East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.3A

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 3A

Construction Environmental Management Plan (CEMP)

October 2025

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The East Midlands Gateway Phase 2 and Highway Order 202X and The East Midlands Gateway Rail Freight and Highway (Amendment) Order 202X

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Construction Environmental Management Plan

ENVIRONMENTAL STATEMENT APPENDIX 3A

Client Segro Properties Ltd

Project East Midlands Gateway 2 (EMG2)

Date October 2025

Contents

1.0 Purpose of the Construction Environmental Management Plan (CEMP)

Introduction

1.1 As explained in Chapter One of the Environmental Statement, the East Midlands Gateway 2 (EMG2) scheme comprises 3 interrelated components. These are the EMG2 Main Site, Highways Works and EMG1 Works. The Chapter explains that there are two concurrent applications for all 3 components. A DCO Application for the EMG2 Main Site and Highways Works and a MCO Application for the EMG1 Works.

DCO Application and the CEMP

1.2 This Construction Environmental Management Plan (CEMP) sets out the overarching systems and controls that will be adopted during the construction of the EMG2 Works and Highway Works comprising the DCO Scheme to minimise any adverse environmental impacts in accordance with the conclusions of the Environmental Statement and Construction Good Practice. This CEMP provides the framework with which all Phase and construction component specific Construction Environmental Management Plans (P-CEMPs) required for each component of development by DCO Schedule 2 Requirement 11, must accord.

1.3 This CEMP and in turn P-CEMPS, will cover construction related matters which are set out in the DCO Schedule 2 Requirements, such as construction noise in Requirement 20. The governing document for all DCO Scheme construction activity is the DCO with its requirements (Document DCO 3.1). Where matters are dealt with differently in the CEMP or P-CEMP to the Requirements, it is the DCO Requirements that will take precedent. A document hierarchy explaining the relationship between the DCO, the Requirements and documents produced pursuant to those requirements is appended to the Guide to the Application (Document DCO 1.3).

1.4 The exact number of P-CEMPs will depend on the precise split of components of construction work which has yet to be confirmed. However, P-CEMPs will be provided for:

- The EMG2 Works (potentially split further into the earthworks, drainage, roads and landscaping)
- Each component of the Highway Works as defined in the DCO and included in Parts 1, 2 and 3 of Schedule 1 of the DCO
- Each warehouse developed on the EMG2 Main Site.

1.5 This CEMP should be read in conjunction with the Construction Management Strategy for the Safeguarding of East Midlands Airport.

MCO Application

1.6 The EMG1 Works comprised within the MCO Application will not be governed by this CEMP. Instead, they will continue to be governed by the EMG1 DCO. Requirement 11 of the EMG1 DCO will operate to prevent the EMG1 Works commencing until a new construction environmental management plan, drafted in accordance with the principles set out in the already approved construction management framework plan, has been submitted to and approved in writing by the local planning authority and local highway authority respectively. That approach will apply to the construction activities for the development of Plot 16, potentially split further into the earthworks, drainage, roads, landscaping and warehousing.

Obligations, Compliance and Enforcement

1.7 The principles set out by this CEMP and the arrangements established through the P-CEMPs, will be incorporated within all construction contracts arising from the development of the scheme and all contractors, their subcontractors and supplier will be required to comply with the overarching principles and details contained in each P-CEMP.

1.8 Any non-conformance or infringement with either the CEMP or P-CEMP shall be reported to the Project Manager within 24 hours and proposals for rectifying the non-conformance shall be submitted to the Project Manager within 7 days. The management and reporting of non-conformances will be the responsibility of the Environmental Manager.

1.9 The contractor shall submit proposals to the Project Manager, before work commence, for the internal and external auditing of compliance with the CEMP and the P-CEMP. Copies of all audit reports are to be provided to the Project Manager within 7 days of the audit. Furthermore, the Project Manager will undertake audits as and when he sees fit.

1.10 Failure to rectify a non-conformance within an agreed timescale may result in relevant works being suspended until the Project Manager is satisfied that the non-conformance has been corrected, or in extreme cases termination of the contract.

1.11 The CEMP will remain valid throughout the construction phase of the DCO Scheme.

2.0 Description of the Works

2.1 A detailed description of the development is set out in Chapter 3 of the Environmental Statement. In summary the DCO Scheme involves:

EMG2 Works:

- Construction of a logistics and advanced manufacturing development and ancillary buildings;

- Construction of road infrastructure;
- Construction of bus interchange;
- Construction of HGV parking
- Upgrading the EMG1 substation;
- Construction of a Community Park; and
- Provision of hard and soft landscaping.

Highways Works:

- A453 EMG2 access junction works;
- Hyam's Lane works;
- Works to the M1 northbound;
- Construction of link road from the M1 northbound to the A50 westbound;
- Works to the A50 westbound;
- Works to the link road from the M1 southbound and A50 eastbound to M1 Junction 24;
- Works to the M1 Junction 24 roundabout and A453 northbound approaches;
- Improvements to the EMG1 access junction;
- Construction of the Active Travel Link between the EMG1 access junction and the A453 west of Finger Farm roundabout;
- Provision of an uncontrolled crossing of the A453 at the East Midland Airport signalised access junction;
- Works to M1 northbound signage on the approach to M1 Junction 23A;
- Works to Long Holden;
- Works to the A42/A453 Finger Farm roundabout; and
- Upgrade to public footpath L57 to a cycle track.

3.0 General Site Management

Roles and Responsibilities

3.1 The site wide coordination and implantation of the principles established in this CEMP through the preparation and agreement of each component specific Construction Environmental Management Plan (P-CEMP), will be the responsibility of the Developer's Project Manager with the support of the developer's Environmental Consultant.

3.2 As each contract comes forward an Environmental Manager will be appointed for that Contract, generally this will be a contractor appointment but in some circumstances the Project Manager may undertake this role or appoint others. The Environmental Manager shall ensure that the principles of the CEMP shall be fully integrated into all site procedures, processes and activities, through the preparation and agreement of P-CEMPs and ensure that appropriate environmental management systems, under BS 14000 or similar, are put in place through each P-CEMP.

3.3 The Developer's Project Manager who will carry out appropriate audits of the contractors' arrangements to ensure full compliance with the P-CEMP. Any infringement of the P-CEMP or any environmental incident shall be immediately reported to the Project Manager. The contractor will be required to fully investigate the issue and take appropriate corrective action.

3.4 The key contacts are:

- Developer –Segro
- Project Manager – TBC (Developer Appointment)
- Ecological Consultant – FPCR
- Landscape Consultant – FPCR
- Engineering Consultant – BWB Consulting
- Principal Contractor – TBC (Developer Appointment)
- Principal Designer – PB Safey Consultancy
- Site Manager – TBC (Contractor Appointment)
- Environmental Manager – TBC (Contractor Appointment)
- Health and Safety Manager – TBC (Contactor Appointment)

3.5 The key firms and individuals may change as the scheme develops, and each P-CEMP should set out and update as appropriate the list of key contacts.

Communications

3.6 The effective implementation of the CEMP through each P-CEMP is intrinsically linked to good communications between all the project stakeholders, particularly the local Authority, and the public.

3.7 To promote effective communications during any contract each P-CEMP shall require the following to be implemented at the commencement of each contract:

- The Project Manager will brief the contractor's senior management team on the philosophy and content of the CEMP and details of the relevant P-CEMP, which will generally include the Director responsible for the scheme.
- The Ecological Consultant shall brief the contractor's senior management team on all ecological aspects of the scheme.

- The contractor shall be responsible for developing a site-specific induction for all those working or visiting his site. The scope of the induction will be agreed in advance with the Project Manager.

3.8 The contractor's monthly progress report shall include reporting on compliance with the P-CEMP.

3.9 The contractor will provide a programme to achieve continuous improvement of environmental matters during the contract. The Developer wishes to see positive training on environmental matters on an on-going basis.

3.10 The contractor shall develop an appropriate strategy for communicating with the public both before commencement and during the contract. This must be in accordance with protocol for community liaison to be developed by the Community Liaison Group established prior to the commencement of development pursuant to Requirement 26 and, for any highway works on the strategic road network, the details agreed pursuant to Requirement 5 of Schedule 2 of the DCO (Document DCO 3.1).

4.0 Components and Logic

4.1 This section of the CEMP outlines the different components of works to be carried out and outlines the possible restraints which may have an impact on the way the components are assembled. It sets out how these matters have informed the approach adopted in the preparation of the Indicative Master Programme (see Appendix One).

4.2 A P-CEMP must be prepared for each component of development. Where necessary, for example if several contractors are involved in the delivery of a particular component, it may be necessary for multiple P-CEMPs (each specific to individual contractors) to be prepared. Each P-CEMP must accord with the principles set out in this CEMP and must have regard to the details contained in other P-CEMPs for that component of development.

4.3 Each P—CEMP must place an obligation on the contractor to ensure that all relevant requirements set out in the DCO have been discharged / approved, prior to work commencing. For example, works cannot start until Requirement 13, (archaeology and built heritage) has been discharged. Each P-CEMP must fully accord with all the details agreed pursuant to all the Requirements where relevant.

Key Activities

4.4 The following table provides a summary of the Key Activities:

Key activity	Works No.
Main Site Earthworks and Drainage	Within Works Nos1 to 5
Main Site Roads	2
Main Site Landscaping	5
Main Site Buildings	1
Main Site Bus interchange	3
Main site HGV parking	4
Highway works	Within Works Nos 6 to 19
Community Park	21

4.5 These activities are described more fully in Schedule 1 of the DCO (Document DCO 3.1) and the relevant works areas are shown on the Works Plans (Document DCO 2.3).

Highway works

4.6 The Highway works are to be undertaken in accordance with the detail submitted and approved pursuant to Schedule 2 Requirement 5 of the DCO. These timescales are determined as set out in the Transport Assessment and will take account of the restraints on phasing of the highway works set out below.

Main Site Earthworks, Drainage, Roads and Landscaping

4.7 The Earthworks, drainage and landscaping is split into three phases as shown on drawing EMG2-BWB-GEN-XX-SK-CH-SK044 (see Appendix 2).

4.8 In order for works to commence on the EMG2 Main Site a temporary construction access will be formed on the A453 together with the creation of temporary construction access tracks and main site compounds as shown on drawing EMG2-BWB-GEN-XX-SK-CH-SK044 at Appendix 2.

Main Site Buildings

4.9 The Buildings are split into zones as indicated on the Parameters Plan (Document 2.5)

Key Restraints Governing the Logical Phasing of Works

Highway works

4.10 The Phasing of highway works will be undertaken in accordance with Requirement 6. Other than complying with the protective provisions that govern highway works in the DCO there are no restraints on commencement of any phases of the highway works.

4.11 Other practical restraints may include:

- Design resources
- Construction resource
- Availability of materials
- The mitigation of delays and disruption to the existing highway network
- Statutory Undertaker imposed restraints
- Other third party-imposed restraints
- Scale of the Scheme

4.12 The importance of managing the phasing of the works to mitigate delays and disruption on the existing highway network is perhaps the most significant practical restraint. Generally, this is best achieved by diverting traffic onto new alignments away from works under construction and controlling the level of interference on the networks at any time. A Construction Traffic Management Plan has been prepared and is attached at Appendix 3. The management of Highway works should be undertaken in accordance with this document.

Main Site Earthworks, Drainage, Road and Landscaping

4.13 The Phasing of all components of the works will be undertaken in accordance with details agreed pursuant to Requirement 3 for the Main Site,

4.14 The scale of the Main Site earthworks is such that it would be appropriate to adopt a phased approach so that subsequent activities can commence before all the previous tasks have been completed.

4.15 Landscaping will be installed in accordance with the timings agreed pursuant to Requirement 9.

4.16 The order of the Main Site Earthworks, Drainage, roads and Landscaping is shown on the Indicative Master Programme (Appendix 1); however, the actual order may change as market needs may dictate, and in accordance with details agreed pursuant to Requirement 3.

4.17 The Main Site Roads (Works No. 2) will generally be constructed concurrently with the development of the adjacent building plateau and in accordance with details agreed pursuant to Requirement 3.

Buildings

4.18 Construction of building units can only be commenced on plots that have a plateau. Buildings will not be occupied until the screening and bunding is in place in accordance with the details to be agreed pursuant to Requirement 3.

Indicative Master Programme

4.19 The Indicate Master Programme contained in Appendix 1 shows how the works may be assembled.

4.20 Final assembly of the works will be undertaken following detailed design, selection of materials and the appointment of key contractors and in accordance with phasing agreed pursuant to Requirement 3 for the EMG2 Main Site, and Requirements 5 and 6 for the Highway Works.

5.0 Pollution and Contamination

5.1 Pollution and contamination can be pre-existing or caused by construction activities.

5.2 Where pre-existing contamination has been found to exist, Contractors will be required in accordance with Requirement 22 to undertake remediation measures identified in the geo-environmental assessment, investigations and reports in a suitable and acceptable manner and at such time as is appropriate. These measures must be agreed with the Environment Agency (EA) before any measures are implemented and verification reports shall be prepared and issued to the EA on completion of the remediation.

5.3 A UXO/UXB risk assessment will be undertaken before any intrusive works are undertaken.

5.4 In the event that suspected contaminated material is uncovered during the works an appropriate area will be protected, all works will be suspended and a suitably qualified person shall be engaged to investigate and develop a suitable strategy for dealing with any contaminated material.

5.5 The contractor shall plan and execute his work to ensure that hazardous or polluting substances do not cause harm to underlying aquifers, surface water systems, landscaping and associated ecology.

5.6 At the commencement of any component of earthworks the necessary permanent drainage basins for that component will be constructed and outfalls into the existing water courses will be provided, in accordance with the drainage strategy contained in the Environmental Statement, the surface water drainage scheme agreed pursuant to Requirement 17 and any approvals required under DCO Article 19.

5.7 Additional settlement and control ponds will be provided as necessary during a component to prevent pollution entering the existing water courses.

5.8 The scheme requires significant earthworks which will inevitably increase the risk of pollution to the surface water system. All contractors shall adopt water pollution prevention procedures

in line with good practice. In preparing the procedures the contractor shall consider the following as a minimum:

- Published guidance from the Environment Agency
- Control of water pollution from construction site and other documents published by CIRIA
- The site-specific requirements of the EA
- Arrangements for monitoring water bodies to ensure and demonstrate water quality
- Fuelling of plant and equipment
- Maintenance of plant and equipment
- Storage of hazardous materials
- Control of concrete truck washout arrangements
- Flood warnings
- The landscape and ecological environment

5.9 All contractors will be required to include water pollution prevention in all inductions and shall arrange update tool box talks at appropriate intervals during the contract.

5.10 All incidents involving water pollution shall be immediately reported to the Project Manager.

6.0 Measures for Controlling Noise and Vibration

Noise

6.1 Contractors will implement measures to minimise the potential noise disturbance caused by construction traffic and activities.

6.2 When planning all activities contractors shall predict the corresponding noise levels and review the likely impacts and what can be done to mitigate and minimise any adverse impacts.

6.3 If construction activities are likely to cause a potential disturbance at sensitive receptors consideration should be given to noise measurements before and during construction. The thresholds set out in Table 7.3 of the Environmental Statement (Document DCO 6.7) should be used to determine the extent of the potential disturbance.

6.4 The guidance given in BS 5228-1: 2009+A1:2014 “Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 1: Noise” relating to working methods will be referenced and incorporated, where appropriate and practicable, within the method statement which will form the basis for the implementation of construction works.

6.5 As a precaution, check noise monitoring will be undertaken at the start of the different phases of the works to determine whether the noise levels from construction activities are as predicted in the P-CEMP for that phase of work.

6.6 At least 28 days prior to any construction works commencing, a construction monitoring protocol will be agreed with the Local Planning Authority. This will establish the frequency, duration and location of the noise monitoring. It will also identify the construction noise thresholds at the appropriate receptor locations and the protocol that shall be followed if these thresholds are exceeded or if any complaints are received.

