

A66 - Key Proposed Construction Activities (Phase 1 Works)

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.

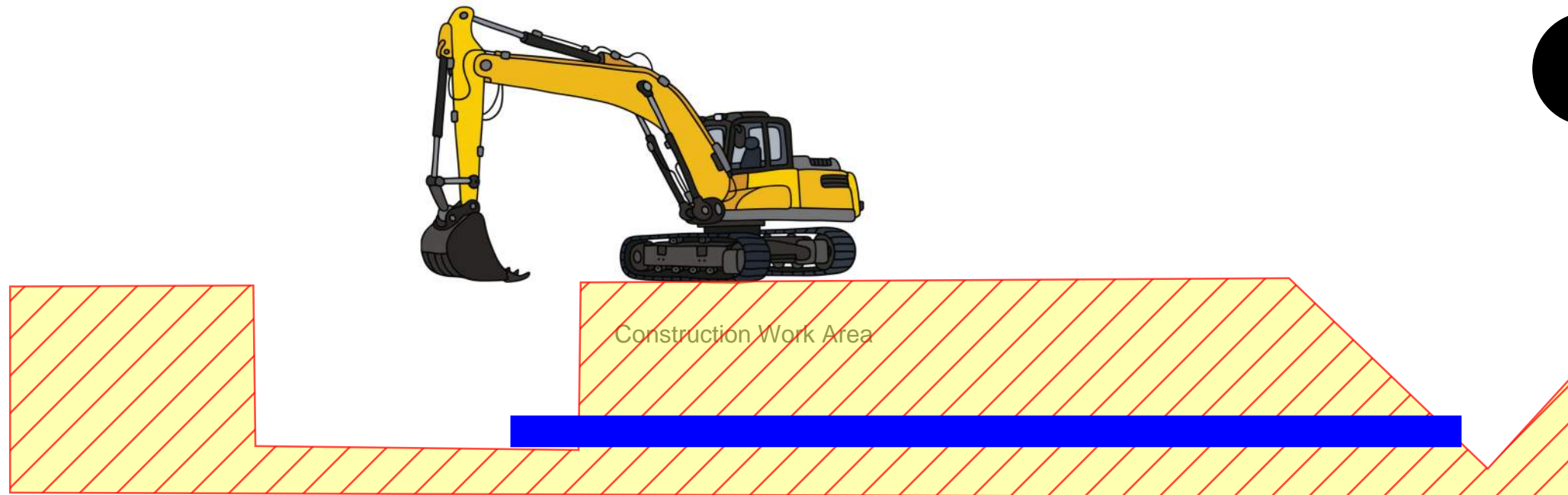
Construction works - New carriageway

With traffic maintained on the existing road, works will take place to excavate and install the new road, with material being sent to stockpile locations and new imported material brought in for the road construction. Kerbs and drainage will be installed, followed by granular and asphalt material placed in layers to form the new road.



Construction works - Drainage culverts

Drainage works will be undertaken within the construction work area assisted by ground support systems where required. With the A66 maintained on the existing route, the construction works can be undertaken efficiently. The drainage is required to mitigate flooding and overloading the current drainage network.



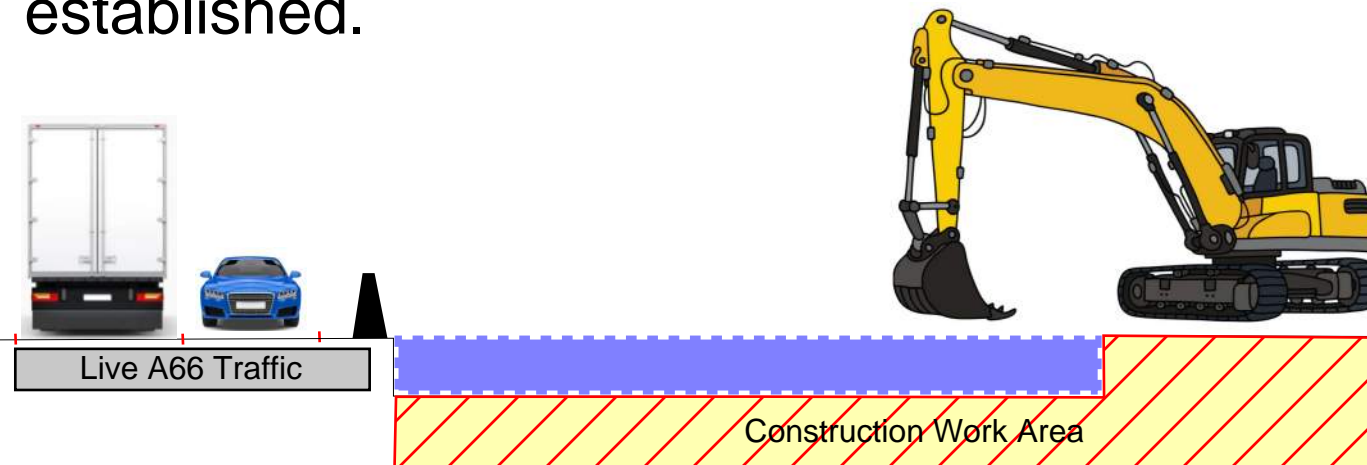
Construction works - Overbridge

Works on the underbridge can take place away from live traffic with minimal impacts to the A66 which is maintained on the current route. It is likely that the ground will be excavated to enable the abutment walls to be constructed. This will be followed by the installation of the roof beams. With the structure complete, the new A66 dual carriageway can be constructed above.



Construction works - New diversion route

To facilitate the construction of the new road a diversion route will be established to move traffic away from the work area. This will allow the new underbridge to be constructed in a safe and efficient manner. The new temporary road will be constructed from granular and asphalt material. It will be removed in later phases, once the new route is established.



RESIDUAL DESIGN HAZARDS



































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

- Overhead Services.
Underground Services.

NOTES

1. All levels are in metres above Ordnance Survey Datum.
2. All dimensions are in metres unless otherwise stated.
3. This drawing is to be read in conjunction with all other relevant drawings.

