Network Rail (Huddersfield to Westtown (Dewsbury) Improvements) Order

Condition 7: Materials – Stage 6 W3B

Document reference: 151667-TSA-00-TRU-REP-W-EN-001341

Version 3.0

Network Rail

November 2024

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Contents

Tables

1. INTRODUCTION

1.1 Background

1.1.1 The Scheme is part of a wider programme of works under the Transpennine Route Upgrade (TRU) which will improve the Transpennine railway between Manchester, Huddersfield, Leeds and York and improve connections between key towns and cities across the north of England.

1.1.2 Planning Direction for the Huddersfield to Westtown (Dewsbury) section of the TRU was received from the Department for Transport referenced TWA/21/APP/03, dated 13 October 2022.

1.1.3 This document sets out details in relation to Condition 7 of the Deemed Planning Permission for the Stage 6 works in work area W3B.

2. STAGED APPROACH TO DISCHARGE AND STAGE DESCRIPTION

2.1.1 As set out in document ref 151667-TSA-00-TRU-REP-W-EN-001189 version 3 (submitted in relation to Condition 3 of the Deemed Planning) a staged approach is proposed in relation to discharge of the deemed planning conditions.

2.1.2 Stage 6 comprises of the main construction phase for civils works for the Huddersfield to Westtown (Dewsbury) Scheme.

2.1.3 Stage 6 has been split into two submissions based on geographical areas:

- W3A – Huddersfield to Bradley Junction
- W3B – Bradley Junction to Westtown (Dewsbury)

2.1.4 This document provides details in relation to the Stage 6 W3B works between Bradley Junction and Westtown (Dewsbury), which were set out in Figure 2-11 in Volume 4 of the Environmental Statement (ES) and in Chapter 2: Scheme Description (Route Sections 4[2], 5[3] and 6[4]) in Volume 2ii of the ES.

2.1.5 The works required during Stage 6 W3B are summarised in Tables 2-1 to 2-5, and links to the relevant planning drawings are also provided. Figure 1 in Appendix A shows the geographical locations of the works.

2.1.6 Route drawings relevant to Stage 6 W3B are:

- Route Drawing 10 - NR13 Planning Drawing - Route Drawing 10.pdf (windows.net)
- Route Drawing 11 - NR13 Planning Drawing - Route Drawing 11.pdf (windows.net)
- Route Drawing 12 - NR13 Planning Drawing - Route Drawing 12.pdf (windows.net)
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- Route Drawing 24 - NR13 Planning Drawing - Route Drawing 24.pdf (windows.net)

2.1.7 The works included in Stage 6 W3B comprise:

- Earthworks
- Construction of retaining structures
- Drainage including any new outfalls

[1] Ch02 Scheme Description - Fig 2-1 Scheme drawings.pdf (windows.net)
[2] W3 ES Volume 2ii: Ch02 Colne Bridge and Battyeford - Scheme Description
[3] W3 ES Volume 2ii: Ch02 Mirfield and Lower Hopton - Scheme Description
[4] W3 ES Volume 2ii: Ch02 Ravensthorpe and Westtown - Scheme Description

- Erection of security/boundary fencing
- Demolition of buildings
- Over/Underbridge removal/demolition
- Over/Underbridge construction
- Provision of relocated Ravensthorpe Station
- Works to platforms etc. at existing stations
- Permanent track access and maintenance compounds
- Utilities works

2.1.8 All works associated with the construction compounds between Bradley Junction and Westtown (Dewsbury) are detailed in the Stage 1 and Stage 2 documentation (previously submitted planning applications ref: 2022/44/93858/W and 2022/44/93945/W).

