

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

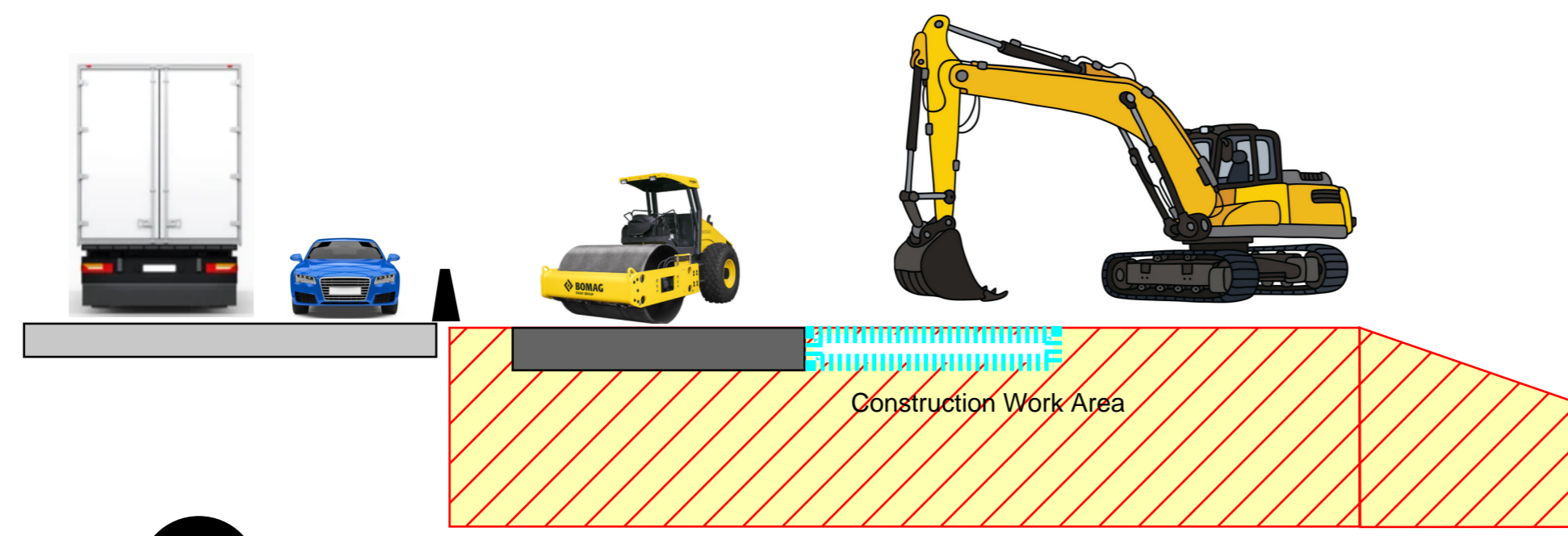
## Legend

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2

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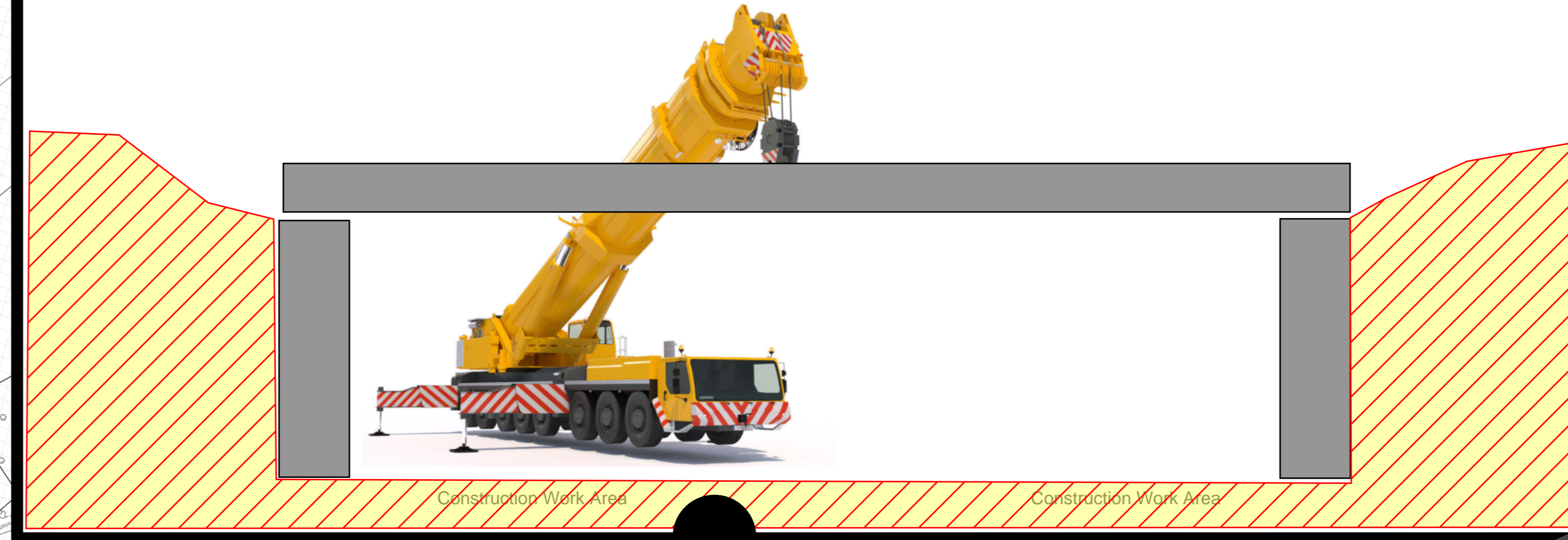
## Construction works - New carriageway

