

Havant Footbridge Replacement – Outline Method Statement for Planning Purposes

PF10-PR10-01-F004

Havant Footbridge Replacement Project



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Internal Approval

	Name	Role	Signed	Date
Prepared by:	JM	Project Manager	JM	September 2025
Approved by*:	PMD	Contractor's Engineering Manager	PMD	September 2025

* Internal approval not required if prepared by Main Auditor identified within Section 1.15

Version History

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P01	Sept 2025	JM	PMD	Sept 2025	Outline Document for Hampshire County Council Planning Purposes

This is a live document and will be subject to regular amendments throughout the contract. When amendments have been made this document will be subject to formal revision control.

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1.0 PROJECT OVERVIEW

1.1 INTRODUCTION

Hampshire County Council (HCC) own and maintain Havant Footbridge which crosses the two third rail electrified lines of Network Rail's Woking Junction to Portsmouth Harbour (WPH1) line at WPH1 66m 40ch at Havant Station. Whilst the footbridge is not part of the Station infrastructure it is positioned within Network Rail (NR) land, with main span supports on the Station platforms and access ramps within the forecourt and on NR non-operational land. Some sections are also within Havant Borough Council (HBC) land, e.g. Havant Park and the Car Park at the north side. Refer to Appendix 1 for the Site Location Plan & overview of the existing footbridge.

The footbridge consists of a number of different spans forming the main span over Network Rail controlled infrastructure / Havant Station platforms, and the north / south approach ramps. The footbridge was built in 1947 and provides the main public route over the railway. It connects the Civic Centre Campus, Havant College, and the nearby large residential area of Leigh Park in the north to Havant Town Centre, the Bus Station and Havant Park in the south.

Deterioration of the footbridge has accelerated over recent years, and it is no longer deemed cost effective or practical to continue repairing it. In addition, the footbridge no longer meets users' needs. Therefore, the existing footbridge is to be removed and a new replacement provided, which meets current standards and provides access for all.

HCC have decided to procure and deliver the footbridge replacement works in two Stages:

Stage One will involve Contractor engagement to develop the design and prepare the outline documentation necessary to deliver the scheme. Subject to the satisfactory conclusion of Stage One, HCC will confirm that the works are to proceed to Stage Two which will comprise the demolition of the existing structure and construction of the proposed scheme as shown on the scheme drawings and Scope.

Graham Construction Ltd (GCL) have been appointed by HCC to provide the Contractor services during the Stage 1 - Early Contractor Involvement (ECI) part of the contract in connection with the replacement of footbridge.

One of the GCL deliverables during the ECI Stage 1 is to provide an Outline Method Of Work for demolition of the existing footbridge and construction of the footbridge foundations for which this document has been prepared. It also addresses other deliverable requirements including identifying an area for a site compound of suitable size in the vicinity of the works and identification of suitable traffic routes to and from site for deliveries, as well as temporary diversion routes for pedestrians / vehicles.

The purpose of this outline method statement is to satisfy the above deliverables for HCC and to enable them to proceed with making a Planning Application for the scheme.

The Principal Contractor (PC) for the future construction stage of the project will develop specific Method Statements to cover all aspects of the scheme during this phase in order to provide the detailed guidance for safe methods of working for their employees and sub-contractors under their control and for agreement with third party stakeholders such as Network Rail and utility owners as necessary. Specific Risk Assessment based on the approved safe systems of work will also be drafted and communicated within the future Method Statements to be developed by the PC for the construction phase.

1.2 SCOPE OF THE PROJECT

The project consists of the replacement of the public footbridge over the railway at Havant Station. As noted in the Introduction, the project will be conducted in Stages and consists of the following principal activities :

Stage 1 (ECI) – engagement of GCL to develop the design and prepare the documentation necessary to deliver the scheme.

a) Production of the documents necessary for planning application submission. These include:

1. Outline programme for the demolition and construction of the scheme.
2. Outline Construction Environmental Management Plan (CEMP) including pollution incident plan and Site Waste Management Plan (SWMP).

3. Outline Materials Management Plan (MMP).
4. Outline Dust Management Plan (DMP).
5. Outline Construction Traffic Management Plan (CTMP) including lorry routing, the provision for Contractor's vehicle parking and turning spaces and measures to prevent mud being deposited on the highway.
6. Outline Method Statements for bridge demolition and installation and construction of footbridge foundations located in the proximity of live apparatus (NR HV Cable and BT apparatus).

b) The following activities are expected to be delivered during Stage One:

1. Engage in buildability workshop sessions and provide feedback and advice on the design proposals.
2. Identify the preferred construction sequence and feed into discussions on site logistics - access arrangements, locations of site compounds and material storage areas.
3. Obtain any licences/permissions required to deliver the works during Stage Two.
4. Provide design and check of the steel footbridge based on the layout shown on the drawings and check of the proposed foundations (to be instructed by the Client).
5. Input into Value Engineering workshops.
6. Assistance with completion of Volume 2 Stage Two specification, if required. The Client shall still hold overall control and responsibility of the preparation of this document.
7. Delivery of advance works packages to supplement the design and/or enable Stage Two such as utility investigations and vegetation clearance, if required (to be instructed by the Client).
8. Prepare programmes and cost estimates for the design proposals throughout Stage One

c) At the end of Stage One

1. Prepare a final programme and target cost activity schedule for the construction works in Stage Two.
2. Subject to the satisfactory conclusion of Stage One, the Client will confirm the works are to proceed to Stage Two.

Stage 2 will comprise the demolition of the existing structure and construction of the proposed scheme as shown on the scheme drawings and Scope.

2.0 DESCRIPTION OF WORKS

This Outline Method Statement details the anticipated sequence of work for the demolition of the existing footbridge and the construction of the new replacement footbridge. The principal activities anticipated are listed below :

1. Establishment of Site Offices, Welfare & Site Compound
2. Site Clearance of Vegetation and Tree Pruning / Removal
3. Trial Hole Investigation Works
4. Demolition of Existing Footbridge Main Span and Approaches
5. Protection Works to Existing Services – NR HV Cable & BT Apparatus
6. Construction of Temporary Platform for Piling Works
7. Installation of Piles for Footbridge Foundations

8. Construction of New Foundations
9. Installation of New Footbridge
10. Installation of new Drainage
11. Installation of Services e.g bridge lighting
12. Reinstatement Works

3.0 CONTACT DETAILS

3.1 SUPERVISION

<u>Name</u>	<u>Position</u>	<u>Contact Tel No.</u>
James Murphy	Project Manger	TBC
TBC	Section Engineers	TBC
Ed Lawson	Site Engineers	TBC
TBC	General Foremen	TBC
TBC	Rail Safety Critical Supervisory Staff	TBC

3.2 CONTRACTOR(S) INVOLVED IN THE WORK

<u>Activity</u>	<u>Contractor</u>	<u>Contact Number</u>
Site Supervision	Principal Contractor TBC	TBC
Setting out	Principal Contractor TBC	TBC
Traffic Management	TBC	TBC
Groundworks Contractor	TBC	TBC
Excavator Operators	TBC	TBC
Slinger/Signaller Banksman	TBC	TBC
Arboricultural Contractor	TBC	TBC
HV Assessor	TBC	TBC
Footbridge Demolition Contractor	TBC	TBC
Piling Contractor	TBC	TBC
Formwork & Steel fixing Contractor	TBC	TBC
Footbridge Fabrication & Installation Contractor	TBC	TBC
M&E Contractor	TBC	TBC

3.3 SPECIALIST TRAINING REQUIRED

<u>Position</u>	<u>Contractor</u>	<u>Training Required</u>
All site personnel	Any	CSCS card & PTS DCCR /TVP for Rail Access On/Near the Line
Site Supervisors	Any	SSSTS or SMSTS & PTS DCCR/TVP for Rail Access On/Near the Line
Vehicle Banksman	TBC	Banksman Training
Excavator Operator	TBC	CPCS Plant Card
Streetworks Supervisor	TBC	SWQR Supervisors Training
Telehandler Operator	TBC	CPCS Plant Card
Traffic Management Operative	TBC	Lantra Card
Temporary Works Co-ordinator / Supervisor / Operative	TBC	CITB TWC / TWS Training
Demolition Supervisor	TBC	CCDO Demolition Site Supervisor / Operative
Piling Rig Operator	TBC	NPORS / CPCS Piling Rig Operator
Piling Concrete Pump Operator	TBC	NPORS / CPCS Trailer Mounted Pump Operator
Piling Plant Banksman	TBC	NPORS Piling Rig Attendant or CPCS Slinger/Signaller
Arboricultural Operator	TBC	CSCS Arborist Worker & relevant training for use of Chain saws in various conditions, brush-cutters, mulchers, tree climbing & aerial rescue, stump grinding etc
HV Assessor	TBC	HV Assessor Certificate from an accredited provider ; PTS DCCR for Rail Access On/Near the Line
Crane Supervisor	TBC	Appointed Person for Lifting
Crane Operator	TBC	CPCS Crane Operator

4.0 SITE RULES

4.1 GENERAL SITE H&S

- All operatives, drivers and visitors must report to the site compound prior to any of the works starting.
- Task specific morning briefings will be held before work commences, these will outline the tasks to be completed and any associated risks.
- A permit system is to be used for works onsite, including but not limited to: Hot Works, Lifting Operations, Permit to Dig for Excavations, Permit to Load, Permit to use a Ladder, and Working near HV cables.
- Weekly lifting checks will be completed for all lifting equipment.
- Daily permit to lift to be issued if crane is moving position.
- All moving vehicles will have an orange flashing beacon as standard and green beacon for seatbelt in use, all plant is to be inspected daily.
- No lone working is allowed.

- A plant check list must be completed daily by the operative for each item of plant. Prior to commencement of works any damage or servicing of plant must be highlighted to the Section Engineer and will be actioned accordingly.
- There must be sufficient controls in place during the operation of plant including pedestrian access routes, banksman, appropriate signage and visibility aids, stoplogs and bunds.
- Mushroom caps are to be placed on all dowels, steelwork, rebar and tie bars.
- Works access must be secured at all times to prevent unauthorised access.
- Plant must not slew near or across live carriageways or within railway limits. Where required slew restrictors will be implemented.
- Good housekeeping will be enforced to reduce chances of slips, trips and falls.
- An overview of the activities which will require health & safety risk assessments during the Construction Phase are listed in the attached *Appendix 9*

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- Operatives will be made aware of any environmental issues concerned with the works activity.
- Any waste that arises shall be placed in the appropriate skips in the site compound.
- If any significant contamination is encountered or should any potentially hazardous material be spilled, then work will be suspended, and specialist advice sought to determine the required protective measures.
- All COSHH materials must be stored in a bunded COSHH store out of direct sunlight and when on site placed on a plant nappy.
- In the event of a spillage, spill kits and granules will be available at the location indicated during the site induction and shown on the site signage.
- All refuelling of machinery and plant is to take place in the designated refuelling area – at least 10m away from any drains/watercourses - by a trained and competent operative.
- Static plant is to be placed any/or stored on plant nappies at all times.
- If any environmental incident occurs, the environmental manager must be contacted straight away.
- An Environmental risk assessment for the works will be completed for the construction phase.
- The Outline Construction Environmental Management Plan (CEMP) provides more detailed information on the management of environmental matters and will be updated by the PC for the construction phase of the scheme.

4.3 UNLOADING OF DELIVERIES

Where there is a requirement to offload or load an item, plant or materials on to a low loader, the following considerations will be carried out.

- A delivery driver induction will be carried out in the site compound prior to the driver attending site.
- The low loader/delivery vehicle will be parked on suitable and level ground. Once in position the hand brake will be applied, and the engine switched off.
- The area will be segregated from pedestrians with a physical barrier. If this is not possible, a Plant Vehicle Marshall shall be present to ensure no one enters the offloading / loading area.
- If there is a requirement to lift items / materials off the delivery vehicle, a lifting plan must be in place.

4.4 PERSONAL PROTECTIVE EQUIPMENT

HEAD PROTECTION:	YES / NO	SKIN PROTECTION:	YES / NO
EYE PROTECTION:	YES / NO	SPECIALIST FOOTWEAR	YES / NO
EAR PROTECTION:	YES / NO	FLOTATION AIDS:	YES / NO

RESPIRATORY PROTECTION:	YES / NO	HARNESSES:	YES / NO
HAND PROTECTION:	YES / NO	OTHER	YES / NO

The above covers the minimum PPE requirements, additional PPE may be required depending on activities being carried out and will be covered by task specific requirements and risk assessments.