Table 2-1 Proposed Stage 6 W3B works – Stations

Station name	Description of works	Planning drawing title and ref
Mirfield Station	• Reconstruction of the island platform (150m usable platform). • Island platform provided with two waiting shelter seating areas • Step free station access to be provided to the east of Station Road. Existing access on west side of Station Road to be infilled • Visual and audio announcements will be provided on platforms • CCTV and lighting will be provided on the platform, in the station entrance and car park • The station car park is to be retained in its current location	• Existing Site Plan (1) – 151667-TSA-34-MVN2-DRG-T-LP-162451 • Existing Site Plan (2) – 151667-TSA-34-MVN2-DRG-T-LP-162452 • Existing Site Plan (3) – 151667-TSA-34-MVN2-DRG-T-LP-162453 • Footbridge – Proposed Deck and Sections – 151667-TSA-34-MVN2-DRG-T-LP-162470 • Footbridge – Proposed Elevations and Lift – 151667-TSA-34-MVN2-DRG-T-LP-162469 • Footbridge – Proposed General Arrangement and Elevation - 151667-TSA-34-MVN2-DRG-T-LP-162468 • Existing Location Plan – 151667-TSA-34-MVN2-DRG-T-LP-162450 • Platform Elevation - 151667-TSA-34-MVN2-DRG-T-LP-162461 • Platform General Arrangement (1) – 151667-TSA-34-MVN2-DRG-T-LP-162457 • Platform General Arrangement (2) – 151667-TSA-34-MVN2-DRG-T-LP-162458 • Platform General Arrangement (3) – 151667-TSA-34-MVN2-DRG-T-LP-162459 • Platform Proposed Cross Sections – 151667-TSA-34-MVN2-DRG-T-LP-162462 • Proposed Highway Works General Arrangement - 151667-TSA-34-MVN2-DRG-T-LP-162463 • Proposed Site Plan (1) – 151667-TSA-34-MVN2-DRG-T-LP-162454 • Proposed Site Plan (2) – 151667-TSA-34-MVN2-DRG-T-LP-162455 • Proposed Site Plan (3) – 151667-TSA-34-MVN2-DRG-T-LP-162456 • Totem drawing – 151667-TSA-34-MVN2-DRG-T-LP-162465
Ravensthorpe Station	• The existing station will be closed, and its existing platforms demolished. The existing Ravensthorpe Station Footbridge (MVL1/4) will also be demolished. • A new station will be provided to the west of the realigned Calder Road • Provision of an island platform (150m) to serve the stopping services on the slow lines. Passive provision to extend to 200m. • The platform will be provided with two waiting shelters seating areas	• Existing Site Plan (1) – 151667-TSA-35-MVN2-DRG-T-LP-162552 • Existing Site Plan (2) – 151667-TSA-35-MVN2-DRG-T-LP-162553 • Existing Site Plan (3) – 151667-TSA-35-MVN2-DRG-T-LP-162554 • Existing Site Plan (4) – 151667-TSA-35-MVN2-DRG-T-LP-162555 • Existing Site Plan (5) – 151667-TSA-35-MVN2-DRG-T-LP-162565 • Forecourt General Arrangement - 151667-TSA-35-MVN2-DRG-T-LP-162556 • Location Plan – 151667-TSA-35-MVN2-DRG-T-LP-162550 • Platform Cross Sections - 151667-TSA-35-MVN2-DRG-T-LP-162567 • Proposed Platform Elevation - 151667-TSA-35-MVN2-DRG-T-LP-162566 • Proposed Footbridge Elevations - 151667-TSA-35-MVN2-DRG-T-LP-162576 • Proposed Footbridge General Arrangement - 151667-TSA-35-MVN2-DRG-T-LP-162575 • Proposed Footbridge Sections and Details - 151667-TSA-35-MVN2-DRG-T-LP-162577

Station name	Description of works	Planning drawing title and ref
	• Visual and audio announcements will be provided on platforms • CCTV and lighting will be provided on both platform, forecourt and station entrance • The station will be accessed from the south via a new forecourt from a roundabout on the realigned Calder Road, consisting of three number blue badge accessible parking spaces, a maintenance parking bay and a vehicle turning head. • The platform will be accessed via a footbridge (Ravensthorpe Station Footbridge (MVN2/201A)) with stairs and a lift. The footbridge will be level with the new forecourt.	• Proposed Platform General Arrangement (1) - 151667-TSA-35-MVN2-DRG-T-LP-162562 • Proposed Platform General Arrangement (2) - 151667-TSA-35-MVN2-DRG-T-LP-162563 • Proposed Platform General Arrangement (3) - 151667-TSA-35-MVN2-DRG-T-LP-162564 • Proposed Site Plan (1) - 151667-TSA-35-MVN2-DRG-T-LP-162557 • Proposed Site Plan (2) - 151667-TSA-35-MVN2-DRG-T-LP-162558 • Proposed Site Plan (3) - 151667-TSA-35-MVN2-DRG-T-LP-162559 • Proposed Site Plan (4) - 151667-TSA-35-MVN2-DRG-T-LP-162560 • Proposed Site Plan (5) - 151667-TSA-35-MVN2-DRG-T-LP-162561 • Proposed Cross Sections (1) - 151667-TSA-35-MVN2-DRG-T-LP-162568 • Proposed Cross Sections (2) - 151667-TSA-35-MVN2-DRG-T-LP-162569 • Totem drawing - 151667-TSA-35-MVN2-DRG-T-LP-162571

Table 2-2 Proposed Stage 6 W3B works – Structures

Name of structure	Description of works	Planning drawing title and ref
B6118 Colne Bridge Road Overbridge (MVL3/107)	• A new bridge will be constructed offline to the east of the existing structure to accommodate new fast lines	• Existing Highways General Arrangement - 151667-TSA-33-MVL3-DRG-T-LP-163404 • Proposed Highway Profile and Cross Sections - 151667-TSA-33-MVL3-DRG-T-LP-163406 • Proposed Highways General Arrangement - 151667-TSA-33-MVL3-DRG-T-LP-163405 • Existing Plan - 151667-TSA-33-MVL3-DRG-T-LP-168110
Huddersfield Broad Canal Underbridge (MVL3/108S)	• Reconstruction of bridge deck superstructure on the existing substructure	• Existing and Proposed Elevation and Cross Section - 151667-TSA-33-MVL3-DRG-T-LP-162301 • Existing and Proposed Plan - 151667-TSA-33-MVL3-DRG-T-LP-162300
Colne Viaduct Underbridge (MVL3/109)	• New fast lines will be constructed to the south side of the existing railway corridor and will use the existing redundant spans to cross the river. To support the two new fast lines, the existing metallic deck to be to be modified and	• Existing and Proposed Elevation and Cross Section - 151667-TSA-33-MVL3-DRG-T-LP-162311 • Existing and Proposed Plan - 151667-TSA-33-MVL3-DRG-T-LP-162310

