HS2 STW BATCH 2 MERIDEN
LOCAL TRAFFIC MANAGEMENT PLAN

Client	**Severn Trent Water**
Contract Title	**STW AMP7 Framework**
Contract Number	**1002-000407-01-02-18**
Operating Unit	**M3**

PLAN

STW DIVERSIONS HS2 BATCH 2 MERIDEN (DIDDINGTON LANE) - LOCAL TRAFFIC MANAGEMENT PLAN

MAIN AUTHOR	REVIEWER	APPROVER
Chris Light Project Manager **06/06/23**	**Carla James** Logistics Manager **06/06/23**	**Paul Edwards** Project Manager **07/06/23**

ISSUE CONTROL

HS2 eB DOCUMENT No.	**UC08-STW_MYG-UT-PLN-000-000187**
DOCUMENT No.	**A7W137060406-JMS-XX-XX-RP-T-0001**

CURRENT REVISION	CURRENT STATUS CODE	SECURITY CLASSIFICATION
P02	**S3 - Suitable for Review and Comment**	**Official**

REVISION HISTORY

REVISION	STATUS CODE	DATE	REVISION DESCRIPTION
P01	S3	27/01/23	First Issue
P02	S3 - Suitable for Review and Comment	06/06/23	Updated for Sch17 Diddington Lane

Controlled Copy Distribution List

CONTROLLED COPY NO.	JOB TITLE
01	Richard Holloway – Senior Project Manager
02	Paul Edwards – Project Manager
03	Phil Newsum – Construction Manager
04	Martin O'Halloran – Works Superintendent
05	Ben Bentley – Senior Engineer
06	Dan Brough - Engineer
07	Joan Gooden – Stakeholder Manager
08	Carla James – Logistics Manager
09	Chris Harris – STW Project Manager
10	Akram Hassan – STW Project Manager
11	Sam Surridge – HS2 Project Manager

Contents

1 Introduction – Scope of Works

J. Murphy and Sons Ltd have been instructed by Severn Trent Water to undertake a number of clean water diversions within the council boroughs of Solihull and Warwickshire. This is within a larger framework for Severn Trent Water and the diversions mentioned within this document are covered under the works title of Batch 2.

1.1 Scope of Construction

The works comprises of the diversion of existing clean water mains to new alignments under the proposed HS2 route and the grouting of the abandoned water mains. These works are required in advance of the main HS2 works. The proposed start of Meriden Road Diversion works is June 2023 and running through to March 2024.

The diversion works will comprise of compound establishment, excavations and pipe installations and manhole construction, and the removal of the construction compounds.

The Meriden Works include diversion of the existing 47” steel pipeline which will be diverted, dualled, and sleeved where it crosses the proposed line of HS2.

The existing single 47inch main will be replaced with two new welded steel 1200mm diameter mains approximately 500m in total.

210 linear meters of the new main will be within 1500mm diameter concrete sleeves were the mains cross under the proposed HS2 track sections.

It is intended that the pipe will be installed using open cut method to install the concrete sleeve pipes which will accommodate the new steel pipe.

Tie-ins will be carried out under pressure to allow uninterrupted service to the asset. The excavations for the Tie ins and Anchor/Thrust blocks will be installed at key locations and suitable temporary works will be designed and installed as required on all excavations.

Associated valves and fittings will be installed as per approved design.

1.2 Document Format

The format of this document has been set out with the intention of conveying the limitations stated within. This is a live document that will be regularly reviewed to take into consideration any alterations to the construction sequence and the timing of activities. Daily contact with drivers will take place to confirm the plan is being implemented correctly.

1.3 Related Documents

- The High-Speed Rail (London – West Midlands) Act 2017
- HS2 Phase One Environmental Statement (ES) 2013
- HS2 Phase One Additional Provision (AP)
- The Code of Construction Practice (CoCP), Chapter 14
- Route-wide Traffic Management Plan (RTMP)
- Local Environmental Management Plans (LEMP); and
- Register of Undertakings and Assurances (U&As)

1.4 1.4 Local Liaison Process

1.4.1 The CoCP requires that HS2 sets out, in relation to traffic, the arrangements for liaison with the relevant highway authorities and emergency services (including air ambulances) and protecting corridors for emergency vehicles. Such liaison for enabling works in a local context will be undertaken through Traffic Liaison Group (TLG) and New Roads and Street Works Act (NRSWA) meetings.

1.5 The security context

1.5.1 Means of entry at Meriden compound will be operated by security guarding and gates/barriers at the entrance to the site from Diddington Lane and A452 Kenilworth Road.

2 The LTMP Context

2.1 Purpose of the LTMP

2.1.1 This Local Traffic Management Plan (LTMP) has been prepared specifically in relation to the works for HS2 Phase One for the STW Batch 2 Diversions, specifically Meriden. It has been developed to minimise any disturbance or nuisance caused to the public, motorists & local neighbourhoods due to the movement of vehicles used during the construction works for the STW diversions at Meriden.

2.1.2 The LTMPs identify all local area constraints and requirements set out in the ES, CoCP, RTMP and U&As. These will include and consider:

- Establish the type of construction traffic permitted to use of nearby roads to access these sites.
- Inform all personnel involved in the Project, of the routes that they can and cannot use for planning and construction access.
- Satisfy the Local Authorities that all possible steps have been taken to reduce the impact of the use of construction traffic on the local communities.
- This document will be inducted to Suppliers and Subcontractors and sections within will be inducted to drivers attending where applicable and at the commencement of their operations on site.

