

# A66 Northern Trans-Pennine project

Draft Construction  
Method and  
Management  
Statement

**Indicative  
schematic drawings  
Volume 2**

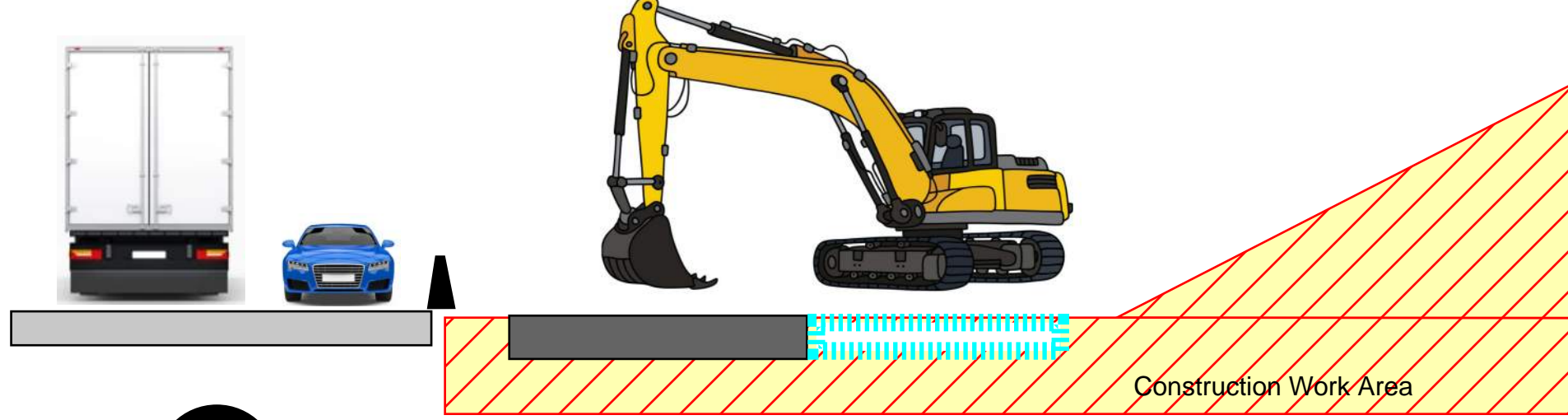
**Bowes Bypass**



## A66 - Key Proposed Construction Activities (Phase 1 Works)

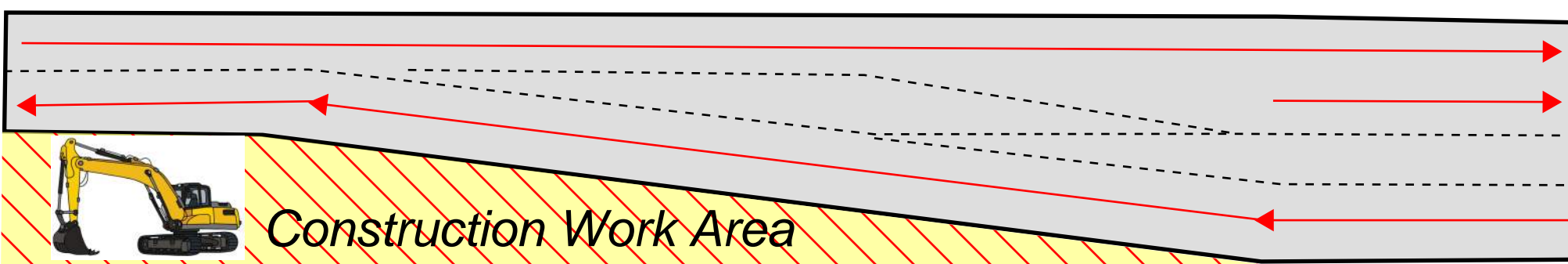
### Construction works - New carriageway

With traffic maintained on the existing A66 westbound side, works can take place on modifying and widening the new eastbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will be installed, followed by the aggregate and asphalt material being compacted in layers to complete the road. The works will look to be undertaken with offline, to minimise disruption to the A66 traffic.



## Traffic management for construction works

Traffic will be relocated and diverted to enable traffic to remain flowing whilst allowing construction works to be undertaken safely.



### Construction works - New off slip

With traffic maintained on the westbound carriageway, works can take place to construct the new off slip. Due to the widening the road at this location, it is likely that the embankment will need re-profiling. All material excavated will be stored in allocated stockpiles ready for re-use where suitable. Once at formation, the new road can be constructed from imported granular material and asphalt dependent on the final design, along with the kerbs and drainage infrastructure.



### Legend

### Roads open & in public use

## Construction Work Area Phase 1

**Construction Work  
Area Phase 2**

**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

- ## NOTES





























All levels are in metres above Ordnance Datum.

Drawings are to be read in conjunction with the following:

- This drawing is to be read in conjunction with all other relevant drawings and the accompanying technical note
- BS5607:2001 - HSE - H507
- The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design details are to be provided by the client.
- The current naming convention is scheme specific for design purposes. The final naming convention for detailed naming convention is to be agreed at a later design stage.
- The vehicle restraint system layout is at a high level assessment and is not a detailed risk assessment (RRAP) of the hazards present in the road.
- Road markings, lighting columns and structures are indicative only and are not to be used for design purposes.
- Traffic signs and locations are indicative only. Traffic signs will be developed at detailed design.
- The proposed treatment of the drainage, including, but not limited to, landowners and detailed design.
- Proposed walking, cycling and horse riding routes are indicative only and are not to be used for design purposes.
- The proposed agreement of local authority and landowners.

A high level assessment of technology requirements has been undertaken in accordance with the guidance in the following table, with allowance made in the red line boundary for any new installations.

## KEY

- |   |                                   |
|---|-----------------------------------|
|  | Red line boundary                 |
|  | Existing layout                   |
|  | Existing watercourse              |
|  | Proposed layout                   |
|  | Highway structure                 |
|  | Culvert                           |
|  | Cut-off drain                     |
|  | Proposed boundary treatment       |
|  | Proposed gate                     |
|  | Traffic sign                      |
|  | Proposed lighting column          |
|  | Proposed vehicle restraint system |
|  | Headwall                          |
|  | Pipe to Outfall                   |
|  | Earthworks                        |
|  | Pond                              |
|  | Proposed Bridleway                |
|  | Abandoned Bridleway               |
|  | Existing Bridleway                |
|  | Proposed Footway/Footpath         |
|  | Abandoned Footway/Footpath        |
|  | Existing Footway/Footpath         |
|  | Proposed Shared Cycle Footway     |
|  | Abandoned Shared Cycle Footway    |
|  | Existing Shared Cycle Footway     |
|  | Compound/Storage Area             |
|  | Demolished buildings              |
|  | AONB                              |

[illegible]

designer  
 KPMG LLP Limited  
 Chancery Exchange  
 10 Furnival Street  
 London, EC4A 1AB

**A66  
 NTP**

**Integrated  
 Project  
 Team**

Piccadilly Place  
 Manchester  
 M1 3BN


**highways**  
 england

Project Name	A66 Northern Trans-Pennine
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Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 1 of 4

Project Ref. No.	Stage	Scale : 1:1000 @ A0
---	PCF3	Dimensions : M

wing Number			
Project	Originator	Volume	
HE565627	- AMY	- HGN	-
S07	-DR-CH- 500001		
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



## **A66 - Key Proposed Construction Activities (Phase 1A Works)**

**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

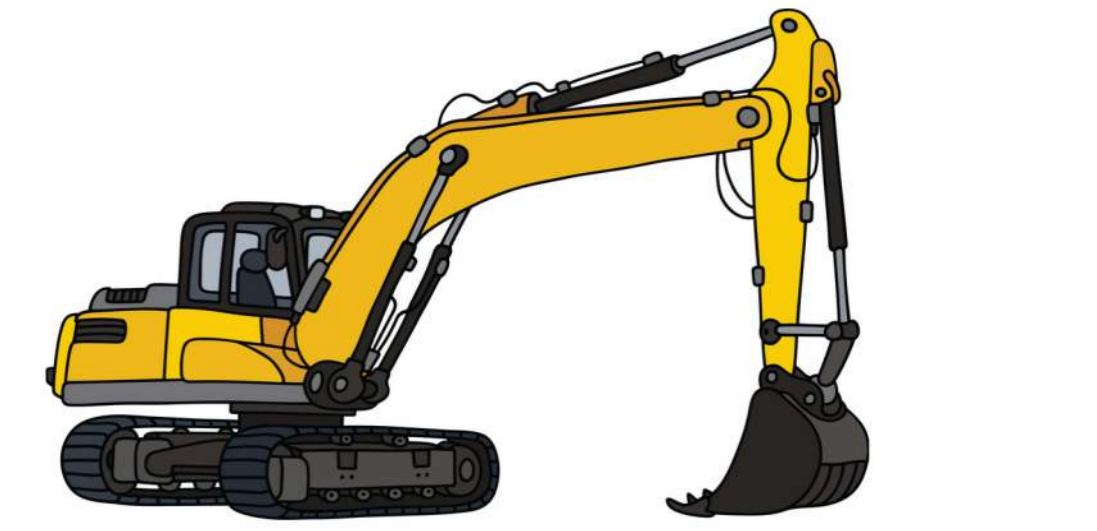
## Construction works - Slip roads

The new road will be constructed away from the live A66 traffic with the traffic management in place. To form the road, excavated material is required to be loaded into wagons or dumpers to be stockpiled. Once down to formation the new road can be constructed as per the design using imported stone and asphalt material. Kerbs and drainage will also be installed to complete the road.



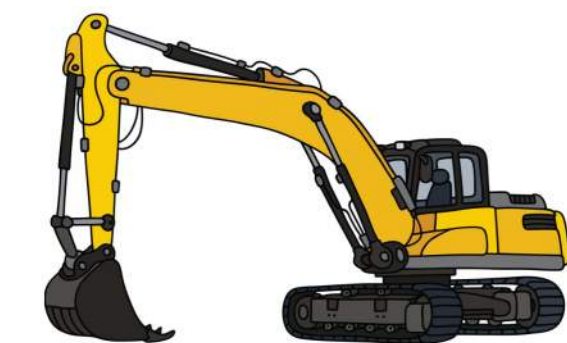
### Construction works - New road alignment

Works will take place to install the new road with the existing A67 with some traffic management being required to ensure the works can be undertaken safely whilst allowing traffic movements. With some works taking place close to live traffic, it may be necessary to impose one way traffic restriction to complete the road in a timely manner, which looks to minimise disruption to stakeholders.