Name of structure	Description of works	Planning drawing title and ref
	replaced with a new reinforced concrete deck. Two existing structures (masonry and steel) will both be modified to include a cantilever structure for a walkway and for the diverted sewer main to the south of line.	
Parks Overbridge (MVL3/110 and MVL4/1)	• Construction of a new 2 to 3 span bridge to accommodate new track alignment and OLE.	• Existing and Proposed Elevations and Cross Sections - 151667-TSA-33-MVL3-DRG-T-LP-162321 • Existing Highways General Arrangement - 151667-TSA-33-MVL3-DRG-T-LP-162323 • Existing and Proposed Plan - 151667-TSA-33-MVL3-DRG-T-LP-162320 • Proposed Highway Profile and Cross Section - 151667-TSA-33-MVL3-DRG-T-LP-162325 • Proposed Highways General Arrangement - 151667-TSA-33-MVL3-DRG-T-LP-162324
Cooper Bridge Intersection (MVL4/2)	• Replacement of existing masonry arch	• Existing and Proposed Elevation and Cross Section - 151667-TSA-33-MVL4-DRG-T-LP-162341 • Existing and Proposed Plan - 151667-TSA-33-MVL4-DRG-T-LP-162340
Heaton Lane Footbridge (MVL4/4)	• Construction of a new stepped footbridge to modern railway standards to accommodate OLE	• Existing and Proposed Plan - 151667-TSA-33-MVL4-DRG-T-LP-162372 • Elevations and Cross Sections (1) - 151667-TSA-33-MVL4-DRG-T-LP-162373 • Elevations and Cross Sections (2) - 151667-TSA-33-MVL4-DRG-T-LP-162374
Helm Lane Underbridge (MVN2/188)	• Existing underpass to be filled and replacement subway to be provided.	• Existing and Proposed Cross Sections - 151667-TSA-33-MVL4-DRG-T-LP-162371
Mirfield Viaduct (MVN2/192 and 192A)	• Additional track to be added to MVN2/192A • Strengthening works along viaduct	• Existing and Proposed Sections - 151667-TSA-34-MVN2-DRG-T-LP-168124 • Existing and Proposed Plan - 151667-TSA-34-MVN2-DRG-T-LP-168120 • North Elevation (1) - 151667-TSA-34-MVN2-DRG-T-LP-168121 • North Elevation (2) - 151667-TSA-34-MVN2-DRG-T-LP-168122 • North Elevation (3) - 151667-TSA-34-MVN2-DRG-T-LP-168123
Station Road Underbridge (MVN2/193)	• Bridge deck replacement and removal of eastern abutment due to inadequate horizontal clearance for four tracking and works within the station, including relocation of platforms.	• Existing and Proposed Plans - 151667-TSA-34-MVN2-DRG-T-LP-162473 • Existing and Proposed Sections - 151667-TSA-34-MVN2-DRG-T-LP-162474

Name of structure	Description of works	Planning drawing title and ref
Calder Road Overbridge (MVN2/202)	• A new bridge will be constructed to the west of the existing bridge to allow for the change in vertical alignment of the tracks to facilitate construction of the Flyover Intersection (RBA/1)	• Existing and Proposed Elevations - 151667-TSA-35-MVN2-DRG-T-LP-162431 • Existing Highways General Arrangement (1) - 151667-TSA-35-MVN2-DRG-T-LP-162433 • Existing Highways General Arrangement (2) - 151667-TSA-35-MVN2-DRG-T-LP-162434 • Existing Highways General Arrangement (3) - 151667-TSA-35-MVN2-DRG-T-LP-162435 • Existing Highways General Arrangement (4) - 151667-TSA-35-MVN2-DRG-T-LP-162436 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-162430 • Proposed Highway Profile - 151667-TSA-35-MVN2-DRG-T-LP-162441 • Proposed Highway Cross Sections - 151667-TSA-35-MVN2-DRG-T-LP-162442 • Proposed Highway General Arrangement (1) - 151667-TSA-35-MVN2-DRG-T-LP-162437 • Proposed Highway General Arrangement (2) - 151667-TSA-35-MVN2-DRG-T-LP-162438 • Proposed Highway General Arrangement (3) - 151667-TSA-35-MVN2-DRG-T-LP-162439 • Proposed Highway General Arrangement (4) - 151667-TSA-35-MVN2-DRG-T-LP-162440
Flyover Intersection (RBA/1)	• To achieve the grade separated junction to enable the fast lines to cross over the slow lines towards Wakefield a new intersection structure will be constructed	• Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-162670 • Proposed Elevation and Cross Section - 151667-TSA-35-MVN2-DRG-T-LP-162671
Baker Viaduct (RBA/2)	• Construction of new 9 span viaduct to carry the fast and slow lines (new railway) (300-400m long) over the Calder and Hebble Navigation and River Calder.	• Detailed Elevation - 151667-TSA-35-MVN2-DRG-T-LP-162616 • Elevations and Sections - 151667-TSA-35-MVN2-DRG-T-LP-162615 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-162601
Lees Hall Farm Underbridge (MVN2/204)	• Infilling of structure due to the realignment of railway lines to facilitate the Flyover Intersection (RBA/1)	• Existing and Proposed Elevation - 151667-TSA-35-MVN2-DRG-T-LP-162502 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-162500 • Existing and Proposed Section - 151667-TSA-35-MVN2-DRG-T-LP-162501
B6117 Fall Lane, Thornhill Road Underbridge (MDL1/9)	• New structure is required to accommodate the railway realignment	• Existing and Proposed Section - 151667-TSA-35-MVN2-DRG-T-LP-162516 • Existing and Proposed Elevation - 151667-TSA-35-MVN2-DRG-T-LP-162511 • Existing Highway General Arrangement - 151667-TSA-35-MVN2-DRG-T-LP-162512 • Highway Profile Cross Section - 151667-TSA-35-MVN2-DRG-T-LP-162514 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-162510 • Proposed Highway General Arrangement - 151667-TSA-35-MVN2-DRG-T-LP-162513
Occupation Underbridge	• Infilling of structure severing private access to a residential	• Existing and Proposed Sections - 151667-TSA-35-MVN2-DRG-T-LP-168143 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-168140