2.1.3 The Route wide and Site-Specific Commitments and Compliance Plans detail the methods for compliance with the U&As. In addition, the safety of all individuals involved in, or affected by, the movement of vehicles during construction has been taken into consideration in the preparation of this document.

2.1.4 There will be a LTMP in place for each of the Batch 2 diversions and each will consider the below:

- Avoidance, where possible, of sensitive areas such as residential dwellings, schools, etc.
- Avoidance, where possible, of narrow roads, low bridges, hump-backed bridges with weight restrictions, steep gradients.
- Compliance with statutory limits (e.g., width, height, gross weight, axle loading, etc.)
- Compliance with any highway authority lorry route schemes.
- Low Overhead cables.

2.2 Scope of LTMP

2.2.1 This LTMP will be in place for the duration of the Batch 2 diversion works across all defined sites and will be updated by the contractor, as appropriate, as the scope of activities are defined in greater detail or are changed during the works.

2.3 LTMP Structure

2.3.1 The remainder of this LTMP will cover the following:

- **3. Transport Networks and Services**
- **4. Temporary Highways Works**
- **5. Road Network Management**
- **6. Managing Construction Movements**
- **7. Workforce Transport**

Please note that there is no unplanned access for articulated vehicles to any of the sites. HGVs & LGVs are only permitted. If an Articulated vehicle is required to site, advance contact with the site foreman will be required to discuss traffic management, escorting, laydown arrangements.

There are two expected sites within the Borough of Solihull MBC within the framework, Murphy will establish compounds at the locations below.

- Meriden. (Diddington Lane)
- Lavender Hall (Under separate LTMP)

3 Transport Networks and Services

3.1 Road Networks and Significant Construction Changes

3.1.1 Meriden –

There will be two routes to site; Gates R31 G83 and N21 G1 on Diddington Lane and Gate N11 G50 on the A452 Kenilworth Road. The JMS Schedule 17 application will be for Diddington Lane construction route.

- **Inbound**:
  The access route for the works will be from the M6, A446, M42 and A45 Coventry Road, at Stonebridge roundabout take the exit onto the A452 Kenilworth Road heading Southbound.
  For access **Gates R31 G83 & N21 G1**, when travelling Southbound on the A452 Kenilworth Road, take the 5th exit at the Meriden Roundabout back onto the A452 Northbound. Head back towards the A45 for approx. 1.5km and turn left into Diddington Lane. Follow Diddington Lane for approx. 1.25km turning left into nominated site gate.
  For access **Gate N11 G50** continue across Meriden roundabout taking the third exit to the Bradnock Marsh roundabout, take the third exit to re-join A452 Kenilworth Road Northbound for approx. 1km, turn left into the BBV works access Gate N11 G50 onto the BBV haul road, continuing until the Meriden Road plant crossing, heading straight on for entry into JMS site.

- **Outbound:**
  When leaving site via Diddington Lane **Gates R31 G83 & N21 G1**, turn right and travel approx. 1.25km on Diddington Lane Northbound. Turn Left on the A452 Northbound taking the relevant turn off at Stonebridge Island for M6, A446, M42 and A45.
  When leaving site via **Gate N11 G50**, Following the BBV haul road proceed straight on at the Meriden Road plant crossing then exit the haul road onto A452 Kenilworth Road Northbound to all routes.

3.2 Amendments to traffic, bus, cycle, walking and riding routes (including footpaths)

3.2.1 There are no footpaths which will be affected by the works.

3.2.2 There are no public bus routes affected by the traffic management.

3.3 Signed diversion destinations

3.3.1 No diversion required.

3.4 Rail networks infrastructure and significant construction changes

3.4.1 Rail network not affected by works.

3.5 Amendments to passenger and freight services

3.5.1 No amendments required to passenger or freight services.

3.6 Waterway and towpaths and significant changes

3.6.1 No changes to waterway or towpath during works

3.7 Locations of community facilities along lorry routes

3.7.1 The are no community facilities located directly on the lorry routes.

3.7.2 The following community facilities are located in the area, however, are not directly affected by the vehicle routes:

- The Island Project – CV7 7HQ
- B4102 Meriden Road will be a restricted route to HGV traffic

3.8 Impacts of road closures on emergency services

3.8.1 There are currently no planned road closures required for the Meriden water main diversion works.

3.9 Consultation

3.9.1 JMS's Appointed stakeholder manager will liaise with all stakeholders throughout the works, all meetings and discussions will be recorded.

3.9.2 The LTMP will be circulated to HS2, STW and Local Council representatives for comment and will be reviewed periodically through the project as required. Should further co-ordination meetings be required, these will be arranged with appropriate representation from all relevant stakeholders.

3.9.3 JMS will be using BBV's existing Schedule 4 and Schedule 17 to access the main works area via access gate N11 G50.

3.9.4 JMS will submit a Schedule 17 for the Diddington Lane construction route which is currently restricted to 24 movements (12 in, 12 out). This route will be used for HGV construction traffic until the BBV haul road and bridge is constructed, bringing Access gate N11 G50 into use.

3.9.5 It is our expectation is that JMS will be sharing Gate R31 G83 on Diddington Lane and vehicle numbers with BBV for the compound site set up and early construction activities. This gate will also be used for light vehicles for the duration of the works.

3.9.6 BBV plan to establish their own site compound at gate R31 G83 mid-2023 and at this time the JMS LGVs will be directed to use gate N21 G1 on Diddington Lane.