6.7 In planning their work contractors shall consider the following as a minimum with respect to managing the potential effects of noise:

- Phasing of earthworks to prioritise the construction of any bunding (where applicable);
- Selection of equipment and working methods;
- Maintenance of equipment;
- Switching off equipment when not in use;
- Use of acoustic enclosures and temporary hoardings/screens;
- Timing and duration of activities;
- Use of "white noise" reversing warnings on mobile plant;
- Site personnel being instructed on use of best practicable means;
- Liaison with residents in advance of works and on an ongoing basis; and
- Plant to be located as far as reasonably practicable from receptors.

6.8 Details of the contractor's proposals for the use of best practicable (BPM) means to manage construction noise shall be included in each P-CEMP.

Vibration

6.9 Contractors will implement measures to minimise the potential vibration disturbance caused by construction traffic and activities.

6.10 When planning all activities contractors should consider the potential for vibration and review the likely impacts and what can be done to mitigate and minimise any adverse impacts. The thresholds set out in Table 7.5 of the Environmental Statement (Document DCO 6.7) should be used to determine the extent of the potential impact.

6.11 The guidance given in BS 5228-2:2009+A2:2014 "Code of Practice for Noise and Vibration Control on Construction and Open Sites Part 2: Vibration" will be referenced and incorporated, where appropriate and practicable, within the method statement which will form the basis for the implementation of the construction works.

In planning their work contractors should consider the following as a minimum with respect to managing the potential impacts of vibration:

- Selection equipment and working methods;

- Timing and duration of activities;
- Site personnel being instructed on use of best practicable means;
- Liaison with residents in advance of works and on an ongoing basis; and
- Plant to be located as far as reasonably practicable from receptors.

Working Hours

6.12 Construction work within the development site will be controlled by Requirement 19 and confined to the following:

07:00 -19:00 hours Monday to Friday,

07:00 -16:00 hours Saturday,

6.13 No works will be undertaken on Sundays or public holidays, save in exceptional circumstances only and with prior notification given to the LPA.

6.14 Any changes to the above working hours will also be agreed with the LPA

6.15 All delivery vehicles and plant arriving and leaving the site will also comply with the same time restrictions, although site personnel will be permitted to access the site 30 minutes before these hours and exit the site 30 minutes after them. Adherence to the codes of practice for construction working given in British Standard BS 5228 will be required.

6.16 Construction work outside the development site will require some out of hours and night working to comply with the requirements of Highways England or for practical and safety reasons.

7.0 Soil Management and Measures for Controlling Emission of Dust

7.1 To prevent and minimise the loss or damage of soil resources requires the adoption of Soil Management measures. Each relevant P-CEMP and in accordance with Requirement 12, should incorporate a Soil Management Plan to be undertaken by a suitably qualified practitioner in accordance with the principles outlined in the Construction Code of Practice for Sustainable Use of Soils on Construction Sites, the measures set out in the Soils and Agricultural Land Quality Report and Soil Resource Management Plan (ES Chapter 15, Appendix 15A and 15C-Document DCO 6.15A and C) and the measures set out in the Landscape and Ecological Management Plan. Each P-CEMP will be required to include details such as:

- Depth and method of topsoil stripping and stockpiling, including separation of topsoil resources of different potential.
- Methods of stripping and stockpiling of higher quality re-useable subsoil (if appropriate).
- Identification of landscaping topsoil requirements and assessment of suitability and availability of on-site resources (if appropriate).

- Means of protection of subsoil from compaction damage and remedial measures (ripping/subsoiling) to remove damage.

7.2 Many construction activities increase the risk of dust nuisance. Each P-CEMP will be required to set out the details of a dust management plan setting out the methods to be used to control dust and other emissions to air. These should accord with the principles set out below.

7.3 Contractors will plan their activities to reduce the level of risk and mitigate any residual impacts in accordance with 'Institute of Air Quality Management (IAQM) Guidance on Assessment of Dust from Demolition and Construction 2024'.

7.4 Generally, the most effective method of dust control is damping using a fine spray. The contractor will fully investigate sources of water and where possible use recycled water. Potable water should not be used.

7.5 When sensitive receptors are in close proximity to the site and sources of dust generation the contractor should consider dust monitoring before and during construction. The contractors will be advised to discuss their arrangements with the Environmental Health Officer (EHO).

7.6 In planning activities, contractors should consider the following as a minimum:

- Damping down arrangements including using sprinklers
- Sources of water for damping down
- Location of haul roads and their surface types and exposed soil following earthworks.
- Stabilisation of temporary haul roads.
- Sweeping arrangements of hard surfaces
- Site speed limits
- Selection of plant and equipment
- Maintenance of plant and equipment
- Covering of payloads while in transit
- Covering of skips, chutes and conveyors
- Location and surface treatment of stockpiles
- Burning will not be permitted on site
- Consideration of prevailing wind direction
- Programme and seasonal timing, including consideration of time of day and weather conditions
- The siting of dust generating activities relative to sensitive receptors
- Use of windbreaks
- Duration of activities.

8.0 Contractor's Facilities including Compound areas, Temporary Buildings and Fencing, Parking areas and Storage of Plant and Materials

8.1 It is likely that more than one contractor will be working on the development at any time, each requiring different facilities located at different locations. It is assumed that only one contractor shall be working on any part of the development at any one time.

8.2 Indicative locations of the Contractors' Facilities on the Main Site are shown on the Plans at Appendix 2. It is envisaged that these facilities will also be used as the main compounds for the highway works adjacent to the main site (Works Nos.6,7,15,17 and 18).

8.3 Additional facilities may be provided for each area of works.

8.4 Each P-CEMP shall include details of the Contractor's facilities including compound areas, temporary buildings and fencing, parking areas and storage of plant and materials.

8.5 Each P-CEMP will include a management plan to dispose of foul water from welfare facilities either via a consented connection to the local public foul water sewers, or through removal to an offsite licensed facility.

8.6 When preparing details in accordance with this requirement consideration, as a minimum, shall be given to:

- Size and location
- Separation from other facilities
- Separating access routes from working areas
- Separation of the public from access routes and working areas
- Storage of Plant and Materials
- Arrangements for removal following completion of construction.
- Publishing details of internal circulation routes within the site. The plans shall show how pedestrian routes will be segregated from plant and equipment routes.

9.0 Procurement

9.1 Each P-CEMP will include a requirement for construction materials to be sourced locally where practicable, to minimise the impact of transportation.

9.2 Contractors will be required, where practicable, to ensure that pre-fabricated elements will be delivered to site ready for assembly in order to reduce on site construction waste and reduce vehicle movements as part of the construction process.

10.0 Waste Management

10.1 Each P-CEMP shall set out details of construction waste management in accordance with the Site Waste and Materials Management Plan Appendix 18E of the Environmental Statement (Document DCO 6.18E). It is inevitable that some waste will be produced during the construction works. Throughout the construction process, all activities will seek to minimise the generation of waste, utilising the waste hierarchy where practicable, to manage waste. The waste hierarchy seeks to reduce waste through elimination, reduction, re-use, recycling through to disposal as the final option. Handling and disposal of waste must be carried out under the 'Duty of Care' Regulations and current legislation.

10.2 Waste management procedures shall be developed and will include the following topics:

- Identification of the types of waste that may be generated;
- Implementation of re-use and recycling strategies;
- Implementation of waste minimisation strategies;
- Set up of waste disposal facilities;
- Control and management of the disposal of different types of waste, utilising local waste management facilities wherever possible;
- Roles and responsibilities;
- Monitoring, reporting and auditing of waste produced on site.

10.3 Waste can also be controlled through the use of particular construction techniques and use of recycled materials. Each P-CEMP, where relevant, will include a requirement to work with the supply chain to identify and utilise suitable recycled aggregates where they are available within suitable travelling distance to minimise the import of clean aggregates. Each P-CEMP, where relevant, will also include a requirement to explore and utilise prefabricated construction techniques where practical to do so.

10.4 If unknown made ground deposits are encountered a Material Management Plan (MMP), in accordance with the CL:AIRE DoW CoP, will be prepared which will define how the made ground materials may legitimately and safely be reused as part of the development earthworks. The MMP must be based upon suitable risk assessment that underpins the remediation strategy or/and Design Statement concluding that the objectives of preventing harm to human health and pollution of the environment will be met if materials are reused in the proposed manner and positions. It will also define the method of verification. This has to be reviewed and agreed by an independent Qualified Person registered with CI:AIRE not involved in the project. Thus, safeguarding the integrity of the Materials Management Plan and its use in practice.

Earthworks/Spoil

10.5 The proposed development will seek to minimise the import and export of material, wherever possible. The re-use of materials around the site, as suitable engineering material or infill material, will be carried out whenever possible, in accordance with details agreed pursuant to Requirement 12.

Reduction

10.6 A number of potential options are available to complement construction waste reduction including maximising off-site fabrication, efficient design specification of standardised components/materials, implementing a just-in-time delivery system to minimise the volume of goods/materials stored on site and therefore exposed to inclement weather conditions and other site damage sources.

Re-Use

10.7 Certain materials may have a relatively high level of re-use (e.g. timber, aggregates, bituminous planings, brick and block-work) within the construction stage operations. Such wastes may arise from spoiled materials, and natural waste from construction processes. Procedures will include:

- Separate skips/receptacles will be provided to receive different types of specific waste which can be re-used on site.
- Licensed waste carriers will be required to identify possibilities of local community re-use of waste materials.

Recycling

10.8 Certain materials may have a feasible recycling value (e.g. timber, aggregates, plastics, glass, and metals). These may arise from similar construction processes as those identified above for re-use.

Procedures will include: -

- Separate marked skips/receptacles will be provided for the depositing of particular types of waste suitable for efficient recycling; and
- Discussion with licenced waste carriers in respect to the feasibility/efficiency of specific materials recycling.

Disposal

10.9 It is inevitable that certain materials will have to be removed from site for disposal as they have no re-use/recovery value. Procedures to be considered in preparing a Site Waste Management details will include:

- All wastes which require removal from site for final disposal will be subject to an effective management control regime ensuring statutory compliance. The key components of this regime are illustrated below:

    - Appointing competent and suitably registered waste carrier(s);
    - Establishing an effective site waste stream strategy (recycling, re-use, disposal);
    - Providing an effective waste skip strategy to suit the waste stream strategy and which differentiates between hazardous, non-hazardous and inert wastes;
    - Should asbestos be encountered all potentially asbestos containing materials will be disposed of by a suitably licensed contractor in accordance with relevant guidance and legislation;
    - Providing adequate information/training to site operatives in respect of the waste stream strategy; and
    - Implementing an effective audit procedure, to audit the waste disposal regime from source to licensed disposal facility(s). This will include reviewing all relevant Waste Management Licences and Waste Transfer Licences of all waste contractors on the project. In addition, a record will be kept of all Waste Transfer Notes to ensure that all waste movements from the site are properly documented. Non-Conformance Reports would be issued to ensure any deficiencies are corrected.

11.0 Storage of Fuel, Oil and other Chemicals

11.1 Each P-CEMP will set out details for the arrangements for the storage of fuel, oils and chemicals having regard to the location of contractor compounds.

11.2 All fuel, oil and chemicals shall be stored in accordance with the Manufacturer's recommendations and any tanks shall be in accordance with PPG7 (above ground oil storage tanks) and PPG2 dealing with spills; or subsequent amendments or replacements thereof.

11.3 On-site refuelling will be undertaken in a designated impermeable area to prevent runoff/infiltration.

11.4 Fuel, oil, and chemical storage areas should be covered to prevent the accumulation of rainwater and should be bunded to prevent spills being released into the environment accidentally. Bunded areas should be able to hold 110% of the volume they store and may benefit from a valve to release any accumulated rainwater. An oil separator (interceptor), or other device to remove oil from water, may need to be installed.

11.5 Drip trays are to be used under vehicles, where appropriate to ensure that oil is collected to prevent contaminated runoff.

11.6 All fuel, oil and chemicals will be stored at least 10m away from the top of bank of watercourses.

12.0 Development affecting a Watercourse

12.1 Each P-CEMP shall set out details of any watercourse that may be affected by the works. All works affecting a watercourse shall be carried out in accordance with a method statement to be prepared and included in each P-CEMP.

12.2 No works within an ordinary watercourse or within the by-law protected strip either side shall commence until approval has been granted, by the lead local flood authority pursuant to Article 19 of the DCO.

12.3 No works within a Main River or within the by-law protected strip either side shall commence until an Environmental Permit has been issued by the Environment Agency.

12.4 Each P-CEMP shall set out details of any works that affect any floodplain and such works must be carried out in accordance with the mitigation measures detailed in the flood risk assessment (Document DCO 6.13G and 6.13H) unless otherwise agreed in writing with the Environment Agency, the lead local flood authority or the appropriate approving body pursuant to Requirement 16.

13.0 Temporary Lighting

13.1 No works within the Main Site are planned to be undertaken in periods of darkness and therefore it is unlikely that task lighting will be required. However, unplanned events can occur for which task lighting may be required for short periods; in this event each P-CEMP shall set out the maximum height of lighting lanterns and the average lux levels.

13.2 The P-CEMP for any component of the highway works shall provide details of requirements for night working and any associated proposals for lighting.

13.3 Temporary lighting will be provided in the contractor's compound for security and safety reasons. Details shall be set out in the P-CEMP including the average lux level.

13.4 Task lighting shall ensure that there is no upward light.

13.5 Lighting will be switched off when not required for safety or security.

14.0 Prevention of Debris on Highways

14.1 Each P-CEMP shall include details of the contractor's proposed measure for cleaning vehicles before leaving site and other measures to ensure mud and other deleterious material is not deposited on the public highway. This shall include arrangements for the use of suction sweepers in accordance with 'Institute of Air Quality Management (IAQM) Guidance on Assessment of Dust from Demolition and Construction 2014'.

15.0 Construction Traffic Management

15.1 A detailed Construction Traffic Management Plan (CTMP) has been prepared and is Appended to and forms part of this CEMP. The CTMP sets out the arrangements and management practices that will be adopted to minimise the impact of traffic on the local road network and will be agreed with the relevant highway authority prior to the commencement of construction related works. The CTMP is also intended to provide clear guidance to the Principal Contractor (once appointed) and all sub-contractors regarding access routes to the site, maintenance requirements for the existing public road, restrictions to vehicle access, speed limits imposed or the duration of the works, and identification requirements for all vehicles involved in the project.

15.2 Each component of the development will require a separate Construction Traffic Management Plan for that specific phase, which will be referenced as a pCTMP (phase).

16.0 Protecting Biodiversity Interests

Landscape

16.1 The Landscape Designer will identify existing landscaping or newly planted landscaping that needs to be protected and details shall be set out in each P-CEMP. Protection shall be provided in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations. Any tree surgery required will be carried out in accordance with BS 3998:2010 Tree Work Recommendations.

Ecology

16.2 All P-CEMPs will be prepared in accordance with the Landscape and Ecological Management Plan (LEMP) (Document DCO 6.9J).

Habitats – General

16.3 The following principles should be incorporated into each P-CEMP where appropriate.

16.4 As a result of the duration of works, each P-CEMP will be informed by an update walkover survey that will ensure that an up-to-date baseline informs the specific construction site management measures during each phase to avoid and/or reduce effects on habitats and species.

16.5 Key measures are outlined below and would be expected to be required for each P-CEMP.

16.6 Prior to the commencement of construction activity, including that required to bring about the change in levels and establish the development platform, a sturdy fence, as detailed in each P-CEMP will be established on the perimeter of development areas at an appropriate distance to take account of tree root protection zones in line with British Standard BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations. This would where necessary be informed by an up-to-date Arboricultural survey of the phase in question.

16.7 No temporary storage of materials, construction of haul routes, or site machinery would be sited within retained habitats as identified in the P-CEMP and access by construction site personnel would be prevented.

16.8 An ecological clerk of works will ensure that measures will be implemented to prevent inadvertent damage to retained or created habitats throughout the construction phase particularly where vegetation is to be removed or during works close to retained habitat.

16.9 This is to ensure that retained woodland, trees, hedgerows and other vegetation are not adversely affected during the construction process, particularly through compaction of the soil and inadvertent encroachment and damage.

16.10 All site personnel will be made aware of the importance of retained vegetation through a briefing prior to commencing work. Movement of earth to facilitate the necessary changes in levels will be undertaken in such a way as not to impact on retained habitats, either through soil compaction or subsidence.