KEY

- | | |
|---|------------------------------------|
|  | Red Line Boundary |
|  | Proposed Fence Line |
|  | Existing Layout |
|  | Proposed Layout |
|  | Highway Structure |
|  | Culvert |
|  | Cut-off drain |
|  | Earthworks |
|  | Pond |
|  | Footpath |
|  | Proposed Footpath |
|  | Abandoned Footpath |
|  | Bridleway |
|  | Proposed Bridleway |
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|  | Farm Track/Access |
|  | Proposed Gate |
|  | Compound/ Storage Locations |
|  | Paved Area |
|  | Area of Outstanding Natural Beauty |
|  | Major Overhead Services |
|  | Major Underground Services |
|  | Headwall |
|  | Pipe to Outfall |
|  | Cattle Grid |
|  | Hedge |
|  | MOD Helipad |
|  | Proposed Vehicle Restraint System |
|  | Concrete Drainage Channel |
|  | Sign Position |
|  | Filter Drain |
|  | MOD Boundary Fence |
|  | Green Line Boundary |
|  | Potential Brough Hill Fair Site |

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	***	***	***	***	***
P01.1	***				

	***	***	***	***	***
Revision	Revision details				
	Created dd/mm/yy	Checked dd/mm/yy	Reviewed dd/mm/yy	Approved dd/mm/yy	Authorised 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

Project Name
A66 Northern Trans-Pennine

Drawing Title

Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 7 of 10

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

Drawing Number			
Project	Originator	Volume	
HE565627 - AMY - HGN -			
S06	-DR-CH-450207		
Location	Type	Role	Number

Suitability	Suitability Description	Revision
S0	Initial non-contractual code	P01.1

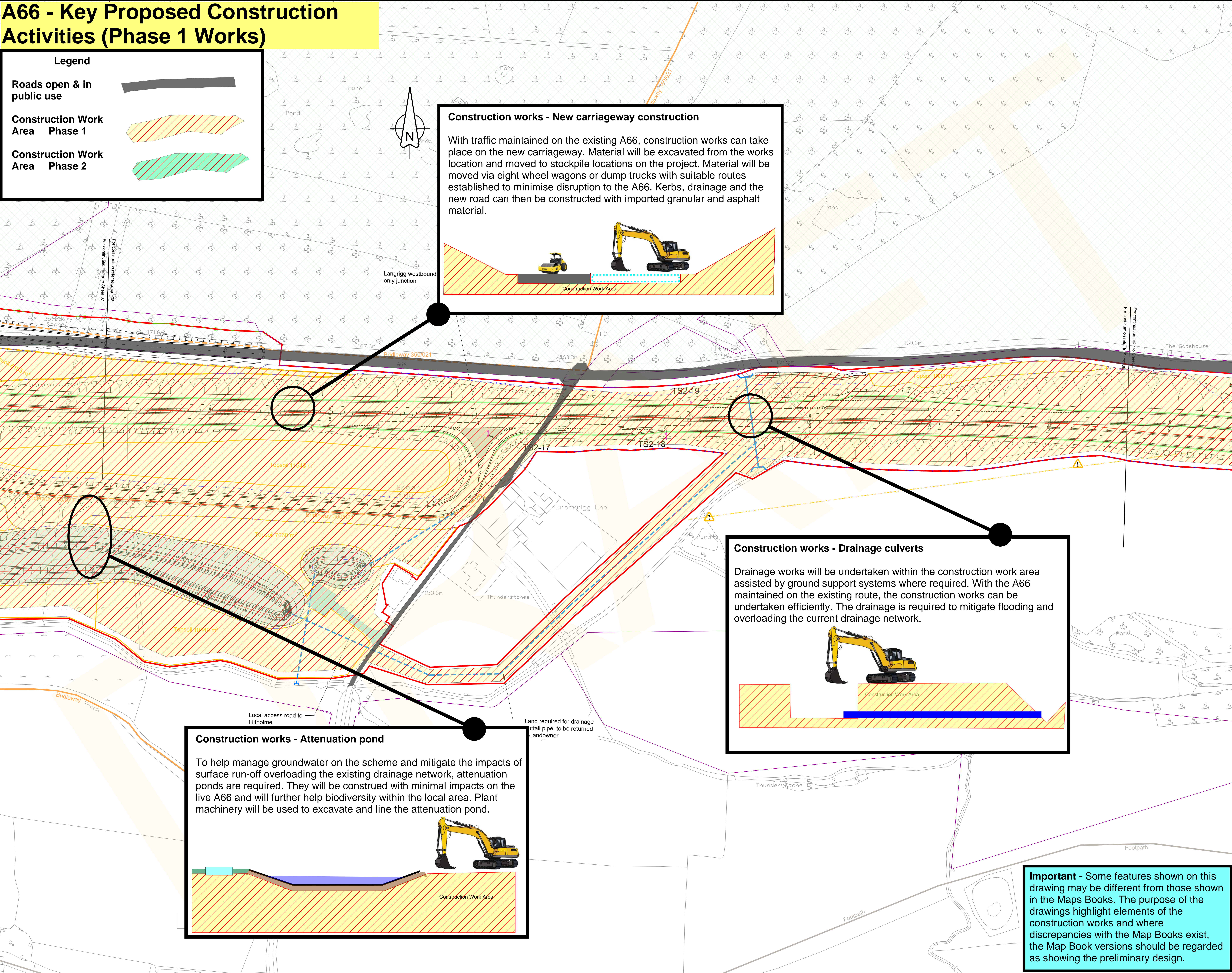
A66 - Key Proposed Construction Activities (Phase 1 Works)

Legend

Roads open & in public use

Construction Work Area Phase 1

Construction Work Area Phase 2



Construction works - New carriageway construction

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

Construction works - Drainage culverts

Drainage works will be undertaken within the construction work area assisted by ground support systems where required. With the A66 maintained on the existing route, the construction works can be undertaken efficiently. The drainage is required to mitigate flooding and overloading the current drainage network.

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.

RESIDUAL DESIGN HAZARDS
(The following information has been collected from Preconstruction Information and the Amey Arup JVV CDM Hazard Management Process.)
1. Overhead Services.
2. Underground Services.

NOTES
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- Sign Position
- Filter Drain
- MOD Boundary Fence
- Green Line Boundary
- Potential Brough Hill Fair Site

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Revision	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
Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 8 of 10

Project Ref. No.

Stage
PCF3

Scale :
1:1000

@ A0

Drawing Number
Project
HE565627 - AMY - HGN -
S06
Location

Volume
- DR-CH - 458208
Type
Role
Number

Suitability
S0

Suitability Description
Initial non-contractual code

Revision
P01.1

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.

