

A66 Northern Trans-Pennine project

Draft Construction
Method and
Management
Statement

**Indicative
schematic drawings**

Volume 2

**Stephen Bank to
Carkin Moor**

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.

- 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-HCN-S09-TN-CH-000004.
 - 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 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 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.
 - Fencing and gate locations subject to agreement with landowners.
 - Public Rights of Way (footpaths and bridleways) diversions are indicative only and subject to agreement with local authority and landowners.

Traffic Management for construction works

Traffic will be diverted to enable works to take place safely.

Construction works - New Detrunked A66

To facilitate the construction of the new dual carriageway the proposed detrunked section of the A66 will be constructed first and the A66 traffic diverted onto the detrunked road to enable the dual carriageway to be constructed. The new road will be excavated to a stable formation level and a new granular and asphalt layer installed, with the inclusion of new kerbs and drainage.

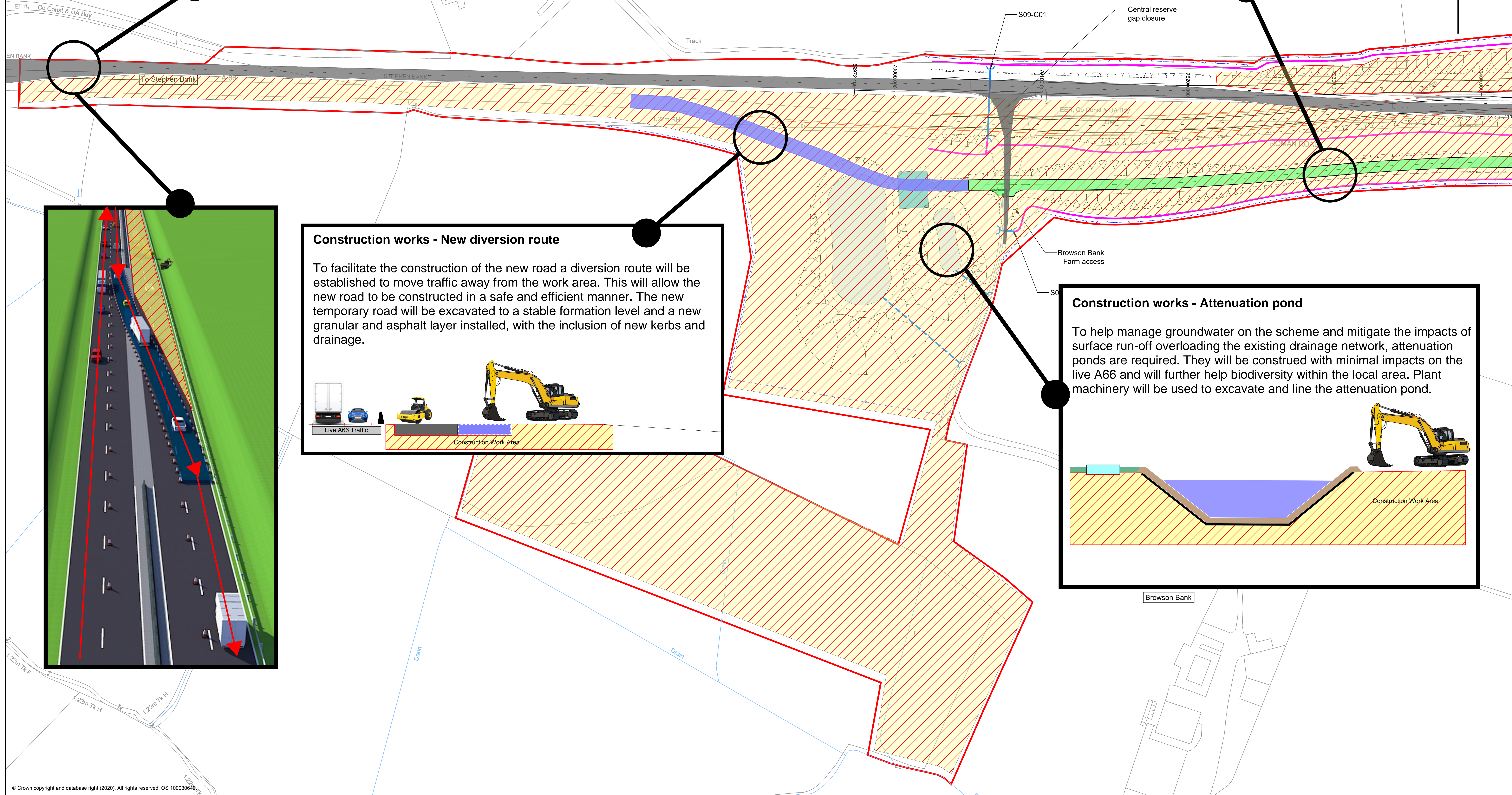
Construction works - New diversion route

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 road to be constructed in a safe and efficient manner. The new temporary road will be excavated to a stable formation level and a new granular and asphalt layer installed, with the inclusion of new kerbs and drainage.

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.

- KEY**
- Red line boundary
 - Existing layout
 - Proposed layout
 - Highway structure
 - Existing watercourse
 - Culvert
 - Cut-off drain
 - Headwall
 - Pipe to Outfall
 - Pond
 - Proposed boundary treatment
 - Proposed gate
 - Traffic sign
 - Proposed vehicle restraint system
 - Earthworks
 - Proposed Bridleway
 - Abandoned Bridleway
 - Existing Bridleway
 - Proposed Footway/Footpath
 - Abandoned Footway/Footpath
 - Existing Footway/Footpath
 - Compound/Storage Area
 - Farm Track/Access



Revision	Created	Checked	Reviewed	Approved	Authorised
dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	JMAR	JMAR	EKEL	TEGG	
	19/02/21	19/02/21	19/02/21	19/02/21	

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

Client
 3 Piccadilly Place
 Manchester
 M1 3BN

Project Name
A66 Northern Trans-Pennine

Drawing Title
**Layton
 General Arrangement
 Sheet 1 of 7**

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

Drawing Number
 Project | Originator | Volume |
HE565627 - AMY - GEN -
S09 -DR-CH- 700001
 Location | Type | Role | Number

Suitability | Suitability Description | Revision
 S1 | Fit for Co-ordination | P01

A66 - Key Proposed Construction Activities (Phase 1 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.

Legend

Roads open & in public use

Construction Work Area Phase 1

Construction Work Area Phase 2

- ### 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 HE56527-AMY-HGN-S09-TM-CH-000004.
 - 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 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 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.
 - Fencing and gate locations subject to agreement with landowners.
 - Public Rights of Way (footpaths and bridleways) diversions are indicative only and subject to agreement with local authority and landowners.

KEY

- Red line boundary
- Existing layout
- Proposed layout
- Highway structure
- Existing watercourse
- Culvert
- Cut-off drain
- Headwall
- Pipe to Outfall
- Pond
- Proposed boundary treatment
- Proposed gate
- Traffic sign
- Proposed vehicle restraint system
- Earthworks
- Proposed Bridleway
- Abandoned Bridleway
- Existing Bridleway
- Proposed Footway/Footpath
- Abandoned Footway/Footpath
- Existing Footway/Footpath
- Compound/Storage Area
- Farm Track/Access

Construction works - New De-trunked A66

Where the new de-trunked road ties in with the existing A66, this will be constructed off peak with a possible road closure and temporary diversion required. Depending on the scale of works undertaken this could be facilitated through temporary traffic lights and reduced traffic flows.

Construction Work Area

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 main work area. This will allow the new road to be constructed in a safe and efficient manner. The new road will be excavated to a stable formation level and a new granular and asphalt layer installed to complete the road surface after the kerbs and drainage have been placed.

Live A66 Traffic

Construction Work Area

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. Once complete the new A66 road can be installed over the top.