5.0 PLANT/EQUIPMENT

The above work will be completed using, but not limited to:

<u>Plant / Equipment</u>	<u>Trained Operator</u>	<u>Certification Required</u>
Excavators	CPCS Operator	Relevant Vehicle Certification / Vehicle Inspection Report/ PUWER/LOLER
Telehandlers	CPCS Operator	Relevant Vehicle Certification / Vehicle Inspection Report / PUWER/LOLER
CAT Scanner	Principal Contractor	Training & Calibration Certificate
Power Tools	All Contractors	PUWER
Surveying Equipment	All Contractors	Calibration Certificate
Piling Rigs	CPCS Operator	Rig Certification
Cranes	CPCS Operator	Crane & Lifting Accessories Certification
MEWP	CPCS Operator	MEWP Certification
Traffic Management Vehicles Equipment (Signs, Cones etc..)	Lantra Operator	Relevant Vehicle Certification / Vehicle Inspection Report
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6.0 EMERGENCY PROCEDURES

6.1 INTRODUCTION

In the event of a problem/situation arising, that is not covered by the Method Statement, the works will be stopped immediately, and the PC's Construction Supervisor will be consulted, and a decision made accordingly. If deemed required, the Method Statement will be revised prior to works re-commencing. Under no circumstances should any personnel carry out activities not covered by an approved Method Statement.

6.2 SITE EMERGENCY ARRANGEMENTS

In the event of an emergency, the PC's Construction Supervisor will be informed immediately and will alert the relevant authority/authorities.

All accidents will be reported to the PC's Project Manager and SHE (Safety, Health & Environmental) Team and entered into the accident book by the PC's Safety Team. If required by the severity of the accident, the site management team will complete form F2508 in-line with RIDDOR requirements. Contact details are below for contacts relating to different incidents. Separate reporting arrangements will be in place for Network Rail and confirmed in the relevant Construction Phase documentation.

Safety & Occupational Health

First point of contact for advice or guidance

<u>Name</u>	<u>Position</u>	<u>Contact Tel No.</u>
Chris Murphy	PC's Regional SHE Manager	TBC
Sam Burcombe	PC's Project SHE Advisor	TBC

Environment

First point of contact for advice or guidance

<u>Name</u>	<u>Position</u>	<u>Contact Tel No.</u>
Jayne Walker	PC's Regional Environmental Manager	TBC
Matthew Hunter	PC's Environmental Manager	TBC

Other

Only contact if all of the above are unavailable.

<u>Name</u>	<u>Position</u>	<u>Contact Tel No.</u>
Andrew Cooke	PC's SHE Director	TBC

6.3 FIRST AID ARRANGEMENTS

A qualified first aider will be on site at all times with first aid kits located in the Site Offices & Welfare Accommodation and designated vehicles or temporary site office. The first aider will be identified to all workers and will have a first aid sticker on their helmet.

Contact Details

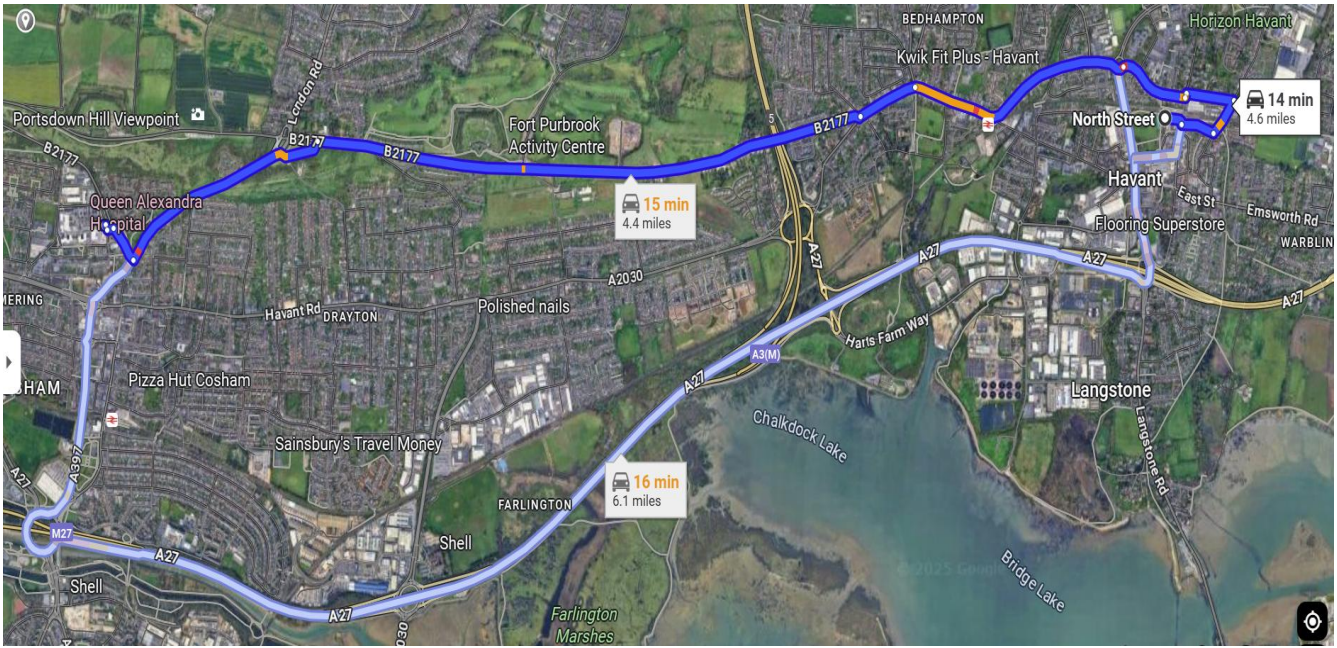
<u>First Aider</u>	<u>Contact Number</u>
Ed Lawson	TBC
TBC	TBC

6.4 NEAREST HOSPITAL

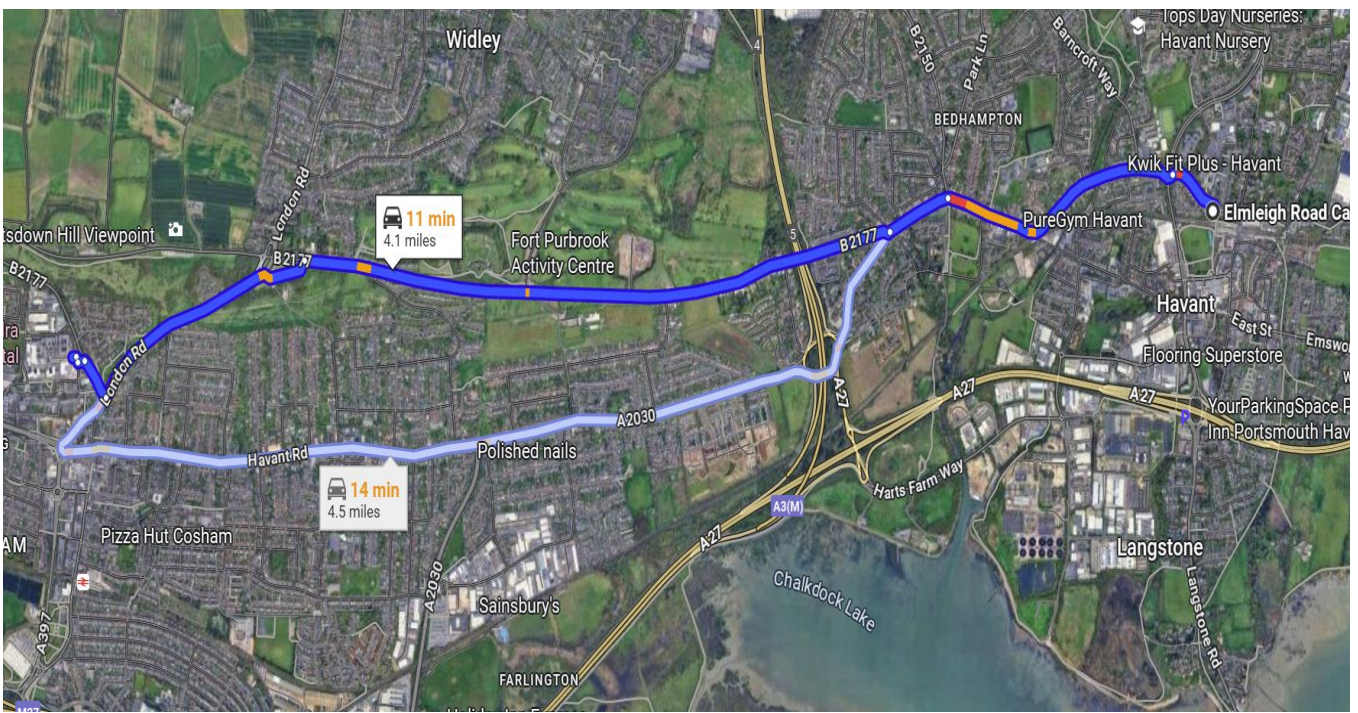
In the event of an accident occurring on the site the nearest hospital with an Accident and Emergency Unit:

**Queen Alexandra Hospital,
Southwick Hill Road,
Cosham,
Portsmouth,
Hampshire PO6 3LY**

Route from North Street, Havant to A&E (4.6 miles)



Route from Elmleigh Road Car Park, Havant to A&E (4.1 miles)



6.5 FIRE SAFETY ARRANGEMENTS

Operatives are to be made aware of the fire plan and emergency arrangements as briefed in the site induction, including the location of the fire muster point.

In case of the fire alarm sounding, all personnel should evacuate immediately in a calm manner to the fire muster point without collecting possessions once the alarm is raised.

The fire muster points will vary depending on the location, whether on site or in the site office - this will be determined by the PC for the Construction Phase.

6.6 EMERGENCY SERVICES

Should emergency services be required any operative can call 999.

The emergency and non-emergency numbers are listed below.

<u>Service</u>	<u>Contact Number</u>
Main emergency number	999
Main emergency number	112
Non-emergency police number	101
Non-emergency medical number	111

7.0 UTILITIES

7.1 UTILITY CONTACTS

Where possible the up-to-date service and utility drawings will be available to relevant operatives.

Contact details for local utility companies are as follows:

<u>Organisation</u>	<u>Contact Number</u>
BT Openreach	08000232023
SSEN (Scottish and Southern Electricity Network)	105
Gas emergency services	0800111999
Thames Water	0800714614
Virgin Media	08708883116
City Fibre	03331507282
Lumen Technologies (Contact via OCU Group)	For Damage Contact 0208 731 4600 Mon-Fri Office Hours (OCU Group Office) 0845 330 8615 Out of Office Hours / Weekends
Vodafone	TBC
BT Openreach	Email the Click Before You Dig Team CBYD@openreach.co.uk Visit the Click Before You Dig Website www.openreach.co.uk/cbyd For Damage Call 0800 023 2023

8.0 SAFE MEANS OF ACCESS / TRAFFIC MANAGEMENT

8.1 SITE LAYOUT

A copy of the general arrangement for the proposed Havant Footbridge Replacement is included in *Appendix 2*.

8.2 PEDESTRIAN TRAFFIC MANAGEMENT

- Segregated pedestrian walkways will be clearly marked on site to protect pedestrians from moving plant and vehicles adjacent to the works as required.
- Exclusion zones around plant will be established by the PC and other contractors where necessary to provide additional protection.
- Any footpath closures and pedestrian diversion routes will be put in place as per the Construction Traffic Management Plan – refer to *Appendix 3* for outline proposals for pedestrian diversion routes.

8.3 ROAD TRAFFIC MANAGEMENT

Details of the outline proposals for traffic routes for vehicles to and from the site are provided attached in *Appendix 4*.

8.4 SAFE MEANS OF ACCESS

Safe means of access to the works area will be via North Street on the southern side of the footbridge and via Elmleigh Road on the northern side of the footbridge.

Any access required within Havant Station platforms will be by agreement with South Western Railway, the Station Manager and Network Rail where access is required on or near the line within railway possessions and isolations of the live DC Traction rails.

9.0 TEMPORARY WORKS

9.1 TEMPORARY WORKS PROCEDURE

The scheme may require temporary works to facilitate the construction works, such as the protection of existing HV cables & utilities such as BT apparatus, working platforms for piling plant and craneage and temporary bracing for stability during demolition of the footbridge, among others. Temporary works will be managed in accordance with the PC's Temporary Works Procedure and the relevant temporary works designs and design checking certification will be provided for agreement by the relevant parties.