A66 - Key Proposed Construction Activities (Phase 1 Works)

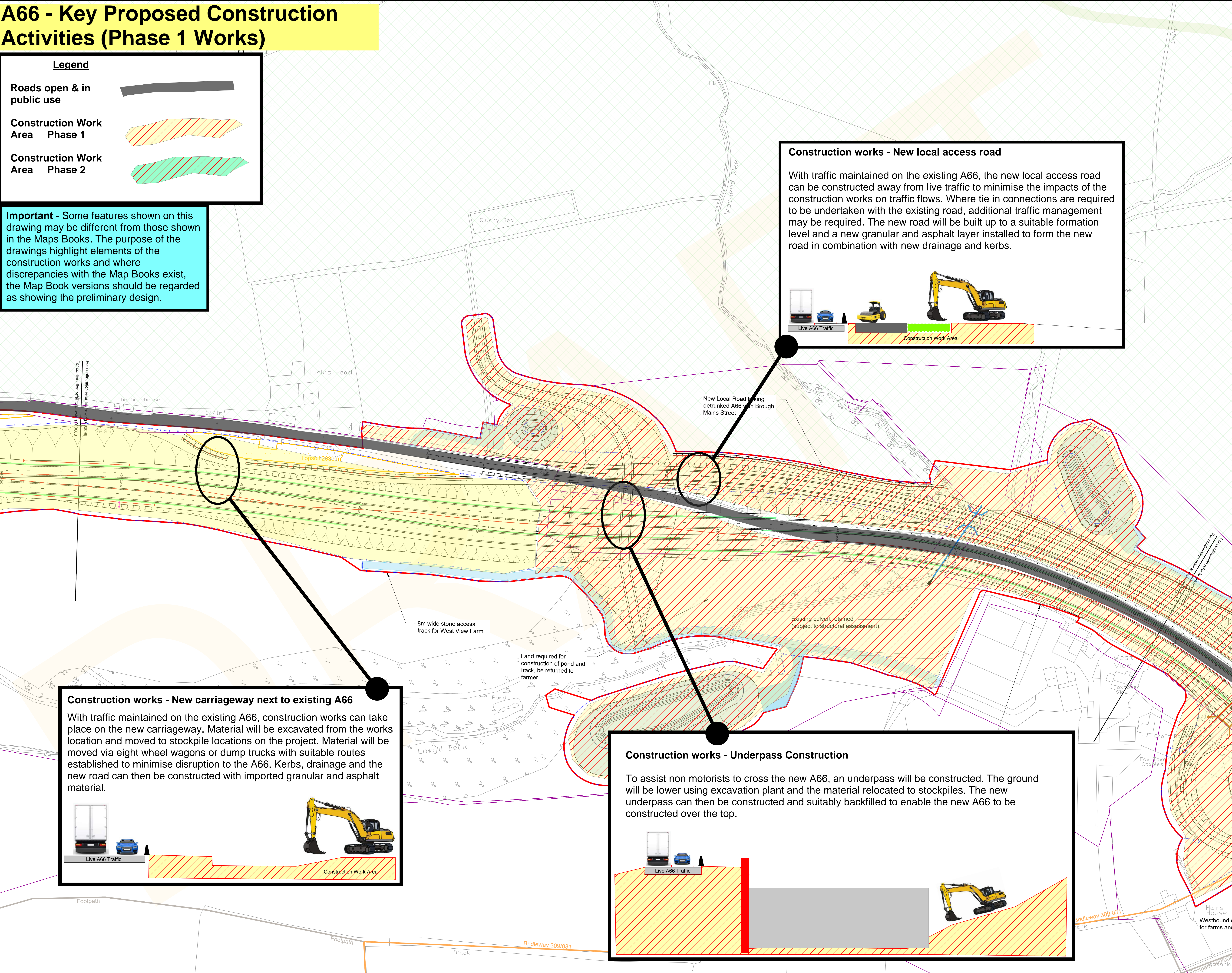
Legend

Roads open & in public use

Construction Work Area Phase 1

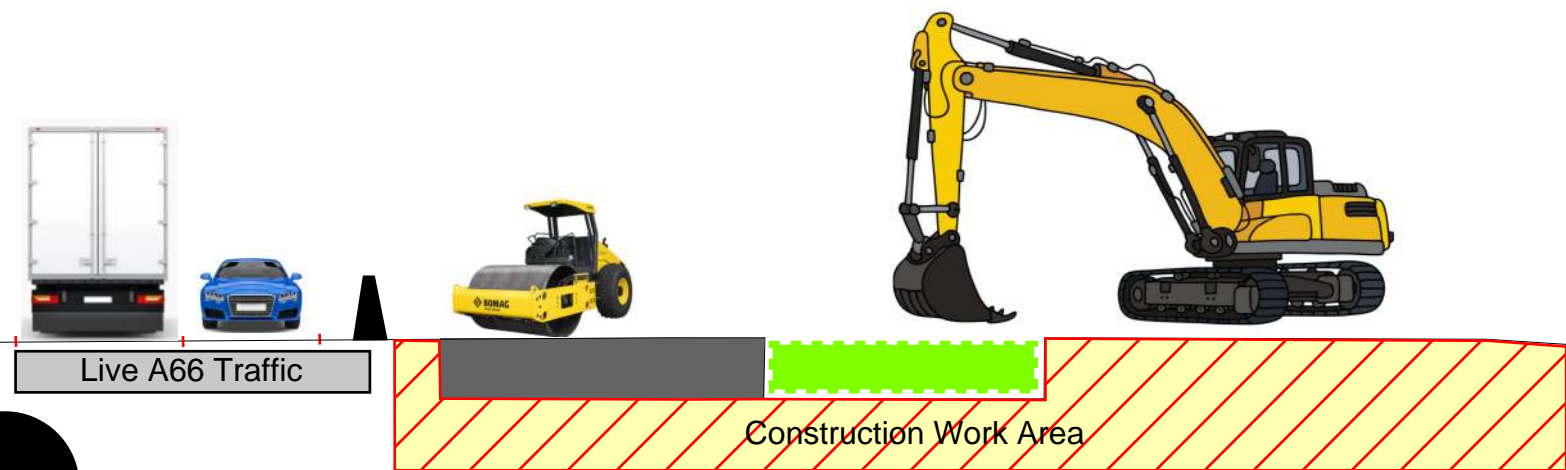
Construction Work Area Phase 2

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.