Name of structure	Description of works	Planning drawing title and ref
(MDL1/10)	property. A new access will be provided to the south of the residential property from Calder Bank Road.	• North Elevation - 151667-TSA-35-MVN2-DRG-T-LP-168141 • South Elevation - 151667-TSA-35-MVN2-DRG-T-LP-168142
Toad Holes Underbridge (MDL1/12)	• Infilling of structure due to poor condition	• Existing and Proposed Elevation - 151667-TSA-35-MVN2-DRG-T-LP-168151 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-168152
Ming Hill Underbridge (MDL1/14)	• Infilling of structure (southern side) due to potential future maintenance liability of retaining the structure	• Existing and Proposed Elevation - 151667-TSA-35-MVN2-DRG-T-LP-168161 • Existing and Proposed Plan - 151667-TSA-35-MVN2-DRG-T-LP-168160 • Existing and Proposed Section - 151667-TSA-35-MVN2-DRG-T-LP-168162

2.1.9 Locations are shown in Figure 1 in Appendix A.

Table 2-3 Proposed Stage 6 W3B works – Drainage

Culvert name	Description of works
Colnebridge Culvert (MVL3/110A)	• Culvert extended by 15m to the south to take existing watercourse under new fast lines. • Existing headwall to be removed and replaced with new headwall
Heaton Lodge Junction Culvert (MVN2/190A)	• Culvert to be repaired and modified
Mirfield Culvert (MVN2/190B)	• Culvert to be repaired and modified
Mirfield Culvert (MVN2/190C)	• Culvert to be repaired and modified
Chadwick Close Culvert (MVN2/191A)	• Repairs and modifications which may include culvert extensions upstream and downstream with replacement of chambers
Mirfield Station (MVN2/none)	• A new storm water drainage system is required for the re-modelled platforms and additional track drainage
Sands Lane Culvert (MVN2/198B)	• Culvert to be repaired and modified
Ladywood Culvert (MVN2/200C)	• Culvert to be extended by 5m
Ladywood Road Culvert (MVN2/200)	• Culvert to be extended with a new headwall
Ravensthorpe Station	• Re-grading of existing drainage within the adjacent property will be required
Ravensthorpe Triangle	• Drainage will replicate existing and use of storm water attenuation structures and infiltration basins

2.1.10 There are existing earthworks throughout the Scheme area associated with the existing operational railway. Earthworks allow the track to stay relatively level through a varied topography and allows trains to operate more efficiently by reducing the need for additional acceleration and deceleration to climb and descend climbs.

2.1.11 Earthworks (new and where they have been reworked) will generally be covered in topsoil and landscaped as appropriate. Any exceptions to this will be detailed within the Landscape and Ecological Management Plan (LEMP) Stage 8.

2.1.12 Locations are shown in Figure 1 in Appendix A.

Table 2-4 Proposed Stage 6 W3B works – Earthworks

Earthworks ID	Description of works
E9	• Widening of cutting to facilitate four tracking and track realignment • 150m length and 2.2m height
W11	• Reprofiling to a 1 in 2 slope • Wall needed due to track realignment affecting existing embankment • 80m length and 3m height
E10	• Reprofiling and widening of earthworks embankment at Bradley Junction BBW line • 100m length and 3-5m in height
E11	• New cutting for construction of fast lines • 1050m in length and 10m in height
W13	• Reinforced soil wall at Ravensthorpe Junction – Flyover Intersection (RBA/1) • Required to support works to fast line

Earthworks ID	Description of works
	• 75m length and 6m height
W15	• Reinforced soil wall at Ravensthorpe Junction – Flyover Intersection (RBA/1) • 80m length and 7m height
E13	• Earthwork cutting to west of Calder Road Overbridge (MVN2/202) as part of new station site. • 465m length up to 16.9m in height
E15	• Embankment • Widening of cutting for track works • 120m length and up to 6m height
E16	• Earthwork at Ravensthorpe Junction as part of new flyover and viaduct structures. • Lies within the Thornhill Quarry Landfill site. • 390m length and up to 10m height
W17	• Reinforced soil retaining wall adjacent to Kirklees Household Waste Recycling Centre (HWRC) • Required due to construction of Baker Viaduct Underbridge (RBA/2) • 265m length and 9m height
E18	• Widening of existing soil embankment west of Thornhill Road • 100m length and 4.5m height
W19	• Existing soil embankment to be replaced by a ballast retention wall. • Works required due to vertical track realignment at Thornhill Road • 150m length and 1.5m height
E19	• Widening of existing soil embankment east of Thornhill Road • 125m length and 5m height
W20/W21	• Reinforced soil wall • Required due to road realignment of Thornhill Road • Combined 80m length and up to 6m in height
E20	• Soil embankment at the Wakefield line due to works to realign the line. • 480m length and 5m height
W22	• Sheet piled wall • 65m in length and 3m height

Table 2-5 Proposed Stage 6 W3B works – Demolitions

Building requiring demolition	Description of works
Portal Frame building at MVL3/108S	• Demolition of industrial building adjacent to the existing line close to Colne Viaduct Underbridge (MVL3/109) and falls under the footprint of the earthworks (embankment)
Thornhill House, Thornhill Road, Dewsbury	• Demolition of commercial unit adjacent to existing line close to Occupation Underbridge (MDL1/10) and falls under the footprint of the earthworks (embankment) in this location.