<u>Name</u>	<u>Position</u>	<u>Contact Tel No.</u>
TBC	Temporary Works Designer & Design Checker	TBC
TBC	Temporary Works Co-ordinator	TBC
TBC	Temporary Works Supervisor	TBC

10.0 SECURITY

10.1 PERSONNEL SECURITY

Overall requirements for site security will be reviewed and assessed by the PC, this may be security in the form of static site security personnel or CCTV recording, alarm detection and remote monitoring. The site will be fenced and display adequate clean, clear and visible warning signage around the site perimeter to warn of the dangers of trespass on construction and railway sites.

The site will be secured with a physical fence and access gate to prevent unauthorised access. All persons must sign in and out, a biometric access system may also be used to control access to and from the site. The site management team reserve the authority to challenge any person who is believed to be unauthorised on site. All non-inducted personnel will sign in as a visitor and be escorted to the site office.

10.2 DELIVERY SECURITY

All deliveries will be managed by the PC with advance booking to promote security and prevent unauthorised vehicles from entering the site. In addition, all delivery vehicles will report to the Site Compound and provide all required information to the gateman on duty. All delivery vehicle drivers will follow directions given to them by the gateman / traffic marshals.

10.3 PLANT AND EQUIPMENT SECURITY

All plant on site will be fitted with vandal guards and have isolation keys removed to reduce the risk of theft and vandalism.

All valuable equipment and supplies e.g., small electrical hand tools will be kept locked in secure storage containers when not in use.

11.0 SEQUENCE OF WORKS

11.1 ESTABLISHMENT OF SITE OFFICES, WELFARE & SITE COMPOUNDS

Discussions are taking place between HCC, HBC and GCL during the Stage 1 ECI works to identify suitable areas for the establishment of site compounds, temporary Site Offices and Welfare accommodation to be used by the PC and sub-contractors during the construction phase.

The followings areas are being considered initially :

The Elmleigh Road Car-Park is owned and operated by HBC and will be closed for the duration of the works and will be available for use as a Site Compound and location for temporary mobile welfare. This area will be secured with temporary fencing from the end of Mavis Crescent / Elmleigh Road. Adaptions will be required to form an entrance from Elmsleigh Road, subject to agreement with HCC and HBC.



Elmleigh Road Car-Park – Site Compound & Working Area

The Network Rail non-operational land by the northern ramp of the footbridge (refer to the area within the pink boundary below) will become part of the working area during the construction phase, subject to any operational constraints imposed by Network Rail for specific construction activities. It could also serve as a site storage area.



Network Rail Non-Operational Land – Working Area & Storage

HCC have been advised that the former “Star Car Park” has been purchased by HBC and that use of it may be granted for a Site Compound (see the area within the green boundary below), subject to confirmation and agreement. If utilised, then it would be fenced off and secured with access gates for vehicles and pedestrian from North Street. HBC have also purchased the adjacent buildings (see the area with pink boundary) which may be available for use as Temporary Site Offices and Welfare, subject to confirmation and agreement.



“Star Car-Park” - Potential Site Compound, Site Office & Welfare

Should the above discussions between HCC/HBC not prove to be viable then alternative arrangements will need to be made for Site Compound, Temporary Site Offices and Welfare.

11.2 Site Clearance of Vegetation and Tree Pruning / Removal

HCC carried out an initial tree survey in October 2024 and produced an Arboricultural Impact Assessment Report in connection with the scheme in April 2025. The site has been checked for the presence of TPOs and there are no constraints on the site.

The Conclusions of the Report are as follows:

1. The potential tree loss for this proposed scheme is high and there is little potential for replacement planting within the site confines.
2. Suitable locations for planting must be found to ensure the canopy cover is not reduced in the long term as this is counter to the climate emergency response and the national guidelines.
3. The scheme has been assessed in some detail given the impact on trees. Several alternative designs have been considered but given the site constraints and the standard construction and accessibility requirements, this is the optimum design for this location.

The Recommendations of the Report state the following:

1. The tree loss for this proposed scheme should be considered a constraint to the design as proposed unless an overriding public interest is present.
2. The opportunity to reduce the impact through alteration to the design, deviations from standards being accepted or special engineering methods has been considered and at the time of writing the advice is that we are as close as possible to meeting the requirements.
3. The protection measures outlined in the tree protection plan (TPP) and arboricultural method statement (AMS) must be conditioned and enforced on site.
4. That a landscape plan, fully resourced and agreed as a pre-commencement condition is produced. The landscape plan is to include locations, species and stock type and size that will meet the mitigation requirements laid out above. This will be produced in consultation with the HBC tree officer as new planting is likely to be into HBC land.

The scheme as proposed requires the loss of 8 No trees, one high value category A dawn redwood tree, one category B oak tree with a long future potential lifespan and 6 lower value holly, sycamore and birch – refer to the tables below extracted from the Arboricultural Impact Assessment Report. The impact of the proposal assessed using tree numbers, value and canopy cover is assessed as high. No replanting has yet been identified. Given site constraints, this is a key challenge to deliver suitable mitigation for any loss. Refer to the Tree Removals Plan in *Appendix 5* for locations of the trees to be removed and pruned.

The proposal will mean the loss of the following eight trees:

Tree category	Groups	Trees	Total count
A		T15	1
B	-	T3	1
C	-	T4, 5, 8, 9, 14, 18	6
Total loss	None	8	8

The proposal will mean the pruning of the following trees:

Tree category	Groups	Trees	Total count
A		T10	1
B	-	T19	1
C	G7	T6	1 group & 1 tree
Total loss	1 group	3	3 trees and 1 group

Breeding birds are considered to be present within trees and scrub vegetation within and adjacent to the site and may potentially be impacted by the proposed development if works were to take place during the bird nesting season (March to August). Impacts may include:

- Disturbance and/or harm (including injury or death) to any breeding / nesting birds and/or eggs / chicks / fledgelings.
- Disturbance to, or damage / destruction of, active bird nests.
- Outside of the nesting season, there would also be the risk of disturbance to birds generally present in the vicinity of the site while works are in progress.
- Reduction in habitats suitable to support birds.

The tree pruning and removal works will be carried out outside of the bird nesting season either before March 2026 or after August 2026. An ecologist will inspect the site in advance of the works taking place. Any further ecological impacts will be considered in conjunction with the requirements of CEMP, which will be fully developed for the construction phase of the scheme.

The works will be carried out by a suitably qualified Arboricultural Contractor using equipment and methods appropriate for the location and size of the trees to be pruned and removed. A detailed method statement will be compiled in advance of the works taking place and liaison will take place with Network Rail to ensure the works are carried out without impact to the railway operations. This will include activities such as use of strimming and brush cutting tools for vegetation clearance, tree felling (either in sections by tree climbing, tree felling from ground level (if safe to do so without impacting the railway or adjacent property), tree felling using mechanical plant with suitable attachments from ground level. The works will either be undertaken during normal hours where this can be done safely and with any mitigation necessary to minimise any risk to the railway or otherwise carried out at night during railway possessions and isolations under the supervision and control of NR Safety Critical Staff where this has been deemed necessary due to the risk to railway operations. The possibility of carrying out some works during Line Blocks will also be reviewed, should this be a viable option between trains.

The scheme will also require some vegetation clearance for the construction of the foundations, this will also be carried out in line with the requirements of the Construction Environmental Management Plan and precautions / mitigations in relation to potential protected species on site. An Ecologist will carry out further surveys in advance of works commencing to identify any potential issues.

11.3 Trial Hole Investigation Works

During the course of the detailed design for the scheme, it may be necessary to carry out further trial holes to determine any potential obstructions to the construction of the foundations for the new bridge structure outside the limits of the operational railway.

Should this be required the following process will be adopted and the overall requirements of HSG-47 will be observed :

The Site Engineer will set out the location of the excavations required.

All trial hole excavation works will be planned either as a hand dug operation using insulated tools or with the use of a Vacuum-Excavator. The depths will be defined by the size and depth of foundations as determined by the detailed design. Consideration will also be given to the trial hole locations in relation to any trees and the spread of their roots.

Excavation will not commence without a fully completed Permit to Dig being in place and authorised by a person senior to the permit writer.

Only where hand excavation or vacuum excavation is not possible such as hard dig will machine excavation be considered. Before an excavator can be used, the site area will be surveyed using Ground Penetrating Radar. Operatives will excavate by hand only, if services are located within 500mm of the excavation.

The area will be scanned using an approved Cable Avoidance Tool (CAT) and reference made to the utility service records available from the utility companies. All known services should be marked with stakes or flags as a more permanent means of demarcation to spray paint.

As excavation progresses, the ground will continue to be scanned using the CAT every 200mm depth.

Trenches and excavations are to be sloped to a 1 in 1 gradient or shallower for stability depending on ground conditions. An Excavation Inspection Register will be completed daily and after adverse weather conditions.

The base of excavations/trenches will be compacted with a vibrating plate.

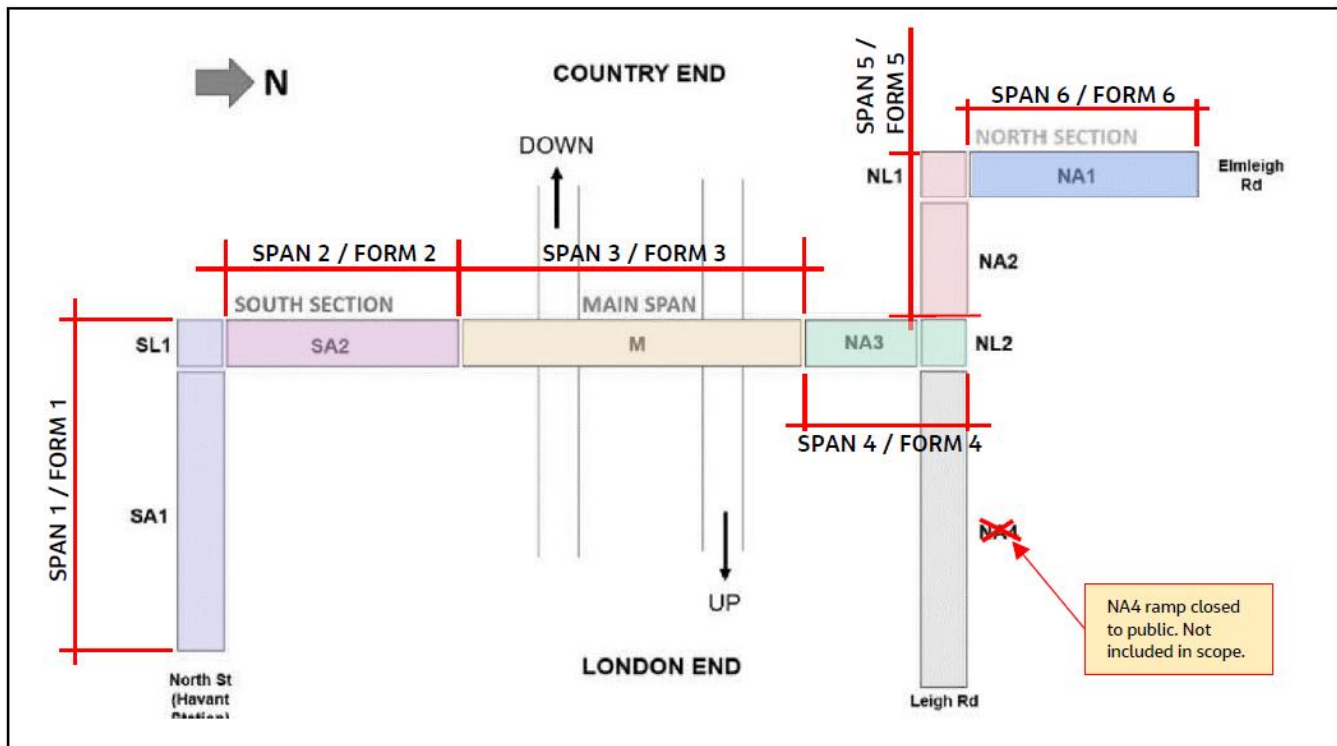
Areas of poor ground will be supported with suitable proprietary temporary supports according to the conditions encountered and the depth of excavation required and reviewed with the TWC.

Edge protection and temporary barriers will be provided around the excavations.

11.4 Demolition of Existing Footbridge Main Span and Approaches

During the Stage 1 ECI works, GCL are liaising with potential demolition sub-contractors with the requisite competence, experience and the industry and railway accreditations to carry out the proposed demolition of the existing footbridge over the railway. Procurement of the demolition services and the development of detailed proposals for the demolition methodology will take place after HCC has instructed the construction works to proceed.

