WEST BRADFORD (SOUTHBOUND) TYPICAL OBSERVED LANE DSICIPLINE

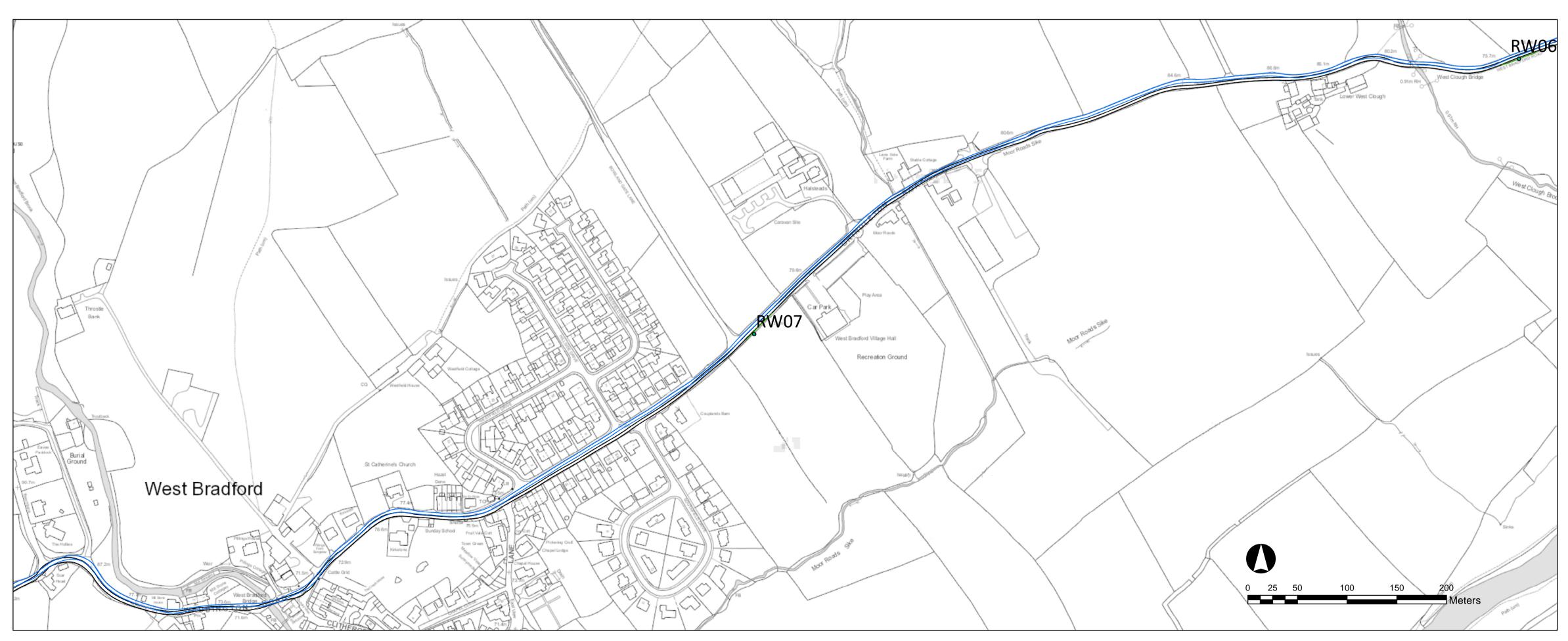


IMAGE 3: HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID WEST BRADFORD (SOUTHBOUND) LEAVES LANE AT NARROWING OF ROAD



HGV - tractor unit, 40' artic to site (Northbound)

