

MILTON ROAD:

BUS, CYCLING AND WALKING IMPROVEMENTS

Construction Management Plan

Note: The CMP is a live document and will be developed further as discussions take place with the local community and key stakeholders including adjacent Projects taking place in the area.



28/2/22 – Rev A

Milestone Infrastructure
Authored by: D Wood

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Appendices

A = Construction Programme

B = Draft Traffic Management plans

C = Excavation method summary

D = Service diversion scope of works

E = Landscaping/Civils – scope split

1. Introduction

Milton Road is a well-known and busy residential area in Cambridge which also acts as a key route between the city centre, the A14 and A10, as well as the nearby villages of Milton and Waterbeach. As a key arterial route, Milton Road has been identified as vital to the local economy. However, growing levels of peak-time traffic congestion threaten the continued economic growth of the local area. With the population of Cambridge and South Cambridgeshire expected to grow by around 28% over the next 15 years, improvements to Milton Road will need to be made now, to accommodate the increasing number of journeys in the future.

The Milton Road project aims to improve public transport, cycle and walking infrastructure to make these sustainable travel options a more attractive alternative to the car, and to encourage the continued economic growth of Greater Cambridge, without harming existing communities, and the environment.



This Construction Management Plan details the outline arrangements for the duration of the works but is a live document that will continue to be reviewed and updated through the planning, tender and construction phases.

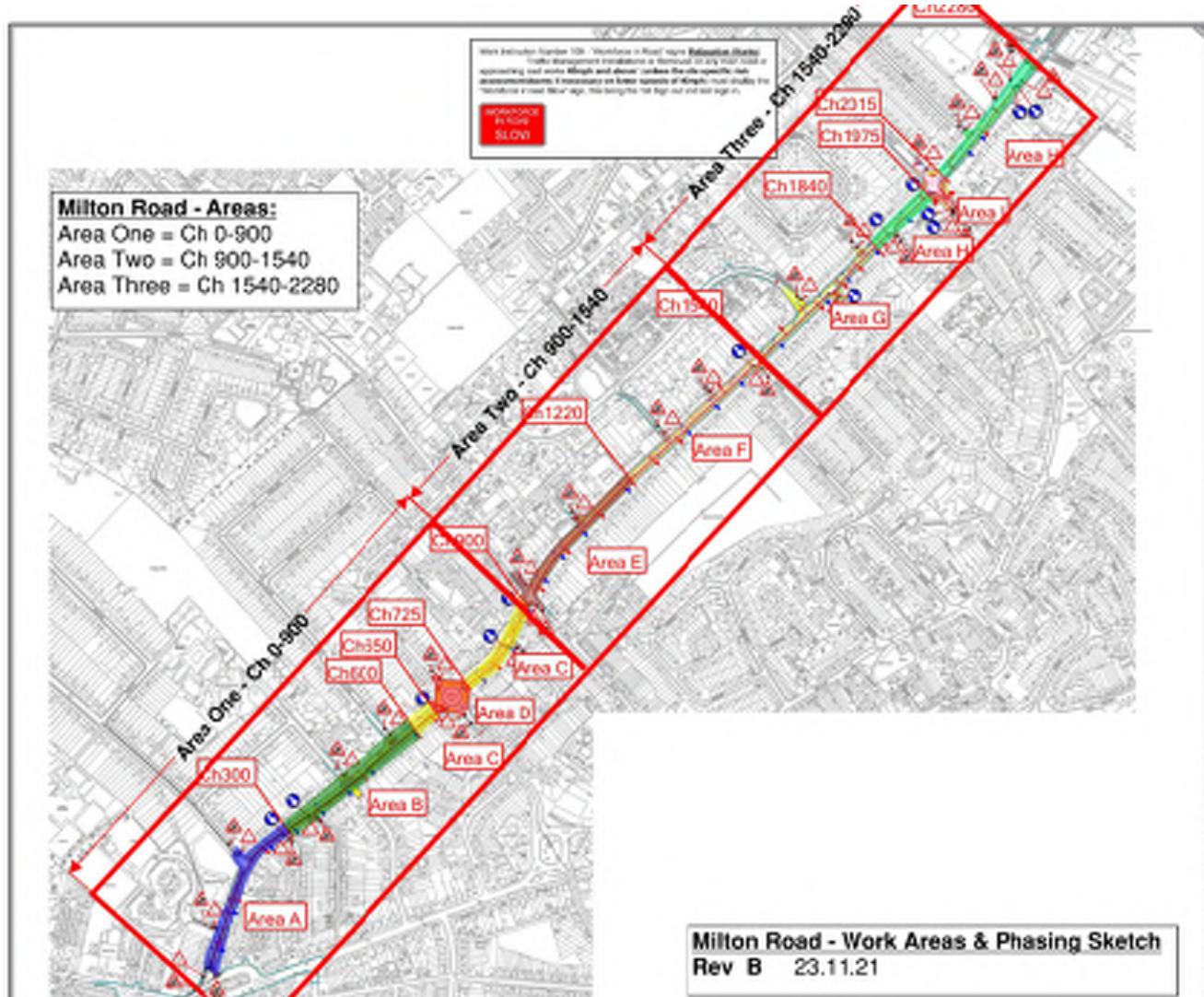
2. Programme

a. Phasing of Works

The Milton Road Cycleway Project has been split into three phases of work as described in the table below:

Works Phase	Location	Proposed Programme Dates
Phase 1	Ch 0 – 900: Chesterton Road to Arbury Road	May 2022 – November 2023
Phase 2	Ch 900 – 1540: Arbury Road to south of Woodhead Drive	May 2022 – Jan 2024
Phase 3	Ch 1540 – 2280: South of Woodhead Drive to Guided Busway Junction	May 2022 – November 2023

See Appendix A for high level construction programme.



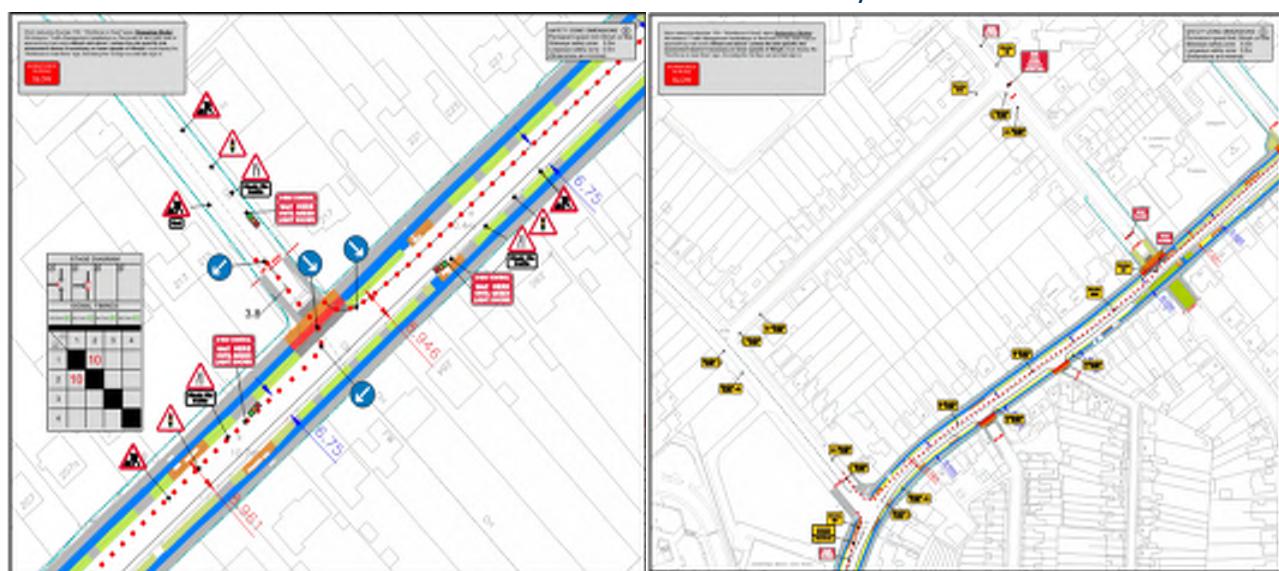
b. Proposed Traffic Management

During the initial work phases a series of full road closures will be placed on Milton Road and adjoining roads to facilitate the enabling works and roll out of the temporary traffic management. It is proposed that two way running will be maintained throughout most of the construction period.

The working room required to construct the works will be gained by closing the inbound bus lane and narrowing the existing two traffic lanes with temporary lining works. It is proposed that works will be completed on the east side of Milton Road first, with traffic then switching to the opposite side of the road so that the west side can be constructed. Whilst the west side is being constructed, inbound traffic will travel in what will become the inbound bus lane, and outbound traffic will travel in what will become the inbound lane. This will be signed, lined, and demarcated to ensure traffic routes are clear to all road users.



Whilst constructing the junctions along the length of Milton Road, it will be necessary to install temporary lights or fully close the junction to be able to access and construct the works. The traffic management plans appended to this document detail the proposed solution for each junction. It must be noted that junctions will only have temporary traffic management installed for the duration it takes to construct the area. This will not be left on unnecessarily.

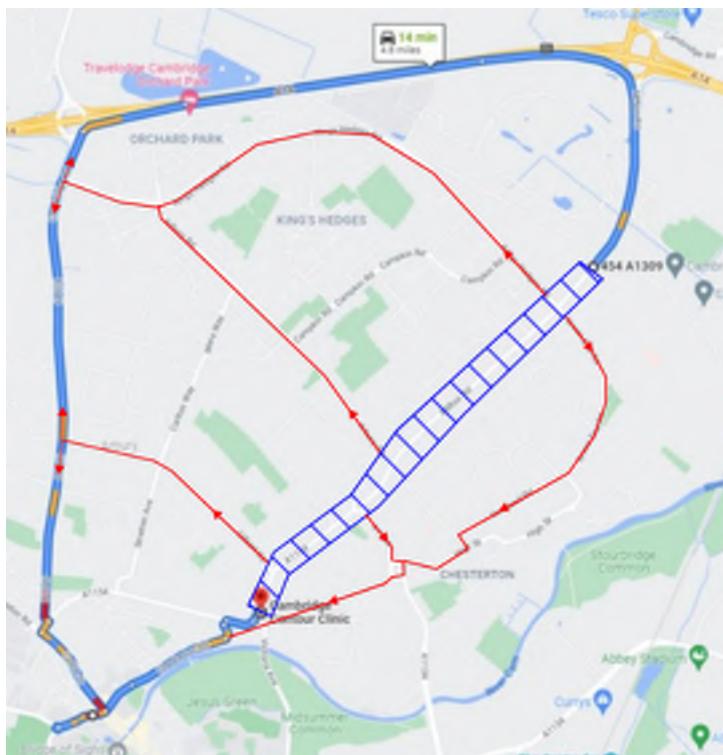


On some areas of Milton Road, the existing road width is too narrow to maintain two-way traffic flow and create enough temporary working room for the construction of the works. In these areas the following is to be completed:

- Where possible contractors are to construct the works whilst travelling on the footway/cycleway in the area and transporting materials/equipment along the works area.
- Where this is not possible, temporary traffic lights are to be installed to reduce Milton Road to a single running lane and will be manually controlled by traffic management operatives.

Throughout the construction period it will be necessary to complete works that cannot be accessed safely during daytime work hours or night shifts. These will be completed under either full road closures or temporary traffic lights depending on the specific area and operation being completed. Advanced warning signs will be installed in advance of this taking place to notify members of the public and additional notifications will be issued via GCP media channels/mailing list.

During full road closures completed at night (1900-0600), the formal signed diversion route will be via Chesterton Road, Histon Road, A14 to Junction 33 (blueline), as shown on the plan below:



Access to cul de sac side roads will be maintained and controlled via gates or escort vehicles.

Where possible, closures on Milton Road will be completed in sections to minimise impact on local road users. Local routes (red arrows) will not be signed as formal diversion routes to minimise risk of vehicles reassigned and using local residential roads.

Where possible, through routes will be opened once works are completed in an area, to reduce impact on local traffic. Full road closures of Milton Road, Kings Hedges, Green End Road, Arbury Road and Gilbert Road will be restricted to night-time closures only.

Draft traffic management plans are included under Appendix B.

c. Pedestrian and Cycling Routes

Pedestrian Routes:

These will be closed within working areas to ensure safety of pedestrians and workers. Where existing crossing exist, they will be utilised to serve as the diversion route. Alternatively temporary crossing points will be installed, and the diversion route signed. Pedestrians walking towards the work area will be met by barriers and footway closed signs. Crossing points will be installed at either end of the works areas, so that pedestrians can cross the road safely and continue on their journey on the opposite side of the road via the open footway.

Residents within a work area can either cross the road to the open footway on the opposite side, or walk within a fenced route in the work zone outside of work hours. During the working day, working gangs will include lookouts that will be tasked with stopping the works and providing a safe passage for residents within the working areas.

Cycling Routes:

During initial phases on the east of Milton Road, the cycle lane on the opposite side will remain open and in use. Following traffic management switchovers, cyclists will be encouraged to use the pedestrian crossing points and then travel on the newly constructed cycleway in completed sections.

Alternatively, cyclists can travel in the open traffic lanes. It is noted that the narrow lanes installed for the works do impact the ability of vehicles to overtake cyclists and may therefore result in vehicles following cyclists at a reduced speed. To minimise the risk to cyclists, Milton Road will be reduced to a 20mph speed limit for the duration of the works. In addition to this the team will install additional signage along the length of Milton Road to warn road users of the reduced width and impact to overtaking.

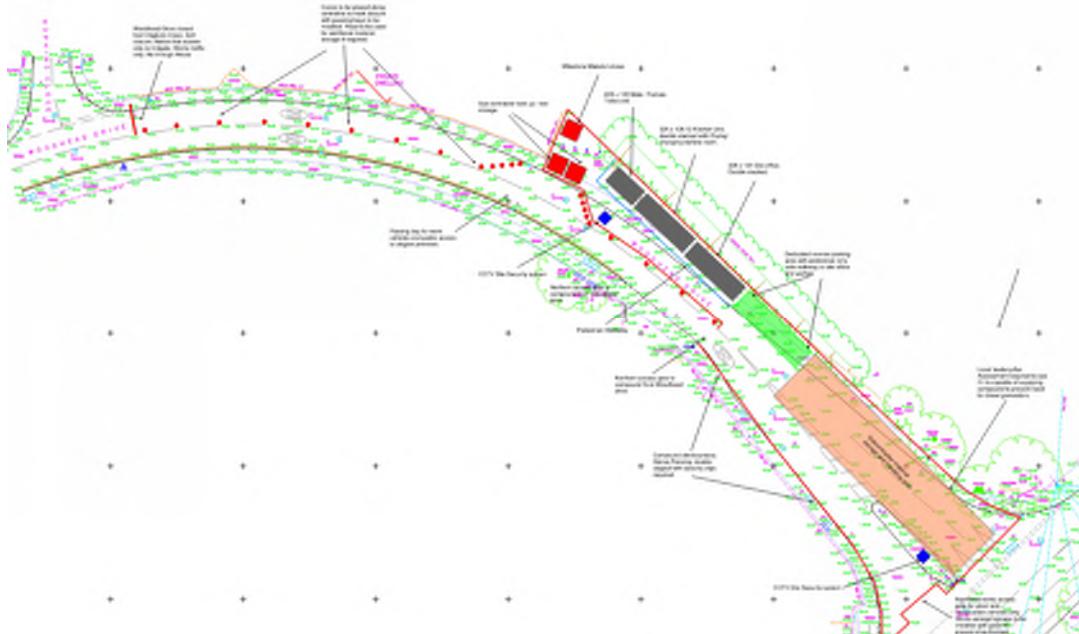
Appendix F details the planned works phasing and options for pedestrians and cyclists throughout this period. It must be noted that there are various iterations of this phasing, as sections are completed earlier and transition on to the next area. The principle for pedestrian and cyclist management remains as detailed and explained within the text above. Should the overall phasing and delivery programme change, so too will this management plan.

3. Location of Compounds, Welfare Facilities, and storage areas

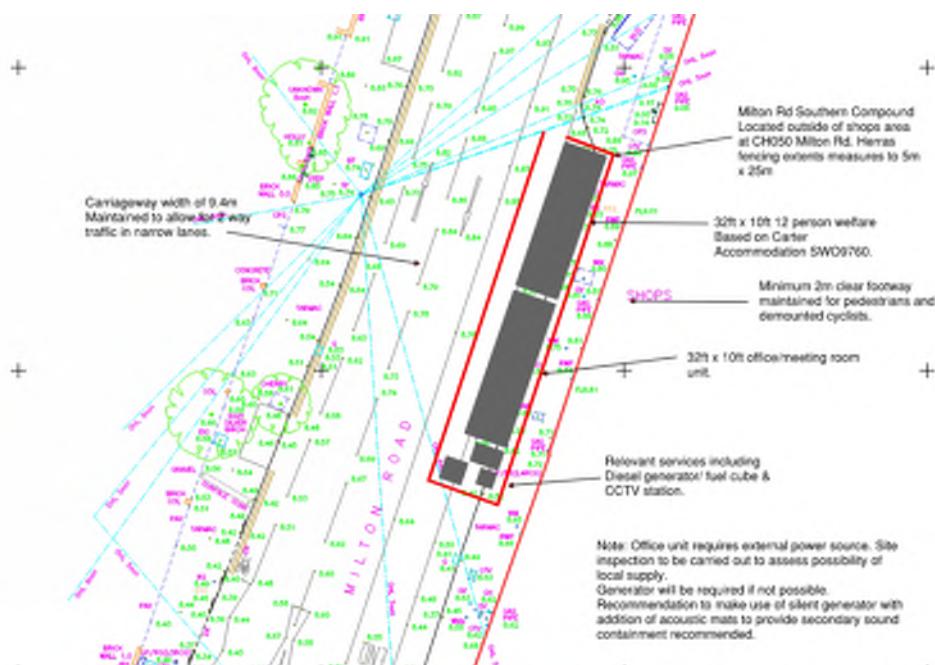
Due to space limitations on site and no suitable parcels of land being available to establish a main site compound area, the offices and welfare units provided by Milestone are to be located within the closed lane on the site. A set up will consist of a welfare unit/dry room, toilet block and office

unit. These will be located within work areas and positioned to ensure they can be accessed safely by users and so that they do not create a hazard for road users.

The main site compound is to be located within Woodhead Drive, which will be closed for the duration of the project. The draft compound layout plan is shown below:



The majority materials/equipment provided by the supply chain are to be stored on site within the works area. The supply chain partners are responsible for securing their own materials and equipment to ensure they are not stolen/damaged. These areas are maintained and without risk to health, safety, or environment, i.e., stacking of materials, chemicals etc. The typical draft site compound location on site is shown below:



4. Stakeholder Liaisons

Customer Liaison Officer:

Milestone will provide a full-time dedicated CLO to manage key messages to the public and local stakeholders. The CLO will act as a conduit between the CCC, the GCP, the Milestone construction delivery team and affected stakeholders.

Where works are to be carried out in the vicinity of an area the CLO will manage advance notification of works and ongoing progress updates to the affected properties. This would be in the form of letters, face to face contact or electronic communication.

Project Contact Details during construction period:

Email Address – [TBC](#)

Phone Number – **TBC**



5. Typical Setup across Property entrances

Access to and from properties and businesses will be maintained throughout the duration of the works. Designated access and exit points within the closed lanes will be communicated via the CLO, supply chain teams and signage on site.

Whilst completing excavation operations across property access/exit points, the team on site will have available steel road plates that shall be positioned to create a safe access ramp. Outside of working hours, the team will ensure where possible that excavations are backfilled up to safe running level with stone, to create a temporary access and egress point. This shall be fenced and made safe to avoid any damage to vehicles, cyclists, or pedestrians.

On occasion where works across individual property access is more onerous, for example when installing drainage which will require curing time for the concrete surround to harden, the team will

liaise with the homeowner through the CLO and agree appropriate timings and access arrangements on a specific case by case basis.



6. Excavation Methods

All excavation methods must comply with HSG47. **Milestone will not permit mechanical excavation of unbound material within utility exclusion zones.** Mechanical methods can be used to remove asphalt/concrete whilst using a toothless bucket and peeling method.

All contractors will ensure excavation works are carried out using safe dig methods including obtaining service plans, scanning, and marking the area for utilities (Cat and Genny), looking for visual signs of utilities (boxes, trench reinstatement). Excavation works will be carried out in accordance with HSG47 and will include the use of vacuum excavation techniques where excavation is carried out within 500mm of a known service.

To facilitate this Milestone have produced a drawing showing proposed digging techniques to be employed across the site. This also highlights areas on site where vacuum excavation techniques are to be used. (See Appendix C) – this is issued as a guide document and all contractors are responsible for reviewing their own excavation methods and ensuring their target cost includes sufficient allocations.

7. Service Diversions

The delivery of the project works will require both new works and diversions to existing utility assets. The scope of works is currently being developed and may therefore impact the phasing and programme detailed within this document.

The current diversion information is detailed under Appendix D, which sets out scope split, type, and number of diversions. This clearly differentiates between work that are the responsibility of the Milestone and the utilities owner.

Milestone will be responsible for coordinating the utility contractor's works and ensuring they are provided adequate notification to ensure they programme their visits to work with the programme.

8. Landscaping Scope Split

In areas of tree planting and swale construction, the scope of works is split between civils contractor and landscaping contractor. On all occasions the civils contractor will excavate the full trench (shown by the red line on the plans under Appendix E), install the drainage pipe and surrounding aggregate. From this level up the landscaping contractor will install the geotextile/plastic mesh reinforcement, soil cells where appropriate, subsoil, topsoil, and trees.

Following completion of this work the civils contractor will then install kerbs and construct the footway/cycleway/pavement. This is shown on the sketches under Appendix E.

9. Clearance of Vegetation

The works on Milton Road will require for existing trees and vegetation, including private hedges, to be cleared to allow the proposed design to be installed. The works then include the provision of new trees and vegetation to act as replacements for the removed plant life.

Private Properties – Hedge Clearance or tree pruning – Existing hedges and trees have been surveyed and required clearance is identified on the landscaping site clearance plans. The GCP will contact all property owners where vegetation is to be cleared in advance of the works. During the construction period, prior to removal of the vegetation contact will be made with the property owner to confirm works scope and access requirements. Once works on the project are completed the property owner will become responsible for future maintenance within their property boundary.

Public Landscaping areas – Where trees or hedges on the highway are to be trimmed or removed these will be fenced off and pedestrians diverted as needed. The vegetation will then be trimmed, or trees cut down to the base of the stump. The remaining stump will then be ground down with care taken to ensure there are no services around the stump.

Vegetation clearance shall be programmed to avoid the nesting bird season (March to August inclusive). Where this is not possible, a breeding bird survey shall be carried out by an ecologist 48 hours in advance of proposed clearance to check for bird nesting activity. If active nests are found a buffer of vegetation shall be retained until all young have fledged and the nest deemed inactive by an ecologist.

10. Dust and Noise Management Plan

Milestone will liaise with the local Environmental Health Officer to gain agreement for potentially disruptive works regarding statutory nuisance. Best practical means shall be implemented during

the construction period to minimize the impact of noise to local sensitive receptors and the community kept informed of any particularly noisy activities. Principally, any plant used on site shall be silenced or sound reduced models, appropriately maintained and any static plant sited away from receptors or within acoustic enclosures.

The type of construction activities that will be carried out on site can create significant noise levels that are over the 80-decibel limit. Therefore, ear defenders for all operatives and staff will be advised between 80 and 85 decibels and mandatory on activities over 85 decibels. All trade contractors need to risk assess their own activities to ensure the relevant safety precautions are being carried out.

All tools and equipment must be suitably selected, maintained and inspected to reduce noise and vibration so far as reasonably practicable. As minimum operatives should know their exposure limits for the equipment they are using and the steps necessary to reduce the risk. PPE must afford the appropriate level of protection as indicated by the risk assessment and manufacturers guidance. Health surveillance for all operatives must be undertaken if there is a residual risk from noise and or vibration.

The table below details the standard project working hours and noise restrictions:

Day	Times	Comments
Monday – Friday Day Working Standard Hours	07:30 – 18:00	
Monday – Friday Day Working – Off Peak Hours	09:30-15:30	
Saturday Working	07:30 – 16:00	Only with prior agreement from Principal Contractor
Monday – Sunday Night Works	20:00 – 06:00	<p>Restricted to works that cannot be completed within standard traffic management, such as carriageway surfacing which will be completed under full road closures.</p> <p>**all noisy works must be completed before midnight during road closures. Surfacing operations can continue, however planing of existing asphalt is restricted to be completed before 00:00.</p>

11. Typical Plant to be used for Project

The following plant types are proposed to be used for the project delivery

Description	Expected Noise Levels	Activity
Vacuum Excavator	86-97dB	Civils
Road Saws/ Stihl Saws	95-105dB	Civils
8t/ 5t/ 3t Excavator with breaker attachment	80-86dB	Civils
5t Dumper	80-86dB	Civils
8 Wheel Lorries inc with grab facility	80-86dB	Civils

Breakers – Hydraulic/ with compressor	86-95dB	Civils
MEWP (Mobile elevated works platform)	80-90dB	Street Lighting
Hiab vehicle	80-86dB	Deliveries/ Street Lighting/ Traffic signal works
Planer	86-95dB	Surfacing Works
Surfacing Paver	80-90dB	Surfacing Works

12. Waste Management Plan

Milestone and our supply chain shall produce a site-specific Site Waste Management Plan for the Project with the aim to encourage effective waste management practices, ensure regulatory compliance, improve environmental performance, and reduce the cost of waste disposal. All waste to be disposed of in accordance with Milestone Minimum Standard details.