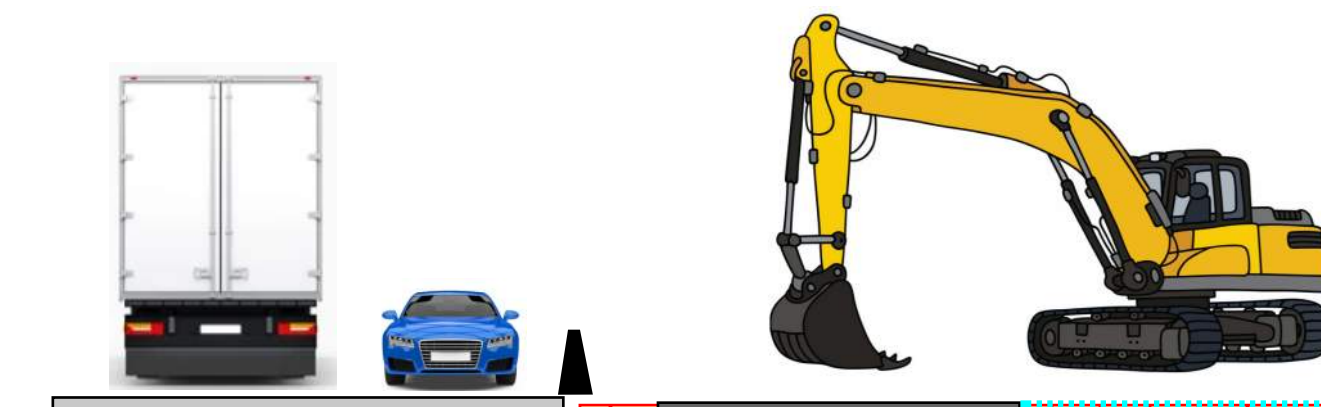
## Construction works - Attenuation pond

To help manage groundwater on the scheme and mitigate the impacts of surface run-off overloading the existing drainage network, attenuation ponds are required. They will be construed with minimal impacts on the live A66 and will further help biodiversity within the local area. Plant machinery will be used to excavate and line the attenuation pond.



### Construction works - New carriageway

With traffic maintained on the existing A66 westbound side, works can take place on modifying and widening the new eastbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will be installed, followed by the aggregate and asphalt material being compacted in layers to complete the road.



### Legend

## Roads open & in public use

## Construction Work Area Phase 1

**Construction Work  
Area Phase 2**





























**! RESIDUAL DESIGN HAZARDS**

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

## NOTES

1. All levels are in metres above Ordnance Datum.
2. All dimensions are in metres unless otherwise stated.
3. Dimensions are to be measured to the centre of any relevant drawings and the accompanying technical note.
4. ~~5. The design shall be to the satisfaction of the relevant authority.~~
5. The drainage design is of a sufficient level of detail to advise land take requirements and earth stage design feasibility. Further design details are to be undertaken by the contractor.
6. The current naming convention is scheme specific for design coordination purposes only. A more detailed naming convention is to be agreed with the relevant authority at a later design stage.
7. The vehicle restraint system layout is a high level assessment and requires a detailed risk assessment (RRAP) of the hazards present in the area.
8. Road markings, lighting columns and structures are indicative only and are to be agreed with the relevant authority and landowners.
9. Traffic sign faces and locations are indicative only. Traffic signs will be developed to detailed design.
10. The proposed safety fencing, as shown, is subject to agreement with landowners and detailed design.
11. Proposed walking, cycling and horse riding routes are indicative only and are to be agreed with the relevant authority and landowners.
12. A high level assessment of technology requirements has been completed in accordance with the red line boundary for any new installations.

## KEY

- |   |                                   |
|---|-----------------------------------|
|  | Red line boundary                 |
|  | Existing layout                   |
|  | Existing watercourse              |
|  | Proposed layout                   |
|  | Highway structure                 |
|  | Culvert                           |
|  | Cut-off drain                     |
|  | Proposed boundary treatment       |
|  | Proposed gate                     |
|  | Traffic sign                      |
|  | Proposed lighting column          |
|  | Proposed vehicle restraint system |
|  | Headwall                          |
|  | Pipe to Outfall                   |
|  | Earthworks                        |
|  | Pond                              |
|  | Proposed Bridleway                |
|  | Abandoned Bridleway               |
|  | Existing Bridleway                |
|  | Proposed Footway/Footpath         |
|  | Abandoned Footway/Footpath        |
|  | Existing Footway/Footpath         |
|  | Proposed Shared Cycle Footway     |
|  | Abandoned Shared Cycle Footway    |
|  | Existing Shared Cycle Footway     |
|  | Compound/Storage Area             |
|  | Demolished buildings              |
|  | AONB                              |

2020	2020					
	2020	2020	2020	2020	2020	2020
2021	2021					
	2021	2021	2021	2021	2021	2021

P01	ISSUED FOR MODEL FREEZE D				
	SHOT	SHOT	THAL	RPEA	---
	19/02/21	19/02/21	19/02/21	19/02/21	---
Revision details					

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	<a href="#">add new page</a>	<a href="#">add new page</a>	<a href="#">add new page</a>	<a href="#">add new page</a>	<a href="#">add new page</a>

Designer  
Amey OW Limited  
Chancery Exchange  
10 Furnival Street  
London, EC4A 1AB

**A66  
NTP** **Integrated  
Project  
Team**

Client  
3 Piccadilly Place  
Manchester  
M1 3BN



Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 2 of 4

Project Ref. No.	Stage	Scale : 1:1000 @ A0
---	PCF3	Dimensions : M

Drawing Number			
Project	Originator	Volume	
HE565627 -	AMY -	HGN -	
S07	-DR-CH- 500002		
Location	Type	Role	Number

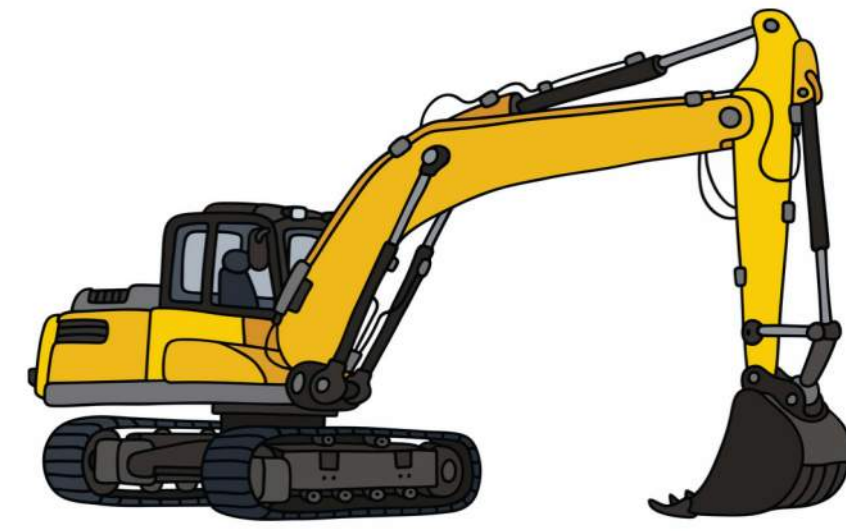
Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



## A66 - Key Proposed Construction Activities (Phase 1B Works)

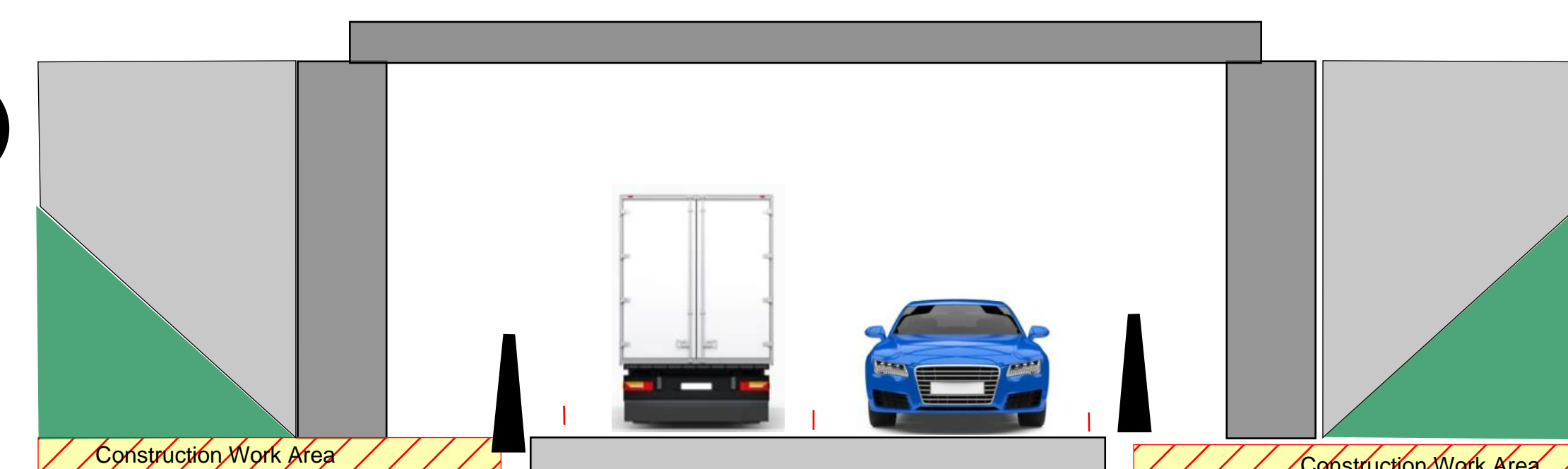
### Construction works - New road alignment

Works will take place to install the new road with the existing A67 with some traffic management being required to ensure the works can be undertaken safely whilst allowing traffic movements. With some works taking place online, it may be necessary to impose one way traffic restriction to complete the road in a timely manner, which looks to minimise disruption to stakeholders.



### Construction works - Extend Underpass

To enable the new dual carriageway to be constructed it will be necessary to extend the existing underpass. To maintain traffic flows on the A67, it is likely that the abutments will be set back to enable them to be safely constructed whilst keeping traffic flowing. The abutment walls will be constructed and bridge beams place on top, followed by the deck and road. Additional traffic management is expected to lift the roof beams into place. Whilst the works are progressing, the existing A67 traffic will incur very little disruption.