4 Temporary Highways Works

4.1 Worksites and access points for construction activities

4.1.1 There will be a temporary compound constructed at the Meriden site. The purpose of the compound is to provide the project management and construction team staff with-

- Space for the storage of bulk materials (aggregates, pre-cast concrete pipe, etc.)
- Welfare and Office cabins: drying rooms, male and female toilets, canteens, site offices
- Plant and Equipment storage
- Necessary Parking

The compound will be used by the workforce directly involved with day-to-day construction activities and all staff who are not required on site will be located at other off-site offices, which will assist JMS to reduce the impact of vehicle movements at the temporary compound.

4.1.2 The construction compound and access points are outlined in Appendix A.

4.1.3 Gate N21 G1 will require access improvement. A schedule 4 part 1 & 2 will be submitted for this work.

4.2 Lorry Routes

4.2.1 From the A452, gate N11 G50 haul road and bridge is being constructed by BBV and is anticipated to be available for use at the end of September 2023. BBV has a Schedule 17 in place for this access route. JMS will be using the same route and under the same conditions previously agreed by the Local Authority.

4.2.2 From Diddington Lane, access gates R31 G83 & N21 G1 lorry route will be required for construction traffic until access route N11 G50 becomes available. JMS will submit a Schedule 17 to increase the vehicle movements for these gates on Diddington Lane.

4.2.3 Access routes to the construction compound, will as far as reasonably practicable be via the strategic road network and using the proposed lorry routes as shown in Appendix B.

4.3 Construction Vehicle Compliance

4.3.1 In accordance with TAN 22 all vehicles over 3.5t employed in construction will be required to display an A4 size identifier, stating ‘HS2’, inside the cab windscreen in a position that does not obscure the driver’s visibility. It should only be in use when the vehicle is on HS2 business.

4.3.2 The purpose of the identifier is to allow emergency services, stakeholders, and the public to identify HS2 vehicles when off permitted routes, parked inappropriately, badly driven or when involved in a traffic accident.

4.3.3 The identifier will be removed when the vehicle is not working on the HS2 project. The identifier is shown in Appendix C.

4.3.4 All trade vehicles attending the site compounds are subject to the HS2 TAN and U&A compliance requirements and will be checked upon arrival. The compliance standard is in line with FORs Silver for vehicles over 7.5t and Van excellence for vehicles under 7.5t. The compliance guide document reference A7S142950401-JMS-XX-XX-RP-PM-0001 confirms full requirements.

4.3.5 There is an agreement in place with HS2 for the Island Project located nearby where beacons and proximity alarms are to be turned off when driving past the school and on site at this location. This will

be added into the site RAMs and briefed out to any subcontractors and suppliers. This will also be managed at the gate location.

4.4 Temporary highway works to deliver the project

4.4.1 Gate N21 G1 will require access improvement. A schedule 4 part 1 & 2 will be submitted for this work.

4.4.2 Once this work is completed to improve the access, there are no requirements for any traffic management at or on route to the Meriden diversion site.

4.5 Temporary traffic management programme (including footpath diversions)

4.5.1 There are no planned traffic management events, and all public footpaths which are in the vicinity of the Meriden site. The diversion works will not impact any public footpaths other than those already closed or diverted by the ongoing BBV works.

4.6 Road safety audit schedule

4.6.1 Not Required

4.7 Local direction signing requirements for emergency services and deliveries

4.7.1 Emergency services and delivery vehicles will be directed to use the designated site access points the Meriden site.

4.8 Signals design requirements and procurement

4.8.1 We do not anticipate signals will be required for the diversion works at Meriden due to the main access being via the BBV Haul Road from A452 Kenilworth Road.

4.8.2 Large vehicle access/egress at the Diddington Lane gate is managed by BBV. JMS will co-ordinate LGV movements with BBV to enable access here.

5 Road Network Management

5.1 Protection of highway assets

5.1.1 Pre-start photos will be taken around all site access points on the highway. Verges and carriageway condition will be monitored at all four locations and any potential remedial actions will be discussed with the TLG, as necessary. All access points to the Meriden site are controlled and managed by BBV.

5.2 Temporary access points

5.2.1 There are two access points to the Meriden site.

One access point has been constructed by BBV from the A452 Kenilworth Road and is currently in use. The BBV haul road leading to site is anticipated to be completed in late September 2023.

The second access is from Diddington Lane will be used for early construction vehicle access until the A452 access and haul road is available. This access will also be used for light vehicles for the duration of the works.

5.2.2 Schedule 4 consents are not anticipated to be submitted by JMS for gates R31 G83 & N11 G50 as they are being managed by BBV.

5.2.3 Schedule 4 is required by JMS for gate N21 G1, this will be submitted via the HS2 Streetworks Manager Portal and discussed within the TLG.

5.3 Haul roads and crossings

5.3.1 There are existing haul roads constructed and managed by BBV at the Meriden site.

5.3.2 JMS will construct a new haul road to site from gate N21 G1.

6 Managing Construction Movements

6.1 Expected working hours

6.1.1 Core working hours will be from 08.00 to 18.00 on weekdays (excluding bank holidays) and from 08.00 to 13.00 on Saturdays. An additional hour before and up to one hour after the core working hours will be utilised for start-up and close-down activities.

6.1.2 Where works are required outside these hours a separate application will be made to Local Council for out of hours working.

6.1.3 Large Vehicle movements on Diddington Lane will be kept between 09:00 and 15:00 hours.

6.2 Contractor forecast flows by vehicle types and activities

6.2.1 It is anticipated that the threshold limit set out in paragraph 6 of schedule 17 of 24 2-way large goods vehicle (over 7.5t) movements per day will be exceed during these works. The average LGV movements per day expected to be 24 with a peak of 100 movements per day (50 in, 50 out) in Q2 and Q3 of 2023.

