

A66 Northern Trans-Pennine Project

TR010062

8.3 Environmental Statement Addendum – Volume 3

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Volume 8

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A66 Northern Trans-Pennine Project
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**8.3 ENVIRONMENTAL STATEMENT ADDENDUM –
VOLUME 3**

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CONTENTS

1	Introduction	1
2	Updated Project description (scheme-by-scheme)	1
	M6 Junction 40 Penrith.....	2
	Description of Changes	5
	Penrith to Temple Sowerby	5
	Description of Changes	7
	Temple Sowerby to Appleby.....	8
	Description of Changes	13
	Appleby to Brough.....	13
	Description of Changes	17
	Bowes Bypass.....	18
	Description of Changes	19
	Cross Lanes to Rokeby	20
	Stephen Bank to Carkin Moor	22
	Description of Changes	25
	A1(M) Junction 53 Scotch Corner	25

1 Introduction

- 1.1.1 The purpose of this Volume III to the Environmental Statement (ES) Addendum is to provide an updated set of project descriptions, including a narrative, summary of exceptions to standard Limits of Deviation and an overview of the accepted changes for each scheme.
- 1.1.2 This document should be read in conjunction with Environmental Statement Addendum Volume I [Document Reference 8.3, Rev 2] and Volume 2 [Document Reference 8.3, Rev 2].

2 Updated Project description (scheme-by-scheme)

- 2.1.1 The Project comprises eight schemes to improve the A66 between M6 J40 at Penrith and A1(M) J53 at Scotch Corner. The Project would involve improving the junctions on the M6 and A1 as well as improving six separate single carriageway lengths of road to dual carriageway standard and making improvements to the junctions within each of those lengths. The nature of the planned improvements includes online widening (adjacent to the existing road) of the carriageway as well as offline construction (new lengths of road following different routes but reconnecting into existing lengths of the A66 that are already dualled).
- 2.1.2 The eight schemes are identified as follows:
- Scheme 0102 – M6 Junction 40 to Kemplay Bank
 - Scheme 03 - Penrith to Temple Sowerby
 - Scheme 0405 - Temple Sowerby to Appleby
 - Scheme 06 - Appleby to Brough
 - Scheme 07 - Bowes Bypass
 - Scheme 08 – Cross Lanes to Rokeby
 - Scheme 09 - Stephen Bank to Carkin Moor
 - Scheme 11 - A1(M) Junction 53 Scotch Corner
 - There is no Scheme 10.
- 2.1.3 A description of each scheme is presented below. These descriptions update those presented in Chapter 2 of the Environmental Statement [Document Reference 3.2, APP-045], The update is necessary as a consequence of the 22 project changes accepted into the Examination by the Examining Authority by way of a Procedural Decision dated 18 April 2023 [PD-014] (“the accepted changes”).
- 2.1.4 The scheme descriptions also include a summary of the updated Limits of Deviation (‘LoDs’) that are applicable to each scheme as a result of the accepted changes. Standard LoDs, and exceptions to those standard LoDs, are provided for in article 7 of the draft Development Consent Order (‘dDCO’) [Document Reference 5.1, REP5-012] (a revised version is also submitted at Deadline 7 alongside this ES Addendum) and are also set out in Chapter 2 of the Environmental Statement [Document Reference 3.2, APP-045] in Table 2-2, in the format shown below. The standard LoDs for the Project remain as

provided for in article 7 (Limits of deviation) of the dDCO. These ‘standard’ LoDs are also presented in Table 1 below.

- 2.1.5 In consequence of the accepted changes, there are various numbered works to which the standard LoDs no longer apply; instead, ‘bespoke’, non-standard LoDs are required to facilitate or to enable the proper management of certain numbered works. Where this is the case, this document explains what the exception (to the standard LoDs) entails, and why it is necessary.

Table 1 Standard Limits of Deviation across the Project

Upwards vertical LoD	Downwards vertical LoD	Lateral LoD for linear works	Linear work commencement / termination points
Levels may deviate by up to 1 metre (from the levels shown on the engineering section drawings)	Levels may deviate by up to 1 metre	Centreline of linear work (as shown on the works plans) may deviate by up to 3 metres in either direction from the location of the centreline shown on the works plans	Points of commencement / termination (as shown on the works plans) may deviate by up to 3 metres in either direction

- 2.1.6 There are some exceptions to the standard LoDs on schemes 0102, 03, 0405, 06, 07, 08 and 09. Standard LoDs only are utilised on S11. Those exceptions, and the reasons why non-standard LoDs are required, are set out in the tables below for each scheme description. The tables present all exceptions from standard LoDs inclusive of any amendments that have been made as a result of the accepted changes. For further detail on the reasons for each accepted change refer to the Deadline 7 submission titled: Departures from Standard Limits of Deviation [Document Reference 7.42].

- 2.1.7 A description of the accepted changes that relate to each scheme is provided at the end of each scheme description. For further background on the accepted changes refer to the Change Application (Document Reference 8.1; CR1-002) submitted to the Examining Authority by the Applicant on 24 March 2023 [CR1-002].

Scheme 0102 – M6 Junction 40 Penrith

- 2.1.8 The M6 Junction 40 to Kemplay Bank scheme would provide a three-lane circulatory carriageway with spiral markings, within the footprint of the current roundabout at M6 Junction 40. The A66 eastern arm of the roundabout would be widened to three lanes in each direction between M6 Junction 40 and Kemplay Bank Roundabout to increase capacity for local movements around Penrith. Widening would be required on the following five approach arms to M6 Junction 40 to provide additional lanes and a dedicated left turn facility, each controlled under its own signal phase: M6 North, M6 South, A66 East, A66 West, and A592 Ullswater Road.
- 2.1.9 It is proposed that the speed limit on the A66 western arm approaching M6 Junction 40 (from the existing railway overbridge to the west) would be reduced from the National Speed Limit to 50mph in both directions.
- 2.1.10 All existing local accesses would be accommodated and it is proposed to relocate the existing access to Skirsgill Depot by approximately 95m to the east of its existing access. This scheme would also include signal controlled

crossings serving the existing shared cycle/footway connection on the western side.