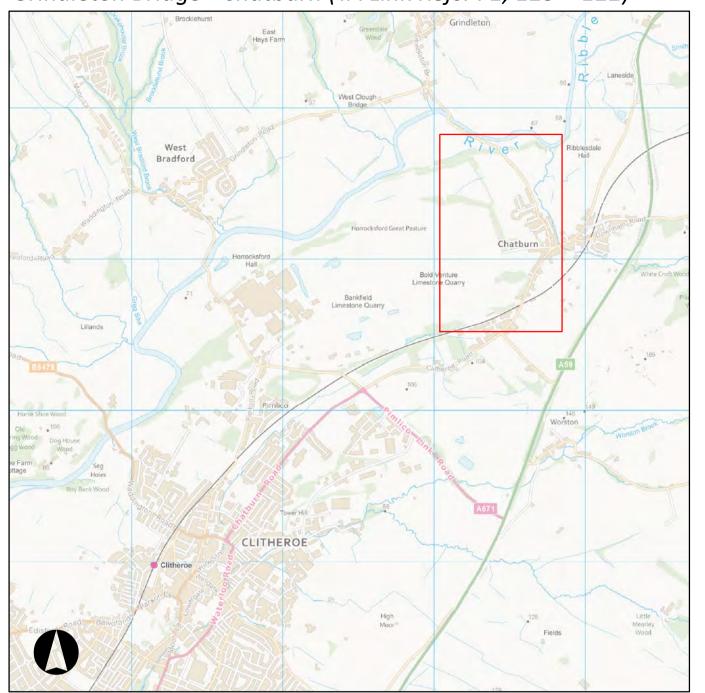
**HGV** - tractor unit, low loader step trailer from site (Southbound)



**HGV** - tractor unit, low loader step trailer to site (Northbound)

**HGV** - tractor unit, 40' artic from site (Southbound)

Grindleton Bridge - Chatburn (TA Link Refs. 71, 123 + 122)



WIDER AREA 0 0.3 0.6 1.2 Kilometers



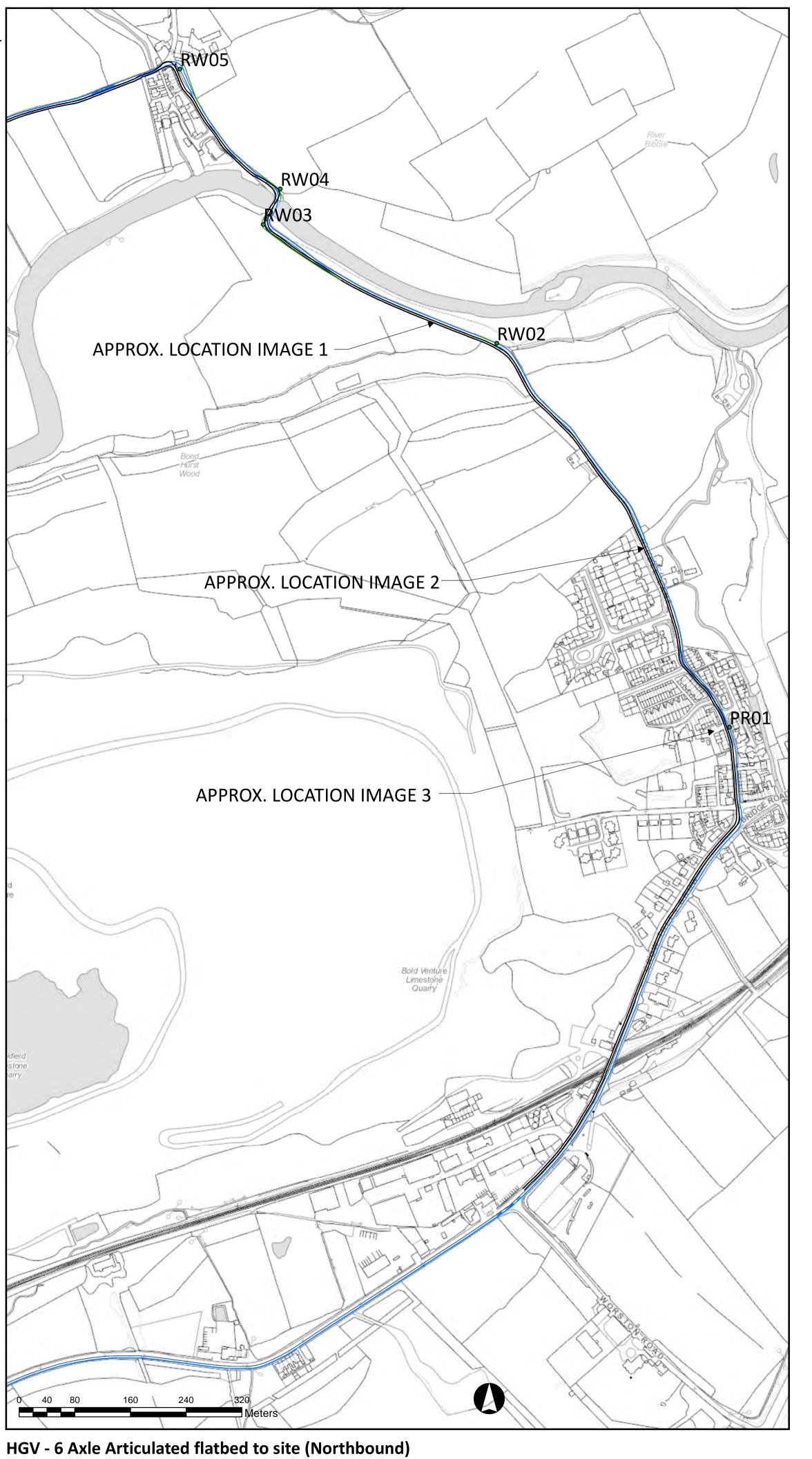
HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID EAST VIEW (SOUTHBOUND) NARROW ROAD



HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID RIBBLE LANE (SOUTHBOUND) LEAVES LANE DUE TO VEGETATION



HGV TRIAL 11th NOVEMBER 2020 4 AXLE RIGID TIPPER RIBBLE LANE (SOUTHBOUND) ON STREET PARKING

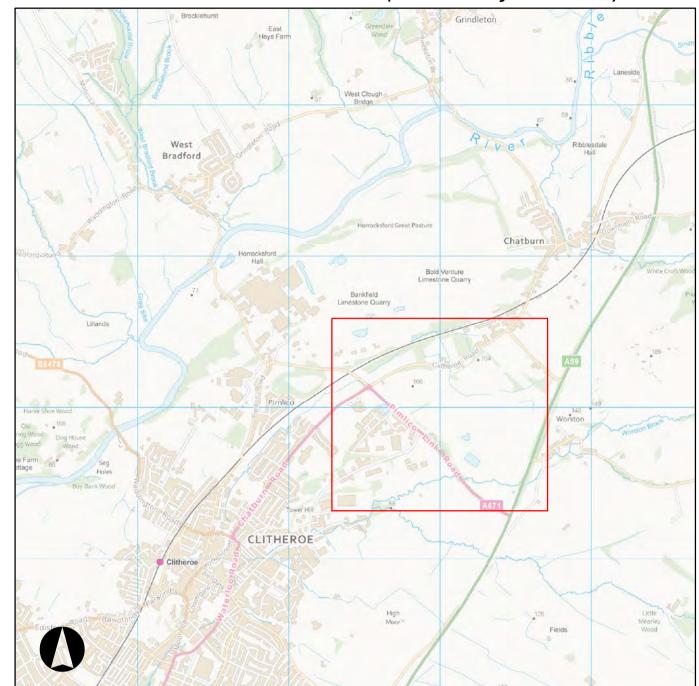


HGV - 6 Axle Articulated flatbed to site (Northbound)
HGV - tractor unit, low loader step trailer from site (Southbound)