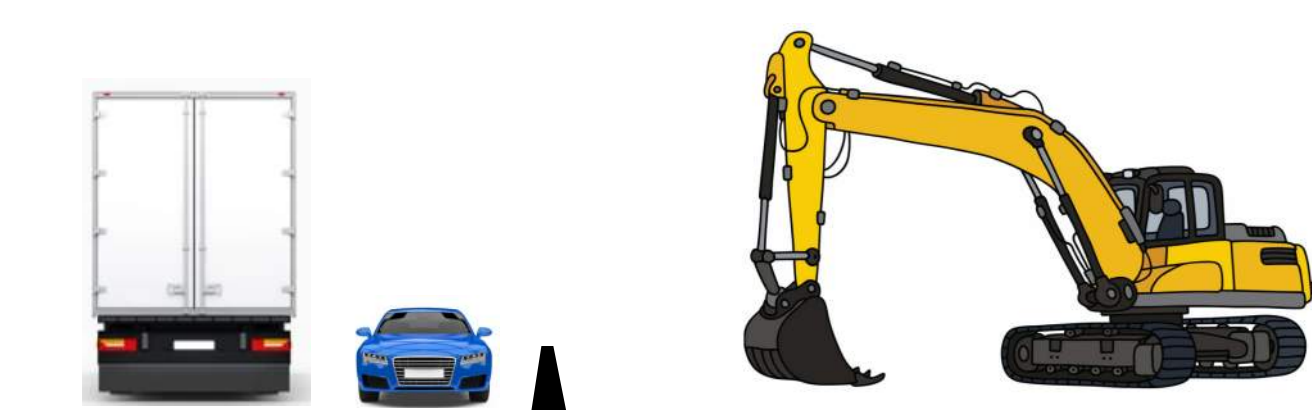
### Construction works - Drainage culverts

Drainage works will be undertaken within the construction work area assisted by ground supports to ensure reduced traffic management and keep the A66 traffic flowing. The drainage is required to mitigate flooding and overloading the current drainage network.



**Construction works - New carriageway**

With traffic maintained on the existing A66 westbound side, works can take place on modifying and widening the new eastbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will be installed, followed by the aggregate and asphalt material being compacted in layers to complete the road.

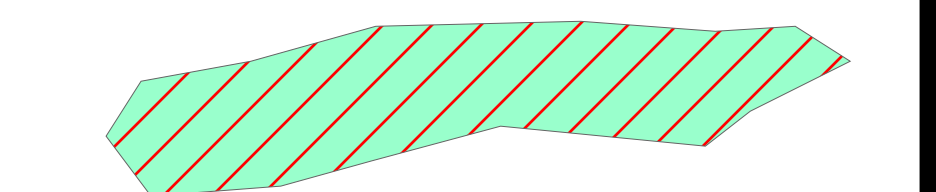
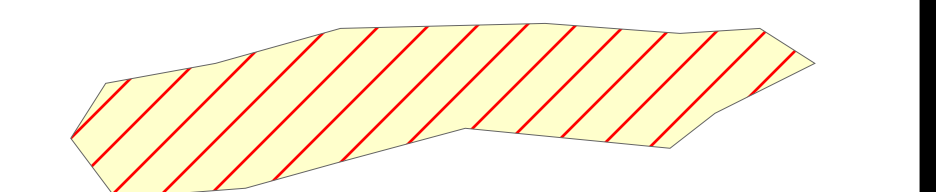


### Legend

**Roads open & in public use**

**Construction Work Area Phase 1**

**Construction Work Area Phase 2**



**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.













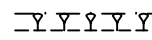

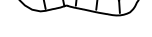













## RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

## NOTES

1. All levels are in metres above Ordnance Datum.
2. All dimensions are in metres unless otherwise stated.
3. This drawing is to be used in conjunction with all other relevant drawings and the accompanying technical note E556962-ANY-HM-01-01.
4. The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design will be required at a later design stage.
5. The culvert naming convention is scheme specific for design coordination purposes only. A more detailed naming convention is to be agreed at a later design stage.
6. The vehicle restraint system layout is a high level assessment and requires a detailed risk assessment (RRAP) of the hazards present in the vicinity.
7. Road markings, lighting columns and structures are indicative only and will be agreed with the local authority and landowners.
8. Traffic sign faces and locations are indicative only. Traffic signs will be developed at detailed design.
9. All fencing, gates and barriers are subject to agreement with landowners and detailed design.
10. Proposed walking, cycling and horse riding routes are indicative only and will be agreed with the local authority and landowners.
11. A high level assessment of technology requirements has been undertaken in accordance with the red line boundary for any new installations.

KEY

- |   |                                   |
|---|-----------------------------------|
|    | Red line boundary                 |
|    | Existing layout                   |
|    | Existing watercourse              |
|    | Proposed layout                   |
|    | Highway structure                 |
|    | Culvert                           |
|    | Cut-off drain                     |
|    | Proposed boundary treatment       |
|    | Proposed gate                     |
|    | Traffic sign                      |
|    | Proposed lighting column          |
|    | Proposed vehicle restraint system |
|    | Headwall                          |
|    | Pipe to Outfall                   |
|    | Earthworks                        |
|    | Pond                              |
|    | Proposed Bridleway                |
|    | Abandoned Bridleway               |
|    | Existing Bridleway                |
|    | Proposed Footway/Footpath         |
|    | Abandoned Footway/Footpath        |
|   | Existing Footway/Footpath         |
|  | Proposed Shared Cycle Footway     |
|  | Abandoned Shared Cycle Footway    |
|  | Existing Shared Cycle Footway     |
|  | Compound/Storage Area             |
|  | Demolished buildings              |
|  | AONB                              |

A	B					
	C	D	E	F	G	H
	I	J	K	L	M	N
O	P					
	Q	R	S	T	U	V
	W	X	Y	Z	AA	AB

P01	ISSUED FOR MODEL FREEZE D				
	SHOT	SHOT	THAL	RPEA	---
	19/02/21	19/02/21	19/02/21	19/02/21	---

Revision	Revision details				
	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy	dd/mm/yyyy

Designer  
Amey OW Limited  
Chancery Exchange  
10 Funnival Street  
London, EC4A 1AB

**A66  
NTP**

**Integrated  
Project  
Team**

Client  
3 Piccadilly Place  
Manchester  
M1 3BN

Project Name	A66 Northern Trans-Pennine
--------------	----------------------------

Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 2 of 4

Project Ref. No. ---	Stage PCE3	Scale : 1:1000 @ A0
		Dimensions : M

Drawing Number			
Project	Originator	Volume	
HE565627	- AMY	- HGN	-
S07	-DR-CH- 500002		
Location	Type	Role	Number

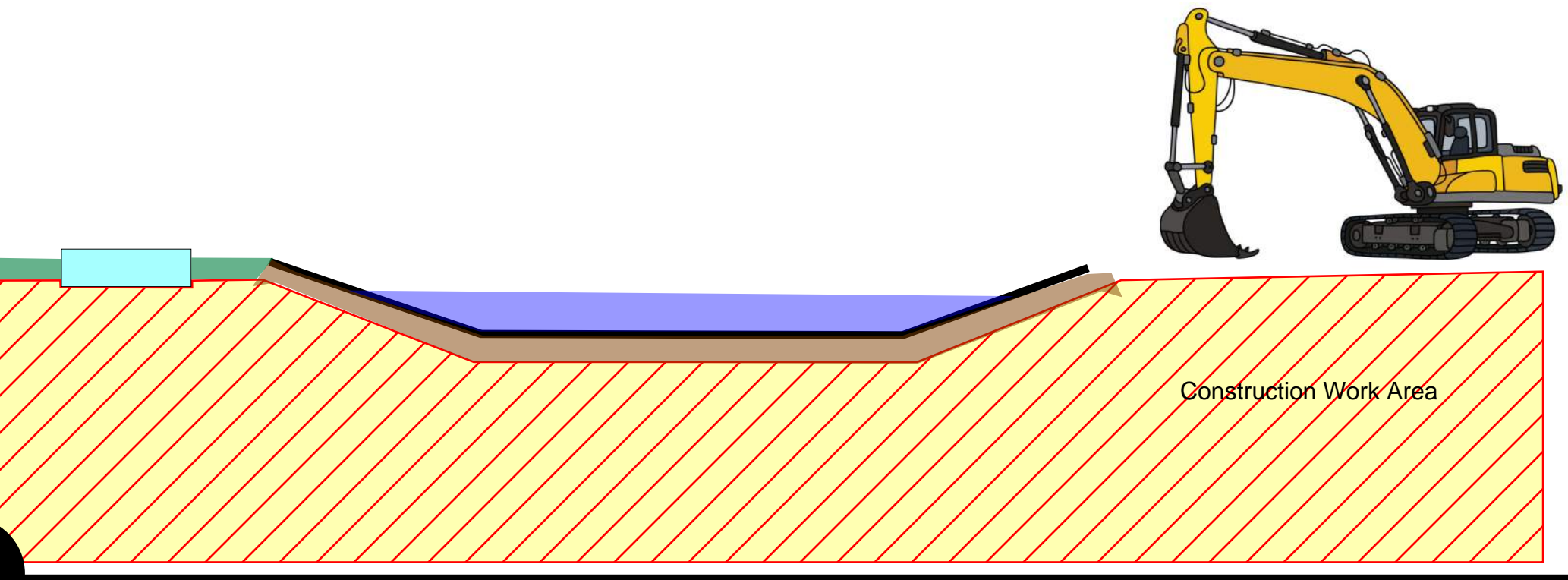
Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



# A66 - Key Proposed Construction Activities (Phase 1 Works)

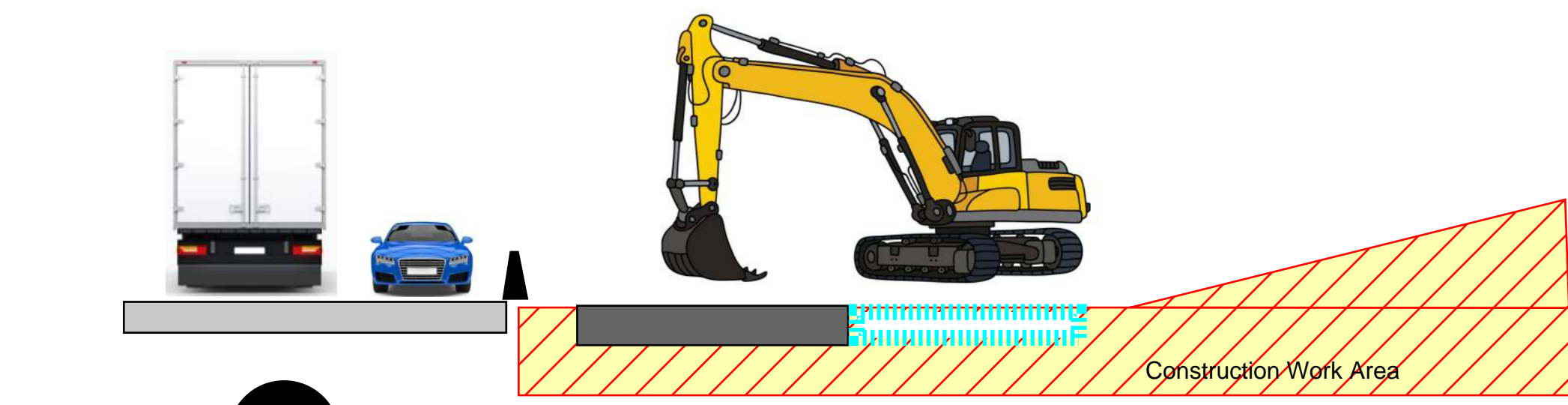
## Construction works - Attenuation pond

To help manage groundwater on the scheme and mitigate the impacts of surface run-off overloading the existing drainage network, attenuation ponds are required. They will be construed with minimal impacts on the live A66 and will further help biodiversity within the local area. Plant machinery will be used to excavate and line the attenuation pond.