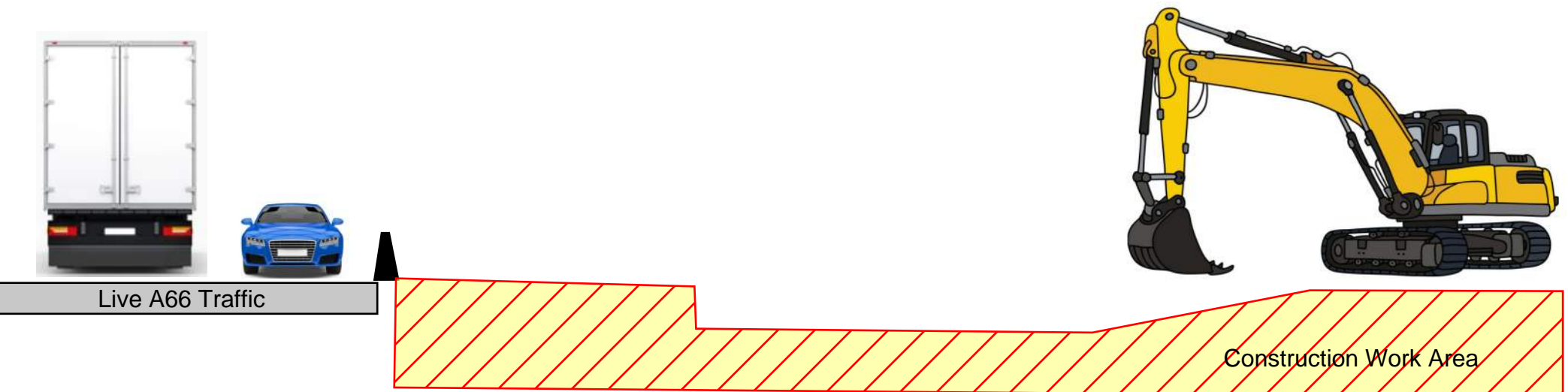
Construction works - New local access road

With traffic maintained on the existing A66, the new local access road can be constructed away from live traffic to minimise the impacts of the construction works on traffic flows. Where tie in connections are required to be undertaken with the existing road, additional traffic management may be required. The new road will be built up to a suitable formation level and a new granular and asphalt layer installed to form the new road in combination with new drainage and kerbs.



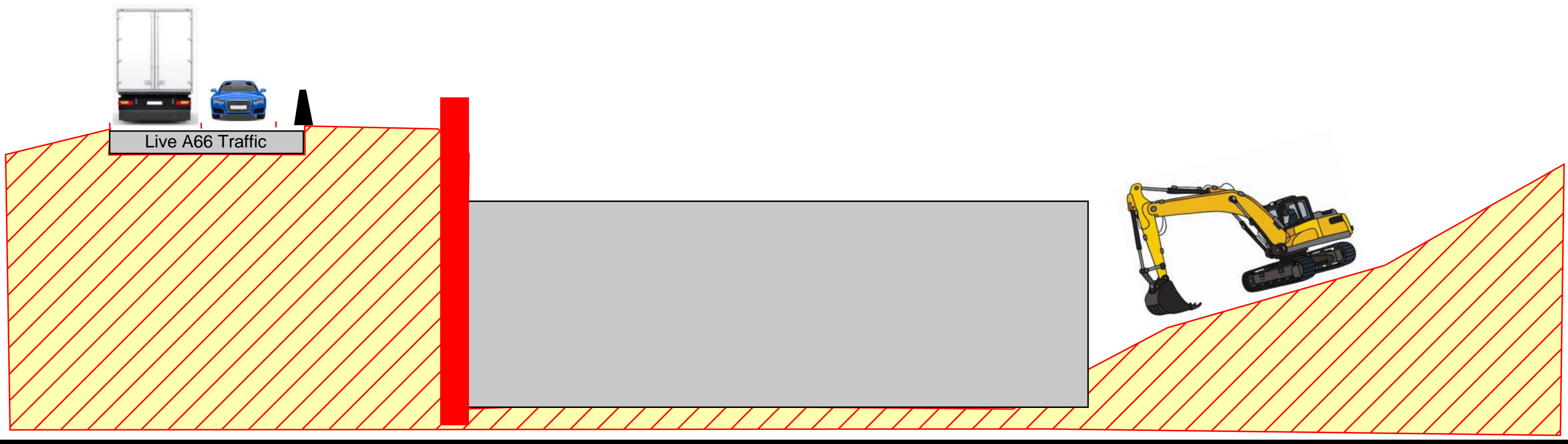
Construction works - New carriageway next to existing A66

With traffic maintained on the existing A66, construction works can take place on the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.



Construction works - Underpass Construction

To assist non motorists to cross the new A66, an underpass will be constructed. The ground will be lower using excavation plant and the material relocated to stockpiles. The new underpass can then be constructed and suitably backfilled to enable the new A66 to be constructed over the top.



RESIDUAL DESIGN HAZARDS

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

- Overhead Services.
- Underground Services.

NOTES

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- Green Line Boundary
- Potential Brough Hill Fair Site

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P01.1	---	---	---	---	---
Revision	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 Farnival Street
London, EC4A 1AB