6.2.2 A Schedule 17 application will be submitted by JMS for the Diddington Lane gates R31 G83 & N21 G1 to allow for these forecasted vehicle movements.

6.3 Interface management between JMS and BBV

6.3.1 The site location, compound and working area are within the BBV overall land take, access to the area is via the BBV managed gate on A452 Kenilworth Road and the existing haul road. To manage vehicle numbers and not exceed the rainbow maps upper limit of 267 vehicles per day for this area there is a weekly meeting set up to cover expected peak movements for upcoming works.

6.3.2 JMS expect our peak daily figure across the duration of the works to be 100 movements (50 in, 50 out), this figure is forecasted for works relating to site set up stone deliveries, concrete pours, and grouting works. These works are not of long duration and there will be ongoing communications between JMS and BBV so our peak numbers are complimentary to each other's works.

6.3.3 At every stage we will look to collaborate and resolve any issues directly with BBV, if however, we find that for any reason we cannot, we will look to the Utilities HS2 Project Manager to assist.

6.3.4 All construction vehicles using these entrances will be monitored and recorded using a vehicle management planning system (VMPS), each contractor will have their own VMPS set up and compliance checks will be inputted accordingly. The systems allow projected vehicle numbers to be managed and communicated.

6.4 Local worksite capacities, holding areas and other local measures

6.4.1 All holding areas will be within JMS compound areas or at the approved BBV access point.

6.5 Sites and flow assumptions in ES

6.5.1 The M6, A446, M42, A45 and A452 are noted as key transport infrastructure to be utilised for north and south bound traffic within the ES.

6.5.2 All roads included in the lorry route proposals have been identified as Construction Traffic Routes within the ES – Volume 2 Map books.

6.6 Lorry Routes approvals and monitoring

6.6.1 Lorry routes used will be those approved within the HS Environmental Statement and Rainbow Route Maps and is shown in Appendix B.

6.6.2 All deliveries will be pre-booked on the Vehicle Management Planning System (VMPS) and this information will be passed to the personnel at the security gate.

There are no requirements and restrictions imposed by the Police, Environment Agency, and Emergency Services to the routing of all vehicles, plant and equipment for the works.

To ensure the safety of all personnel, members of the public, company and sub-contractor personnel, all people working on or visiting the project will be briefed during induction on the relevant parts of the Traffic Management Plan. Copies of the Plan will be sent to suppliers and delivery companies in advance of work taking place. The Project Directory will detail those persons / companies issued with Plans to ensure they are regularly refreshed.

Safety shall be always of paramount importance. The Emergency Response procedure will be briefed to all on site, a paper version of the procedure is kept on the site notice board.

7 Workforce Transport

7.1 Local travel plan(s) which will be prepared and associated monitoring

7.1.1 Workforce will travel to the site before the start of shift and egress following end of shift. There will be onsite parking facilities.

8 References

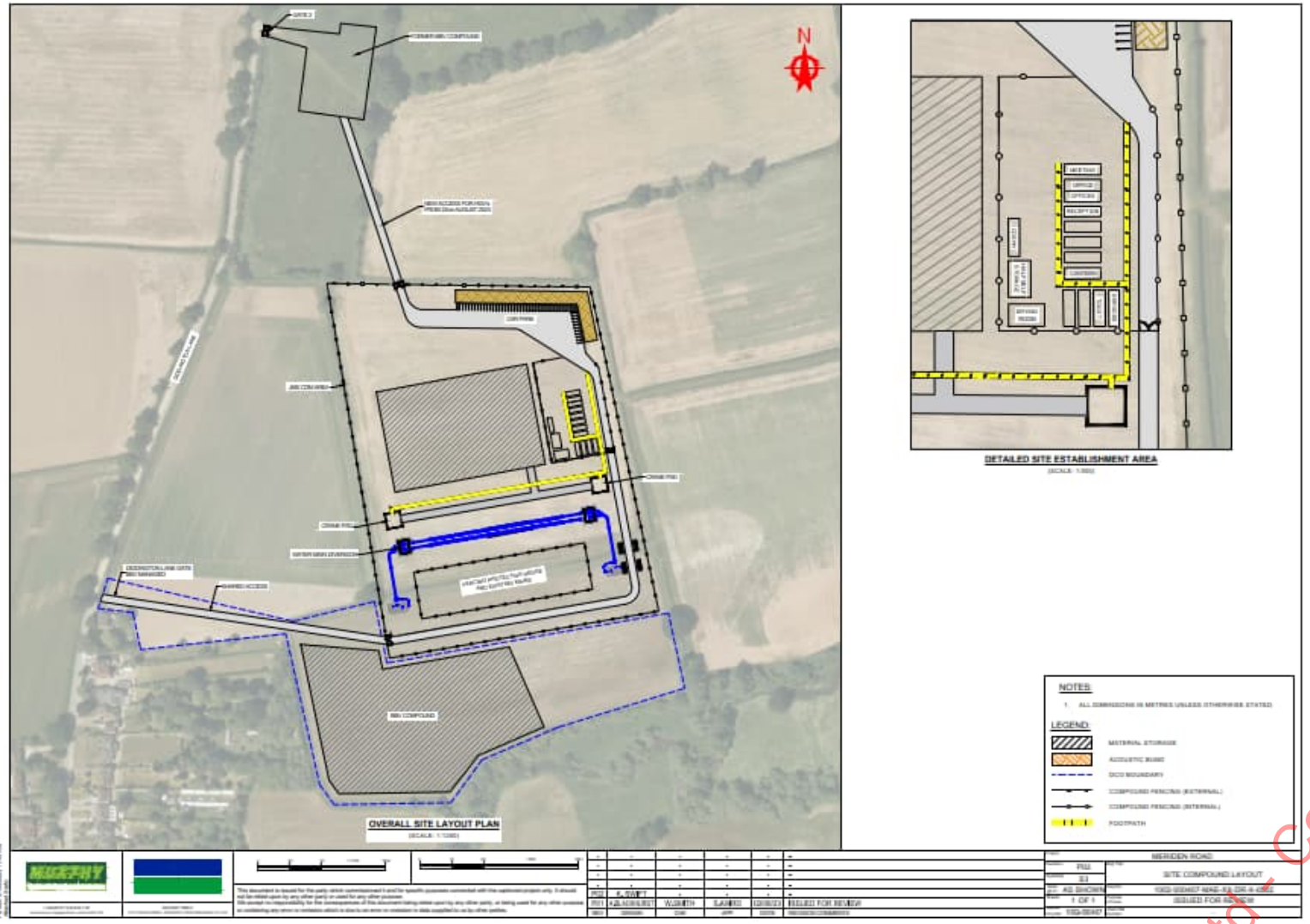
GRP-JMS-ZZ-XX-FM-Z-0006	Guidance Note Template
A7W137060406-JMS-XX-XX-PL-PM-0001_P07 Meriden (CNO-145-002) Main Works U&A CCP 06-01-2023	Undertakings and Assurances Commitments and Compliance Plan
A7S142950401-JMS-XX-XX-RP-PM-0001_P01	Framework Compliance U&A Guide