The demolition methodology will need to consider the condition of the existing structure. This has been appraised within a Principal Inspection carried out on behalf of HCC during 2024, for elements of the structure both within the NR operational land and outside of it. This inspection identified overall that the bridge was in very poor condition, with defects and damage that may be significantly affecting one or more functions of the structure and impacting the structural capacity of the bridge. It also noted that the structure does appear to have deteriorated further since the last Principal Inspection in 2021. The layout of the span arrangement and referencing for each span is shown below



The Principal Elements of the Structure are as follows :

Main Span - The main span of the bridge is approximately 25.6m long and 2.4m wide, comprising half-through plate girder construction, spanning between steel column trestles located in lineside areas to the rear of the upside (U/S) and Downside (D/S) platforms of Havant Station. The edge plate girders provide a dual function forming the bridge parapets to the public footway as well as being the primary structural element. Concrete planks span transversely between the main girders, forming the deck of the main span. These planks rest on the bottom flange of the girders. Additionally, encased cross girders are positioned between the edge girders, aligning with the vertical members to enable U-frame action.

North Approach - The north approach ramp comprises a number of spans and landings supported on intermediate steel trestles and temporary scaffold supports. These are believed to have been installed on a long-standing basis to support the ramp spans due to the deteriorated condition.

The ramp splits beyond the landings immediately after the main span (NA2 and NA3). The approach then has a further span (NA4) which heads east towards Leigh Road, the entrance to the upside platform of Havant Station, and Havant station car park. However, NA4 is permanently closed to the public and was therefore not included as part of the inspection works.

The ramp has additional spans (NA1, NL1, NA2) which head west towards Elmleigh Road providing access to Havant Leisure Centre and the wider residential area of Leigh Park.

The ramp construction comprises steel channel edge stringers with a concrete deck. Edge stringer sections are connected by web splices located immediately above the intermediate trestle legs. Open mesh parapets supported by steel T-sections are provided to the elevations of the ramp, and a canopy of similar construction to the main span canopy is provided to the length of the ramps. Edge stringers are tied together with tie rods. The spacing of these rods is inconsistent throughout the length of all ramps. It was not possible to determine during inspection the nature or presence of any connectivity between the concrete deck and the edge stringers.

Landing NL1 is formed from a simple quadrant shaped concrete slab which is supported on 3 No. I-section steel columns arranged in a triangular pattern. Channel section bracing is provided to the columns at deck level and at mid height of the columns. NL2 is of similar construction but comprises a rectangular landing and is supported by 4 No. I-section steel columns.

South Approach – The south approach ramp and south landing are of similar construction form to the north ramps and landings.

For the purposes of preparing this document for planning considerations, the below outline demolition sequence is anticipated:

1. Review of the existing Archive drawings for the footbridge and Principal Inspection Reports.
2. Site visit by demolition sub-contractor, designer and temporary works designer to review condition and verify assumptions for the demolition sequence.
3. Assessment of the weight of the main structural elements & any temporary works required to ensure stability of the structural elements during demolition and while elements are being lifted. It is anticipated that temporary works may be necessary to stabilise and brace the longitudinal steel girders and concrete deck of the main span while it is being separated from its supports and lifted, due to the corroded and overall poor condition of the structure. Other elements may also need stabilising where they are to be lifted intact (e.g the north eastern ramp). Assessment will also be carried out of any temporary works that may be required to protect NR assets in the vicinity of the footbridge which may be affected by the demolition operations.
4. Design and checking of temporary works required to stabilise the structural elements, limiting the weight where possible to minimise additional weight for crane lifting. Design and checking of temporary works support pads for craneage to be used to lift the footbridge elements. The temporary works designs will be submitted to HCC and NR for review and acceptance.
5. Preparation of detailed demolition methodology to safely dismantle and separate the structure and preparation of lifting plans for review and acceptance by HCC and NR.
6. It is anticipated that the main span can be separated by burning from its two support trestles and lifted in one operation, with a crane situated in the area to the west of the Station forecourt / taxi rank on North Street on the south side of the footbridge. Refer to *Appendix 6* for 3-D visualisation of the indicative demolition sequence and crane locations. The sections of the structure forming the southern approaches will be separated and lifted from the same crane position.
7. This work will be carried out during a possession and isolation of the railway, this is assumed to be a minimum duration of 52hrs and is expected to take place in October 2026.
8. It may be necessary to set up a crane within the Elmleigh Road Car-Park to lift out sections of the northern ramp and support trestles, depending on the strategy adopted for dismantling and separating it. Refer to the 3-D images in *Appendix 6* as noted above.
9. Similarly, the north-east ramp towards Leigh Road may also be separated in sections and lifted across the railway using the crane sited in the south side of the structure during the railway possession and isolation. It may also be possible to carry out elements of this work out outside of possessions from within the NR operational land using smaller plant for separating and lifting sections in a piecemeal fashion.
10. All elements of the structure will be loaded on to transport and removed off site for breakdown and recovery of materials for recycling.

11.5 Protection Works to Existing Services – NR HV Cable & BT Apparatus

The piled foundations for the footbridge are to be constructed in close proximity to both the NR HV cable route which runs east to west immediately behind the Up Platform on the north side of the footbridge and the BT apparatus which runs north to south under the railway. There are also electrical cables in the vicinity of the pad foundations of the northern end of the footbridge. Refer to the below extract from the draft design drawings.

Subject to the completion of the detailed design of the foundations and final positions and methodology for installation of the piled foundations, it will be necessary to consult with the utility asset owners and NR to agree a safe method of carrying out the piling and foundation works and any temporary protection measures for the services which may be required to be installed to facilitate this.

A HV Assessment will be carried out by a competent HV Assessor with the required training and experience who will review the condition of the HV feeder cables and make recommendations for their protection in relation to the works being carried out.

11.6 Construction of Temporary Platform for Piling Works

After the detailed design has been completed procurement of the piling works will be carried out in line with the programme for the construction phase of the scheme. When appointed the piling sub-contractor will select the most appropriate piling plant for the expected ground conditions and the pile design. For the purposes of this document a CFA piling solution has been assumed.

In order to carry out the piling works safely a temporary platform will be designed and constructed using a stone or recycled aggregate fill material which will be built up to form the working platform for the piling rig at the pile positions. The platform will be designed to support the ground bearing pressures and track loadings from the piling rig and the soil properties of the underlying ground will be based on information from previous Ground Investigation Reports. The temporary works design will be submitted to HCC and NR for review and acceptance in advance of the works commencing.

A piling platform would typically be made up of 6F5 or MOT Type 1 fill material compacted in layers to the required design depth and reinforced with layers of geotextile installed in accordance with the manufacturer's instructions.

The piling platform will be constructed in the NR Non-Operational Land on the northern side of the Footbridge and within HCC land on the southern side of the footbridge. A method statement for the construction of the piling platform will be produced and issued to HCC and NR for review and acceptance. It is anticipated that, subject to these discussions, a safe method of carrying out the works could be agreed, such that construction can take place in a "high street" environment without impacting railway operations.

The following sequence is envisaged for the installation of the piling platform:

Prior to starting works the Temporary Works Co-ordinator (TWC) must review the dimensions on the temporary works drawing and confirm they are correct, if there are any discrepancies the PC will resolve these with the designer.

The HV Assessment will be complied with in terms of any on site supervision required by a HV Competent Person and recommendations made for the safety and protection of the HV feeder cables while the works are being carried out.

The areas designated for the piling platform will be marked out on site by the Engineer.

Using a suitably sized excavator the area will be made level as required to create an even surface to ensure accurate load distribution of the rig. Any debris, vegetation and loose soils will be removed.

Once at formation level, the Engineers will inspect the ground conditions and confirm that they are as expected in design ground profile. Any soft spots in the formation should be removed and backfilled with well compacted granular material. The ground will then be proof-rolled and a Terram 1000 separation membrane will be placed at formation level to prevent ingress of fines into the working platform.

Backfilling with the 6F5 or Type 1 fill material will then commence. The Engineers will satisfy themselves that the 6F5 or Type 1 platform material is compacted in layers, with suitable compaction plant, in accordance with the Specification.

The Engineers will confirm that the geotextile has been installed at the correct level in accordance with the temporary works design and with the manufacturer's instructions, including any overlapping of layers as required.

Following completion of the works, an engineer will complete a topographical survey of the Piling mat. where there will be plate loading tests completed throughout the platform. The test results will be confirmed and compared with the CBR rating required for the TW design.

Once the temporary works has been completed, the TWC / TWS (Temporary Works Supervisor) will inspect the works. When the temporary works installation is found to be compliant with the design, the TWC will issue a permit to load for the piling platform and a piling platform certificate for the piling contractor.

The piling platform will be regularly inspected to ensure settlement is not in excess of the max loading capacity of the piling rig, the platform is to be inspected at regular intervals especially after heavy rainfall, as per the temporary works design.

When construction of the permanent works that have utilised the temporary works platform is completed, the temporary works will be dismantled in the reverse order to its installation. A permit to unload the temporary works system will be issued by the TWC before commencing removal works. The Class 6F5 / Type 1 fill material will be dug away using an excavator and either stockpiled for reuse or loaded into lorries for recycling.

11.7 Installation of Piles for Footbridge Foundations

The following advanced works are envisaged, prior to the piling operations required to construct some of the foundations on the northern and southern sides of the footbridge taking place :

Pre-Commencement Works

Detailed design of the piled foundations will be provided, including diameter and length of pile and reinforcement details.

Excavation / probing and removal of any potential obstructions to piling operations

Design, Installation & Testing of the piling platform.

Provision of the relevant Permits for the piling platform and piling operations.

Setting out of the pile positions.

Review of access arrangements for the piling rig and piling plant to the site locations and construction of any ramps needed as part of the piling platform works.

Preparation of method statement for the piling operations and it's submission to HCC, NR and BT for review and acceptance. The methodology will include provision for working during normal rail operations with the adjacent line open if possible, subject to any restrictions and mitigations necessary in terms of piling rig and mast size, the position of the rig, tracked excavator / other plant and any slewing constraints, protection measures for HV feeder cables and BT Apparatus, protection of the public using the adjacent platforms from the piling operations.

The HV Assessment will be complied with in terms of the on-site supervision required by a HV Competent Person and recommendations made for the safety and protection of the HV feeder cables while the works are being carried out.

Mobilising on to Site

The piling rig will be delivered on a low loader and will arrive at the entrance of the site.

Protection boards will be laid on the surface as required and the rig unloading will be unloaded under the control of a banksman. The concrete pump and the auxiliary equipment will be delivered to site and offloaded in similar manner.

The steel reinforcement cages will be prefabricated if possible and will be delivered by lorry and offloaded by Hiab or excavator to the designated storage area.

Equipment Setup

When ready the piling rig will be rigged up by the rig driver and banksman. Once erected the rig driver and banksman will attach the required auger guide to the gate jaws. Whilst adding/removing augers and unfolding/folding the mast, if working at height is deemed necessary a Mobile Elevated Working Platform (MEWP) will be used for access.

At the beginning of each day all plant oil/water levels will be checked in accordance with PUWER regulations.

Piling Operations

An exclusions zone will be created around the piling operation and segregated with fencing to prevent unauthorised entry into the piling area.

A Permit to Pile will be completed by the Piling sub-contractor and issued.

The piling rig will be moved to the first pile position with a banksman banking it at all times and when in position the rig will be levelled and the auger set up over the centre of pile.

The banksman and Slinger will prepare a reinforcement cage by placing de-bonding and a set number of spacers onto the helical reinforcement and then moving the cage into position for lifting.

The rig driver will check the pile number then record the data onto the daily log sheet, he will commence the drilling down to the required depth. The rig driver will start the drilling process, by screwing the augers into the ground at the desired penetration rate, until required depth is achieved.

Once the required depth is achieved the rig operator will signal to the pump operator to commence pumping the concrete, when the pile is being filled the rig driver will lift the head to allow the concrete to flow from the auger keeping it under pressure, once all augers have been extracted and the pile has been filled the pumping will cease. Whilst extracting the rig operator is to ensure the auger cleaner is working correctly and all loose material is removed from the auger. Excess spoil from the top of the gates shall be removed at periodic intervals, of not less than once per day, or when build up of spoil is deemed by the banksman or supervisor to be excessive.

The banksman will then instruct the excavator driver to remove the spoil from the top of the pile. The Slinger will attach a shackle and chain to the arm of the excavator. The drop chain will be attached to the pile cage, the slinger will then instruct the excavator operator to lift the cage and place it over the pile. The Slinger will then instruct the excavator to lower the cage into the pile assisted by the Slinger until the cage is at correct level. The operation will be repeated until all piles are complete.

11.8. Construction of New Foundations

The works involved in construction of new foundations will consist of the following :

Cropping and preparation of piles and construction of pile capping beams for those foundations which are to be constructed on piles.

Excavation to formation and construction of pad foundations for the remaining foundations required. Refer to Section 11.3 Trial Hole Investigation Works above, for the method to be followed for excavation works.