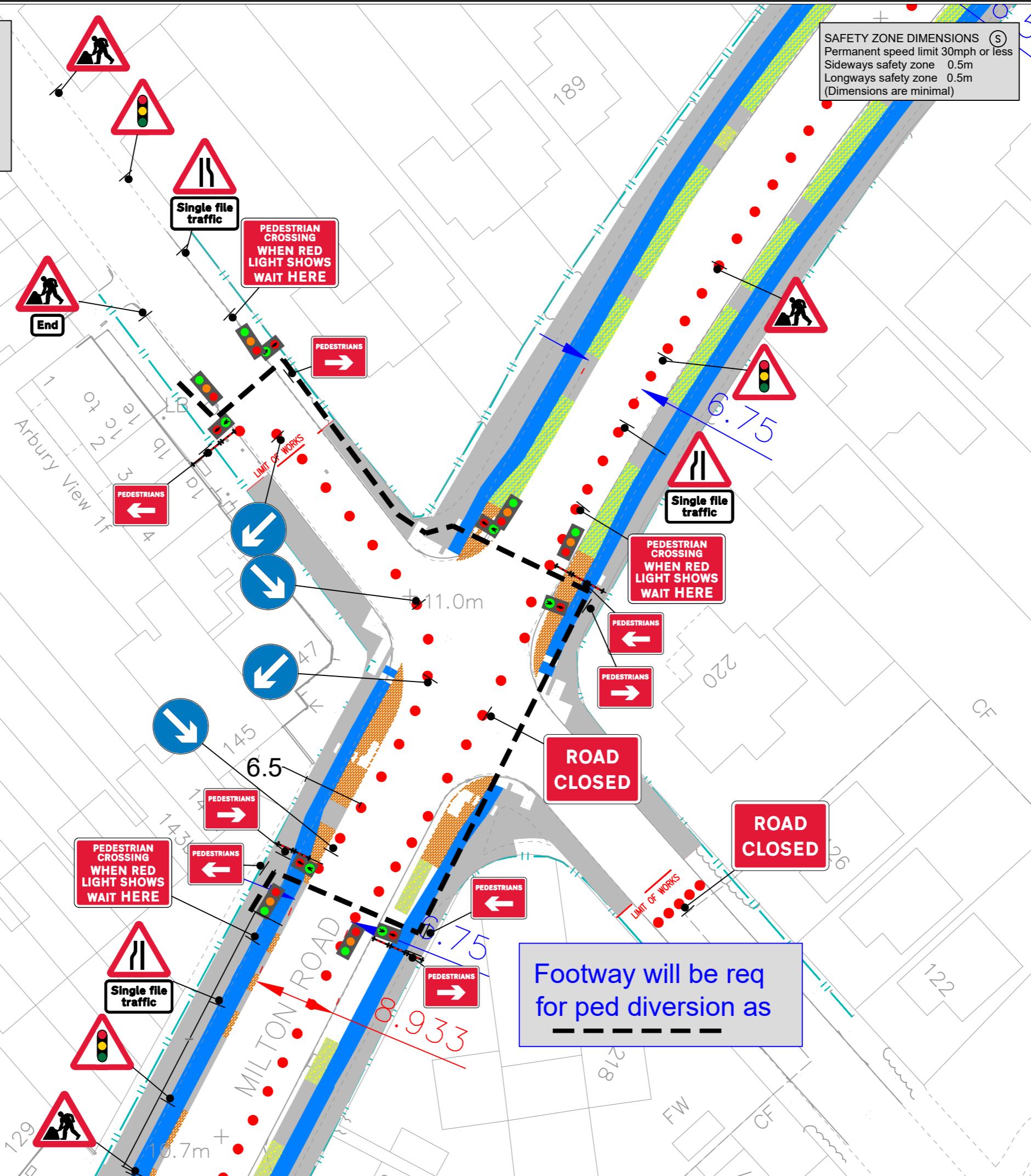
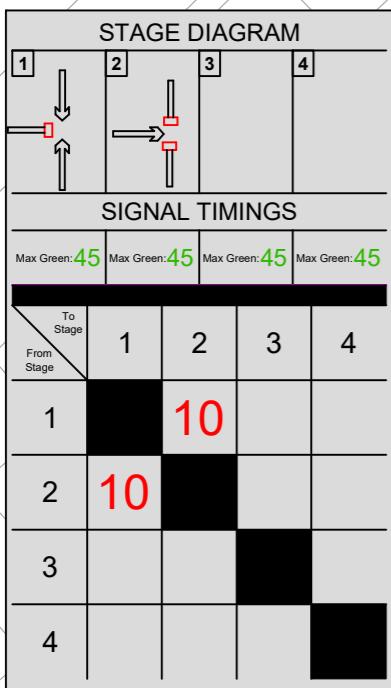
The plan will detail a breakdown of waste streams likely to be produced by the project, a waste forecast, and details of waste carriers and disposal sites. Waste will be segregated on site to enable either on site reuse or off-site recycling of material. Milestone will track and record all waste movements to ensure legal compliance and for inclusion in monthly KPI reporting.

Milton Road - Tender Programme - DRAFT

Line	Name	Start	Duration	Finish	2022												2023																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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0131	100132	100133	100134	100135	100136	100137	100138	100139	100140	100141	100142	100143	100144	100145	100146	100147	100148	100149	100150	100151	100152	100153	100154	100155	100156	100157	100158	100159	100160	100161

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works **40mph and above**" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

**WORKFORCE
IN ROAD
SLOW**



Notes

**THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED AND ONLY
WRITTEN DIMENSIONS SHALL BE USED**

1. All dimensions in metres.
 2. Sign locations indicative only, exact sign locations to be determined on site.
 3. Refer to Chapter 8 TSM for key to detail.
 4. All works Access & Exits to be Agreed on Site.
 5. Refer to Safety at StreetWorks and Road Works for Key to detail.
 6. All TM will be installed in Accordance with Chapter 8 of the Traffic signs Manual
 7. Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
 8. Tapers will be installed in conjunction with IAN 163/12
 9. Advance Signage Shall be installed in Conjunction with IAN 153/16



**MILESTONE
MILTON ROAD SCHEME**

Address:

Drawing Title/Project:

Requested:	R.MITCHELL	14.11.21
Drawn:	A.TAYLOR	17.11.21
Approved:	R.MITCHELL	18.11.21

Revision: Approved By: Date:

Details:

Revision:	Approved By:	Date:
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Review: Appropriately. Date:

Details:

Revision:	Approved By:	Date:
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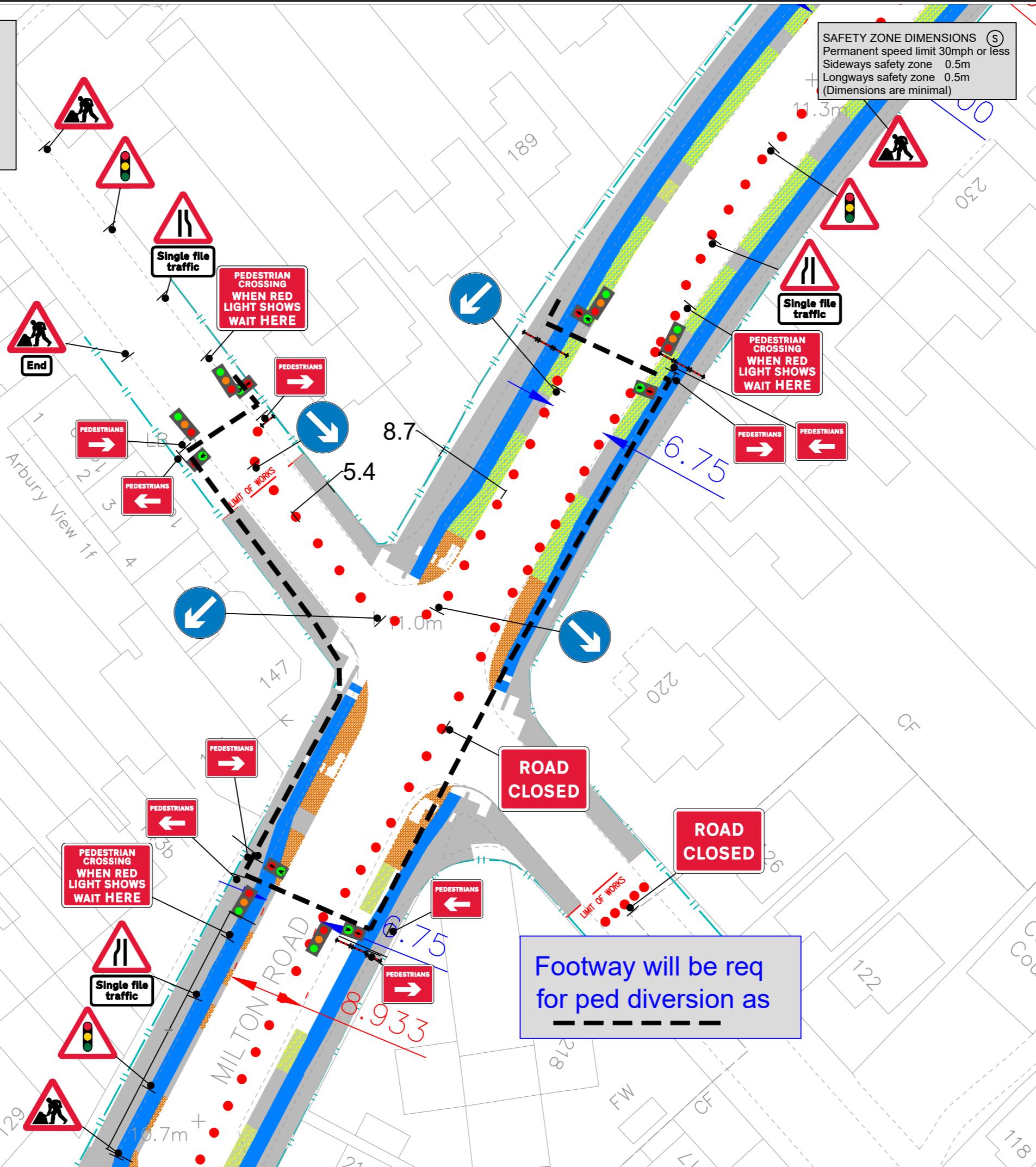
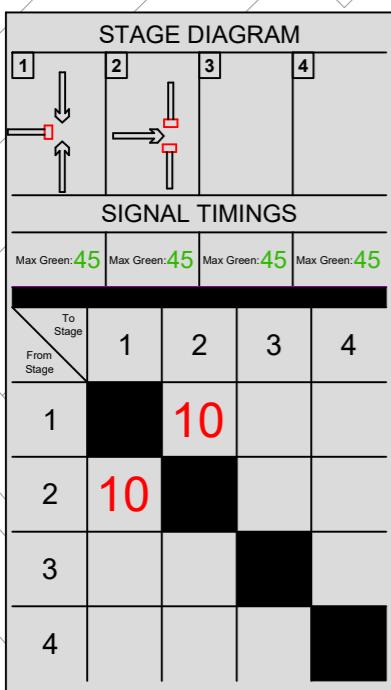
Details:

Original Drawing Size :	NTS
Scale : Not To Scale	Dimensions : DIMS

Drawing No
AT/17 11 31 ARBIL BY

AI/17.11.21.ARBUKI

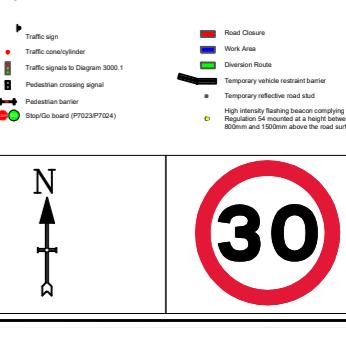
Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
Traffic Management Installations or Removals on any main road or approaching road works **40mph and above** (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.



Notes

**THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED AND ONLY
WRITTEN DIMENSIONS SHALL BE USED**

1. All dimensions in metres.
 2. Sign locations indicative only, exact sign locations to be determined on site.
 3. Refer to Chapter 8 TSM for key to detail.
 4. All works Access & Exits to be Agreed on Site.
 5. Refer to Safety at StreetWorks and Road Works for Key to detail.
 6. All TM will be installed in Accordance with Chapter 8 of the Traffic signs Manual
 7. Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
 8. Tapers will be installed in conjunction with IAN 163/12
 9. Advance Signage Shall be installed in Conjunction with IAN 153/16



Customer Name:

MILESTONE

MILTON ROAD SCHEME

Address:

ABRURY ROAD

WILLOW ROAD

Drawing Title/Project:

Requested:	R.MITCHELL	14.11.21
Drawn:	A.TAYLOR	17.11.21
Approved:	R.MITCHELL	18.11.21

Applicant	Family Name	First Name
Patricia	A.	L.P.

Details:

Revision:	Approved By:	Date:
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Details:

Revision: Approved By: Date:

10. The following table shows the number of hours worked by 100 employees of a company. Complete the frequency distribution table.

Details:

Original Drawing Size : NTS

Scale : Not To Scale Dimensions : DIMS

Drawing No AT/17 11 21 ARBURY/2

www.IBM.com/ibmsoftwarecenter

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works **40mph and above**" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

**WORKFORCE
IN ROAD
SLOW**

SAFETY ZONE DIMENSIONS (S)
Permanent speed limit 30mph or less
Sideways safety zone 0.5m
Longways safety zone 0.5m
(Dimensions are minimal)

- THIS DRAWING MAY BE USED ONLY FOR
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WRITTEN DIMENSIONS SHALL BE USED

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 7. Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
 8. Tapers will be installed in conjunction with IAN 163/12
 9. Advance Signage Shall be installed in



Customer Name:

Address:

Drawing Title/Project:

Requested:	R.MITCHELL	14.11.21
Drawn:	A.TAYLOR	17.11.21
Approved:	R.MITCHELL	18.11.21

Revised: Approved By: Date:

Details:

Revision: Approved By: Date:

Details:

Revision: Approved By: Date:

10. The following table summarizes the results of the study. The first column lists the variables, the second column lists the sample size, and the third column lists the estimated effect sizes.

Details:

Original Drawing Size :	NTS
Scale : Not To Scale	Dimensions : DIMS

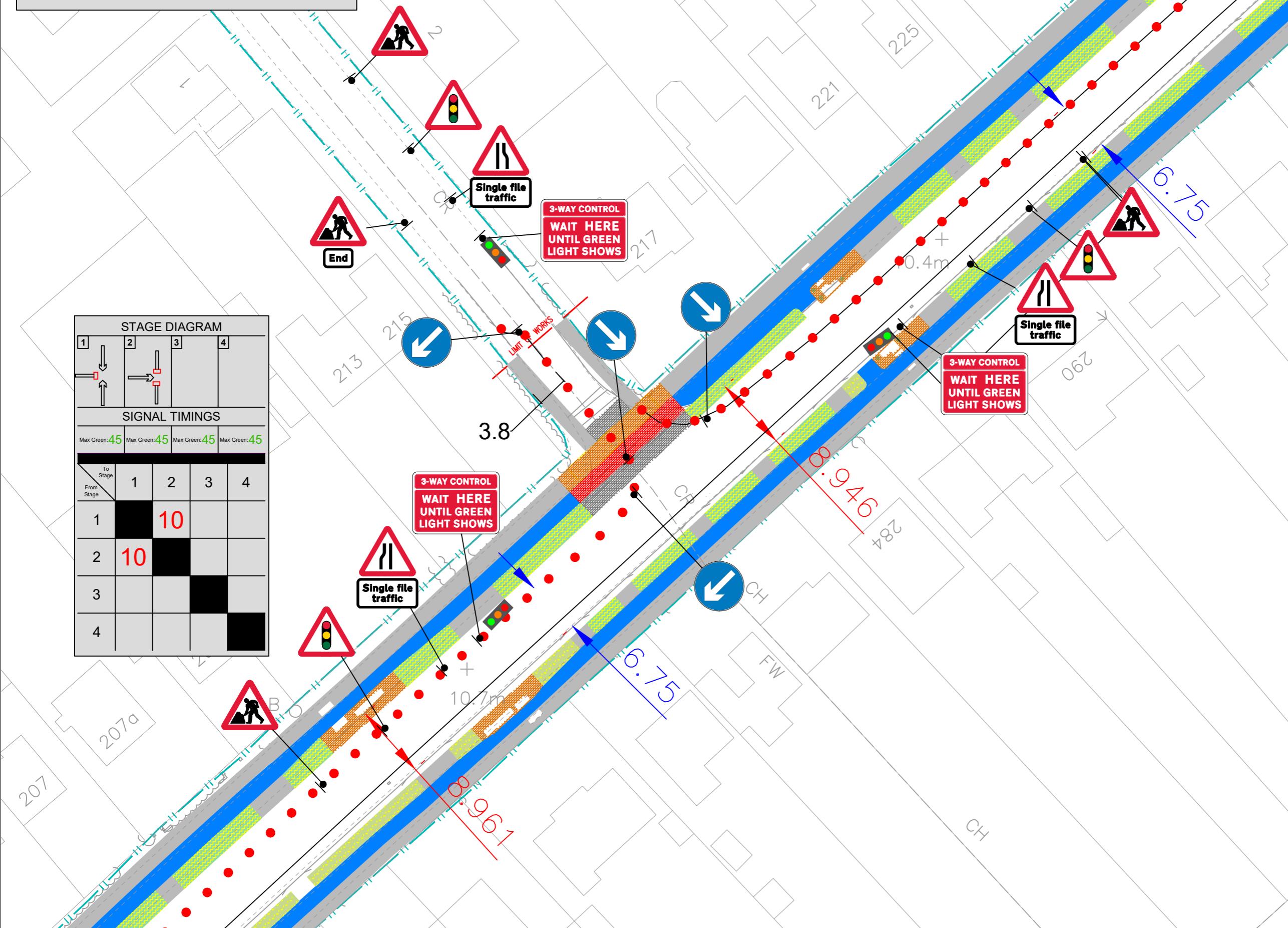
Drawing No
AT-13-11-21 ASSUJAM

AU/17.11.21.ASCHAM

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works **40mph and above**" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.



SAFETY ZONE DIMENSIONS (S)
Permanent speed limit 30mph or less
Sideways safety zone 0.5m
Longways safety zone 0.5m
(Dimensions are minimal)



Notes

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WRITTEN DIMENSIONS SHALL BE USED**

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 8. Tapers will be installed in conjunction with IAN 163/12
 9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

Traffic sign	Road Closure
Traffic cone/cylinder	Work Area
Traffic signals to Diagram 3000.1	Diversion Route
Pedestrian crossing signal	Temporary vehicle restraint barrier
Pedestrian barrier	Temporary reflective road stud
Stop/Go board (PT023/P7024)	High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface



**MILESTONE
MILTON ROAD SCHEME**

address:

Drawing Title/Project:

Requested:	R.MITCHELL	14.11.21
Drawn:	A.TAYLOR	17.11.21
Approved:	R.MITCHELL	18.11.21

Revision: Approved By: Date:

Details:

Revision: Approved By: Date:

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Details:

Revision: Approved By: Date:

Details:

Original Drawing Size :	NTS
Scale : Not To Scale	Dimensions : DIMS

Drawing No
741-11-04 DOWNHILL

11/11/21.DOWNHAMS

Notes

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7. Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
8. Tapers will be installed in conjunction with IAN 163/12
9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Road Closure
- Traffic cone/Marker
- Diversion Route
- Traffic signals to Diagram 3000.1
- Pedestrian crossing signal
- Temporary vehicle restraint barrier
- Pedestrian barrier
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Step/Go board (PT023/PT024)



Customer Name:

**MILESTONE
MILTON ROAD SCHEME**

Address:

GILBERT ROAD

Drawing Title/Project:

Traffic Signals

Requested:	R.MITCHELL	14.11.21
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Drawn:	A.TAYLOR	17.11.21
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Approved:	R.MITCHELL	18.11.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Original Drawing Size :	NTS
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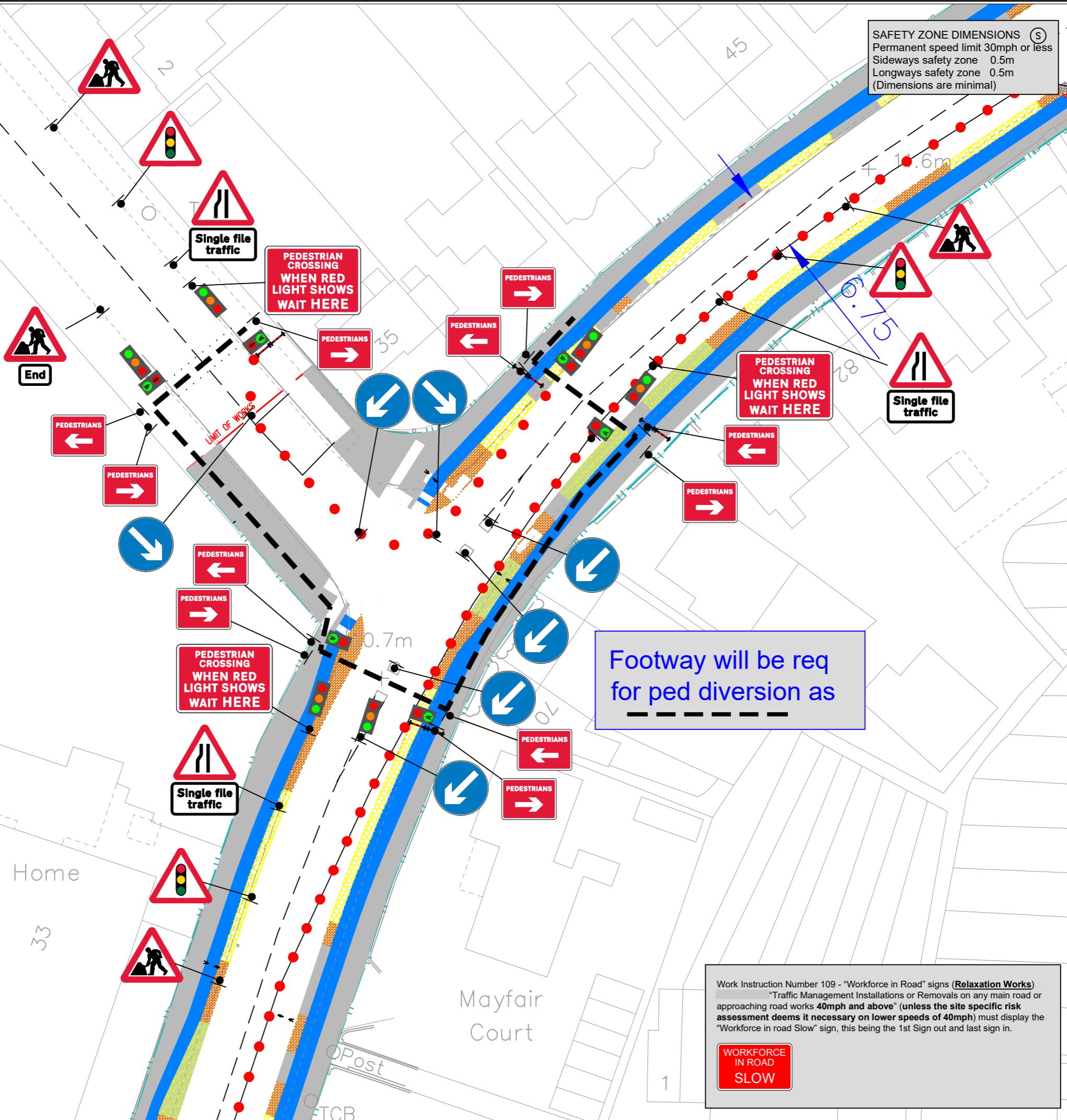
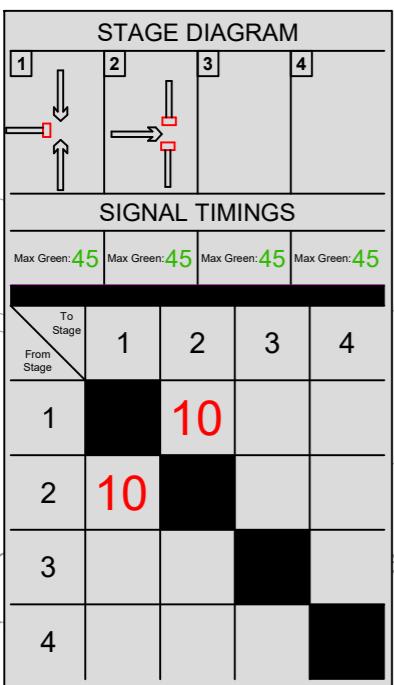
Scale : Not To Scale	Dimensions : DIMS
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Drawing No:

AT/17.11.21.GILBERT

SAFETY ZONE DIMENSIONS

Permanent speed limit 30mph or less
Sideways safety zone 0.5m
Longways safety zone 0.5m
(Dimensions are minimal)



Notes

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9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic cone/cylinder
- Traffic signals to Diagram 3000.1
- Diversion route
- Pedestrian crossing signal
- Temporary vehicle restraint barrier
- Pedestrian barrier
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Step/Go board (PT023/PT024)



Customer Name

**MILESTONE
MILTON ROAD SCHEME**

Address:
GILBERT ROAD

Client Drawing Ref / TM

Traffic Signals

Requested:	R.MITCHELL	14.11.21
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Drawn:	A.TAYLOR	17.11.21
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Approved:	R.MITCHELL	18.11.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

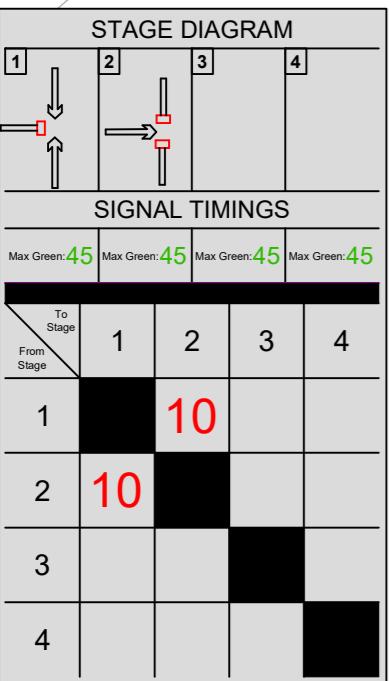
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Scale :	Not To Scale	Dimensions : DIMS
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Amberon Drawing Ref

AT/17.11.21.GILBERT/2

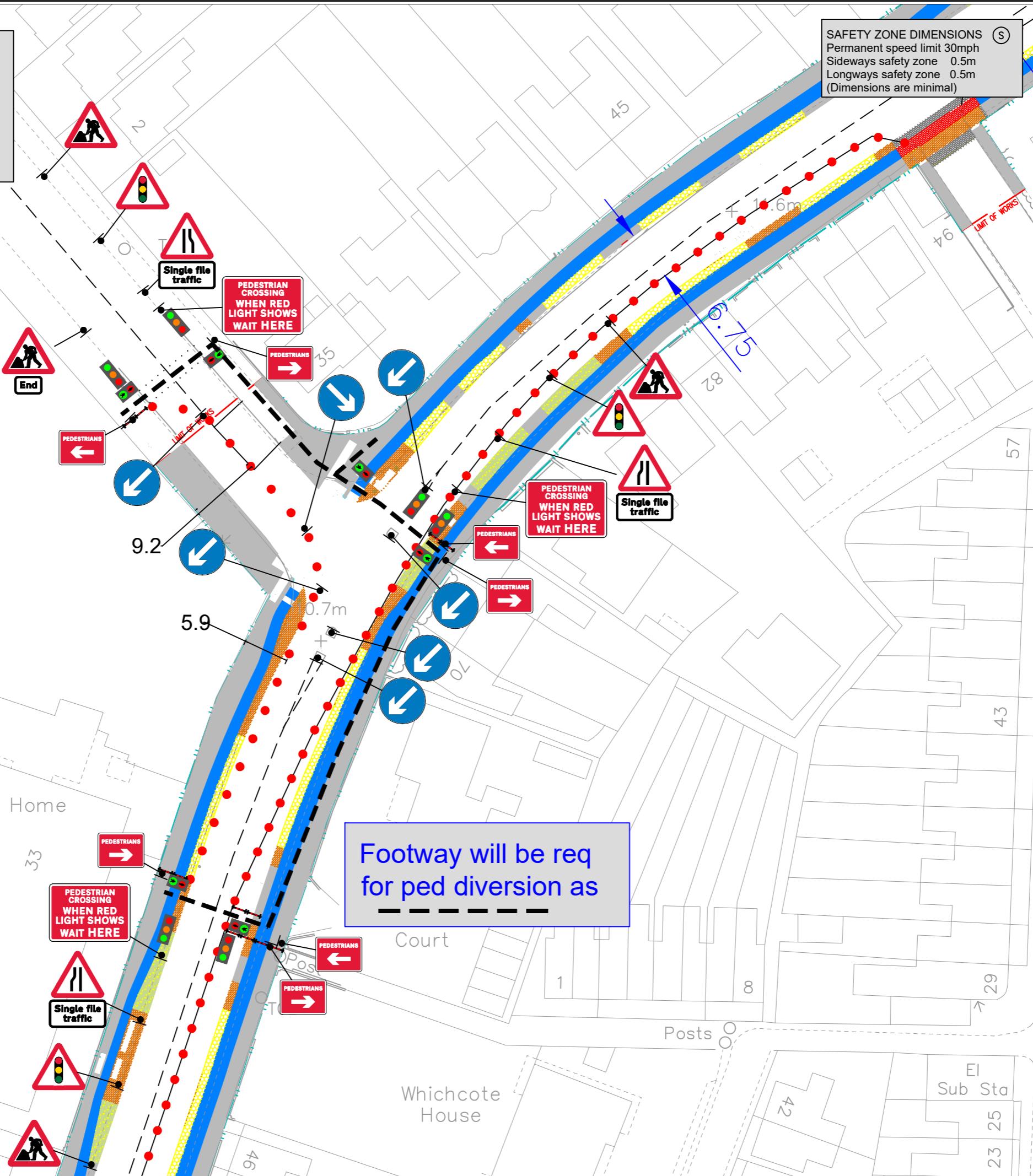
Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works 40mph and above" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st sign out and last sign in.