- 2.1.11 All existing pedestrian and cycle connections would be retained on the Penrith South Bridge western side alongside Skirsgill Business Park. This would also be the case for the Skirsgill North-West pedestrian and cycle connections. The existing cycle/pedestrian route to Skirsgill Depot would be directed through a signal controlled crossing at the roundabout, to provide a safer replacement for the existing uncontrolled crossing of the A66 Eastern Arm. This would be an improvement to the walking and cycling safety of this route.
- 2.1.12 The existing police platform located on the Penrith North Bridge to the eastern side, between the M6 off slip and A592, is to be retained in its current location. The existing police platform on the Penrith South Bridge western side would be relocated further into the widened verge to allow for the new dedicated left-hand lane from the M6 off slip.
- 2.1.13 Further to the east, at Kemplay Bank Roundabout, the scheme would pass beneath the existing roundabout via two underpass structures that would carry the circulatory carriageway. This would comprise a new dual carriageway under Kemplay Bank Roundabout allowing free-flowing east-west traffic, reducing congestion and improving access to Penrith and the A6.
- 2.1.14 This scheme would include new on-slip and off-slip roads with the A6 and A686 allowing users to safely join and leave the A66 in both directions, serving the local road network with links to Penrith, Eamont Bridge and other local settlements. Minor realignment of the A6 and A686 arms would be required to accommodate the new slip roads serving the local road network.
- 2.1.15 It is proposed that the speed limit between M6 Junction 40 and Kemplay Bank would be reduced from the National Speed Limit to 50mph in both directions (approximately 2.3km). This allows for the retention and extension of an existing underpass from Carleton Avenue which provides access to the Police and Fire site to the south of the existing A66. As this is a critical access requirement, retaining it has avoided the need to construct a replacement underpass or overbridge to maintain access (therefore reducing construction impacts and reducing embodied carbon). This existing underpass would be extended to accommodate the widening of the A66. The reduced speed limit is considered acceptable for this section of the route due to the proximity to key junctions with the A6, A686 and M6 and associated safety considerations.
- 2.1.16 A police observation point would be included on the Kemplay Bank overbridges for speed enforcement purposes.
- 2.1.17 Signalisation of the Kemplay Bank Roundabout would be retained to facilitate safe crossing at all five arms. Cycleways and footways currently located through the centre of the roundabout would be re-routed around the roundabout. The existing emergency exit from the fire station linked with the existing traffic signals would be maintained throughout construction and would remain in place once the works are complete.
- 2.1.18 A replacement layby would be provided on the eastbound carriageway between the M6 Junction 40 and Kemplay Bank Roundabout. The existing layby on the westbound carriageway between Kemplay Bank Roundabout and M6 Junction

- 40 would be removed and would not be replaced due to the proximity of adjacent junctions.
- 2.1.19 Replacement land would be provided to compensate the local community for land take from public open space alongside Wetheriggs Park, as a result of widening the existing A66 to the north.
- 2.1.20 The scheme would include lighting provision, extending and in some locations replacing the current provision.
- 2.1.21 Three ponds would be required for this scheme for the purpose of drainage of the road network and to manage water quality before the water is discharged into the surrounding watercourses. The western-most of these ponds is proposed to be located to the south of the existing A66 to the east of the West Coast Mainline, the second is proposed to be located to the south of the A66 in the open fields between the M6 and the A6, and the eastern-most pond is situated to the south of the A66 to the east of the Fire, Police and Ambulance site. Access tracks would be constructed to allow vehicular access to facilitate the maintenance of these ponds. The locations of these ponds have been selected to ensure effective drainage, minimise impacts on future proposed development in the area, and minimise environmental impacts.
- 2.1.22 Utility works would be required for gas, electricity, water and communications providers services throughout the length of the scheme.
- 2.1.23 No demolition of property is required as part of this scheme. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the upgrading of the existing A66.
- 2.1.24 Table 2 below sets out the LoDs which, as exceptions to the standard LoDs (in Table 1 above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 2 Exceptions to standard LoDs on M6 Junction 40 Penrith

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
0102-1D	3m	3m	Centreline of linear work (shown on sheet 2 of the works plans) may deviate by up to 10 metres northwards, and by 10 metres southwards	To allow development of detailed design of proposed mainline and junction orientation to improve buildability, reduce the traffic management phases and shorten the overall construction period at Kemplay Bank.
0102-7A	2m	2m	Standard	New Work No. introduced to separate the A6 north of Kemplay Bank. Increase in vertical LoDs, upwards and downwards, in order to provide greater flexibility to tie-in to the reorientated roundabout.
0102-7B	2m	2m	To the extent of the corresponding fine dashed green line shown on the works plans	
0102-7C	2m	2m	Standard	

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/ horizontal LoDs	Reason
0102-8	2m	2m	To the extent of the corresponding fine dashed green line shown on the works plans northwards Standard LoDs to the south	

Description of Changes

- 2.1.25 There are 2 accepted changes associated with Scheme 0102 and these are described below:
- 2.1.26 DC-01 - The change reduces the speed limit from 70mph to 50mph on both the eastbound and westbound carriageways of the A66, between the railway bridge and Junction 40.
- 2.1.27 DC-03 – Amendments to the Limits of Deviation to allow the orientation of the roundabout to be amended to improve buildability, reduce the traffic management phases and shorten the overall construction period at Kemplay Bank.

Scheme 03 – Penrith to Temple Sowerby

- 2.1.28 The Penrith to Temple Sowerby scheme would provide full dualling of the existing 5.2km length of single carriageway A66 between Penrith and Temple Sowerby. The scheme would predominantly involve online widening using the existing carriageway to form the westbound half of the dual carriageway. The second carriageway would be constructed to the north of the existing carriageway to form the new eastbound carriageway.
- 2.1.29 A new grade-separated junction would be constructed to replace the existing junction to Center Parcs to connect the local road network and Center Parcs with the new alignment of the A66. The local road access (from Center Parcs) which forms part of the junction, would cross over the A66 mainline via an overbridge. The northern side of this junction would have shallower graded cutting slopes in order to integrate the junction more appropriately into the surrounding landscape. The extent of this grading would allow the land to be returned to agriculture following construction. The junction would cater for all movements on and off the A66, making it easier and safer for users to join the A66 and preventing tail backs at peak times.
- 2.1.30 New left-in/left-out junctions would be provided to the B6262 (westbound) and to St Ninian’s Church (eastbound) on the Winderwath Estate, with associated merge and diverge lanes to enable safe access to homes and businesses. Improved parking provision would be provided for access to St Ninian’s Church to enhance accessibility to this heritage asset.
- 2.1.31 The existing access on the A66 mainline serving Whinfall Holme Wastewater Treatment Works would be closed and the access would be replaced and re-routed via the existing B6262 and then via the new adjacent accommodation overbridge. This will minimise the need for widening over the existing Shell Oil high pressure gas pipeline which crosses the A66 in a north-south direction.

- 2.1.32 Works to widen the carriageway would reduce the current parking provision at the National Highways A66 Information Hub (formerly the Llama Karma Kafe). It is proposed that this area be converted to an amenity parking area with a new footpath providing access to the Countess Pillar historic monument to the east of this site, to provide an enhancement and accessibility for the public to an important heritage feature along the route. Landscape and biodiversity mitigation planting would take the Countess Pillar and its prominence along the A66 route into consideration to ensure it continues to be a known feature.
- 2.1.33 The scheme removes existing at-grade crossing points of the A66. An overpass and one underpass have been included to facilitate the safe crossing of the A66. The overbridge, which would serve as an agricultural access and as a Public Right of Way, is proposed to be situated approximately 260m to the east of the existing junction with the B6262, and the underpass is proposed to be situated approximately 180m to the east of the existing entrance to Whinfell Park.
- 2.1.34 An east/west walking and cycling link, , and access for pond maintenance which also serves as a local access route for landowners along the length of this scheme (predominantly on the north side of the A66), connecting Penrith with Temple Sowerby, would be provided. All other pedestrian, cyclist and horse-rider facilities that would be severed by the scheme are to be reconnected via grade-separated crossings.
- 2.1.35 New layby facilities would be provided on the proposed A66 mainline in both eastbound and westbound directions to replace existing provision which would be lost due to the implementation of the scheme. Observation platforms will be included in the eastbound layby at chainage 22400 and in the westbound layby.
- 2.1.36 No lighting would be provided on the length of the scheme.
- 2.1.37 Seven ponds are proposed at low points in the scheme to attenuate drainage and run-off from the road in order to manage the water quality before it is discharged into the surrounding watercourses. Shared and dedicated access tracks would be provided to the north and to the south of the road to facilitate access to ponds for maintenance purposes and to accommodate landowner movements.
- 2.1.38 Utility works would be required for gas, electricity, water and communications providers' services throughout the length of the scheme.
- 2.1.39 The existing farm buildings at High Barn are proposed to be demolished to accommodate the offline section of the A66 to the east of the new grade-separated junction. The proposals also include the demolition of the Lightwater Cottages to the south of the A66 to facilitate and accommodate a replacement left-in/left-out access to the Winderwarth Estate. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the existing A66 and other local roads.
- 2.1.40 Table 3 below sets out the LoDs which, as exceptions to the standard LoDs (in Table 1 above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 3 Exceptions to standard LoDs on Penrith to Temple Sowerby