A66 NTP Integrated Project Team

Client
3 Piccadilly Place
Manchester
M1 3BN

highways england

Project Name
A66 Northern Trans-Pennine

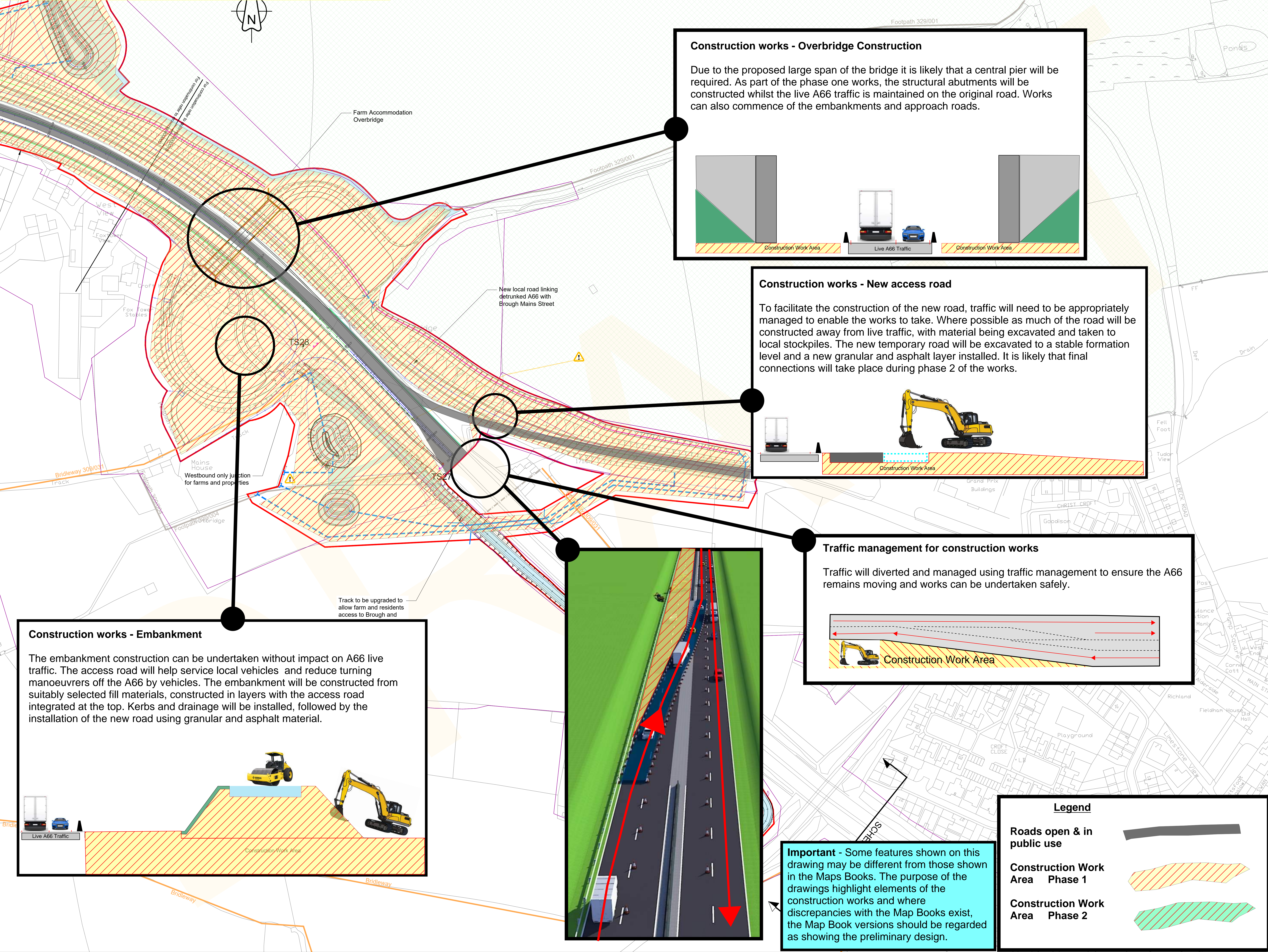
Drawing Title
Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 9 of 10

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

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGN -
S06 -DR-CH-467209
Location | Type | Role | Number

Suitability Suitability Description Revision
S0 Initial non-contractual code P01.1

A66 - Key Proposed Construction Activities (Phase 1 Works)



Construction works - Overbridge Construction

Due to the proposed large span of the bridge it is likely that a central pier will be required. As part of the phase one works, the structural abutments will be constructed whilst the live A66 traffic is maintained on the original road. Works can also commence of the embankments and approach roads.

Construction works - New access road

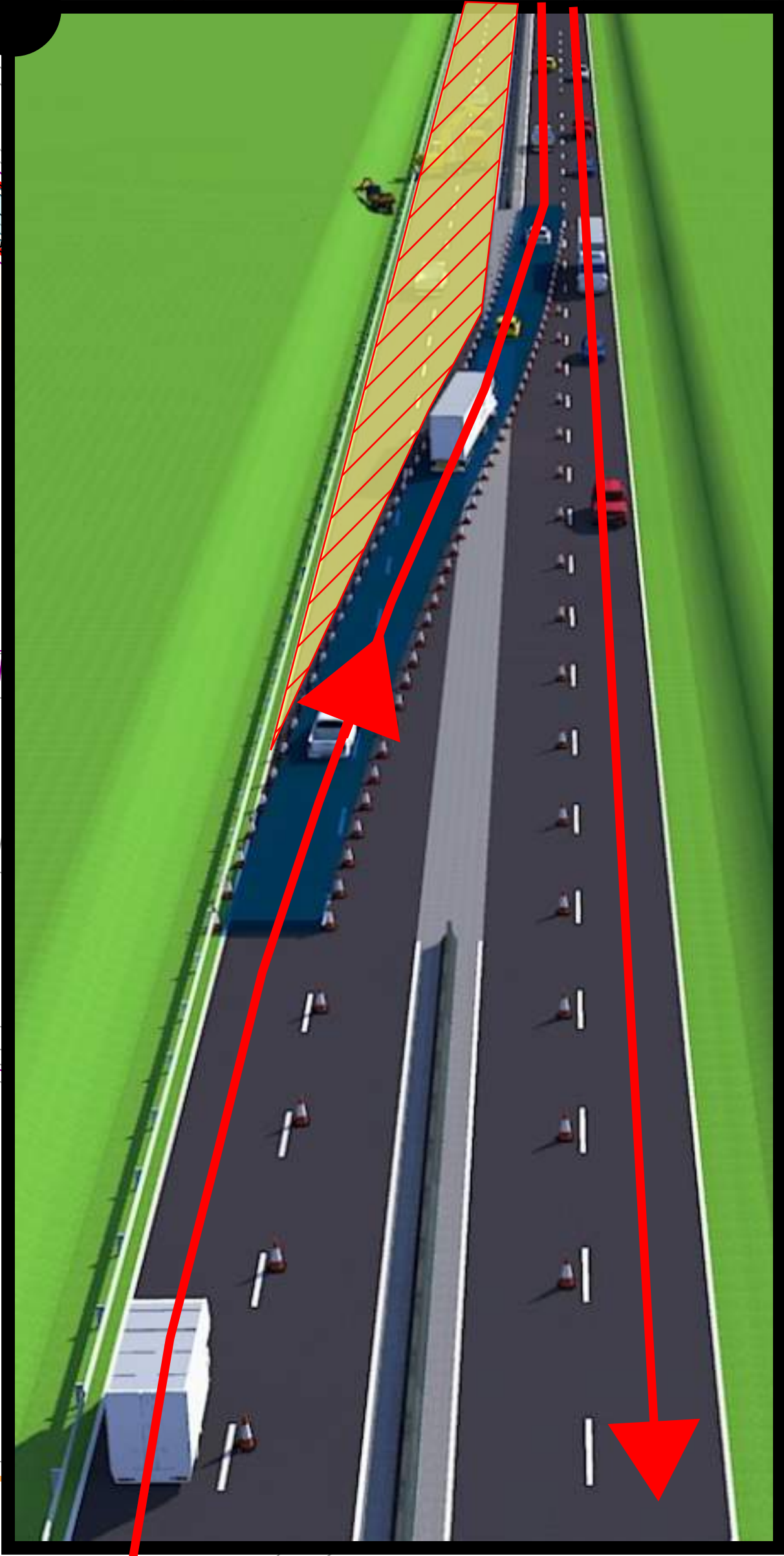
To facilitate the construction of the new road, traffic will need to be appropriately managed to enable the works to take. Where possible as much of the road will be constructed away from live traffic, with material being excavated and taken to local stockpiles. The new temporary road will be excavated to a stable formation level and a new granular and asphalt layer installed. It is likely that final connections will take place during phase 2 of the works.