16.11 CIRIA guidance on Environmental Good Practice on site guide will be adhered to at all times in order to reduce the chance of chemical spills and other pollution events. Relevant spill kits will be kept on site for the rapid treatment of any spillages, with staff trained in their use present at all times when work is underway. Exclusion fencing will be established along the routes of watercourses and particular care taken in terms of movement of machinery and storage of materials in proximity to these features.

16.12 Best practice measures for the industry will be employed according to agreed standards in order to minimise adverse effects on the surrounding area through dust deposition. This will include wheel washes of construction vehicles and dust suppression techniques during periods of dry weather and / or high winds. Measures for the control of dust are considered in greater detail elsewhere in this document.

Habitats – veteran and irreplaceable habitats.

16.13 Where the loss of over-mature or veteran trees is unavoidable, a bespoke compensation strategy will be implemented to conserve ecological function and promote habitat continuity for saproxylic invertebrates, fungi, and associated species.

16.14 The following measures will be implemented:

- Deadwood Monolith Creation:
  - Large-diameter sections of felled trees will be retained and installed vertically as standing deadwood features (monoliths), or laid horizontally as lying deadwood, at two designated areas within the site's green infrastructure network. Monoliths will be installed at a range of orientations, exposures and moisture conditions to replicate natural deadwood heterogeneity. Priority will be given to installing monoliths close to retained over-mature trees to encourage natural species dispersal.
- Stump and Soil Translocation:
  - The original stumps and surrounding topsoil (top 10–30 cm) from felled veteran trees will be carefully excavated and relocated adjacent to the new monoliths. This will assist in transferring soil fungi, microbial communities, and invertebrates associated with the original tree environment, helping to maintain ecological continuity.
- Vertical Log Piles:
  - Trenches approximately 0.5 m deep will be excavated, filled with vertically stacked branchwood, and lightly backfilled with loose soil, leaving timber ends exposed. These features will be created in semi-shaded locations, ideally near hedgerows or retained trees, to provide a structurally diverse deadwood habitat.
- Working Methods and Supervision:
  - Specialist contractors experienced in handling large, complex timber pieces and veteran material will be engaged. Works will require large machinery (e.g., 360° excavators with grabs) and careful handling to avoid damaging important decay features such as cavities and fungal bodies. All operations will be supervised by an ecologist and arboriculturalist.
- Protection Measures:
  - Low post-and-wire fencing, bollards, or similar barriers will be erected around monolith installation areas to prevent unauthorised access. Interpretive signage will be installed at key locations to explain the ecological value of the installations and promote awareness among future site users.
- Monitoring and Adaptive Management:
  - All deadwood habitat installations will be incorporated into the Landscape and Ecology Management Plan (LEMP) and subject to routine inspections. Management actions (such as securing leaning monoliths, or enhancing habitat if decay rates differ from expectations) will be implemented as necessary to maintain ecological function over time

16.15 Each P-CEMP will detail the timing, sequencing, and installation methods for the translocation of deadwood features, including monoliths, stumps, and associated soils.

16.16 The timing of works will be coordinated with felling operations to minimise the duration that deadwood material is stored before installation, thereby preserving structural integrity and associated ecological communities.

16.17 Initial establishment and aftercare management of the deadwood habitats will be detailed in the Landscape and Ecology Management Plan (LEMP), including routine monitoring, protection measures, and adaptive management interventions where necessary.

Fauna

Badgers

16.18 The Protection of Badgers Act 1992 consolidates the previous legislation on badgers. It aims to protect the species from persecution rather than being a response to an unfavourable conservation status, as the species is common over most of Britain, with particularly high populations in the southwest.

16.19 As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of a badger sett an offence. A sett is defined by Natural England as *"any structure or place which displays signs indicating current use by a badger"*.

16.20 In addition, the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill treatment' of a badger.

16.21 'Interim guidance' issued by Natural England in September 2007 specifically states *"it is not illegal, and therefore a licence is not required, to carry out disturbing activities in the vicinity of a sett if no badger is disturbed and the sett is not damaged or obstructed."*

16.22 Prior to the commencement of any construction a pre-commencement badger survey will be conducted to identify the current status of any setts that have been identified or excavated in the interim.

16.23 Given the current baseline a licence will be required prior to the commencement of any phase that affects badger setts (e.g. the Main Site earthworks). This has been applied for with Natural England and a LONI has been granted. This application will be made in full post consent and no construction works undertaken within 30m of any badger sett until this has been granted.

16.24 The relevant P-CEMP will detail any specific measures required under that licence including details of exclusion zones around existing, retained and proposed artificial setts and any measures proposed to ensure access to retained habitats is maintained.

16.25 Consideration will be given by the Project and Environmental Managers, under advice from the ecologist where necessary, to the normal requirement to conduct licensable activities, such as sett closure, to outside of the period from December to June (inclusive).

16.26 In the event that any setts are excavated within the application site during the construction period an ecologist will be contacted for advice. Any trenches or holes excavated will be covered or left with a means of escape for Badgers (such as a plant of wood) so that they do not become trapped overnight.

16.27 Careful consideration will be given to the storage of mounds of soil, which could be used by Badgers to excavate setts. In particular, the establishment of the landscaped earth bund will require close attention to ensure that Badgers are not harmed during its construction. Areas of the bund to be worked on will be inspected every morning. In the event any evidence of use by badgers is noted work in the area will cease while consideration is given to the best way to proceed.

Bats

16.28 All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) bats;
- Deliberately to disturb bats in such a way as to :-
  - be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
  - to affect significantly the local distribution or abundance of the species to which they belong;
- To damage or destroy any breeding or resting place used by bats;
- Intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

16.29 The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.

16.30 The offence of damaging (making it worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.

16.31 In accordance with the Habitats Regulations the licensing authority (Natural England) must apply the three derogation tests as part of the process of considering a licence application. These tests are that:

- the activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
- there must be no satisfactory alternative; and
- the favourable conservation status of the species concerned must be maintained.

16.32 Survey work has identified the presence of a bat roost within a single tree scheduled for removal as part of the development.

16.33 No bat roosts were identified within any other trees within the site during surveys.

16.34 A Letter of No Impediment (LONI) has been issued by Natural England, confirming that they are satisfied with the submitted bat mitigation licence application to permit the removal of the roosting tree.

16.35 The formal bat licence will be obtained prior to the commencement of any works affecting the roost.

16.36 All works will be undertaken in strict accordance with the conditions of the granted licence, including the use of soft-felling techniques under the supervision of a suitably licensed bat ecologist, and the provision of replacement bat roosting features within the site's green infrastructure.

16.37 Pre-commencement bat surveys will be completed where required to meet legislative requirements, prior to the production of P-CEMP affecting both mature trees to ascertain whether potential bat roost habitat is present and, in the event that it is, the up-to-date status of bats within any trees.

16.38 Where surveys identify that suitable habitat is present within trees and given the often-transitory nature of bat tree roosts, their removal will be carried out according to a precautionary method statement. In brief, this will include precautionary pre-felling nocturnal surveys and / or aerial tree climbing inspections to ensure the sensitive removal of the trees only when it is confirmed to be unoccupied by bats. Providing that no bats are observed the tree will be section felled by experienced arborists under the supervision of an appropriately licensed bat worker.

16.39 Where bats are identified roosting within features to be removed during pre-commencement surveys a licence may be required to facilitate the demolition of buildings or felling of trees identified as supporting a bat roost. Where relevant the P-CEMP will detail construction site measures required under a condition of any licence to prevent impacts to roosting bats. This may, depending on the status and nature of any roost identified, have strict season restrictions.

16.40 To avoid disturbance to commuting or foraging bats during the construction period, the potential for impacts to bats from the use of floodlighting within any construction areas would be mitigated

by the sensitive design of lighting. Measures to reduce impacts within the P-CEMP may include:

- The use of directional floodlighting around construction areas and site compounds to avoid spill onto retained habitats;
- The use of the lowest intensity possible;
- The use of low-pressure sodium (as opposed to high pressure) where possible; and
- The avoidance of lighting that emits high levels of blue/ultra-violet or red/infra-red light.

16.41 To enhance roosting opportunities for bats and support biodiversity across the site, a range of bat boxes will be installed at an early stage of the construction programme.

16.42 Boxes will include a variety of designs suitable for crevice-dwelling and void-dwelling species and will be mounted on retained mature trees within green infrastructure areas, away from artificial lighting and disturbance.

16.43 Installation locations, box types, numbers, and fixing methods will be selected under the guidance of the project ecologist to ensure maximum ecological benefit.

16.44 All bat box provision will be incorporated into the Landscape and Ecology Management Plan (LEMP) and subject to appropriate maintenance and monitoring measures post-installation.

Great Crested Newts (GCN)

16.45 The presence of Great Crested Newts (GCN) within the wider landscape has been confirmed although suitable habitat within the site itself is limited.

16.46 GCN are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations").

16.47 The project is registered under Natural England's District Level Licensing (DLL) scheme for GCN. This provides strategic compensation for all relevant impacts associated with the development and ensures that the favourable conservation status of GCN will be maintained.

16.48 Where relevant, each P-CEMP will detail appropriate working practices and site controls to comply with the requirements of the DLL scheme.

16.49 Measures will include, where necessary:

- Identification of working areas and access routes to minimise encroachment into GCN-sensitive habitats;
- Precautionary working methods during site clearance (e.g., directional vegetation strimming, staged clearance where appropriate);

- Measures to prevent GCN from accessing active construction areas (e.g., site fencing where required);
- Protocols for encountering GCN during construction, including halting works and contacting the Site Ecologist for advice.

Reptiles

16.50 No reptiles were recorded during survey work however, suitable habitat for common reptile species, such as grass snake, is present within parts of the site, particularly associated with grassland margins, scrub, and highway verges. Populations, if present, are considered likely to be localised and at low density.

16.51 Construction works that may affect potential reptile habitat include site clearance, vegetation removal, and soil stripping.

16.52 The relevant P-CEMP for each phase will detail the precautionary methodologies to minimise risks to reptiles, where instructed by the project Environmental Clerk of Works (ECoW).

16.53 The broad principles for precautionary working in suitable reptile habitat, where deemed necessary by the ECoW, will include:

- Vegetation clearance during winter months (November to February), where no suitable hibernation features are present, to discourage reptile use prior to active construction;
- Staged habitat clearance and passive displacement during the active season (March to October), involving an initial strim to 150 mm followed by a second cut to ground level after an interval of at least 24 hours;
- Directional clearance toward adjacent retained habitat to allow natural dispersal of any reptiles.

16.54 Precautionary measures will be deployed at the discretion of the project ECoW, based on assessment of habitat suitability, seasonal conditions, and construction phase risks.

16.55 Each P-CEMP will set out site-specific requirements, informed by an up-to-date walkover survey if considered necessary by the ECoW.

16.56 As part of the site's green infrastructure delivery, a series of hibernacula will be constructed to provide overwintering and refuge opportunities for a range of wildlife species, including common reptiles, as well as amphibians and invertebrates.

16.57 Hibernacula will typically be constructed from site-won materials such as logs, brash, rubble, and soil, and will be located within retained and newly created habitat areas including grassland margins, scrub edges, and woodland fringes.

16.58 Structures will be positioned in areas offering a mix of sun and shade to provide suitable thermal conditions and will be designed to ensure stability, shelter, and connectivity with surrounding habitats.

16.59 The construction, location, and aftercare of hibernacula will be detailed within the Landscape and Ecology Management Plan (LEMP) and coordinated with the habitat creation strategy.

Birds

16.60 Section 1 of the Wildlife & Countryside Act is concerned with the protection of wild birds. With certain exceptions all wild birds and their eggs are protected from intentional killing, injuring and taking; and their nests, whilst being built or in use, cannot be taken, damaged or destroyed.

16.61 Schedule 1 of the Wildlife & Countryside Act 1981 is a list of the nationally rarer and uncommon breeding birds for which all offences carry special (i.e. greater) penalties. These species also enjoy additional protection whilst breeding, as it is also an offence to disturb adults or their dependant young when at the nest.

16.62 Wherever possible, clearance of vegetation will be undertaken outside of the bird nesting season (typically taken as March to August inclusive). Where this is not possible a check for nesting birds will be undertaken by an ecologist; in the event that any are identified, an exclusion zone will be established around the nest until the young have fledged. This will be marked clearly will hazard tape and/or Heras fencing. The size of any exclusion area will be determined by the project ecologist, taking into account the species concerned and the activities proposed in proximity to the nest.

16.63 Bird surveys have identified the site as supporting a range of breeding birds, including species nesting in hedgerows, trees, and open ground habitats such as arable field margins and grassland.

16.64 To ensure compliance with the legislation and avoid committing an offence:

- Vegetation clearance and groundworks will, wherever possible, be scheduled outside the bird breeding season (typically March to August inclusive).
- Where works during the breeding season are unavoidable, pre-commencement nesting bird checks will be undertaken by a suitably qualified ecologist.
- If active nests are found, appropriate exclusion zones will be established and maintained until the young have naturally fledged.
- The extent of exclusion areas will be determined by the ecologist based on the species present and the proximity and nature of construction activities.

16.65 Each P-CEMP will set out the procedures to be followed to ensure that no works will result in the disturbance or destruction of active bird nests, including appropriate timing of clearance, site inspections, and mitigation measures as instructed by the project ecologist.

16.66 To support the site's ecological value and biodiversity enhancement objectives, a broad range of bird boxes will be installed at an early stage of the construction programme.

16.67 These will include designs suitable for a variety of species, including small passerines (e.g., blue tit, great tit), open-fronted boxes for species such as robin and wren, and sparrow terraces where appropriate.

16.68 Boxes will be installed within retained habitats such as hedgerows, woodland edges, and mature trees, at suitable heights and orientations to maximise uptake and minimise disturbance.

16.69 The locations, specifications, and numbers of bird boxes will be agreed with the project ecologist and incorporated into the Landscape and Ecology Management Plan (LEMP).

Invertebrates

16.70 Baseline surveys confirmed the presence of a varied invertebrate assemblage associated with habitats such as hedgerows, semi-improved grassland, scrub, ponds, and mature trees.

16.71 The design of the project has sought to retain key features of value to invertebrates, including hedgerows, water features, and scattered trees where possible. In addition, specific compensation and enhancement measures will be implemented to ensure the conservation value for invertebrates is maintained and enhanced, including:

- Retention and protection of veteran trees and associated deadwood habitats;
- Creation of new deadwood features (standing monoliths, log piles) within green infrastructure areas;
- Establishment of wildflower grassland and structurally diverse vegetation corridors to provide foraging and breeding habitats;
- Management of ponds and ditches to maintain water quality and marginal vegetation diversity.

16.72 Construction activities that could temporarily affect invertebrate populations (e.g., vegetation clearance, soil stripping) will be carefully managed. Where appropriate, measures such as staged clearance, sensitive habitat management, and habitat reinstatement will be employed to reduce impacts.

16.73 Each P-CEMP will include reference to protecting and enhancing habitats of value to invertebrates, including minimising disturbance to retained features and ensuring early delivery of green infrastructure planting and habitat creation.

Otter and Water Vole

16.74 Targeted surveys recorded no evidence of water vole presence within the site or its immediate surroundings. However, low-level otter activity was confirmed along the Diseworth Brook tributary, located adjacent to the western site boundary, through the identification of otter spraints.

16.75 Water vole is considered unlikely to be present within the site based on survey findings and habitat conditions.as such, no construction constraints relating to water vole are anticipated.

16.76 As a precautionary measures, any ditches or watercourses will be treated cautiously during works to minimise impacts and disturbance.

16.77 Although the Diseworth Brook tributary is located off-site and outside the main development footprint, precautionary measures will be employed to protect otter habitat, including:

- Establishment of exclusion fencing and buffer zones (minimum 10 metres where practicable) from the watercourse margins;
- Sensitive positioning of construction compounds, haul routes, and material storage areas away from the watercourse;
- Strict adherence to Pollution Prevention Guidelines to avoid water quality impacts.

16.78 To enhance site connectivity for otters, a log holt will be constructed along the Diseworth Brook tributary prior to commencement of main construction works. The design and location of the holt will be agreed with the project ecologist and will be sited to minimise human disturbance and maximise ecological value.