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
03-1AA	1.5m	0m	Standard	To provide additional cover to minimise risk of damage to Shell ethylene pipeline and to facilitate construction of protection slab. To protect and minimise impact on potential archaeology associated with Brougham Roman Camp (as agreed with Historic England).
03-6	To any extent the undertaker considers to be necessary	To any extent the undertaker considers to be necessary	Northwards, to the outer extent of the earthworks on the south side of Work No. 03-1B (being the A66 mainline). Standard LoDs to the south.	To provide greater flexibility to enable the PROWs to move to the other side of the ponds (where possible) to suit landowner specific needs and address any construction issues arising from changes to drainage and/or pond locations.
03-7B	To any extent the undertaker considers to be necessary	To any extent the undertaker considers to be necessary	To the extent of the Order limits on the north side. On the south side, to the outer extent of the earthworks on the north side of Work No 03-1B (being the A66 mainline).	
03-8	To any extent the undertaker considers to be necessary	To any extent the undertaker considers to be necessary	To the extent of the Order limits on the north side. On the south side, to the outer extent of the earthworks on the north side of Work No 03-1B (being the A66 mainline).	

2.1.41 Also, for **Work Nos. 03-1A and 03-1B**, the standard upwards and downwards vertical limits will apply except where their application would preclude the undertaker from retaining the existing levels of the A66 carriageway along the lengths of those numbered works.

Description of Changes

2.1.42 There are 5 accepted changes associated with Scheme 03 and these are described below:

- DC-04 – introduction of greater flexibility in the DCO to enable the east/west walking and cycle link to be separated from private means of access (where such separation is considered necessary and appropriate) via increased limits of deviation (LoDs). This enables two separate routes (one for public rights of way and one for private means of access) to be developed.
- DC-05 - The change moves the access to the sewage treatment works and to a nearby private residence to the westbound carriageway via the B6262 and a length of private access track, shared with a cycle track that extends northwards, crossing the A66 on the Brougham accommodation bridge before connecting to the original track.
- DC-06 – increase in the Standard LoDs over the Shell pipeline to allow the cover over the pipeline between approximately Ch 20400m to 20800m to meet the asset owner’s requirements with respect to protection of the pipeline.
- DC-08 - The change inverts the junction at Center Parcs so that the mainline of the A66 would more closely follow the vertical alignment of the existing road rather than being elevated on an eight-metre high embankment
- DC-09 - the change allows an increase in the vertical LoDs to allow the design of the road to rise and fall to a greater extent. Extending the Limits of Deviation in this way will provide greater flexibility to enable the Applicant to utilise more of the existing A66 to provide the westbound carriageway of the new A66 dual carriageway.

Scheme 0405 – Temple Sowerby to Appleby

2.1.43 The Temple Sowerby to Appleby scheme would comprise a new offline bypass around the north of Kirkby Thore, and then pass to the north of Crackenthorpe parallel to the old Roman road before tying into the existing Appleby Bypass. This route would include a number of new junctions and improvements throughout its length to connect the scheme to the existing road network. The existing 8.5km A66 would be de-trunked.

2.1.44 The new A66 diverts from the existing A66 in a north-easterly direction from the end of Temple Sowerby Bypass, crossing over Priest Lane and under Station Road before turning south after passing north of the village. Continuing in a southerly direction, the route would pass under Fell Lane where a new grade separated junction would be provided. Main Street would be stopped up just to the south of the new route with a new link from Main Street to Fell Lane to the north of the route to reconnect the village.

2.1.45 The scheme then continues under the realigned Sleastonhow Lane where a new overbridge would be provided. The realignment of Sleastonhow Lane avoids the veteran and ancient trees. The new A66 would then cross the SAC and SSSI designated Trout Beck and its associated floodplain on a new multi-span viaduct before heading in a south-easterly direction towards Crackenthorpe.

- 2.1.46 A false cutting would be created on the south side of the new A66, around the north of Kirkby Thore. The false cutting, formed by creating an embankment above existing ground levels, would increase the depth of cutting to visually screen the road and to reduce noise impacts to the village of Kirkby Thore. These embankments would be graded out on the village side to allow them to fit better into the surrounding landscape and to enable the land on which they are constructed to be returned to agricultural use following construction.
- 2.1.47 A new compact grade-separated junction is proposed to be provided at Long Marton. In order to facilitate this junction, the route of Long Marton Road would require some realignment. This realignment would move the road away from the Roman Camp, 350m to the east of Redlands Bank Scheduled Monument. This route would provide full access to the new A66 and maintain the existing link between the communities of Bolton and Long Marton. East of Long Marton the route would run in a south-easterly direction and has been designed to follow the line of the Roman Road towards Appleby. The scheme would connect to the existing A66 Appleby Bypass at the eastern end of the scheme.
- 2.1.48 The existing eastbound diverge slip road linking to the B6542 close to the Appleby Fair field would be maintained to allow access into Appleby. The existing westbound merge slip road at this location would be changed to a two-way road to allow traffic from Appleby to access the de-trunked (old) A66 and head west to the new Long Marton junction and beyond.
- 2.1.49 In order to improve local connectivity at the western end of the scheme, the existing junction at the eastern end of the Temple Sowerby bypass would be improved. The improved junction would provide connections between the existing A66 and the local road network. A short section of road would connect from Temple Sowerby Bypass junction to the existing A66, allowing access for local traffic and other road users from Temple Sowerby to Crackenthorpe and to wider settlements.
- 2.1.50 A new grade-separated junction would be provided at Fell Lane to the north of Kirkby Thore. Fell Lane would pass over the proposed A66 alignment on a bridge structure. This junction would maintain the key local connection onto the A66 at Kirkby Thore and also provide access for communities to the north as well as the British Gypsum site. This would contribute to a reduction in the number of Heavy Goods Vehicles (HGV) movements through Kirkby Thore. New merge and diverge lanes would be incorporated as part of this junction to enable users to safely join and leave the A66 in both directions. A connector road, on the northern side of the new A66, would also be constructed which would provide a link from the new junction to Main Street. The property Whinthorn House, and potentially an agricultural barn, would need to be demolished to accommodate the route at this location (although implementation, at the detailed design stage, of the LoDs associated with the accepted change, would avoid this).
- 2.1.51 Accommodation works would be undertaken to ensure that access to properties is suitably maintained. The existing underpass would be widened and undergo redesign to maintain access for Spittals Farm. A new accommodation overbridge would be used to carry an existing bridleway over the new A66 at its north-westernmost extent and to maintain access for Crossfell House Farm. To

the eastern extent of the route, a new accommodation overbridge would maintain access over the new A66 for Rogerhead Farm.