Construction Work Area

New underpass

Live A66 Traffic

For Continuation refer to drawing 700002
For Continuation refer to drawing 700001

For Continuation refer to drawing 700003
For Continuation refer to drawing 700002

---	---	---	---	---	---
---	---	---	---	---	---
P01	JMAR 19/02/21	JMAR 19/02/21	EKEL 19/02/21	TEGG 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
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
**Layton
General Arrangement
Sheet 2 of 7**

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

Drawing Number
Project | Originator | Volume |
HE56527 - AMY - GEN -
S09 -DR-CH- 700002
Location | Type | Role | Number

Suitability | Suitability Description | Revision
S1 | Fit for Co-ordination | P01

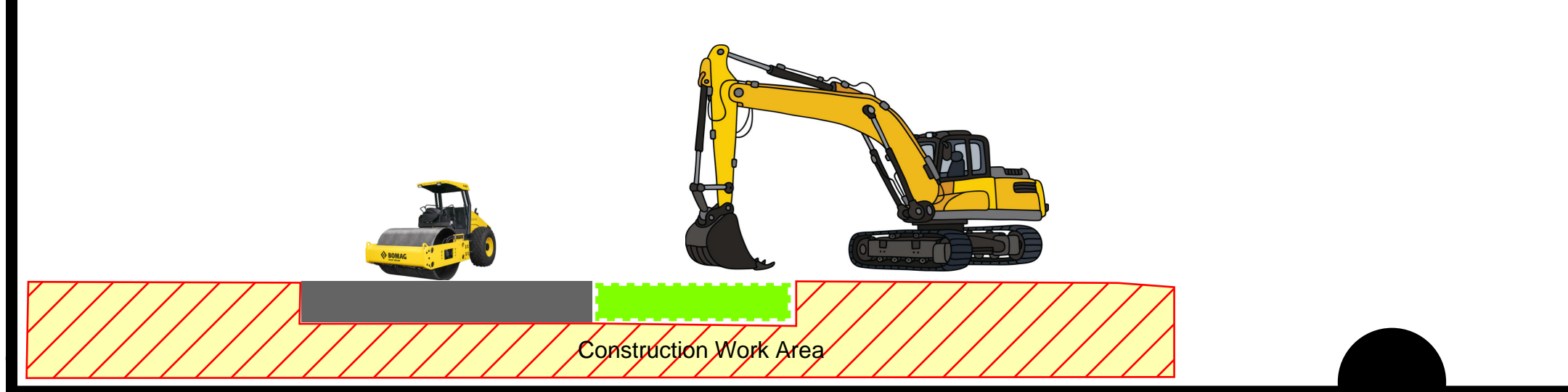
A66 - Key Proposed Construction Activities (Phase 1 Works)

Legend

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

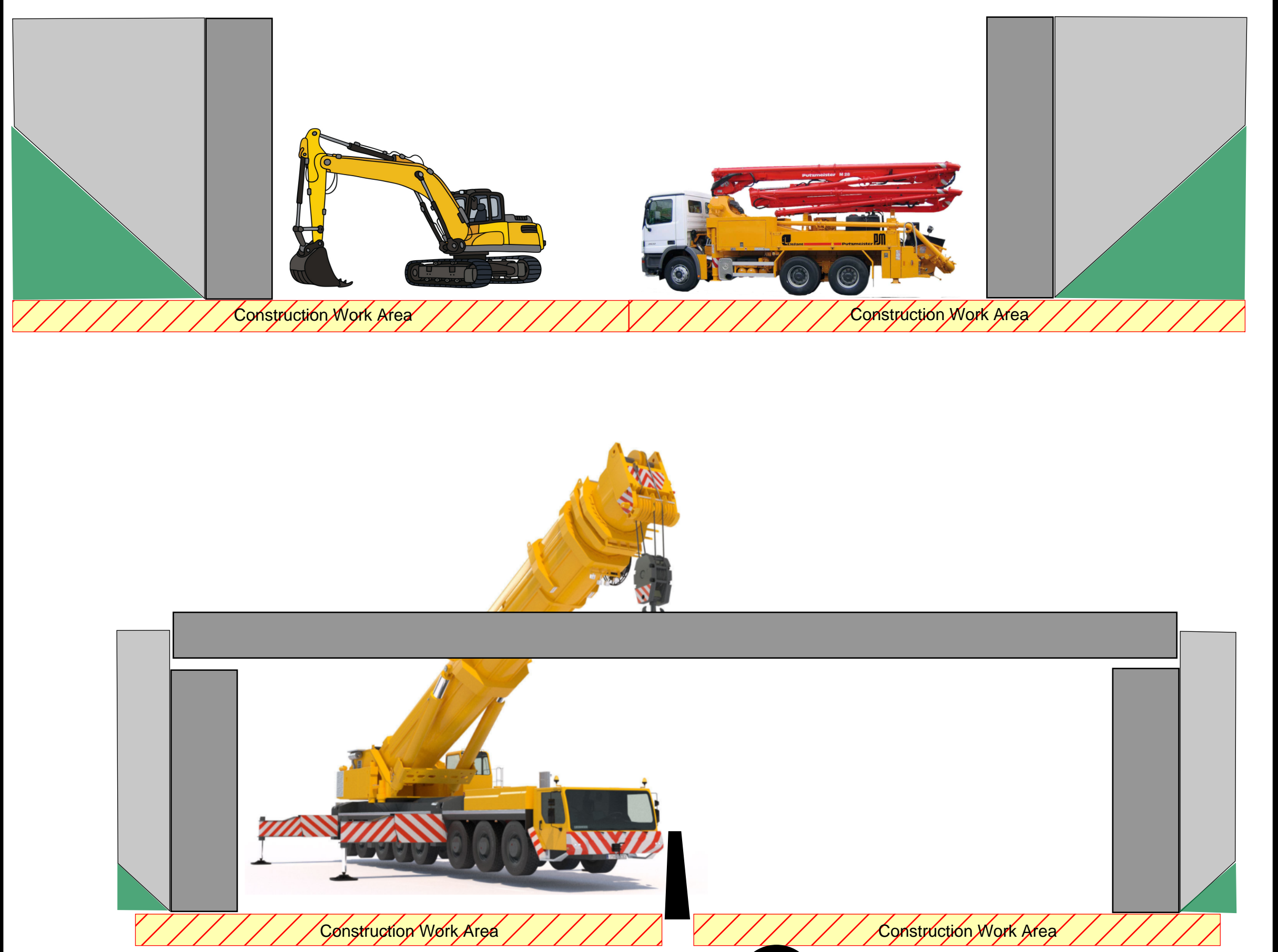
Construction works - New De-trunked A66

Where the new de-trunked road ties in with the existing A66, this will be constructed off peak with a possible road closure and temporary diversion required. Depending on the scale of works undertaken this could be facilitated through temporary traffic lights and reduced traffic flows.



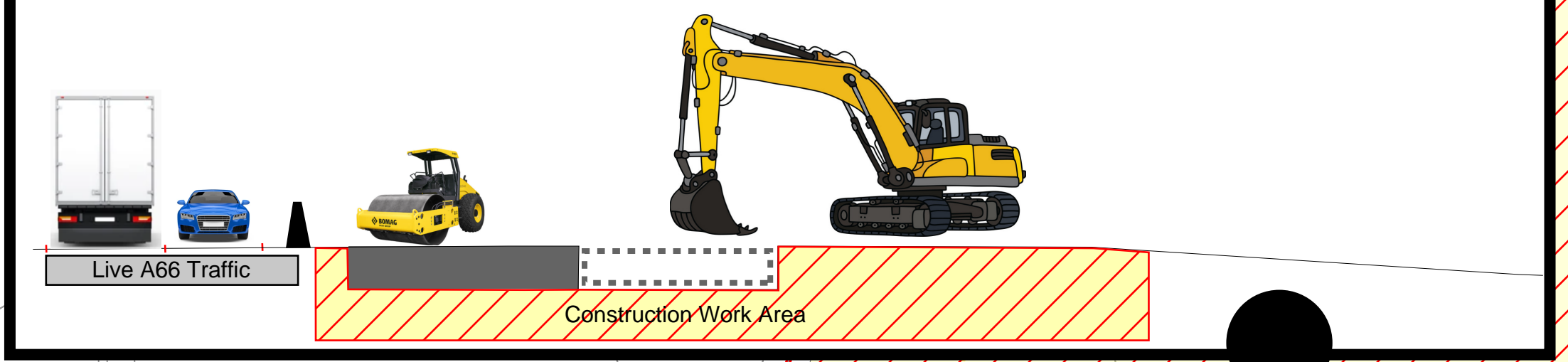
Construction works - Overbridge Construction

Works will only commence on this new infrastructure, once a diversion route is established. With traffic diverted and increased working space available, this will enable both abutments and the deck to be constructed in one phase of works, minimising disruption to A66 traffic. With the diversion in place it is likely that the bridge beams can be installed with limited additional traffic management. Once complete the road can be installed on the deck.