Steel Reinforcement movement to work areas

Bundles of high tensile rib deformed reinforcement will be delivered via Hiab lorry (or similar) to the work face and offloaded / lowered into position via Excavator. A slinger/signaller will guide the lift & organise steel bundles. Lifting of reinforcement will be in accordance with the project lift plan.

Fixing Reinforcement

Reinforcement will be laid out on blinding concrete. Concrete spacer blocks will be laid out on the blinding to allow for the specified concrete cover to all faces. The reinforcement will be laid out on top of the spacer blocks and built up as per the reinforcement design drawings.

All reinforcement will be securely fixed with tying wire. Projecting ends of reinforcement bars will be mushroom capped for protection before completing.

Cutting Reinforcement

Ideally, there should be no requirement for cutting reinforcement bars on-site with correct dimensioned steel, however, design changes or steel imperfections may require on-site altering. Where this is the case and approved lap lengths can be maintained localised cutting may be required. This is to be done with a 110v bar cropper or metal / or suitable grinder and Hot Works Permit must be obtained. The Permit will cover minimum additional PPE and check procedure (i.e covering all local flammable materials and ensuring a fire extinguisher is taken to the area). Where the bar cropper is used a hot works permit will not be required.

Prefabrication of Formwork Shutters

The process of manufacturing the formwork will be via traditional means. Carpenters will manufacture a temporary working bench / table, to allow for the timbers to be safely positioned individually, set out and cut accurately. Timber elements and plywood sheeting will be cut to size as per the temporary works design using standard circular saw.

Once all elements are cut to size, they will simply be laid out flat on the ground, with localised packers beneath to keep each element slightly off the ground. Each element will be fixed together to form the shutters as required using wire nails and will be lifted off the ground and to a designated storage area until it is ready for install, via an Excavator (or similar), as detailed on the relevant lifting plan.

If any aluminium beams or proprietary shuttering support systems such as RMD soldiers etc are required to support formwork these will be assembled at the foundation location with the relevant clips / couplings as detailed on the temporary works design.

Each section of formwork will be rigorously checked by the site supervisor once complete, with special care given to tightness of clips / couplings, and quality of the nail fixings. Once a section of formwork is complete, mould oil will be applied.

All formwork gangs will be made up of at least one lead, shuttering carpenter. They will be NVQ qualified with appropriate CSCS card. This will allow them to complete shutters of low level without temporary works design. For most shutters (all shutters greater than 1.2m) designs will need to be completed by qualified temporary works designer & checked by independent designer.

The Engineer will plumb the shutter assisted by the lead carpenter who will move the propping / equipment to adjust the shutter as per his indications. Any tie bars required will be fitted through the formwork at the designated locations.

After shutters are fixed, the Engineers will undertake pre-pour inspections as per the Inspection & Test Plans and permit to pour will be issued.

Concrete placing

Concrete will be placed at outside temperatures between 5° and 30°C only, by concrete trucks discharging into a concrete skip that will be lifted by an Excavator (or similar). However, if the volume of concrete required and the working space allows a concrete pump may be used.

Any locations proposed for siting a concrete pump on the site will be on either concrete hardstanding, compacted stone which has been tested for bearing capacity (CBR test) or tarmac hard standing, deemed sufficient for supporting the pump's outrigger loads.

Concrete Pre-pour inspection

Prior to works the following will be checked and recorded in pre-pour checks:

- Shutter will be checked to ensure pour is clean of tying wire, protection caps, and other debris and ready for concrete. Temperature / weather checks will be carried out.
- A Permit to load will be issued by the TWC prior to loading.
- Cast in elements and holding down bolts will be checked for position and level in accordance with the pre-pour checking requirements.

Option 1 - Skip Bin Pour

If using a concrete skip, an Excavator will be used to lift the skip to a safe lay down area for concrete lorries to back up and discharge into. Following this, the skip will be lifted towards the concrete element that is to be poured. This operation will be in line with the project specific lift plan. Furthermore, utilisation of the skip will be under the direction of the trained banksman / slinger signaller. Concrete skips lifting certs will be copied and recorded in site offices prior to use.

Option 2 - Concrete Pour Using Pump

The concrete pump will set up in a suitable area (tested pile-mat or concrete/tarmac hard standing for concrete pump) and segregated from other construction activities. Exact size and type of pump will be selected after site establishment and walk through of work area to determine suitability.

Pump drivers or operators' tickets will be reviewed, and equipment will be inspected and recorded. Pump operators will need to attend a site induction, Certificate of conformance copy for concrete pumps will be kept in the office.

The sequence of concrete pump use will be as follows:

Pump & driver will arrive on site and be inducted on the site rules and method statement for the works.

Pump driver will be shown the location of the pour and pour requirements before moving the pump under vehicle marshal supervision when reversing to the setup area.

Exclusion zone of 2m around the full perimeter of the concrete pump will be set up prior to the operator setting up the pump.

When fully set up the pump will be prepared with a bag of cement/grout to line the boom of the pump. The pump will then be ready for use.

Pump driver will relocate with remote control to area of pour and work with competent (CSCS) concrete worker to discharge the concrete in a safe and controlled manner. Slingers will assist where skips are to be discharged in similar fashion to concrete pump drivers.

If for any reason the flow of the concrete is stopped outside the control of the pump operator this will either be due to air getting into the system or a blockage. Under both conditions all operatives nearby must stand clear of the hose. If air has entered the system, the pump will struggle and simply push the air line through there may be some whipping of the end of the line so all operatives should stand clear.

If the line is blocked the pump driver should stop the pump and reverse the pump to release the pressure. Until this is carried out all lines should always be assumed under high pressure and not be released.

When the pressure has been released the line can be tested to find the blockage (by knocking the boom). When blockage is found that section can be removed only after pressure is checked to be released. This section can then be cleaned out before re-attaching before carrying on the operation.

On completion of operations with the pump, the pump will be cleaned out using water in the designated washout point before being allowed to fully fold away and leave the site.

Vehicle Marshalling – Concrete Lorry

Ready mix concrete trucks will be directed by the site gateman to the pour area where the vehicle marshal will direct/reverse it to the position required. Trucks will be banked by a competent banksman. Access to the works will be gained by approved access routes as indicated on site by the PC and Traffic Management Plan.

Concrete Placement

During the process of concreting the Engineer will set up a laser level to the design levels and issue to the concrete placing team. The laser level will be fully calibrated, certified, and regularly checked for damage / wear and tear prior to use. Prior to discharging, the concrete will be tested for slump, consistency, and temperature, to ensure that all concrete meets the specifications outlined in the ITP and design documentation.

Safety eye protection is to be worn for all duties however when concrete is being poured by pump/skip operatives will wear goggles protecting eyes from concrete splashes. Rubber gauntlet gloves will be worn, protecting skin from concrete burns. Wellington boots will be worn throughout with trousers overlapping to prevent burns to feet. Operatives will be briefed on where the cleaning facilities are if they are exposed to concrete during the works and need to go and clean themselves after reporting to a supervisor. Hand tools will be distributed, and roles clarified between the team. Vibrating pokers will be tested ensuring backup is nearby if one fails -this will include testing with local power supply and ensure there is adequate fuel for the works.

For all structural concreting works (not blinding) concrete must be tested at position of discharge and cubes & slumps taken by trained and competent person as per specification requirements. Tickets will be signed for on delivery by the appointed Engineer. When it has achieved the required slump test discharge can commence into placing apparatus. Concrete will be discharged as per the TWD rate of rise allowing operatives to control positioning of concrete discharge and able to stop the pour in case of emergency.

When concrete has been placed, concrete will be vibrated until air bubbles stop coming to the surface. Concrete pokers will not be used to move concrete horizontally. Exact size of concrete poker to be used will be dependant on the specific structure being poured- Concrete to be placed no higher than 1.5m from the bottom of the pour to prevent segregation.

Concrete Washout

Concrete washout will be undertaken in line with the PC's requirements and procedures. Concrete wash out to be carried out in designated concrete wash out skips. No washing out is to be discharged onto the ground. The only washout that will take place will be for chutes and lines, excess concrete will be returned to the batching plant and not poured into washout facilities Concrete equipment will then be cleaned thoroughly ensuring no laitance remains.

Concrete Finishing

The top surface of the concrete will initially be finished by striking off where required. Any surcharge of concrete will be shovelled away by hand as the work proceeds (wearing protective neoprene gloves).

As soon as the concrete can withstand the weight of a steel bull float the surface will be floated off, ensuring that a level surface is achieved. Specific concrete finishing will comply with the permanent works design drawings.

Once concrete has been poured and cured, a permit to strike will be issued by the PC to remove formwork shutters. This normally requires a concrete cube test result to come back from the testing laboratory to ensure the concrete has reached its required strength prior to removing the formwork. Formwork will be removed by Excavator or similar, banksman & formwork foreman, in a similar method to how it was installed.

Following removal of the formwork, tie bar sleeves holes will be plugged with rubber plugs and patched with tie-stop material to stop future water ingress. Waterproofing may also be required to some elements of buried structures which will be applied after striking formwork in accordance with the manufacturer's instructions.

11.9 Installation of New Footbridge

The following works sequence is envisaged for installing the new Footbridge, an outline sequence for installation of the new footbridge is included in *Appendix 7* :

The installation team from the Bridge Sub-Contractor, including the crane operators will arrive on site on the date of installation for the start of shift briefing. The PC will provide inductions for the crane driver and all members of staff. The Site / Lift Supervisor (LS) will deliver a method statement and Lift Plan task briefing. The team will acknowledge the briefing by signing the briefing register. The works will be taking place within a possession and isolation of the railway and a separate briefing will be delivered by the COSS/Safe Work Leader in relation to the safety requirements while working within the possession.

HOLD POINT – Permit to Lift to be approved and be in place

The LS will check the crane operator (CO)'s CPCS card and check the crane certification. The hired in crane checklist will be completed and the PC's representative will be asked to sign the form to confirm that the crane pad is adequate to support the crane rigger loadings advised by the Bridge sub-contractor. This may be confirmed prior by the PC's TWC when issuing a 'Permit to Lift'.

HOLD POINT – MEWP permit to be approved and in place before using

The erectors will complete the MEWP Daily check sheet to confirm the MEWP is safe and fit for purpose. The PC's Plant Manager or similar can check all MEWPs and crane at this time if required.

HOLD POINT – Permit to Load to be in place

PC to issue Permits to Load and lift certificate. If any other permits by the PC are required, these should be issued.

Any traffic and pedestrian management required to safely segregate the area will also be put in place. The Bridge sub-contractor's lorries will be parked in a pre-designated location and drive into the barriered off lift zone. The PC will confirm the on-site access and entry points in advance.

The PC will secure the external exclusion zones as shown on the lift plans once all vehicles are on site. The Bridge Sub-Contractor will then monitor inside this area. No unauthorised personnel will be allowed within the exclusion zone. Works are to stop immediately if this is breached, and the PC informed. If any vehicles are to enter the Bridge Sub-Contractor works site, then the PC will supply Plant Vehicle Marshalls (PVM) and the Bridge sub-contractor will be informed prior to works starting.

The LS will position the crane as per the lift plan and direct the CO to rig the crane as per the manufacturer's specifications. Lorries are only to be reversed by HGV trained personnel. Any planned reversing is to be controlled by a PVM.

The Bridge sub-contractor's lorry will pull up next to the crane's rigger. All reversing is to be controlled by the transport team (LS). The LS is to ensure no persons are behind the lorry whilst reversing. All lorries are to be Chapter 8 compliant and fitted with reversing audible warnings.

The erectors will distribute packs to the centre of bolt clusters as per the as built survey and position the bearing cartridges onto the packs and bolt down using the couplers and studding.

The Slinger Signaller (SS) will connect the cranes hook block to the lifting accessories as per the Lift Plan. Access to height will be via a PASMA access tower or podium or van mounted MEWP, harnesses worn and clipped on.

The LS will then continue to direct the CO's to hoist the bridge just off the temporary timbers so that the crane is taking the weight of the load and check the weight as per the lift plan.

The LS will then continue to direct the CO's to hoist, slew and lower the bridge section down the waiting erectors who will guide the bridge down onto the already installed bearing plates.

The erectors will install the bolt assemblies and bolt the bridge down onto the bearing plates and then line and level the bridge to the concrete approach and upstands. If required, the erectors will use Jacks to help position the bridge to the grind lines and concrete.

The erectors will confirm the bridge is in the correct location as per the design and the SS will disconnect the lifting accessories and pack them away onto the empty lorry.

The lifting, placement and connection of bridge sections will continue in similar manner until all sections have been erected.