- 2.1.52 New layby facilities would be provided on the proposed A66 mainline in both eastbound and westbound directions to replace existing provision which would be lost due to the implementation of the scheme.
- 2.1.53 No lighting would be provided on the length of the scheme.
- 2.1.54 15 ponds are proposed at low points in the scheme to attenuate drainage and run-off from the road in order to manage the water quality before it is discharged into the surrounding watercourses. Shared and dedicated access tracks are proposed to be provided to the north and to the south of the road to facilitate access to ponds for maintenance purposes and to accommodate landowner movements.
- 2.1.55 Utility works would be required for gas, electricity, water and communications services throughout the length of the scheme.
- 2.1.56 An east to west walking and cycle route is proposed to be provided along the length of the de-trunked existing A66, utilising the verge and adjacent land where necessary, providing connectivity for users between Temple Sowerby and Appleby. All other pedestrian, cyclist and horse-rider facilities that would be severed by the scheme are to be reconnected via grade-separated crossings.
- 2.1.57 Two residential properties (Winthorn and Dunelm) and up to two barns located opposite (but not associated with) Spittals Farm and on the north-eastern side of Main Street would require demolition (although implementation, at the detailed design stage, of the LoDs associated with the accepted change, would avoid one of the barns). The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the existing A66 and other local roads.
- 2.1.58 Table 4 below sets out the LoDs which, as exceptions to the standard LoDs (above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 4 Exceptions to standard LoDs Temple Sowerby to Appleby

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
0405-1A	3m	3m	Standard	To minimise environmental impact and cross-fall on bridge whilst enabling cut and fill balance to be achieved.
0405-2A	3m	3m	Standard	
0405-4B	Standard	Standard	To the extent of the Order limits (on either side of the centreline) (Sheets 1, 2 and 4 of 7)	To ensure that new cycle track is delivered on the alignment of and within the boundaries of the de-trunked A66.

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
0405-19	Standard	Standard	To the extent of the Order limits (on either side of the centreline) (Sheets 5, 6 and 7 of 7)	To ensure that new cycle track is delivered on the alignment of and within the boundaries of the de-trunked A66.
0405-5	Standard	2m	Standard	To increase / ensure sufficiency of headroom in underpass.
0405-6B	2 metres	To any extent the undertaker considers to be necessary	Standard	Increased flexibility in the vertical LoDs to allow the design of Priest Lane to rise and fall to tie-in to the realigned Cross Street. Previously this work number was part of Work No. 0406-6.
0405-6C	2 metres	To any extent the undertaker considers to be necessary to tie into Work No. 0405-7	On the north side, to the extent of the corresponding fine dashed green line shown on the works plans (Sheet 2 of 7). Standard LoDs on the south side	Increased flexibility in the vertical LoDs to enable the design of Priest Lane to rise or fall to tie-in to the realigned Cross Street. Increased horizontal flexibility to enable Priest Lane to tie-in to the realigned Cross Street. Previously this work number was part of Work No. 0406-6.
0405-7	Standard	To any extent the undertaker considers to be necessary	Westwards to the extent of the corresponding fine dashed green line shown on the works plans (Sheet 2 of 7). Standard LoDs to the east side	Increased flexibility in the vertical LoDs to enable the design of Cross Street to tie-in sooner to the existing road. Increased horizontal flexibility to enable the design of Cross Street to tie-in sooner to the existing road.
0405-8	To any extent the undertaker considers to be necessary to tie in with Work No. 0405-7	To any extent the undertaker considers to be necessary to tie in with Work No. 0405-7	Standard LoDs to the north side Southwards to the extent of the corresponding fine dashed green line shown on the works plans (Sheet 2 of 7).	Increased flexibility in the vertical LoDs to enable the design of the access track/PRoW to rise and fall to tie-in to the realigned Cross Street. Increased horizontal flexibility to enable the access track/PRoW to move further south and minimise land take.
0405-12A	Standard	To any extent the undertaker considers to be necessary to use existing ground levels	Standard	Increased flexibility in the vertical LoDs to allow the design of Main Street to follow the existing ground levels more closely and tie-in to Fell Lane.

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
				Previously this work number was part of Work No. 0406-12.
0405-12B	Standard	To any extent the undertaker considers to be necessary to use existing ground levels	Standard LoDs to the north side Southwards to the extent of the corresponding fine dashed green line shown on the works plans (Sheet 3 of 7).	<p>Increased flexibility in the vertical LoDs to allow the design of Main Street to follow the existing ground levels more closely and tie-in to the existing Main Street.</p> <p>Increased horizontal flexibility to enable the design of Main Street to reduce the impact on agricultural buildings and minimise land take.</p> <p>Previously this work number was part of Work No. 0406-12.</p>
0405-13	3 metres	To any extent the undertaker considers to be necessary to use existing ground levels	To the extent of the corresponding fine dashed green line shown on the works (Sheet 3 & 4 of 7) or, where there is no fine dashed green line, 3 metres.	<p>Increased vertical flexibility to enable the design of Sleastonhow Lane to tie-in sooner to the existing road. The increase in the Upwards vertical LoD is to allow the high point in the alignment to move and is relative to the alignment shown on Engineering Section Drawings (Plan & Profiles) (Sheet 21 of 24).</p> <p>Increased horizontal flexibility to change the alignment of Sleastonhow Lane so that it is more in keeping with the local rural road network and to enable a squarer bridge crossing of the A66 mainline while minimising impact on veteran trees.</p>
0405-20B	Standard	To any extent the undertaker considers to be necessary to pass beneath Work Nos. 0405-1B and 0405-2B	Westwards lateral LoD shown by fine green dashed line on Works Plans (Sheet 6 of 7) Standard LoDs eastwards	<p>Increased vertical flexibility to lower the underpass as required to facilitate the horizontal alignment changes and provide suitable clearance below the mainline.</p> <p>Increased horizontal flexibility to realign the underpass near perpendicular to the mainline.</p> <p>Previously this work number was part of Work No. 0406-20.</p>
0405-20C	Standard	To any extent the undertaker considers to be necessary to tie in with Work No. 0405-20B	Standard	<p>Increased vertical flexibility to tie the realigned underpass into existing bridleway 341/001.</p> <p>Previously this work number was part of Work No. 0406-20.</p>

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
0405-18	Standard	0m	To the extent of the Order limits (on either side of the centreline) (Sheet 5 of 7)	To protect potential archaeology associated with Roman Camp Scheduled Monument (as agreed with Historic England)

Description of Changes

- 2.1.59 There are 4 accepted changes associated with Scheme 0405 and these are described below:
- 2.1.60 DC-11 – To the north-west of Kirkby Thore, the change provides greater flexibility in the LoDs to allow for changes to the re-alignment of Cross Street so that it is more in keeping with the local rural road network. This change also allows the realigned length of Cross Street to tie in with its existing alignment at a point up to 195m closer to the new A66 and will reduce the height of the structure above existing ground, while keeping the same road width of 3.5m (with passing places) as proposed in the previous DCO design.
- 2.1.61 DC-13 – To the north-east of Kirkby Thore, the change provides greater flexibility in the LoDs to allow for changes to the alignment of the diverted Main Street to reduce the impact on local business and make it more in keeping with the local rural road network. To ensure the change is safe for all road users, a reduction in the speed limit to 30mph is required for the full length of the diverted Main Street north of the dual carriageway and also a short section of Fell Lane.
- 2.1.62 DC-14 – The change provides greater flexibility in the LoDs to allow for changes to the alignment of Sleastonhow Lane so that it is more in keeping with the local rural road network.
- 2.1.63 DC-15 – A change to the LoDs associated with the underpass and the footpath, would enable them to be aligned at a near right angle to the proposed dual carriageway, shortening the underpass and footpath.