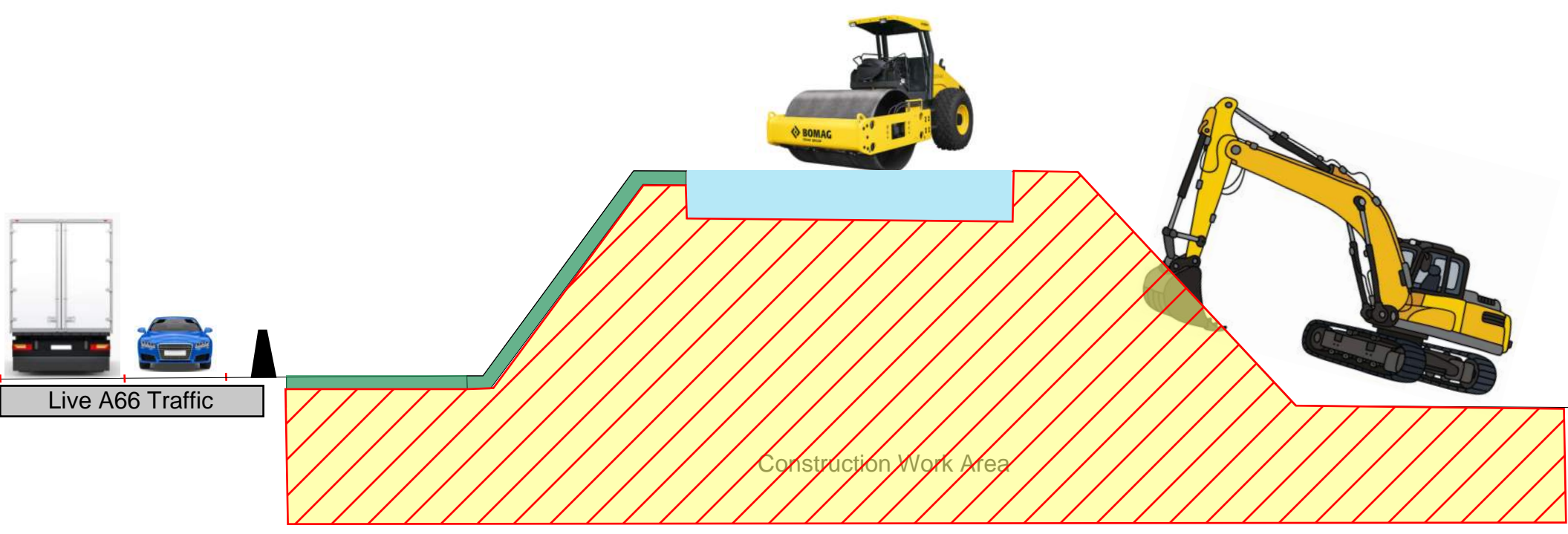
## Construction works - New carriageway

With traffic maintained on the existing A66, works can take place on modifying and widening the new eastbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will be installed, followed by the aggregate and asphalt materiel being compacted in layers to complete the road. The works will look to be undertaken with offline, to minimise disruption to the A66 traffic.



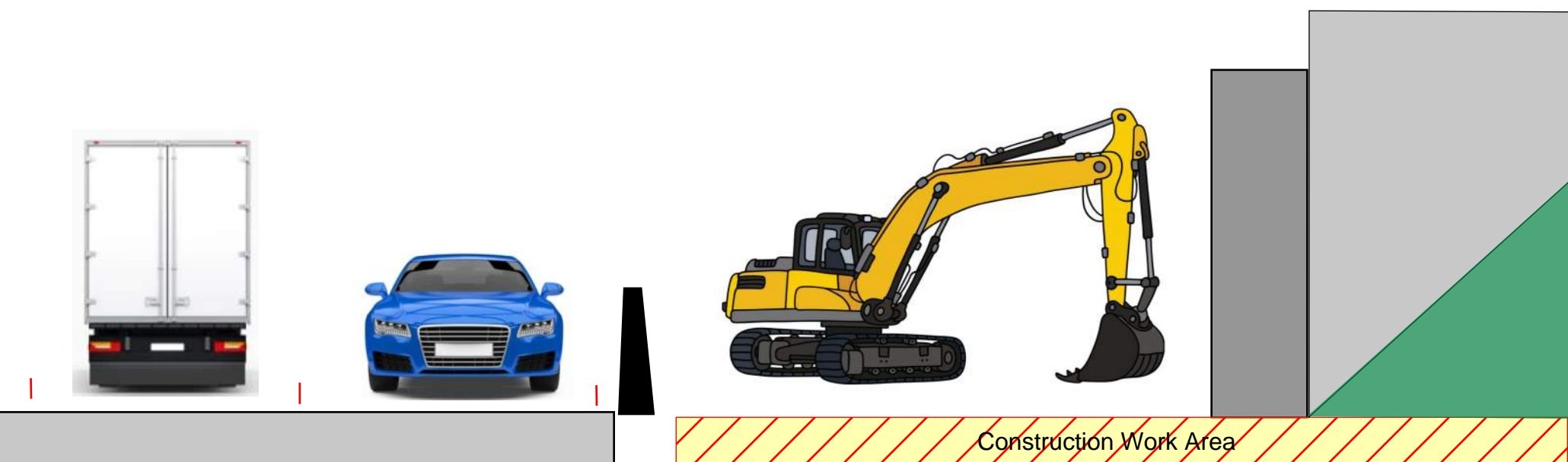
## Construction works - Embankment

The embankment construction can be undertaken offline without impact on A66 live traffic. The access road will help mitigate movements across the A66 once complete. The embankment will be constructed from suitably selected fill materials, constructed in layers with the access road integrated at the top. This will involve the installation of kerbs, drainage and the aggregate/ asphalt material which will be installed in layers to complete the road.



## Construction works - Overbridge abutment

With traffic maintained on the existing A66, works can commence on the construction of the eastbound abutment ready to receive the bridge beams and deck. As part of the works, fill materiel will be imported from stockpile locations to form the embankment. Works will take place offline with minimal disruption to the live A66 traffic.



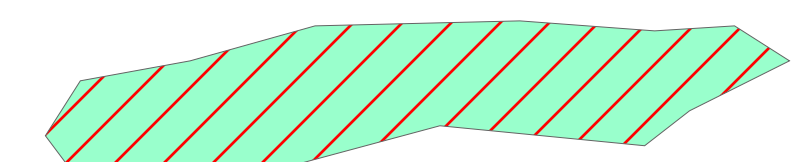
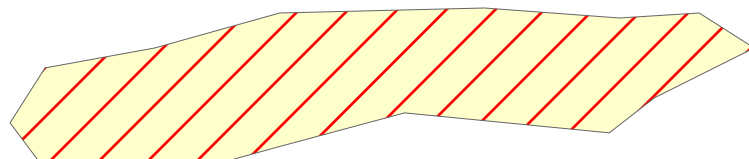
**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

### Legend

Roads open & in public use

Construction Work Area Phase 1

Construction Work Area Phase 2



### RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Arup DJV CDM Hazard Management Process.)

#### NOTES

- All levels are in metres above Ordnance Datum.
- All dimensions are in metres unless otherwise stated.
- This drawing is to be read in conjunction with all other relevant drawings and the accompanying technical note HE565627-AMY-HGN-S07-TN-CH-000001.
- The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design development to be undertaken.
- The culvert naming convention is scheme specific for design coordination purposes only. A more detailed naming convention is to be agreed at a later design stage.
- The vehicle restraint system layout is a high level assessment and requires a detailed risk assessment (RRRAP) of the hazards present in the design.
- Road markings, lighting columns and structures are indicative only and require further design development.
- Traffic sign faces and locations are indicative only. Traffic signs will be developed at detailed design.
- Boundary treatments, such as fencing, are subject to agreement with landowners and detailed design.
- Proposed walking, cycling and horse riding routes are indicative only and subject to agreement with local authority and landowners.
- A high level assessment of technology requirements has been completed, with allowance made in the red line boundary for any new installations.

#### KEY

- Red line boundary
- Existing layout
- Existing watercourse
- Proposed layout
- Highway structure
- Culvert
- Cut-off drain
- Proposed boundary treatment
- Proposed gate
- Traffic sign
- Proposed lighting column
- Proposed vehicle restraint system
- Headwall
- Pipe to Outfall
- Earthworks
- Pond
- Proposed Bridleway
- Abandoned Bridleway
- Existing Bridleway
- Proposed Footway/Footpath
- Abandoned Footway/Footpath
- Existing Footway/Footpath
- Proposed Shared Cycle Footway
- Abandoned Shared Cycle Footway
- Existing Shared Cycle Footway
- Compound/Storage Area
- Demolished buildings
- AONB

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P01	ISSUED FOR MODEL FREEZE D	---	---	---	---
---	SHOT	SHOT	THAL	RPEA	---
---	19/02/21	19/02/21	19/02/21	19/02/21	---
Revision	Revision details				
---	Created	Checked	Reviewed	Approved	Authorised
---	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer  
Amey OW Limited  
Chancery Exchange  
10 Furnival Street  
London, EC4A 1AB

A66  
NTP  
Integrated  
Project  
Team

Client  
3 Piccadilly Place  
Manchester  
M1 3BN

highways  
england

Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 3 of 4

Project Ref. No. Stage Scale : 1:1000 @ A0  
--- PCF3 Dimensions : M

Drawing Number  
Project HE565627 - AMY - HGN - S07  
Location -DR-CH- 500003  
I Type I Role I Number