The temporary supports and timbers will be lifted back onto the Bridge sub-contractor's trailer and when all items have been loaded the lorries will clear from site.

The LS will confirm all lifting has been completed and the LS will direct the CO's to de-rig and clear from site.

Painting & Touch Ups: Weather and time depending, the erector will touch up any areas requiring paint as per the paint specification data sheet.

The Bridge sub-contractor will tidy up and remove all equipment from site. The PC will inspect the worksite and confirm with the COSS/Safe Work Leader that all works affecting the railway have been completed and the rail hand-back process will be initiated with the Engineering Supervisor.

11.10 Installation of Drainage

The draft proposed drainage strategy layout drawing indicates a requirement for 2 No above ground attenuation tanks and 1 No below ground attenuation tank with construction of new chambers and connecting pipework to the existing surface water drainage network. An existing soakaway in the Elmleigh Road Car-Park is also to be cleared of detritus to 0.5m depth.

The following work is envisaged :

Preparatory Works/ Setting out

The line of drainage excavations and trenches will be set out and marked by the Engineer using either spray paint or string line with dig levels set using a laser level.

Cross checks must be made on the specific setting out using measuring tapes to ensure errors do not occur.

Before any work takes place a full CAT scan of the area shall take place to locate underground services. A visual inspection will take place along with record drawings and previous surveys issued by utility providers. All services will be marked in spray paint and noted on the Permit to Dig.

Assume all services are live until verified, marker tape may not be present, and services may be shallow with little ground cover.

A permit to dig will be issued and briefed to all operators involved.

Excavation

Refer to Section 11.3 Trial Hole Investigation Works above, for the method to be followed for excavation works. The requirements for any temporary works for excavations will be assessed in advance taking into account the excavation depth and anticipated ground conditions and stability.

Installation of Drainage Pipework and Chambers

Bedding and pipe levels will be set using either using a pipe laser set-up or via a laser level.

The excavator will excavate the material and load into a waiting dumper. Edge protection will be provided along the edges all trenches.

Where the dig is shallow the excavation shall be stepped back at a 1:1 grade or else battered back to allow safe access for setting the manhole.

Pipe bedding will be placed and pipework set to correct depth using pipe laser set by the Engineer to the correct gradient.

Pipes are to be jointed with pipe lubricant and collars, making sure they are firmly locked into place to prevent leaks. This is to be carried out above ground where possible and installed in long sections. Pipes will be surrounded in pipe bedding material as dictated by the drawings and specifications.

Sections of pipe are to be hoisted into trenches via an excavator and slings, operative are not to stand in trenches when length of pipe are being lifted in.

Prior to backfilling all pipes will be tested in accordance with ITP checklist.

Any rodding eye covers required are to be set out by the Engineer. When installed and connected to the pipework rodding eyes are to be bedded in mass concreted around the eye frame.

Chambers are to be set on concrete base at the correct level to suit pipe inverts and backfilled in accordance with the specification.

Connections into existing chambers will be made at the required level. No entry into confined spaces is to be carried out unless the required confined space entry permits & procedures are in place and by operatives with the required training and rescue equipment.

The attenuation tanks will be installed in accordance with the manufacturer's instructions with connecting pipework.

The footbridge drainage details will be developed during the detailed design stage. Pipework may be attached prior to or following the bridge installation on site.

The existing soakaway in the Elmleigh Road Car-Park will be surveyed and suitable method agreed for removal of the detritus up to a depth of 0.5m. This may be by vacuum excavator or other means.

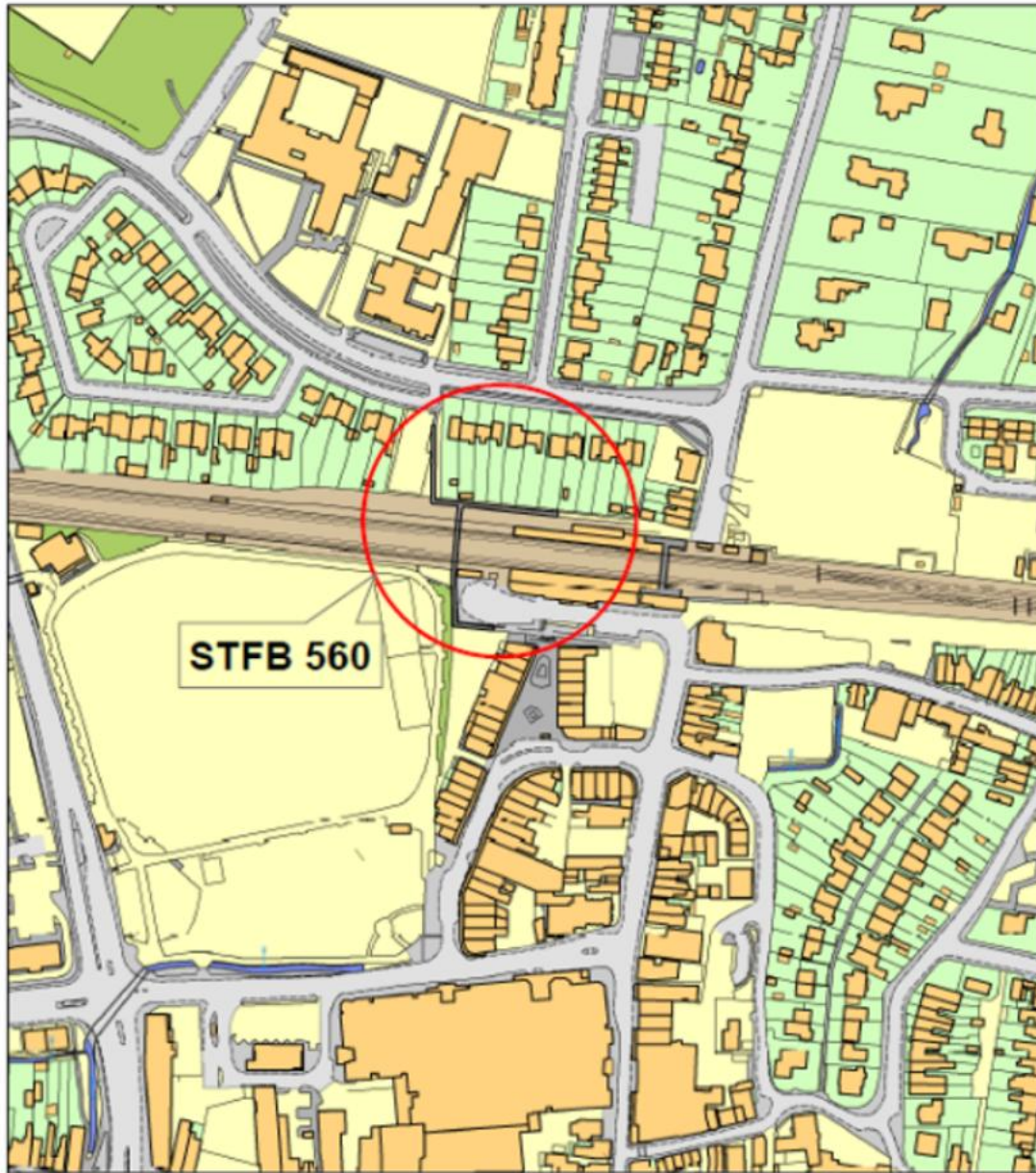
11.11 Installation of Services e.g bridge lighting

The requirements for the footbridge lighting will be developed during the detailed design stage. Conduits and containment routes for electrical cabling may be fitted to the footbridge prior to or following the bridge installation on site. The design will specify the routes and requirements for ducting and connections to existing electrical supplies or new supply points and any associated infrastructure. All works will be undertaken by qualified electrical installers.

11.12 Reinstatement Works

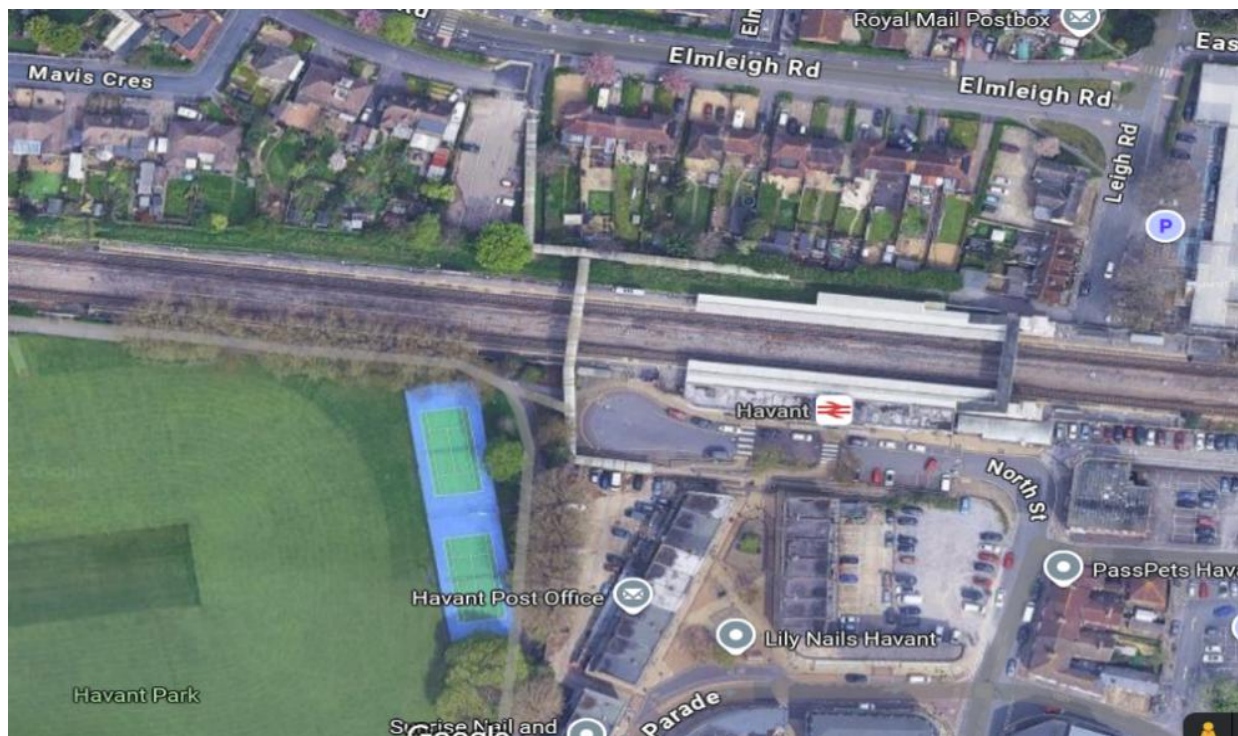
The specification of all surface finishes and reinstatement will be developed during the detailed design stage. The details will either match existing or be in accordance with HCC / HBC / NR's specifications as appropriate. All areas disturbed or damaged during the works will be reinstated prior to completion.