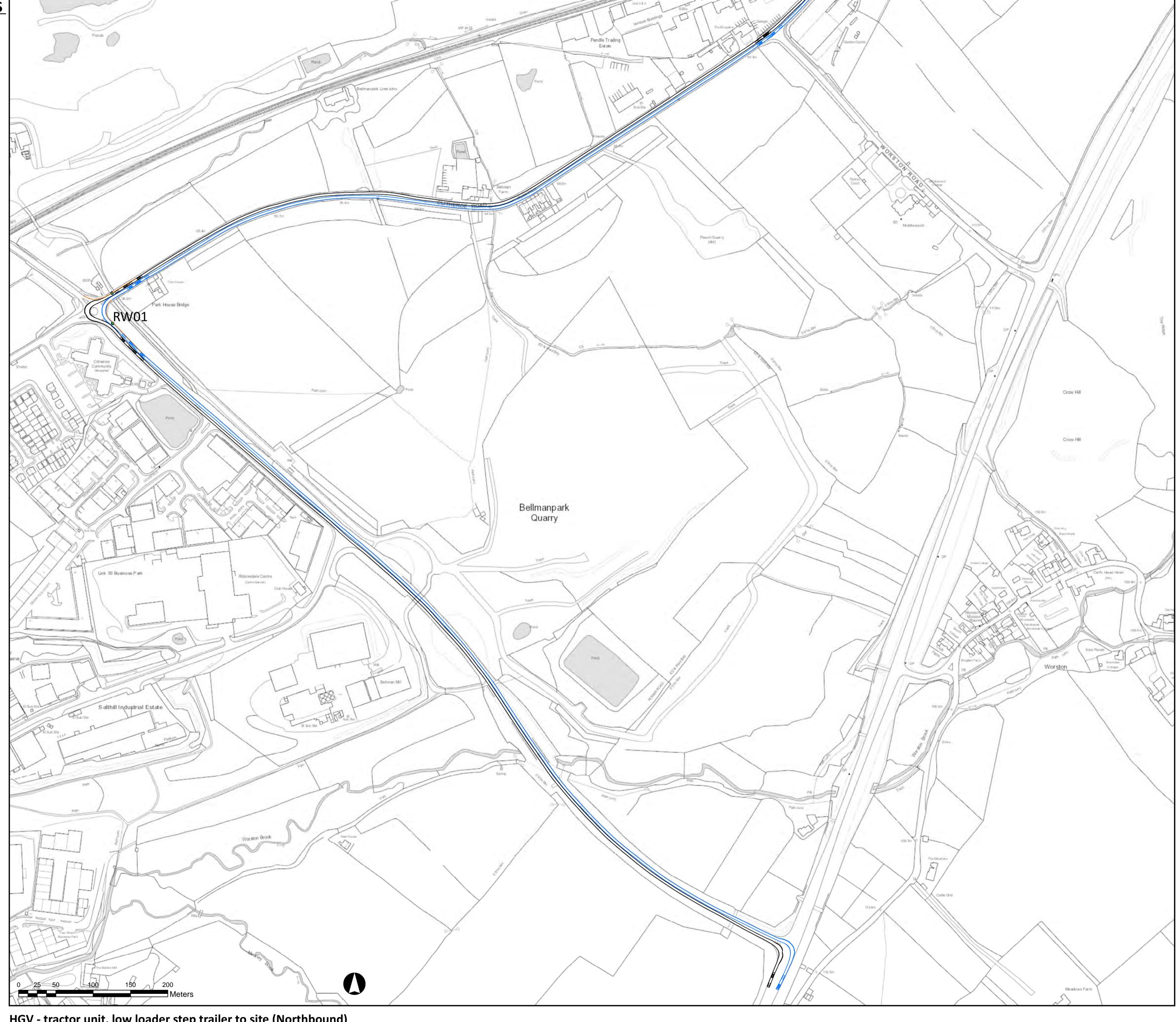


HGV - tractor unit, low loader step trailer to site (Northbound)
HGV - 6 Axle Articulated flatbed from site (Southbound)

Pimlico Link Rd - Crow Trees Brow (TA Link Refs. 22 + 57)