Scheme 06 – Appleby to Brough

- 2.1.64 The Appleby to Brough scheme comprises dualling an 8.3km length of single carriageway between Coupland Beck and Brough. A number of junction improvements are proposed to enable access on and off the A66 to improve user safety and reduce congestion.
- 2.1.65 The western extent of the scheme comprises 2.6km of online widening with a new eastbound carriageway to the north of the existing carriageway. The westbound carriageway would follow the line of the existing A66. The dualled section includes junction improvements to enable access on and off the A66 to improve user safety and reduce congestion.
- 2.1.66 An improved left-in/left-out junction from the eastbound carriageway would be provided at Café 66. This would loop to the rear of the building and also serve as access to agricultural land at the western end of the scheme.
- 2.1.67 A replacement underpass would be provided for New Hall Farm and Far Bank End. A left in/left out junction would be provided on the westbound carriageway.

- Access tracks would link the underpass and each carriageway, providing access to the A66 in all directions for farms, properties and land at this location.
- 2.1.68 A new compact grade-separated junction would provide a link to the B6259 to Sandford/Warcop as well as providing links for Public Rights of Way. A new underpass is proposed to facilitate access to agricultural land on the south side of the new A66 and for footpath connectivity to be provided adjacent to Wheatsheaf Farm.
- 2.1.69 From Wheatsheaf Farm the central length of the scheme is proposed to be located approximately 50m to the south of the existing A66. It would follow an alignment utilising the line of the existing A66 as the eastbound carriageway and a new westbound carriageway would be constructed directly to the south of the line of the existing A66 alignment in order to reduce the extent of construction within the designation of the North Pennines Area of Outstanding Natural Beauty.
- 2.1.70 New viaducts would be provided to cross over Moor Beck and Cringle Beck together with a new bridge on the Warcop westbound junction. These are being provided to minimise any effects on the becks as they have been found to be functionally linked to the River Eden Special Area of Conservation downstream and support multiple species protected by this designation. Land has also been identified in the area in order for flood compensation areas to be provided.
- 2.1.71 The existing A66 would be utilised to facilitate a short section of the walking and cycling route to move it away from the new A66 mainline and out of the floodplains of Moor Beck and Cringle Beck.
- 2.1.72 A new local road would be provided to the north of the new A66 dual carriageway, in this central section, in order to maintain local access and facilitate movement on and off the A66 to both Warcop and the Ministry of Defence (MoD) facility.
- 2.1.73 This scheme encroaches up to 150m into the AONB, and results in the demolition of the MoD tank storage and refuelling compound which would be replaced within an extension to the MoD's existing landscape maintenance compound located approximately 600m further east.
- 2.1.74 Land from two residential properties on the north side of the existing A66 would be required to facilitate the construction of the new local access road through this section.
- 2.1.75 The central section of the scheme would pass through the existing Brough Hill Fair site and this would need to be replaced on a like for like basis. A replacement site has been identified adjacent to the current site making use of the MoD bivvy (camping) site. A level of remediation of the bivvy site would be required to facilitate the Brough Hill Fair.
- 2.1.76 New junctions would be provided at Warcop on the westbound and eastbound carriageways facilitating access to the A66 in both directions and providing access to the village of Warcop and the realigned existing A66. These junctions would maintain access to the village of Warcop, the relocated MoD facility, side roads, properties and land to the north and south of the A66 via a new overbridge located to the east of Moor Beck bridge.

- 2.1.77 A local road would be provided to the south of the new A66 connecting Flitholme and Langrigg allowing residents a connection to the new westbound carriageway and local roads to the south via Musgrave Lane.
- 2.1.78 The eastern length of the scheme would continue to follow an alignment to the south of the existing A66 before tying into the Brough Bypass.
- 2.1.79 The de-trunked sections of the existing A66 would enable use for access to the local road network west of Warcop and a new local road would be provided to the north from Turks Head into Brough. This would encroach approximately 130m into the AONB. A left-only T-junction with appropriate diverge and merge tapers on the westbound carriageway would be provided to maintain access to agricultural land and properties on the south side of the new dual carriageway. Eastbound local movements to Brough would be via the accommodation bridge to join with the local road into Brough.
- 2.1.80 A new access road and an overbridge for farm traffic, walkers, cyclists and horse-riders would be provided at the eastern end of the scheme near West View Farm, providing access to land on the north side of the A66 from the farm located to the south, as well as providing footpath and bridleway connectivity. This overbridge and access road connection does fall within the AONB and would therefore be designed to minimise the footprint and visual impact. There would be an encroachment of up to 134m into the AONB.
- 2.1.81 New layby facilities would be provided on the proposed mainline in both eastbound and westbound directions to replace existing provision which would be lost due to the implementation of the scheme. Observation platforms will be included in the easternmost of the eastbound laybys and in the westbound layby
- 2.1.82 No lighting would be provided on the length of the scheme.
- 2.1.83 20 ponds are proposed at low points in the scheme to attenuate drainage and run-off from the road in order to manage the water quality before it is discharged into the surrounding watercourses. Shared and dedicated access tracks are proposed to be provided to the north and to the south of the road to facilitate access to ponds for maintenance purposes and to accommodate landowner movements.
- 2.1.84 Utility works would be required for electricity, water and communications providers services throughout the length of the scheme.
- 2.1.85 An east to west walking and cycle route is being provided along the length of this scheme, providing connectivity for users between Appleby and Brough. All pedestrian, cyclist and horse-rider facilities that would be severed by the scheme are to be reconnected via grade-separated crossings.
- 2.1.86 The MoD tank storage and refuelling compound would be demolished and replaced within the MOD's existing landscape compound located 600m to the east. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the existing A66 and other local roads.