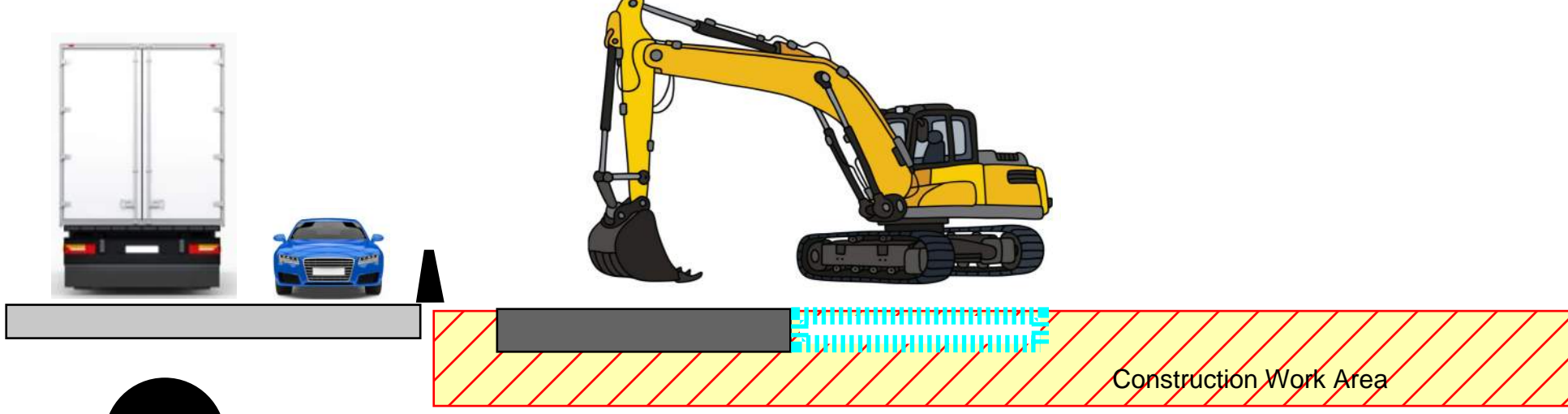
Suitability S3 Suitability Description Fit for Internal Review and Comment Revision P01



A66 - Key Proposed Construction Activities (Phase 1 Works)

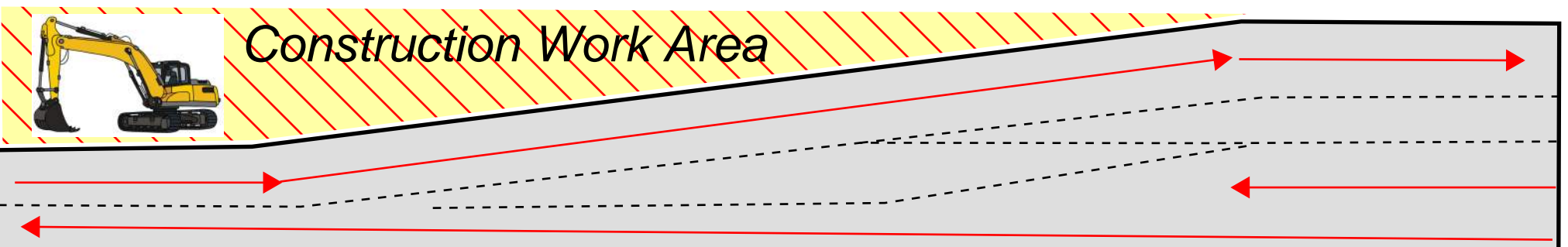
**Construction works - New carriageway**

With traffic maintained on the existing A66 westbound side, works can take place on modifying and widening the new eastbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will be installed, followed by the aggregate and asphalt material being compacted in layers to complete the road.



**Traffic management for construction works**

Traffic will be relocated and diverted to enable traffic to remain flowing whilst allowing construction works to be undertaken safely.



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**Legend**

Roads open & in public use

Construction Work Area Phase 1

Construction Work Area Phase 2

**RESIDUAL DESIGN HAZARDS**

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

**NOTES**

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- All dimensions are in metres unless otherwise stated.
- This drawing is to be read in conjunction with all other relevant drawings and the accompanying technical note HE565627-AMY-HGN-S07-TN-CH-000001.
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- The culvert naming convention is scheme specific for design coordination purposes only. A more detailed naming convention is to be agreed at a later design stage.
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- Road markings, lighting columns and structures are indicative only and require further design development.
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- Proposed walking, cycling and horse riding routes are indicative only and subject to agreement with local authority and landowners.
- A high level assessment of technology requirements has been completed, with allowance made in the red line boundary for any new installations.

**KEY**

- Red line boundary
- Existing layout
- Existing watercourse
- Proposed layout
- Highway structure
- Culvert
- Cut-off drain
- Proposed boundary treatment
- Proposed gate
- Traffic sign
- Proposed lighting column
- Proposed vehicle restraint system
- Headwall
- Pipe to Outfall
- Earthworks
- Pond
- Proposed Bridleway
- Abandoned Bridleway
- Existing Bridleway
- Proposed Footway/Footpath
- Abandoned Footway/Footpath
- Existing Footway/Footpath
- Proposed Shared Cycle Footway
- Abandoned Shared Cycle Footway
- Existing Shared Cycle Footway
- Compound/Storage Area
- Demolished buildings
- AONB

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P01	ISSUED FOR MODEL FREEZE D	---	---	---	---
---	SHOT	SHOT	THAL	RPEA	---
---	19/02/21	19/02/21	19/02/21	19/02/21	---
Revision	Created	Checked	Reviewed	Approved	Authorised
---	ddmm/yy	ddmm/yy	ddmm/yy	ddmm/yy	ddmm/yy

Designer  
Amey OW Limited  
Chancery Exchange  
10 Funnal Street  
London, EC4A 1AB

Client  
3 Piccadilly Place  
Manchester  
M1 3BN

Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 4 of 4

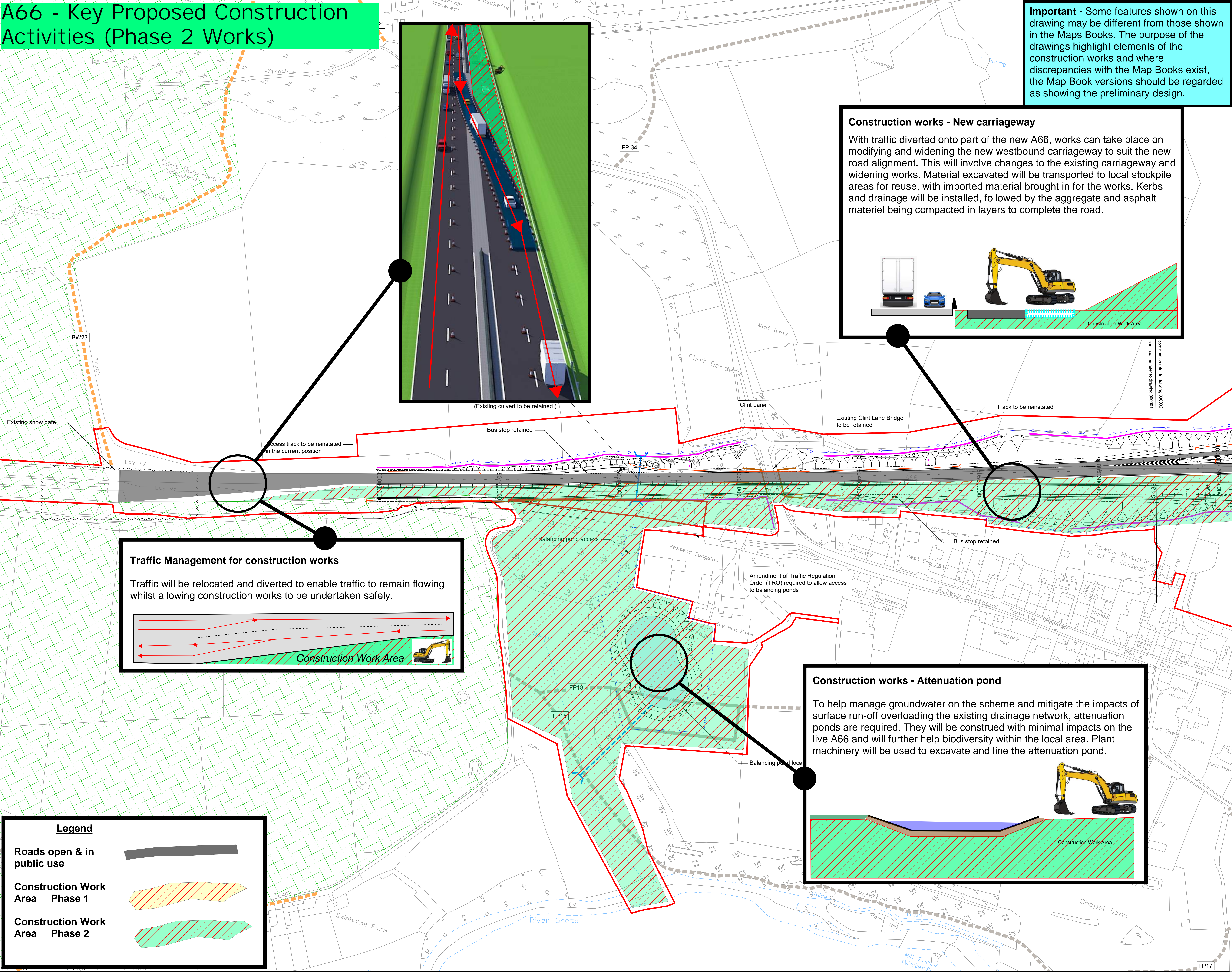
Project Ref. No.	Stage	Scale : 1:1000	@ A0
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Drawing Number	Project	Originator	Volume
HE565627 - AMY - HGN - S07			
Location	-DR-CH - 5000004	Type	Role
			Number

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



A66 - Key Proposed Construction Activities (Phase 2 Works)



**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

**RESIDUAL DESIGN HAZARDS**  
(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

- NOTES**
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  - All dimensions are in metres unless otherwise stated.
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  - The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design development to be undertaken.
  - The culvert naming convention is scheme specific for design coordination purposes only. A more detailed naming convention is to be agreed at a later design stage.
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  - Proposed walking, cycling and horse riding routes are indicative only and subject to agreement with local authority and landowners.
  - A high level assessment of technology requirements has been completed, with allowance made in the red line boundary for any new installations.