16.79 In the event that otters are observed within the construction footprint, works will immediately cease in the affected area and advice sought from the project ecologist. Where necessary, further licences or additional mitigation measures will be put in place.

16.80 Each P-CEMP will detail the specific measures relevant to watercourses, including fencing, pollution control, holt installation, and incident reporting procedures, to ensure compliance with legal protections afforded to otter and water vole under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

Other Species

16.81 Survey work has been undertaken for a range of protected and notable species as part of the ecological impact assessment process. Species recorded include badger, bats, otter, and a notable invertebrate assemblage, with suitable habitats for birds, reptiles, and amphibians also identified.

16.82 In the event that protected species are identified during pre-commencement surveys or construction activities, appropriate measures — including halting works, seeking ecological advice, and where necessary obtaining relevant licences — will be implemented and detailed in the P-CEMP for the affected area.

17.0 Protecting Archaeological Interests

17.1 Chapter 12 of the ES has identified archaeological receptor AR8 within the EMG1 Works Scheme that will require protection measures in order that preservation in-situ of archaeological remains can be achieved. Protection measures shall take the form of heras fencing to be installed around receptor AR8 prior to the commencement of the construction phase in order to protect the receptor from any construction related impacts. The fencing shall be supported by signage, in order to inform groundworks of the purpose of the fencing. Protection measures can be removed once construction related activities have been concluded.

18.0 Advisory Signage

18.1 Each P-CEMP shall set out details of advisory signage to be provided at each public access point advising of possible hazards including the potential for sudden noise. Signage may be required at the following locations:

- Planned accesses to the works
- Where public rights of way (PROW) pass adjacent to the site;
- Along substituted RROW;
- At any other location where public access is being achieved, authorised or not, and
- Open bodies of water.

Advisory signage may include:

- Warnings that you are entering a construction site;
- Warning of deep water adjacent to open bodies of water;
- Advisory signs that a PROW has been closed along with a plan of the substituted route;
- Directional signs along substituted PROW;
- Details on how to register a complaint, and
- Emergency telephone numbers.

19.0 Temporary Surface Water Management System

19.1 The arrangements for the temporary management of surface water shall be set out in each P-CEMP.

19.2 Before any works are undertaken a Surface Water Management Plan (SWMP) for that phase shall be set out. Where such works affect watercourses the requirements of Section 11 above shall also be followed. The SWMP will set out measures required to prevent an increase in runoff to the receiving watercourse, sewer or drainage system, thereby preventing an increase to downstream flood risk. The construction phase surface water strategy will attenuate runoff at the equivalent greenfield QBAR rate or at 2l/s/ha, whichever is greatest, thus mimicking the baseline conditions as far as practicable. The excess surface water runoff above the discharge rate will be stored on the construction site, until such time that it can drain into the downstream system. Sufficient storage for the 1 in 100-year storm event with an appropriate uplift for climate change applied will be provided (to align with the consenting authorities requirements).

19.3 The SWMP will also identify measures to provide appropriate levels of treatment to runoff discharged from the construction site to protect the condition of downstream waterbodies. Measures shall be adopted in accordance with CIRIA Report C532 “Control of water pollution from construction sites”; or subsequent amendments or replacements thereof. Measures will include:

- Treatment facilities such basins, swales, and storm fencing, will be used capture and remove pollutants and suspended sediments prior to runoff leaving the construction sites. Where operational drainage basins and swales are also to be used to manage surface water in the construction phase, they will be rehabilitated at the end of the construction phase.
- SuDS used in the SWMP will be design in accordance with CIRIA’s The SuDS Manual (C753).
- A penstock will be provided on the outfall(s) so that the discharge into the receiving watercourse or drainage system can be stopped in the event of a pollution incident.
- Existing outfalls from the construction sites, including land drainage, that do not form part of the drainage strategy will be stopped up to prevent treatment measures from being bypassed
- To avoid the pollution of watercourses from vehicles or accidental spillage, vehicles used on the site will undergo regular inspection and maintained to reduce the risk of leakages. Vehicle washing areas will be located at least 10m from any surface water bodies in designated bunded impermeable areas. Any runoff from this area will be treated prior to discharge.
- Concrete will be mixed off site where possible. Where this is not possible, waste water from concrete production and lorry washing will be limited to a designated bunded impermeable area to prevent runoff or infiltration. Wastewater will be adequately treated prior to disposal
- To minimise the risk of pollution from any on site concrete production, construction works should be minimised during heavy precipitation and carried out during dry months where practicable.

- Wheel washing facilities and regular sweeping will be undertaken to prevent the build-up of dust and silt on roads. Wheel washing facilities will be located in a designated bunded impermeable area a minimum of 10m from any surface water bodies. Any surplus water from these facilities will be disposed of via the foul water system or treated adequately prior to discharge from the site.

19.4 Regular monitoring of the downstream water quality will be undertaken during the construction phase to ensure that the sediment and pollution control measures are working effectively. Details of the monitoring plan shall be set out in each P-CEMP.

19.5 Testing parameters shall be agreed with the Environment Agency or lead local flood authority as appropriate.

19.6 An Outline Silt Management Plan (SMP) has been prepared and is Appended to and forms part of this CEMP. It sets out measures to minimise the mobilisation of silt in surface water runoff, treat surface water runoff to remove silts and suspended solids, and minimise the release of silts and suspended solids from the construction site. The measures set out in the SMP shall be taken into account in the preparation of each P-CEMP.

19.7 Where the suspended solids are particularly fine, flocculants may be used to help maximise removal. Dosage and type of flocculant will be determined for each phase specific CEMP and permit application.

19.8 The discharge of treated surface water from the construction site, and use of flocculants, may constitute a water discharge activity and therefore an environmental permit may be required. The permit requirements will be discussed and confirmed with the EA at the appropriate time.

20.0 Public Rights of Way

20.1 The existing and proposed Rights of Way are shown on the Access and Rights of Way Plans (Document DCO 2.4).

20.2 A combination of appropriate temporary diversions and closures will be implemented before the commencement of any component of works and details shall be set out in P-CEMPs where appropriate.

20.3 All permanent routes will be constructed and implemented as soon as practical.

20.4 Details of the strategy for the management of Public Rights of Way shall be set out in each P-CEMP, the details shall include temporary routes and the timing of the provision of access to permanent routes.

20.5 Any permanent and temporary stopping up of rights of way must be undertaken in accordance with Article 12 of the DCO and any necessary approvals obtained accordingly.

21.0 Traffic Management

21.1 Details of Traffic Management shall be set out in each P-CEMP. This shall have regard to the routing requirements set out in the Construction Traffic Management Plan and any works required to enable construction access to the site.

21.2 The development shall be carried out in such a manner so as to ensure that emergency vehicles visiting the development, or adjacent properties are unhindered at all times and provided with free flow passage as far as is practicable.

21.3 All works on the strategic road network maintained by National Highways shall be carried out in accordance with the Transport Chapter of the Environmental Statement and the traffic management arrangements agreed with National Highways pursuant to Part 1 of Schedule 13 of the DCO.

21.4 All works on the local road network maintained by Leicestershire County Council shall be carried out in accordance with the Transport Chapter of the Environmental Statement and the traffic management arrangements agreed with Leicestershire County Council pursuant to Part 2 of Schedule 13 of the DCO.

21.5 The P-CEMP shall set out details of the relevant temporary speed limits that shall be provided in accordance with Article 16 of the DCO.

22.0 Birdstrike Management

22.1 Consideration should be given to the advice set out in the Birdstrike Hazard Management Plan, Appendix 9K of the Environmental Statement (Document DCO 6.9K). It explains that construction activity on the site is unlikely to result in an increase of bird assemblages over baseline conditions. However, it advises that to ensure there is no risk of increased attraction of birds the following measures should be taken:

- Top soil clearance undertaken in a phased manner;
- The avoidance of puddling of large areas of water;
- If temporary water bodies are formed, to enclose these with goose proof fencing together with measures to prevent landing on the water and to ensure vegetation is not established around these features.

23.0 Code of Conduct and Site Rules

Code of Conduct

23.1 The Code of Conduct below outlines the expected standards of behaviour and professionalism for all individuals engaged in, or visiting, EMG2 Works or Highway Works. The commitment is to deliver projects safely, efficiently, to the highest quality standards, and with respect for all stakeholders, the environment, and the communities.

23.2 This Code draws upon pertinent best practices from major infrastructure developments, including those applicable to Nationally Significant Infrastructure Projects (NSIPs), where robust ethical, safety, and environmental considerations are paramount. Adherence to this Code is a mandatory condition of employment, contract, or site access.

23.3 The code will apply to all employees, consultants, and temporary staff; all contractors, sub-contractors, and their employees, agents, and representatives; and all visitors.

23.4 The core principles are:

- Safety First: The health, safety, and well-being of all personnel, the public, and the environment are our absolute priorities.
- Integrity and Transparency: We act honestly, ethically, and with fairness in all our dealings, promoting an open and transparent working environment.
- Environmental Responsibility: We are committed to minimising our environmental footprint, protecting natural habitats, and promoting sustainable practices.
- Respect and Inclusion: We treat all individuals with dignity and respect, fostering an inclusive environment free from discrimination, harassment, or bullying.

23.5 Specific conduct expectations will be:

Health, Safety, and Welfare

- Zero Harm: Actively contribute to a "zero harm" culture by identifying, reporting, and mitigating hazards and unsafe conditions immediately.
- Personal Responsibility: Take personal responsibility for your own safety and the safety of others.
- Following Procedures: Strictly adhere to all site-specific safety rules, risk assessments, method statements, and permits to work.
- PPE: Always wear appropriate Personal Protective Equipment (PPE) as required by site rules and task assessments.
- Reporting: Report all incidents, near misses, and unsafe acts/conditions promptly to your supervisor or the designated safety representative.

- Substance Abuse: Operate free from the influence of alcohol, illegal drugs, or any substance that impairs judgment or performance. Random drug and alcohol testing may be conducted.

Environmental Protection

- Minimising Impact: Work proactively to minimise environmental impact through waste reduction, efficient resource use, pollution prevention, and protection of biodiversity.
- Compliance: Adhere to all environmental permits, licenses, and legislation.
- Waste Management: Follow established waste segregation, recycling, and disposal procedures.
- Spill Prevention: Implement measures to prevent spills and contamination, and report any environmental incidents immediately.
- Resource Efficiency: Use energy, water, and materials responsibly.

Professionalism and Respectful Conduct

- Professional Behaviour: Conduct yourselves professionally at all times, reflecting positively on EMG2.
- Respect: Treat all colleagues, contractors, clients, stakeholders, and community members with respect, courtesy, and fairness, regardless of background, gender, race, religion, or any other characteristic.
- No Harassment or Bullying: Harassment, bullying, intimidation, discrimination, or any form of offensive behaviour will not be tolerated.
- Diversity and Inclusion: Embrace diversity and contribute to an inclusive working environment.
- Site Appearance: Maintain a clean, tidy, and organised work area.
- Language: Use appropriate language, avoiding profanity or offensive remarks.

Security and Site Access

- Authorised Access: Only access authorised areas of the site. Do not permit unauthorised access to others.
- Site Security: Protect site assets, equipment, and materials from theft, damage, or misuse.
- Identification: Wear visible identification/access passes at all times on site.
- Reporting: Report any suspicious activity or security breaches immediately.

Community Engagement and Public Interaction

- Community Awareness: Be mindful of the impact of our operations on local communities, particularly for large-scale projects.

- Public Interaction: When interacting with the public, represent EMG2 professionally and respectfully. Direct all sensitive enquiries or complaints to the designated community relations or project management team.
- Minimising Disruption: Work to minimise noise, traffic, and other potential disruptions to local residents and businesses.

23.6 Any violation of this Code of Conduct will be taken seriously and may result in disciplinary action, up to and including termination of employment or contract, and potential legal action. This Code of Conduct will be reviewed periodically to ensure its continued relevance and effectiveness. All personnel and contractors will be required to read, understand, and acknowledge their commitment to abiding by this Code as part of onboarding and site familiarisation.

Site Rules

23.7 A set of site rules will be displayed within the site office to set the minimum standard to be adopted by all contractors and Sub-contractors. These will be based on the following:

- All operatives and visitors must wear appropriate PPE (hard hat, high visibility jacket and protective footwear as a minimum), with further equipment to be determined through method statement/risk assessment.
- All operatives and visitors must receive site induction training, including the environmental induction.
- All power tools using temporary electrics are to be transformed down to 110 volts.
- No operative is to misuse or abuse any mechanical or other equipment.
- Only authorised vehicle routes shall be used.
  Segregated pedestrian routes shall be provided.
- Vehicles used in road deliveries of materials, equipment and waste arisings on- and off-site should be loaded to full capacity to minimise the number of journeys associated with the transport of these items.
- All machinery and plant should be procured to adhere with emissions standards prevailing at the time and should be maintained in good repair to remain fuel efficient.
- When not in use, vehicles and plant machinery involved in site operations should be switched off to further reduce fuel consumption.
- Equipment and machinery requiring electricity should only be switched on when required for use. Procedures should be implemented to ensure that staff adhere to good energy management practices, e.g. through turning off lights, computers and heating/air conditioning units when leaving buildings.

- Operatives must not report for work if under the influence of alcohol or drugs or consume alcohol or drugs at work or during breaks.
- All operatives and visitors must report any potential safety incidents identified and must not continue with an activity that has been identified as a risk, without an appropriate risk assessment being in place.
- The site will operate a permit to dig system, which will be granted following a review by the Principal Contractor of service drawings and cable locator scan of the area.
- Any accident or incident on site, which requires medical treatment or time off, should be reported immediately to the Site Manager.
- A Site Accident and Incident Log will be maintained by the site manager.