With traffic 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.



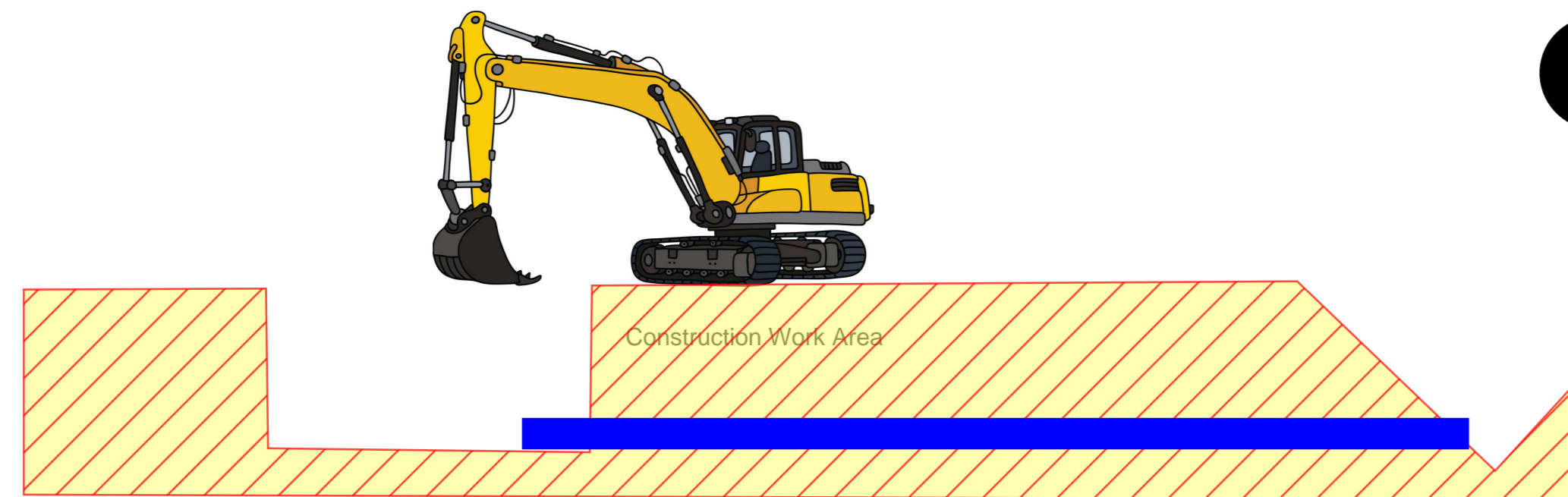
## Construction works - Overbridge

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.