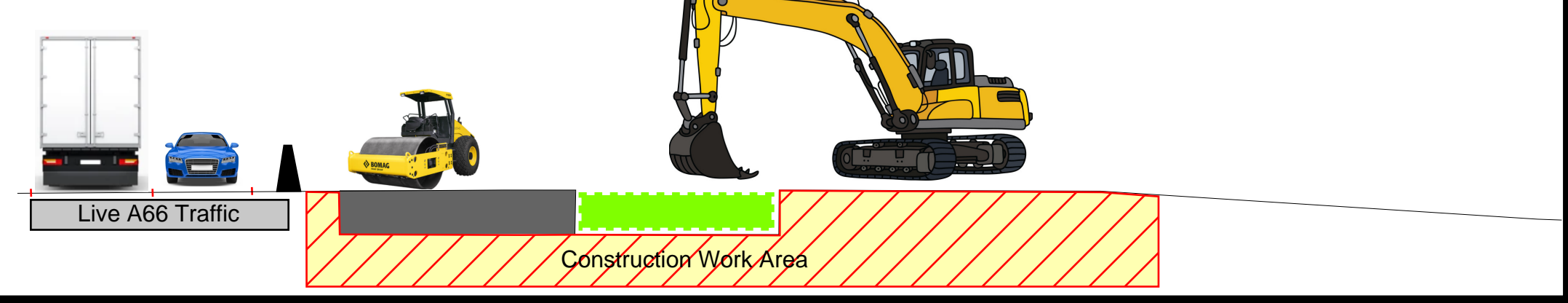
Construction works - New diversion route

To facilitate the construction of the new overbridge, a temporary link road is required to be constructed to divert traffic away from the work area. The road will be removed once the new overbridge is complete and in use, enabling the new A66 dual carriageway to be completed.



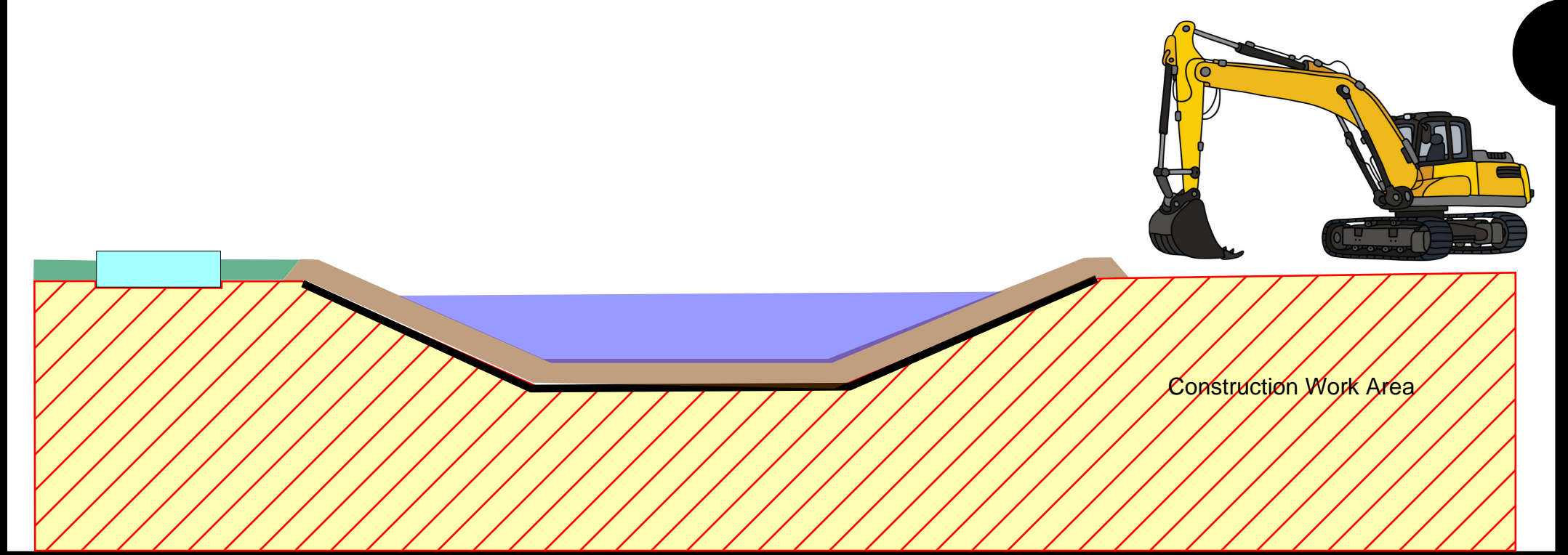
Construction works - New diversion route

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 road to be constructed in a safe and efficient manner. The new temporary road will be excavated to a stable formation level and a new granular and asphalt layer installed, with the inclusion of new kerbs and drainage.



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.



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.
 - 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-S09-TN-CH-700004.
 - 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 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 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.
 - Fencing and gate locations subject to agreement with landowners.
 - Public Rights of Way (footpaths and bridleways) diversions are indicative only and subject to agreement with local authority and landowners.

- KEY**
- Red line boundary
 - Existing layout
 - Proposed layout
 - Highway structure
 - Existing watercourse
 - Culvert
 - Cut-off drain
 - Headwall
 - Pipe to Outfall
 - Pond
 - Proposed boundary treatment
 - Proposed gate
 - Traffic sign
 - Proposed vehicle restraint system
 - Earthworks
 - Proposed Bridleway
 - Abandoned Bridleway
 - Existing Bridleway
 - Proposed Footway/Footpath
 - Abandoned Footway/Footpath
 - Existing Footway/Footpath
 - Compound/Storage Area
 - Farm Track/Access

Revision	Created	Checked	Reviewed	Approved	Authorised
	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	JMAR 19/02/21	JMAR 19/02/21	EKEL 19/02/21	TEGG 19/02/21	---