- KEY**
- Red line boundary
  - Existing layout
  - Existing watercourse
  - Proposed layout
  - Highway structure
  - Culvert
  - Cut-off drain
  - Proposed boundary treatment
  - Proposed gate
  - Traffic sign
  - Proposed lighting column
  - Proposed vehicle restraint system
  - Headwall
  - Pipe to Outfall
  - Earthworks
  - Pond
  - Proposed Bridleway
  - Abandoned Bridleway
  - Existing Bridleway
  - Proposed Footway/Footpath
  - Abandoned Footway/Footpath
  - Existing Footway/Footpath
  - Proposed Shared Cycle Footway
  - Abandoned Shared Cycle Footway
  - Existing Shared Cycle Footway
  - Compound/Storage Area
  - Demolished buildings
  - AONB

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P01	ISSUED FOR MODEL FREEZE D	---	---	---	---
	SHOT	SHOT	THAL	RPEA	---
	19/02/21	19/02/21	19/02/21	19/02/21	---
Revision	Created	Checked	Reviewed	Approved	Authorised
	ddmmyy	ddmmyy	ddmmyy	ddmmyy	ddmmyy

Designer  
Amey OW Limited  
Chancery Exchange  
10 Funnal Street  
London, EC4A 1AB

**A66 NTP** Integrated Project Team

Client  
3 Piccadilly Place  
Manchester  
M1 3BN

**highways** england

Project Name  
**A66 Northern Trans-Pennine**

Drawing Title  
**Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 1 of 4**

Project Ref. No.	Stage	Scale	@ A0
---	PCF3	1:1000	---
---	---	Dimensions	M

Drawing Number	Project	Originator	Volume
HE565627 - AMY - HGN - S07	---	---	---
Location	---	Type	Role
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Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



## A66 - Key Proposed Construction Activities (Phase 2 Works)

**Important** - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.













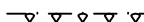















## RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey Arup DJV CDM Hazard Management Process.)

## NOTES

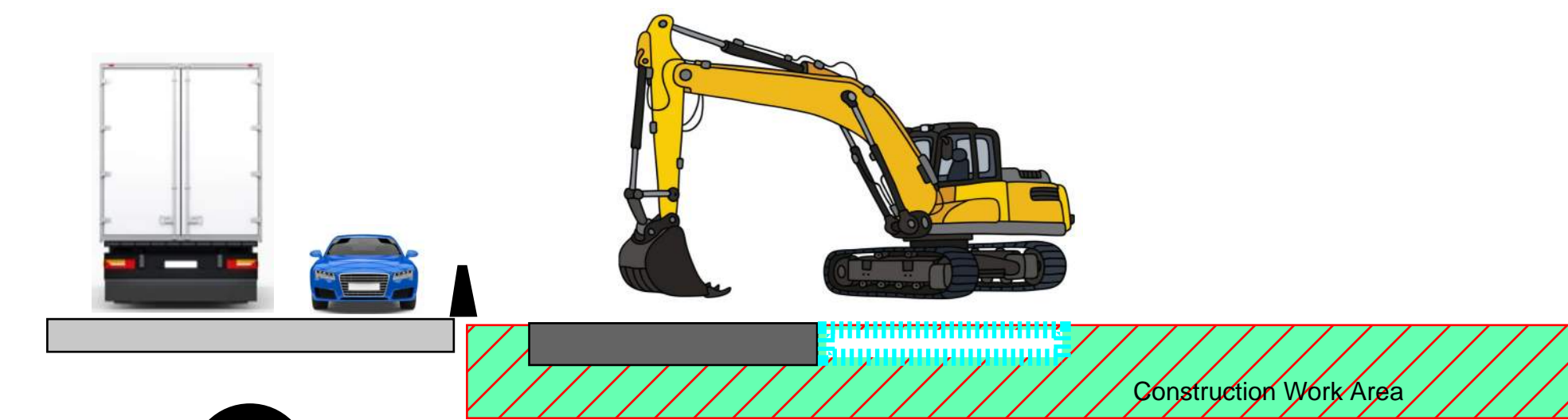
1. All levels are in metres above Ordnance Datum.
2. All elevations are in metres above Ordnance Datum.
3. This drawing is to be read in conjunction with all other drawings and the accompanying technical note.
4. E050672-AMV-HG01-01
5. The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design details are to be provided by the contractor.
6. The culvert navigation dimension is scheme specific for design coordination purposes only. A more detailed navigation consent is to be provided by the contractor at a later date.
7. The vehicle restraint system layout is at a high level assessment and does not include detailed risk assessment (RRAP) of the hazards present in the design.
8. Road markings, lighting columns and structures are indicative only and are not to be detailed.
9. Traffic sign faces and locations are indicative only. Traffic signs will be developed at detailed design.
10. The location of any bollards, fencing, are subject to agreement with landowners and detailed design.
11. The location of any parking and horse riding routes are indicative only and subject to agreement with owners and landowners.
12. A high level assessment of technology requirements has been completed with allowance made in the red line boundary for any new installations.

## KEY

- |   |                                   |
|---|-----------------------------------|
|    | Red line boundary                 |
|    | Existing layout                   |
|    | Existing watercourse              |
|    | Proposed layout                   |
|    | Highway structure                 |
|    | Culvert                           |
|    | Cut-off drain                     |
|    | Proposed boundary treatment       |
|    | Proposed gate                     |
|    | Traffic sign                      |
|    | Proposed lighting column          |
|    | Proposed vehicle restraint system |
|    | Headwall                          |
|    | Pipe to Outfall                   |
|    | Earthworks                        |
|    | Pond                              |
|    | Proposed Bridleway                |
|    | Abandoned Bridleway               |
|    | Existing Bridleway                |
|    | Proposed Footway/Footpath         |
|    | Abandoned Footway/Footpath        |
|  | Existing Footway/Footpath         |
|  | Proposed Shared Cycle Footway     |
|  | Abandoned Shared Cycle Footway    |
|  | Existing Shared Cycle Footway     |
|  | Compound/Storage Area             |
|  | Demolished buildings              |
|  | AONB                              |

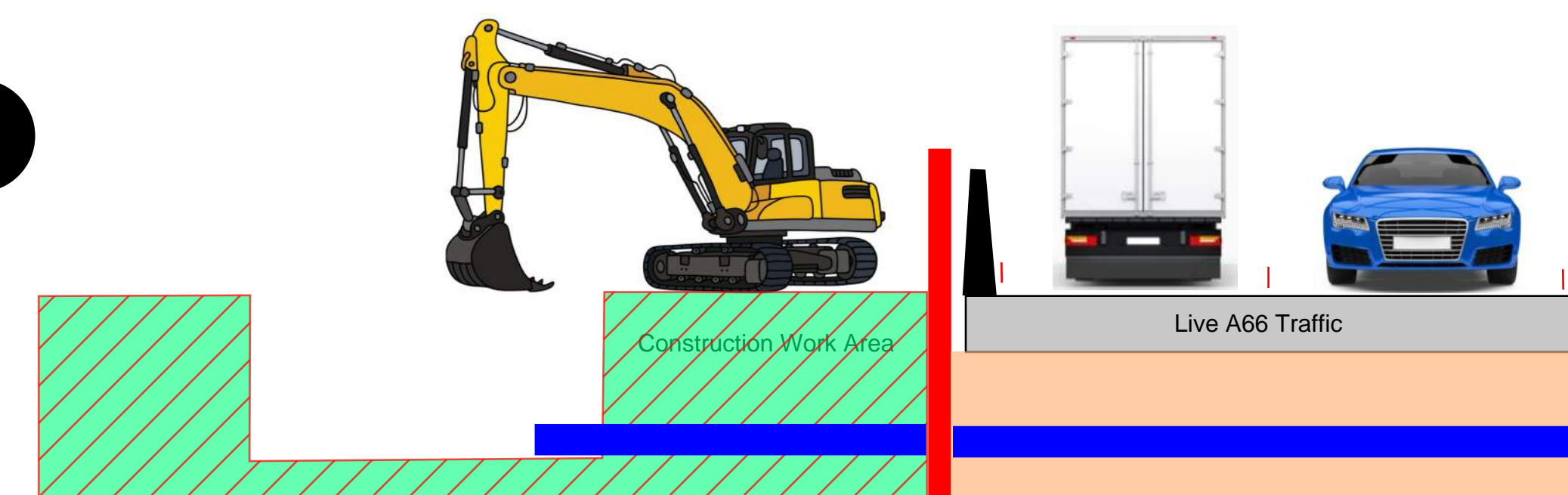
### Construction works - New carriageway

With traffic diverted onto part of the new A66, works can take place on modifying and widening the new westbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will be installed, followed by the aggregate and asphalt material being compacted in layers to complete the road.



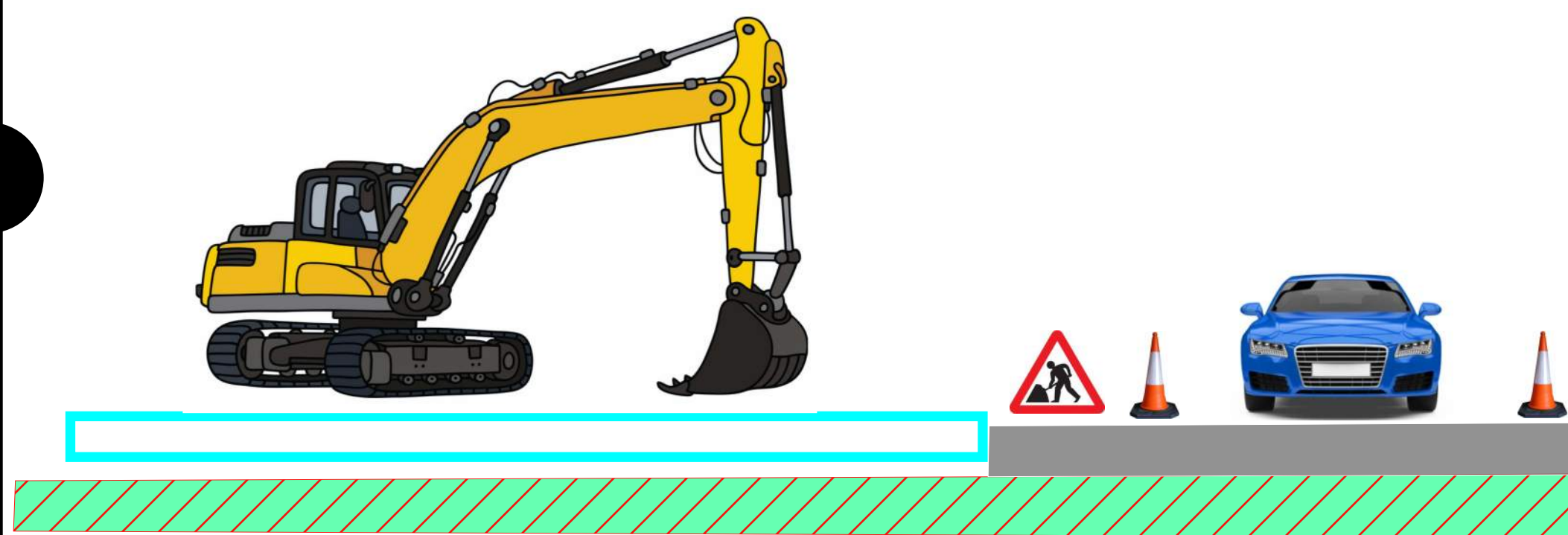
### Construction works - Drainage culverts

Drainage works will be undertaken within the construction work area assisted by ground supports to ensure reduced traffic management and keep the A66 traffic flowing. The drainage is required to mitigate flooding and overloading the current drainage network.



### Construction works - New road alignment

Works will take place to install part of the new A66 dual carriageway section of road with the existing road, with some traffic management being required to ensure the works can be undertaken safely whilst allowing traffic movements. With some works taking place close to live traffic, it may be necessary to impose one way traffic restriction to complete the road in a timely manner, which looks to minimise disruption to stakeholders.