Traffic management for construction works

Traffic will diverted and managed using traffic management to ensure the A66 remains moving and works can be undertaken safely.

Construction works - Embankment

The embankment construction can be undertaken without impact on A66 live traffic. The access road will help service local vehicles and reduce turning manoeuvres off the A66 by vehicles. The embankment will be constructed from suitably selected fill materials, constructed in layers with the access road integrated at the top. Kerbs and drainage will be installed, followed by the installation of the new road using granular and asphalt material.



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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 Arup Arup JUV CDM Hazard Management Process.)

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Revision	Created	Checked	Reviewed	Approved	Authorised
---	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01.1	---	---	---	---	---

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

Client
3 Piccadilly Place
Manchester
M1 3BN

Project Name
A66 Northern Trans-Pennine

Drawing Title
Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 10 of 10

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

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGN -
S06 -DR-CH-476010
Location | Type | Role | Number

Suitability Suitability Description Revision
S0 Initial non-contractual code P01.1

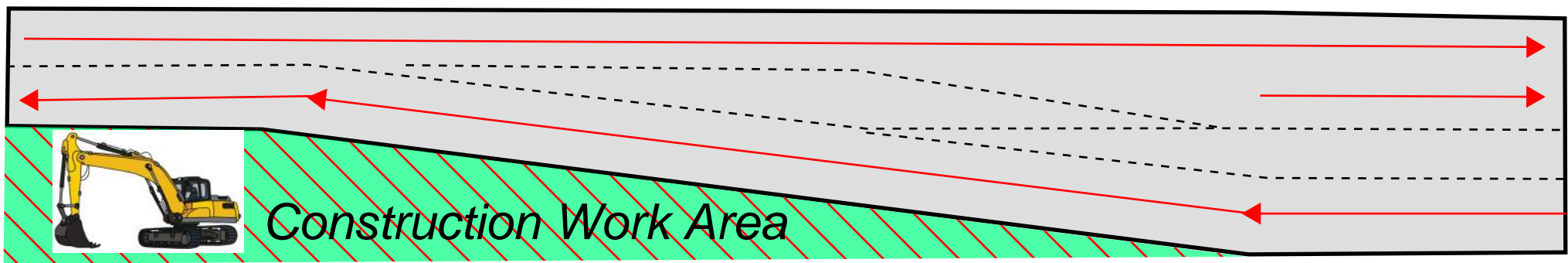
A66 NTP Integrated Project Team

highways england

A66 - Key Proposed Construction Activities (Phase 2 Works)

Traffic management for construction works

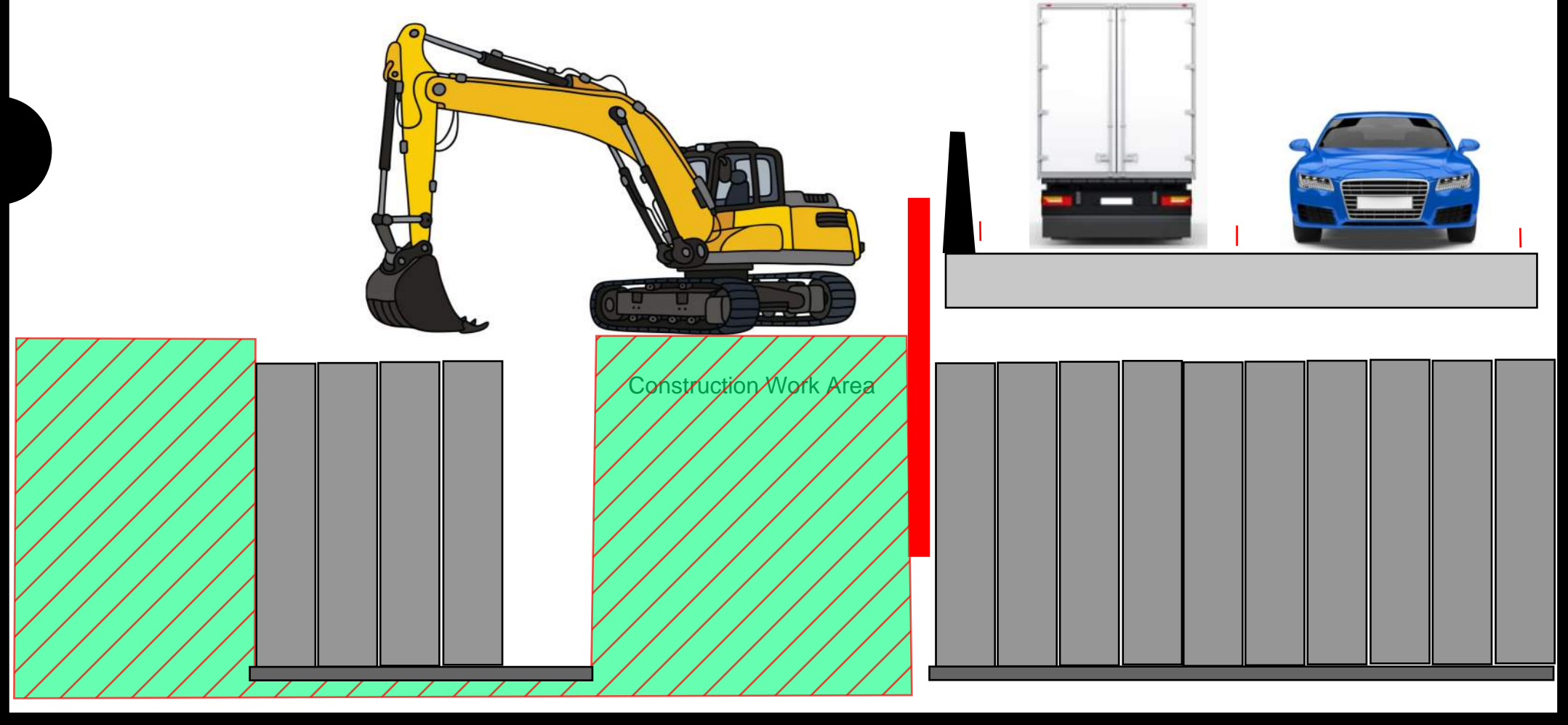
Traffic will be relocated and diverted to enable the A66 to remain flowing whilst the construction works take place within the traffic management area.