9 Definitions & Abbreviations

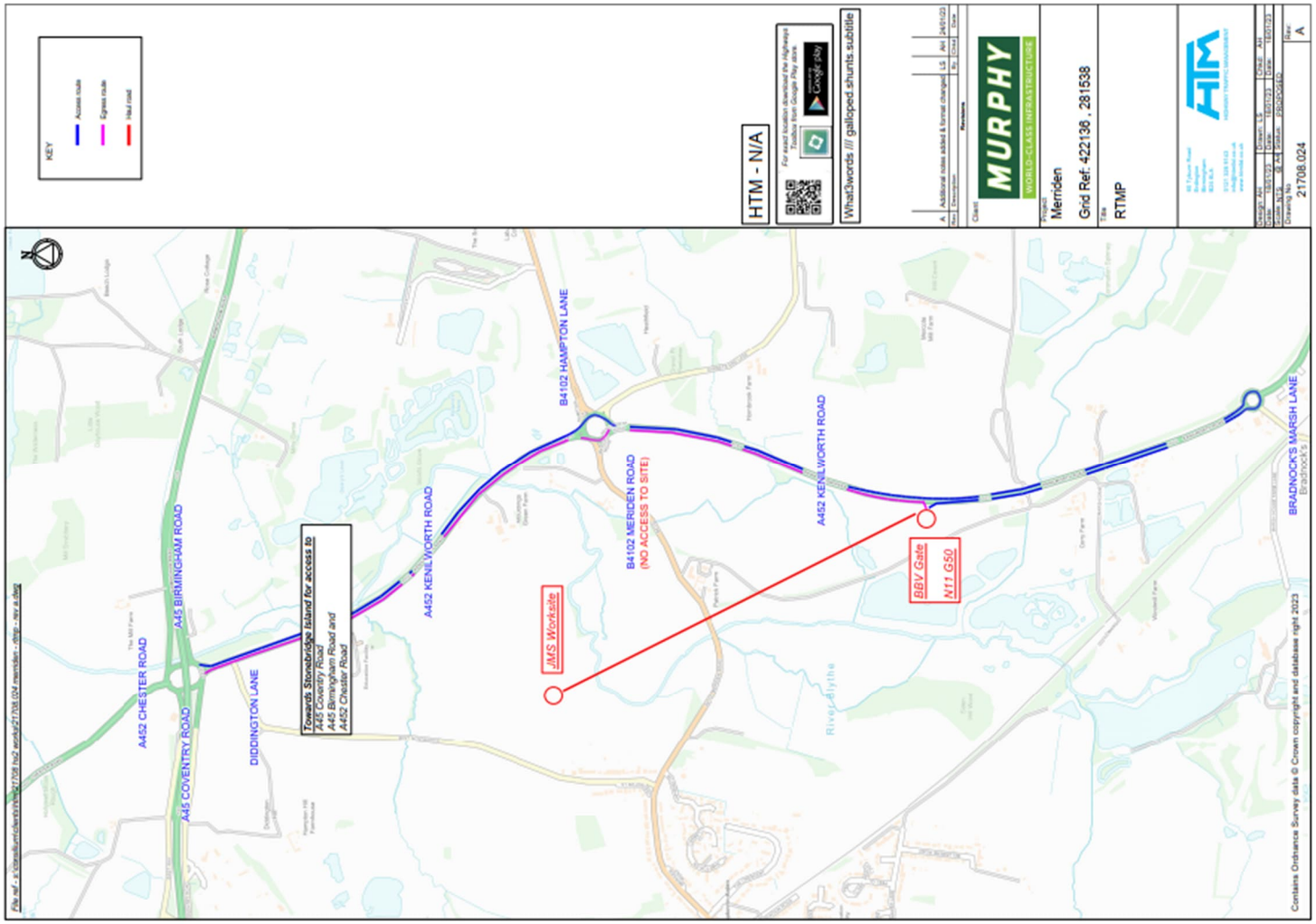
Murphy	J. Murphy and Sons Limited
Local Council	Solihull Metropolitan Borough Council
CoCP	Code of Construction Practice
ES	Environmental Statement
HS2	High Speed 2
LEMP	Local Environmental Plan
LGV	Large Goods Vehicle
LTMP	Local Traffic Management Plan
RTMP	Route-wide Traffic Management Plan
SRN	Strategic Road Network
STW	Severn Trent Water
TLG	Traffic Liaison Group
U&As	Undertakings and Assurances