APPENDIX 1 – Site Location Plan & Layout Of The Existing Footbridge



 <p>Hampshire County Council</p>	<p>DRAWING TITLE: STFB 560 HAVANT STATION FOOTBRIDGE LOCATION PLAN.</p>
 Bridge location Date: 31/10/2018	<p>E: 471720 N: 106600</p>

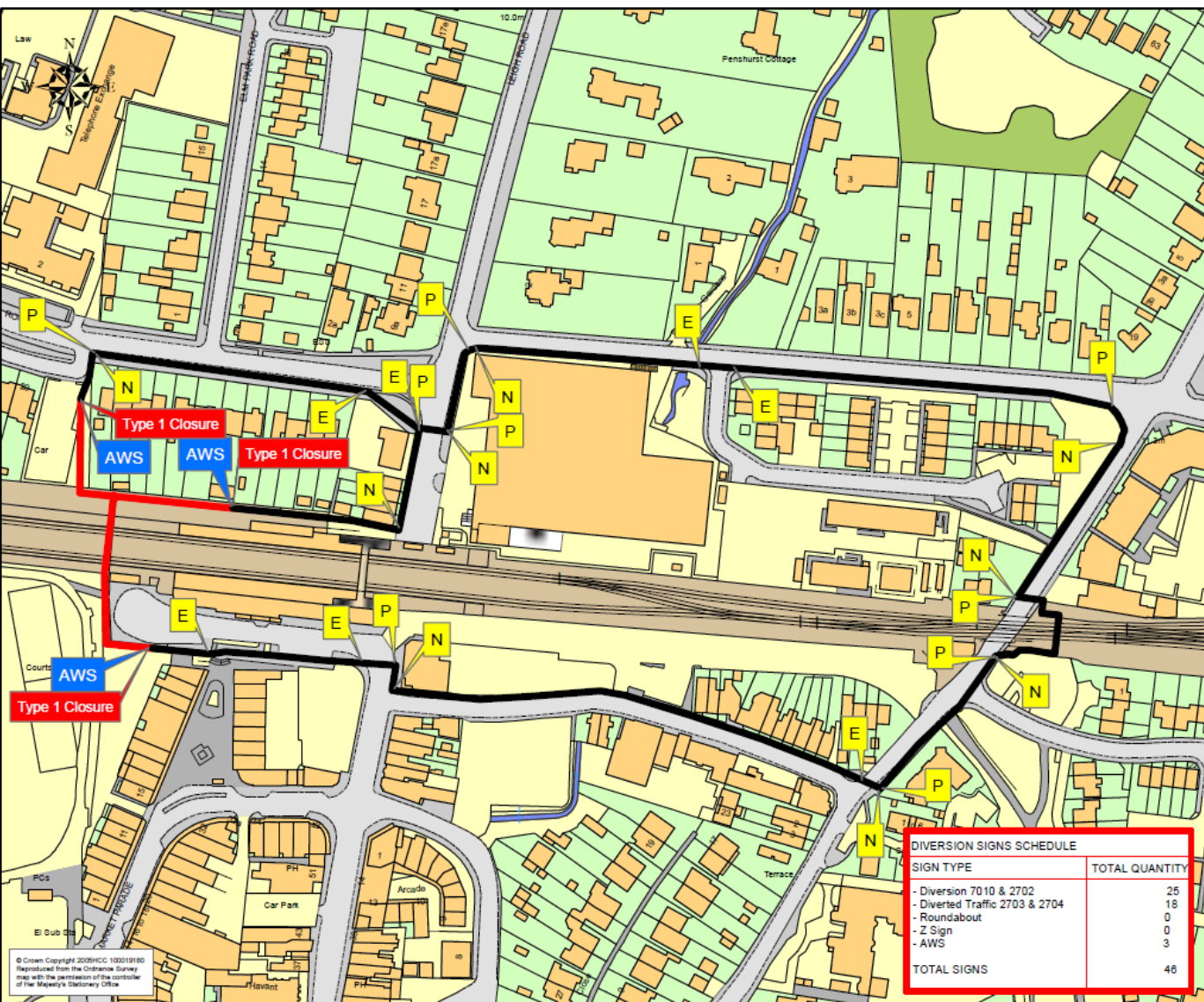
Existing Footbridge Layout



Appendix 2 – General Arrangement of The Proposed Footbridge



APPENDIX 3 – Proposed Pedestrian Diversion Routes



Hampshire County Council
 Tim Lawton BEng CEng FICE FCIHT
 Assistant Director of Universal Services

EXTENT OF CLOSURE
DIVERSION ROUTE
DIVERSION ROUTE (ACCESS ONLY)
X GATEMAN

AWS ADVANCE WARNING SIGN
ROAD CLOSED / ROAD CLOSED AHEAD SIGNS
DIVERSION SIGNS / SPECIAL SIGNS

DRAWN
 JW
 CHECKED
 GG

SCHEME NUMBER :-	
SCHEME TITLE :- FB560 Havant Station Footbridge Replacement Pre-Planning	
Amendment	Date CH
Amendment	Date CH
Amendment	Date CH

NOTES

- TRAFFIC MANAGEMENT**
 All traffic management shall comply with the Traffic Signs Manual Chapter 8 2009.
- CLOSURE POINTS AND GATEMEN**
 All closure points shall refer to HCC10/M300 & HCC10/M301. Gatemans or pedestrian marshalls are shown as: X
- MAXIMUM NUMBER OF GATEMEN REQUIRED FOR THE SCHEME:** 0
- ADVANCE WARNING SIGNS**
 Advance warning signs to Drg HCC10/C147 are to be erected on site two weeks prior to works commencing.
 Sign to read:

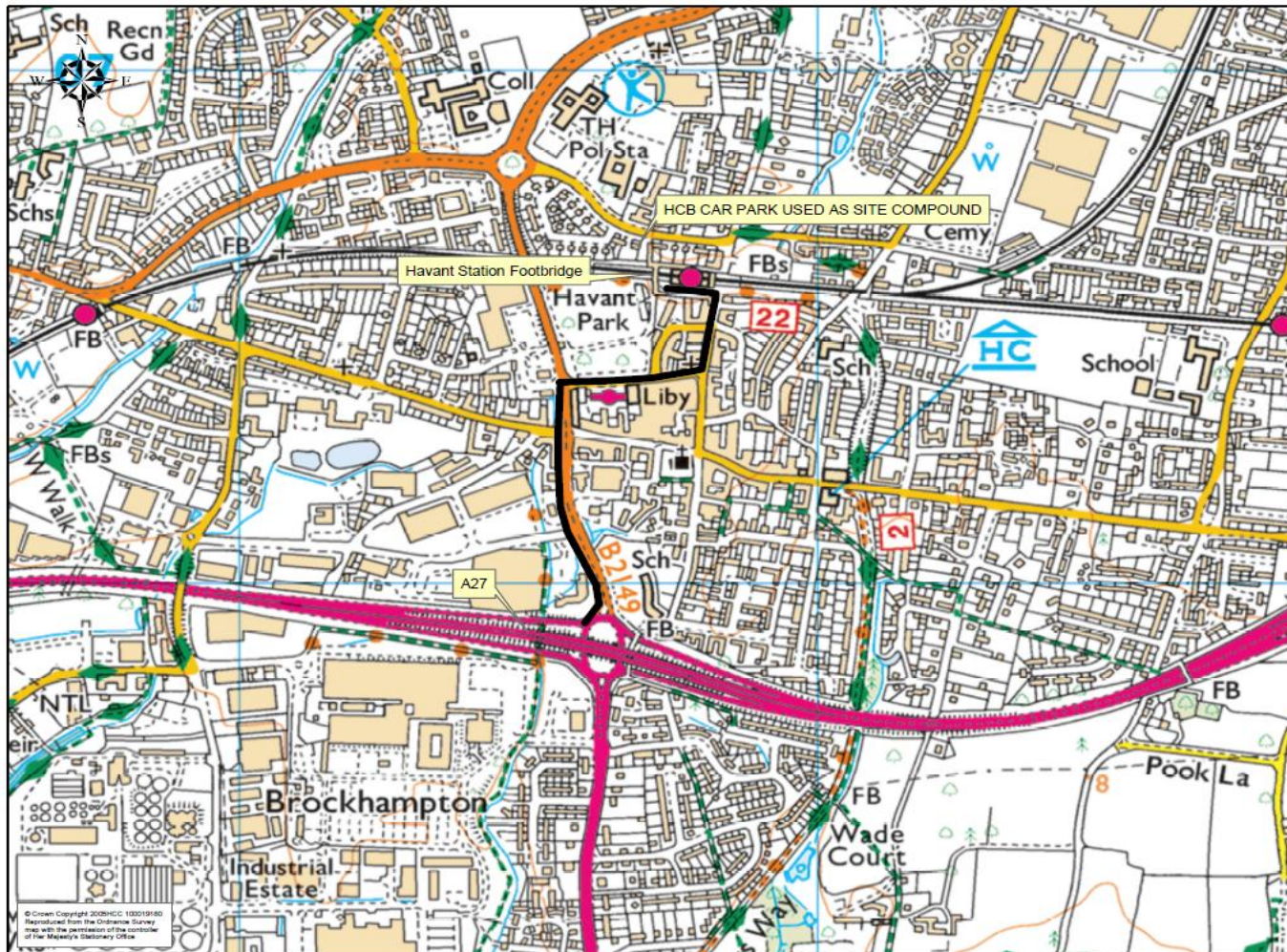
- RESTRICTED HOURS**
 The works on the site are restricted to between 0930 to 1600.
- DIVERSION SIGNS KEY**
 For standard diversion signs refer to list on right.
- DIVERSION SPEED LIMIT**
 See speed limit as indicated on drawings.
- SCHEME INFORMATION SIGNS**
 HCC scheme sign boards to drawing HCC10/C145 Type 1 to be erected on site 2 weeks prior to the works commencing and are to remain throughout the duration of the works. Signs are to be removed approximately 1 week after completion of works and taken off site to store.
- SPECIAL SIGNS: Z1**
 X height for the special signs for roads speeds of up to 40 mph = 62.5 or 75 (x-height), 40mph and above = 100 (x-height). All to be in accordance with Traffic Signs Manual Chapter 8 2009.

- A ROAD CLOSED
- B ROAD AHEAD CLOSED
- C DIVERSION
- D DIVERSION
- E DIVERSION
- F DIVERSION
- G DIVERSION
- H DIVERTED TRAFFIC
- J DIVERTED TRAFFIC
- K DIVERTED TRAFFIC
- L DIVERTED TRAFFIC
- M DIVERTED TRAFFIC
- N DIVERTED TRAFFIC
- P DIVERTED TRAFFIC
- Q DIVERTED TRAFFIC
- R DIVERTED TRAFFIC
- S ACCESS ONLY
- U DIVERTED TRAFFIC
- V DIVERTED TRAFFIC
- W DIVERTED TRAFFIC
- X DIVERTED TRAFFIC
- Y BUSINESSES OPEN AS USUAL

DIVERSION SIGNS SCHEDULE	
SIGN TYPE	TOTAL QUANTITY
- Diversion 7010 & 2702	25
- Diverted Traffic 2703 & 2704	18
- Roundabout	0
- Z Sign	0
- AWS	3
TOTAL SIGNS	46

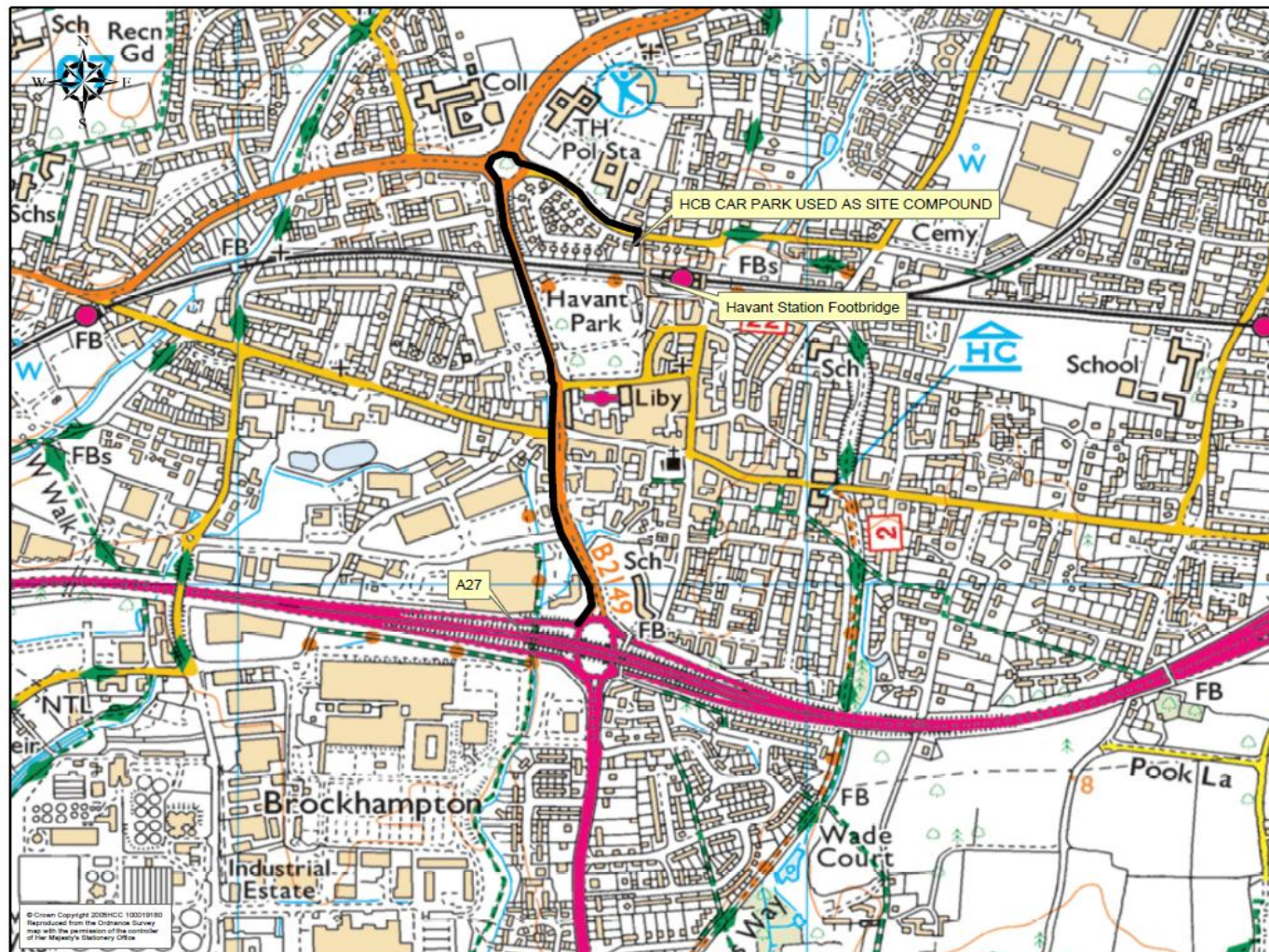
PEDESTRIANS & CYCLISTS
 DRAWING TITLE: DIVERSION ROUTE SHEET 1 OF 1
 DRG NO. FB560/001
 REV