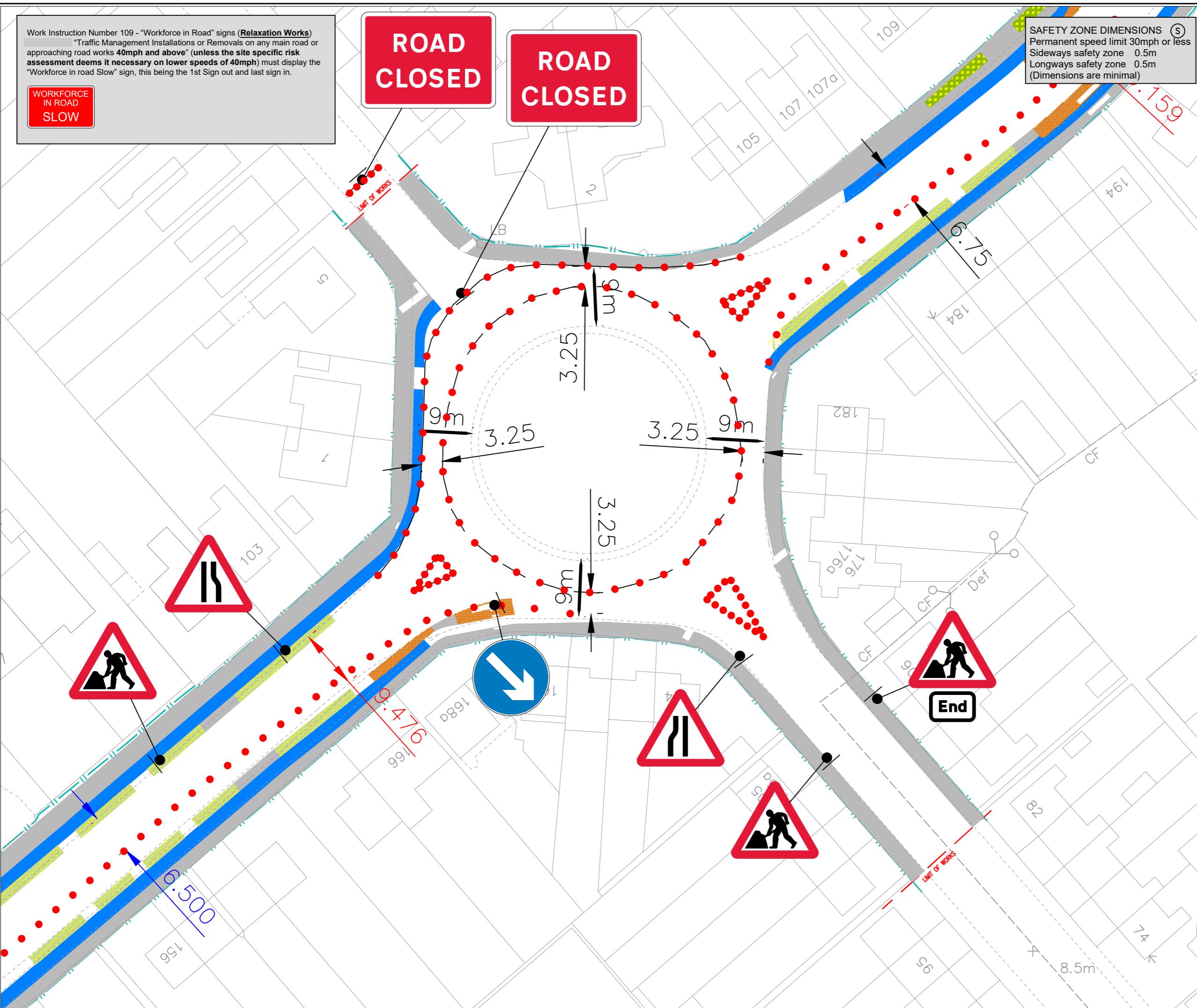
Cambridge Manor Care Home

EI
Sub Sta

Footway will be req
for ped diversion as



Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works **40mph and above**" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.



Notes

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 8. Tapers will be installed in conjunction with IAN 163/12
 9. Advance Signage Shall be installed in Conjunction with IAN 153/16



**MILESTONE
MILTON ROAD SCHEME**

Address:
**HIGHWORTH AVE R/B
RECONSTRUCTION**

Narrow Lanes

Requested:	R.MITCHELL	14.11.21
Drawn:	A.TAYLOR	17.11.21
Approved:	R.MITCHELL	18.11.21

Revision: Approved By: Date:

Table 1. Summary of the main characteristics of the three groups of patients.

Details:

Revision: Approved By: Date:

Details:

Revision: Approved By: Date:

For more information about the study, please contact Dr. John Smith at (555) 123-4567 or via email at john.smith@researchinstitute.org.

Details:

Scale : Not To Scale Dimensions : DIMS

Drawing No

AM/17.11.21.HIGHWORTH

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works **40mph and above**" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

**WORKFORCE
IN ROAD
SLOW**

**Planters Remove
To Allow Access.**

A red rectangular sign with white text. The text is arranged in five lines: 'ROAD' on the first line, 'AHEAD' on the second line, 'CLOSED' on the third line, 'RESIDENTS' on the fourth line, and 'ACCESS ONLY' on the fifth line.

SAFETY ZONE DIMENSIONS (S)
Permanent speed limit 30mph or less
Sideways safety zone 0.5m
Longways safety zone 0.5m
(Dimensions are minimal)

Notes

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 9. Advance Signage Shall be installed in Conjunction with IAN 153/16



Customer Name:

MILESTONE MILTON ROAD SCHEME

Address:
**HIGHWORTH AVE R/B
RECONSTRUCTION**

Drawing Title

Road Closure Access

Requested:	R.MITCHELL	14.11.21
Drawn:	A.TAYLOR	15.11.21
Approved:	R.MITCHELL	16.11.21

Period	Actual	Target	Rate
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Details:

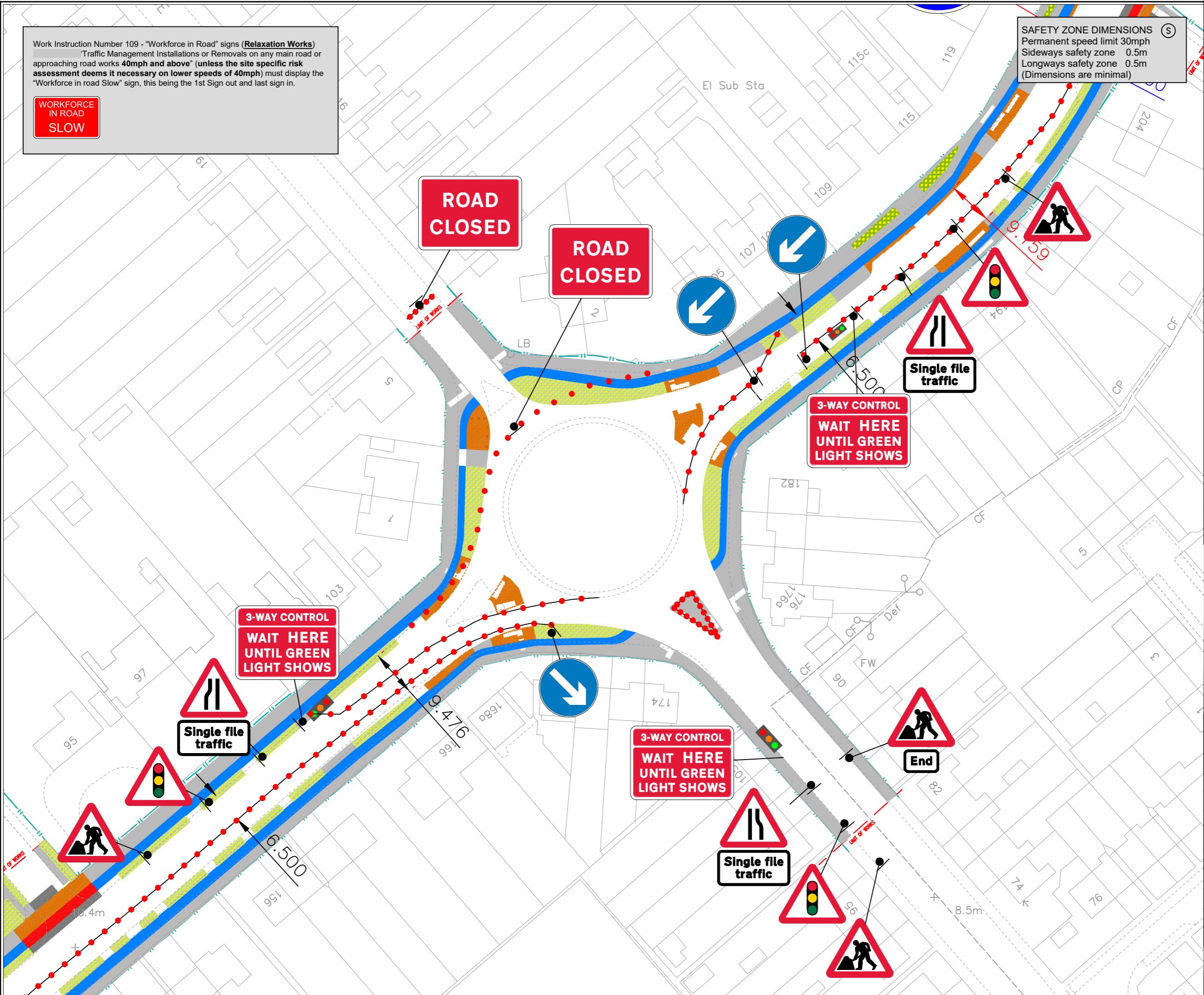
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Details:
Revision: Approved By: Date:

Details:

Original Drawing Size :	NTS
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Scale : **Not To Scale**



Notes

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5. Refer to Safety at StreetWorks and Road Works for Key to detail.
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8. Tapers will be installed in conjunction with IAN 163/12
9. Advance Signage Shall be installed in Conjunction with IAN 153/16



Customer Name
MILESTONE - MILTON ROAD SCHEME

Address:
HIGHWORTH AVE R/B SPLITER REMOVAL

Client Drawing Ref / TM
3 Way Traffic Signals

Requested:	R.MITCHELL	14.11.21
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Drawn:	A.TAYLOR	15.11.21
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Approved:	R.MITCHELL	16.11.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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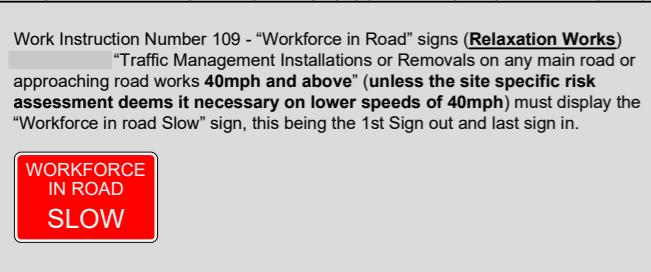
Details:

Original Drawing Size :	NTS
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Scale :	Not To Scale
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Amberon Drawing Ref :	DIMS
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AT/17.11.21.HIGHWORTH/1



**ROAD
CLOSED**

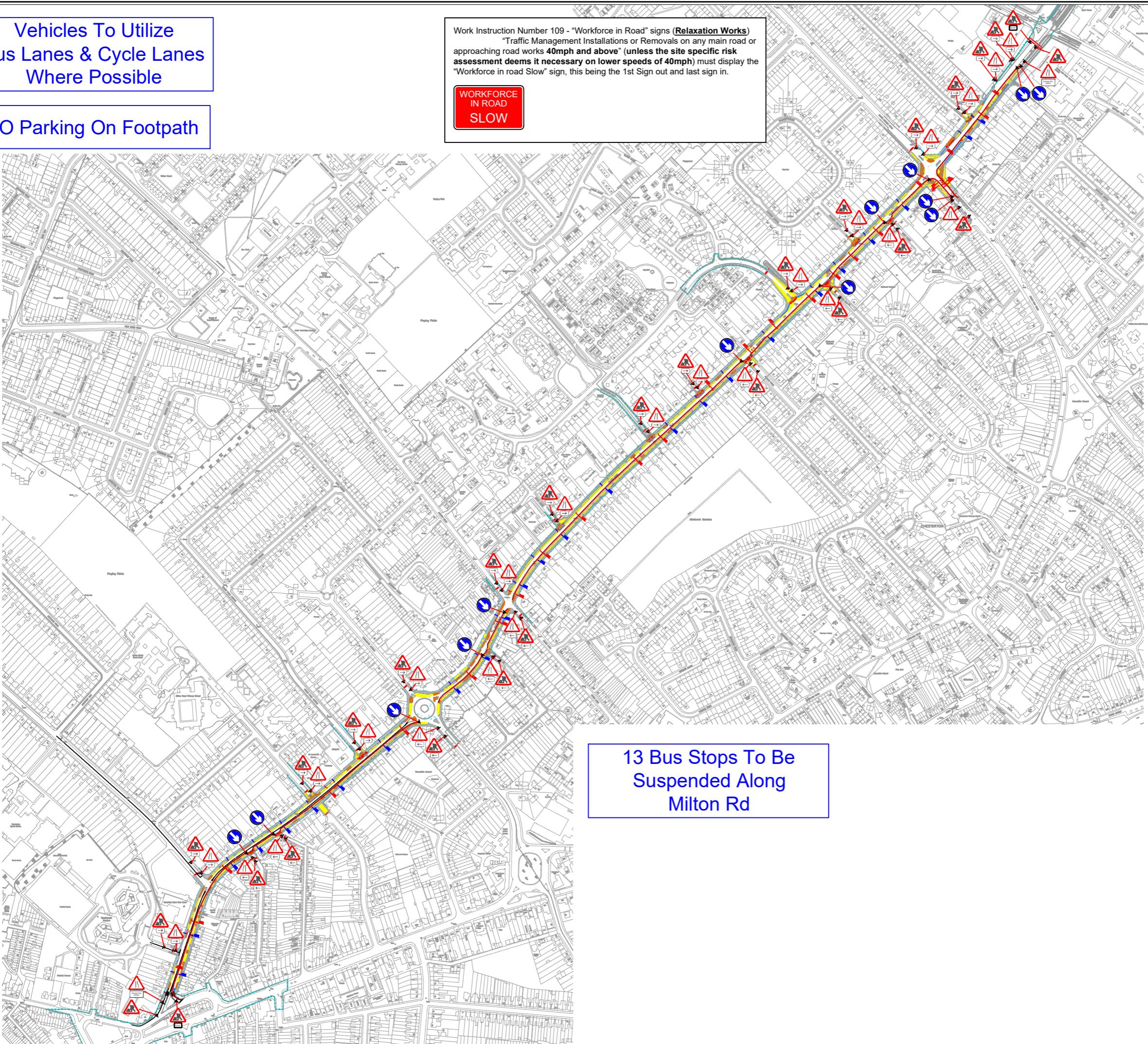
**ROAD
CLOSED</**

Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible

NO Parking On Footpath

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or
approaching road works 40mph and above" (unless the site specific risk
assessment deems it necessary on lower speeds of 40mph) must display the
"Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

WORKFORCE
IN ROAD
SLOW



Notes

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9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic concrete cylinder
- Traffic signals to Diagram 3000 1
- Pedestrian crossing signal
- Pedestrian barrier
- Step/Go board (PT023/PT024)
- Temporary vehicle restraint barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface



Road Narrows - Drawing 23

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
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Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:		
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Revision:	Approved By:	Date:
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Details:		
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Revision:	Approved By:	Date:
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Details:		
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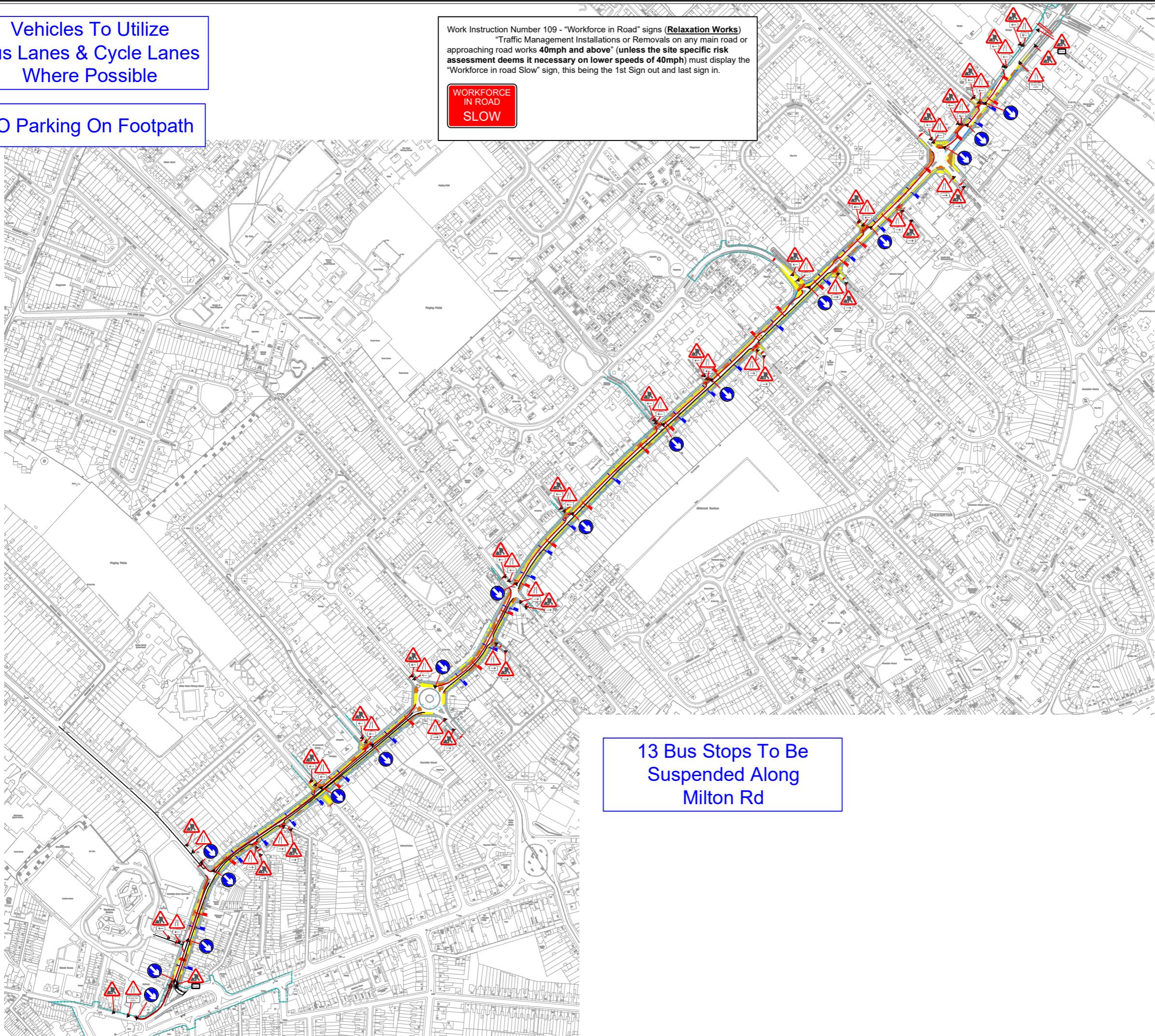
Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions :	DIMS
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Drawing No	JS/28.10.21.PE72711-23
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Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible

NO Parking On Footpath



Notes

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8. Tapers will be installed in conjunction with IAN 163/12
9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic cone/cylinder
- Traffic signals to Diagram 3000.1
- Pedestrian crossing signal
- Pedestrian barrier
- Temporary vehicle restraint barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Step/Go board (PT023/PT024)



Road Narrows - Drawing 27

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
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Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions :	DIMS
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Drawing No
JS/28.10.21.PE72711-27

Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible

NO Parking On Footpath

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works 40mph and above" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

WORKFORCE
IN ROAD
SLOW

Highworth Avenue

Close, remove planters and divert via Leys Rd and Arbury Road



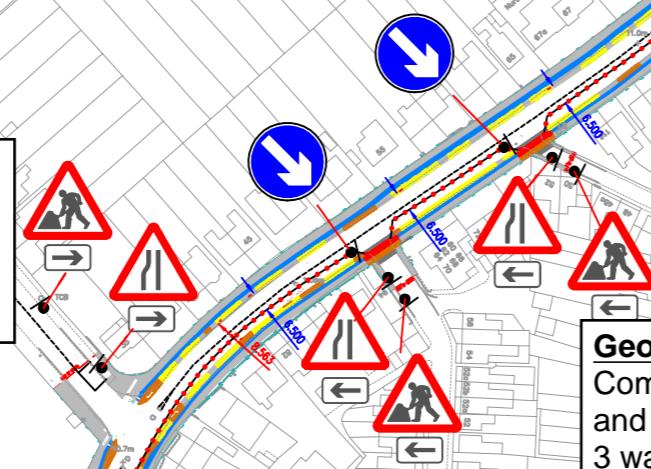
Hurst Park Avenue

Close and divert via Leys Avenue and Arbury Road

Ascham Road
Close and divert via Gurney Way and Gilbert Road



Gilbert Road
Complete half and half under 3 way lights



George Street
Complete half and half under 3 way lights

Herbert Street
Complete half and half under 3 way lights

Westbrook Avenue
Complete half and half under 3 way lights



Notes

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8. Tapers will be installed in conjunction with IAN 163/12
9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic cone/Marker
- Traffic signals to Diagram 3000.1
- Pedestrian crossing signal
- Temporary vehicle restraint barrier
- Pedestrian barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Stop/Go board (PT023/PT024)



Road Narrows - Drawing 24

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
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Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions : DIMS
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Drawing No	JS/28.10.21.PE72711-24
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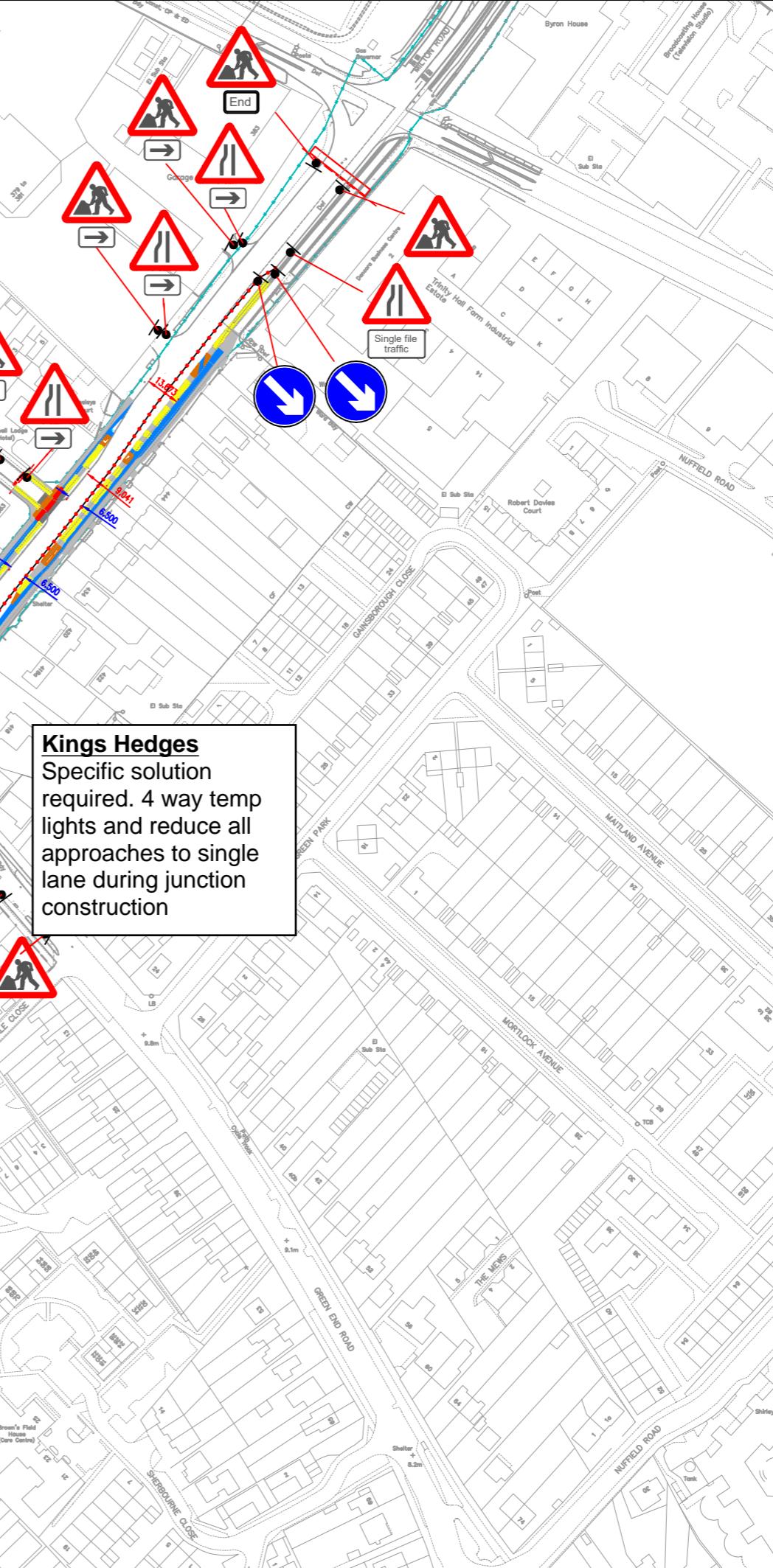
**Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible**

NO Parking On Footpath

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works 40mph and above" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st sign out and last sign in.