10 Appendices

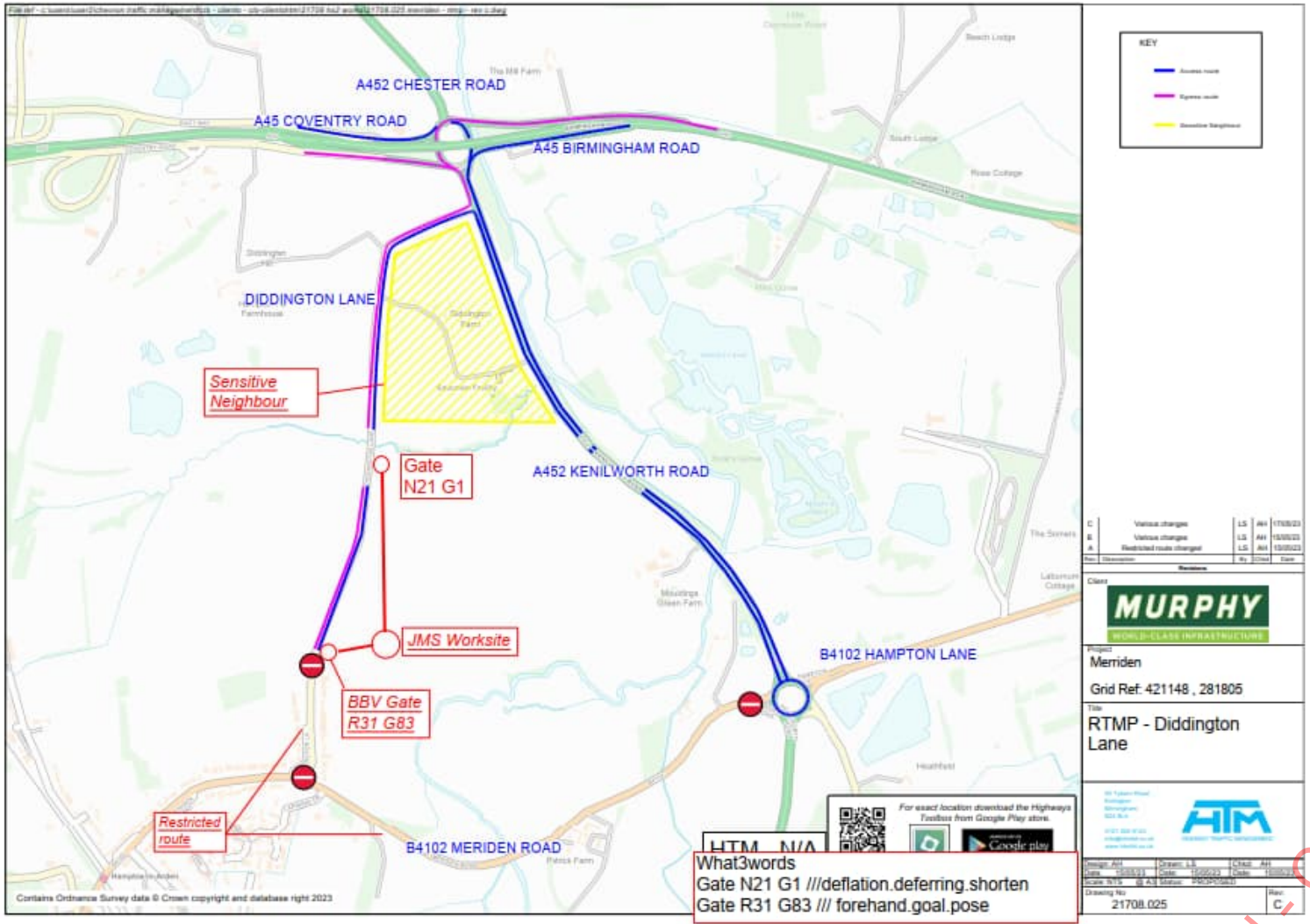
10.1 Appendix A - Meriden Site Layout and Access Points



10.2 Appendix B - Construction vehicle route Gate N11 G50 A452



10.3 Appendix B - Construction vehicle route Diddington Lane - Gates R31 G83 & N21 G1



10.4 Appendix C - HS2 Identifier Example

10.5 Appendix D - Register of U&As Relating to the LTMP

10.5.1 The Batch 2 U&A Commitments and Compliance Plan sets out the plan for complying with each of the referenced U&As within this section