23.8 Parking of vehicles shall only be permitted in designated parking areas. Parking on the Public Highway or the Development Roads will not be permitted,

Appendix 01 – Indicative Master Programme

Appendix 02 – Construction Phasing, Access and Compounds Plan

Appendix 03 – Construction Traffic Management Plan

Appendix 04 – Silt Management Plan

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Appendix One
Indicative Master Programme

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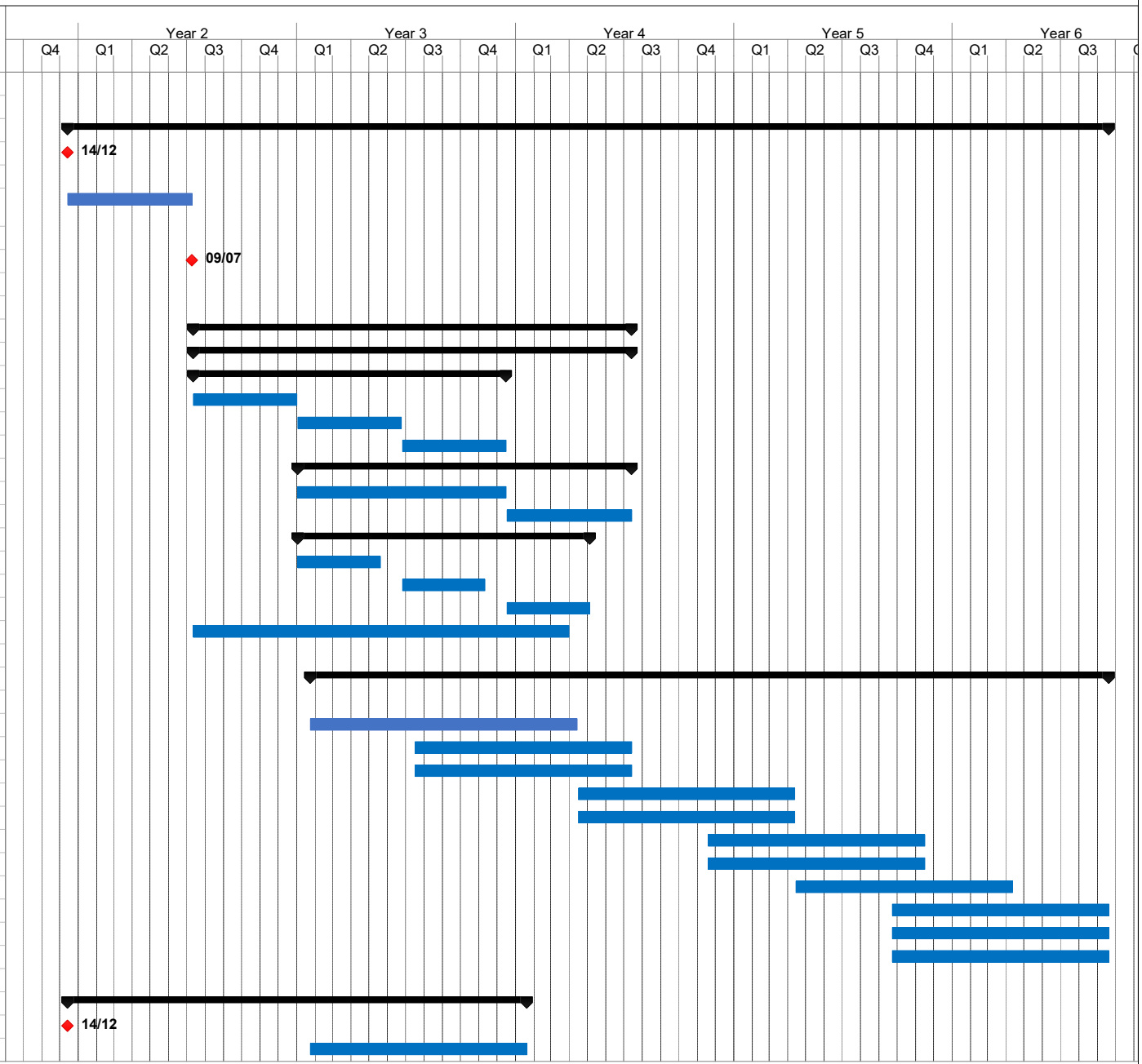
Outline Planning and Construction Programme - EMG2

SEGRO



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Appendix Two
Construction Phasing, Access and Compounds

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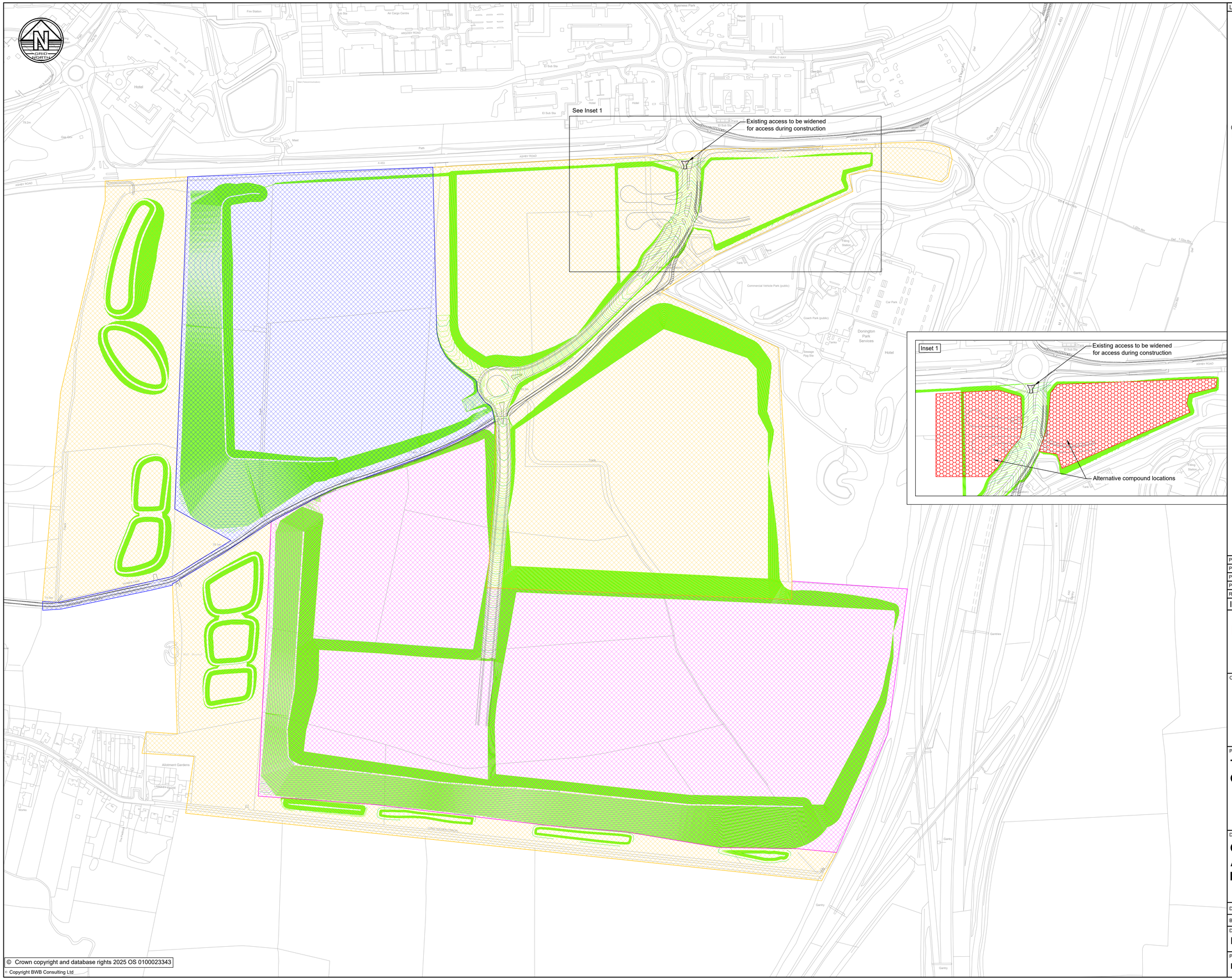

LEGEND

- SITE COMPOUND
- PHASE A
- PHASE B
- PHASE C
- EXISTING ACCESS TO SITE
- DRAFT ORDER LIMITS

0 50 100 150 200

SCALE: METRES

Rev	Date	Details of issue / revision	Drw	Rev.
P04	05.08.25	Alternative access option removed	JFP	DTB
P03	06.06.25	Phase A minor amendment	SRH	SRH
P02	04.06.25	Alternative compound location added	SRH	SRH
P01	13.05.25	Preliminary Issue	JFP	SRH

Issues & Revisions

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Client

SEGRO

Project Title

THE EAST MIDLANDS GATEWAY 2

Drawing Title

CONSTRUCTION PHASING, ACCESS AND COMPOUND PLAN

Drawn:	J.Palmer	Reviewed:	S.Hilditch
BWB Ref:	220500	Date: 13.05.25	Scale@A1: 1:2500

Drawing Status

FOR INFORMATION

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
EMG2-BWB-GEN-XX-SK-CH-SK044	S2	P04

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Appendix Three
Construction Traffic Management Plan

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PC24-004 EMG 2

Construction Traffic Management Plan

Client – (Segro (EMG) Ltd)

1. DOCUMENT ISSUE RECORD

Author:	Mark Skelton
Checked:	Jared Taylor
Approved:	Jared Taylor

Rev	Date	Status	Comment	Author:	Checked:	Approved:
P00	08/11/2024	S0	Draft – Client submission for review	MS	JT	JT
P01	19/11/2024	S1	Draft 1 – Amendments from comments	MS	JT	JT
P02	22/11/2024	S2	Draft 2 for review	MS	JT	JT
P03	14/04/2025	S3	Amendments for Royal Mail section 42 consultation response and Construction Traffic assessments.	MS	JT	JT
P04	05/06/2025	S4	Amended to remove reference to EMG1	MS	JT	JT
P05	04/07/2025	S5	Amended to address NH comments dated	MS	JT	JT
P06	21/08/2025	S6	Amended to incorporate LCC road impact assessment comments.	MS	JT	JT

CONTENTS

2. INTRODUCTION

2.1 Appointment

Taylor Skelton Ltd (TSL) has been appointed by Segro (EMG) Ltd (the Developer) to prepare this Construction Traffic Management Plan (CTMP) report in support of a Development Consent Order (DCO) application for employment development at the site located to the south of East Midlands Airport, and west of Moto Services Donington Park, referred to as East Midlands Gateway 2 (EMG2).

This CTMP has been prepared as a supplementary document to the overarching Construction Environmental Management Plan (CEMP). The CEMP will set out the principal environmental management framework for the construction phase of the project, including key commitments, mitigation measures, and monitoring requirements. This CTMP aligns with the objectives of the CEMP and provides specific detail on the management of construction-related traffic to minimise environmental impacts, ensure safety, and maintain local amenity.

This CTMP should therefore be read in conjunction with the CEMP to ensure consistency across environmental and logistical controls during the construction period.

This CTMP document covers the full extent of the Order Limits for the initial stage of the development, including:

- EMG2 Main site roads and earthworks
- M1 corridor gantry and signage works
- M1 Junction 24 mitigation package
- Finger Farm signage works and upgrade
- A453 South minor highway works
- A453 West (The Green) junction mitigation works

Any subsequent construction phases of the development will require a separate phase Construction Traffic Management Plan (pCTMP) to be prepared for that specific element.

Each pCTMP will be produced substantially in accordance with this CTMP and submitted for approval by the relevant highway authority, including National Highways, prior to commencement of works for each phase.

It is anticipated that pCTMPs will be developed during the detailed design stage and prior to the appointment of the Principal Contractor for each phase, or at such other stage as agreed with National Highways and the local highway authority.

2.2 Document Objective

This CTMP details the proposed mitigation measures that have been included within the Preliminary Design of the DCO Proposed Development and will be implemented, so far as reasonably practicable, to mitigate the potential effects of traffic during the construction stage of the development.

This document focuses on the construction phase of the Scheme. Subsequent phases will be covered in separate pCTMP(s) as required and referenced above.

This CTMP sets out the arrangements and management practices that will be adopted to minimise the impact of construction traffic on the strategic and local road networks and will be agreed with the relevant highway authorities, including National Highways, prior to commencement of construction works.

This document also provides clear guidance to the Principal Contractor (once appointed) and all sub-contractors regarding:

- Approved access routes to and from the site
- Maintenance requirements for the existing public roads
- Restrictions on vehicle access and routing
- Speed limits imposed during the works
- Identification and tracking requirements for all vehicles involved in the project

The Principal Contractor will be responsible for implementation of the CTMP and ensuring that all measures are adhered to by subcontractors, suppliers, and the workforce.

Disciplinary measures will be enforced for repeated breaches of the agreed routes or protocols. These may include verbal and written warnings, suspension from site, or termination of contracts.

A separate Workforce Construction Traffic Management Plan (Workforce CTMP) will be produced to manage how construction workers travel to and from the site. This Workforce CTMP will be secured through the relevant Phase Construction Traffic Management Plans (pCTMPs) for each phase of the development.

National Highways will be consulted on the Workforce CTMP prior to final sign-off of each pCTMP. Sufficient time (not less than 1 calendar month) will be built into the programme to allow for full review by National Highways to ensure the Workforce CTMP is acceptable before any pCTMP is approved.

In order to provide vehicular access and facilitate construction of the various elements of the development, there are three types of road network to be considered:

- National Highways-operated motorways
- National Highways-operated trunk roads
- Local authority-operated roads

Public transport operators are unlikely to be significantly affected by the proposals, provided prior notification and consultation are undertaken. The Principal Contractor will inform transport operators and coordinators of any temporary traffic management requirements affecting public transport corridors in advance, to afford sufficient time to plan and re-route services or issue notices as appropriate.

The re-routing strategy is based on the following principles and objectives summarised in table 1.1 below:

Table 1.1 Objectives of the OCTMP

Objective	Description
A	Provide safe and efficient construction access for the DCO Proposed Development.
B	Ensure that movements of people, plant and materials are achieved in a safe, efficient, timely and sustainable manner.
C	Ensure that any impact to the local communities and tourism industry (In particular East Midlands Airport) is reduced so far as reasonably practicable.
D	Avoid sensitive receptors with effective routing and management of Development traffic.
E	Ensure construction traffic levels do not exceed an acceptable and agreed evel during network peak periods.
F	Reduce and control construction vehicle trips where practical to meet option E constraints.
G	Ensure strategies and mitigation measures are implemented and adhered to through continued monitoring, with ongoing review and improvement of the OCTMP.
H	Construction routes have been identified based upon their suitability to accommodate HGV and LGV traffic. For the purposes of assessment HGVs are defined as any vehicle exceeding 3.5t gross weight. As far as reasonably practicable, HGV routes maximise use of the SRN with clear defined constrains for the Local Road Network and sensitive receptors.

A Construction Traffic Management Working Group will be established and meet regularly to discuss, plan, and coordinate upcoming traffic management measures. The working group will convene (monthly during peak construction periods), or as otherwise agreed.

The group will include (but not be limited to):

- National Highways
- Leicestershire County Council
- Local bus operators
- East Midlands Airport (EMA)
- Moto Services
- Police, Ambulance, and Fire services
- The Principal Contractor
- Any other contractors or organisations undertaking works on the local or strategic road networks that may have the potential to interact with the construction activities of EMG2.

The purpose of this group will be to ensure appropriate coordination of works to avoid conflict and to minimise cumulative impacts on the Strategic Road Network (SRN) and Local Road Network (LRN).

Construction information relating to the type and timing of works, associated transport routes, expected hours of construction traffic movements, and key traffic management measures will be published on the scheme website in advance to enable stakeholders and road users to plan their journeys accordingly.

The Principal Contractor will operate a dedicated enquiry and complaints facility for any issues associated with traffic management impacts. All enquiries will be logged and closed out as far as reasonably practicable.

These arrangements will be in addition to any reporting requirements imposed by National Highways and the local highway authority, including timeframes for response and resolution.

3. LOCATION AND HIGHWAY NETWORK

3.1 Location

Fig 1

The site is located in the East Midlands, in the "Triangle" formed by the cities of Derby (15 km or 9.3 mi, Northwest), Nottingham (17 km or 11 mi, North East) and Leicester (24 km or 15 mi, South East) see fig 1 and fig 2.

Direct road access to the site access (EMG2) will be along the A453 West which is served by good arterial road links from the M1 (North and South), A42 (North), and A453 (South).

Access to the "Highway works" for the development will be managed through specific traffic management systems tailored to each phase of the works. These systems will evolve as the project progresses to accommodate changing site conditions and ensure safe and efficient access for construction vehicles and workers.

M1

The M1 is a north-south arterial route stretching the 311km (193 miles) between London and Leeds. The M1 passes Northampton, Leicester, Nottingham, Derby, Sheffield and Wakefield. The nearest point of access in relation to the site for North travelling traffic is Junction 23A northbound exit to finger farm roundabout, where traffic will adjoin the A453 West, and travel 500m to the proposed site access.

M1 Southbound, traffic will exit at J24, and adjoin to A453 South off J24 gyratory.
EMG2 Main Site traffic will continue on the A453 South to finger farm roundabout and then then travel West on the A453 for 500m to the temporary site access.

A42

The A42 is a major trunk road in the East Midlands, it links J23A of the M1 with junction 11 of the M42. It is 15m (24m) in length.
A42 Northbound traffic will as above, exit North to finger farm roundabout and undertake the same route as M1 Northbound traffic. Note: The M1 North (J23A) and A42 North merge at their respective off slips creating a 3-lane approach to finger farm roundabout.

4. CONSTRUCTION TRAFFIC ACCES AND VEHICULAR MOVEMENTS

4.1 Routing Strategy

Vehicles making deliveries to the Site or removing materials from, will travel by pre agreed designated routes which will be definitively confirmed in the pCTMP.

Whilst the pCTMP will denote assumed routes, the Principal Contractor will be responsible for attaining agreement from the relevant authorities prior to commencement of any phase.

A principle consideration when identifying designated routes will be the minimisation of travel along any road that does not form part of the Strategic Road Network (SRN).

Subject to agreement by the appropriate authorities, it is envisaged that construction vehicles will approach the Site using the M1 (North or South), A42 North, A50 South, or A453 South.

All routes will adjoin the A453 West and travel 500m Westbound to the site access as denoted in figure 3 for EMG2 Main site, or as detailed above will access via the gyratory on the A453 opposite Kegworth Bypass.