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

Client
 3 Piccadilly Place
 Manchester
 M1 3BN

Project Name
 A66 Northern Trans-Pennine

Drawing Title
 Layton
 General Arrangement
 Sheet 1 of 7

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

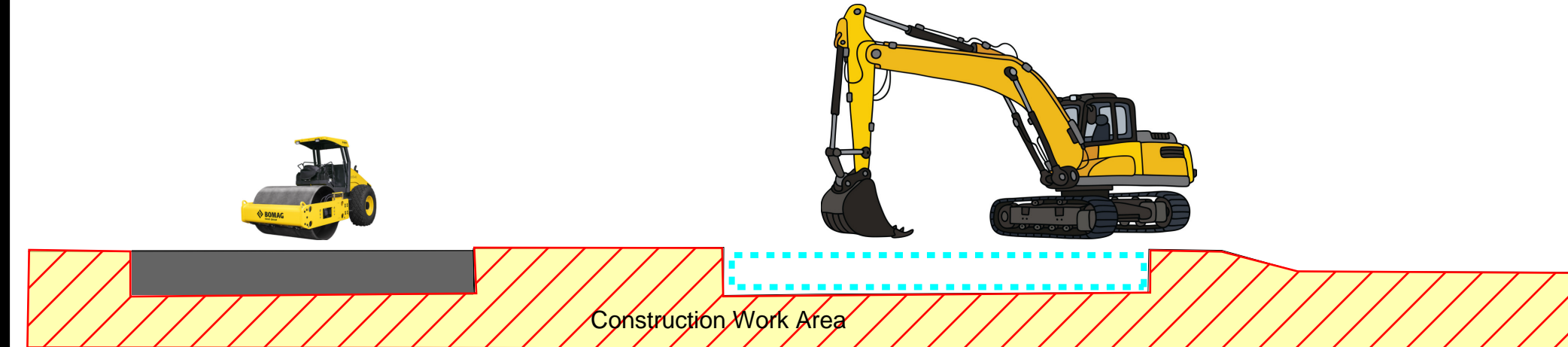
Drawing Number
 Project | Originator | Volume |
 HE565627 - AMY - GEN -
 S09 -DR-CH- 700001
 Location | Type | Role | Number

Stability | Suitability Description | Revision
 S1 | Fit for Co-ordination | P01

A66 - Key Proposed Construction Activities (Phase 1 Works)

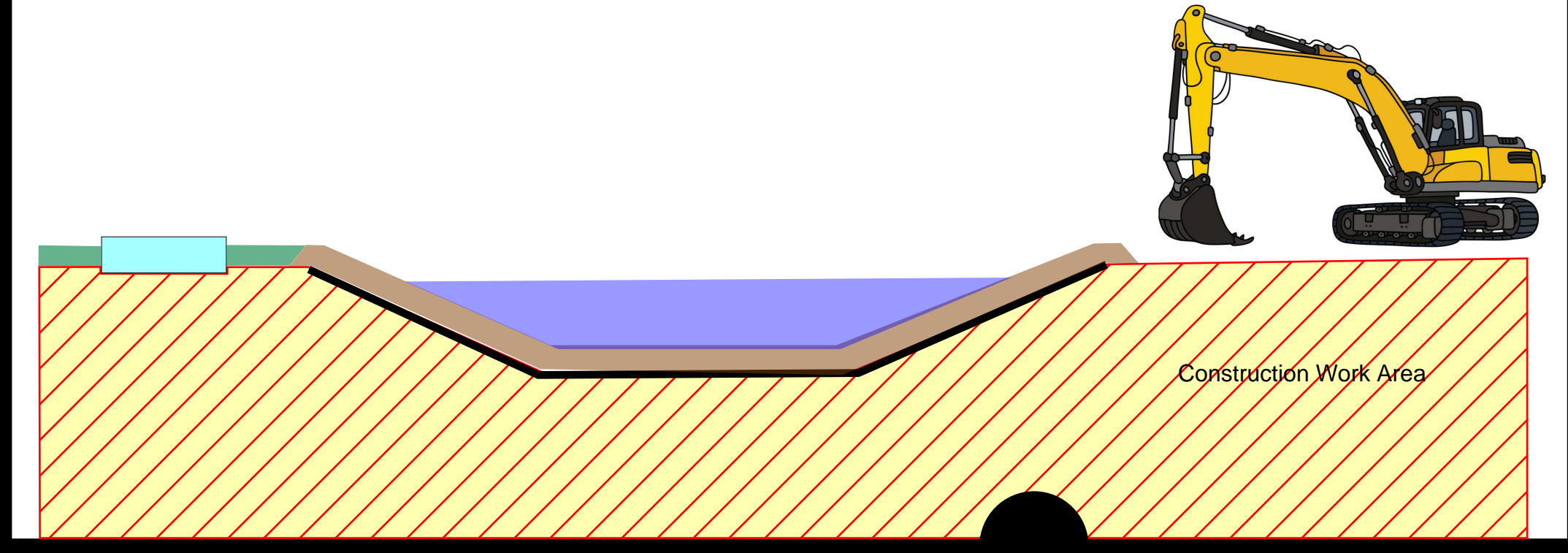
Construction works - New carriageway construction

With traffic maintained on the existing A66 / de-trunked diversion route, 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. New kerbs and drainage will be installed, followed by aggregate and asphalt material compacted in layers to form the new road.



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.



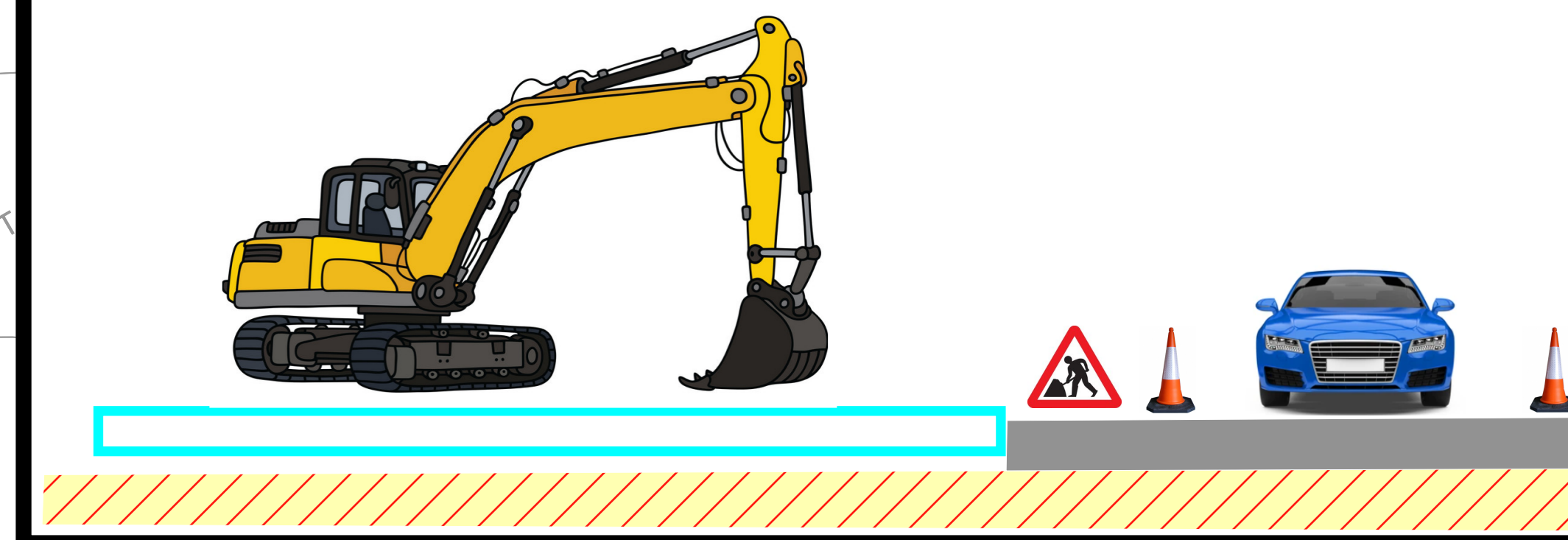
Construction works - New De-trunked A66

The existing road will be utilised in combination with the newly constructed diversion sections to enable traffic to flow smoothly whilst large elements of construction take place offline.



Construction works - New Access point

Works will take place to construct the new access road away from live traffic. Where a road connection is required, some traffic management may be required to ensure the works can be undertaken safely whilst allowing traffic movements.



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

- 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 HE56527-AMY-HGN-S09-TN-CH-700004.
 - 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 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 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.
 - Fencing and gate locations subject to agreement with landowners.
 - Public Right of Way (footpaths and bridleways) diversions are indicative only and subject to agreement with local authority and landowners.