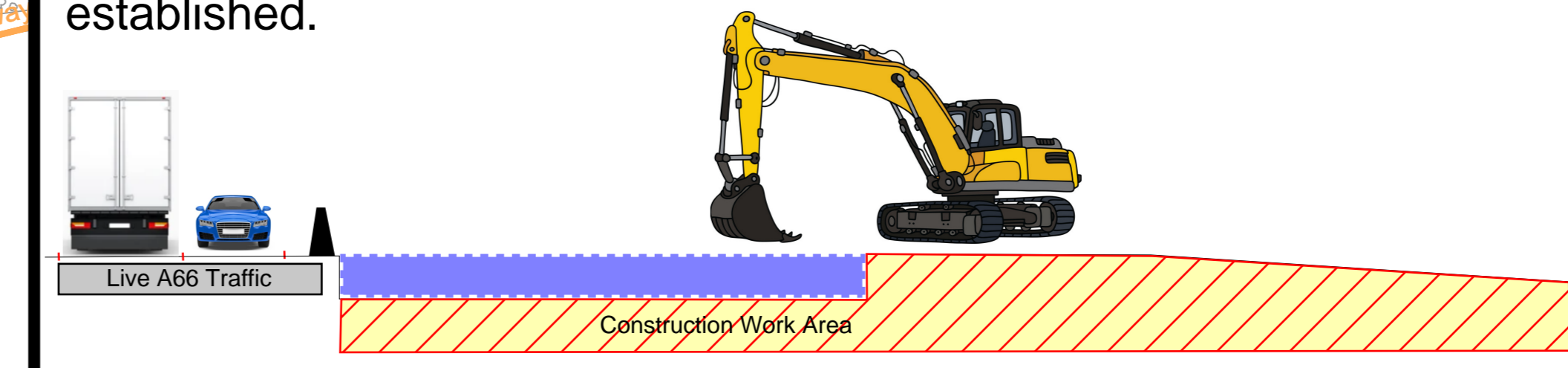
## Construction works - Drainage culverts

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 - 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 A66 DJV CDM Hazard Management Process.)

- Overhead Services.
- Underground Services.

## NOTES

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

## KEY

- Red Line Boundary
- Proposed Fence Line
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- Proposed Layout
- Highway Structure
- Culvert
- Cut-off drain
- Earthworks
- Pond
- Footpath
- Proposed Footpath
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- MOD Helpaid
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- Sign Position
- Filter Drain
- MOD Boundary Fence
- Green Line Boundary
- Potential Brough Hill Fair Site

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

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Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Appleyby 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

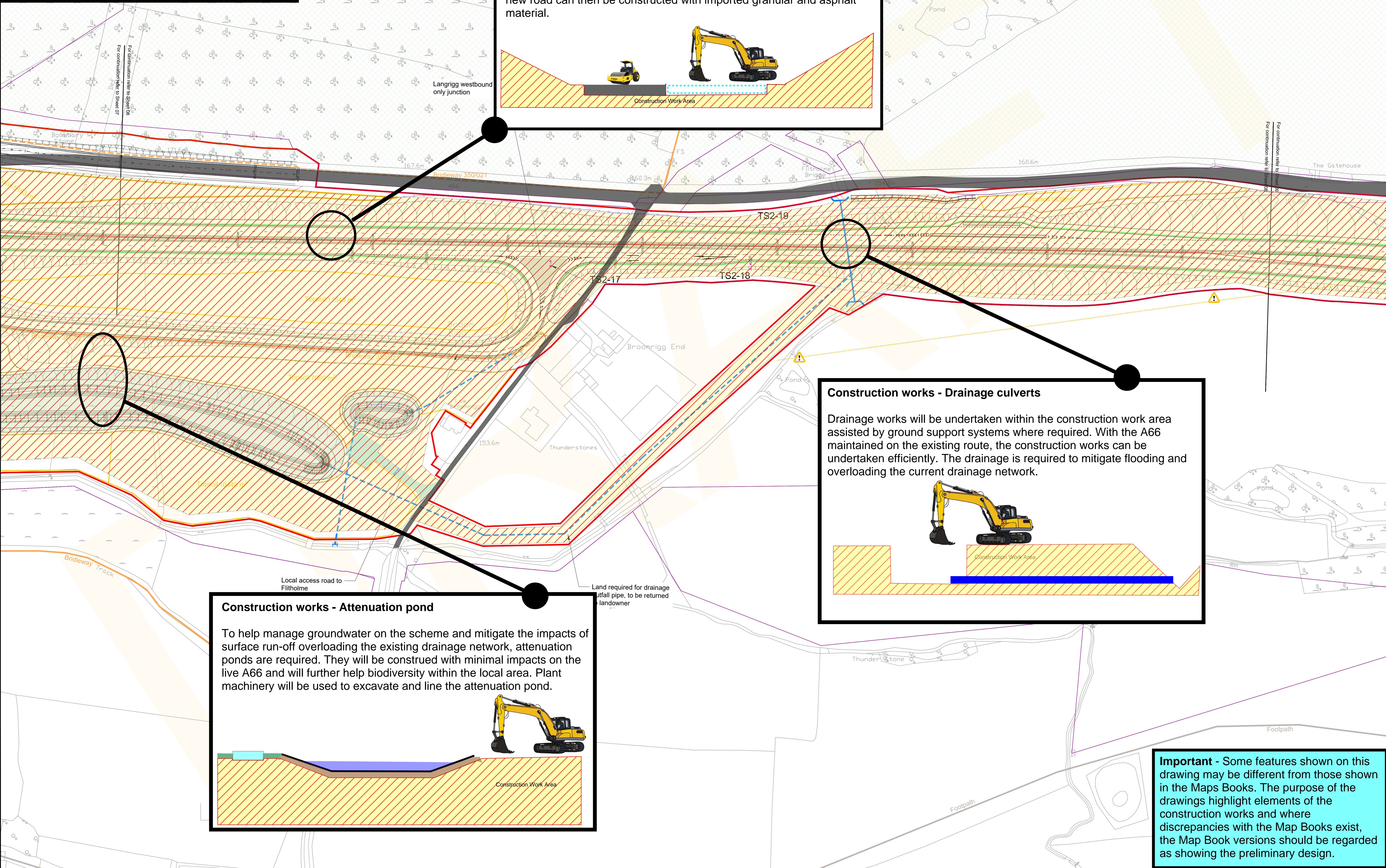
Suitability Suitability Description Revision  
S0 Initial non-contractual code P01.1