**WORKFORCE
IN ROAD
SLOW**

Lovell Road
Close and divert via Kings Hedges



Ramsden Square
Close and divert via Kings Hedges

Woodhead Drive
Close for full duration to use as site compound.
Divert via Downhams Lane

Kendal Way
Close and divert via Green End Road

Notes

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

- All dimensions in metres.
- Sign locations indicative only, exact sign locations to be determined on site.
- Refer to Chapter 8 TSM for key to detail.
- All works Access & Exits to be Agreed on Site.
- Refer to Safety at StreetWorks and Road Works for Key to detail.
- All TM will be installed in Accordance with Chapter 8 of the Traffic signs Manual
- Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
- Tapers will be installed in conjunction with IAN 163/12
- Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic cones/Marker
- Traffic signals to Diagram 3000 1
- Pedestrian crossing signal
- Pedestrian barrier
- Temporary vehicle restraint barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Step/Go board (PT023/PT024)



30

Road Narrows - Drawing 26

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
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Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions : DIMS
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Drawing No
JS/28.10.21.PE72711-26

**Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible**

NO Parking On Footpath

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works 40mph and above" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

WORKFORCE IN ROAD SLOW

Highworth Avenue

Close, remove planters and divert via Leys Rd and Arbury Road

Hurst Park Avenue

Close and divert via Leys Avenue and Arbury Road

Ascham Road

Close and divert via Gurney Way and Gilbert Road

Gilbert Road

Complete half and half under 3 way lights

George Street

Complete half and half under 3 way lights

Herbert Street

Complete half and half under 3 way lights

Westbrook Avenue

Complete half and half under 3 way lights



Notes

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

1. All dimensions in metres.
2. Sign locations indicative only, exact sign locations to be determined on site.
3. Refer to Chapter 8 TSM for key to detail.
4. All works Access & Exits to be Agreed on Site.
5. Refer to Safety at StreetWorks and Road Works for Key to detail.
6. All TM will be installed in Accordance with Chapter 8 of the Traffic signs Manual
7. Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
8. Tapers will be installed in conjunction with IAN 163/12
9. Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic concrete/folder
- Traffic signals to Diagram 3000 1
- Pedestrian crossing signal
- Temporary vehicle restraint barrier
- Pedestrian barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- StepOn board (PT023/PT024)



30

Road Narrows - Drawing 28

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
--------	-----------	----------

Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions : DIMS
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Drawing No
JS/28.10.21.PE72711-28

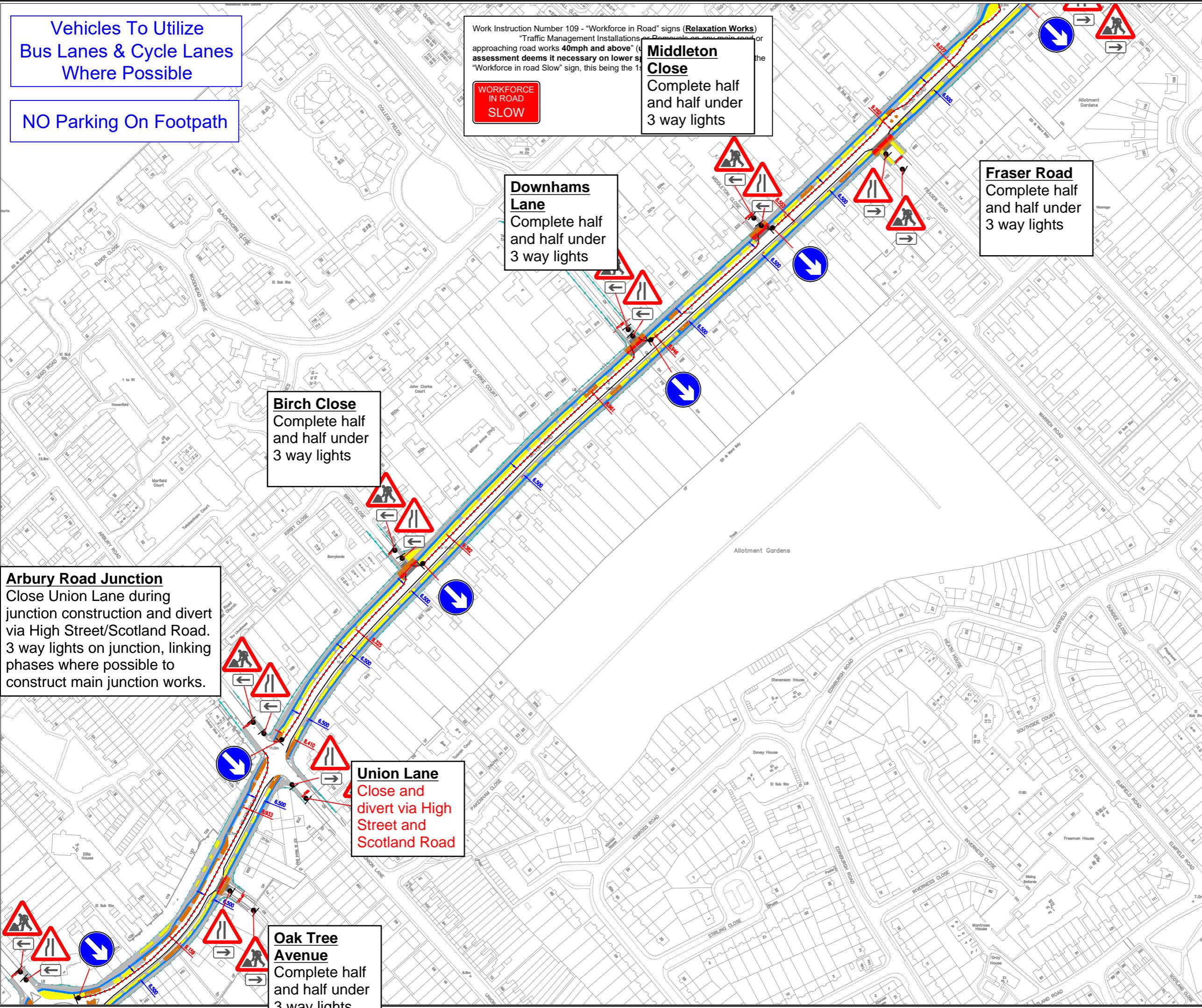
Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible

NO Parking On Footpath

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or
approaching road works 40mph and above" (unless the traffic management
assessment deems it necessary to lower speed)
"Workforce in road Slow" sign, this being the 1st sign installed.
Middleton Close
Complete half and half under 3 way lights
WORKFORCE IN ROAD SLOW

Downhams Lane
Complete half and half under 3 way lights

Fraser Road
Complete half and half under 3 way lights



Notes

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

- All dimensions in metres.
- Sign locations indicative only, exact sign locations to be determined on site.
- Refer to Chapter 8 TSM for key to detail.
- All works Access & Exits to be Agreed on Site.
- Refer to Safety at StreetWorks and Road Works for Key to detail.
- All TM will be installed in Accordance with Chapter 8 of the Traffic signs Manual
- Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
- Tapers will be installed in conjunction with IAN 163/12
- Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic cone/tyre
- Traffic signals to Diagram 3000.1
- Pedestrian crossing signal
- Temporary vehicle restraint barrier
- Pedestrian barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Stop/Go board (PT023/PT024)



30

Road Narrows - Drawing 29

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
--------	-----------	----------

Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Revision:	Approved By:	Date:
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Details:

Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions : DIMS
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Drawing No
JS/28.10.21.PE72711-29

Vehicles To Utilize
Bus Lanes & Cycle Lanes
Where Possible

NO Parking On Footpath

Work Instruction Number 109 - "Workforce in Road" signs (**Relaxation Works**)
"Traffic Management Installations or Removals on any main road or approaching road works 40mph and above" (unless the site specific risk assessment deems it necessary on lower speeds of 40mph) must display the "Workforce in road Slow" sign, this being the 1st Sign out and last sign in.

**WORKFORCE
IN ROAD
SLOW**

**Woodhead
Drive**
Close for full
duration to use
as site
compound.
Divert via
Downhams
Lane

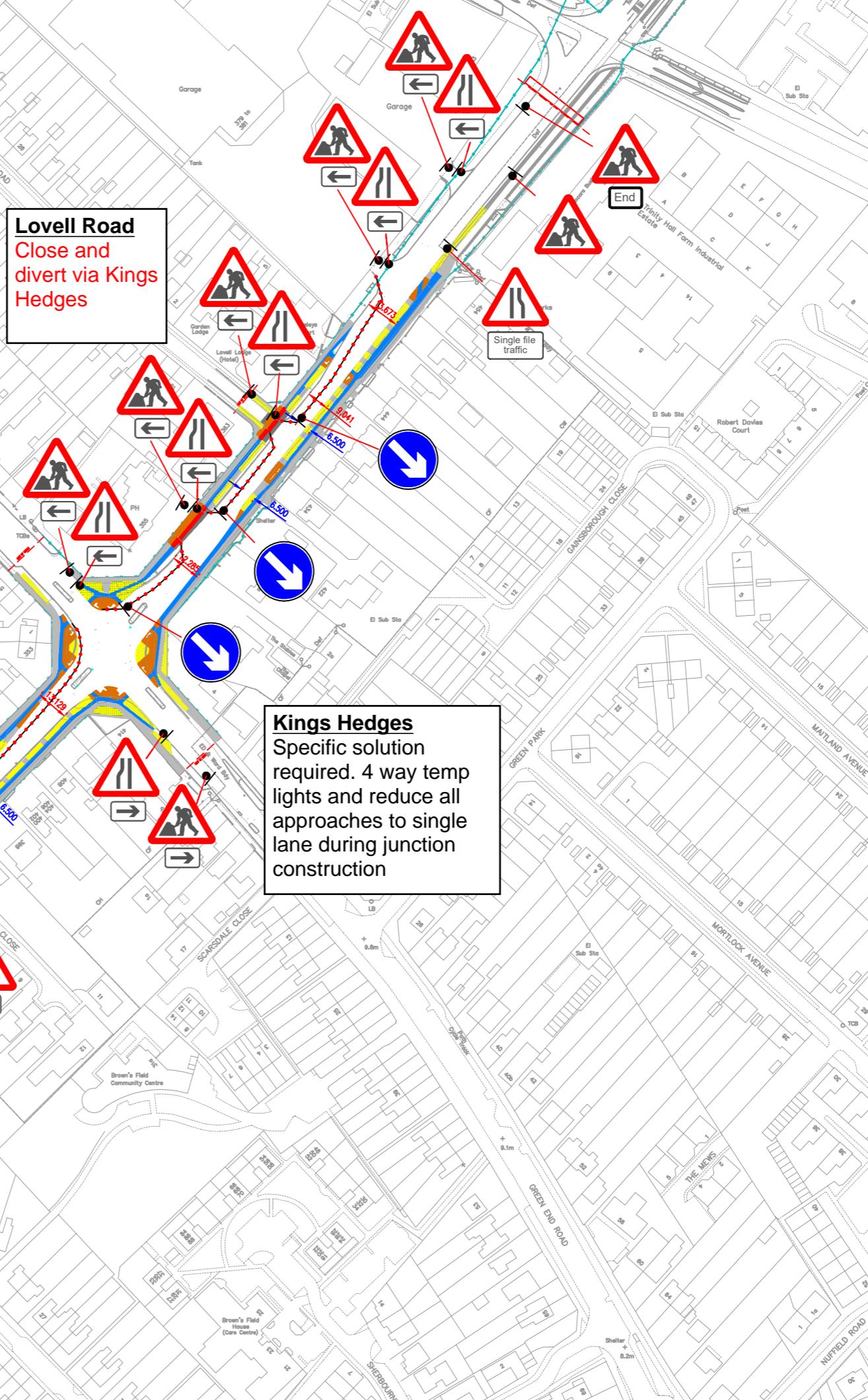
**Ramsden
Square**
Close and
divert via Kings
Hedges

**WORKFORCE
IN ROAD
SLOW**

Kendal Way
Close and
divert via
Green End
Road

Lovell Road
Close and
divert via Kings
Hedges

Kings Hedges
Specific solution
required. 4 way temp
lights and reduce all
approaches to single
lane during junction
construction



Notes

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THE PURPOSE INTENDED AND ONLY
WRITTEN DIMENSIONS SHALL BE USED

- All dimensions in metres.
- Sign locations indicative only, exact sign locations to be determined on site.
- Refer to Chapter 8 TSM for key to detail.
- All works Access & Exits to be Agreed on Site.
- Refer to Safety at StreetWorks and Road Works for Key to detail.
- All TM will be installed in Accordance with Chapter 8 of the Traffic signs Manual
- Workforce In Road SLOW to be risk assessed in advance of the Initial man at work sign
- Tapers will be installed in conjunction with IAN 163/12
- Advance Signage Shall be installed in Conjunction with IAN 153/16

KEY

- Traffic sign
- Traffic cone/Marker
- Traffic signals to Diagram 3000 1
- Pedestrian crossing signal
- Temporary vehicle restraint barrier
- Pedestrian barrier
- Temporary reflective road stud
- High intensity flashing beacon complying with Regulation 54 mounted at a height between 800mm and 1500mm above the road surface
- Stop/Go board (PT023/PT024)



Road Narrows - Drawing 30

Customer Name
Milestone

Project Name
The Stables, 418 Milton Rd, Cambridge CB4 1ST

Drawing Title
Road Narrows

Requested:	R.Mitchell	28.10.21
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Drawn:	J.Skinkys	28.10.21
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Approved:	D.Talbot	28.10.21
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Revision:	Approved By:	Date:
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Details:		
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Revision:	Approved By:	Date:
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Details:		
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Revision:	Approved By:	Date:
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Details:		
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Original Drawing Size :	NTS
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Scale :	Not To Scale	Dimensions : DIMS
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Drawing No	JS/28.10.21.PE72711-30
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DO NOT SCALE

DIVERSIONS KEY:	
PROPOSED KERLINE	
NEW CABLE/PIPE TO BE PROVIDED	
CABLE/PIPE TO BE RE-ALIGNED	
CABLE/PIPE TO BE LOWERED	
NEW MANHOLE/CHAMBER TO BE PROVIDED	
MANHOLE/CHAMBER TO BE RELOCATED	
MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED	

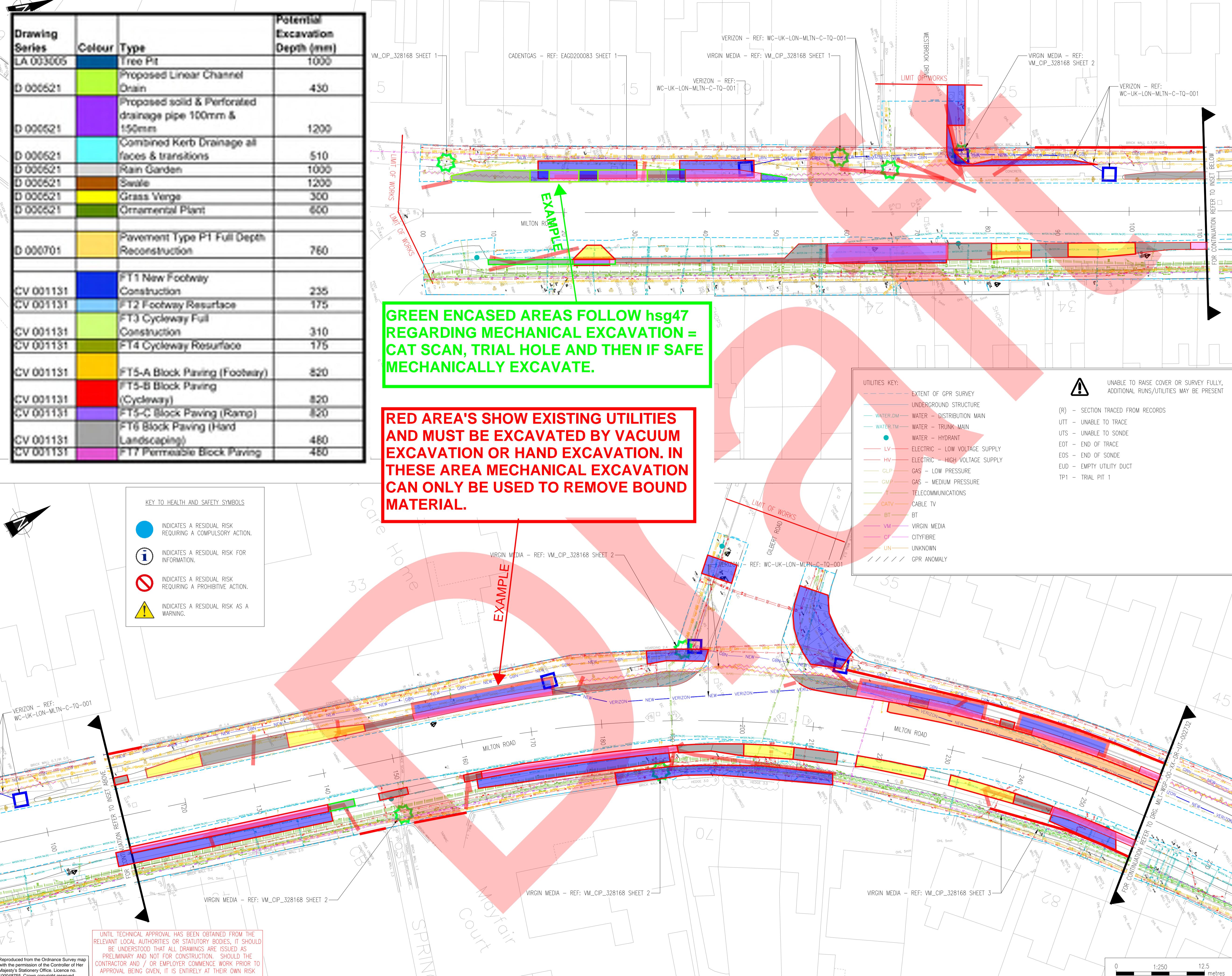
NOTES:

1. THIS DRAWING IS A COMPOSITE PLAN BASED ON THE FOLLOWING INFORMATION: C2 MILESTONES SUPPLIED BY CONSTRUCTION PROJECTS LTD IN NOVEMBER 2019; GPR SURVEY PROVIDED BY EDI SURVEYS LTD IN 2019; CADENT GAS SURVEY PROVIDED BY CADENT GAS LTD IN 2019; C4 INFORMATION PROVIDED BY UTILITY COMPANIES, UPDATED TO AUGUST 2020. NOT ALL SERVICES ARE SHOWN. THE POSITIONS SHOWN ARE INDICATIVE ONLY AND MAY NOT BE CURRENT. PRIVATE SERVICES SHOULD BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK OR INTRUSIVE INVESTIGATION. CURRENT ORIGINAL PLANT RECORDS SHOULD BE USED AND NOT THIS INDICATIVE COMBINED SERVICES PLAN.
2. THIS DRAWING IS NOT INTENDED FOR SETTING-OUT PURPOSES. THE COORDINATE SYSTEM IS BASED ON THE STATIONS PROVIDED BY EDI SURVEYS LTD AS PART OF THE TOPOGRAPHICAL SURVEY SUPPLIED IN JULY 2019. CONFLICTING INFORMATION SHOWN ON THE ENGINEER'S DRAWINGS OR DISCREPANCIES BETWEEN THE INFORMATION GIVEN BY THE ENGINEER AND THAT PROVIDED BY OTHERS MUST BE REFERRED TO THE ENGINEER FOR THE WORK.
3. THIS DRAWING IS A COMPOSITE PLAN SHOWING THE UTILITIES AFFECTED BY THE DIVERSIONS WORKS. IT WAS PROVIDED TO PROVIDE AN OVERVIEW OF THE REQUIRED DIVERSION WORKS. THE CONTRACTOR MUST REFER TO FULL C4 PACKAGE ISSUED BY THE CONTRACTOR FOR THE DIVERSIONS WORKS. ALL DIVERSIONS ARE INDICATIVE AND NEED TO BE CONFIRMED ON SITE.
4. PRIVATE CONNECTIONS TO UTILITY NETWORK ARE NOT SHOWN ON UTILITY RECORDS AND THERE IS NO GUARANTEE THESE HAVE BEEN CAPTURED BY THE GPR SURVEY PROVIDED BY EDI SURVEYS LTD. CONTRACTOR MUST MAKE THE NECESSARY ARRANGEMENTS TO ENSURE PRIVATE CONNECTIONS ARE IDENTIFIED AND MARKED ON SITE PRIOR TO COMMENCEMENT OF INTRUSIVE WORKS.
5. THE DRAWING HAS BEEN BASED ON INFORMATION PROVIDED BY OTHER PARTIES AND DOES NOT WARRANT THE ACCURACY OF THE INFORMATION.
6. ALL WORKS TO BE CARRIED OUT MUST COMPLY WITH HSG47 (THIRD EDITION) AVOIDING DANGER FROM UNDERGROUND SERVICES.
7. THE CONTRACTOR MUST ENSURE THE PROVISION OF A SAFE SYSTEM OF WORK. THIS MUST INCLUDE THE PLANNING OF THE WORK, IDENTIFYING AND MARKING UNDERGROUND SERVICES AND SAFE EXCAVATION/DIGGING PRACTICES.
8. THE CONTRACTOR MUST IDENTIFY AND LOCATE THE EXISTING UTILITIES IN THE WORK AREA. SURVEYOR TO IDENTIFY THE SERVICES AND OTHER UNDERGROUND STRUCTURES.
9. UNHEARTED SERVICES ARE IDENTIFIED.
10. THE CONTRACTOR MUST CONFIRM THE LOCATIONS AND POSITIONS OF ALL EXISTING UTILITIES THAT ARE PRESENT WITHIN THE SITE EXTENTS PRIOR TO ANY EXCAVATION. THIS MUST BE DONE USING A SUITABLE DETECTIVE DEVICE OR LOCATOR. OPERATORS MUST RECEIVE THOROUGH TRAINING IN ITS USE AND LIMITATIONS AND SHALL USE IT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
11. WHEN DOING THE WORK, OPERATORS SHOULD USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT AND WORK EQUIPMENT AND ALLOWED SUFFICIENT TIME.
12. ONCE THE POSITION AND ROUTE OF THE UTILITIES HAVE BEEN IDENTIFIED, EXCAVATION WORK MAY PROCEED FOLLOWING SAFE DIGGING PRACTICES, WITH TRIAL HOLES (USING SUITABLE HAND TOOLS OR VACUUM EXCAVATION) TO CONFIRM THE POSITION OF ANY DETECTED SERVICES. SPECIAL CARE MUST BE TAKEN WHEN DIGGING ABOVE OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND AIR CANNON TO AVOID DIGGING NEAR ELECTRIC CABLES.
13. FINAL EXCAVATION TO BE CARRIED OUT BY HORIZONTAL DIGGING, AS THE FORCE APPLIED TO HARD TOOLS CAN BE CONTROLLED MORE EFFECTIVELY. USE INSULATED TOOLS FOR DIGGING NEAR ELECTRIC CABLES.
14. THE CONTRACTOR IS ADVISED TO OPERATE A 'PERMIT TO DIG' SYSTEM WITH ASSOCIATED TRAINING AND TRIAL HOGGING AS NECESSARY TO LOCATE AND SAFEGUARD EXISTING SERVICES.
15. THE CONTRACTOR SHALL AGREE ALL WORKS METHODS AND PROGRAMMING WITH THE RELEVANT STATUTORY AUTHORITIES PRIOR TO THE START OF THE WORKS.