10.5.2 U&As specific to construction vehicles have been included in the Framework Compliance U&A Guide.

U&As Specific to LTMP Area

10.5.3 The following table references all the undertakings and assurances relevant to the area local to the LTMP.

U&A ID	Subject	Site specific U&A Text	Specific Location
321	Traffic Assessments	The Secretary of State will require the NU to bring forward an effective Real Time monitoring system to monitor and report to the Highway Authority regularly whether there is compliance with the above limitations.	Warwickshire County
563_19	Co-operation	*Please see Clause 1 for definitions* The parties acknowledge that certain provisions of this Agreement envisage input from third party stakeholders. Where this is the case, the Council and Promoter will engage with, and cooperate with, such stakeholders in good faith for the purposes identified in this Agreement.	Solihull Metropolitan Borough Council
563_20	Co-operation	*Please see Clause 1 for definitions* The parties will, in accordance with the following principles in relation to co-ordinating the planning and delivery of HS2: (a) act in good faith; (b) operate in and open and transparent manner and share relevant information, to the extent permitted by law or contractual obligations; (c) cooperate, consult, and liaise with one another with regard to the delivery of the HS2 Works, and keep stakeholders informed of the construction works planned for each project; (d) communicate relevant contents of this Agreement to appropriate staff within their organisation; (e) share such documentation, maps, systems information, and other operational details from time to time as may be reasonably necessary for the purposes of integration of other development with, and the prevention of disruption to, the works authorised by the Bill; (f) subject to clause 9 of this Agreement and upon receipt of reasonable notice, make available relevant personnel for periodic or ad hoc meetings related to the HS2 Works to the extent that they impact upon the Council; (g) ensure employees are compliant with the terms of any agreement between the parties; (h) work together to provide communications updates and advance warning to local residents, transport companies and the travelling public of the progress of the HS2 Works and their temporary effects on local and national transport routes.	Solihull Metropolitan Borough

563_21	Meetings	*Please see Clause 1 for definitions* The parties acknowledge the need for regular communication on the progress of the HS2 Works. The parties, each acting reasonably, will agree a Communications Plan to serve as the basis for ongoing meetings. Outside of formal meetings, the parties will co-operate with each other to address ad hoc questions and needs in a reasonable timeframe.	Solihull Metropolitan Borough

Route wide U&As specific to the LTMP

10.5.4 The following table references all Route wide undertakings and assurances relevant to the LTMP.

U&A ID	Subject	U&A Text
40	Vehicular access to residential and commercial premises	"Where reasonably practical, vehicular access will be maintained to residential and commercial premises.
2784	Pedestrian, cycle and public transport links	Where reasonably practicable, we will maintain existing pedestrian, cycle and public transport links between communities and their local facilities, amenities and countryside.
53	Temporary or permanent realignment or diversion of a public right of way	"Where a temporary or permanent realignment or diversion of a public right of way is unavoidable, the shortest practicable route has normally been adopted. In a few cases, users will be redirected using a reasonably convenient alternative route to a nearby public right of way or road, if suitable for non-motorised users prior to closure, with appropriate signing. Temporary arrangements required during construction will remain in place until the public right of way is either re-established or a permanent diversion or realignment is constructed. Public rights of way will also be re-established where 'cut and cover' tunnelling techniques are used.
2801	Construction Sites and Haul Routes	Topsoils will be stripped from construction sites and haul routes and stockpiled. The stockpiles are likely to be used for screening the site and will be vegetated. Prior to removing the soils from the stockpiles this vegetation will be sprayed with herbicides and arisings will be removed as far as practicable.
65	Communication with affected parties on closure of roads or public right of way	The nominated undertaker will require contractors to communicate regularly with parties affected by the works. Local residents and businesses will be informed - appropriately and in advance of the dates and durations of any closures of roads or public right of way, and will be provided with details of diversion routes at least two weeks in advance or when final details are available. Advance warning signs of road closures will be provided for users of roads and public of rights of way.
66	Traffic liaison meetings	Once contractors have been appointed, regular traffic liaison meetings will be arranged with highway authorities, bus operators, taxi and trade representation (as appropriate), and the police - other emergency services will be included, as appropriate. These meetings will provide an opportunity for contractors to present proposals for future works affecting the highway, including methods of construction and proposed programme, and for a review of the associated traffic management requirements.
2132	Management and control of construction vehicles	"2.2 The construction of a project on the scale of HS2 will require the removal and delivery of large quantities of materials throughout the main construction phase along the line of route. For this paper, construction traffic means all vehicles over 3.5 tonnes which are making deliveries of construction equipment or materials or moving quantities of spoil on public roads. Controls on the movement of construction traffic will only apply to large goods vehicles over 7.5t,

		where there are more than 24 movements to and from a site each day. The safety requirements will apply to all construction vehicles and drivers regularly accessing the worksites, not just large goods vehicles. 2.3 Construction vehicles and their impact on road safety will be managed, monitored and controlled by: - a vehicle booking system. - vehicle flow monitoring. - vehicle identification. - driver training in vulnerable road user awareness and rural road driving. - requirements for vehicle safety equipment and blind spot minimisation; - the implementation of fleet operator quality schemes; and - the implementation of route and flow monitoring, including monitoring that the driver and vehicle safety requirements are being met."
2133	Vehicle booking system	"3.1 The vehicle booking system will: - enable the nominated undertaker to manage and monitor the overall flow of construction vehicle movements and seek to avoid vehicles queuing on the highway. - monitor the overall volume of vehicles passing a specific location during particular hours where required through an undertaking or assurance; and - enable principal contractors to plan their scheduling of vehicle movements for each site in advance of arrivals. 3.2 Principal contractors will be required to use the system to advise the nominated undertaker of future planned vehicle movements to ensure that site capacities are not exceeded, and movements are only planned for permitted working hours. 3.3 Principal contractors will, through linked mobile devices, enter into the system actual vehicle arrival times at construction sites and provide management information such as registration, vehicle type, operator, load type, utilisation, origin, driver details and vehicle safety equipment compliance. 3.4 The system will enable the production of reports covering adherence to plans, actual movement details and safety compliance."
2134	Automatic Number Plate Recognition (ANPR) technology	A number of undertakings and assurances require that HS2 large goods vehicles or all construction traffic flows on specific roads do not exceed a specified hourly volume. Automatic Number Plate Recognition (ANPR) technology will be used on such routes, and the data checked against the vehicle booking system.
2135	Mobile NPR monitoring and GPS	"4.2 Mobile ANPR monitoring will also take place on roads which are not approved lorry routes to ensure that no more than 24 HS2-related large goods vehicles per day to or from a site are using the route, for example in response to complaints.