Construction Work Area

Construction works - New underpass


To enable the works to be carried out while maintaining traffic on the existing A66 a temporary works retaining solution may be utilised to enable the construction works to be undertaken safely. The ground will be excavated to formation level and the underpass constructed, with earth being replaced above the underpass once completed. This will look to join up with the early underpass works undertaken to complete the structure. Some additional traffic management may be required to complete the works.



Construction Work Area

Construction works - New carriageway

With traffic diverted onto part of the new A66, construction works can take place on the remaining part of the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.



Construction Work Area

RESIDUAL DESIGN HAZARDS

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- MOD Boundary Fence
- Green Line Boundary
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Revision	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
Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 1 of 10

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

Drawing Number

Project	Originator	Volume
HE565627 - AMY - HGN -		
S06	-DR-CH-	398001
Location	Type	Role

Suitability	Suitability Description	Revision
S0	Initial non-contractual code	P01.1

A66 - Key Proposed Construction Activities (Phase 2 Works)

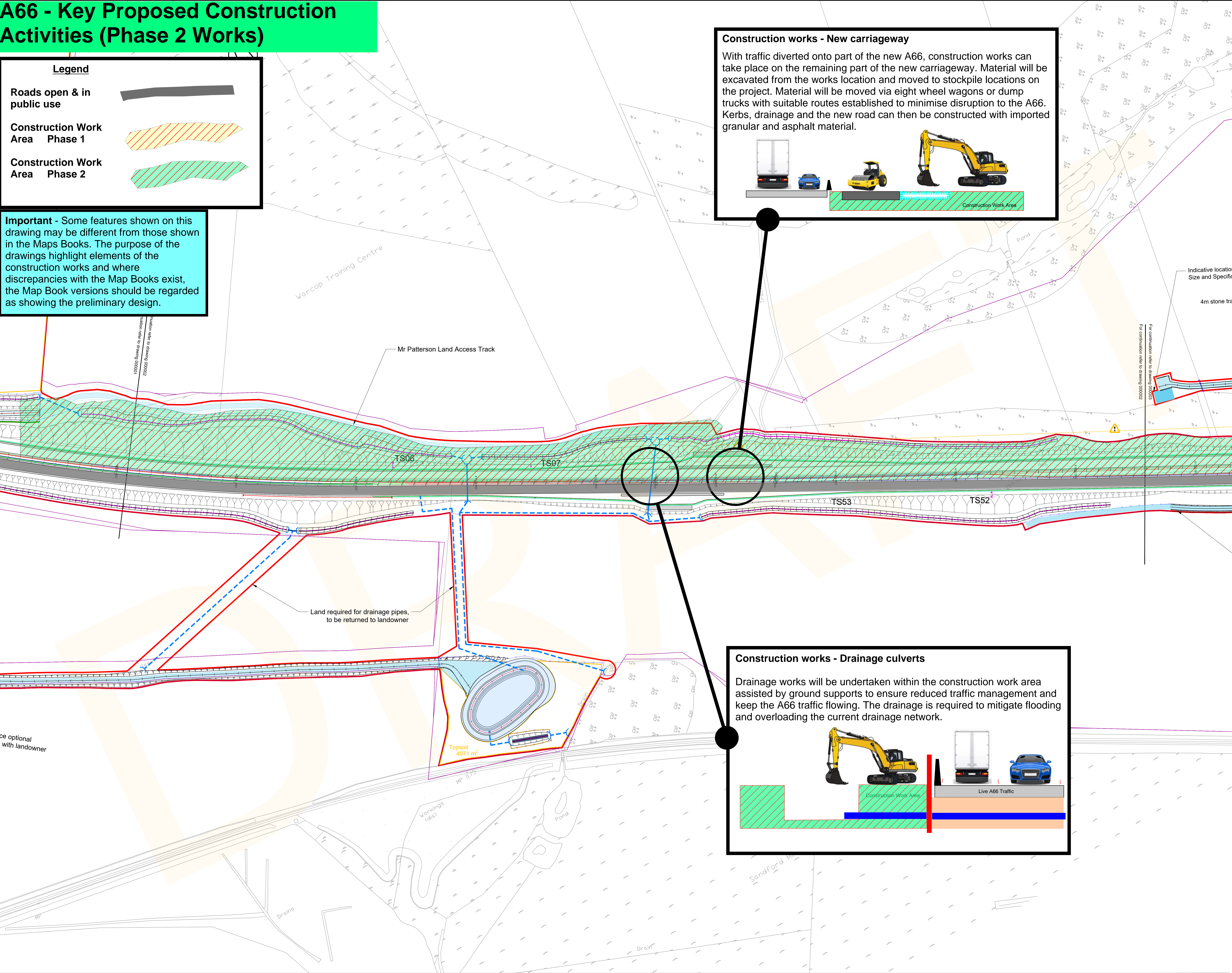
Legend

Roads open & in public use

Construction Work Area Phase 1

Construction Work Area Phase 2

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Construction works - New carriageway

With traffic diverted onto part of the new A66, construction works can take place on the remaining part of the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.

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.