# 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 constructed 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.

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

- 1. Overhead Services.
- 2. Underground Services.

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Revision	Created	Checked	Reviewed	Approved	Authorised
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P01.1	---	---	---	---	---

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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 | Scale | @ A0  
 --- | PCF3 | 1:1000 | M

Drawing Number  
 Project | Originator | Volume |  
 HE565627 - AMY - HGN -  
 S06 -DR-CH-458208  
 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

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### 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**  
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- Underground Services.

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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					

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**A66 NTP** Integrated Project Team

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Project Name  
**A66 Northern Trans-Pennine**

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

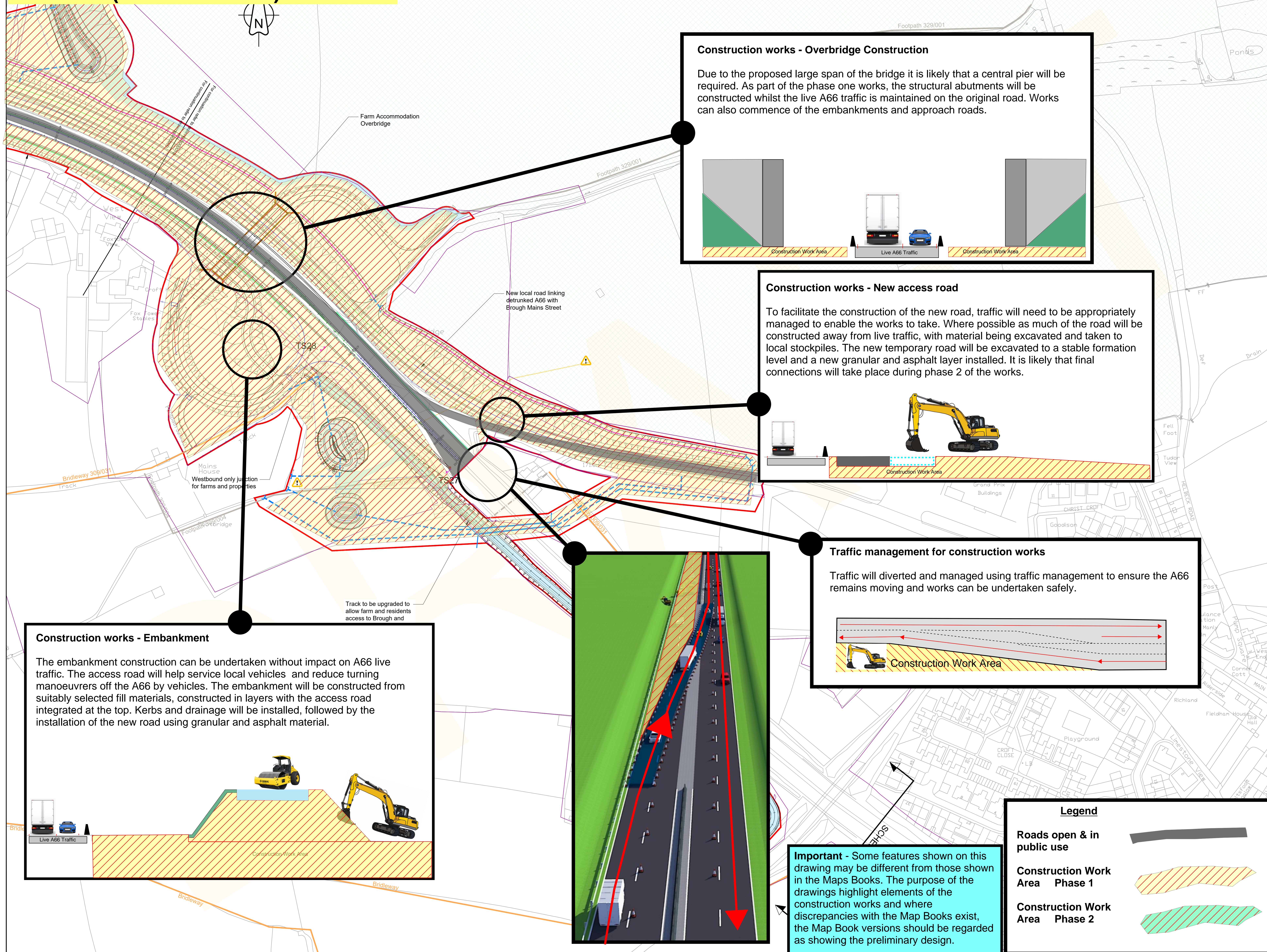
Project Ref. No. | Stage | Scale | @ A0  
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Drawing Number  
 Project | Originator | Volume |  
**HE565627 - AMY - HGN -**  
**S06 -DR-CH-467209**  
 Location | Type | Role | Number