2.1.87 Table 5 below sets out the LoDs which, as exceptions to the standard LoDs (above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 5 Exceptions to standard LoD for Appleby to Brough

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/ horizontal LoDs	Reason
06-1B	Standard	0m	Standard	To protect potential archaeology associated with Roman Camp Scheduled Monument (as agreed with Historic England)
06-1C	0m	No downwards LoD (i.e. 'to any extent downwards as may be necessary')	Standard	To enable the provision of appropriate mitigation for authorised development within flood plain.
06-2A	2m	2m	Standard	To accommodate detailed design of the junction in a way that will minimise impacts on adjacent fen landscape.
06-2B	2m	2m	Westwards to the extent of the corresponding fine dashed green line shown on the works plan. Standard LoDs to the east side	
06-3	0m	No downwards LoD (i.e. 'to any extent downwards as may be necessary')	Standard	Amend the vertical downwards LoD to ensure that it can move vertically with mainline Work No. 06-1C (which already has no downward limit of deviation in the submitted draft DCO) to enable the provision of appropriate mitigation for authorised development within the flood plain.
06-7A	To any extent the undertaker considers to be necessary as a consequence of any horizontal movement northwards	2m	Northwards, to the outer extent of the earthworks on the south side of Work No. 06-1D (A66 mainline). Standard LoDs to the south.	The principles of the original LoD are retained to enable the horizontal LoD for Work No 06-7A to allow this link to move northwards as close as possible to the new A66 and therefore minimise the impact on land.
06-4B	Standard	To any extent the undertaker considers to be necessary	Southwards, to the extent of the corresponding fine dashed green line shown on the works plans. Standard LoDs to the north side	Flexibility to realign the underpass and utilise more of the de-trunked A66 for local access. This will avoid the removal of a band of mature trees that line the northern side of the existing A66.

Description of Changes

- 2.1.88 There are 8 accepted changes associated with Scheme 06 and these are described below:
- 2.1.89 DC-17 – Revisions to the DCO plans regarding the land use and acquisition powers which are sought within the DCO Order limits.
- 2.1.90 DC-19 – The change involves re-routing a small section of the walking and cycling route to move it away from the new A66 mainline and out of the floodplains of Moor Beck and Cringle Beck. The proposed route will utilise part of the old, de-trunked A66 road, providing access to properties as well as the walking and cycling route.
- 2.1.91 DC-20 – The change includes no downward vertical limit of deviation on Work No. 06-3 to ensure that it can move vertically with mainline Work No. 06-1C (which already has no downward limit of deviation in the submitted draft DCO).
- 2.1.92 DC-21 – Following further engagement with the MoD, this change brings forward alternative locations, outside of the DCO Order limits, equal in size to those areas originally proposed, which can be used for environmental mitigation, but which will not impact so significantly on the operational use of the MoD's site.
- 2.1.93 DC-24 – This change to the existing A66 (north of Flitholme) amends the LoDs to allow an opportunity to realign the underpass and utilise more of the de-trunked A66 for local access. This change also requires a reduction in the speed limit on the de-trunked A66 to 30mph (from the existing 60mph limit, as proposed within the DCO application) which would be more in keeping with the local road network and would enable tighter geometric standards to be adopted.
- 2.1.94 DC-25 – This change removes the direct left-in, left-out to the new A66 at Langrigg Lane. This enables the east-west link road between Langrigg Lane and Flitholme Road to be moved further north to sit adjacent, where possible, to the new A66 mainline. The tie-in to Flitholme Road at the western end of the link is also reduced and moved northwards to minimise the amount of new construction required and tie-in north of Lowgill Beck. The connection to the de-trunked A66 via an underpass from the link road would remain, albeit with the priorities changed to favour the east-west link.
- 2.1.95 DC-26 – The change moves the overbridge structure at West View Farm to the south-east by approximately 80m, locating it further away from the farm buildings and adjacent properties. It also reduces the span of the bridge, resulting in a more compact design for the connecting accesses. To facilitate this, the westbound left-in, left-out access from the A66 would be removed. To the north, the overbridge and connecting roads would remain in the North Pennines Area of Outstanding Natural Beauty (AONB) but to a lesser extent. The change also involves the removal of the underpass to the west of the farm.
- 2.1.96 DC-27 – The change amends the DCO Order limits to include the land required to erect and maintain a section of acoustic fencing at the eastern end of the scheme.

Scheme 07 – Bowes Bypass

- 2.1.97 The Bowes Bypass scheme would closely follow the existing A66 alignment to the north of the village of Bowes over a length of 3km. The current line of the existing A66 would form the westbound dual carriageway, with a new adjacent eastbound carriageway constructed to the north.
- 2.1.98 The existing A66 to the west of Bowes passes through the North Pennines AONB. At the westernmost end of this scheme, the AONB boundary abuts the existing edge of pavement of the westbound A66 (i.e. the existing highway verge falls within the AONB boundary). Work to connect the new dual carriageway with the existing dual carriageway falls approximately 10m within the AONB boundary at this location for a length of approximately 300m.
- 2.1.99 Clint Lane overbridge would be reconstructed to accommodate the upgraded (wider) A66 dual carriageway. This structure would be replaced like-for-like to ensure all access and existing facilities are maintained.
- 2.1.100 Lyndale Farm Underpass would be extended under the new carriageway to maintain access to Lyndale Farm.
- 2.1.101 At the junction with the A67, a bridge would carry the new eastbound carriageway over the A67. The eastbound diverge slip road would be relocated north to make way for the new eastbound A66 carriageway. Two new slip roads would accommodate traffic travelling to and from the east providing access to and from the A67 and Bowes village. The A67 would be widened at the junction to accommodate a new right turn lane for the eastbound on-slip. The existing westbound on-slip road would have minor improvements made to create a safer merge.
- 2.1.102 Ruins (former Bowes Railway Station) and a barn structure immediately north-east of the junction would be removed. Black Lodge Farm underpass would be extended to the north under the new eastbound carriageway.
- 2.1.103 Access from Bowes to the A66 (via the Roman road known as The Street, and locally known as Low Road) would be stopped up. The upgraded grade-separated Bowes junction would provide safer access to the A66 for local traffic.
- 2.1.104 The existing westbound layby to the west of the existing Low Road access would be relocated to the easternmost extent of the scheme.
- 2.1.105 East of Bowes an accommodation overbridge would be constructed to allow Low Broats Farm and High Broats Farm to have continued access to the A66 via the improved junction with the A67. A new private means of access is provided on the north side of the overbridge for fields to the west. Additionally, an accommodation access would be provided to ensure Mid Low Fields Farm, East Low Fields Farm and Bowes Cross Farm have continued access to the A66 again via the improved junction with the A67. This accommodation access also provides a diversion route for Bowes Footpath 12 on the southside of the A66 to the new overbridge, which then connects to Bowes Footpath 6 on the north side of the A66.
- 2.1.106 The house at Low Broats Farm and three associated farm buildings are proposed to be demolished to facilitate the new eastbound carriageway.