Drawing Series	Colour	Type	Potential Excavation Depth (mm)
LA 003005	Blue	Tree Pit	1000
D 000621	Green	Proposed Linear Channel Drain	450
D 000621	Purple	Proposed solid & Perforated drainage pipe 100mm & 150mm	1200
D 000621	Cyan	Combined Kerb Drainage all faces & transitions	510
D 000621	Grey	Rain Garden	1000
D 000621	Orange	Steepie	1200
D 000621	Yellow	Grass Verge	300
D 000621	Dark Green	Ornamental Plant	600
D 000701	Yellow	Pavement Type P1 Full Depth Reconstruction	760
CV 001131	Blue	FT1 New Footway Construction	235
CV 001131	Light Blue	FT2 Footway Resurface	175
CV 001131	Light Green	FT3 Cycleway Full Construction	310
CV 001131	Light Yellow	FT4 Cycleway Resurface	175
CV 001131	Yellow	FT5-A Block Paving (Footway)	820
CV 001131	Red	FT5-B Block Paving (Cycleway)	820
CV 001131	Purple	FT5-C Block Paving (Ramp)	820
CV 001131	Grey	FT6 Block Paving (Hard Landscaping)	480
CV 001131	Pink	FT7 Permeable Block Paving	480

GREEN ENCASED AREAS FOLLOW hsg47 REGARDING MECHANICAL EXCAVATION = CAT SCAN, TRIAL HOLE AND THEN IF SAFE MECHANICALLY EXCAVATE.

RED AREA'S SHOW EXISTING UTILITIES AND MUST BE EXCAVATED BY VACUUM EXCAVATION OR HAND EXCAVATION. IN THESE AREA MECHANICAL EXCAVATION CAN ONLY BE USED TO REMOVE BOUND MATERIAL.



P01	16/11/2020	BP	FIRST ISSUE	MSF	AKM
REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: S3 - FOR REVIEW					
 62-64 Hills Road, Cambridge, CB2 1LA, UK T+ 44 (0) 1223 558 050, F+ 44 (0) 1223 558 051 wsp.com					
CLIENT: GREATER CAMBRIDGE PARTNERSHIP					
ARCHITECT:					
SITE/PROJECT: MILTON ROAD DETAILED DESIGN					
TITLE: UTILITIES AND ACCOMMODATION WORKS PROPOSED DIVERSIONS SHEET 01 OF 11					
SCALE @ A1:	1:250	CHECKED:	MSF	APPROVED:	AKM
PROJECT NO:	70056482	DESIGNED:	MSF	DRAWN:	BP
DRAWING NO:	MILT-WSP-00-XX-DR-UT-002731	DATE:	May 20		
REV:	P01				
Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office. Licence no. 100048755. Crown copyright reserved.					
© WSP UK Ltd					

DO NOT SCALE

PROPOSED KERBLINE
NEW CABLE/PIPE TO BE PROVIDED
CABLE/PIPE TO BE RE-ALIGNED
CABLE/PIPE TO BE LOWERED
NEW MANHOLE/CHAMBER TO BE PROVIDED
MANHOLE/CHAMBER TO BE RELOCATED
MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED

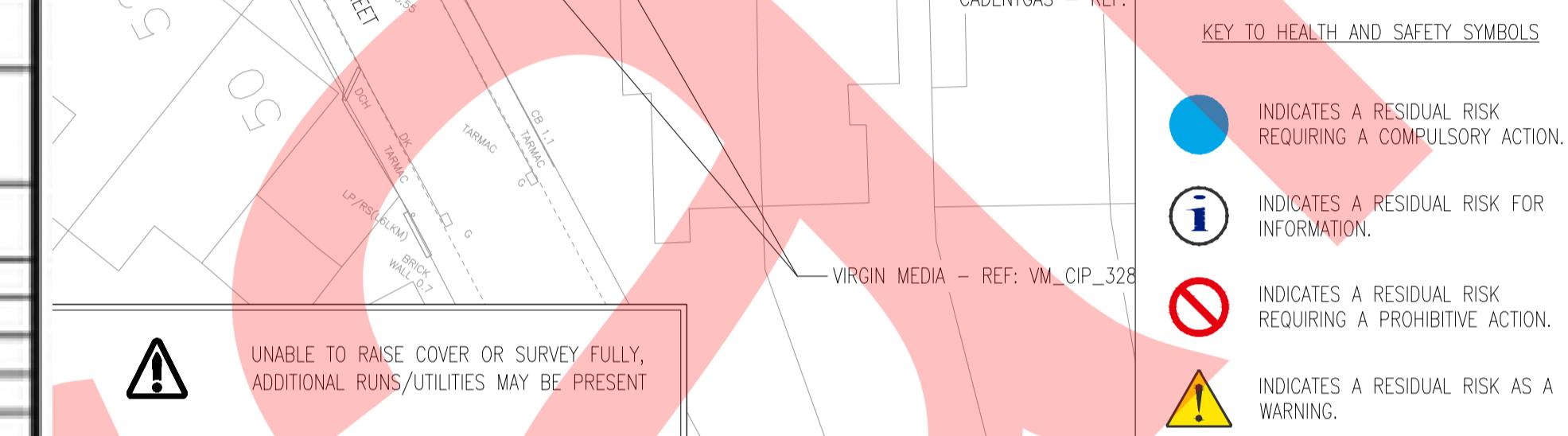
NOTES:

- THIS DRAWING IS A COMPOSITE PLAN BASED ON THE FOLLOWING INFORMATION: C2 2019 TOPOGRAHIC SURVEY; C4 2020 GPR SURVEY; VERIZON - REF: WC-UK-LON-MLTN-C-TQ-001; CADENT GAS - REF: EAGD200083 SHEET 2; VIRGIN MEDIA - REF: VM_CIP_328168 SHEET 3; VIRGIN MEDIA - REF: VM_CIP_328168 SHEET 4; C4 INFORMATION PROVIDED BY UTILITY COMPANIES, UPDATED TO AUGUST 2020. NOT ALL SERVICES ARE SHOWN. THE POSITIONS SHOWN ARE INDICATIVE ONLY AND NOT TO BE USED FOR DETERMINING SERVICE LOCATIONS OR SHOWN AS VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK OR INTRUSIVE INVESTIGATION. CURRENT ORIGINAL PLANT RECORDS SHOULD BE USED AND NOT THIS INDICATIVE SERVICES PLAN.
- THIS DRAWING IS NOT INTENDED FOR SETTING-OUT PURPOSES. THE COORDINATE SYSTEM IS BASED ON THE STATIONS PROVIDED BY EDI SURVEYS LTD AS PART OF THE TOPOGRAPHICAL SURVEY SUPPLIED IN JULY 2019. CONFIRMING INFORMATION SHOWN ON THE ENGINEER'S DRAWINGS OR DISCREPANCIES BETWEEN THE INFORMATION GIVEN BY THE ENGINEER AND THAT PROVIDED BY OTHERS MUST BE REFERRED TO THE ENGINEER FOR THE WORK AREA.
- THIS DRAWING IS A COMPOSITE PLAN SHOWING THE UTILITIES AFFECTED BY THE DIVERSIONS WORKS. IT PROVIDED TO PROVIDE AN OVERVIEW OF THE REQUIRED DIVERSIONS WORKS. THE CONTRACTOR MUST REFER TO FULL C4 PACKAGE ISSUED BY THE CONTRACTOR FOR THE ACTUAL DIVERSIONS WORKS TO BE SET OUT.
- ALL DIVERSIONS ROUTES ARE INDICATIVE AND NEED TO BE CONFIRMED ON SITE.
- PRIVATE CONNECTIONS TO UTILITY NETWORK ARE NOT SHOWN ON UTILITY RECORDS AND THERE IS NO GUARANTEE THESE HAVE BEEN CAPTURED BY THE GPR SURVEY. THE CONTRACTOR MUST MAKE THE NECESSARY ARRANGEMENTS TO ENSURE PRIVATE CONNECTIONS ARE IDENTIFIED AND MARKED ON SITE PRIOR TO COMMENCEMENT OF INTRUSIVE WORKS.
- THE DRAWING HAS BEEN BASED ON INFORMATION PROVIDED BY OTHER PARTIES AND DOES NOT WARRANT THE ACCURACY OF THE INFORMATION.
- ALL WORKS TO BE PERFORMED MUST COMPLY WITH HSG47 (THIRD EDITION) "AVOIDING DANGER FROM UNDERGROUND SERVICES".
- THE CONTRACTOR MUST ENSURE THE PROVISION OF A SAFE SYSTEM OF WORK. THIS MUST INCLUDE THE PLANNING AND IDENTIFICATION AND MARKING UNDERGROUND SERVICES AND SAFE EXCAVATION/DIGGING PRACTICES.
- THE CONTRACTOR MUST IDENTIFY THE SERVICES AND OTHER UNDERGROUND STRUCTURES. THE SITE TO IDENTIFY THE SERVICES AND OTHER UNDERGROUND STRUCTURES. CONTRACTOR TO CONTACT UTILITY COMPANIES AND OTHER ORGANISATIONS IF UNHEARTED SERVICES ARE IDENTIFIED.
- THE CONTRACTOR MUST CONFIRM THE LOCATIONS AND POSITIONS OF ALL EXISTING UTILITIES THAT ARE PRESENT WITHIN THE SITE EXTENTS PRIOR TO ANY EXCAVATION. THIS MUST BE DONE USING A SUITABLE DETECTIVE DEVICE OR LOCATOR. OPERATORS MUST RECEIVE THOROUGH TRAINING IN ITS USE AND LIMITATIONS AND SHALL USE IT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- WHEN DOING THE WORK, CONTRACTOR MUST USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT AND WORK EQUIPMENT AND ALLOWED SUFFICIENT TIME.
- IF THE POSITION AND ROUTE OF THE UTILITIES HAVE BEEN IDENTIFIED, EXCAVATION WORK MAY PROCEED FOLLOWING SAFE DIGGING PRACTICES, WITH TRIAL HOLES (USING SUITABLE HAND TOOLS OR VACUUM EXCAVATION) TO CONFIRM THE POSITION OF ANY DETECTED SERVICES. SPECIAL CARE MUST BE TAKEN WHEN DIGGING ABOVE OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND AIR. FINAL EXCAVATION TO BE CARRIED OUT BY HORIZONTAL DIGGING, AS THE FORCE APPLIED TO HAND TOOLS CAN BE CONTROLLED MORE EFFECTIVELY. USE INSULATED TOOLS WHEN DIGGING NEAR ELECTRIC CABLES.
- THE CONTRACTOR IS ADVISED TO OPERATE A PERMIT TO DIG SYSTEM WITH ASSOCIATED TRAINING AND TRIAL HOGGING AS NECESSARY TO LOCATE AND SAFEGUARD EXISTING SERVICES.
- THE CONTRACTOR SHALL AGREE ALL WORKS METHODS AND PROGRAMMING WITH THE RELEVANT STATUTORY AUTHORITIES PRIOR TO THE START OF THE WORKS.

GREEN ENCASED AREAS FOLLOW hsg47 REGARDING MECHANICAL EXCAVATION = CAT SCAN, TRIAL HOLE AND THEN IF SAFE MECHANICALLY EXCAVATE.

RED AREA'S SHOW EXISTING UTILITIES AND MUST BE EXCAVATED BY VACUUM EXCAVATION OR HAND EXCAVATION. IN THESE AREA MECHANICAL EXCAVATION CAN ONLY BE USED TO REMOVE BOUND MATERIAL.

Drawing Series	Colour	Type	Potential Excavation Depth (mm)
LA 003005	Tree Pit		1000
D 000621	Proposed Linear Channel	Drain	430
D 000621	Proposed solid & Perforated drainage pipe 100mm & 150mm		1200
D 000621	Combined Kerb Drainage all faces & transitions		510
D 000621	Rain Garden		1000
D 000621	Swale		1200
D 000621	Grass Verge		300
D 000621	Ornamental Plant		600
D 000701	Pavement Type P1 Full Depth Reconstruction		760
CV 001131	FT1 New Footway Construction		235
CV 001131	FT2 Footway Resurface		175
CV 001131	FT3 Cycleway Full Construction		310
CV 001131	FT4 Cycleway Resurface		175
CV 001131	FT5-A Block Paving (Footway)		820
CV 001131	FT5-B Block Paving (Cycleway)		820
CV 001131	FT5-C Block Paving (Ramp)		820
CV 001131	FT6 Block Paving (Hard Landscaping)		480
CV 001131	FT7 Permeable Block Paving		480



(R) - SECTION TRACED FROM RECORDS
 UTT - UNABLE TO TRACE
 UTS - UNABLE TO SONDE
 EOT - END OF TRACE
 EOS - END OF SONDE
 EUD - EMPTY UTILITY DUCT
 TP1 - TRIAL PIT 1

P01	16/11/2020	BP	FIRST ISSUE	MSF	AKM
REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: S3 - FOR REVIEW					
62-64 Hills Road, Cambridge, CB2 1LA, UK T+ 44 (0) 1223 558 050, F+ 44 (0) 1223 558 051 wsp.com					
CLIENT: GREATER CAMBRIDGE PARTNERSHIP					
ARCHITECT:					
SITE/PROJECT: MILTON ROAD DETAILED DESIGN					
TITLE: UTILITIES AND ACCOMMODATION WORKS PROPOSED DIVERSIONS SHEET 02 OF 11					
SCALE @ A1:	1:250	CHECKED:	MSF	APPROVED:	AKM
PROJECT NO:	70056482	DESIGNED:	MSF	DRAWN:	BP
DRAWING NO:	MILT-WSP-00-XX-DR-UT-002732	DATE:	May 20		
REV:	P01				

DO NOT SCALE

DIVERSIONS KEY:	
PROPOSED KERBLINE	
NEW CABLE/PIPE TO BE PROVIDED	
CABLE/PIPE TO BE RE-ALIGNED	
CABLE/PIPE TO BE LOWERED	
NEW MANHOLE/CHAMBER TO BE PROVIDED	
MANHOLE/CHAMBER TO BE RELOCATED	
MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED	

NOTES:

1. THIS DRAWING IS A COMPOSITE PLAN BASED ON THE FOLLOWING INFORMATION:
- C2 KERBLINES SUPPLIED BY COMBINE LINE PROJECTS LTD IN NOVEMBER 2019;
- GPR SURVEY SUPPLIED BY AIDEN IN SEPTEMBER 2020; AND
- C4 INFORMATION PROVIDED BY UTILITY COMPANIES, UPDATED TO AUGUST 2020.
NOT ALL SERVICES ARE SHOWN. THE POSITIONS SHOWN ARE INDICATIVE ONLY AND
MAY NOT BE CORRECT. PRIVATE SERVICES SHOULD BE VERIFIED PRIOR TO CONSTRUCTION WORK OR INTRUSIVE INVESTIGATION. CURRENT
ORIGINAL PLANT RECORDS SHOULD BE USED AND NOT THIS INDICATIVE COMBINED
SERVICES PLAN.
2. THIS DRAWING IS NOT INTENDED FOR SETTING-OUT PURPOSES. THE COORDINATE
SYSTEM IS BASED ON THE STATIONS PROVIDED BY EDI SURVEYS LTD AS PART OF
THE TOPOGRAPHICAL SURVEY SUPPLIED IN JULY 2019. CONFIRMING INFORMATION
SHOWN ON THE ENGINEER'S DRAWINGS OR DISCREPANCIES BETWEEN THE INFORMATION
GIVEN BY THE ENGINEER AND THAT PROVIDED BY OTHERS MUST BE REFERRED TO
THE ENGINEER FOR THE WORK.
3. THIS DRAWING IS A COMPOSITE PLAN SHOWING THE UTILITIES AFFECTED BY THE
DIVERSIONS WORKS. THE CONTRACTOR MUST REFER TO FULL C4 PACKAGE ISSUED
BY THE DIVISIONS CONTRACTOR FOR THE EXACT LOCATION OF THE DIVERSIONS.
ALL DIVERSIONS ROUTES ARE INDICATIVE AND NEED TO BE CONFIRMED ON SITE.
4. PRIVATE CONNECTIONS TO UTILITY NETWORK ARE NOT SHOWN ON UTILITY RECORDS
AND THERE IS NO GUARANTEE THESE HAVE BEEN CAPTURED BY THE GPR SURVEY
AND DIVISIONS. THE CONTRACTOR MUST MAKE THE NECESSARY ARRANGEMENTS
TO ENSURE PRIVATE CONNECTIONS ARE IDENTIFIED AND MARKED ON SITE PRIOR
TO COMMENCEMENT OF INTRUSIVE WORKS.
5. THE DRAWING HAS BEEN BASED ON INFORMATION PROVIDED BY OTHER PARTIES AND
DOES NOT WARRANT THE ACCURACY OF THE INFORMATION.
6. ALL WORKS TO BE CARRIED OUT MUST COMPLY WITH HSG47 (THIRD EDITION)
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7. THE CONTRACTOR MUST ENSURE THE PROVISION OF A SAFE SYSTEM OF WORK. THIS
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8. THE CONTRACTOR MUST IDENTIFY AND CONFIRM THE EXISTENCE OF ANY
UNSHARED SERVICES IN THE WORK AREA. SURVEY THE SITE TO IDENTIFY THE SERVICES AND OTHER UNDERGROUND STRUCTURES.
CONTACTOR TO CONTACT UTILITY COMPANIES AND OTHER ORGANISATIONS IF
UNSHARED SERVICES ARE IDENTIFIED.
9. THE CONTRACTOR MUST CONFIRM THE LOCATIONS AND POSITIONS OF ALL EXISTING
UTILITIES THAT ARE PRESENT WITHIN THE SITE EXTENTS PRIOR TO ANY EXCAVATION.
THIS MUST BE DONE USING A SUITABLE DETECTING DEVICE OR LOCATOR. OPERATORS
MUST RECEIVE THOROUGH TRAINING IN ITS USE AND LIMITATIONS AND SHALL USE IT
IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
10. WHEN DOING THE WORK, USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT AND ALLOWED SUFFICIENT
TIME.
11. CHECK THE POSITION AND ROUTE OF THE UTILITIES HAVE BEEN IDENTIFIED.
EXCAVATION WORK MAY PROCEED FOLLOWING SAFE DIGGING PRACTICES, WITH TRIAL HOLES (E.G.
USING SUITABLE HAND TOOLS OR VACUUM EXCAVATION) TO CONFIRM THE POSITION
OF ANY DETECTED SERVICES. SPECIAL CARE MUST BE TAKEN WHEN DIGGING ABOVE
OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY
INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND
INERT GAS TO PROTECT DIGGING NEAR ELECTRIC CABLES.
12. FINAL EXCAVATION TO BE CARRIED OUT BY HORIZONTAL DIGGING, AS THE FORCE
APPLIED TO HAND TOOLS CAN BE CONTROLLED MORE EFFECTIVELY. USE INSULATED
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13. THE CONTRACTOR IS ADVISED TO OPERATE A 'PERMIT TO DIG' SYSTEM WITH
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EXISTING SERVICES.
14. THE CONTRACTOR SHALL AGREE ALL WORKS METHODS AND PROGRAMMING WITH THE
RELEVANT STATUTORY AUTHORITIES PRIOR TO THE START OF THE WORKS.

P01 16/11/2020 BP FIRST ISSUE MSF AKM

REV DATE BY DESCRIPTION CHK APP

DRAWING STATUS: S3 - FOR REVIEW

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wsp.com

CLIENT: GREATER CAMBRIDGE PARTNERSHIP

ARCHITECT:

SITE/PROJECT: MILTON ROAD
DETAILED DESIGNTITLE: UTILITIES AND ACCOMMODATION WORKS
PROPOSED DIVERSIONS
SHEET 03 OF 11SCALE @ A1: 1:250 CHECKED: MSF APPROVED: AKM
PROJECT NO: 70056482 DESIGNED: MSF DRAWN: BP DATE: May 20

DRAWING NO: MILT-WSP-00-XX-DR-UT-002733 REV: P01

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**GREEN ENCASED AREAS FOLLOW hsg47
REGARDING MECHANICAL EXCAVATION =
CAT SCAN, TRIAL HOLE AND THEN IF SAFE
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**RED AREA'S SHOW EXISTING UTILITIES
AND MUST BE EXCAVATED BY VACUUM
EXCAVATION OR HAND EXCAVATION. IN
THESE AREA MECHANICAL EXCAVATION
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EXAMPLE**EXAMPLE**

UTILITIES KEY:	
---	EXTENT OF GPR SURVEY
—	UNDERGROUND STRUCTURE
WATER_DM	WATER – DISTRIBUTION MAIN
WATER_TM	WATER – TRUNK MAIN
●	WATER – HYDRANT
— LV —	ELECTRIC – LOW VOLTAGE SUPPLY
— HV —	ELECTRIC – HIGH VOLTAGE SUPPLY
— GLP —	GAS – LOW PRESSURE
— GMP —	GAS – MEDIUM PRESSURE
— T —	TELECOMMUNICATIONS
— CATV —	CABLE TV
— BT —	BT
— VM —	VIRGIN MEDIA
— CF —	CITYFIBRE
— UN —	UNKNOWN
	GPR ANOMALY

REPRODUCED FROM THE ORDNANCE SURVEY MAP
WITH THE PERMISSION OF THE CONTROLLER OF HER
MAJESTY'S STATIONERY OFFICE. LICENCE NO.
100048755. CROWN COPYRIGHT RESERVED.

UNABLE TO RAISE COVER OR SURVEY FULLY,
ADDITIONAL RUNS/UTILITIES MAY BE PRESENT

(R) – SECTION TRACED FROM RECORDS
UTT – UNABLE TO TRACE
UTS – UNABLE TO SONDE
EOT – END OF TRACE
EOS – END OF SONDE
EUD – EMPTY UTILITY DUCT
TP1 – TRIAL PIT 1

KEY TO HEALTH AND SAFETY SYMBOLS	
●	INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION.
i	INDICATES A RESIDUAL RISK FOR INFORMATION.
🚫	INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION.
⚠	INDICATES A RESIDUAL RISK AS A WARNING.

DO NOT SCALE

DIVERSIONS KEY:

PROPOSED KERBLINE

NEW CABLE/PIPE TO BE PROVIDED

CABLE/PIPE TO BE RE-ALIGNED

CABLE/PIPE TO BE LOWERED

NEW MANHOLE/CHAMBER TO BE PROVIDED

MANHOLE/CHAMBER TO BE RELOCATED

MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED

NOTES:

1. THIS DRAWING IS A COMPOSITE PLAN BASED ON THE FOLLOWING INFORMATION:
- C2 KERBLINES SUPPLIED BY COMBINE LINE PROJECTS LTD IN NOVEMBER 2019;
- GPR SURVEY SUPPLIED BY AIDEN IN SEPTEMBER 2020; AND
- C4 INFORMATION PROVIDED BY UTILITY COMPANIES, UPDATED TO AUGUST 2020.
NOT ALL SERVICES ARE SHOWN. THE POSITIONS SHOWN ARE INDICATIVE ONLY AND
MAY NOT BE CORRECT. PRIVATE SERVICES SHOULD BE VERIFIED PRIOR TO CONSTRUCTION WORK OR INTRUSIVE INVESTIGATION. CURRENT
ORIGINAL PLANT RECORDS SHOULD BE USED AND NOT THIS INDICATIVE COMBINED
SERVICES PLAN.
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GIVEN BY THE ENGINEER AND THAT PROVIDED BY OTHERS MUST BE REFERRED TO
THE ENGINEER FOR THE WORK.
3. THIS DRAWING IS A COMPOSITE PLAN SHOWING THE UTILITIES AFFECTED BY THE
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BY THE DIVISIONS CONTRACTOR FOR THE EXACT LOCATION OF THE DIVERSIONS.
ALL DIVERSIONS ROUTES ARE INDICATIVE AND NEED TO BE CONFIRMED ON SITE.
4. PRIVATE CONNECTIONS TO UTILITY NETWORK ARE NOT SHOWN ON UTILITY RECORDS
AND THERE IS NO GUARANTEE THESE HAVE BEEN CAPTURED BY THE GPR SURVEY
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Drawing Series	Colour Type	Potential Excavation Depth (mm)
LA 003005	Tree Pit	1000
D 000621	Proposed Linear Channel Drain	430
D 000621	Proposed solid & Perforated drainage pipe 100mm & 150mm	1200
D 000621	Combined Kerb Drainage all faces & transitions	510
D 000621	Rain Garden	1000
D 000621	Swale	1200
D 000621	Grass Verge	300
D 000621	Ornamental Plant	600
D 000701	Pavement Type P1 Full Depth Reconstruction	760
CV 001131	FT1 New Footway Construction	235
CV 001131	FT2 Footway Resurface	175
CV 001131	FT3 Cycleway Full Construction	310
CV 001131	FT4 Cycleway Resurface	175
CV 001131	FT5-A Block Paving (Footway)	820
CV 001131	FT5-B Block Paving (Cycleway)	820
CV 001131	FT5-C Block Paving (Ramp)	820
CV 001131	FT6 Block Paving (Hard Landscaping)	480
CV 001131	F17 Permeable Block Paving	480

BE UNDERSTOOD THAT ALL DRAWINGS ARE ISSUED AS
PRELIMINARY AND NOT FOR CONSTRUCTION. SHOULD THE
CONTRACTOR AND / OR EMPLOYER COMMENCE WORK PRIOR TO
APPROVAL BEING GIVEN, IT IS ENTIRELY AT THEIR OWN RISK

0 1:250 12.5 metres

DO NOT SCALE

DIVERSIONS KEY:

- PROPOSED KERLINE
- NEW CABLE/PIPE TO BE PROVIDED
- CABLE/PIPE TO BE RE-ALIGNED
- CABLE/PIPE TO BE LOWERED
- NEW MANHOLE/CHAMBER TO BE PROVIDED
- MANHOLE/CHAMBER TO BE RELOCATED
- MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED

NOTES:

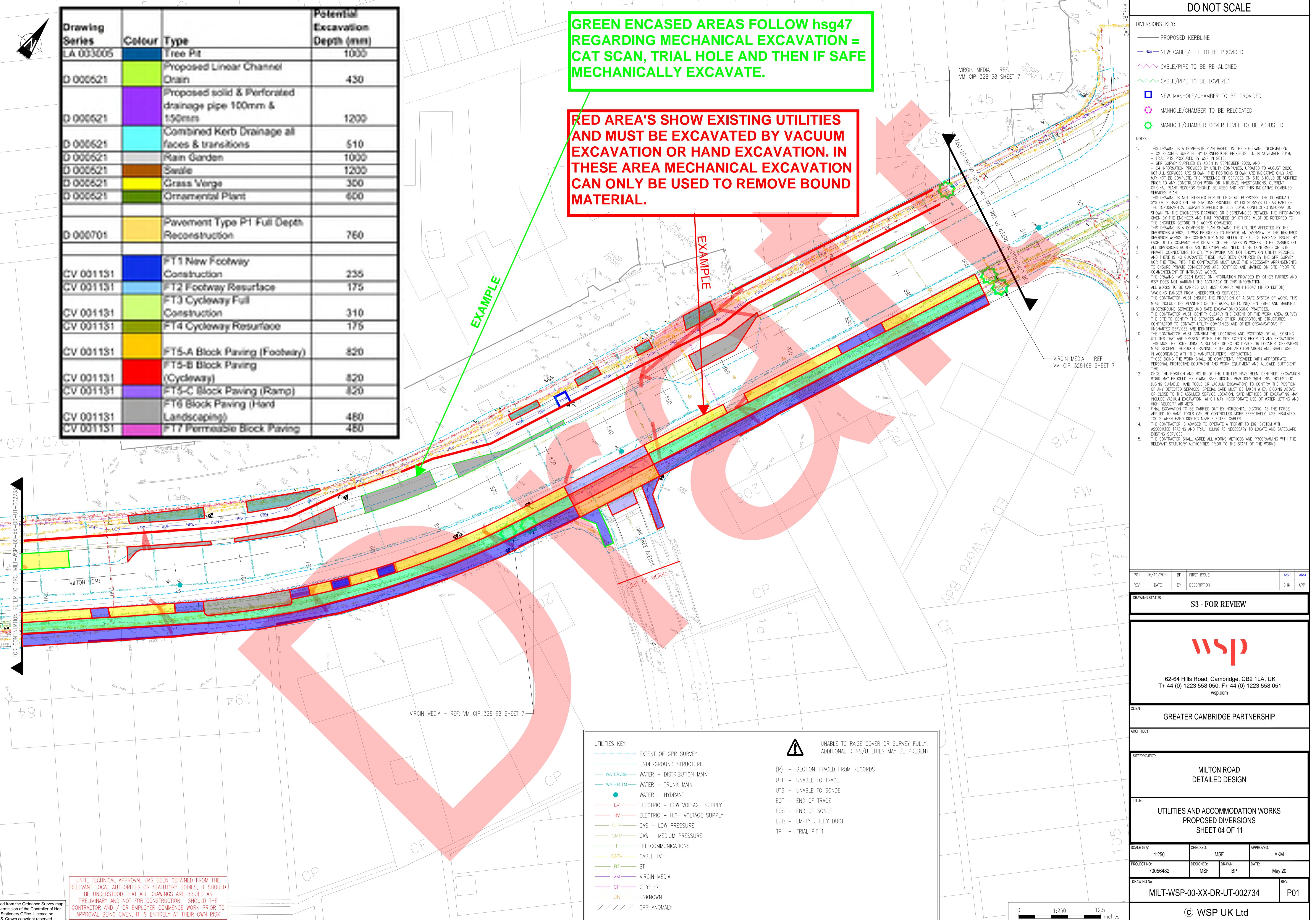
- THIS DRAWING IS A COMPOSITE PLAN BASED ON THE FOLLOWING INFORMATION: C2 RECORDS SUPPLIED BY COMBINED PROJECTS LTD IN NOVEMBER 2019; C3 RECORDS SUPPLIED BY CIVIL ENGINEERS IN 2019; GPR SURVEY SUPPLIED BY AIDEN IN SEPTEMBER 2020; AND C4 INFORMATION PROVIDED BY UTILITY COMPANIES, UPDATED TO AUGUST 2020. NOT ALL SERVICES ARE SHOWN. THE POSITIONS SHOWN ARE INDICATIVE ONLY AND MUST NOT BE USED AS THE POSITION OF SERVICES. SERVICES ON SITE SHOULD BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK OR INTRUSIVE INVESTIGATION. CURRENT ORIGINAL PLANT RECORDS SHOULD BE USED AND NOT THIS INDICATIVE COMBINED SERVICES PLAN.
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- WHEN DOING THE WORK, CONTRACTOR MUST USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT AND WORK EQUIPMENT AND ALLOWED SUFFICIENT TIME.
- MERGE THE POSITION AND ROUTE OF THE UTILITIES HAVE BEEN IDENTIFIED. EXCAVATION WORK MAY PROCEED FOLLOWING SAFE DIGGING PRACTICES, TO CONFIRM THE POSITION OF ANY DETECTED SERVICES, SPECIAL CARE MUST BE TAKEN WHEN DIGGING ABOVE, OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND INSULATED TOOLS FOR DIGGING NEAR ELECTRIC CABLES.
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GREEN ENCASED AREAS FOLLOW hsg47 REGARDING MECHANICAL EXCAVATION = CAT SCAN, TRIAL HOLE AND THEN IF SAFE MECHANICALLY EXCAVATE.

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EXAMPLE

EXAMPLE



DO NOT SCALE

DIVERSIONS KEY:	
PROPOSED KERBLINE	
NEW CABLE/PIPE TO BE PROVIDED	
CABLE/PIPE TO BE RE-ALIGNED	
CABLE/PIPE TO BE LOWERED	
NEW MANHOLE/CHAMBER TO BE PROVIDED	
MANHOLE/CHAMBER TO BE RELOCATED	
MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED	

NOTES:

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THE CONTRACTOR FOR THE DIVERSIONS WORKS AND THE DIVISIONS PLAN FOR THE
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P01 16/11/2020 BP FIRST ISSUE MSF AKM

REV DATE BY DESCRIPTION CHK APP

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wsp.com

CLIENT: GREATER CAMBRIDGE PARTNERSHIP

ARCHITECT:

SITE/PROJECT: MILTON ROAD DETAILED DESIGN

TITLE: UTILITIES AND ACCOMMODATION WORKS PROPOSED DIVERSIONS SHEET 05 OF 11

SCALE @ A1: 1:250 CHECKED: MSF APPROVED: AKM

PROJECT NO: 70056482 DESIGNED: MSF DRAWN: BP DATE: May 20

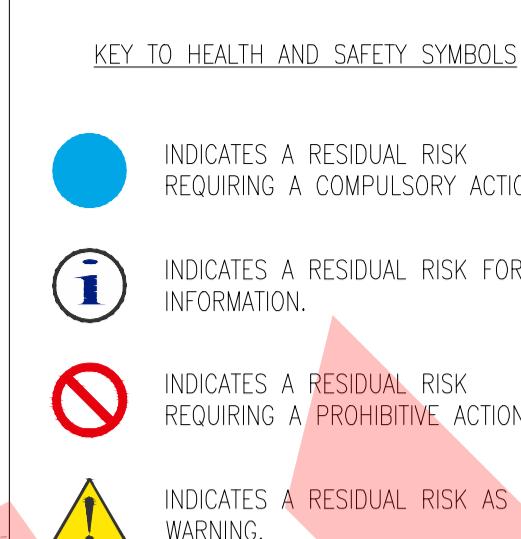
DRAWING NO: MILT-WSP-00-XX-DR-UT-002735 REV: P01

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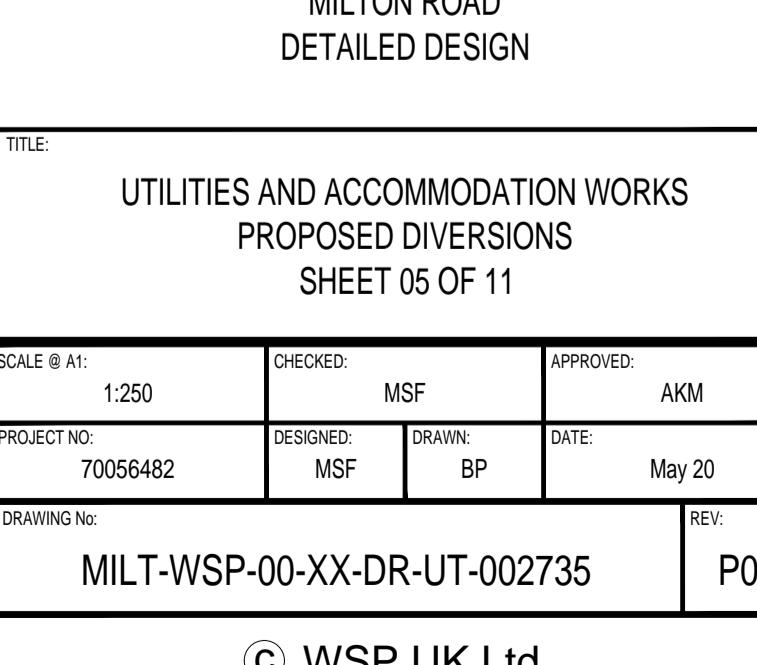
Drawing Series	Colour Type	Potential Excavation Depth (mm)
LA 003005	Tre Pit	1000
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D 000521	Swale	1200
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D 000521	Ornamental Plant	600
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CV 001131	FT5-C Block Paving (Ramp)	820
CV 001131	FT6 Block Paving (Hard Landscaping)	460
CV 001131	FT7 Permeable Block Paving	460

UTILITIES KEY:

- EXTENT OF GPR SURVEY
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- WATER.TM - WATER - TRUNK MAIN
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- BT - BT
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- / / / / / GPR ANOMALY

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EOT - END OF TRACE
EOS - END OF SONDE
EUD - EMPTY UTILITY DUCT
TP1 - TRIAL PIT 1



File name: WSP GROUP COMMERCIAL DATA PROJECTS/70056482-XX/0056482 - MILTON ROAD DETAILED DESIGN 05 OF 11.DWG, printed on 16 November 2020 15:47:28 by Fagiano Mattia

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DO NOT SCALE

PROPOSED KERBLINE
NEW CABLE/PIPE TO BE PROVIDED
CABLE/PIPE TO BE RE-ALIGNED
CABLE/PIPE TO BE LOWERED
NEW MANHOLE/CHAMBER TO BE PROVIDED
MANHOLE/CHAMBER TO BE RELOCATED
MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED

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THE ENGINEER FOR THE WORK.
3. THIS DRAWING IS A COMPOSITE PLAN SHOWING THE UTILITIES AFFECTED BY THE
DIVERSIONS WORKS. IT IS PRODUCED TO PROVIDE AN OVERVIEW OF THE REQUIRED
DIVERSIONS WORKS. THE CONTRACTOR MUST REFER TO FULL C4 PACKAGE ISSUED BY
THE UTILITY COMPANIES FOR THE EXACT LOCATION AND POSITION OF SERVICES TO BE DUG OUT.
4. ALL DIVERSIONS ROUTES ARE INDICATIVE AND NEED TO BE CONFIRMED ON SITE.
5. PRIVATE CONNECTIONS TO UTILITY NETWORKS ARE NOT SHOWN ON UTILITY RECORDS
AND THERE IS NO GUARANTEE THESE HAVE BEEN CAPTURED BY THE GPR SURVEY
TO ENSURE PRIVATE CONNECTIONS ARE IDENTIFIED. MAKE THE NECESSARY ARRANGEMENTS
TO ENSURE PRIVATE CONNECTIONS ARE IDENTIFIED AND MARKED ON SITE PRIOR
TO COMMENCEMENT OF INTRUSIVE WORKS.
6. THE DRAWING HAS BEEN BASED ON INFORMATION PROVIDED BY OTHER PARTIES AND
DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION.
7. ALL WORKS TO BE CARRIED OUT MUST COMPLY WITH HSG47 (THIRD EDITION)
AVOIDING DANGER FROM UNDERGROUND SERVICES.
8. THE CONTRACTOR MUST ENSURE THE PROVISION OF A SAFE SYSTEM OF WORK. THIS
MUST INCLUDE THE PLANNING OF THE WORK, DETECTING/IDENTIFYING AND MARKING
UNDERGROUND SERVICES AND SAFE EXCAVATION/DIGGING PRACTICES.
9. UNCONTRACTED WORKS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SURVEY
THE SITE TO IDENTIFY THE SERVICES AND OTHER UNDERGROUND STRUCTURES.
CONTRACTOR TO CONTACT UTILITY COMPANIES AND OTHER ORGANISATIONS IF
UNHEARTHTED SERVICES ARE IDENTIFIED.
10. CONTRACTOR TO CHECK THE LOCATIONS AND POSITIONS OF ALL EXISTING
UTILITIES THAT ARE PRESENT WITHIN THE SITE EXTENTS PRIOR TO ANY EXCAVATION.
THIS MUST BE DONE USING A SUITABLE DETECTING DEVICE OR LOCATOR. OPERATORS
MUST RECEIVE THOROUGH TRAINING IN ITS USE AND LIMITATIONS AND SHALL USE IT
IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
11. WHEN DOING THE WORK, CONTRACTOR TO USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT AND WORK EQUIPMENT AND ALLOWED SUFFICIENT
TIME.
12. IF THE POSITION AND ROUTE OF THE UTILITIES HAVE BEEN IDENTIFIED, EXCAVATION
WORK MAY PROCEED FOLLOWING SAFE DIGGING PRACTICES, WITH TRIAL HOLES (E.G.
USING SUITABLE HAND TOOLS OR VACUUM EXCAVATION) TO CONFIRM THE POSITION
OF ANY DETECTED SERVICES. SPECIAL CARE MUST BE TAKEN WHEN DIGGING ABOVE
OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY
INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND
INFLATABLE HYDRAULIC AIR BAGS.
13. FINAL EXCAVATION TO BE CARRIED OUT BY HORIZONTAL DIGGING, AS THE FORCE
APPLIED TO HAND TOOLS CAN BE CONTROLLED MORE EFFECTIVELY. USE INSULATED
TOOLS FOR DIGGING NEAR ELECTRIC CABLES.
14. CONTRACTOR TO ADVISED TO OPERATE A 'PERMIT TO DIG' SYSTEM WITH
ASSOCIATED TRACING AND TRIAL HAVING AS NECESSARY TO LOCATE AND SAFEGUARD
EXISTING SERVICES.
15. THE CONTRACTOR SHALL AGREE ALL WORK METHODS AND PROGRAMMING WITH THE
RELEVANT STATUTORY AUTHORITIES PRIOR TO THE START OF THE WORKS.

P01 16/11/2020 BP FIRST ISSUE MSF AKM
REV DATE BY DESCRIPTION CHK APP

DRAWING STATUS: S3 - FOR REVIEW

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wsp.com

CLIENT: GREATER CAMBRIDGE PARTNERSHIP

ARCHITECT:

SITE/PROJECT: MILTON ROAD
DETAILED DESIGN

TITLE: UTILITIES AND ACCOMMODATION WORKS
PROPOSED DIVERSIONS
SHEET 06 OF 11

SCALE @ A1: 1:250 CHECKED: MSF APPROVED: AKM
PROJECT NO: PRN DESIGNED: MSF DRAWN: BP DATE: May 20

DRAWING NO: MILT-WSP-00-XX-DR-UT-002736 REV: P01

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Milton Arms (PH)

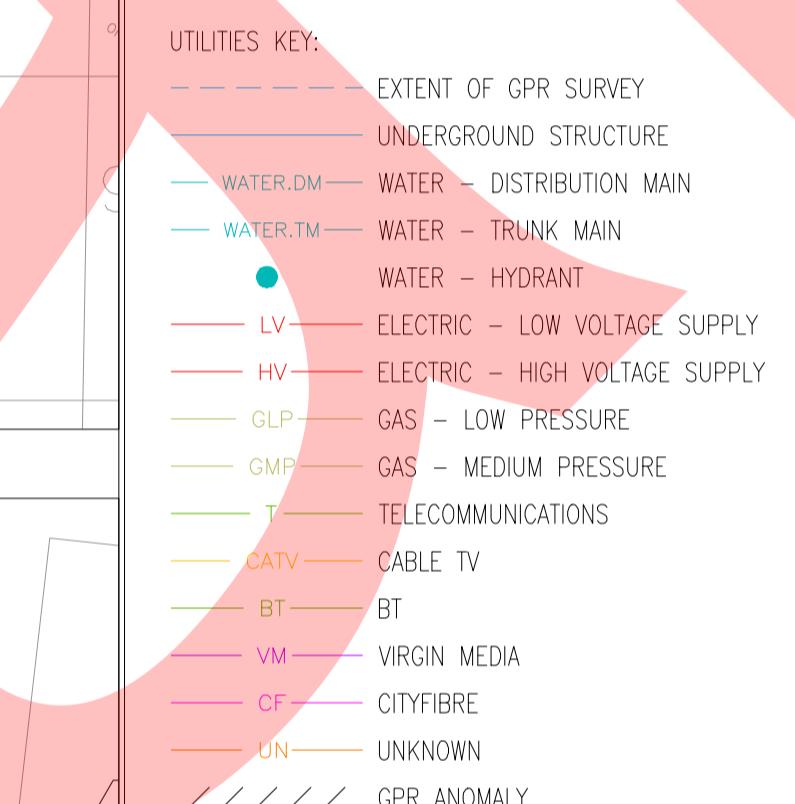
VIRGIN MEDIA - REF: VM_CIP_328168 SHEET 10

VIRGIN MEDIA - REF: VM_CIP_328168 SHEET 9

EXAMPLE
GREEN ENCASED AREAS FOLLOW hsg47
REGARDING MECHANICAL EXCAVATION =
CAT SCAN, TRIAL HOLE AND THEN IF SAFE
MECHANICALLY EXCAVATE.

EXAMPLE
RED AREA'S SHOW EXISTING UTILITIES
AND MUST BE EXCAVATED BY VACUUM
EXCAVATION OR HAND EXCAVATION. IN
THESE AREA MECHANICAL EXCAVATION
CAN ONLY BE USED TO REMOVE BOUND
MATERIAL.

Drawing Series	Colour	Type	Potential Excavation Depth (mm)
LA 003005	Tree Pit	Proposed Linear Channel Drain	1000
D 000521	Proposed solid & Perforated drainage pipe 100mm & 150mm	430	
D 000521	Combined Kerb Drainage all faces & transitions	1200	
D 000521	Rain Garden	510	
D 000521	Swale	1000	
D 000521	Grass Verge	300	
D 000521	Ornamental Plant	600	
D 000701	Pavement Type P1 Full Depth Reconstruction	760	
CV 001131	FT1 New Footway Construction	235	
CV 001131	FT2 Footway Resurface	175	
CV 001131	FT3 Cycleway Full Construction	310	
CV 001131	FT4 Cycleway Resurface	175	
CV 001131	FT5-A Block Paving (Footway)	820	
CV 001131	FT5-B Block Paving (Cycleway)	820	
CV 001131	FT5-C Block Paving (Ramp)	820	
CV 001131	FT6 Block Paving (Hard Landscaping)	480	
CV 001131	FT7 Permeable Block Paving	480	



UNABLE TO RAISE COVER OR SURVEY FULLY,
ADDITIONAL RUNS/UTILITIES MAY BE PRESENT

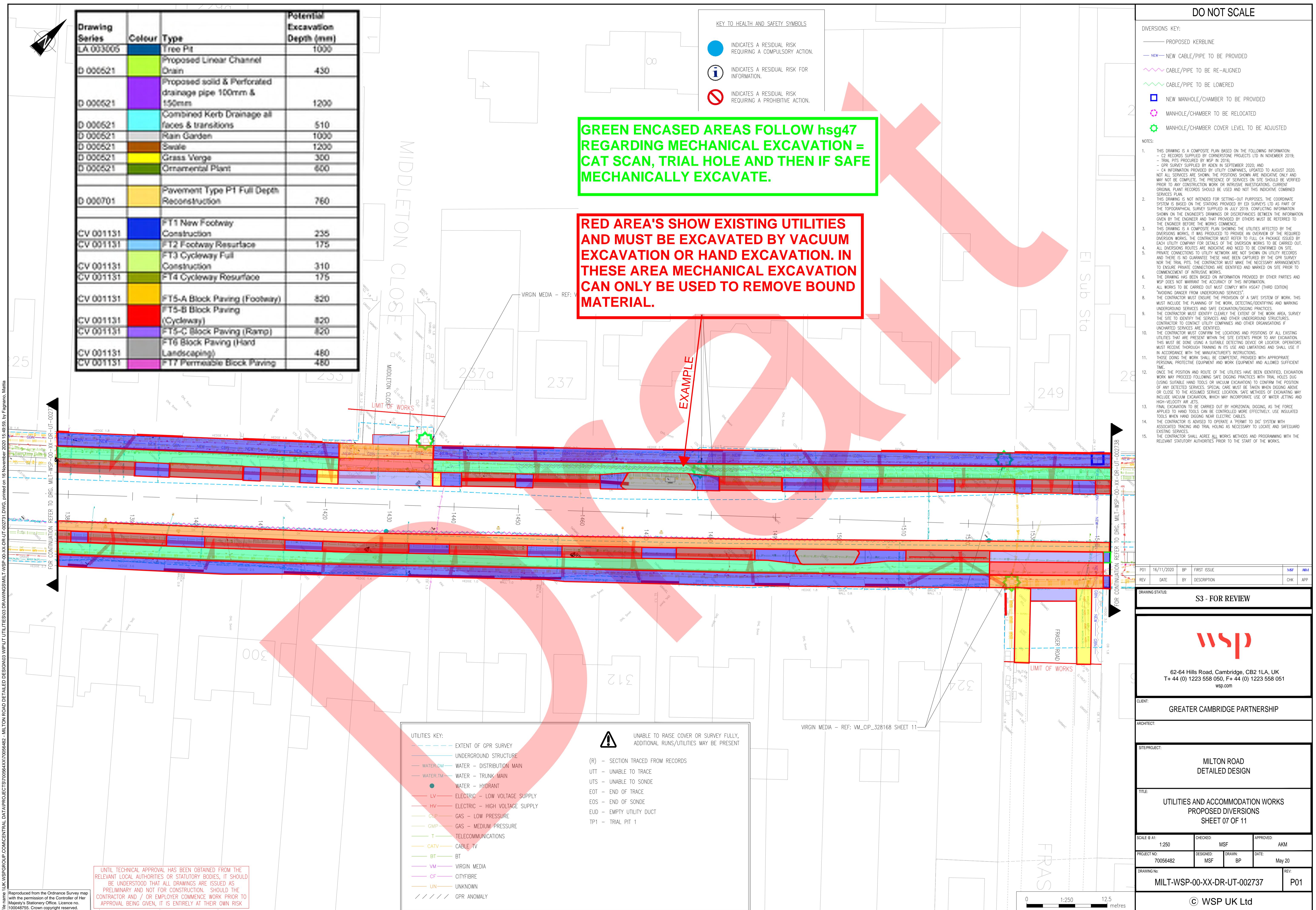
(R) - SECTION TRACED FROM RECORDS
UTT - UNABLE TO TRACE
UTS - UNABLE TO SONDE
EOT - END OF TRACE
EOS - END OF SONDE
EUD - EMPTY UTILITY DUCT
TP1 - TRIAL PIT 1

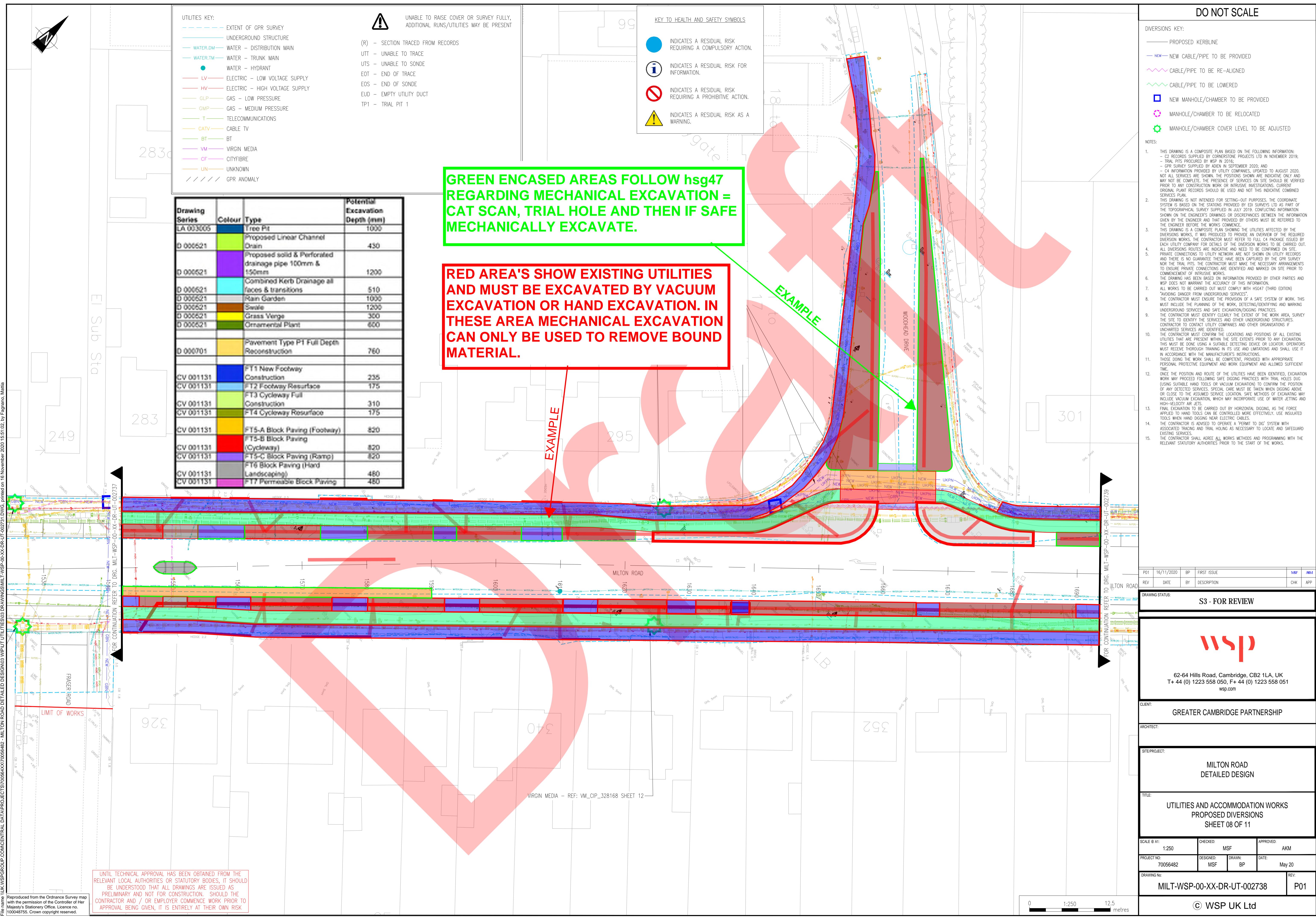
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DO NOT SCALE

DIVERSIONS KEY:

- PROPOSED KERBLINE
- NEW CABLE/PIPE TO BE PROVIDED
- CABLE/PIPE TO BE RE-ALIGNED
- CABLE/PIPE TO BE LOWERED
- NEW MANHOLE/CHAMBER TO BE PROVIDED
- MANHOLE/CHAMBER TO BE RELOCATED
- MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED

NOTES:

- THIS DRAWING IS A COMPOSITE PLAN BASED ON THE FOLLOWING INFORMATION: - C2 SERVICES SUPPLIED BY CONCRETE PIPE PROJECTS LTD IN NOVEMBER 2019; - GPR SURVEY PROVIDED BY EDI SURVEYS LTD IN 2019;
- GPR SURVEY PROVIDED BY AIDEN IN SEPTEMBER 2020; AND - C4 INFORMATION PROVIDED BY UTILITY COMPANIES, UPDATED TO AUGUST 2020. NOT ALL SERVICES ARE SHOWN. THE POSITIONS SHOWN ARE INDICATIVE ONLY AND DO NOT REPLACE THE OFFICIAL SERVICE LOCATIONS WHICH SHOULD BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK OR INTRUSIVE INVESTIGATION. CURRENT ORIGINAL PLANT RECORDS SHOULD BE USED AND NOT THIS INDICATIVE COMBINED SERVICES PLAN.
- THIS DRAWING IS NOT INTENDED FOR SETTING-OUT PURPOSES. THE COORDINATE SYSTEM IS BASED ON THE STATIONS PROVIDED BY EDI SURVEYS LTD AS PART OF THE TOPOGRAPHICAL SURVEY SUPPLIED IN JULY 2019. CONFIRMING INFORMATION SHOWN ON THE ENGINEER'S DRAWINGS OR DISCREPANCIES BETWEEN THE INFORMATION GIVEN BY THE ENGINEER AND THAT PROVIDED BY OTHERS MUST BE REFERRED TO THE ENGINEER FOR THE WORK.
- THIS DRAWING IS A COMPOSITE PLAN SHOWING THE UTILITIES AFFECTED BY THE DIVERSIONS WORKS. THE CONTRACTOR MUST REFER TO FULL C4 PACKAGE ISSUED BY THE DIVISIONS CONTRACTOR FOR THE DIVERSIONS WORKS AND NOT THIS DRAWING OUT.
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- WHEN DOING THE WORK CONTRACTOR MUST USE APPROPRIATE PERSONAL PROTECTION EQUIPMENT AND WORK EQUIPMENT AND ALLOWED SUFFICIENT TIME.
- IF THE POSITION AND ROUTE OF THE UTILITIES HAVE BEEN IDENTIFIED, EXCAVATION WORK MAY PROCEED FOLLOWING SAFE DIGGING PRACTICES, WITH TRIAL HOLES (USING SUITABLE HAND TOOLS OR VACUUM EXCAVATION) TO CONFIRM THE POSITION OF ANY DETECTED SERVICES. SPECIAL CARE MUST BE TAKEN WHEN DIGGING ABOVE OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND AIR CANNONS FOR DIGGING NEAR ELECTRIC CABLES.
- FINAL EXCAVATION TO BE CARRIED OUT BY HORIZONTAL DIGGING, AS THE FORCE APPLIED TO HAND TOOLS CAN BE CONTROLLED MORE EFFECTIVELY. USE INSULATED TOOLS FOR DIGGING NEAR ELECTRIC CABLES.
- THE CONTRACTOR IS ADVISED TO OPERATE A PERMIT TO DIG SYSTEM WITH ASSOCIATED TRAINING AND TRIAL HOGGING AS NECESSARY TO LOCATE AND SAFEGUARD EXISTING SERVICES.
- THE CONTRACTOR SHALL AGREE ALL WORKS METHODS AND PROGRAMMING WITH THE RELEVANT STATUTORY AUTHORITIES PRIOR TO THE START OF THE WORKS.