2.1.13 The Scheme impacts on various existing transmission and distribution utility networks. Conflicts with utility services may occur where the Scheme crosses highways and over/underbridge structures, or on private land.

2.1.14 Works within the highway will be carried out in compliance with the Highways Agreement and any impacts on the highways network will be discussed through the Highway Network Management Group.

2.1.15 Other specific utilities works within the Stage 6 W3B area include:

- Tensioning of overhead power lines at Huddersfield Broad Canal Underbridge (MVL3/108S);
- Temporary and permanent diversion of Yorkshire Water sludge main onto bridge abutment at Colne Viaduct Underbridge (MVL3/109);
- Works to overhead power lines in Ravensthorpe area including undergrounding of part of the system (Ouzelwell Lane); and
- Gas main diversion works at Heaton Lodge.

2.1.16 It is anticipated that works within Stage 6 W3B will commence in September 2023.

3. RELEVANT PLANNING CONDITION

3.1.1 The wording of Condition 7 is reproduced as follows:

a) *Before the commencement of any works in respect of structures listed below, samples and specifications of all materials to be used on all external elevations of the following structures must be submitted to and approved in writing by the local planning authority:*

i) MVN2/204 Lees Hall Farm

ii) MVL3/90 Westgate Road bridge

iii) MVL3/98 Fieldhouse Bridge

iv) MVL3/99 Ridings

v) MVL3/100 Peels Pit

vi) MVL3/101 Whitacre Street

vii) MVL3/103 New Colliery Lane (Wheatley's) Bridge

viii) MVL3/110 Parks

ix) MVL3/107 New Colne Bridge Road Bridge

x) MVN2/202 Calder Road

xi) MDL1/9 Fall Lane (Thornhill Road)

xii) Ravensthorpe Railway Station

xiii) Deighton Station Forecourt, Lifts & Footbridge

xiv) Mirfield Station Lifts & Footbridge

xv) Baker Viaduct (Ravensthorpe)

xvi) Weaving Lane Retaining Wall

xvii) Station staircase access to be closed at Mirfield station

xviii) Principal station signage at Huddersfield, Deighton, Mirfield and Ravensthorpe stations

b) *The development must be constructed in accordance with the approved details and thereafter retained unless otherwise agreed in writing with the local planning authority.*

Reason: *To mitigate expected construction impacts arising from the development and to protect local and residential amenity and to ensure the development is carried out in accordance with Kirklees Local Plan policies LP51 and 52.*

4. MATERIAL DETAILS

4.1 Background

4.1.1 The following sections details the materials specification for the structures within Stage 6 W3B and covers the following structures:

- i) MVN2/204 Lees Hall Farm
- v) MVL3/110 Parks
- ix) MVL3/107 New Colne Bridge Road Bridge
- x) MVN2/202 Calder Road
- xi) MDL1/9 Fall Lane (Thornhill Road)
- xii) Ravensthorpe Railway Station
- xiv) Mirfield Station Lifts & Footbridge
- xv) Baker Viaduct (Ravensthorpe)
- xvi) Weaving Lane Retaining Wall
- xvii) Station staircase access to be closed at Mirfield station
- xviii) Principal station signage at Mirfield and Ravensthorpe stations

4.1.2 The majority of materials proposed are standard construction materials e.g. concrete, fill material. The applicant does not therefore propose to samples for all materials, however where the local planning authority requests, samples can be provided.

4.1.3 Details of lineside fencing will be provided to satisfy Condition 9 of the Deemed Planning Permission – Means of Enclosure.

4.2 MVN2/204 Lees Hall Farm

4.2.1 The proposal is to infill the structure. Specification details for the works are provided in Table 4-1.

4.2.2 Details are provided on planning drawing NR13 Planning Drawing - Lees Hall Farm Existing and Proposed Section

Table 4-1 MVN2/204 Lees Hall Farm specifications

Item	Location	Proposal	Colour
External parapet	Both sides of deck	Removal of parapet down to 1m below bottom of sleeper	N/A
Internal parapet	Both sides of deck	Removal of parapet down to 1m below bottom of sleeper	N/A
Exterior of abutment	Both ends and throughout	Infilled/buried	Lightweight foamed concrete/Class 1/2 fill
Soffit of arch	Throughout	Infilled/buried	Lightweight foamed concrete/Class 1/2 fill
Arch infilling (e.g. granular fill, foam concrete, masonry wall)	Throughout	Infilled/buried	Lightweight foamed concrete/Class 1/2 fill
Approach walls	Both ends and both sides	Buried on both sides	Class 1/2 fill
Replacement	Entire length of	6 No. HDPE spare ducts	Ducting - Black or red

Item	Location	Proposal	Colour
utility services	structure	to be installed throughout the structure as per Northern Powergrid's request/requirements for future proofing. Warning tape to be installed. Ducting to be installed within 300mm compacted fill throughout structure and then slue down to required depth of 750mm on both sides of the structure.	tile. Marker system - Yellow with black and red legend or concrete tiles
Waterproofing materials	At both sides of the infill behind shutter material	Visqueen to be applied between concrete infill and shutter to protect the foamed concrete infill on buried sides	Yellow (but won't be visible)

4.3 MVL3/110 Parks

4.3.1 The proposal is for offline reconstruction of the bridge access to the Yorkshire Water Site. Specification details for the works are provided in Table 4-2.