WIDER AREA 0 0.3 0.6 1.2 Kilometers

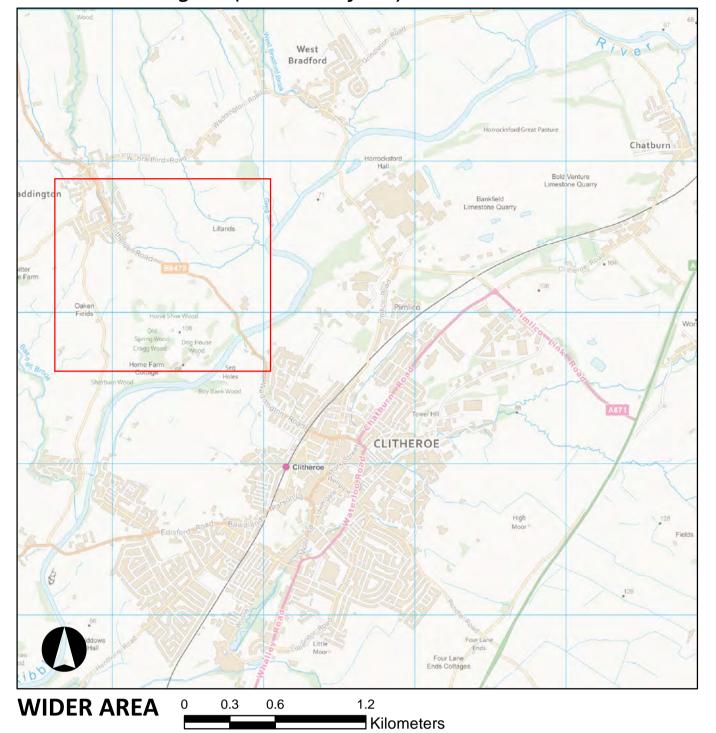


# Legend

- Road Modification Reference
- Proposed Road Modification

- **HGV** tractor unit, low loader step trailer to site (Northbound)
- **HGV** tractor unit, low loader step trailer from site (Southbound)

B6478 Waddington (TA Link Ref. 59)





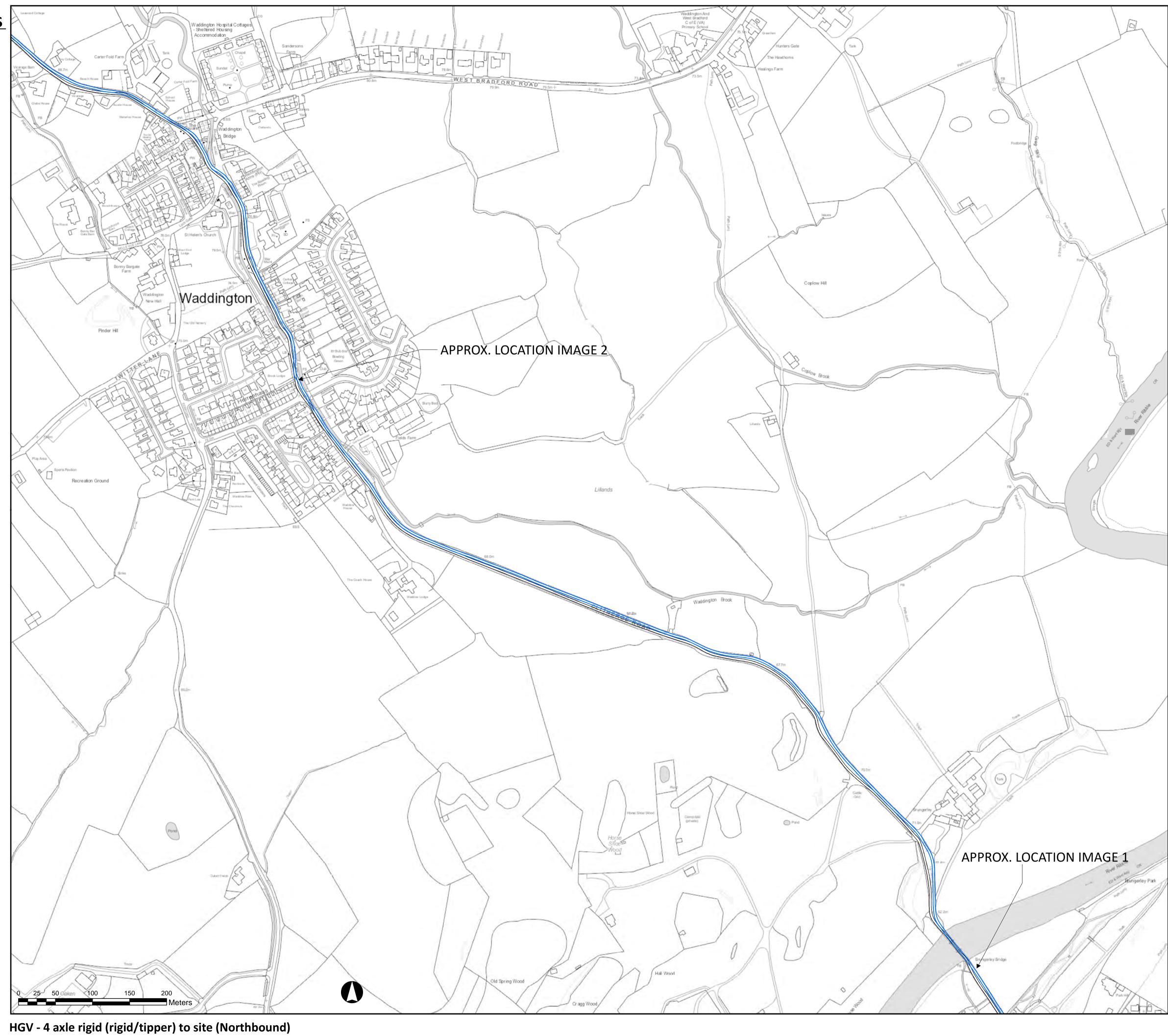
**IMAGE 1: BRUNGERLEY BRIDGE NARROW ROAD SECTION** 