- KEY**
- Red line boundary
 - Existing layout
 - Proposed layout
 - Highway structure
 - Existing watercourse
 - Culvert
 - Cut-off drain
 - Headwall
 - Pipe to Outfall
 - Pond
 - Proposed boundary treatment
 - Proposed gate
 - Traffic sign
 - Proposed vehicle restraint system
 - Earthworks
 - Proposed Bridleway
 - Abandoned Bridleway
 - Existing Bridleway
 - Proposed Footway/Footpath
 - Abandoned Footway/Footpath
 - Existing Footway/Footpath
 - Compound/Storage Area
 - Farm Track/Access

Revision	Created	Checked	Reviewed	Approved	Authorised
dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	JMAR 19/02/21	JMAR 19/02/21	EKEL 19/02/21	TEGG 19/02/21	---

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

Client
 3 Piccadilly Place
 Manchester
 M1 3BN

Project Name
 A66 Northern Trans-Pennine

Drawing Title
 Layton
 General Arrangement
 Sheet 4 of 7

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

Drawing Number
 Project | Originator | Volume |
 HE56527 - AMY - GEN -
 S09 -DR-CH-700004
 Location | Type | Role | Number

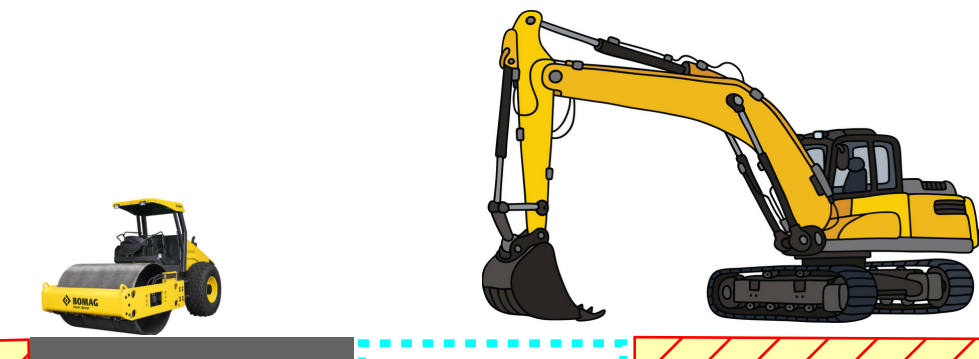
Suitability	Suitability Description	Revision
S1	Fit for Co-ordination	P01

A66 - Key Proposed Construction Activities (Phase 1 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 - Access road

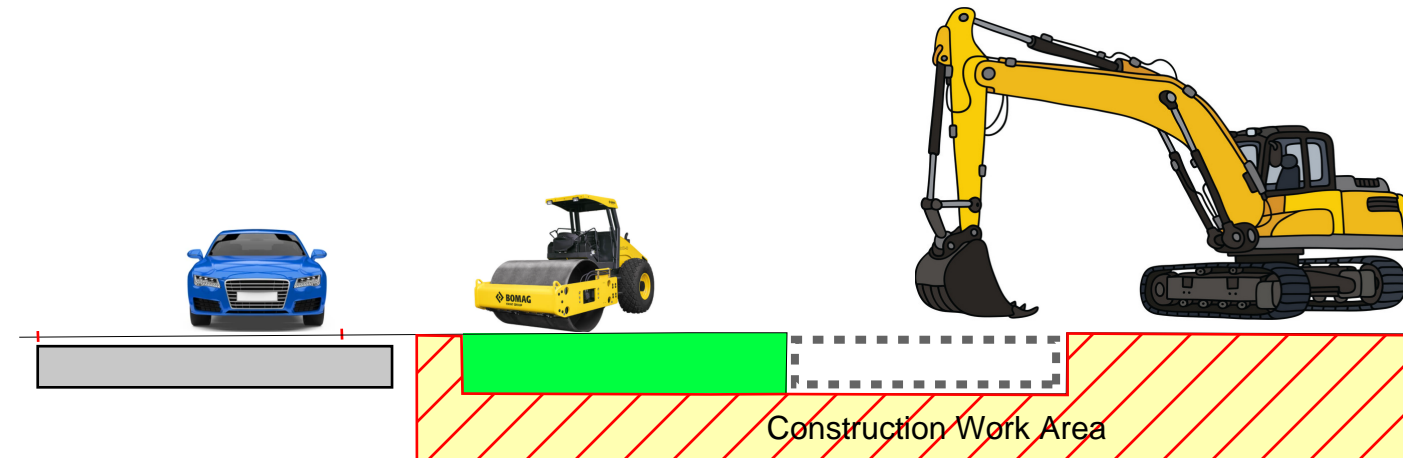
To facilitate the construction of the new underpass, part of the new access road will be required to be constructed as a priority to enable traffic to be relocated away from the new underpass. The new road will be excavated to a stable formation level and a new granular and asphalt layer installed, with new kerbs and drainage.



Construction Work Area

Construction works - New diversion route

To facilitate the construction of the new underbridge, a temporary link road is required to be constructed to divert traffic away from the work area. The road will be removed once the new overbridge is complete and in use, enabling the new A66 dual carriageway to be completed. Additional traffic management may be required to complete parts of the link road near to live traffic.



Construction Work Area

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 road to be constructed in a safe and efficient manner. The new temporary road will be excavated to a stable formation level and a new granular and asphalt layer installed, with the inclusion of new kerbs and drainage.