4.3.2 Design for the structure are provided on planning drawing NR13 Planning Drawing - Parks (MVL3-110 and MVL4-1) - Elevations and Cross Sections.

Table 4-2 MVL3/100 Parks specifications

Item	Location	Proposal	Colour
External Parapet	Both sides of deck and on approach.	Precast concrete N2 parapet on deck. Smooth finish or brick-like imprint. Parapet or galvanised steel VRS on approach.	Grey
Internal Parapet	Both sides of deck and on approach.	Precast concrete N2 parapet on deck. Smooth finish or brick-like imprint. Parapet or galvanised steel VRS on approach.	Grey
Deck surface	-	Bituminous asphaltic material	Black
Exterior of abutment	Both ends	North Abutment: Precast permanent formwork L wall with in-situ concrete. South Abutment: Precast pad foundation.	Grey
Underside of deck	-	Soffit formed of precast, prestressed TY beams (75mm grasp in between). Smooth finish on flanges.	Grey
Rainwater Goods – Hopper	-	Downpipe may be required to drain the bearing shelf of the bridge. Any new hoppers to be of similar appearance to existing.	Black
Rainwater Goods – Downpipe	-	Downpipe may be required to drain the bearing shelf of the bridge. Any new hoppers to be of similar appearance to existing.	Black
Replacement utility services	Existing water main and two HV cables within ducts under footway/verge. Not visible.	HDPE ducting	-

4.4 MVL3/107 New Colne Bridge Road Bridge

4.4.1 Demolition of the bridge and an offline construction of a new bridge is proposed. The two central spans of the existing bridge will be demolished. The rest of the structure to the north and south of the track would be mostly retained, with the exception of the south-east wing wall which would be buried below the new highway alignment, and the eastern parapet walls which would be lowered in places to accommodate the new highway alignment.

4.4.2 Specification details for the works are provided in Table 4-3.

4.4.3 Details are provided on planning drawing NR13 Planning Drawing - Colne Bridge Road Overbridge - Existing and Proposed Elevation and NR13 Planning Drawing - Colne Bridge Road Overbridge - Existing and Proposed Elevation

Table 4-3 MVL3/107 New Colne Bridge Road Bridge specifications

Item	Location	Proposal	Colour
External parapet	Both sides of deck	Galvanised steel H4a VRS (Varley & Gulliver or similar)	Metallic grey
Internal parapet	Both sides of deck	Galvanised steel H4a VRS (Varley & Gulliver or similar)	Metallic grey
Deck surface	N/A	Bituminous asphaltic material	Black
Exterior of abutment	Both ends (exposed face of reconstructed walls atop abutments)	Clad in natural stone masonry slips	Sandstone as existing
Underside of deck [if applicable]	N/A	Concrete	Grey
Arch infilling (e.g. granular fill, foam concrete, masonry wall) [if applicable]	Northernmost and southernmost spans	Foamed concrete infill will not be visible and will be concealed by masonry façade/walling system.	N/A
Approach walls [if applicable]	Both approaches	Vehicle safety barriers N2 on approaches	Metallic grey
OLE [if applicable]	Soffit of structure will need bracketry	Galvanised steel OLE bracketry fixed to soffit of bridge.	Grey
Bedding mortar and Pointing mortar	Abutments and wingwalls	Lime mortar, NHL5, to match existing	To match existing
Rainwater Goods – Downpipe [if applicable]	Abutment/ wingwall interface	Downpipe may be required to drain the bearing shelf of the bridge if so High-density polyethylene (HDPE) downpipe to be used	Black
Security / lineside fencing [if applicable]	Along line of track corridor	1.8m height, form to match wider TRU Scheme	TBC
Replacement utility services [if applicable]	Soffit of bridge deck	A small number of larger utilities may need to be placed under the soffit in HDPE conduit	Black

4.5 MVN2/202 Calder Road

4.5.1 Proposal is for realignment of existing Calder Road Overbridge (MVN2/202) to the west of the existing structure. This is required to facilitate construction of the Flyover Intersection (RBA/1). Specification details for the works are provided in Table 4-4.

4.5.2 Design for the structure are provided on planning drawing NR13 Planning Drawing - Calder Road Bridge (MVN2-202) - Bridge Alignment- Elevation and NR13 Planning Drawing - Calder Road Bridge (MVN2-202) - Existing and Proposed Plan.

Table 4-4 MVN2/202 Calder Road specifications

Item	Location	Proposal	Colour
External parapet	Bridge, Wing Walls, Retaining Walls.	Brick faced (red brick) to match existing bridge parapets	Red brick
Deck surface	Bridge Deck	Tarmac	Back
Exterior of abutment	Bridge abutments	Concrete	Grey (uncoloured concrete)
Underside of deck	Bridge soffit	Concrete	Grey (uncoloured concrete)
Arch infilling (e.g. granular fill, foam concrete, masonry wall)	MDL1/2	Foamed concrete infill with brick facing	red brick
Approach walls	Bridge, Wing Walls, Retaining Walls.	Brick faced (red brick) to match existing bridge parapets	red brick
Handrail	Atop W23	GRP handrail system with solid infill	Grey
OLE	OLE structures	Galvanised	Grey
Bedding mortar and Pointing mortar	Bridge, Wing Walls, Retaining Walls.	cementitious mortar	Grey
Security / lineside fencing	SFC access road	Palisade fencing	Green
Waterproofing materials	Spray applied Stirling lloyd eliminator or SA applied to the buried deck surface.	Spray applied Stirling Lloyd eliminator or SA applied to the buried deck surface.	Black (buried)

4.6 MDL1/9 Fall Lane (Thornhill Road)

4.6.1 Proposal is for reconstruction of existing railway bridge. Specification details for the works are provided in Table 4-5.