		4.3 Certain fleet vehicles will also be required to use technology, such as Global Positioning Satellite vehicle tracking to enable compliance to be demonstrated over a wider area."
2136	Vehicle identification	"5.1 All vehicles over 3.5t employed on construction will be required to display an A4 size identifier, stating 'HS2', inside the cab windscreen in a position that does not obscure the driver's visibility. It should only be in use when the vehicle is on HS2 business. 5.2 The purpose of the identifier is to allow emergency services, stakeholders and the public to identify HS2 vehicles when off permitted routes, parked inappropriately, badly driven or when involved in a road traffic incident."
2137	Fleet Operator Recognition Scheme (FORS) standard and ISO39001	Fleet operators of vehicles employed on HS2 construction will ensure their operation meets the standards of an approved, annual, independent fleet management audit. Such quality standards are the Fleet Operator Recognition Scheme (FORS) standard or, for non-UK operators, ISO39001. Other quality management plans may also be considered, so long as they address the themes of the FORS standard and have independent auditing. Light van fleets can follow the Van Excellence code in place of FORS.
2139	The Construction Logistics and Cyclist Safety (CLOCS)	The Construction Logistics and Cyclist Safety (CLOCS) standard is a voluntary standard that has been developed to protect vulnerable road users. Principal Contractors, and their supply chain, will be required to follow appropriate CLOCS requirements.
2140	Driver training for vehicles over 3.5t	"7.2 Drivers of vehicles over 3.5t who regularly attend any HS2 worksites must have been trained in vulnerable road user awareness on a course approved by HS2. Further training will be required regarding rural driving and fuel-efficient driving. 7.3 The nominated undertaker will approve courses, but principal contractors will be responsible for ensuring drivers in their supply chain are appropriately trained. 7.4 If, after a period of regularly driving for HS2 contractors, appropriate training has not been undertaken, the driver will be disqualified from attending any HS2 worksite until training has been completed."
2141	Vehicle safety - over 3.5t	"Vehicles over 3.5t regularly attending any HS2 worksite, as well as complying with all legal regulations and standards, will be required to have the following safety equipment fitted and in full working order at the start of each working day: - prominent signage warning other road users not to get too close to the vehicle. (This will also apply to certain construction vehicles less than 3.5t); - side under run guards on both sides, unless site conditions mean that they are not capable of being fitted. - blind spot minimisation, which may be a combination of Class IV, V and VI mirrors, a camera system for blind spots, audible or visual front nearside driver alerts and audible nearside left turn and reversing external warnings. Fresnal lenses will not be considered adequate for blind spot minimisation."
2142	Vehicle safety - over 7.5t	Vehicles over 7.5t used for the movement of mass material must also have a four-way or 360-degree camera system fitted that can store up to two weeks data and which may be viewed by the principal contractor on a 'just cause' basis.
2143	Vehicle safety compliance	"7.7 Vehicles failing to comply with any of the above requirements will not be allowed on HS2 worksites, and drivers would be subject to suspension from all HS2 worksites.

		7.8 Other vehicle safety standards will also apply and whilst failure to comply will result in vehicles being turned away from HS2 worksites, a driver suspension policy would not apply. The additional standards are: - no tinted windows. - clean standard registration plates; - have a working beacon fitted. - only carry passengers for the number of seats fitted; - not carry alcohol. - carry emergency aids, such as a first aid kit; - not carry children or pets; and - have winter tyres fitted where it is an employer policy for works vehicles. 7.9 Where appropriate, vehicle safety measures can be extended, so that as technology and vehicle design improves these could be adopted sooner by the project as a business case allows."
1068	"Construction Logistics for Cyclist Safety (CLOCS)standards	The Secretary of State will require the nominated undertaker to comply, as far as reasonably practicable, with the Construction Logistics for Cyclist Safety (CLOCS) standards.
2176	Route-Wide Traffic Management Plan	"In accordance with the Promoter's Route-Wide Traffic Management Plan (RTMP) for Phase One of HS2, the Secretary of State will require the Principal Contractor to demonstrate, within the Logistics Environment, Sustainability and Safety Management Plan (ESSMP), how the supply chain will: a. adopts additional innovation or technology to remove blind spots and prevent underrunning (beyond the safety requirements set out in the RTMP). This could include retrofitting HGVs with doors which provides for improved visibility. b. demonstrates how vehicles used on the highway which are to be purchased or leased for use on the project will be the latest designs available which address driver visibility, particularly lateral visibility, and which minimise the height of the driver seat above road level (except where otherwise stated in the RTMP); and c. how this will be implemented, avoiding less vulnerable road user friendly vehicles being moved down the supply chain.
2786	EURO VI engines	"5.8. HS2 has set emission requirements and targets for the engines of contractor cars, vans and heavy road vehicles. These have been developed for the whole route and are categorised as follows; London Low Emission Zone, Clean Air Zones, and Rest of Route. Targets have also been set for the use of Ultra Low Emission Vehicles. Appendix A sets out these requirements and targets. 5.9. Certain exemptions to the construction vehicle emission standards are permitted for specialist vehicles, unforeseen circumstances and triviality. These, and the obligations of the construction vehicle emission standards are set out in the 'Euro VI' Assurance issued to the London Borough of Camden on 14 September 2016 (copied at Appendix B). The nominated undertaker shall comply with this assurance route wide so far as is relevant in each area to the requirements set out in Appendix A ."