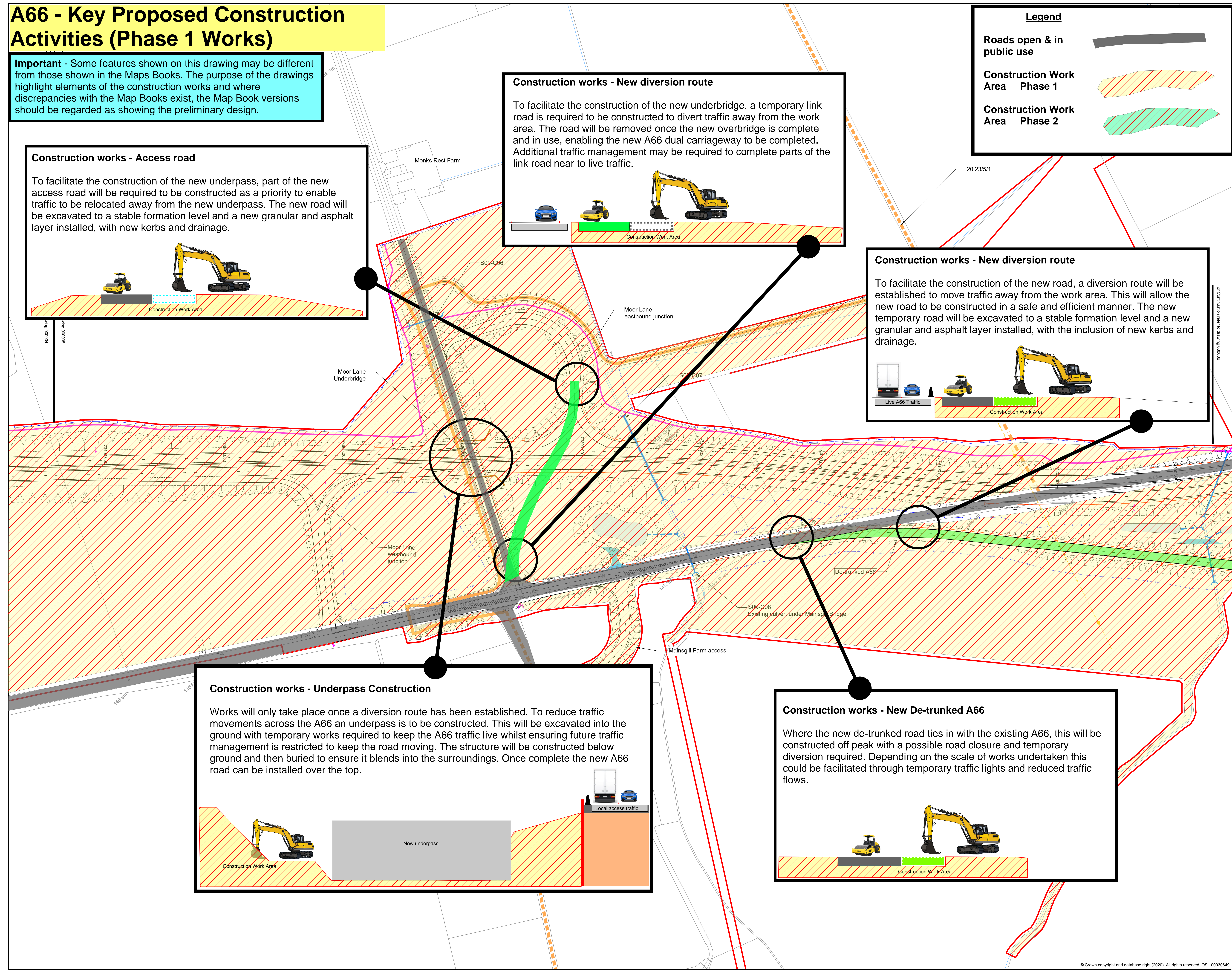
Live A66 Traffic

Legend

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

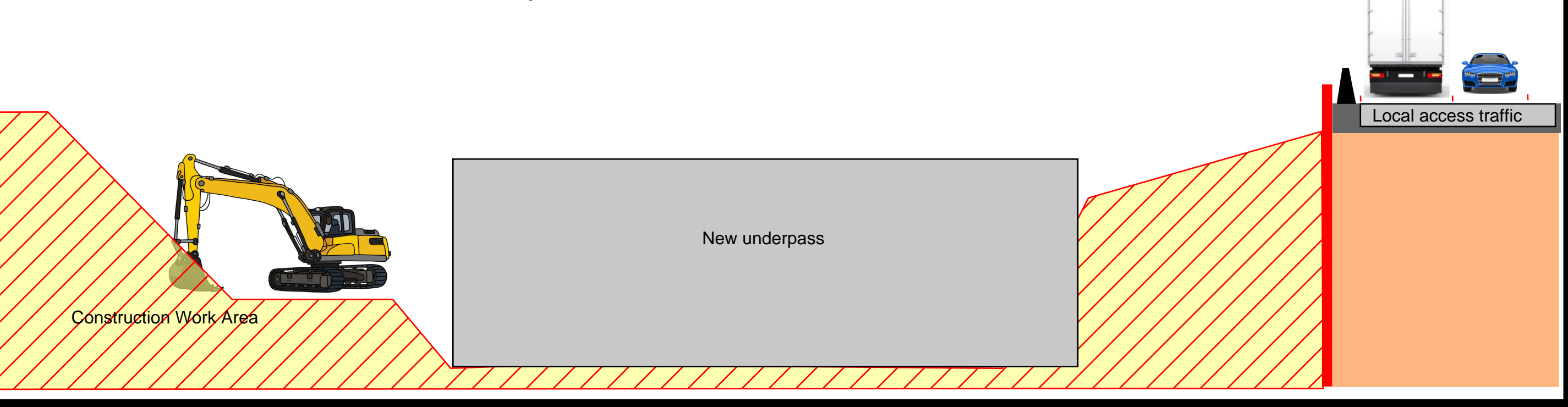
- ### NOTES
- All levels are in metres above Ordnance Datum.
 - All dimensions are in metres unless otherwise stated.
 - This drawing is to be read in conjunction with all other relevant drawings and the accompanying technical note HE565627-AMY-HCN-S09-TN-CH-700004.
 - The drainage design is of a sufficient level of detail to advise land take requirements and early stage design feasibility. Further design development to be undertaken.
 - The 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 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.
 - Fencing and gate locations subject to agreement with landowners.
 - Public Rights of Way (footpaths and bridleways) diversions are indicative only and subject to agreement with local authority and landowners.

- ### KEY
- Red line boundary
 - Existing layout
 - Proposed layout
 - Highway structure
 - Existing watercourse
 - Culvert
 - Cut-off drain
 - Headwall
 - Pipe to Outfall
 - Pond
 - Proposed boundary treatment
 - Proposed gate
 - Traffic sign
 - Proposed vehicle restraint system
 - Earthworks
 - Proposed Bridleway
 - Abandoned Bridleway
 - Existing Bridleway
 - Proposed Footway/Footpath
 - Abandoned Footway/Footpath
 - Existing Footway/Footpath
 - Compound/Storage Area
 - Farm Track/Access



Construction works - Underpass Construction

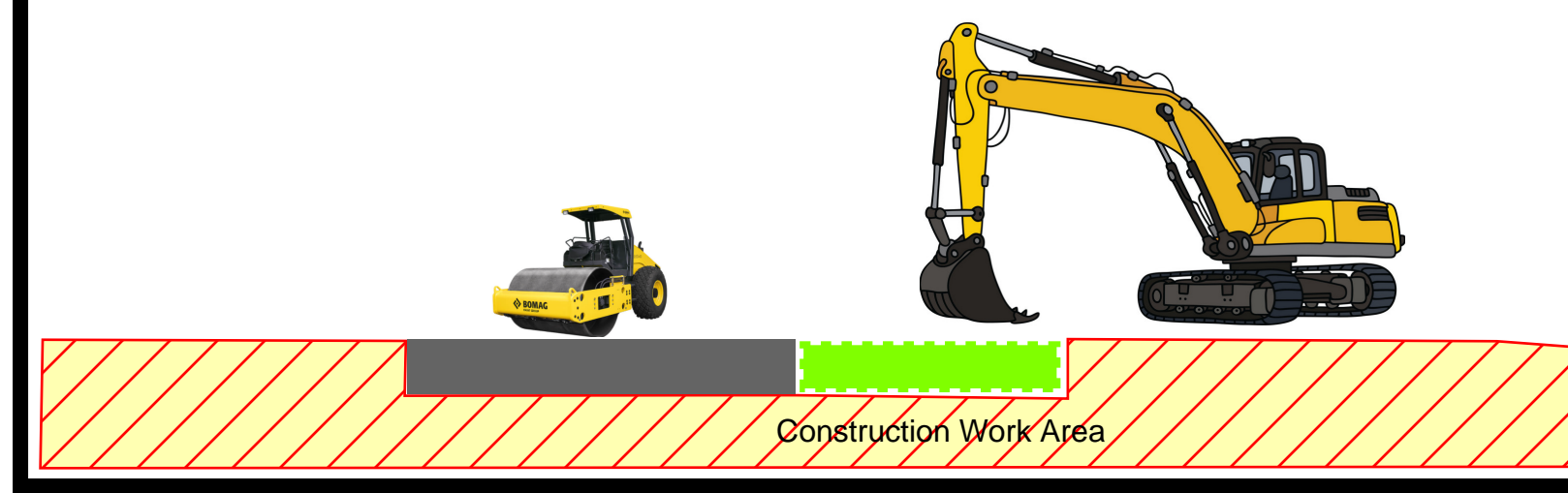
Works will only take place once a diversion route has been established. To reduce traffic movements across the A66 an underpass is to be constructed. This will be excavated into the ground with temporary works required to keep the A66 traffic live whilst ensuring future traffic management is restricted to keep the road moving. The structure will be constructed below ground and then buried to ensure it blends into the surroundings. Once complete the new A66 road can be installed over the top.



Construction Work Area

Construction works - New De-trunked A66

Where the new de-trunked road ties in with the existing A66, this will be constructed off peak with a possible road closure and temporary diversion required. Depending on the scale of works undertaken this could be facilitated through temporary traffic lights and reduced traffic flows.