4.6.2 Design for the structure are provided on planning drawing NR13 Planning Drawing - B6117 Fall Lane, Thornhill Road (MDL1-9) - Elevation (1) and NR13 Planning Drawing - B6117 Fall Lane, Thornhill Road (MDL1-9) - Plan

Table 4-5 MDL1/9 Fall Lane (Thornhill Road) specifications

Item	Location	Proposal	Colour
External parapet	Rail Bridge (half through structure)	Painted Steel	Hollybush Green
Internal parapet	Rail Bridge (half	Painted Steel	Hollybush

Item	Location	Proposal	Colour
	through structure)		Green
Deck surface	Rail Bridge	Concrete	Grey
Exterior of abutment	Both abutments	Concrete	grey
Underside of deck [if applicable]	soffit of rail bridge	Painted Steel	Hollybush Green
Approach walls [if applicable]	On approach to rail bridge	Concrete	Grey
Handrail [if applicable]	On rail bridge walking route	Painted Steel	Hollybush Green
OLE [if applicable]	OLE structures	Galvanised	Grey
Bedding mortar and Pointing mortar	Bridge, Wing Walls, Retaining Walls.	cementitious mortar	Grey
Waterproofing materials [if applicable]	On rail bridge deck	Loose lay membrane buried under ballast	Black (typically)

4.7 Ravensthorpe Railway Station

4.7.1 The existing railway station will be closed, and its existing platforms demolished. The existing Ravensthorpe Station Footbridge (MVL1/4) will also be demolished. A new station will be provided to the west of the realigned Calder Road. Specification details for the works are provided in Table 4-6.

4.7.2 Design for the structure are provided on planning drawing NR13 Planning Drawing - Ravensthorpe Station - Location Plan and NR13 Planning Drawing - Ravensthorpe Station - Proposed Footbridge Elevations

Table 4-6 MDL1/9 Fall Lane (Thornhill Road) specifications

Item	Location	Proposal	Colour
External parapet	Station footbridge	Steel parapets painted with polyurethane anti-graffiti paint	RAL 9005 Jet Black
Internal parapet	Station footbridge	Steel parapets painted with polyurethane anti-graffiti paint	RAL 9005 Jet Black
Deck surface	Station footbridge	Flexible resin screed with anti-slip aggregate applied to steel deck plate	Dark grey
Exterior of abutment	Station footbridge	Tubular steel piers, painted with polyurethane anti-graffiti paint	N/A
Underside of deck	Station footbridge	Steel deck plate painted with polyurethane anti-graffiti paint	RAL 9005 Jet Black
Approach walls	Station forecourt	Concrete walls faced with engineering brick Oversized precast concrete steeple copers (for walls adjacent to rail corridor) Once weathered precast concrete coping stones (for all other walls)	Blue engineering brick Grey concrete coping stones
Handrail	Station footbridge	Tubular steel handrail with painted finish	RAL 7047 Telegrey 4
OLE	Across	Steel portal structures with	Galvanized steel

Item	Location	Proposal	Colour
	station platform	castellated booms and back to back double channel masts	finish
Bedding mortar and Pointing mortar	Station forecourt approach walls	Cement based mortar	Grey
Anti-trespass measures	Station platforms	Proprietary rubber anti-trespass panels at platform ends	Black
Rainwater Goods – Hopper	Station footbridge	Aluminium, square profile, powder coat finish	RAL 9005 Jet Black
Rainwater Goods – Downpipe	Station footbridge	Aluminium, square profile, powder coat finish	RAL 9005 Jet Black
Rail systems cabinets	Station forecourt	DNO supply equipment in GRP enclosure	RAL 6005 Moss Green
Security / lineside fencing	Station forecourt	Vertical pale timber fencing, comprising galvanized steel fence posts (fixed to top of wall) with treated softwood timber rails and pales	Pressure treated softwood timber with UV protection oil based coating, colour mahogany
Platform	Station platforms	Precast concrete front wall	Grey
Platform surface	Station platforms	Bituminous pavement with tactile paving and precast concrete copers	Black bituminous pavement Buff tactiles Grey copers
Platform furniture	Station platforms Station forecourt	Benches - stainless steel Waiting shelters - stainless steel with polycarbonate glazing Lighting/CCTV columns etc. - steel	Benches - stainless steel Waiting shelters - stainless steel with polycarbonate glazing Lighting/CCTV columns etc. - RAL 9017 Traffic Black with RAL 1003 Signal Yellow contrasting visibility bands
Lifts	Station footbridge	Reconstituted stone cladding to lift shafts	Bradstone traditional walling, colour buff
Station forecourt surface	Station forecourt	Vehicle areas: bituminous pavement Pedestrian areas, main paths: block paving Pedestrian areas, other paths: block paving	Vehicle areas: asphalt concrete, black Pedestrian areas, main paths: Marshall Conservation Block, Riven texture, Cream colour Pedestrian areas, other paths: Marshall Conservation Block, Riven texture, Grey

Item	Location	Proposal	Colour
			colour
Station forecourt kerb	Station forecourt	Bullnose kerbs to perimeter of vehicle area Channel kerbs to public highway boundary	Precast concrete, grey
Principal Station Signage	Station forecourt (at entrance from public highway)	Steel tubular post with aluminium panel rectangular signage panel featuring West Yorkshire Metro logo, text: "Ravensthorpe", and Network Rail double arrow logo	Post: RAL9005 Jet Black Sign background: White Sign text: Black Logo colours: Red and white

4.8 Mirfield Station Lifts & Footbridge

4.8.1 The proposal is to provide step free access to the station. Specification details for the works are provided in Table 4-7.