IMAGE 2: WADDINGTON PRIORITY PASSING/TRAFFIC CALMING

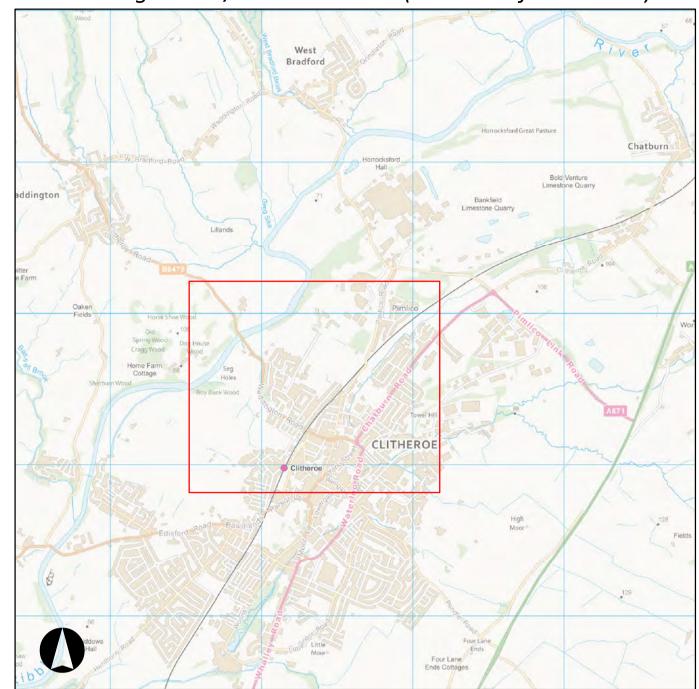
# Legend

- Road Modification Reference
- Proposed Road Modification



**HGV - 4 axle rigid (rigid/tipper) from site (Southbound)** 

B6478 Hallgate Hill/Slaidburn Road (TA Link Refs. 65 + 140)