### Legend

### Roads open & in public use

## Construction Work Area Phase 1

## Construction Work Area Phase 2

[illegible]

Designer  
Amey OW Limited  
Chancery Exchange  
10 Furnival Street  
London, EC4A 1AB

Client  
3 Piccadilly Place  
Manchester  
M1 3BN

Project Name	A66 Northern Trans-Pennine
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Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 2 of 4

Project Ref. No.	Stage	Scale : 1:1000 @ A0
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Drawing Number  
Project | Originator | Volume |  
HE565627 - AMY - HGN -  
S07 -DR-CH- 500002

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01



A66 - Key Proposed Construction Activities (Phase 2 Works)

Important - Some features shown on this drawing may be different from those shown in the Maps Books. The purpose of the drawings highlight elements of the construction works and where discrepancies with the Map Books exist, the Map Book versions should be regarded as showing the preliminary design.

RESIDUAL DESIGN HAZARDS  
(The following information has been collected from Preconstruction Information and the Arney Arup DJV CDM Hazard Management Process.)

- NOTES
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  - The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design development to be undertaken.
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- KEY
- Red line boundary
  - Existing layout
  - Existing watercourse
  - Proposed layout
  - Highway structure
  - Culvert
  - Cut-off drain
  - Proposed boundary treatment
  - Proposed gate
  - Traffic sign
  - Proposed lighting column
  - Proposed vehicle restraint system
  - Headwall
  - Pipe to Outfall
  - Earthworks
  - Pond
  - Proposed Bridleway
  - Abandoned Bridleway
  - Existing Bridleway
  - Proposed Footway/Footpath
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  - Existing Footway/Footpath
  - Proposed Shared Cycle Footway
  - Abandoned Shared Cycle Footway
  - Existing Shared Cycle Footway
  - Compound/Storage Area
  - Demolished buildings
  - AONB

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P01	ISSUED FOR MODEL FREEZE D				
	SHOT	SHOT	THAL	RPEA	---
	19/02/21	19/02/21	19/02/21	19/02/21	
Revision	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy

Designer  
Arney OW Limited  
Chancery Exchange  
10 Furnival Street  
London, EC4A 1AB

A66  
NTP  
Integrated  
Project  
Team

Client  
3 Piccadilly Place  
Manchester  
M1 3BN

highways  
england

Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 3 of 4

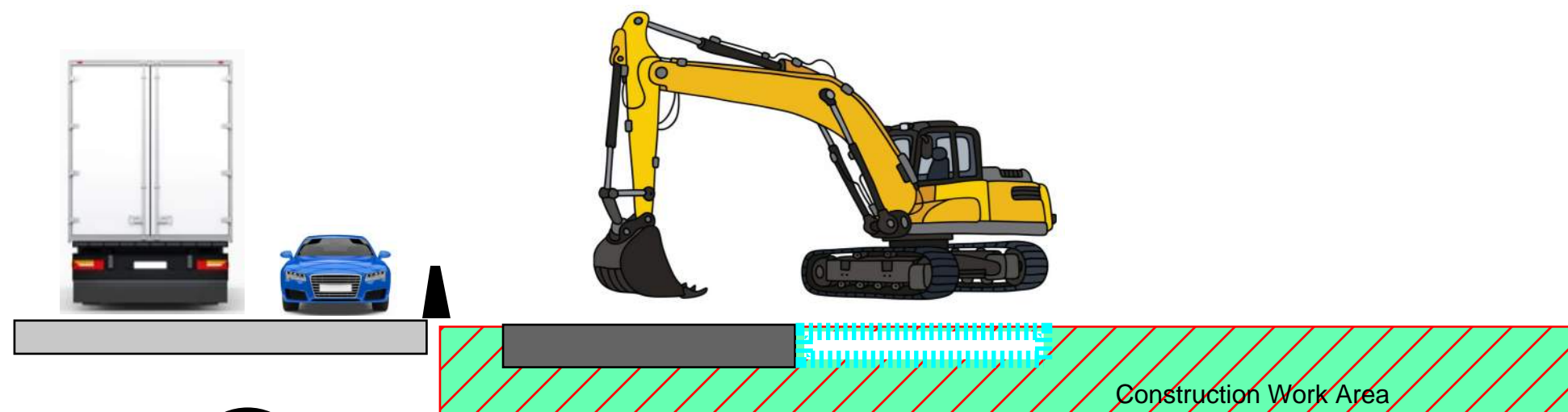
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Drawing Number  
Project | Originator | Volume |  
HE565627 - AMY - HGN -  
S07 -DR-CH- 500003  
Location | Type | Role | Number

Suitability Suitability Description Revision  
S3 Fit for Internal Review and Comment P01

Construction works - New carriageway

With traffic diverted on the eastbound carriageway, works can take place on modifying and widening the westbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will also be installed, followed by the compaction of aggregate and asphalt to complete the road.

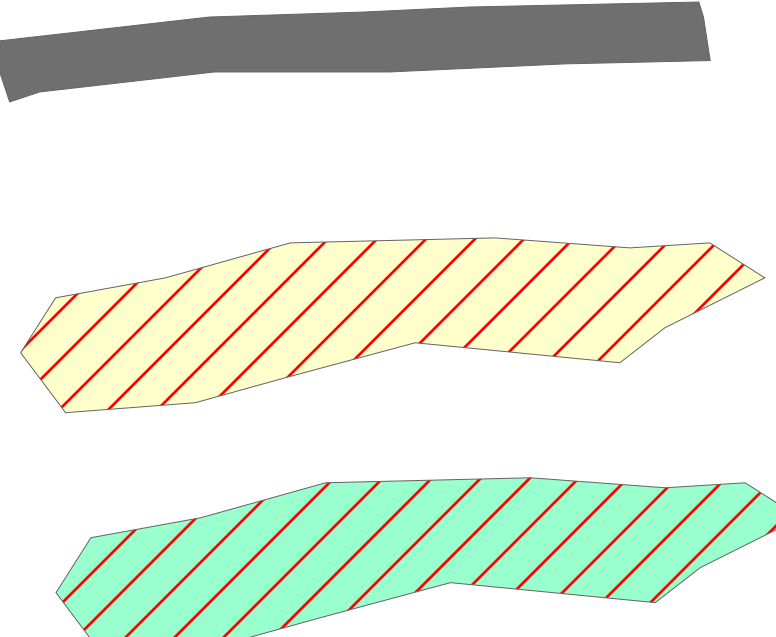


Legend

Roads open & in public use

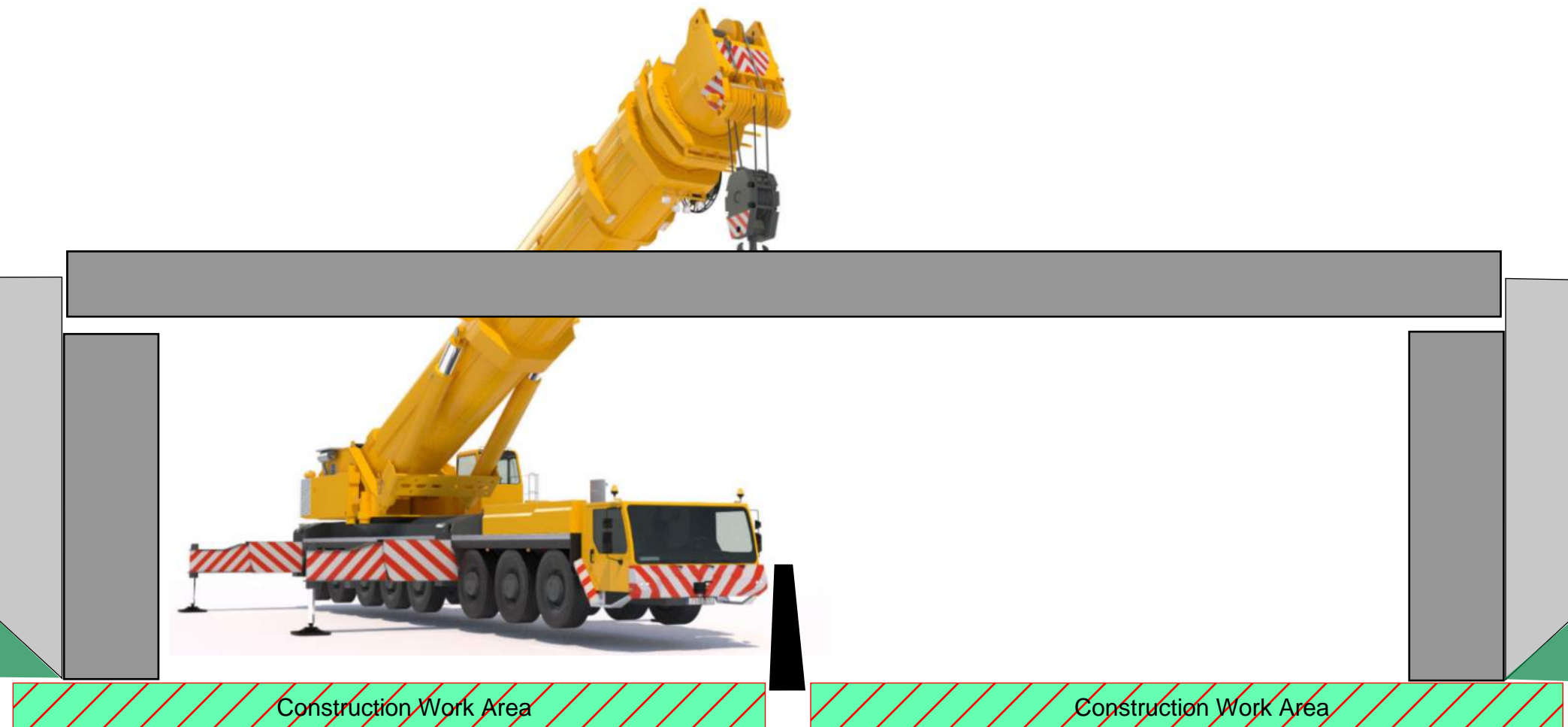
Construction Work Area Phase 1

Construction Work Area Phase 2



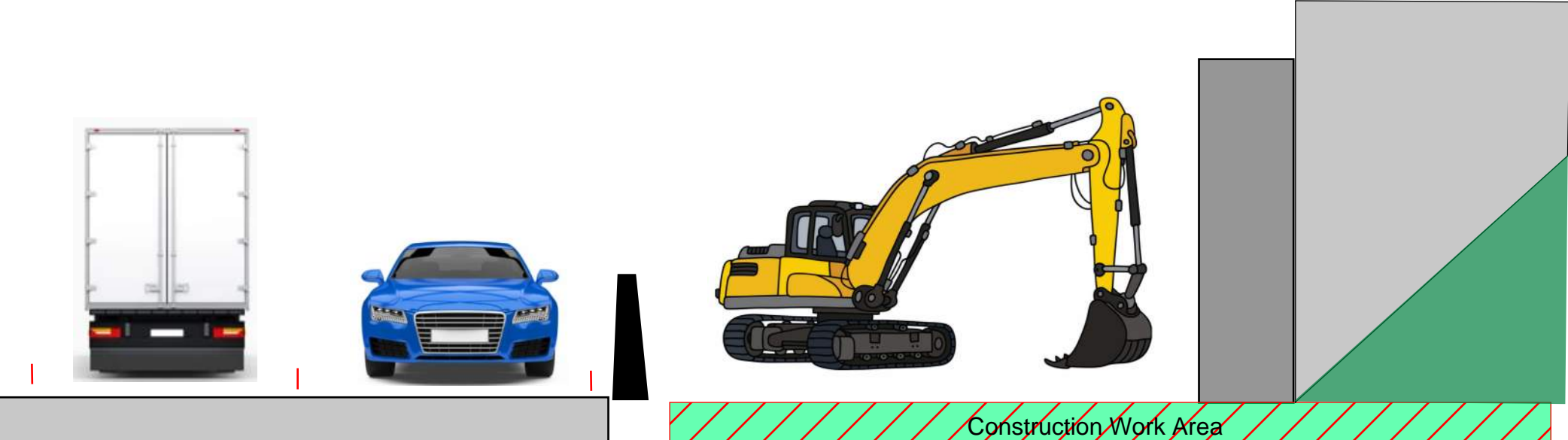
Construction works - Overbridge

On completion of the abutment, the bridge beams will be installed and the deck completed. Additional traffic management is likely to be required for this to take place and ensure the safety of the travelling public. On completion of the deck, the new road can be installed over the top and connections made with the embankment approach roads.