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

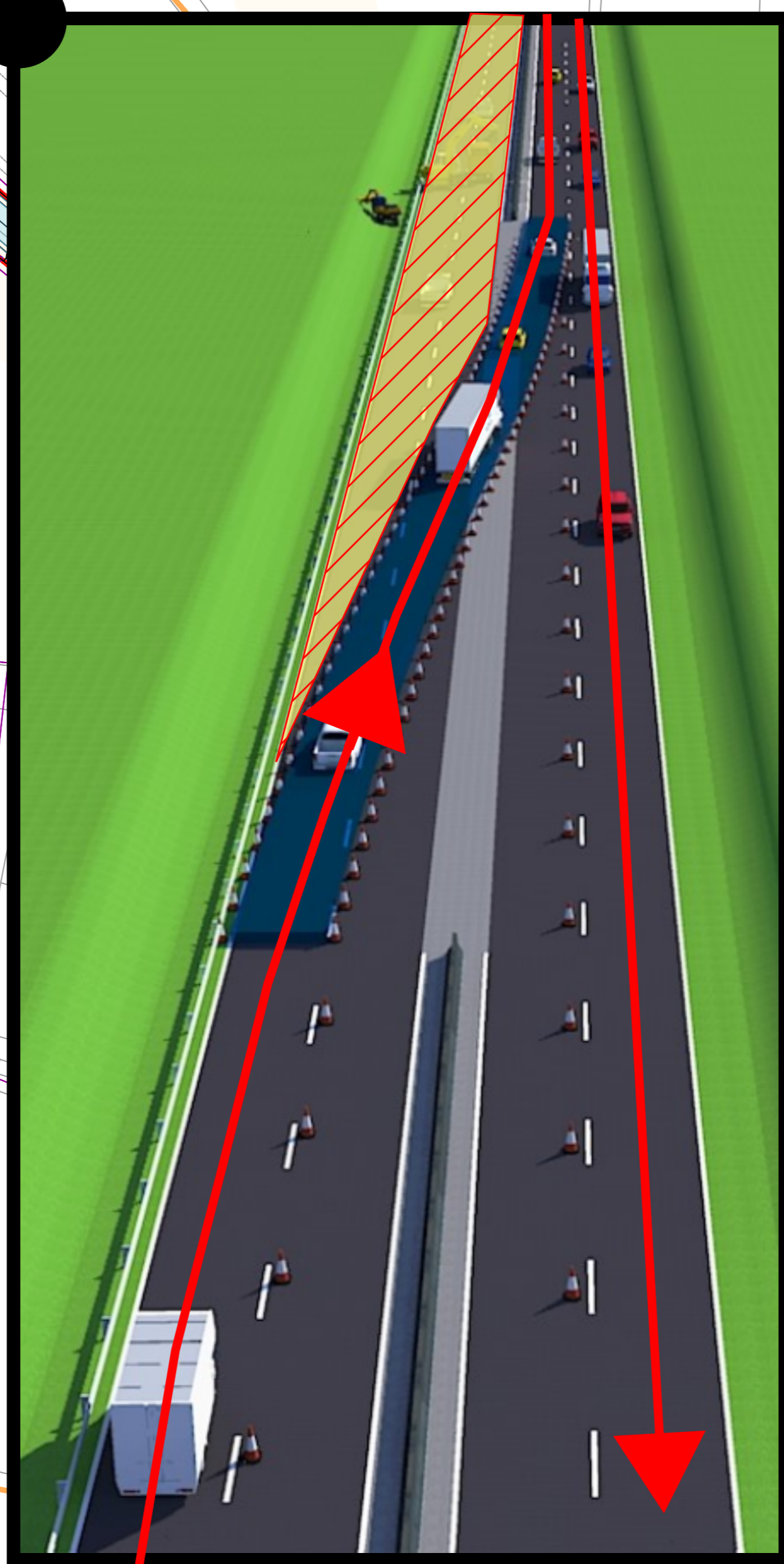
To facilitate the construction of the new road, traffic will need to be appropriately managed to enable the works to take. Where possible as much of the road will be constructed away from live traffic, with material being excavated and taken to local stockpiles. The new temporary road will be excavated 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 be 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