4.8.2 Design for the structure are provided on planning drawing NR13 Planning Drawing - Mirfield Station - Footbridge - Proposed Elevations and NR13 Planning Drawing - Mirfield Station - Footbridge - Proposed GA Plan and Elevation

Table 4-7 Mirfield Station Lifts and Footbridge specifications

Item	Location	Proposal	Colour
External parapet	Station footbridge	Steel parapets painted with polyurethane anti-graffiti paint	RAL 9005 Jet Black
Internal parapet	Station footbridge	Steel parapets painted with polyurethane anti-graffiti paint	RAL 9005 Jet Black
Deck surface	Station footbridge	Flexible resin screed with anti-slip aggregate applied to steel deck plate	Dark grey
Exterior of abutment	Station footbridge	Tubular steel piers, painted with polyurethane anti-graffiti paint	N/A
Underside of deck	Station footbridge	Steel deck plate painted with polyurethane anti-graffiti paint	RAL 9005 Jet Black
Approach walls	Station Road Entrance	Limestone walling in random rubble brought to course	Blue/grey limestone
Handrail	Station footbridge	Tubular steel handrail with painted finish	RAL 7047 Telegrey 4
Rainwater Goods – Hopper	Station footbridge	Aluminium, square profile, powder coat finish	RAL 9005 Jet Black
Back of platform fencing	Opening in platform above Station Road entrance	Expanded mesh steel panels supported on steel post and rail frames	Anodized steel finish mesh panels RAL9005 Jet Black powder coated finish posts and rails
Platform	Station platforms	Precast concrete front wall	Grey
Platform surface	Station	Bituminous pavement with	Black bituminous

Item	Location	Proposal	Colour
	platforms	tactile paving and precast concrete copers	pavement Buff tactiles Grey copers
Lifts	Lift shafts	Reconstituted stone cladding to lift shafts	Bradstone traditional walling, colour buff

4.9 Baker Viaduct (Ravensthorpe)

4.9.1 The proposal is for construction of a new viaduct structure which the new 4 track railway will cross. Specification details for the works are provided in Table 4-8.

4.9.2 Design for the structure are provided on planning drawing NR13 Planning Drawing - Baker Viaduct Plan, NR13 Planning Drawing - Baker Viaduct Elevations Sections (1 of 2) and NR13 Planning Drawing - Baker Viaduct Detailed Elevation (2 of 2).

Table 4-8 Baker Viaduct (Ravensthorpe) specifications

Item	Location	Proposal	Colour
External parapet	Edges of Viaduct	Painted Steel	Black
Deck surface	-	Ballast	N/A
Exterior of abutment	East and West Abutment	West: Reinforced concrete with grooves East Under Structure: Reinforced Concrete with grooves Sides: Stone effect blockwork finish	West: Grey East Under Structure: Grey Sides: Buff
Soffit of arch [if applicable]	-	-	N/A
Underside of deck [if applicable]	-	Reinforced Concrete	Grey
OLE [if applicable]	Multiple Pier Locations	Galvanised Steel	Grey
Girder Steelwork	-	Weathering Steel	Brown
Viaduct Piers	-	Reinforced Concrete with grooves	Grey

4.10 Weaving Lane Retaining Wall

4.10.1 A Reinforced earth wall is to be constructed between the railway and the Weaving Lane Household Waste Recycling Centre (HWRC). Specification details for the works are provided in Table 4-9.

4.10.2 Design of the structure is provided in NR13 Planning Drawing - Weaving Lane Retaining Structure Cross Sections and NR13 Planning Drawing - Weaving Lane Retaining Structure Proposed Elevation.

Table 4-9 Weaving Lane Retaining Wall specifications

Item	Location	Proposal	Colour
External Parapet	Edges of the retaining wall	Painted Steel	Black
Exterior of abutment	Retaining wall facing	Stone effect blockwork finish	Sides: Buff
Underside of deck	Robust Kerbs	Reinforced Concrete	Grey

Item	Location	Proposal	Colour
[if applicable]	on top of wall		
OLE [if applicable]	Multiple Locations	Galvanised Steel	Grey

4.11 Station staircase access to be closed at Mirfield Station

4.11.1 The proposal is to provide step free access to the station. Specification details for the works are provided in Table 4-7.

4.11.2 The following works are proposed in relation to infill of the existing access.

Table 4-10 Mirfield Station Existing Access Infill

Item	Location	Proposal	Colour
Existing Access - Infill	Station Road Entrance	Stone masonry wall to match existing masonry of bridge abutment walls	Buff weathered stone

4.12 Principal station signage at Mirfield and Ravensthorpe stations

4.12.1 Planning drawings were submitted as part of the Deemed Planning Permission application (as part of the TWAO). Links are provided as follows:

- Mirfield Station - NR 13 Planning Drawing - Mirfield Station - Totem Drawing
- Ravensthorpe Station - NR13 Planning Drawing - Ravensthorpe Station - Totem Drawing

4.12.2 No changes are proposed to these plans/details and therefore no further details are provided as part of this Discharge of Condition submission.

Appendices

APPENDIX A – LOCATIONS OF STAGE 6 W3B WORKS

Network Rail
Waterloo General Office
London
SE1 8SW

www.networkrail.co.uk