WIDER AREA 0 0.3 0.6 1.2 Kilometers



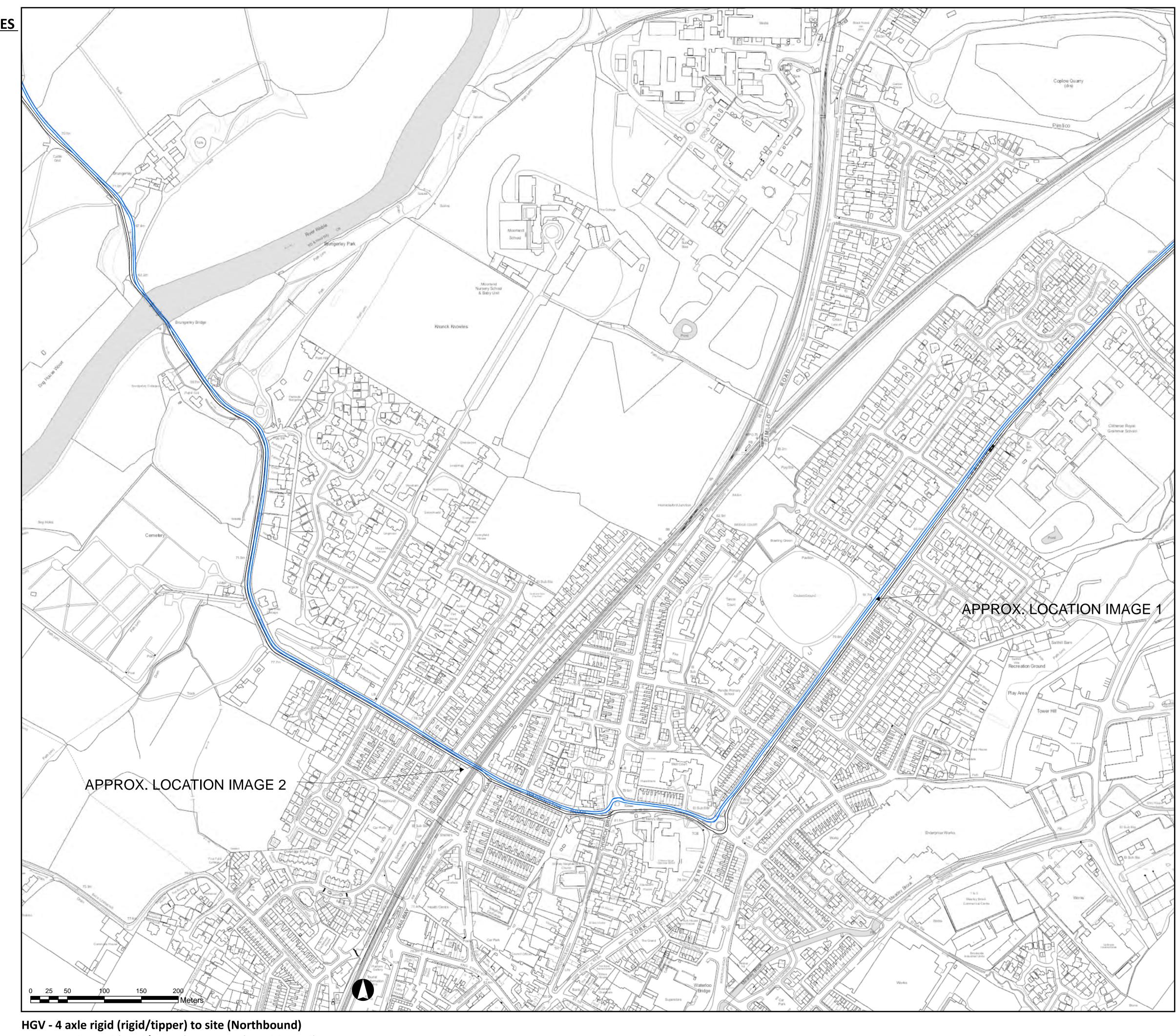
IMAGE 1: ON STREET PARKING ON A671 CHATBURN ROAD