Construction Work Area

Revision	Created	Checked	Reviewed	Approved	Authorised
dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	JMAR	JMAR	EKEL	TEGG	
	19/02/21	19/02/21	19/02/21	19/02/21	

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

Client
 3 Piccadilly Place
 Manchester
 M1 3BN

Project Name
A66 Northern Trans-Pennine

Drawing Title
**Layton
 General Arrangement
 Sheet 5 of 7**

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

Drawing Number
 Project | Originator | Volume |
HE565627 - AMY - GEN -
 S09 -DR-CH- 700005
 Location | Type | Role | Number

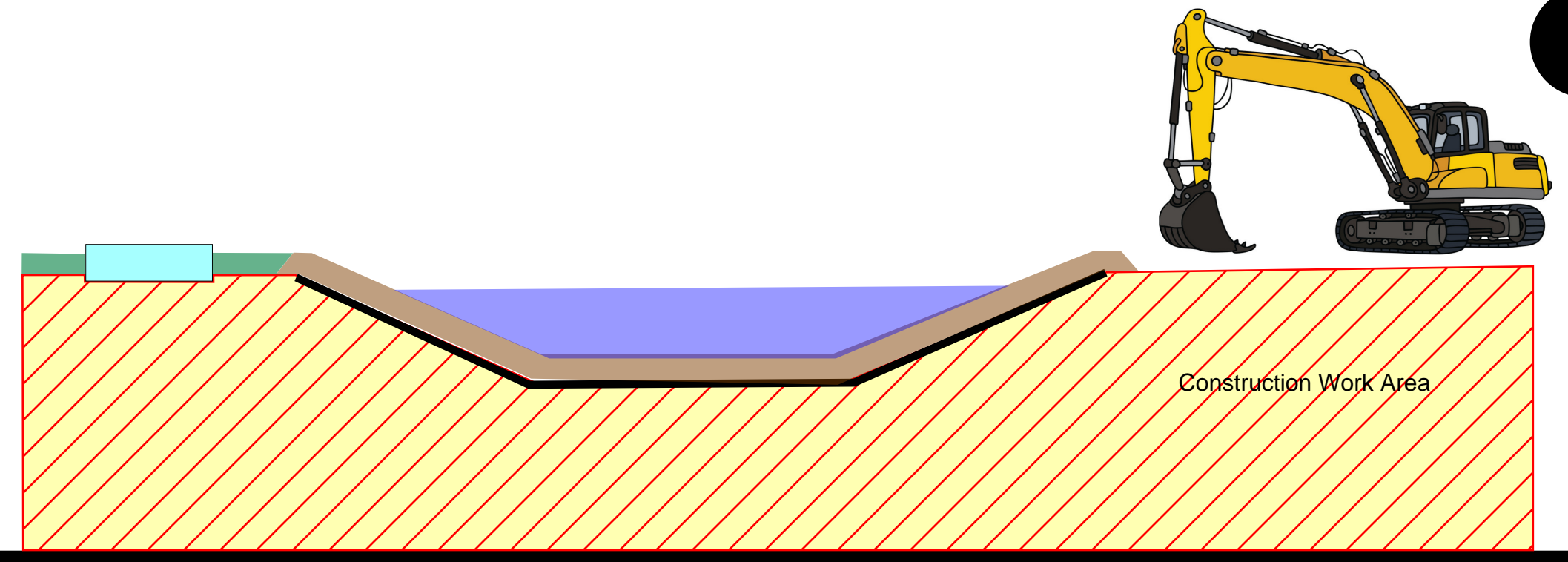
Suitability | Suitability Description | Revision
 S1 | Fit for Co-ordination | P01

A66 - Key Proposed Construction Activities (Phase 1 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.

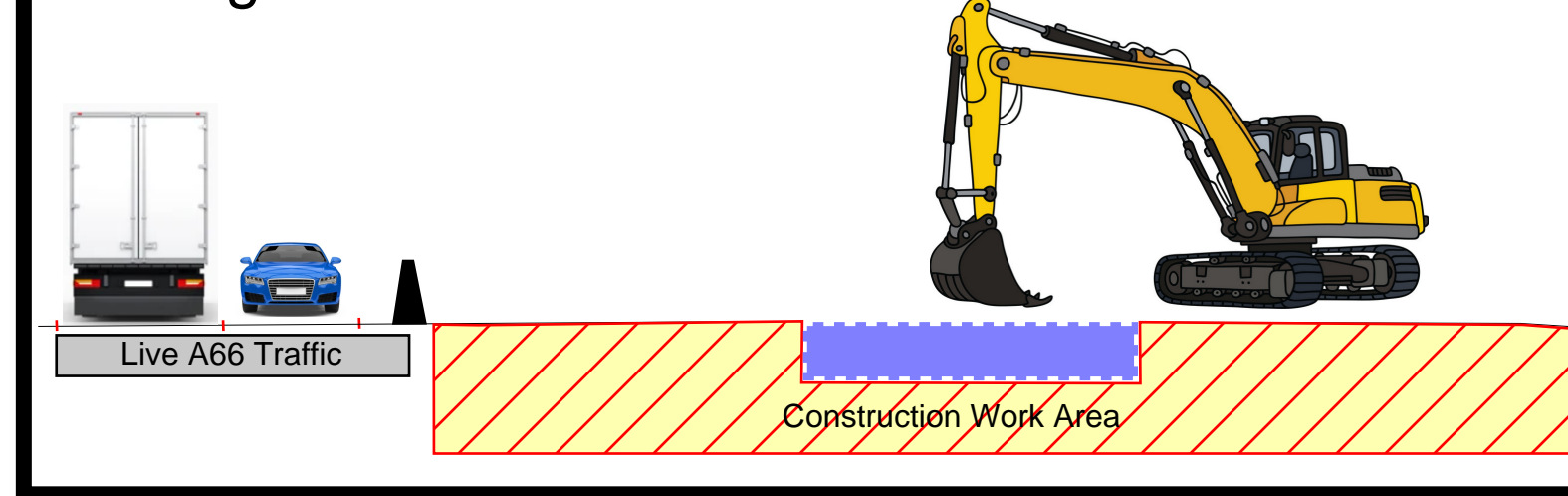
Construction works - Attenuation pond

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.



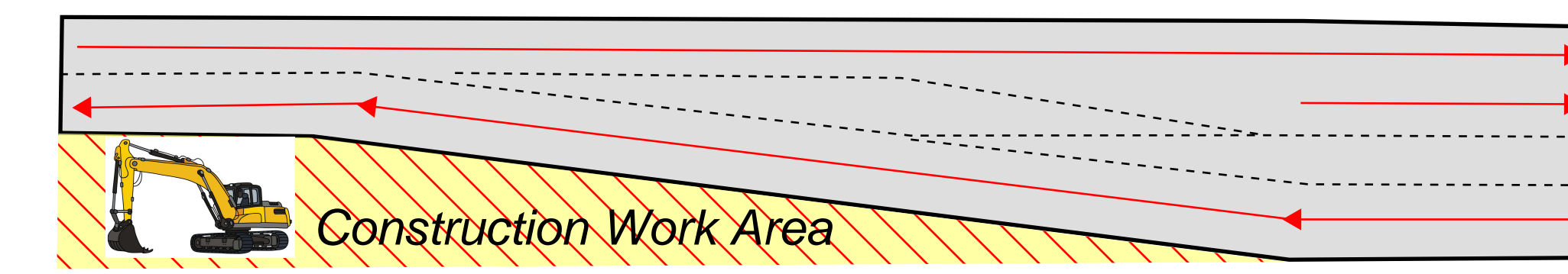
Construction works - New diversion route

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 road to be constructed in a safe and efficient manner. The new temporary road will be excavated to a stable formation level and a new granular and asphalt layer installed, along with new kerbs and drainage.



Traffic management for construction works

Traffic will be diverted and managed via the traffic management to ensure the A66 remains moving and the workforce safe.