P01 16/11/2020 BP FIRST ISSUE MSF AKM
REV DATE BY DESCRIPTION CHK APP

DRAWING STATUS: S3 - FOR REVIEW

wsp
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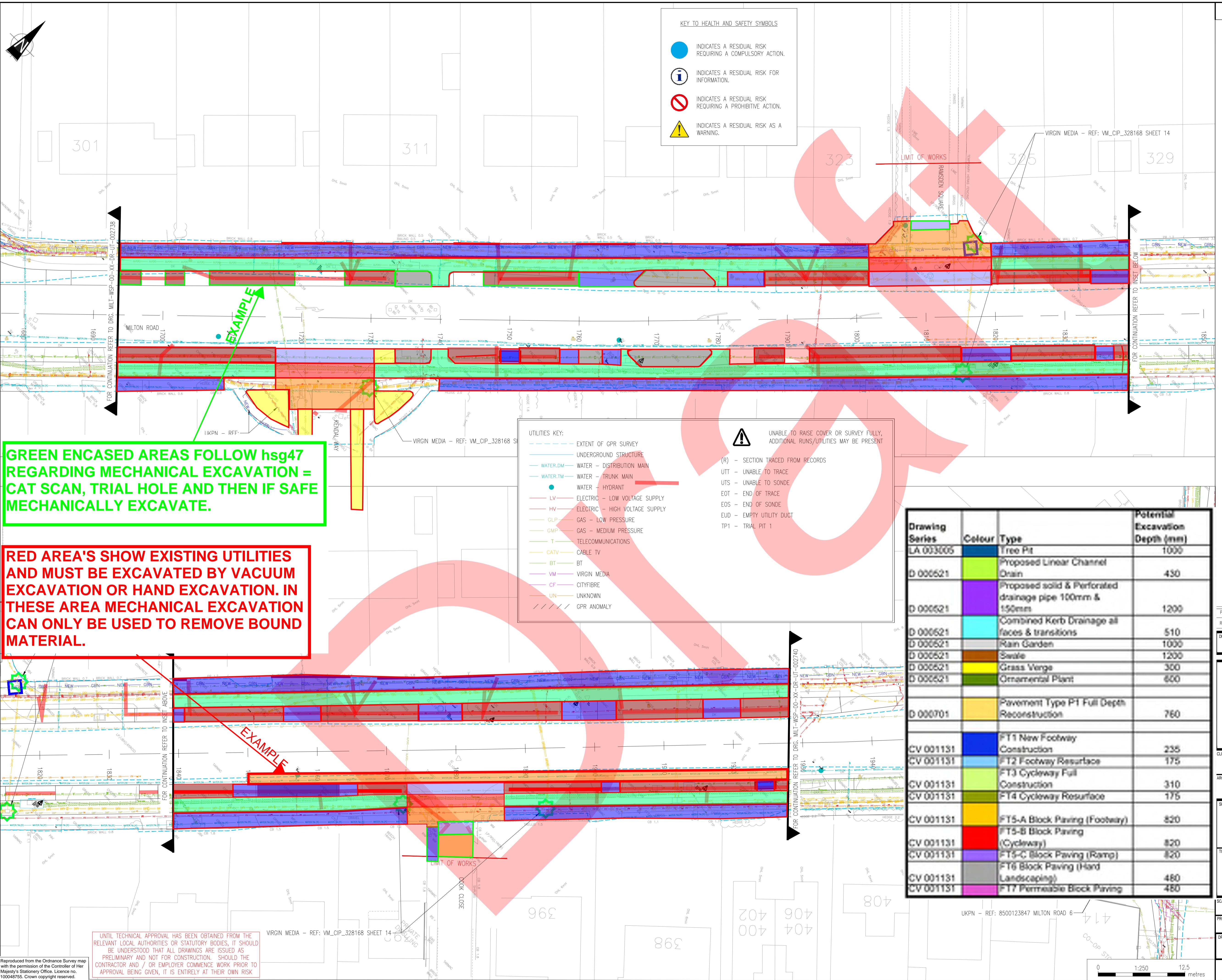
CLIENT: GREATER CAMBRIDGE PARTNERSHIP

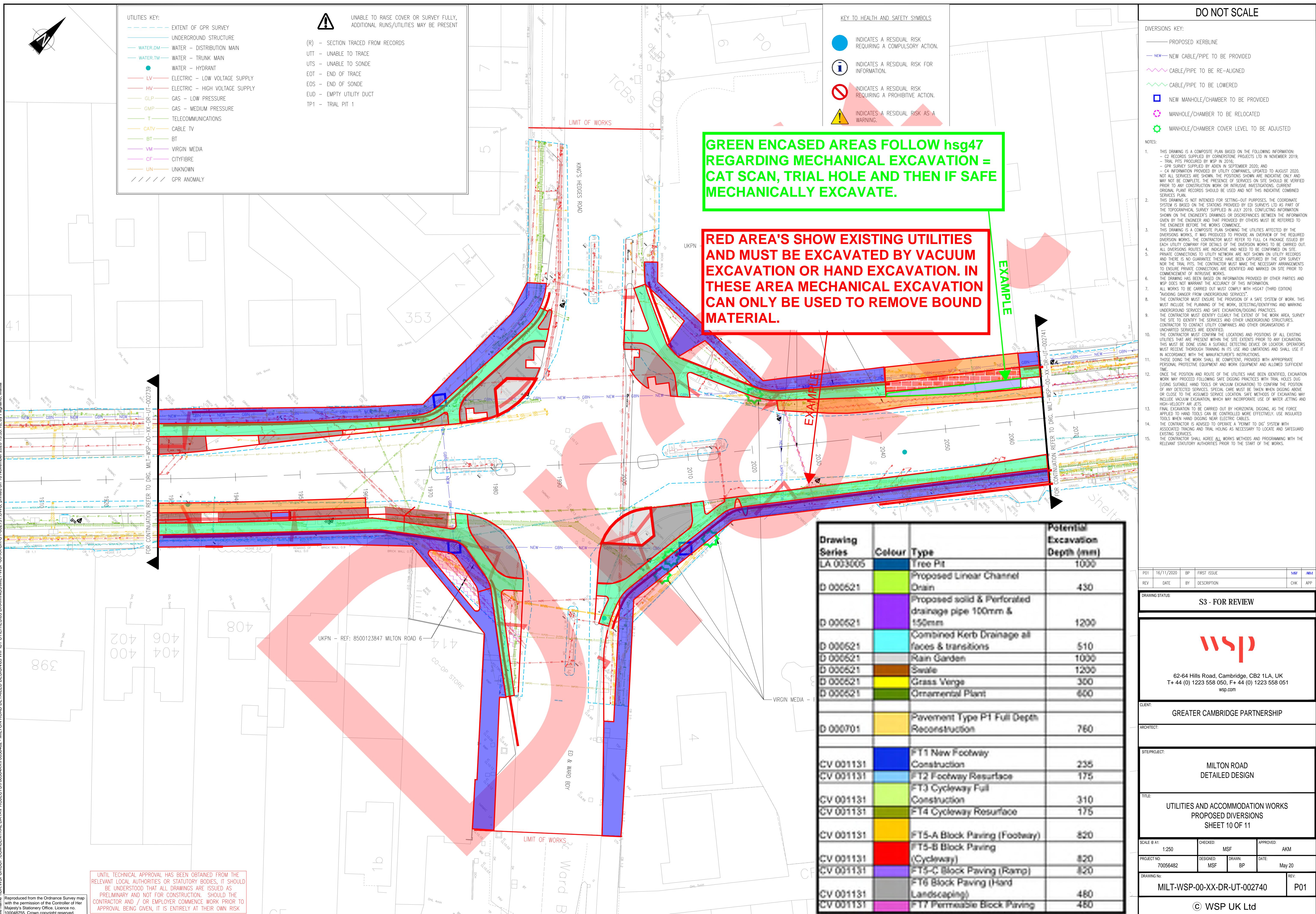
SITE/PROJECT: MILTON ROAD
DETAILED DESIGN

TITLE: UTILITIES AND ACCOMMODATION WORKS
PROPOSED DIVERSIONS
SHEET 09 OF 11

SCALE @ A1:	1:250	CHECKED:	MSF	APPROVED:	AKM
PROJECT NO:	70056482	DESIGNED:	MSF	DRAWN:	BP
DRAWING NO:	MILT-WSP-00-XX-DR-UT-002739	DATE:	May 20		
REV:	P01				

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**GREEN ENCASED AREAS FOLLOW hsg47
REGARDING MECHANICAL EXCAVATION =
CAT SCAN, TRIAL HOLE AND THEN IF SAFE
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DO NOT SCALE

- DIVERSIONS KEY:
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 - ◆ MANHOLE/CHAMBER COVER LEVEL TO BE ADJUSTED

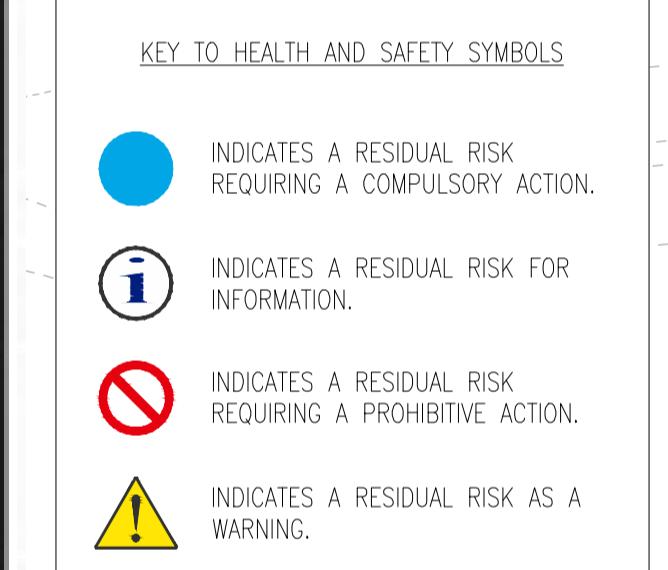
NOTES:

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4. THE DRAWING HAS BEEN BASED ON INFORMATION PROVIDED BY OTHER PARTIES AND
DOES NOT WARRANT THE ACCURACY OF THE INFORMATION.
5. CONTRACTORS MUST CARRY OUT DUE DILIGENCE AND TAKE APPROPRIATE
SAFETY MEASURES TO AVOID DANGER FROM UNDERGROUND SERVICES.
6. THE CONTRACTOR MUST ENSURE THE PROVISION OF A SAFE SYSTEM OF WORK,
WHICH MUST INCLUDE THE PLANNING OF THE WORK, IDENTIFICATION AND MARKING
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7. CONTRACTORS MUST MAKE ARRANGEMENTS WITH THE LOCAL UTILITY COMPANIES
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OR CLOSE TO THE ASSUMED SERVICE LOCATION. SAFE METHODS OF EXCAVATING MAY
INCLUDE VACUUM EXCAVATION, WHICH MAY INCORPORATE USE OF WATER JETTING AND
INERT GAS.
11. CONTRACTORS MUST ENSURE THAT THE WORK IS CONDUCTED IN A MANNER THAT IS
SAFE FOR ALL WORKERS AND THAT NO WORKERS ARE EXPOSED TO RISKS ARISING
FROM EXCAVATION WORK.
12. CONTRACTORS MUST ENSURE THAT THE POSITION AND PROFILE OF THE UTILITIES HAVE BEEN IDENTIFIED.
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14. CONTRACTOR IS ADVISED TO OPERATE A 'PERMIT TO DIG' SYSTEM WITH
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**RED AREA'S SHOW EXISTING UTILITIES
AND MUST BE EXCAVATED BY VACUUM
EXCAVATION OR HAND EXCAVATION. IN
THESE AREA MECHANICAL EXCAVATION
CAN ONLY BE USED TO REMOVE BOUND
MATERIAL.**

EXAMPLE

Drawing Series	Colour Type	Potential Excavation Depth (mm)
LA 003005	Tre Pit	1000
D 000621	Proposed Linear Channel Chain	430
D 000621	Proposed solid & Perforated drainage pipe 100mm & 150mm	1200
D 000621	Combined Kerb Drainage all faces & transitions	510
D 000621	Rain Garden	1000
D 000621	Santle	1200
D 000621	Grass Verge	300
D 000621	Ornamental Plant	600
D 000701	Pavement Type P1 Full Depth Reconstruction	760
CV 001131	FT1 New Footway Construction	235
CV 001131	FT2 Footway Resurface	175
CV 001131	FT3 Cycleway Full Construction	310
CV 001131	FT4 Cycleway Resurface	175
CV 001131	FT5-A Block Paving (Footway)	820
CV 001131	FT5-B Block Paving (Cycleway)	820
CV 001131	FT5-C Block Paving (Ramp)	820
CV 001131	FT6 Block Paving (Hard Landscaping)	480
CV 001131	FT7 Permeable Block Paving	480



P01	16/11/2020	BP	FIRST ISSUE	MSF	AKM
REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: S3 - FOR REVIEW					
 62-64 Hills Road, Cambridge, CB2 1LA, UK T+ 44 (0) 1223 558 050, F+ 44 (0) 1223 558 051 wsp.com					
CLIENT: GREATER CAMBRIDGE PARTNERSHIP					
ARCHITECT:					
SITE/PROJECT: MILTON ROAD DETAILED DESIGN					
TITLE: UTILITIES AND ACCOMMODATION WORKS PROPOSED DIVERSIONS SHEET 11 OF 11					
SCALE @ A1:	1:250	CHECKED:	MSF	APPROVED:	AKM
PROJECT NO:	70056482	DESIGNED:	MSF	DRAWN:	BP
DRAWING NO:	MILT-WSP-00-XX-DR-UT-002741	DATE:	May 20		
REV:	P01				
					

Dencora Business Centre

UNTIL TECHNICAL APPROVAL HAS BEEN OBTAINED FROM THE
RELEVANT LOCAL AUTHORITIES OR STATUTORY BODIES, IT SHOULD
BE UNDERSTOOD THAT ALL DRAWINGS ARE ISSUED AS
PRELIMINARY AND NOT FOR CONSTRUCTION. SHOULD THE
CONTRACTOR AND / OR EMPLOYER COMMENCE WORK PRIOR TO
APPROVAL BEING GIVEN, IT IS ENTIRELY AT THEIR OWN RISK

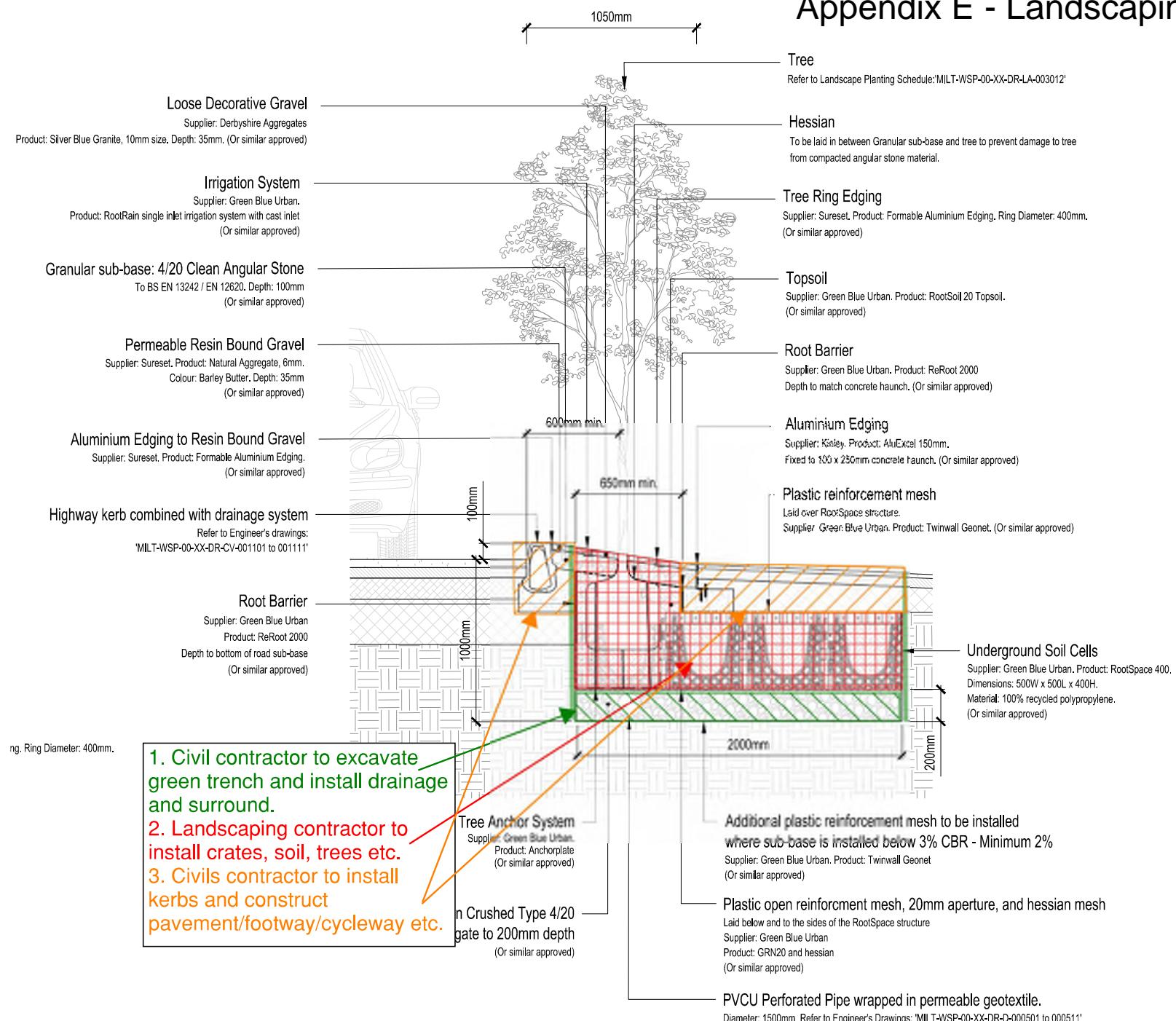
Appendix D - Utility Scope Split

Milton Road Utility Diversions												
Utility Provider	Utility Ref	Works Location	Start Chainage	End Chainage	Drawing Ref	Work Scope	Milestone Appointed Civils Contractor	Utility Appointed Civils Contractor	Approximate Milestone Estimate Civils Work Duration (Days)	Approximate Utility Diversion Duration (Days)	Maximum Lead In Time (Weeks)	Comments/Calculations
Virgin Media	WP 1	East	20	23	MILT-WSP-00-XX-DR-UT-002731 PO1	Lower Sid duct for 3m.	Y	Y	0.5	0.5	12	Milestone to excavate trench and backfill. Virgin Media to then move ducts
Virgin Media	WP 2	West	5	5	MILT-WSP-00-XX-DR-UT-002731 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 3	West	60	60	MILT-WSP-00-XX-DR-UT-002731 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 4	West	75	75	MILT-WSP-00-XX-DR-UT-002731 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 5	East	150	150	MILT-WSP-00-XX-DR-UT-002731 PO1	Adjust height of FW2 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 6	East	185	185	MILT-WSP-00-XX-DR-UT-002731 PO1	Adjust height of FW2 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 7	West	185	185	MILT-WSP-00-XX-DR-UT-002731 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 8	East	190	280	MILT-WSP-00-XX-DR-UT-002731 PO1	Lower cabled duct in footway to beneath cycleway construction for 90m	Y	Y	6	3	12	
Virgin Media	WP 9	West	270	320	MILT-WSP-00-XX-DR-UT-002732 PO1	Slew cabled duct in footway for 50m	Y	Y	3	2	12	
Virgin Media	WP 10	East	360	360	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW2 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 11	West	310	310	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 12	East	355	355	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 13	East	360	360	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 14	West	350	350	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 15	West	390	440	MILT-WSP-00-XX-DR-UT-002732 PO1	Slew cabled duct in footway for 50m. Demolish and rebuild FW6 chamber in footway. Adjust height of FW3 chamber	Y	Y	3	2.5	12	
Virgin Media	WP 16	East	430	430	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 17	West	550	550	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 18	West	550	550	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 19	West	570	570	MILT-WSP-00-XX-DR-UT-002732 PO1	Adjust height of chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 20	East	570	570	MILT-WSP-00-XX-DR-UT-002733 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 21	West	650	650	MILT-WSP-00-XX-DR-UT-002734 PO1	Demolish and rebuild FW3 in foorway out of kerbline	N	Y	N/A	0.5	12	
Virgin Media	WP 22	East	820	820	MILT-WSP-00-XX-DR-UT-002734 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 23	East	820	820	MILT-WSP-00-XX-DR-UT-002734 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 24	East	900	900	MILT-WSP-00-XX-DR-UT-002734 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 25	East	900	900	MILT-WSP-00-XX-DR-UT-002734 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 26	West	900	900	MILT-WSP-00-XX-DR-UT-002734 PO1	Adjust height of chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 27	West	940	940	MILT-WSP-00-XX-DR-UT-00275 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 28	West	1110	1145	MILT-WSP-00-XX-DR-UT-002736 PO1	Slew cabled duct in footway for 35m	Y	Y	2.5	1	12	
Virgin Media	WP 29	West	1145	1145	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 30	West	1100	1100	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 31	East	1100	1100	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 32	West	1110	1110	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 33	West	1210	1210	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW2 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 34	East	1245	1245	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 35	East	1220	1220	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 36	West	1220	1220	MILT-WSP-00-XX-DR-UT-002736 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 37	West	1450	1500	MILT-WSP-00-XX-DR-UT-002737 PO1	Lower cabled duct in footway for 50m. Demolish and rebuild FW3 chamber.	Y	Y	3	0.5	12	10m3. Milestone civils duration based on experience at Histon Rd
Virgin Media	WP 38	East	1525	1525	MILT-WSP-00-XX-DR-UT-002737 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	