**IMAGE 2: LOW BRIDGE B6478** 

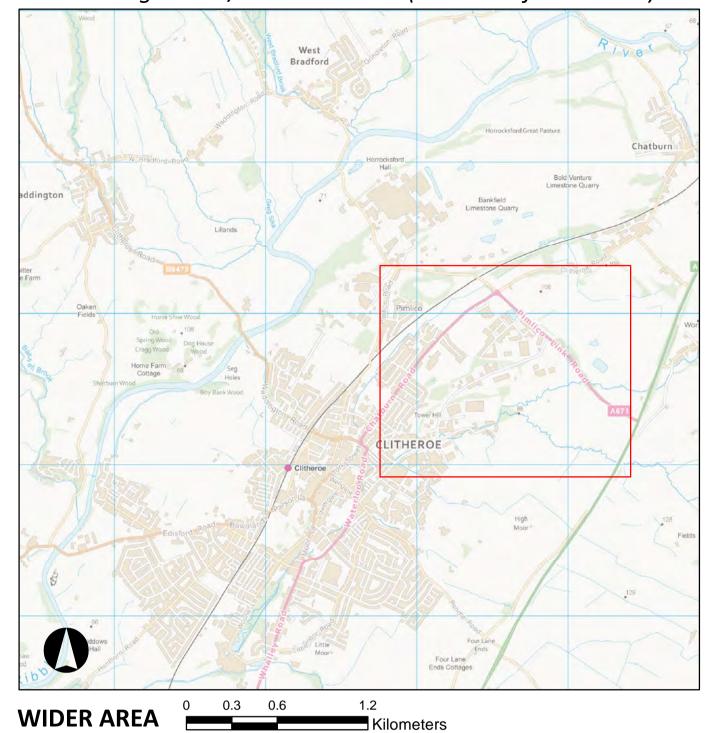
## Legend

- Road Modification Reference
- Proposed Road Modification



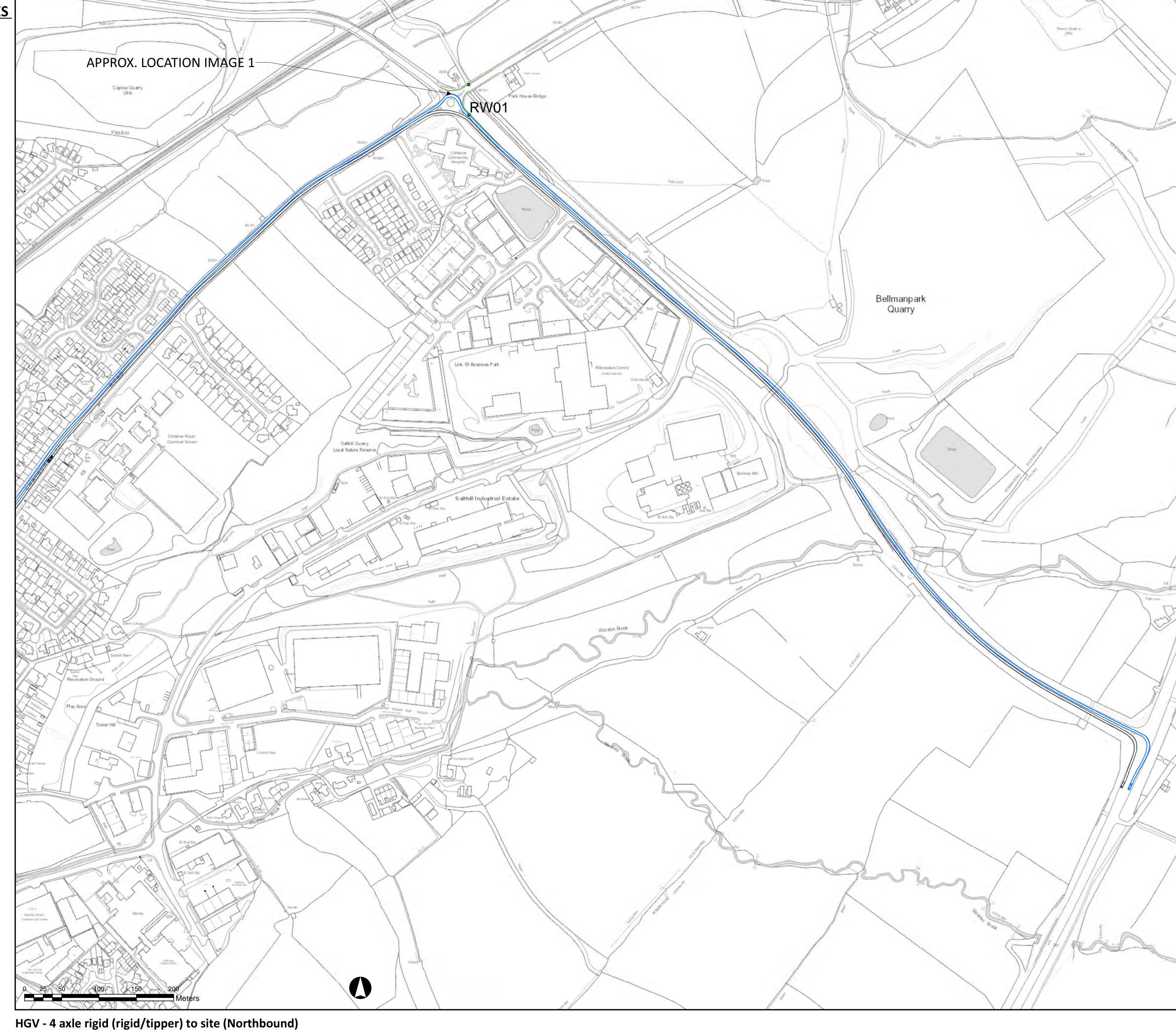
**HGV - 4 axle rigid (rigid/tipper) from site (Southbound)** 

B6478 Hallgate Hill/Slaidburn Road (TA Link Refs. 65 + 140)





**IMAGE 1: CHATBURN ROAD TOWARDS CHATBURN EXISTING TRAFFIC ISLAND AND TRAFFIC RESTRICTION IMPACTED BY PROPOSALS** 



# Legend

- Road Modification Reference
- Proposed Road Modification

- **HGV 4 axle rigid (rigid/tipper) from site (Southbound)**