- 2.1.107 Access to and from Hulands Quarry would be made safer by closure of the existing central reserve gaps on the A66 and by upgrading the junction geometry. The existing central reserve gap at Bowes Cross Farm would be closed, along with access from the premises onto the A66, in order to improve safety.
- 2.1.108 The scheme would include lighting provision, extending and in some locations replacing the current provision.
- 2.1.109 Six ponds are proposed at low points in the scheme to attenuate drainage and run-off from the road in order to manage the water quality before it is discharged into the surrounding watercourses. Shared and dedicated access tracks are proposed to be provided to the north and to the south of the road to facilitate access to ponds for maintenance purposes and to accommodate landowner movements.
- 2.1.110 Utility works would be required for electricity, water and communications provider services throughout the length of the scheme.
- 2.1.111 The ruins of the former Bowes Station and Low Broats Farm buildings would be demolished. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the existing A66 and other local roads.
- 2.1.112 Table 6 below sets out the LoDs which, as exceptions to the standard LoDs (above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 6 Exceptions to standard LoDs for Bowes Bypass

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
07-1B	Standard	1.5m	Standard	To allow for: potential widening of accommodation bridge structure to enable mitigation of impacts on bat foraging habitat; and management of consequential effects on the alignment of the mainline A66 beneath widened accommodation bridge.
07-2B	Standard	1.5m	Standard	
07-7B	2m	2m	Standard	Increase in vertical LoDs to allow flexibility to amend gradients and shorten bridge length

- 2.1.113 Also, for **Work No. 07-8**, the standard upwards and downwards vertical limits will not apply to the levels eastwards of chainage reference point 650.000 (as shown on Sheet 9 of the Engineering Section Drawings: Plan and Profiles for Scheme 07) where their application would preclude the undertaker from tying the eastern end of Work No. 07-8 into the existing ground levels at Bowes Cross Farm.

Description of Changes

- 2.1.114 There is 1 accepted change associated with Scheme 07 and this is described below:
- 2.1.115 DC-28 – This change amends the vertical Limits of Deviation to reduce the span of the new East Bowes Accommodation overbridge by approximately 20m and also enables the corresponding realignment of a private means of access.

Scheme 08 – Cross Lanes to Rokeby

- 2.1.116 The Cross Lanes to Rokeby scheme would mostly follow the 4.4km existing A66 alignment, with a new adjacent westbound carriageway constructed to the south between the B6277 at Cross Lanes and the existing Tutta Beck Cottage access. Both carriageways would then be routed to the south of the Old Rectory and St Mary's Church, re-joining the existing dualled A66 at Rokeby.
- 2.1.117 A new compact grade-separated junction would be constructed at Cross Lanes, west of the Organic Farm Shop and Café. An overbridge would carry a new single carriageway link between the B6277 Moorhouse Lane (to the north) and Rutherford Lane (to the south). Traffic would be able to leave and join the A66 via new priority junctions, maintaining all movements. The existing accesses from the B6277 and Rutherford Lane onto the A66 would be stopped up. Moorhouse Lane (to the south) would be stopped up and realigned to connect the new grade-separated Cross Lanes Junction.
- 2.1.118 Access to the Cross Lanes Organic Farm Shop and Café from the Cross Lanes Junction would be provided via the realigned Moorhouse Lane. An accommodation access would spur from Moorhouse Lane and run parallel to the A66, leading to Birk House Farm.
- 2.1.119 Access to Ivy and Smithy Cottages, Cross Lanes Farmhouse and Streetside Farm would be provided by a connection to the new junction link road on the north. North Bitts Farm would also connect to the new Cross Lanes Junction via an accommodation access.
- 2.1.120 The junction at Cross Lanes has been designed to minimise impact upon existing woodland, land parcels and watercourses. Tutta Beck would be realigned through the Cross Lanes Junction.
- 2.1.121 Access to Poundergill would be maintained via Rutherford Lane.
- 2.1.122 The new A66 dual carriageway would mostly follow the existing A66 alignment between Cross Lanes and Rokeby junctions. Layby provision along this section would be maintained by the construction of new laybys serving the eastbound and westbound carriageways either side of Streetside Farm. Streetside Farm's existing access onto the A66 would be stopped up and an accommodation access parallel to the A66 (to the north), would lead to the Cross Lanes Junction.
- 2.1.123 The existing Tutta Beck Cottages' access onto the A66 would be stopped up. Here, the new A66 dual carriageway would divert to the south of the Old Rectory before realigning with the existing A66 at Rokeby. A new three arm compact grade-separated junction would be constructed west of the Old Rectory allowing westbound traffic to leave and join the A66, and eastbound traffic to leave the A66. The Rokeby Junction would be constructed in an underbridge arrangement with the westbound loop passing beneath the

predominantly at grade A66. The junction has also been located to avoid impacts upon a number of veteran trees where possible, located to the north of the junction.

- 2.1.124 Accommodation accesses would spur off from the new Rokeby Junction to maintain access to Tutta Beck Cottages and Ewe Bank Farm (to the south) and Rokeby Grange (to the north).
- 2.1.125 The new Rokeby Junction would maintain HGV access to Barnard Castle via the C165 Barnard Castle Road.
- 2.1.126 The existing A66 would be de-trunked west of the Grade II* listed Church of St Mary along its length to the C165 Barnard Castle Road. A roundabout would manage traffic movements between the de-trunked A66, C165 and the new eastbound merge local to the Rokeby Park Registered Park and Gardens (RPG). A new eastbound merge would ensure all movements are possible at Rokeby (when the provision at Rokeby Junction is considered).
- 2.1.127 The existing access from Tack Room Cottage onto the A66 (to the south) would be stopped up. Access would be replaced via an accommodation access to the new Rokeby Junction. The access track has been designed with a 15m offset from Jack Wood Ancient Woodland to minimise impact on the woodland which is located directly to the south. The Tack Room Cottage existing access to/from Greta Bridge would be maintained. A new cycleway would connect Greta Bridge to the Tack Room Cottage access route, and thus the Rokeby Junction, allowing cyclists to travel to/from Barnard Castle and Greta Bridge more safely.
- 2.1.128 New layby facilities would be provided on the proposed mainline in both eastbound and westbound directions to replace existing provision which is lost due to the implementation of the scheme. Both laybys would include observation platforms.
- 2.1.129 No lighting would be provided on the length of the scheme.
- 2.1.130 Six ponds are proposed at low points in the scheme to attenuate drainage and run-off from the road in order to manage the water quality before it is discharged into the surrounding watercourses. Shared and dedicated access tracks are proposed to be provided to the north and to the south of the road to facilitate access to ponds for maintenance purposes and to accommodate landowner movements.
- 2.1.131 Utility works would be required for electricity, water and communications provider services throughout the length of the scheme.
- 2.1.132 No demolition of property is required as part of this scheme. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the upgrading of the existing A66.
- 2.1.133 Table 7 below sets out the LoDs which, as exceptions to the standard LoDs (above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 7 Exception to standard LoDs for Cross Lanes to Rokeby

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs	Reason
08-1B	Standard	2m	Standard	To allow for: potential widening of accommodation bridge structure to enable mitigation of impacts on bat foraging habitat; and management of consequential effects on the alignment of the mainline A66 beneath widened accommodation bridge (Work Nos 08-4A and 08-4B: see below).
08-4A	Standard	2m	Standard	To accommodate related non-standard LoD applying to the A66 mainline (Work No. 08-1B) to enable provision of mitigation for impacts on bat habitat (e.g. bat bridge).
08-4B	Standard	2m	Standard	