Milton Road Utility Diversions												
Utility Provider	Utility Ref	Works Location	Start Chainage	End Chainage	Drawing Ref	Work Scope	Milestone Appointed Civils Contractor	Utility Appointed Civils Contractor	Approximate Milestone Estimate Civils Work Duration (Days)	Approximate Utility Diversion Duration (Days)	Maximum Lead In Time (Weeks)	Comments/Calculations
Virgin Media	WP 39	West	1525	1525	MILT-WSP-00-XX-DR-UT-002737 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 40	West	1625	1625	MILT-WSP-00-XX-DR-UT-002738 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 41	East	1625	1625	MILT-WSP-00-XX-DR-UT-002738 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 42	East	1730	1730	MILT-WSP-00-XX-DR-UT-002739 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 43	East	1815	1815	MILT-WSP-00-XX-DR-UT-002739 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 44	West	1815	1815	MILT-WSP-00-XX-DR-UT-002739 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 45	East	1870	1870	MILT-WSP-00-XX-DR-UT-002739 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 46	East	1890	1890	MILT-WSP-00-XX-DR-UT-002740 PO1	Adjust height of FW3 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 48	East	2005	2005	MILT-WSP-00-XX-DR-UT-002740 PO1	Adjust height of FW8 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 49	East	2005	2005	MILT-WSP-00-XX-DR-UT-002740 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 50	East	2005	2005	MILT-WSP-00-XX-DR-UT-002740 PO1	Adjust height of FW8 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 51	West	2020	2020	MILT-WSP-00-XX-DR-UT-002741 PO1	Adjust height of chamber frame and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 52	East	2100	2100	MILT-WSP-00-XX-DR-UT-002741 PO1	Adjust height of FW8 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 53	West	2100	2100	MILT-WSP-00-XX-DR-UT-002741 PO1	Adjust height of FW6 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 54	West	2100	2100	MILT-WSP-00-XX-DR-UT-002741 PO1	Adjust height of FW4 chamber and cover	N	Y	N/A	0.5	12	
Virgin Media	WP 55	West	2100	2150	MILT-WSP-00-XX-DR-UT-002741 PO1	Lower cabled duct in footway for 50m. Demolish and rebuild FW6 chamber.	Y	Y	2.5	2.5	12	
Virgin Media	WP 56	East	2140	2200	MILT-WSP-00-XX-DR-UT-002741 PO1	Lower cabled duct in footway for 50m. Demolish and rebuild FW3 chamber.	Y	Y	2.5	2.5	12	
UKPN	UKPN 1	Road Crossing	1540	1540	MILT-WSP-00-XX-DR-UT-002738 PO1	3 x LV and 1 HV Diversion.	Y	Y	4	6	12	
UKPN	UKPN 2	West	1640	1680	MILT-WSP-00-XX-DR-UT-002738 PO1	1 x LV 3 x HV 1 x Pilot Cable	Y	Y	7	7	12	
UKPN	UKPN 3	East	1715	1715	MILT-WSP-00-XX-DR-UT-002739 PO1	1 x LV	Y	Y	1	2	12	
UKPN	UKPN 4	East	1965	1965	MILT-WSP-00-XX-DR-UT-002739 PO1	2 x LV 1 x HV 1 x Pilot Cable	Y	Y	2	7	12	
UKPN	UKPN 5	Road Crossing	2025	2025	MILT-WSP-00-XX-DR-UT-002740 PO1	WSP Show HV UKPN Say LV?	Y	Y	2	3	12	
UKPN	UKPN 6	West	2025	2130	MILT-WSP-00-XX-DR-UT-002740 PO1	WSP Show HV UKPN Say LV?	Y	Y	10	11	12	
UKPN	UKPN 7	West	2110		MILT-WSP-00-XX-DR-UT-002741 PO1	7 x HV 1 x LV	Y	Y	Confirmation needed from WSP	15	12	
Cadent Gas	Cadent 1	West	0	60	MILT-WSP-00-XX-DR-UT-002731 PO1	Abandon 12" CL MP Main and divert 355mm PE LP into carriageway to facilitate kerb realignment. Relay 7no services	N	Y	0	26	12	
Cadent Gas	Cadent 2	West	395	465	MILT-WSP-00-XX-DR-UT-002732 PO1	Abandon 12" CL MP Main and divert 355mm PE LP into carriageway to facilitate kerb realignment. Relay 3no services	N	Y	0	26	12	
Cadent Gas	Cadent 3	West	550	625	MILT-WSP-00-XX-DR-UT-002732 PO1	Abandon 12" CL MP Main and divert 355mm PE LP into carriageway to facilitate kerb realignment. Relay 3no services	N	Y	0	26	12	
Verizon	Verizon 1	West	45	45	MILT-WSP-00-XX-DR-UT-002731 PO1	Build FW2 on Existing Route	N	Y	Assume 25m/day		12	
Verizon	Verizon 2	West	45	105	MILT-WSP-00-XX-DR-UT-002731 PO1	Lay 2way Duct for 60m	N	Y	Assume 25m/day		12	
Verizon	Verizon 3	West	100	100	MILT-WSP-00-XX-DR-UT-002731 PO1	Build CW2 on Existing Route	N	Y	Assume 25m/day		12	
Verizon	Verizon 4	West	170	170	MILT-WSP-00-XX-DR-UT-002731 PO1	Build FW2 on Existing Route	N	Y	Assume 25m/day		12	
Verizon	Verizon 5	West	170	220	MILT-WSP-00-XX-DR-UT-002731 PO1	Lay 2way Duct for 50m	N	Y	Assume 25m/day		12	
Verizon	Verizon 6	West	215	215	MILT-WSP-00-XX-DR-UT-002731 PO1	Core drill existing FW2 for 2way at each end	N	Y	Assume 25m/day		12	
Verizon	Verizon 7	West	215	275	MILT-WSP-00-XX-DR-UT-002731 PO1	Build FW2 on Existing Route	N	Y	Assume 25m/day		12	
Verizon	Verizon 8	West	275	360	MILT-WSP-00-XX-DR-UT-002732 PO1	Lay 2way Duct for 90m	N	Y	Assume 25m/day		12	
Verizon	Verizon 9	West	400	400	MILT-WSP-00-XX-DR-UT-002732 PO1	Build FW2 on Existing Route	N	Y	Assume 25m/day		12	
Verizon	Verizon 10	West	400	480	MILT-WSP-00-XX-DR-UT-002732 PO1	Lay 2way Duct for 80m	N	Y	Assume 25m/day		12	

Milton Road Utility Diversions

Utility Provider	Utility Ref	Works Location	Start Chainage	End Chainage	Drawing Ref	Work Scope	Milestone Appointed Civils Contractor	Utility Appointed Civils Contractor	Approximate Milestone Estimate Civils Work Duration (Days)	Approximate Utility Diversion Duration (Days)	Maximum Lead In Time (Weeks)	Comments/Calculations
Verizon	Verizon 11	West	465	465	MILT-WSP-00-XX-DR-U1-002732 PO1	Build FW2 on Existing Route	N	Y	Assume 25m/day		12	
GBN	GBN 1	West	10	75		Lay 2 x 96mm duct for 65m.	Y	Y	Assume 25m/day		12	
GBN	GBN 2	West	75	75		Build FW4. Lay 2no poke out ducts for Westbrooke Drive	Y	Y	Assume 25m/day		12	
GBN	GBN 3	West	75	190		Lay 2 x 96mm duct	Y	Y	Assume 25m/day		12	
GBN	GBN 4	West	190	190		Build FW4 on Southern Side of Gilbert Rd. Lay 2no poke out ducts for Gilbert Rd	Y	Y	Assume 25m/day		12	
GBN	GBN 5	West	190	215		Lay 2 x 96mm duct	Y	Y	Assume 25m/day		12	
GBN	GBN 6	West	215	215		Build FW6 on Northern side of Gilbert Rd. Lay 2no poke out ducts for Gilbert Rd	Y	Y	Assume 25m/day		12	
GBN	GBN 7	West	215	445		Lay 2x 96mm duct. Lay 2no poke out ducts for Ascham Rd	Y	Y	Assume 25m/day		12	
GBN	GBN 8	West	445	445		Build FW4 on Northern side of Ascham Rd	Y	Y	Assume 25m/day		12	
GBN	GBN 9	Road Crossing	445	445		Lay 2 x 96mm ducts across Milton Road	Y	Y	Assume 25m/day		12	
GBN	GBN 10	East	445	445		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 11	West	445	550		Lay 2x 96mm duct. Lay 2no poke out ducts for Hurst Park Avenue	Y	Y	Assume 25m/day		12	
GBN	GBN 12	West	550	550		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 13	West	550	665		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 14	West	665	665		Build FW6	Y	Y	Assume 25m/day		12	
GBN	GBN 15	Road Crossing	665	665		Lay 2 x 96mm ducts across Milton Road and down Elizabeth Way	Y	Y	Assume 25m/day		12	
GBN	GBN 16	Road Crossing	665	720		Lay 2 x 96mm ducts across Milton Road / Highworth Avenue	Y	Y	Assume 25m/day		12	
GBN	GBN 17	West	720	720		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 18	Road Crossing	720	720		Lay 2 x 96mm ducts across Milton Road and down Elizabeth Way	Y	Y	Assume 25m/day		12	
GBN	GBN 19	West	720	840		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 20	West	840	840		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 21	West	840	940		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 22	West	940	940		Build FW6	Y	Y	Assume 25m/day		12	
GBN	GBN 23	Road Crossing	940	940		Lay 2 x 96mm ducts across Milton Road	Y	Y	Assume 25m/day		12	
GBN	GBN 24	East	940	940		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 25	West	940	1130		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 26	West	1130	1130		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 27	West	1130	1305		Lay 2 x 96mm ducts with 2no poke out ducts for Downhams Lane	Y	Y	Assume 25m/day		12	
GBN	GBN 28	West	1305	1305		Build FW6	Y	Y	Assume 25m/day		12	
GBN	GBN 29	West	1305	1305		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 30	West	1305	1530		Lay 2 x 96mm ducts.	Y	Y	Assume 25m/day		12	
GBN	GBN 31	West	1530	1530		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 32	Road Crossing	1530	1530		Lay 2 x 96mm ducts across Milton Road and down Fraser Road	Y	Y	Assume 25m/day		12	
GBN	GBN 33	West	1530	1645		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 34	West	1645	1645		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 35	West	1645	1645		Lay 2 x 96mm ducts down Woodhead Drive	Y	Y	Assume 25m/day		12	
GBN	GBN 36	West	1645	1820		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 37	West	1820	1820		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 38	West	1820	1975		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 39	West	1975	1975		Build FW6	Y	Y	Assume 25m/day		12	
GBN	GBN 40	Road Crossing	1975	1975		Lay 2 x 96mm ducts across Milton Road	Y	Y	Assume 25m/day		12	
GBN	GBN 41	East	1975	1975		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 42	Road Crossing	1975	1975		Lay 2 x 96mm ducts across Green End Road	Y	Y	Assume 25m/day		12	
GBN	GBN 43	East	2010	2010		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 44	West	1975	2115		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 45	West	2115	2115		Build FW4	Y	Y	Assume 25m/day		12	
GBN	GBN 46	West	2115	2300		Lay 2 x 96mm ducts	Y	Y	Assume 25m/day		12	
GBN	GBN 47	West	2300	2300		Build FW4	Y	Y	Assume 25m/day		12	
B1						Exclude - No scope of works shown						
GC Fibrenet						Exclude - No scope of works shown						
Cambs Water						Exclude - No scope of works shown						

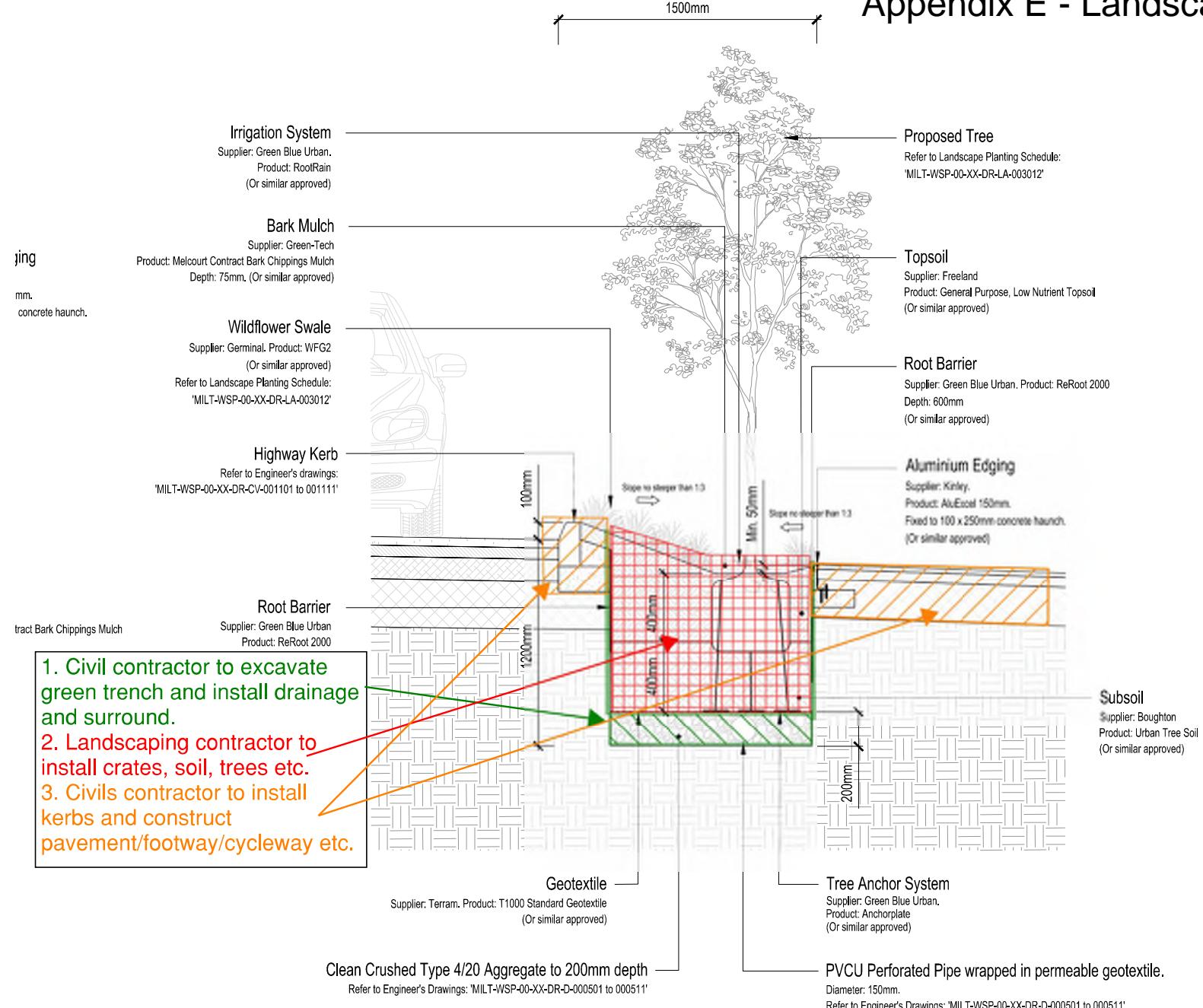


Appendix E - Landscaping Scope Split

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Appendix E - Landscaping Scope Split

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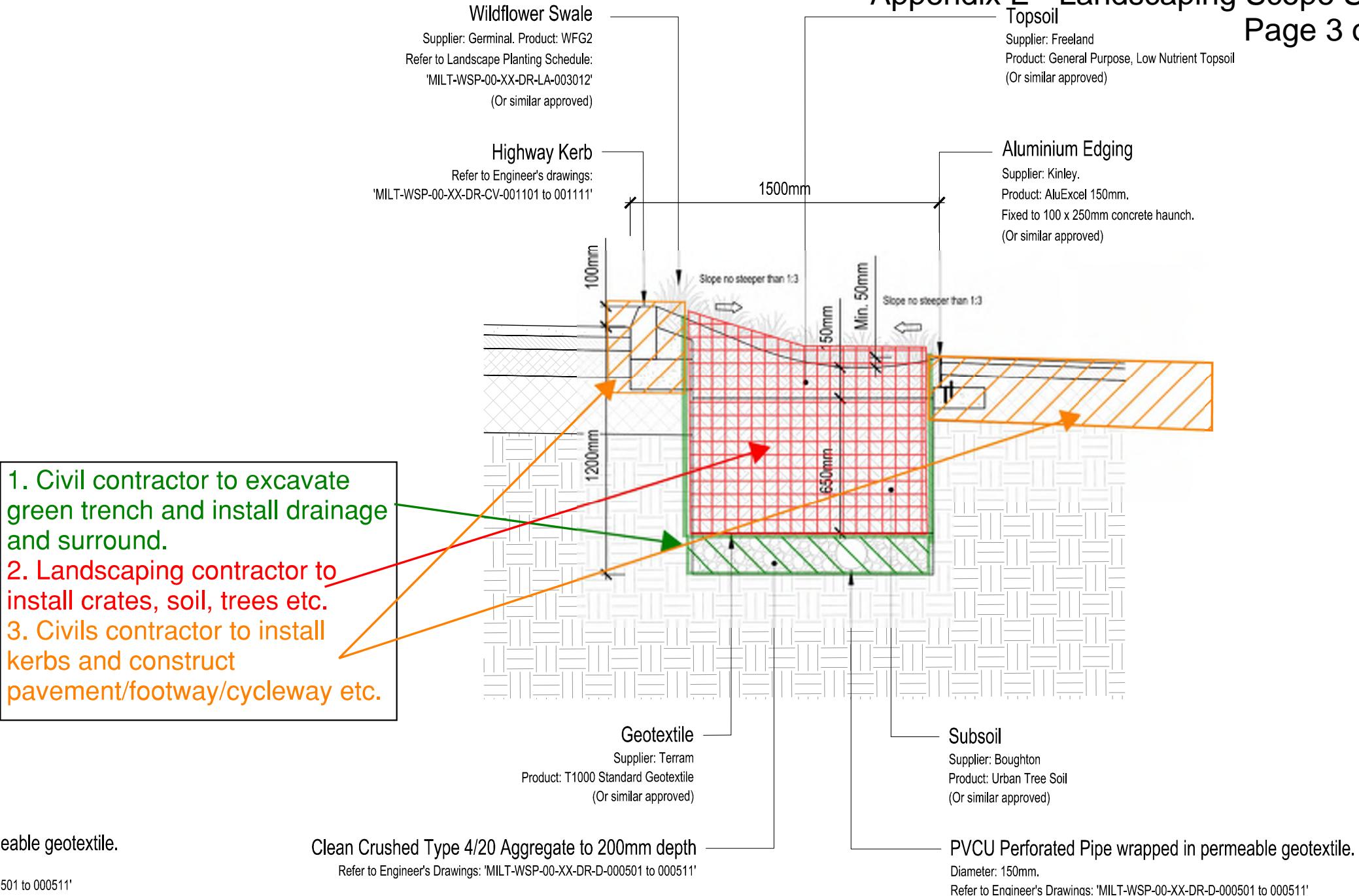


07 Section - Swale with Tree Planting
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Appendix E - Landscaping Scope Split

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oil



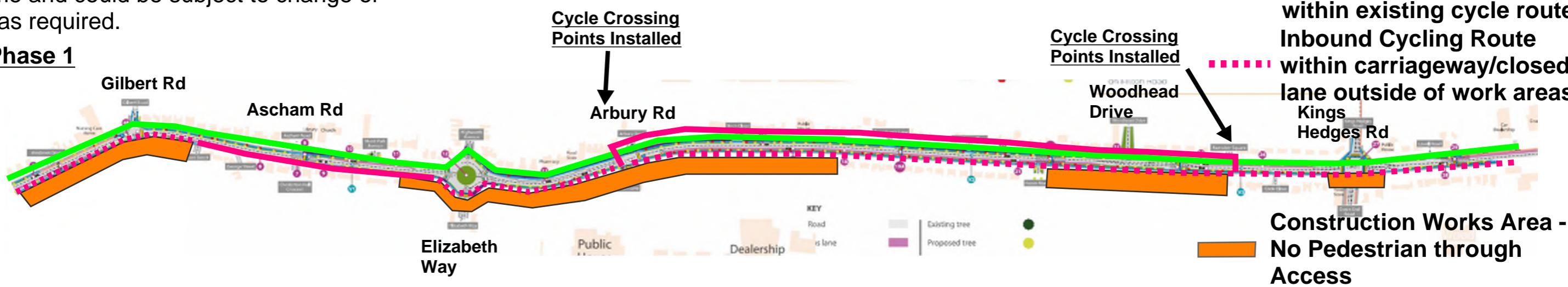
General Note:

This plan is to act as a guide for proposed cycle and pedestrian routes during each phase of works. Be aware that this is subjective to the agreed works programme and could be subject to change or variation as required.

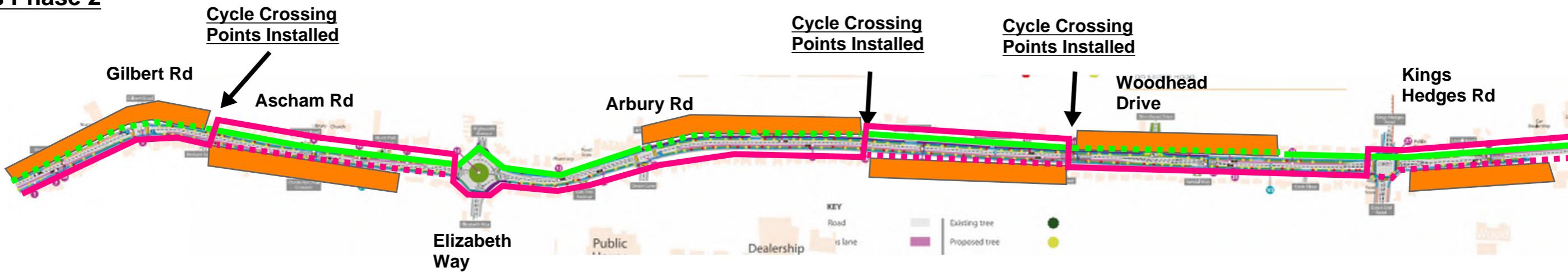
Appendix F - Milton Rd- Cyclist management plan

- Outbound Cycling Route within designated cycle route
 - Outbound Cycling Route within works access lane
 - Inbound Cycling Route within existing cycle route
 - Inbound Cycling Route within carriageway/closed lane outside of work areas
- Construction Works Area -**
- No Pedestrian through Access

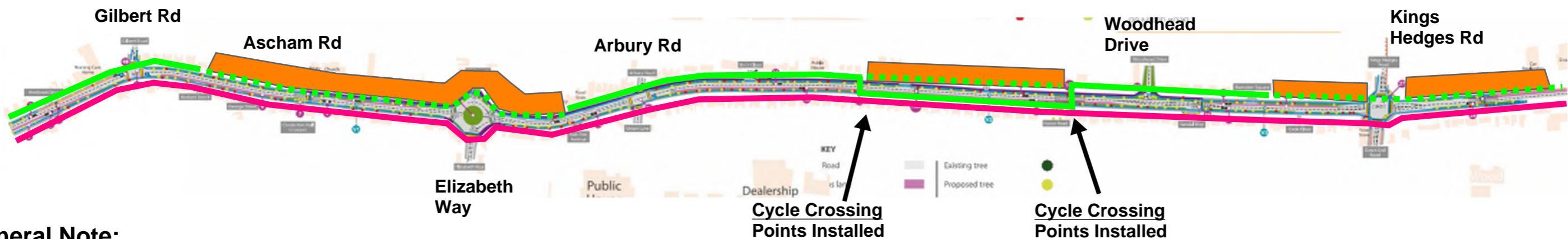
Works Phase 1



Works Phase 2



Works Phase 3



General Note:

Dashed lines within the drawing show alternative route within the carriageway. Cyclists will be permitted to cycle within the closed lane outside of working areas which will be signed and fenced.

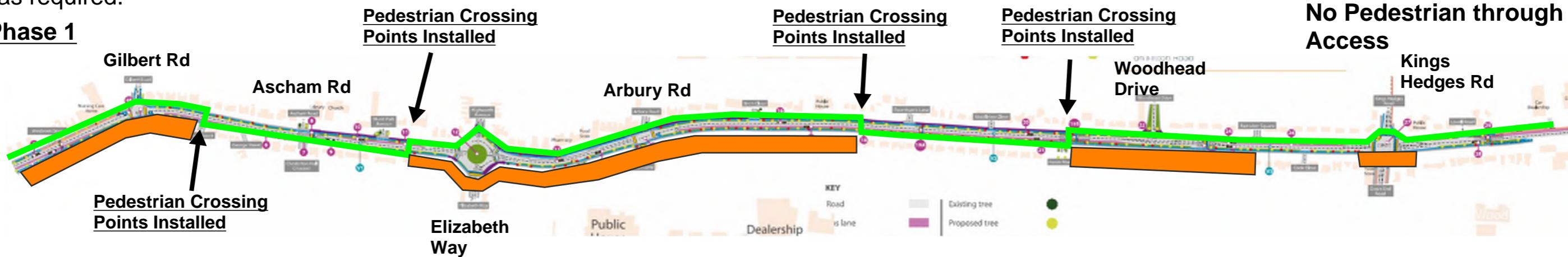
General Note:

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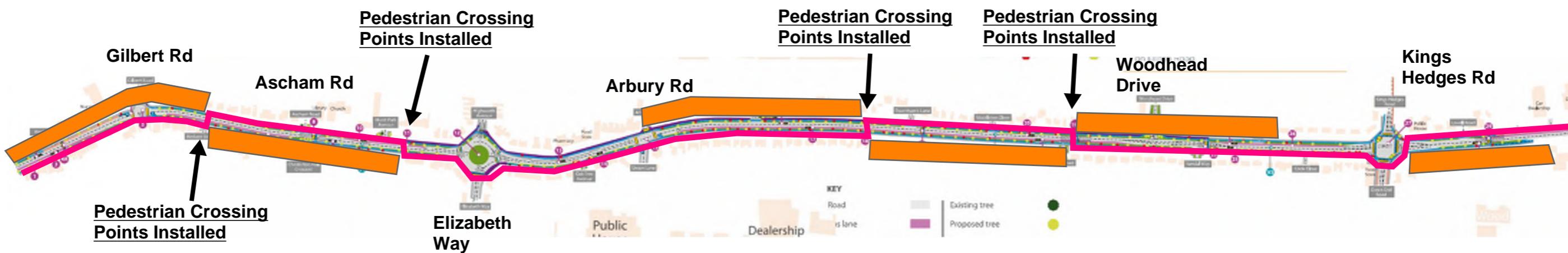
Appendix F - Milton Rd- pedestrian management plan

- Phase 1 Pedestrian Route
- Phase 2 Pedestrian Route
- Phase 3 Pedestrian Route
- Construction Works Area - No Pedestrian through Access

Works Phase 1



Works Phase 2



Works Phase 3