No construction access will be taken via Diseworth village, Hyam's Lane or Long Holden?

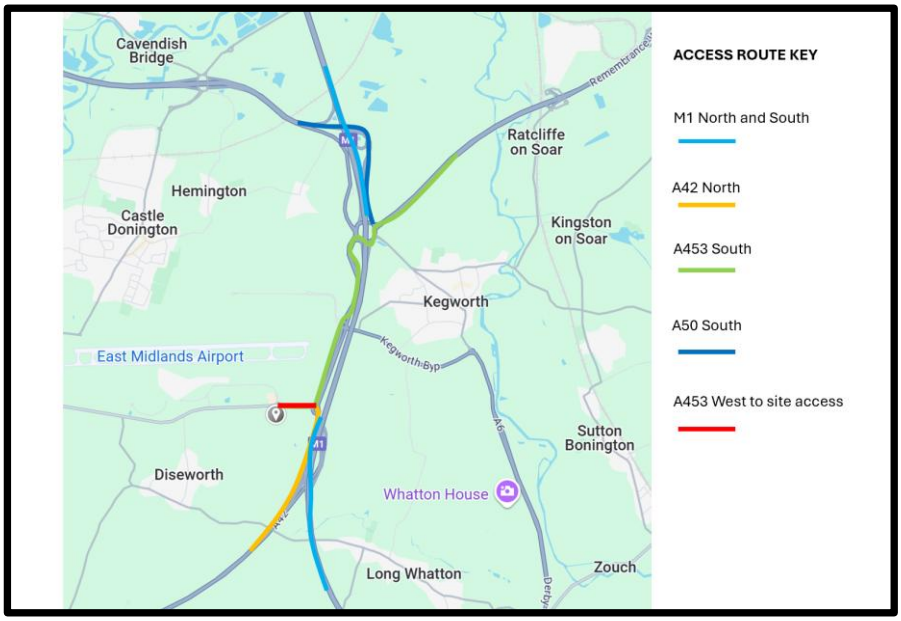


Fig 3.

Where appropriate, the Principal Contractor will provide haul routes through the site for use by construction vehicles, to reduce the need to use of public roads to access different parts of the main site.

The Principal Contractor will consult with the relevant highway authority regarding the layout and positioning of site accesses and undertake swept path analysis to determine suitability as an access/egress for all vehicle types anticipated to be required to visit the site.

4.2 Proposed Construction Traffic Routes and Traffic Management Requirements.

Traffic Safety and Control Officer

Prior to the implementation of any Traffic Management on the Network, the Principal Contractor will appoint a Traffic Safety and Control Officer whose responsibilities will cover:

- Management and implementation of all temporary traffic management measures associated with the Development.
- Checking that all necessary equipment is in place and confirming that it is in working order, and installed in line with the recommendations of the Traffic Signs Manual Chapter 8.
- Management of the Traffic Management layout at site access points.
- Liaison with the relevant authorities, and traffic safety and control officers on nearby schemes which are deemed to have the potential to adversely impact the SRN and LRN associated with this development.
- Arranging for site inspections at regular intervals and checking that equipment is correctly maintained, and in the case of accidents or incidents having replacement signs, cones, bollards, and lights erected without delay.

Note: Traffic Signs Manual Chapter 8 states: “The complexity of traffic management arrangements varies from scheme to scheme, but the primary objective is ~ to maximise the safety of the workforce and the travelling public.

The secondary objective is ~ to keep traffic flowing as freely as possible".

Traffic management on all highways and roads associated with the scheme will comply with the UK Government's Code of Practice 'Safety at Street works and Roadworks' (DfT, 2013) (Ref. 2) or other relevant legislation and guidance as appropriate at the time of implementation. Traffic management will be agreed with the relevant HA prior to the commencement of works. Traffic management signage will be in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 (Ref. 3) and Traffic Signs Manual Chapter 8 (Ref. 1).

Temporary signs providing route information for contractors will be erected at key locations along the proposed construction traffic routes on the LRN and potentially the SRN.

Lead-in times (generally 3 weeks) shall be built into the construction programme to accommodate the formal approvals and advance notification process for any signage requiring National Highways or LCC consent.

Project information boards will be erected and will include key information for the public and relevant contact details. The design and location of route information signs and information boards will be agreed with Leicestershire County Council (LCC) and National Highways (NH) prior to installation.

The Principal Contractor shall ensure that the following general traffic management procedures are implemented for the duration of construction:

- Drivers of site and construction traffic vehicles will be made aware of access routes and contingency/mitigation measures during the site specific induction. In particular, 'no construction access' will be briefed in respect of routes through Diseworth village, Hyam's Lane or Long Holden.
- Drivers of HGV's and abnormal loads will also be inducted, (drivers induction to be undertaken prior to attendance at site) and traffic routes to and from site will be made clear prior to any traffic movements.
- The contractor will be required to implement induction procedures and promote road safety and awareness – in particular Safe access and egress into traffic management should be briefed to all drivers.
- Where possible, arrangements will be made for site workers to share transport and minimise unnecessary traffic movements locally.

4.3 Abnormal loads

Although A/L deliveries to site will normally be planned for outside normal working hours, it is possible that some abnormal deliveries, e.g. major items of plant and equipment, may require special delivery requirements that would require the activity to be undertaken during the normal operating hours.

In all instances, such deliveries will be planned with appropriate highway authorities and the police and executed in compliance with those requirements.

The Principal Contractor will notify the police, the highway authorities or bridge and structure owners, as appropriate, in moving abnormal loads through the road network.

The Principal Contractor will provide relevant parties with a schedule of abnormal load deliveries prior to the first abnormal load movement being carried out. This schedule will be updated and re-issued to the parties as required throughout the construction period.

4.4 Construction Traffic volume assessment

For detailed construction traffic volume calculations an assessment has been undertaken by BWB Consulting Ltd (BWB) who have produced the report East Midlands Gateway 2 – Construction Traffic Calculations, document number EMG2-BWB-GEN-XX-RP-TR-0013 which is contained in appendix 3 of this document.

For the purposes of the calculation's, vehicles can be classified as follows:

<u>Heavy goods vehicles:</u>

For the purpose of this document HGV associated construction traffic includes:

- Workforce Travel on any vehicle 3.5t or greater.
- HGV deliveries of construction materials and equipment.
- HGV deliveries of plant and equipment.
- HGV deliveries of bulk civils materials including aggregate and backfilling materials.

Construction workers and light goods vehicles:

- Cars, vans and any other vehicles less than 3.5t.

In general, it is envisaged that vehicles transporting construction workers will utilise the same route as the construction traffic. However, the route used by construction workers may vary depending on their point of origin.

It is further anticipated that the Principal Contractor will set out arrangements for managing light goods vehicle movement during the course of the working day. Whilst access to areas (in particular offsite Highway works) will be required for surveys and construction works, general travel for personal reasons, both onto the network, and into local towns and villages should be discouraged.

One way of doing this will be, not only to provide the welfare requirements as denoted in the Construction Management and Design regulations, but also to consider the provision of a "canteen" or "shop" that could be served to discourage unnecessary movements from the site during the course of the day.

Based on the above, the BWB calculations have assessed the peak hour construction traffic separately for EMG2 Works, EMG1 Works, and external highways works (0800 – 0900 in the morning and 1700 – 1800 in the evening). Table 7 in the main report is replicated below, which subsequently summarises the totals of the 3 distinct assessments.

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	17	17	34	3	3	6
LGV	3	3	6	1	1	2
Car	19	4	23	5	29	34
Vans	38	8	45	9	56	65
Total	**77**	**32**	**108**	**18**	**89**	**107**

The details show that there is expected to be a total of 108 two-way construction vehicle movements in the morning peak hour and 107 in the evening peak hour, including both movements by operatives (car and van), LGVs and HGVs.

The construction traffic volumes will be capped at the levels set out in Table 7 of the BWB Report, and the values presented in the Construction Traffic Calculations Technical Note at Appendix 3. The contractor will monitor traffic flows during the construction phase and maintain daily records of all vehicle movements and ensure they are compliant with the above assessment calculations.

4.5 Timing of movements

Where possible vehicular movements will be constrained to the site working hours:

07:00-19:00 Monday to Friday; and
07:00-16:00 Saturday.

There will be no works on the main site out of these times other than in exceptional circumstances where prior agreement and notification with be given to the local planning authority.

There will, however, be a need for movements outside of this timeframe to facilitate the construction of elements of the scheme that require non-standard working hours to mitigate the impact of the works on the travelling public. Nightworks, and weekend possessions fall into this category. Advance communication in respect of this, will follow the protocol to be determined in the Construction Traffic Management Liaison meeting, but will ordinarily require information placed on the scheme's

website, and circulatory emails to key stakeholders as defined in the communications protocol.

4.6 Royal Mail Coordination and Notification Protocol

As part of the evolving Construction Traffic Management Plan (CTMP) for East Midlands Gateway Phase 2 (EMG2), it is acknowledged through consultation that Royal Mail's operations are time-critical and rely heavily on predictable access to the local and strategic road network.

In response to Royal Mail's comments during the consultation process, and in recognition of their operational requirements, the Main Contractor will, during the construction phase, provide advance written notification to Royal Mail regarding all relevant traffic management arrangements. This notification will include pictorial aids, annotated maps, and a clear explanation of the traffic scenario, ensuring that Royal Mail has sufficient understanding of traffic management arrangements and any perceived impacts.

The CTMP will incorporate the following Royal Mail mitigation points as a standard protocol that the Principal Contractor will adhere to:

Advance Notice of Disruption: A requirement that during the construction phase Royal Mail is notified by Segro Properties Ltd or its contractors at least one month in advance on any proposed road closures / diversions / alternative access arrangements, hours of working.

Alternative Route Identification: Where road closures / diversions are proposed, Segro Properties Ltd or its contractors should be required to liaise with Royal Mail at least one month in advance to identify and make available alternative highway routes for operational use, where possible.

Ongoing Notification Mechanism: A mechanism will be implemented to inform Royal Mail of any other local highway works that may affect the network, particularly in the vicinity of key Royal Mail operational sites in the area surrounding EMG2.

The above will ensure a coordinated approach and allow Royal Mail to manage its logistics effectively during the construction phase.

5. CONSTRUCTION TRAFFIC MANAGEMENT AND TEMPORARY SITE ACCESS.

The "temporary" construction site access will be off the current roundabout on the A453 West, directly opposite the Beverley Road spur of the roundabout between Finger Farm and the East Midlands Airport access.

Traffic management will be implemented in both directions to clearly identify the site access and to provide advance warning to road users of vehicles entering, exiting, or turning into/out of the development. The Traffic Management layout shall be prepared by the Principal Contractor and submitted for agreement with Leicestershire County Council, the overseeing authority for the A453 west of Finger Farm Roundabout.

For indicative purposes, fig 4 below details likely traffic management arrangement at the proposed temporary site access to the South of the roundabout.

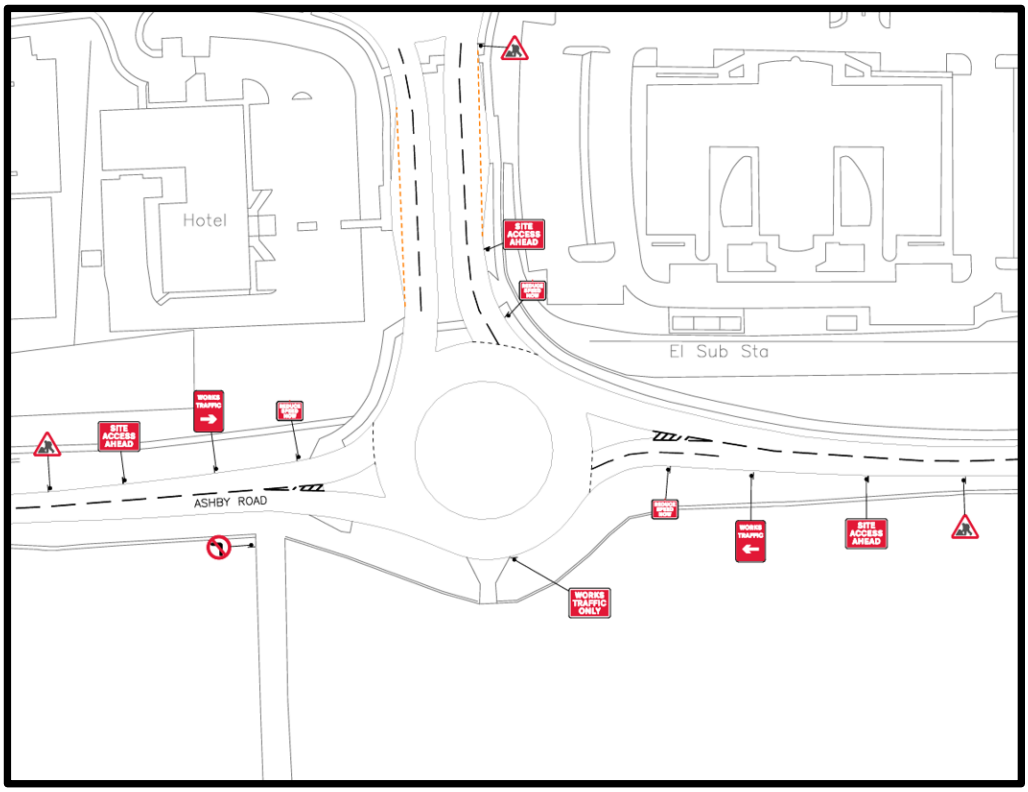


Fig 4.

Note: Traffic Management will be in place until such a time as any permanent works are installed and utilised, including appropriate permanent signage, and an assessment for use by an independent RSA3 Audit (Road Safety Audit).

The main materials storage compound, site welfare facilities, and delivery area, will be accommodated on-site. Additional areas may be required in order to construct the Highway works, whereby satellite office accommodation, and material lay down areas may be additionally required. These will be detailed further in the Contractors CTMP once the Design and methodology are sufficiently developed. Traffic Management associated with access to, and egress from, will be detailed and regularly reviewed in the CTMP.

6. NOISE AND ENVIRONMENTAL IMPACTS

The Principal Contractor will consider the design and operation of the construction site from the perspective of minimising noise and environmental impacts throughout the construction phase.

A clear and concise construction signage scheme will be implemented to support internal traffic control, ensuring separation between construction vehicles and pedestrians. Signage will identify the site office, parking areas (including disabled spaces), delivery zones, and pedestrian routes.

Where reasonably practicable, site haul roads and working areas will be planned to minimise impacts on sensitive receptors and reduce noise, vibration, dust, and visual intrusion.

Additional information on noise monitoring and air quality management will be set out in the Construction Environmental Management Plan (CEMP), which will define thresholds and monitoring protocols in line with best industry practice.

While noise from construction plant is unavoidable, the CEMP will include detailed measures to control and mitigate such impacts. These may include:

- Use of noise-reducing equipment (baffles, enclosures, “Hushpods”)
- Specification of white noise reversing alarms
- Correct positioning and boxing-in of generators
- Maximising the use of electric plant where feasible

Vehicle engines shall not be left idling while waiting to access the site or during loading and unloading. Signage will be installed at site entrances, and gatemen or banksmen will monitor and enforce compliance.

Road sweeping will be required to ensure no debris is left on any roads affected by the development, including both the Local Road Network (LRN) and Strategic Road Network (SRN). This is particularly pertinent in wet conditions, when the site is likely to generate mud as a consequence of Construction activities.

The provision for dealing with this will be covered in the CEMP and the CTMP, where consideration will be given to the use of:

- wheel washes,
- long run-off hard standings with rumble strips
- and road sweepers.

All such provisions will be detailed in both the CEMP and the Phase Construction Traffic Management Plan (pCTMP).

7. Monitoring and Mitigation

The CTMP sets out management and mitigation measures to reduce the impact of the development on the Strategic Road Network (SRN), Local Road Network (LRN), local communities, and the environment. This document should be read in conjunction with the CEMP to provide a comprehensive overview of measures and obligations.

Where reasonably practicable:

Construction and delivery vehicles will avoid travelling in convoys on public roads.

Vehicles will not stop or wait in laybys or on the carriageway en-route to or from the site.