RESIDUAL DESIGN HAZARDS

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

- Overhead Services.
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P01.1	---	---	---	---	---
Revision	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 Funnal Street
London, EC4A 1AB

Client
3 Piccadilly Place
Manchester
M1 3BN

Project Name
A66 Northern Trans-Pennine

Drawing Title
Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 2 of 10

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

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - HGN -
S06 -DR-CH - 407002
Location | Type | Role | Number

Suitability	Suitability Description	Revision
S0	Initial non-contractual code	P01.1

A66 - Key Proposed Construction Activities (Phase 2 Works)

Legend

Roads open & in public use

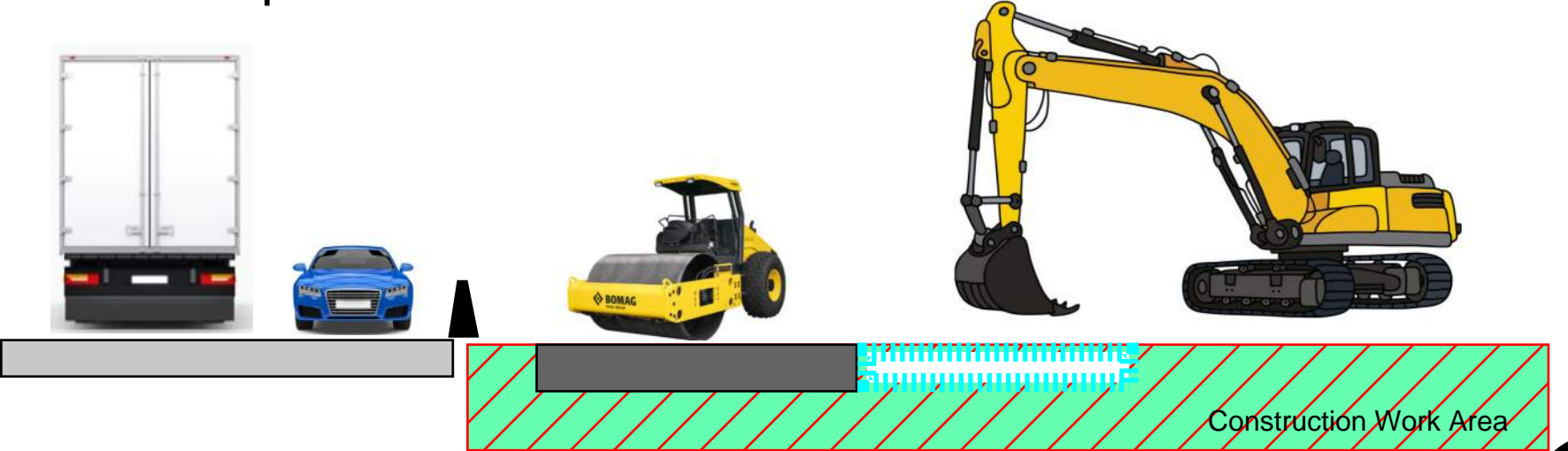
Construction Work Area Phase 1

Construction Work Area Phase 2

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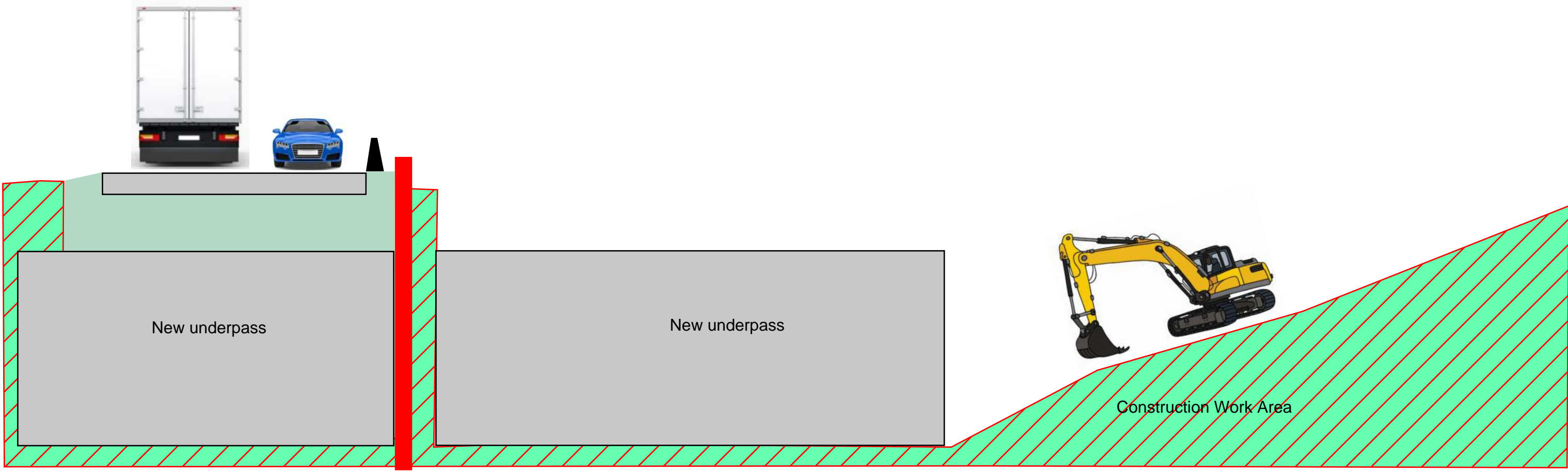
Construction works - New carriageway

With traffic diverted onto part of the new A66, construction works can take place on the remaining part of the new carriageway. Material will be excavated from the works location and moved to stockpile locations on the project. Material will be moved via eight wheel wagons or dump trucks with suitable routes established to minimise disruption to the A66. Kerbs, drainage and the new road can then be constructed with imported granular and asphalt material.



Construction works - Underpass construction

To reduce traffic movements across the A66, an underpass is to be constructed. This will be excavated into the ground with temporary works required to keep the A66 traffic live whilst ensuring future traffic management is restricted to keep the road moving. The structure will be constructed below ground and then buried to ensure it blends into the surroundings. The new road with associated kerbs and drainage can then be constructed above. Works during this phase will connect up both elements of the underpass, with some additional traffic managed possibly being required.



RESIDUAL DESIGN HAZARDS

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Chancery Exchange
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3 Piccadilly Place
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M1 3BN

Project Name
A66 Northern Trans-Pennine

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Appleby to Brough
Option 2 - (Black-Blue-Black)
General Arrangement
Sheet 3 of 10

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

Drawing Number

Project	Originator	Volume
HE565627 - AMY - HGN -		
S06		
Location	Type	Role
		Number

Suitability	Suitability Description	Revision
S0	Initial non-contractual code	P01.1

A66 NTP Integrated Project Team

highways england