Construction works - Overbridge abutment

With traffic maintained on the eastbound carriageway, works can commence on the construction of the westbound abutment. As part of the works, fill material will be imported from stockpile locations to form the embankment.

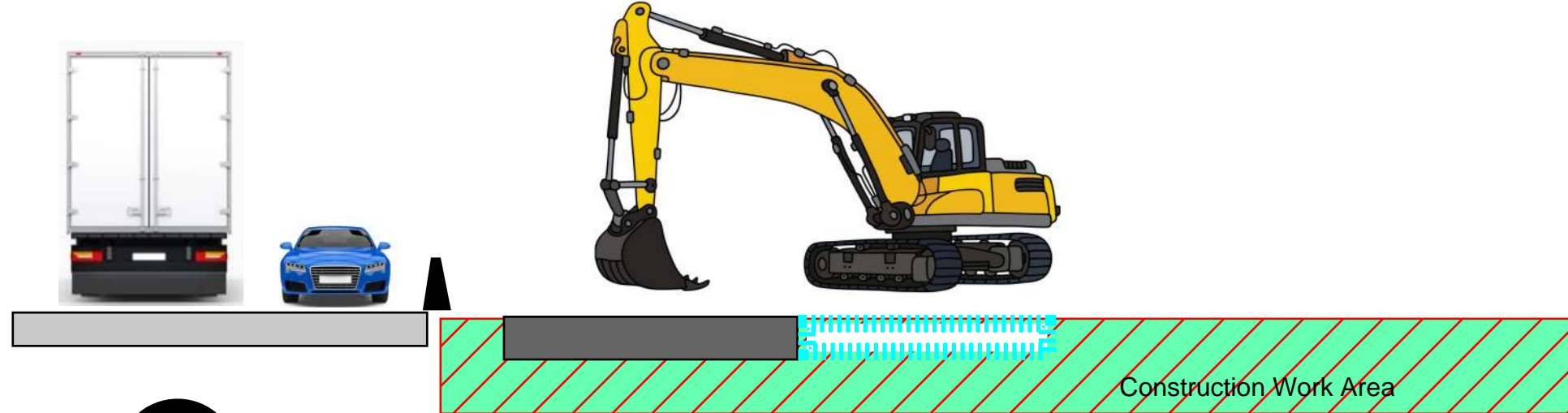




A66 - Key Proposed Construction Activities (Phase 2 Works)

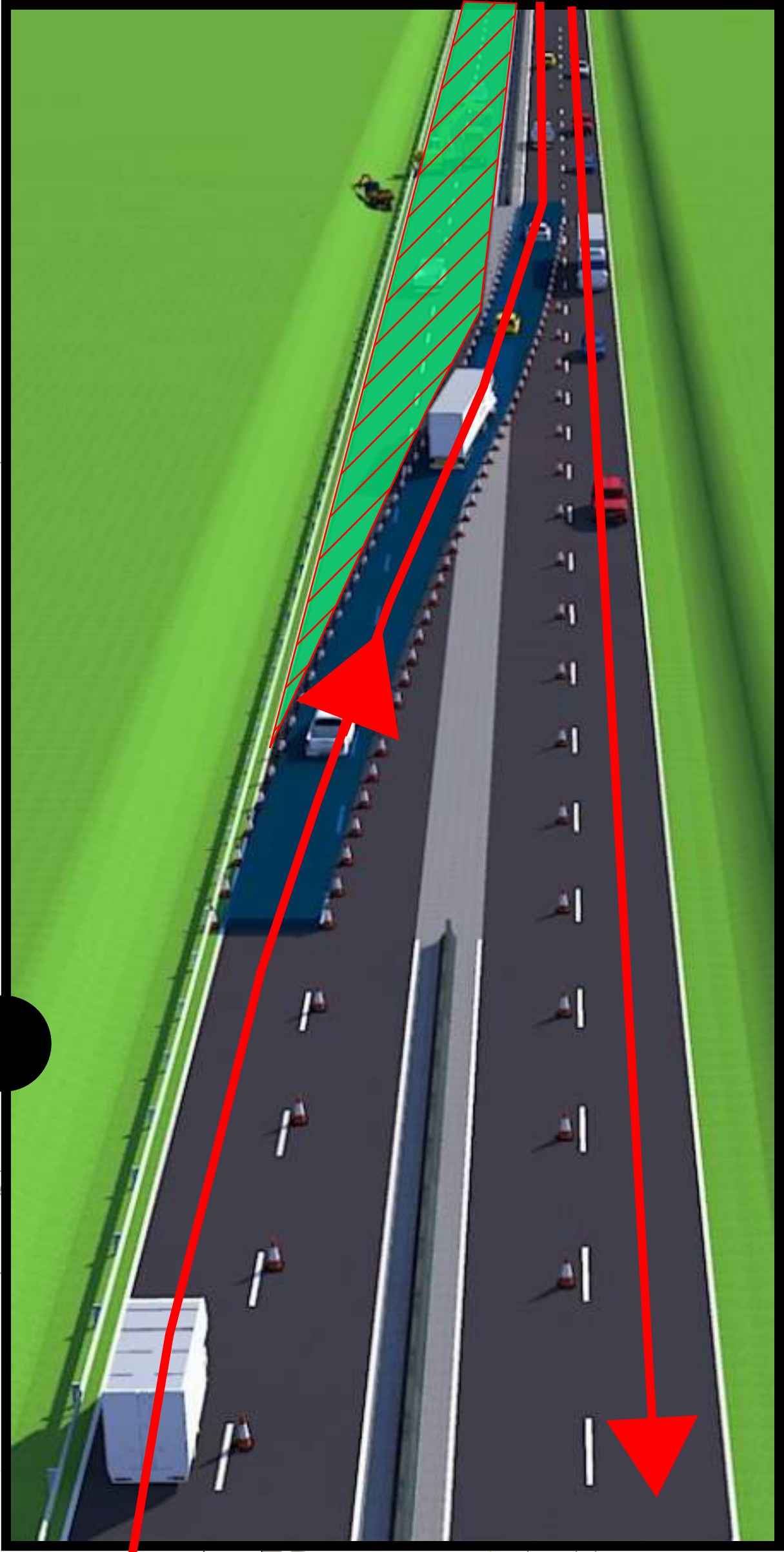
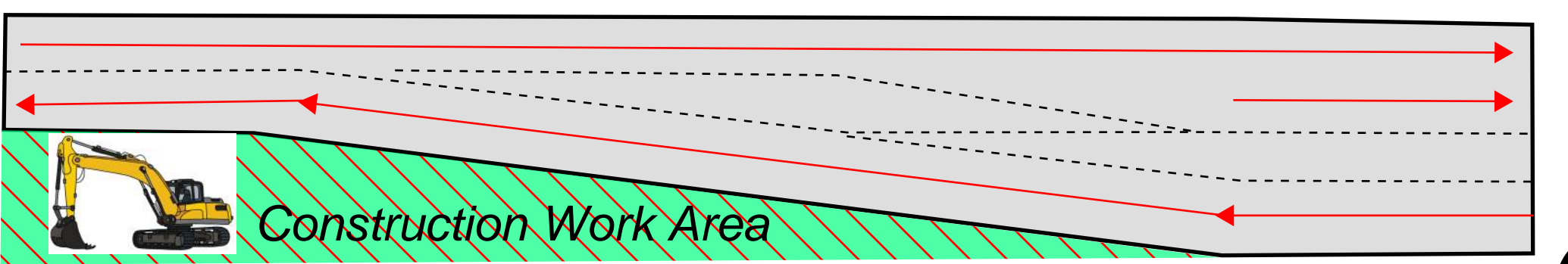
**Construction works - New carriageway**

With traffic diverted on the eastbound carriageway, works can take place on modifying and widening the westbound carriageway to suit the new road alignment. This will involve changes to the existing carriageway and widening works. Material excavated will be transported to local stockpile areas for reuse, with imported material brought in for the works. Kerbs and drainage will also be installed, followed by the compaction of aggregate and asphalt to complete the road.



**Traffic management for construction works**

Traffic will be relocated and diverted to enable traffic to remain flowing whilst allowing construction works to be undertaken safely.



RESIDUAL DESIGN HAZARDS

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P01	ISSUED FOR MODEL FREEZE D	---	---	---	---
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---	19/02/21	19/02/21	19/02/21	19/02/21	---
Revision	Created	Checked	Reviewed	Approved	Authorised
---	sdmmyy	sdmmyy	sdmmyy	sdmmyy	sdmmyy

Designer  
Amey OW Limited  
Chancery Exchange  
10 Funnal Street  
London, EC4A 1AB



Client  
3 Piccadilly Place  
Manchester  
M1 3BN



Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Scheme 7: Bowes Bypass  
General Arrangement  
Sheet 4 of 4

Project Ref. No.	Stage	Scale	@ A0
---	PCF3	1:1000	---
---	---	Dimensions	M

Drawing Number	Project	Originator	Volume
---	HE565627 - AMY - HGN -	---	---
---	S07	-DR-CH - 500004	---
---	Location	Type	Role
---	---	---	---

Suitability	Suitability Description	Revision
S3	Fit for Internal Review and Comment	P01

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**Legend**

Roads open & in public use

Construction Work Area Phase 1

Construction Work Area Phase 2