2.1.134 There are no changes to the DCO application associated with Scheme 08.

Scheme 09 – Stephen Bank to Carkin Moor

- 2.1.135 The 5km Stephen Bank to Carkin Moor scheme would comprise a new offline dual carriageway section between Stephen Bank and Carkin Moor Farm. The new dual carriageway would pass to the north of the existing A66 and the properties at Fox Hall and Mainsgill Farm, re-joining the existing A66 alignment to the east of Mainsgill Farm. The existing A66 would be de-trunked and would be used in part as a collector road for local access to surrounding villages and properties.
- 2.1.136 A new accommodation underpass would be provided to the north of Dick Scot Lane to allow access to land to the north of the scheme. This underpass would also allow the existing Hutton Magna 12 bridleway, which currently ends at the A66 to the west, to pass beneath the proposed A66 alignment.
- 2.1.137 New layby facilities would be provided on the proposed mainline in both eastbound and westbound directions to replace existing provision which would be lost due to the implementation of the scheme. Both laybys would include observation platforms.
- 2.1.138 To maintain access to Collier Lane, a section of the existing A66 to the west of Ravensworth Lodge would be realigned over a distance of approximately 600m to facilitate connection to the new Collier Lane Overbridge. New drainage ponds would be provided to the west of Ravensworth Lodge and to the east of Fox Hall Cottages, with access from Waitlands Lane and the de-trunked A66 respectively. The proposed alignment of the A66 in this location has been designed to be in cutting at this location.
- 2.1.139 Mains Gill Junction, which is a proposed new compact grade-separated junction to the west of Moor Lane, would provide connectivity between the de-trunked A66 and the proposed mainline of the new A66. This new junction is proposed to be placed in a cutting beneath the proposed alignment of the A66 and connects to the de-trunked A66 to the west of Mainsgill Farm.

- 2.1.140 The southern section of Moor Lane would be stopped up and the highway realigned to connect to the Mains Gill Junction link road. The existing bridleway 20.23/5/1, which currently ends at the A66, would be diverted to the west to allow it to be rerouted along the proposed realigned section of Moor Lane and beneath the A66 via Mains Gill Junction. It would then connect with a realigned bridleway 20.55/6/1 which passes to the south of the de-trunked A66 along the western boundary of Mainsgill Farm. The existing route of bridleway 20.55/6/1 which proceeds through the busy entrance of Mainsgill Farm would be extinguished as part of this diversion.
- 2.1.141 Two new drainage ponds are proposed to be provided in the vicinity of Mainsgill Farm, one to the western boundary and one to the north of the existing A66 alignment.
- 2.1.142 The proposed alignment passes through the current cutting formed by the existing A66 at the Carkin Moor Scheduled Monument. To minimise the impact on the monument, the vertical alignment of the road is proposed to be lifted within the existing cutting and a retaining structure is proposed to be provided to the southern boundary.
- 2.1.143 The existing connection between the A66 and to Warrener Lane would be removed, and a new link provided between Warrener Lane and the de-trunked A66, allowing vehicles travelling from Hartforth to access the proposed A66 alignment via Mains Gill Junction. The alignment of this new link road is proposed so as to avoid the footprint of the scheduled remains of the Roman fort and prehistoric enclosed settlement at Carkin Moor.
- 2.1.144 A further 3 ponds would be provided at the eastern extent of the scheme in between the existing A66 and the new Warrener Lane link. One of these ponds is a replacement for an existing attenuation pond which is proposed to be removed to accommodate the earthworks needed for the scheme, whilst the other two offer storage for water run-off from both the A66 and also the new Warrener Lane link. Shared and dedicated access tracks are proposed to be provided to the north and to the south of the road to facilitate access to ponds for maintenance purposes and to accommodate landowner movements.
- 2.1.145 A new bridleway underpass would be provided to allow bridleway 20.30/8/1, which currently crosses the A66 at grade in the vicinity of the junction with Warrener Lane, to be grade-separated.
- 2.1.146 This new bridleway, which is to be provided alongside the de-trunked A66, would also be linked with the existing Hutton Magna 12 bridleway at the western end of the scheme.
- 2.1.147 Utility works would be required for electricity, water and communications services throughout the length of the scheme.
- 2.1.148 No lighting would be provided on the length of the scheme.
- 2.1.149 No demolition of property is required as part of this scheme. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the existing A66 and other local roads.

2.1.150 Table 8 below sets out the LoDs which, as exceptions to the standard LoDs (above), are proposed to apply to specific numbered works, as shown on the works plans and the engineering section drawings for this scheme.

Table 8 Exceptions to standard LoDs for Stephen Bank to Carkin Moor

Work No.	Upwards vertical LoD	Downwards vertical LoD	Lateral/horizontal LoDs – north of centreline	Lateral/horizontal LoDs – south of centreline	Reason
09-1B	Standard	3m	5m	5m	To allow flexibility to facilitate potential realignment of A66 mainline to accommodate potential adjustments to alignment of new local access road Work No. 09-3B (alongside new and improved A66 mainline, Work No. 09-1B).
09-3B	Standard	No downwards LoD (i.e. 'to any extent downwards as may be necessary')	Lateral LoD shown by fine green dashed line on Works Plans (Sheet 2 of 6).	Standard	To allow flexibility to facilitate potential realignment of new local access road, Work No. 09-3B, to include re-use of existing A66 mainline carriageway post de-trunking
09-1D	Standard	4m	To the extent of the Order Limits	Standard	To facilitate appropriate vertical alignment through setting of Scheduled Monument (objective of flexibility is to retain height of monument relative to road).
09-3E	Standard	Standard	To the extent of the corresponding fine dashed green line shown on the works plans (Sheets 3 and 4 of 4).	Standard	To allow flexibility for this section of Warrener Lane to move closer to A66
09-3F	Standard	Standard	0m	5m	To minimise impact on the Carkin Moor Scheduled Monument
09-5	Standard	3m	Standard	Standard	Linked to LoDs for Work Nos. 09-1B and 09-3B – i.e. to allow flexibility for potential realignment of new local access road (on route of de-trunked A66) and new/improved A66.

Description of Changes

- 2.1.151 There are 2 accepted changes associated with Scheme 09 and these are described below:
- 2.1.152 DC-30 – The change enables relocation of the proposed maintenance access to the balancing pond from the west to the east, with access from Waitlands Lane.
- 2.1.153 DC-31 - A change to the horizontal Limit of Deviation to Work No. 09-3D of up to 12m in a northerly direction provides an opportunity to move Warrener Lane northwards closer to the A66. This could be done without encroaching on the Scheduled Monument in the vicinity of this part of the Scheme.

A1(M) Junction 53 Scotch Corner

- 2.1.154 The A1(M) Junction 53 Scotch Corner scheme would widen the existing Middleton Tyas Lane approach at Scotch Corner roundabout from one lane to two lanes. A length of existing footway and existing signage and lighting columns would be relocated to the edge of the widened carriageway, and road markings would require amendment to tie in with the existing arrangement.
- 2.1.155 An additional lane would also be provided on the northern bridge of the circulatory carriageway, increasing the provision in this area to three lanes. No structural amendments are envisaged to be required to the existing structure to accommodate the additional lane. Some amendment to the existing traffic signal arrangement would be required to allow poles to be located in new verges.
- 2.1.156 Utility works would be required for gas, electricity, water and communications services throughout the length of the scheme.
- 2.1.157 No demolition of property is required as part of this scheme. The scheme would involve minor demolition works, such as roadside features, drainage and kerbing associated with the existing A66 and other local roads.
- 2.1.158 There are no deviations from the standard LoDs on this scheme.
- 2.1.159 There are no changes to the DCO application associated with Scheme 11.