Vehicles shall not queue or stack on the public highway. Sufficient on-site capacity will be maintained to allow vehicles to wait and be processed within the site boundary. Additional pull-in refuge lanes will be provided to maintain the free flow of traffic through the gate and avoid congestion on the A453 and the wider network.

The Principal Contractor will establish a robust monitoring protocol to demonstrate compliance with this CTMP. This will include:

- Daily records of all vehicle movements (arrivals and departures)
- CCTV and/or ANPR monitoring of site access points
- Regular audits and reporting of compliance

Monitoring data will be collated and submitted to National Highways and Leicestershire County Council on a monthly basis, or as otherwise agreed with the authorities.

Any repeated failure to adhere to authorised routes or protocols will result in appropriate disciplinary action in line with the Principal Contractor's policies and Subcontractor/Supplier agreements.

Additionally, as requested by Leicestershire County Council, the Principal Contractor will undertake an assessment of the potential impacts of any road closures required during the construction phase. This assessment will be carried out at the appropriate time, prior to any closure being implemented, and the methodology will be agreed with the relevant highway authorities. The findings of this assessment will be shared with both LCC and National Highways to ensure suitable mitigation is identified where necessary.

8. Enforcement of the Construction Traffic Management Plan

To ensure that the measures outlined in this document can be effectively enforced, it is important to define what would constitute a breach. The CTMP therefore considers that the following would constitute a breach whereby corrective measures would be required:

- Failure to implement or use the agreed traffic management protocol.
- Failure to follow the agreed delivery routes.

- Failure to record deliveries and departures for plant and materials with the proposed monitoring system.
- Failure to keep the construction traffic volumes less than or equal to the traffic management assessment numbers as defined by the BWB report – *East Midlands Gateway Phase 2 – Construction Traffic Calculations*.

Vehicles that are either reported for utilising routes which are not approved, or which are observed to travel along inappropriate routes or in an inappropriate manner, shall be reported to the Principal Contractor for investigation.

The Principal Contractor shall carry out all possible enquiries to identify the relevant company and driver responsible and will take disciplinary action. The step process for this will be covered in the CTMP.

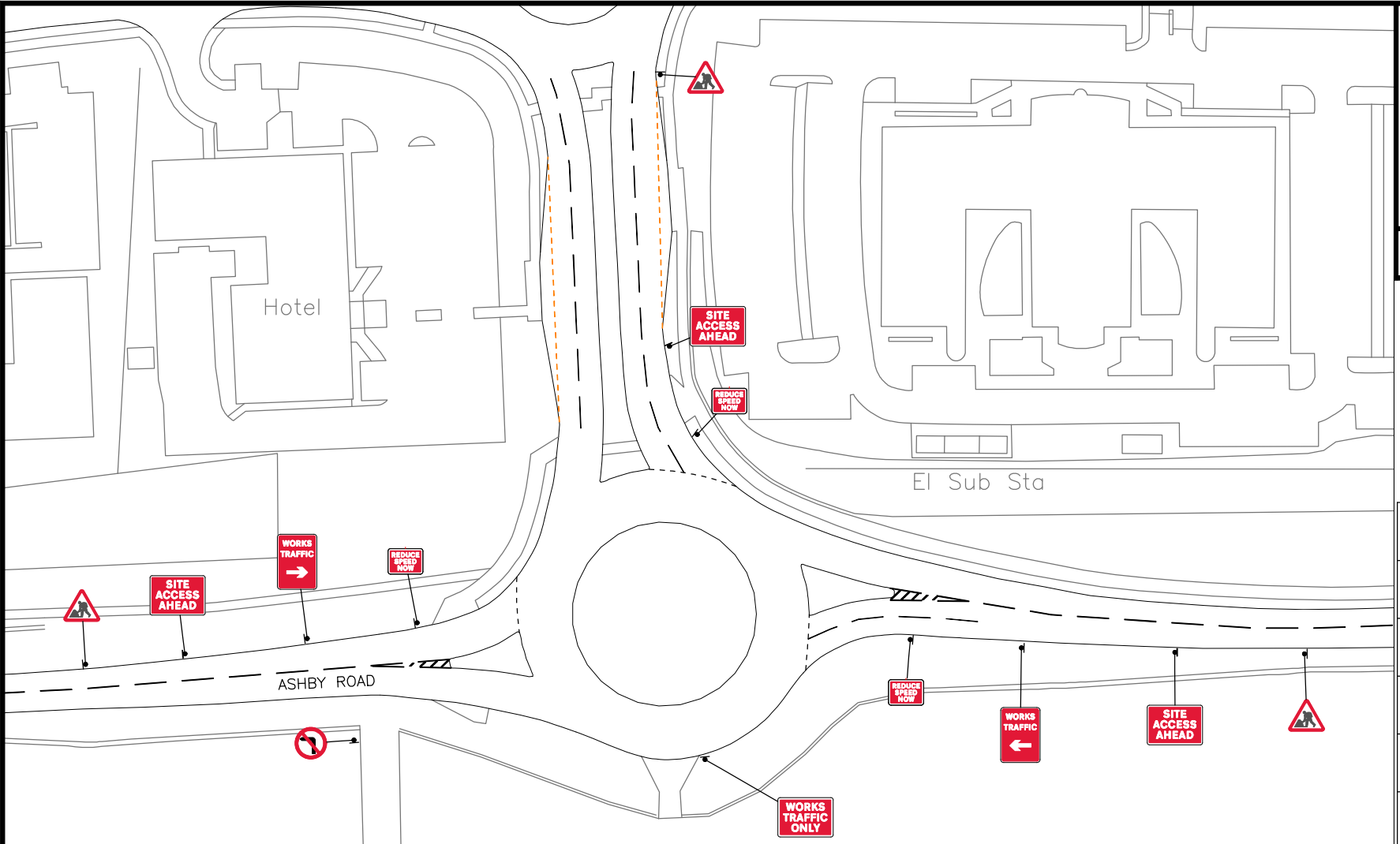
Where any traffic volume thresholds are exceeded, National Highways will be notified immediately and involved in identifying and agreeing mitigation or enforcement measures.

Where there are more than three breaches within a two-week period, the monitoring data will be provided to National Highways and a meeting convened within one week to agree mitigation actions and next steps.

The Principal Contractor shall record all information in a tabulated format and discuss more widely as an agenda item in the Construction Traffic Management Working Group meeting.

APPENDIX 1

Indicative main site access layout plan



Grid Reference Points: 446395 , 325428
what.three.words: weaved.start.shuffles

TAYLOR SKELTON

BILL OF QUANTITIES

Qty: 3 Ref: 13.9 Schedule 13-9 : Temporary Information	SITE ACCESS AHEAD
Qty: 3 Ref: 511 Reduce speed now	REDUCE SPEED NOW
Qty: 1 Ref: 613 No left turn	
Qty: 3 Ref: 7001 Road works ahead	
Qty: 1 Ref: 7301 Works traffic only	WORKS TRAFFIC ONLY
Qty: 1 Ref: 7303 Works traffic direction left	WORKS TRAFFIC
Qty: 1 Ref: 7303 Works traffic direction right	WORKS TRAFFIC

Traffic Safety & Management

Date:	Rev	DRAWN	APPROVED
13.11.24	1	JA	TSM

Title: Ashby Road, Diseworth, Leicestershire, DE74 2TU

Drawing Number:	TSM-1325-REV1
Client Reference:	EMG2
Traffic Management:	Site Management
Road Speed:	60mph

KEY

Sign

All drawings are drawn to north.

All layouts are drawn with Traffic Signs Regulation & General Layout Directions 2016 & Chapter 8 Guidelines. Using Safety At Street Works And Road Works A Code Of Practice as a guideline.
Drawing to be read with relevant method statement & risk assessment.
All sign locations are indictive and exact locations will be determined on site.
Cross section is measured from narrowest point throughout works.
This may differ on site and are only to be used as a guide.

Drawn by Ackroyd Design.

A3

APPENDIX 2

East Midlands Gateway Phase 2

Construction Traffic Calculations

EMG2-BWB-GEN-XX-RP-TR-0013

PROJECT NAME	East Midlands Gateway Phase 2 – Construction Traffic Calculations		
DOCUMENT NUMBER	EMG2-BWB-GEN-XX-RP-TR-0013	BWB REF	220500
AUTHOR	Matt Corner	STATUS	S2
CHECKED	Simon Hilditch	REVISION	P3
APPROVED	Paul Wilson	DATE	11.04.25

1. INTRODUCTION

1.1 BWB Consulting Ltd (BWB) is commissioned by Segro to provide highways and transportation advice on a Phase 2 expansion of the East Midlands Gateway (EMG2) employment development. The site is being proposed for a large B2/B8 industrial development and forms part of the Government's East Midlands Freeport initiative.

1.2 This Technical Note presents the methodology used to calculate the traffic generation during the construction phase of the development. It follows the same methodology adopted on other nationally significant employment DCO projects with Segro at East Midlands Gateway (EMG1) and Northampton Gateway, although without the Strategic Rail Freight Terminal element as this is not proposed at EMG2.

1.3 A separate Explanatory Note has been produced setting out the assumptions and process adopted in calculating construction traffic. A copy is included in **Appendix 1**.

2. CALCULATION METHODOLOGY

2.1 The following calculations consider the tonnes of material required to construct various components of the development based on a unit of measurement. The key components being:

- Roads (EMG2 and EMG1)
- Off-site highway works (EMG2 site access, EMG1 site access, M1 J24, A453/The Green)
- Bridges
- Earthworks (EMG2 and EMG1)
- Buildings (EMG2 and EMG1)
- Landscaping (EMG2 and EMG1)

2.2 It should be noted that reference to EMG2 relates to the main site south of the A453 and East Midlands Airport, whilst reference to EMG1 relates to works associate with developing Plot 16 at the existing EMG site. The off-site highway works are based on the original PRTM modelling work and current mitigation design which reflect 2025 and 2035 future years. If the mitigation strategy changes as a result of the revised PRTM modelling, then this could affect the construction traffic calculations which would then need reconsidering.

2.3 The total number of HGV movements has been calculated based on 18.5T per movement.

2.4 The total number of LGV movements has been calculated based on the following percentages of the HGV movements for each construction component i.e. for 'roads (on-site)' the total number of LGVs equates to 20% of the total HGVs.

- Roads (on site) – 20%
- Roads (off site) – 20%
- Bridges – 40%
- Earthworks – 50%
- Buildings – 20%
- Landscaping – 400%

2.5 The total number of cars and vans varies depending on each construction component and are based on Segro's knowledge of developing other sites. However, it has been assumed that cars have an occupancy rate of 1 person and vans have an occupancy rate of 2 people.

2.6 The number of construction days has been calculated at 49 weeks x 5 day = 245 days per year.

2.7 To establish daily construction movements, total construction traffic has been divided by the days per year x duration in years. A separate Excel Spreadsheet has been produced containing the detailed calculations, contents of which are included at **Appendix 2**, whilst an extract is shown below. A copy of the Excel spreadsheet can be provided on request. **Table 1** subsequently shows the daily construction vehicle movements across the five-year construction period for each vehicle type. This is broken down by works at EMG2, EMG1 and external highway works i.e. at M1 J24 and A453/The Green based on the current mitigation strategy, which is subject to confirmation using outputs from the revised PRTM modelling.

2.8 To give an example, for the 'Roads (EMG2 Main Site)' component, this is expected to be on-going for a total of 367.5 days based on 5 days per week for 49 weeks multiplied by 1.5 years (49 x 5 x 1.5). Across the 367.5 days, there are expected to be a total of 7,750 HGV movements based on the total mass of material required. The daily number of HGVs has been calculated by dividing the total 7,750 HGV movements by 367.5 days, resulting in 21.09 daily HGVs (7,750 / 367.5).

2.9 The daily number of LGV movements (4.22) has then been calculated based on 20% of the daily number of HGVs (21.09 x 0.2 = 4.22).

CONSTRUCTION TRAFFIC CALCULATIONS

EAST MIDLANDS GATEWAY PHASE 2

BWB
A CAF GROUP COMPANY

Construction Traffic Movements (One Way)

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total	Yrs	Day	Average Movements per Day HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425	1.50	367.50	21.09	4.22	42.18	31.63	99.12
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320	1.00	245.00	12.45	2.49	7.47	7.47	29.88
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400	2.00	490.00	32.65	6.53	19.59	19.59	78.37
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340	1.00	245.00	3.98	0.80	2.39	2.39	9.55
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192	0.20	49.00	1.63	0.33	0.98	0.98	3.92
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815	1.00	245.00	5.92	1.18	11.84	8.88	27.82
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240	1.50	367.50	4.35	1.74	8.16	8.16	22.42
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600	1.50	367.50	4.35	2.18	8.71	32.65	47.89
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650	1.00	245.00	0.61	0.31	1.22	4.59	6.73
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636	5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553	1.00	245.00	16.48	3.30	8.24	10.98	38.99
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552	2.00	490.00	0.66	2.64	1.32	2.64	7.25
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296	1.00	245.00	0.11	0.44	0.22	0.44	1.21
								85,479	**19,270**	**63,900**	**78,370**	**247,019**			**143.83**	**34.05**	**132.08**	**156.77**	**466.72**

NOTE 1: highway works based on single site access and initial highway mitigation pack. This is likely to change based on emerging strategic highway solution.
NOTE 2: EMG1 proposals not included, potentially add to buildings as sq ft?

Note: This part needs amending to include extra columns for all the lines added above

Year	Type	Overall Total	Total EMG2	Total EMG1	Total External	Roads (EMG2)	Highway works (EMG2 site access)	Highway works (M1J24)	Highway works (EMG1 site access)	Highway works (A453/The Green)	Roads (EMG1)	Bridges	E/W (EMG2)	E/W (EMG1)	Building (EMG2)	Building (EMG1)	Landscape (EMG2)	Landscape (EMG1)
Yr 1	HGV	**111.33**	**49.95**	**27.10**	**34.29**	10.54	12.45	32.65	3.98	1.63	5.92	2.18	4.35	0.61	13.77	16.48	0.66	0.11
Yr 1	LGV	**27.11**	**14.24**	**6.02**	**6.86**	2.11	2.49	6.53	0.80	0.33	1.18	0.87	2.18	0.31	3.95	3.30	2.64	0.44
Yr 1	Car	**97.03**	**52.55**	**23.91**	**20.57**	21.09	7.47	19.59	2.39	0.98	11.84	4.08	8.71	1.22	9.89	8.24	1.32	0.22
Yr 1	Vans	**123.69**	**75.84**	**27.28**	**20.57**	15.82	7.47	19.59	2.39	0.98	8.88	4.08	32.65	4.59	13.18	10.98	2.64	0.44
Yr 2	HGV	**100.47**	**67.82**	-	**32.65**	21.09	-	32.65				4.35	2.18		39.54		0.66	
Yr 2	LGV	**24.12**	**17.59**	-	**6.53**	4.22	-	6.53				1.74	1.09		7.91		2.64	
Yr 2	Cars	**95.37**	**75.78**	**-**	**19.59**	42.18	**-**	19.59				8.16	4.35		19.77		1.32	
Yr 2	Vans	**104.71**	**85.12**	-	**19.59**	31.63	-	19.59				8.16	16.33		26.36		2.64	
Yr 3	HGV	**39.54**	**39.54**	-	-		-				-				39.54			
Yr 3	LGV	**7.91**	**7.91**	-	-		-				-				7.91			
Yr 3	Car	**19.77**	**19.77**	-	-		-				-				19.77			
Yr 3	Vans	**26.36**	**26.36**	-	-		-				-				26.36			
Yr 4	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 4	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 4	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 4	Vans	**26.36**	**26.36**	-	-						-	-			26.36			
Yr 5	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 5	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 5	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 5	Vans	**26.36**	**26.36**	**-**	**-**						**-**	**-**			26.36			
TOTAL																		

Table 1 – Daily Construction Vehicle Movements by Year

Vehicle Type	Avg Daily Movements (one-way)				Avg Daily Movements (two-way)			
	Overall Total	EMG2	EMG1	Highway Works	Overall Total	EMG2	EMG1	Highway Works
Yr 1	**359**	**193**	**84**	**82**	**718**	**385**	**169**	**165**
HGV	111	50	27	34	223	100	54	69
LGV	27	14	6	7	54	28	12	14
Car	97	53	24	21	194	105	48	41
Van	124	76	27	21	247	152	55	41
Yr 2	**325**	**246**	**-**	**78**	**649**	**493**	**-**	**157**
HGV	100	68	-	33	201	136	-	65
LGV	24	18	-	7	48	35	-	13
Car	95	76	-	20	191	152	-	39
Van	105	85	-	20	209	170	-	39
Yr 3	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 4	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 5	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-

2.10 For robustness, the calculations assume that all construction components would start in Year 1. The details in **Table 1** show that peak construction traffic would occur in Year 1 with a total of 718 daily two-way construction vehicle movements, comprising 385 movements for works at EMG2, 169 movements for works at EMG1 and 165 movements for external highway works. **Tables 2** and **3** set out the assumptions made for the timings of arrivals and departures for each vehicle type has been adopted.