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### NOTES

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- Green Line Boundary
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Revision	Created	Checked	Reviewed	Approved	Authorised
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P01.1					

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Project Name  
**A66 Northern Trans-Pennine**

Drawing Title  
**Appleyby 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

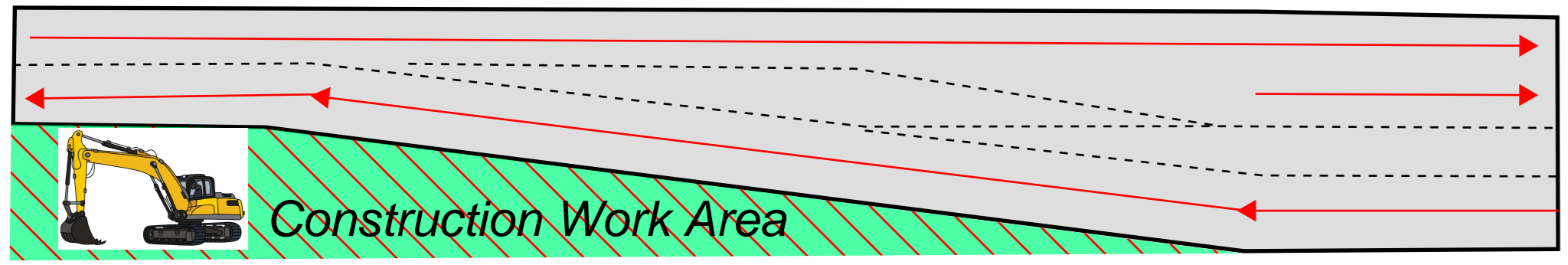
Suitability | Suitability Description | Revision  
S0 | Initial non-contractual code | P01.1