S09-C09
Existing culvert to be extended

S09-C12

S09-C10

S09-C13

S09-C14

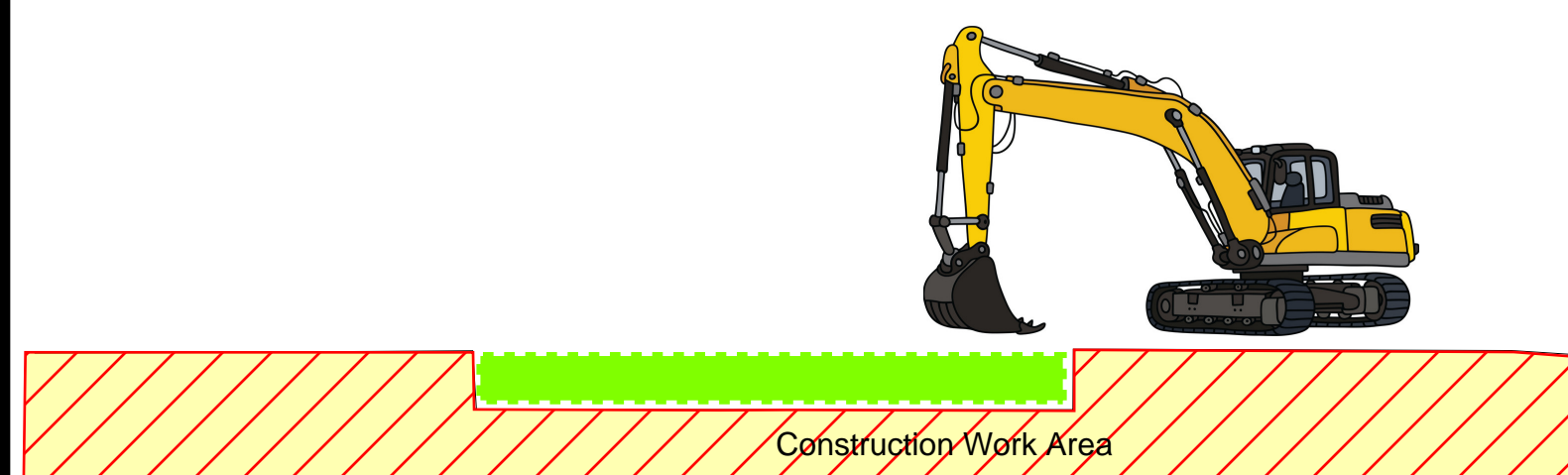
Warrener Lane access

S09-C15

20.33/17/2

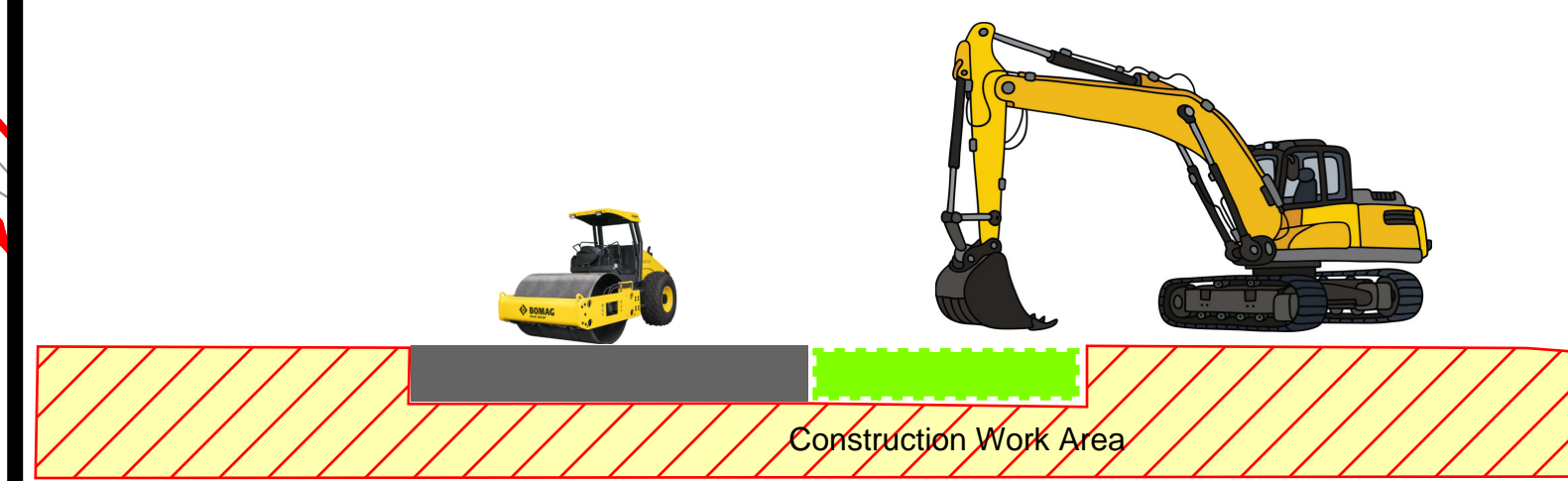
Construction works - New diversion route

To facilitate the construction of the new road, a diversion route will be established to move traffic away from the main work area. This will allow the new road to be constructed in a safe and efficient manner. The new road will be excavated to a stable formation level and a new granular and asphalt layer installed to complete the road surface after the kerbs and drainage have been placed.



Construction works - New road connection

Where the new de-trunked road ties in with the existing local access road, this will be constructed off peak with a possible road closure and temporary diversion required. Depending on the scale of works undertaken this could be facilitated through temporary traffic lights and reduced traffic flows.

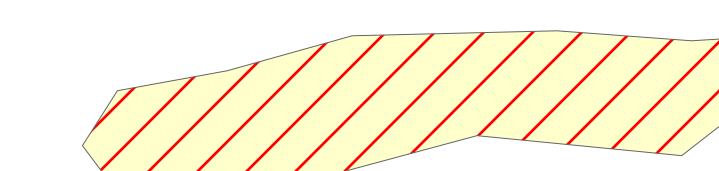


Legend

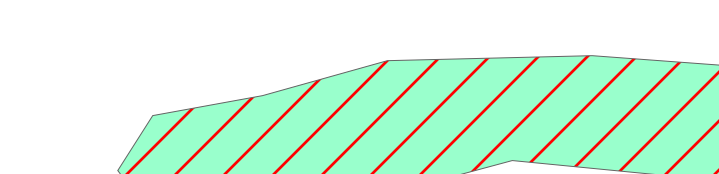
Roads open & in public use



Construction Work Area Phase 1



Construction Work Area Phase 2



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-HCN-S09-TN-CH-000004.
- 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 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 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.
- Fencing and gate locations subject to agreement with landowners.
- Public Rights of Way (footpaths and bridleways) diversions are indicative only and subject to agreement with local authority and landowners.

KEY

- Red line boundary
- Existing layout
- Proposed layout
- Highway structure
- Existing watercourse
- Culvert
- Cut-off drain
- Headwall
- Pipe to Outfall
- Pond
- Proposed boundary treatment
- Proposed gate
- Traffic sign
- Proposed vehicle restraint system
- Earthworks
- Proposed Bridleway
- Abandoned Bridleway
- Existing Bridleway
- Proposed Footway/Footpath
- Abandoned Footway/Footpath
- Existing Footway/Footpath
- Compound/Storage Area
- Farm Track/Access

Revision	Created	Checked	Reviewed	Approved	Authorised
dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy	dd/mm/yy
P01	JMAR	JMAR	EKEL	TEGG	---
	19/02/21	19/02/21	19/02/21	19/02/21	---

Designer
Amey OW Limited
Chancery Exchange
10 Funnival 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
Layton
General Arrangement
Sheet 6 of 7

Project Ref. No.	Stage	Scale: 1:1000	@ A0

Drawing Number
Project | Originator | Volume |
HE565627 - AMY - GEN -
S09 -DR-CH- 700006
Location | Type | Role | Number

Suitability | Suitability Description | Revision
S1 | Fit for Co-ordination | P01