APPENDIX 4 – Proposed Traffic Routes for Vehicles



NOTES

 <div>Hampshire County Council</div> <div>Tim Lawton BEng CEng FICE FCIHT Assistant Director of Universal Services</div>	<div><div></div><div>HGV/HCV delivery route from A27 to south end of the works</div></div>	<div><div>AWS</div><div>ADVANCE WARNING SIGN</div></div>	<div><div>DRAWN JW</div><div>CHECKED GG</div></div>	<div>SCHEME NUMBER :-</div> <div>SCHEME TITLE :- FB560 Havant Station Footbridge Replacement Pre-Planning</div>	<div>DRAWING TITLE: INDICATIVE HGV DELIVERY ROUTE (1)</div>													
		<div><div>#</div><div>ROAD CLOSED / ROAD CLOSED AHEAD SIGNS</div></div>		<table><tr><td>Amendment</td><td>Date</td><td>CHK</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>	Amendment	Date	CHK										<div>DRG NO. CJ250035-HES-DR-S-1705</div>	<div>REV</div>
		Amendment		Date	CHK													
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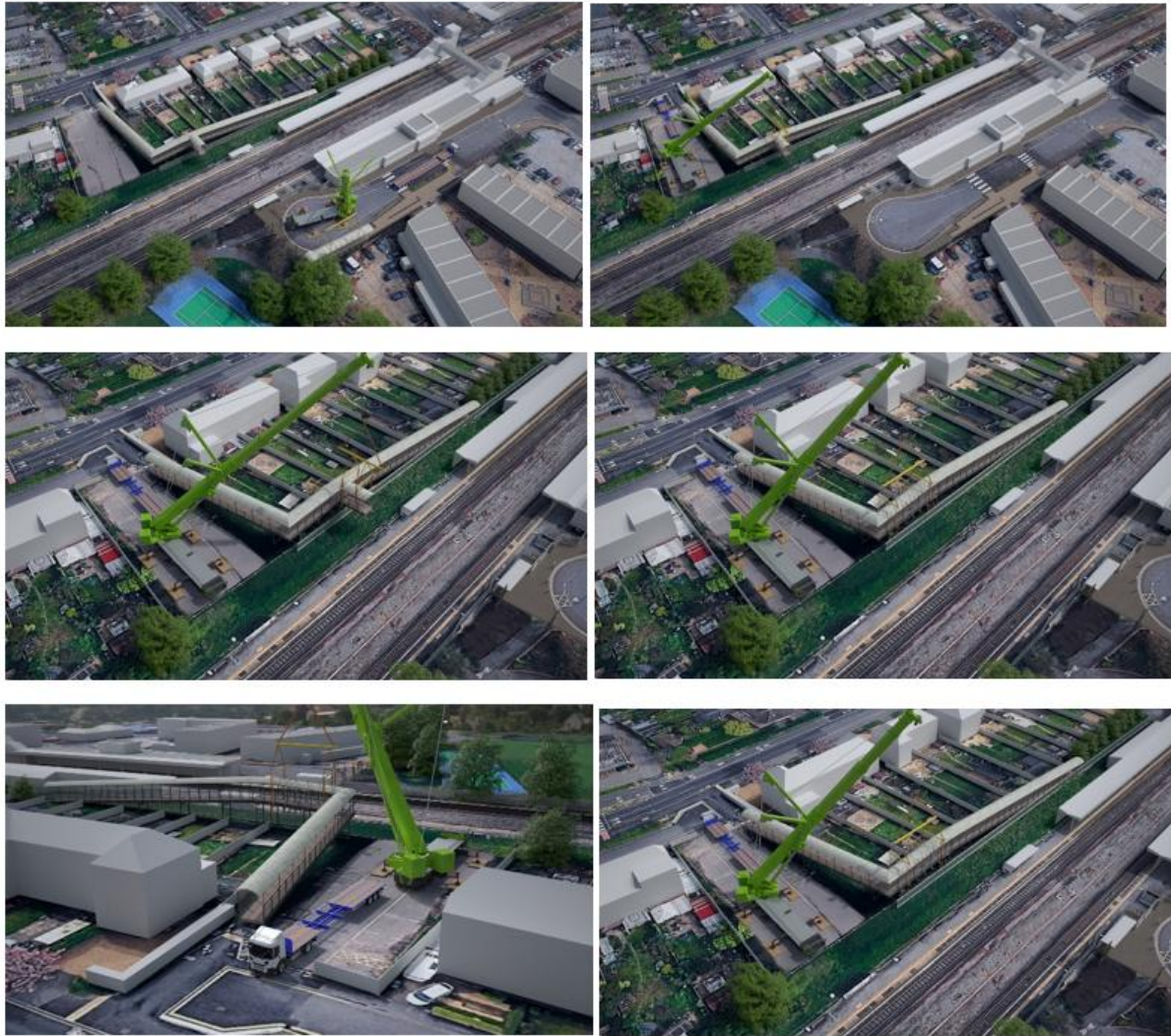
 <div>Hampshire County Council</div> <div>Tim Lawton BEng CEng FICE FCIT Assistant Director of Universal Services</div>	<div><div></div><div>HGV/HCV delivery route from A27 to North end of the works</div></div>	<div><div>AWS</div><div>ADVANCE WARNING SIGN</div></div>	<div><div>DRAWN</div><div>JW</div></div>	SCHEME NUMBER :-			DRAWING TITLE: INDICATIVE HGV DELIVERY ROUTE (2)			
		SCHEME TITLE :- FB560 Havant Station Footbridge Replacement Pre-Planning								
		<div><div>R</div><div>ROAD CLOSED / ROAD CLOSED AHEAD SIGNS</div></div>		<div><div>CHECKED</div><div>GG</div></div>	Amendment		Date	CHK	DRG NO. CJ250035-HES-DR-S-1706	REV
		<div><div>#</div><div>DIVERSION SIGNS / SPECIAL SIGNS</div></div>			Amendment		Date	CHK		
Amendment			Date		CHK					

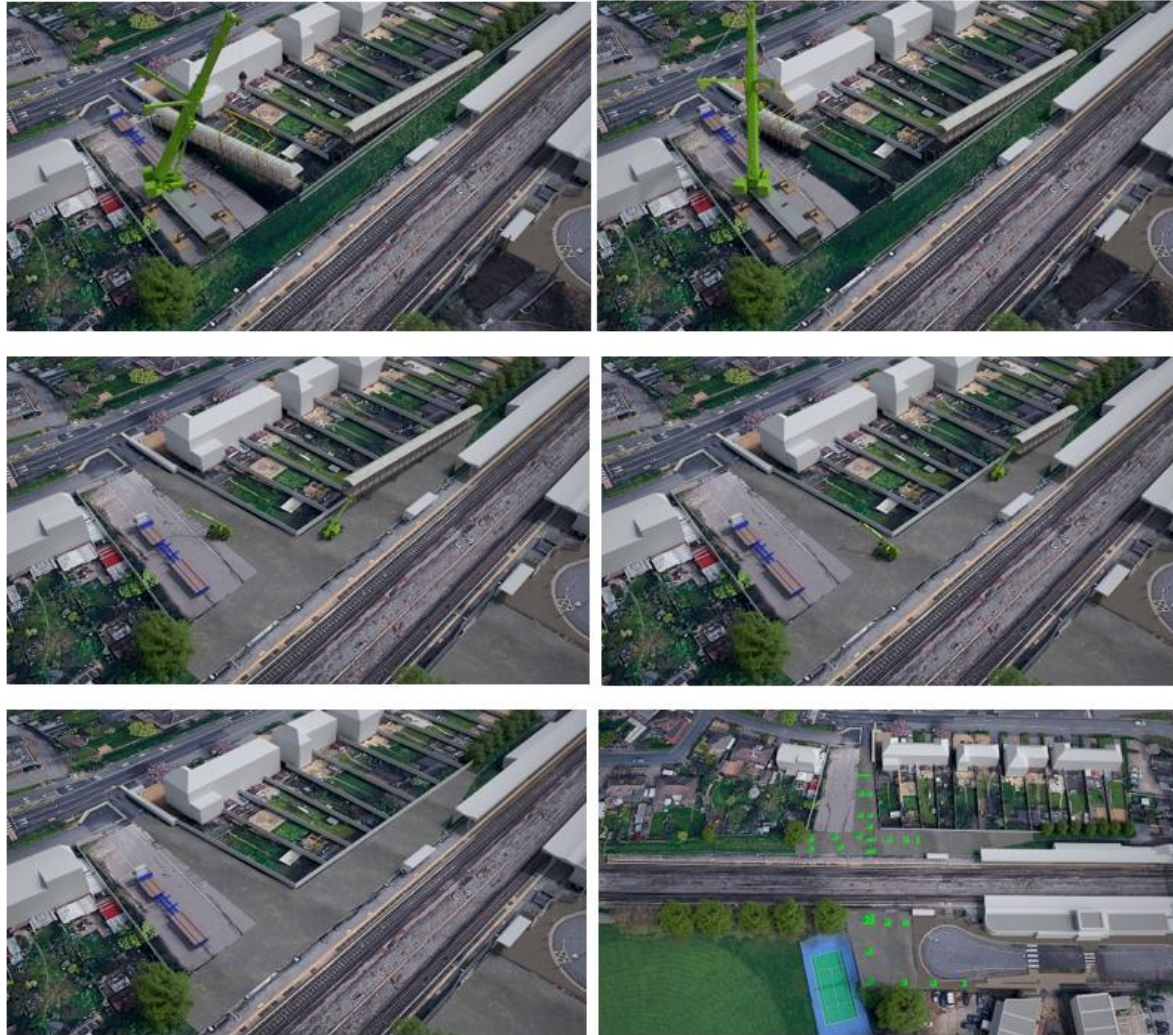
APPENDIX 5 – Tree Removals Plan

APPENDIX 6 – Indicative Footbridge Demolition Sequence & Crane Positions

Demolition & Removal of Existing Footbridge Structure







APPENDIX 7 – Indicative Sequence for Installation of New Footbridge

New Footbridge Installation





APPENDIX 8 – Overview of Activities Requiring Health & Safety Risk Assessments

The following activities within the planned work will need Health & Safety Risk Assessments to manage the associated hazards :

- Site Mobilisation & Demobilisation
- Delivery of equipment and materials
- People & Plant Interfaces
- Lifting, loading & unloading equipment
- Banking and slinging of loads
- Refuelling of plant
- Manual Handling
- Slips, Trips & Falls
- Ecological Works
- Dealing with Anti-Social Behaviour
- Traffic Management
- Use of Chain Saws
- User of Hand Tools
- Working in Excavations
- Working near underground services
- Use of Temporary Works
- Use of Compressed gases incl. LPG and compressors
- Working with Lead
- Burning & Cutting Operations
- Working with Hazardous Materials
- Working with Wet Concrete
- Use of Concrete Pumps
- Use of Cranes & Lifting Equipment
- Working on / adjacent to the Public Highway
- Working on / near Live Network Rail infrastructure & assets
- Working near High Voltage Equipment
- Any Line Open (ALO) Operations
- Working at Night
- Working with Electricity
- CFA Piling Rig Operations
- Pinch & Crush Injuries
- Working with Operated Plant
- Plant & Vehicle Movements
- Mechanical Handling

- Working at Height
- Use of MEWP
- Use of Abrasive Wheels
- Working with Cartridge Tools
- Fixing of Reinforcement
- Formwork Installation & Removal Operations
- Working with Equipment causing Hand Arm Vibration (HAVs)
- Exposure to Noise
- Fatigue Management
- Environmental Pollution (Noise / Dust / Fuel Spillages)
- Managing Waste
- Asbestos Containing Materials
- Tightening of bolts, drilling & tapping
- Cable Pulling
- Remedial Painting Works