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

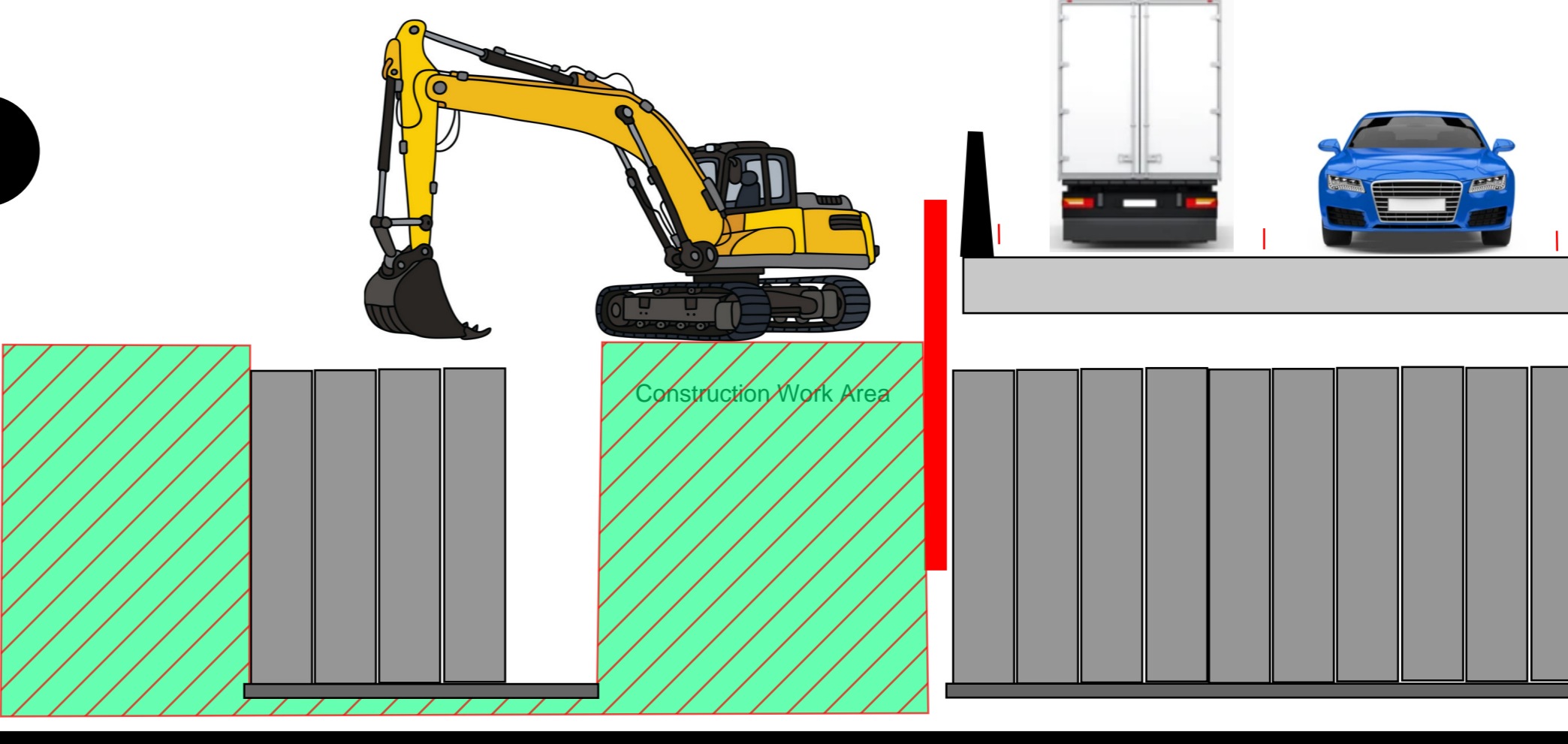
## Traffic management for construction works

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



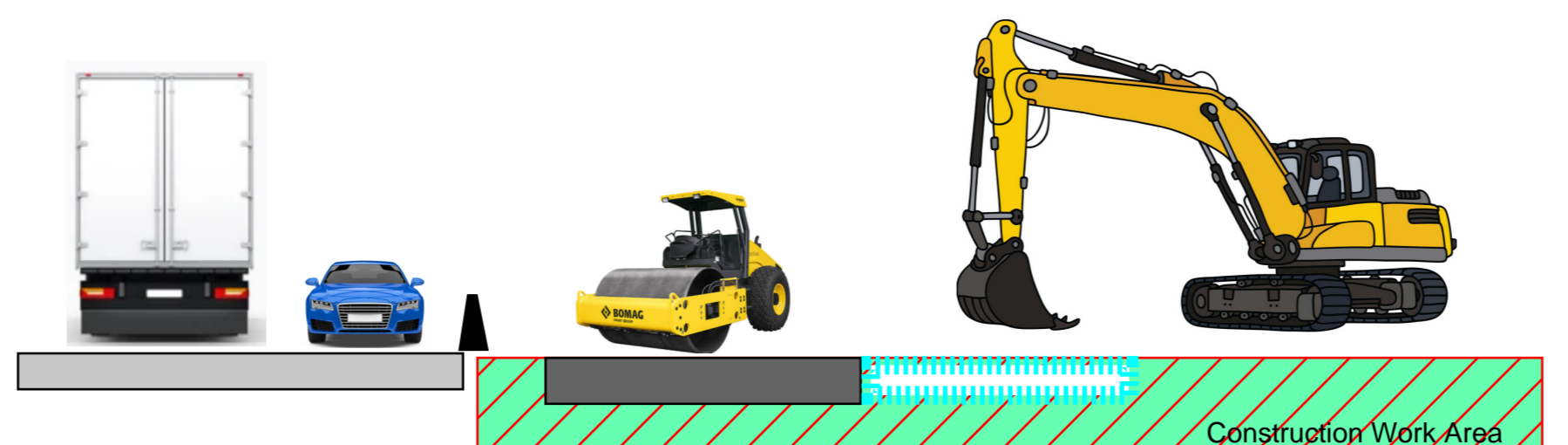
## Construction works - New underpass

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 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.



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## RESIDUAL DESIGN HAZARDS

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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					

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Project Name  
A66 Northern Trans-Pennine

Drawing Title  
Appleyby to Brough  
Option 2 - (Black-Blue-Black)  
General Arrangement  
Sheet 1 of 10

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

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

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

## Legend

- Roads open & in public use
- Construction Work Area Phase 1
- Construction Work Area Phase 2



# 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**  
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- Overhead Services.
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dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01.1					

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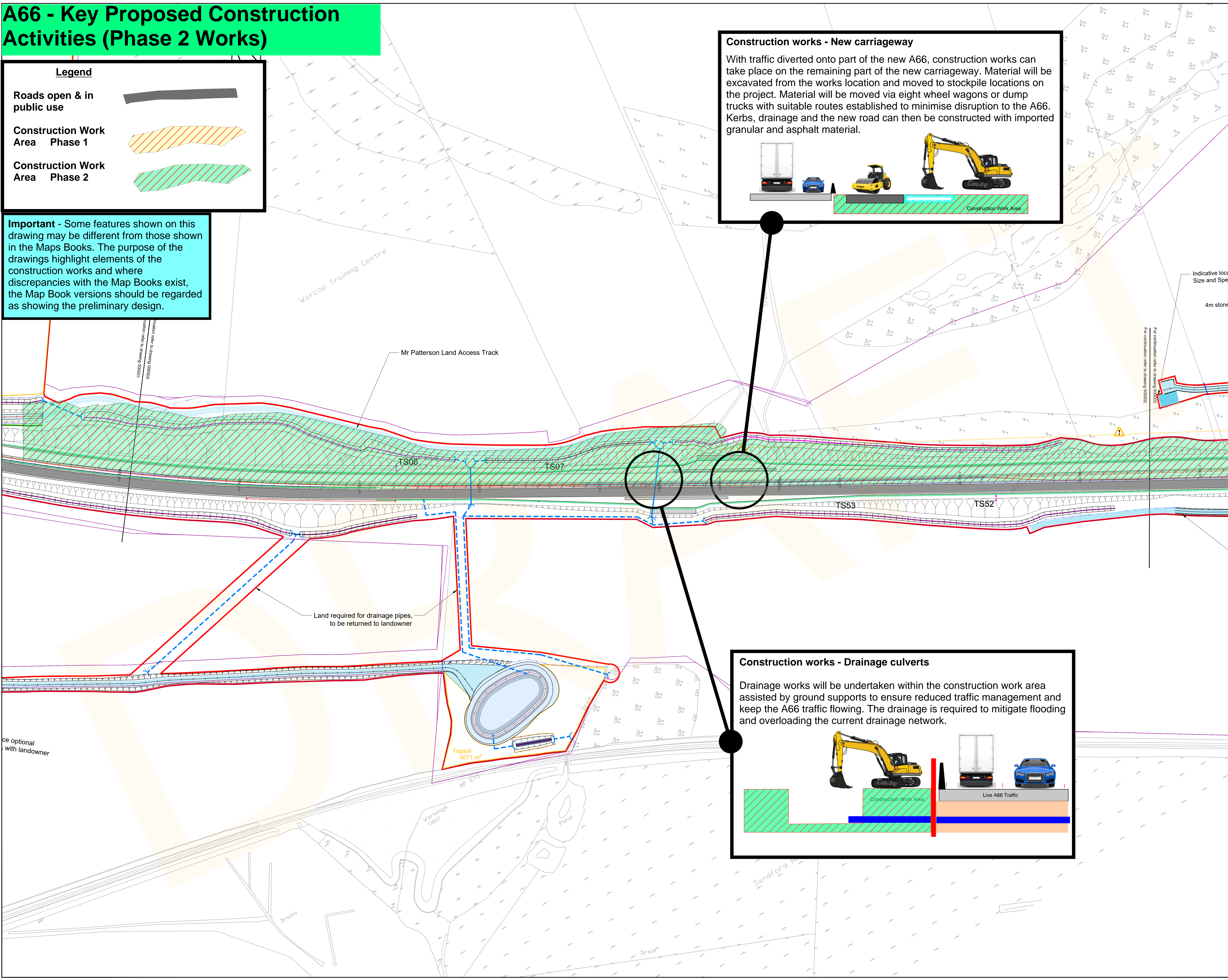
Project Name  
**A66 Northern Trans-Pennine**

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**

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**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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Revision	Created	Checked	Reviewed	Approved	Authorised
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P01.1					

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highways england

Project Name  
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Drawing Title  
**Appleby to Brough Option 2 - (Black-Blue-Black) General Arrangement Sheet 3 of 10**

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

Drawing Number  
 Project | Originator | Volume |  
**HE565627 - AMY - HGN -**  
**S06 -DR-CH-416003**  
 Location | Type | Role | Number

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