Table 2. Percentage Timings of Arrivals

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	6%	10%
07:00-08:00	10%	10%	45%	45%
08:00-09:00	15%	12%	20%	20%
09:00-10:00	10%	10%	5%	5%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	2%	2%
16:00-17:00	4%	6%	2%	2%
17:00-18:00	3%	3%	5%	5%
18:00-19:00	2%	2%	5%	1%
Total	**100%**	**100%**	**100%**	**100%**

Table 3. Percentage Timings of Departures

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	1%	2%
07:00-08:00	10%	10%	3%	2%
08:00-09:00	15%	12%	4%	4%
09:00-10:00	10%	10%	4%	2%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	8%	8%
16:00-17:00	4%	6%	15%	30%
17:00-18:00	3%	3%	30%	30%
18:00-19:00	2%	2%	25%	12%
Total	**100%**	**100%**	**100%**	**100%**

2.11 The above assumptions were previously agreed for the East Midlands Gateway and Northampton Gateway DCO projects.

2.12 **Tables 4, 5** and **6** summarise the peak hour construction traffic for the EMG2 works, EMG1 works and external highway works respectively, based on the worst-case Year 1 construction period, taking into account the above assumptions. The Excel spreadsheet shows the volume of construction traffic across all 13 hours (0600 to 1900 hours) for clarity.

Table 4. Peak Hour Construction Traffic Generation (EMG2 works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	7	7	14	1	1	2
LGV	2	2	4	0	0	0
Car	11	2	13	3	16	19
Vans	23	5	27	6	35	41
Total	**43**	**16**	**58**	**10**	**52**	**62**

Table 5. Peak Hour Construction Traffic Generation (EMG1 works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	4	4	8	1	1	2
LGV	1	1	2	0	0	0
Car	5	1	6	1	7	8
Vans	8	2	10	2	12	14
Total	**18**	**8**	**26**	**4**	**20**	**24**

Table 6. Peak Hour Construction Traffic Generation (External Highway works)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	5	5	10	1	1	2
LGV	1	1	2	0	0	0
Car	4	1	5	1	6	7
Vans	6	2	8	2	9	11
Total	**16**	**9**	**25**	**4**	**16**	**20**

2.13 **Table 7** calculates the total peak hour construction traffic for all three sets out works, calculated as a sum of the values in **Tables 4**, **5** and **6**.

Table 7. Peak Hour Construction Traffic Generation (Total)

	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
HGV	17	17	34	3	3	6
LGV	3	3	6	1	1	2
Car	19	4	23	5	29	34
Vans	38	8	45	9	56	65
Total	**77**	**32**	**108**	**18**	**89**	**107**

2.14 The details show that there is expected to be a total of 108 two-way construction vehicle movements in the morning peak hour and 107 in the evening peak hour, including both movements by operatives (car and van), LGVs and HGVs.

3. PROPOSED ASSESSMENT METHODOLOGY

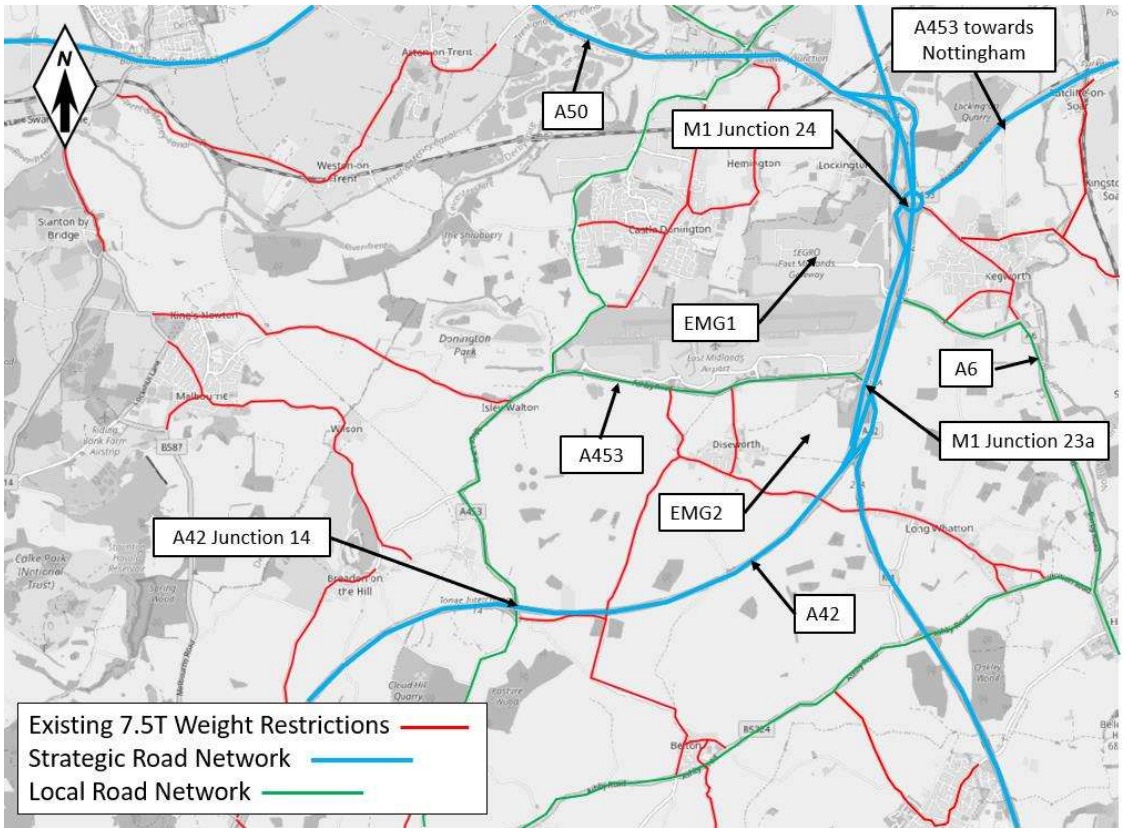
3.1 Whilst peak hour construction movements are expected to be low and do not warrant any further capacity assessment on the surrounding highway network, it is proposed that the peak hour/daily traffic is tested through the Pan Regional Transport Model (PRTM) to provide outputs to inform the ES Chapter, which requires an assessment of AADT construction traffic. Hence peak hour flows will be modelled and a factor will be applied in PRTM to derive AADT movements. This factor will mirror the daily construction vehicle calculations presented in **Table 1**.

3.2 The loading points of construction traffic in PRTM can be split by the various locations based on the values in **Tables 4, 5** and **6**. The distribution of construction traffic will be undertaken within PRTM based on the most appropriate methodology, which at this stage is expected to be via a gravity model approach.

3.3 The PRTM modelling of construction traffic will provide an indication of the likely increase in traffic across the network, which can be compared against the 2028/2038 forecast base year flows (without development), which are being provided as part of the Stage 1 modelling by AECOM. This will provide an understanding of the percentage increase in traffic which will be detailed in the ES Chapter.

3.4 Further details with regard to the routing of construction traffic and measures to limit impacts on the network will be provided in a separate Construction Traffic Management Plan. This includes a commitment to capping construction vehicle movements to those sown in **Tables 4, 5, 6** and **7** and monitoring traffic movements over the construction phase. In addition, consideration can be given to the impacts of lane closures and road space needed to deliver the external highways works, but again this will be covered separately at the appropriate time. HGV route choice will however need to consider existing weight restrictions on the surrounding roads, of which there are a number surrounding the site (as shown on **Figure 1**), which will help limit any impacts along the most sensitive routes and ensure that HGVs use the more strategic routes when travelling to the site. These weight restrictions are already coded into PRTM and was confirmed as part of the Base Model Validation Report.

Figure 1. Existing Weight Restrictions



4. SUMMARY

4.1 This Technical Note presents the traffic generation calculations for the construction phase of the EMG2 development. It follows previous methodologies adopted for other large DCO applications, including at East Midlands Gateway and Northampton Gateway and are based on inputs from an Excel spreadsheet provided by Segro.

4.2 The calculations consider each construction component individually and calculate the daily and peak hour construction vehicle movements for cars, LGVs, vans and HGVs across the five-year construction period.

4.3 The calculations confirm that peak construction activity would occur in Year 1, with a total of 718 daily two-way construction vehicle movements. When converted to peak hour traffic, there is expected to be a total of 108 movements in the AM peak hour and 107 movements in the PM peak hour (two-way). Whilst peak hour activity is expected to be low, construction traffic is proposed to be tested in PRTM for the purpose of obtaining AADT information for the ES Chapter.

Appendix 1. Explanatory Note

EMG2 Construction Traffic Calculations – Explanatory Note

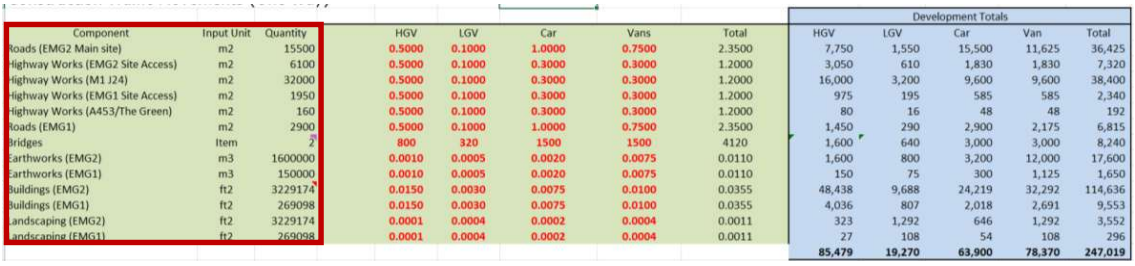
1. Introduction

1.1 This Explanatory Note has been prepared to provide guidance to users reading BWB's Construction Traffic Calculations Technical Note ref: EMG2-BWB-GEN-XX-RP-TR-0013, which calculates the construction traffic forecasts for the East Midlands Gateway Phase 2 project (EMG2). It also provides guidance on navigating the accompanying Excel spreadsheet so that users can understand how the calculations have been derived and any assumptions made.

2. Methodology

2.1 The Excel spreadsheet includes two tabs. The 'calculations' tab provides the inputs and assumptions behind the calculations, whilst the 'Daily_Hourly Flows' tab summarises the data for the purposes of reporting.

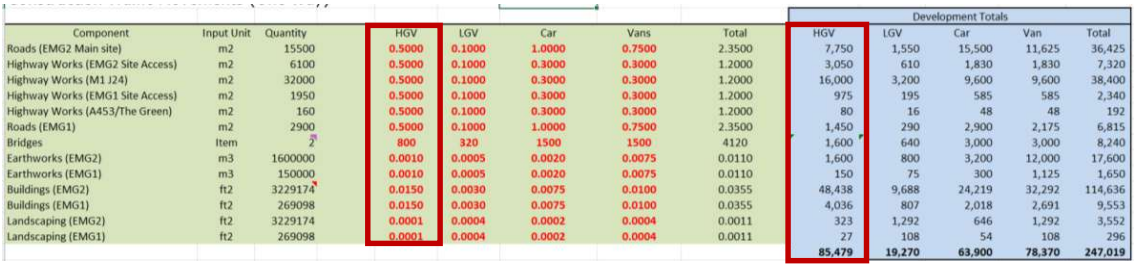
2.2 Starting with 'calculations' tab, this firstly lists the various construction components, the quantity of material needed to construct each component and the unit of measurement down the left-hand side.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	19,270	63,900	78,370	247,019

2.3 The volume of HGVs is determined based on a resourced programme with standard elements of work, so in this instance the number of visits needed to deliver the quantity of material to build each particular component and is applied as a factor. The factors reflect historic survey work undertaken by Segro on existing construction sites. As an example, a HGV factor of 0.5 is applied to all highway works.

2.4 This factor is then used to calculate the total number of HGV movements that would be required to deliver the total quantum of material for each construction component.



Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	19,270	63,900	78,370	247,019

2.5 The total number of LGV movements are then derived as a percentage of total HGV movements, again reflecting historic surveys Segro has undertaken. The following percentages are adopted for each construction component, noting that a higher proportion of LGVs are generated for landscaping purposes compared to highway works. These values reflect one-way movements.

- Roads = 20%
- Highway works = 20%
- Bridges = 40%
- Earthworks = 50%
- Buildings = 20%
- Landscaping = 400%

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.6 The methodology for calculating car and van movements is the same and based on a resource programme with a standard element of works and includes movements from operatives, management, visitors and supervisors, which derives a factor similar to HGVs and LGVs. The factors reflect the following occupancy rates:

- Car = 1 person
- Van = 2 persons

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.7 Finally, total construction vehicle movements are calculated as a sum of HGVs, LGVs, cars and vans.

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296
								85,479	**19,270**	**63,900**	**78,370**	**247,019**

2.8 The amount of time to complete each construction component is then set in years and reflects Segro's construction programme for EMG2. The number of years is then converted to working days, assuming 5 day working weeks for 49 weeks ((49 x 5) x no. of years). For example, the number of working days expected to complete the 'Roads (EMG2 Main Site)' component is 367.50 days ((49 x 5) x 1.5).

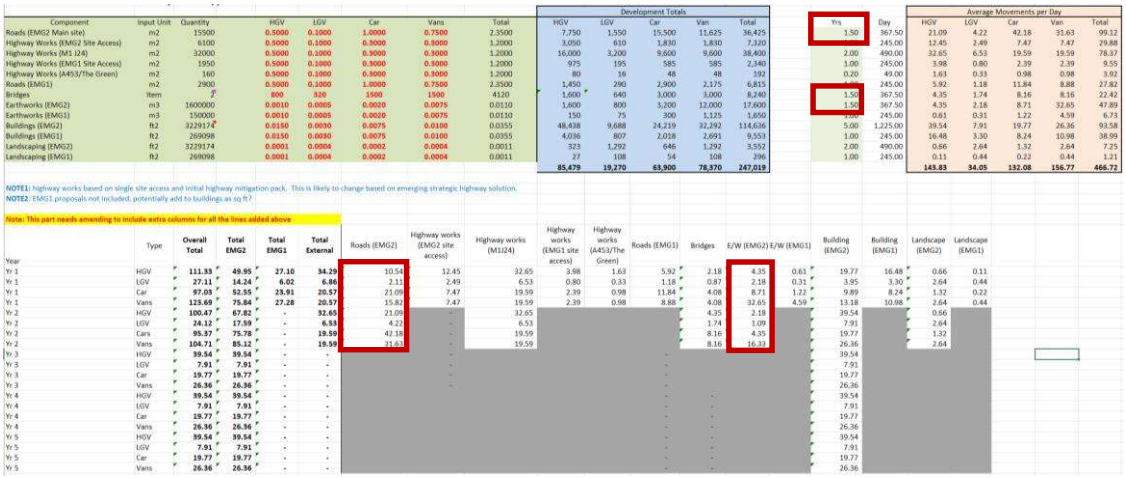
		Average Movements per Day				
Yrs	Day	HGV	LGV	Car	Van	Total
1.50	367.50	21.09	4.22	42.18	31.63	99.12
1.00	245.00	12.45	2.49	7.47	7.47	29.88
2.00	490.00	32.65	6.53	19.59	19.59	78.37
1.00	245.00	3.98	0.80	2.39	2.39	9.55
0.20	49.00	1.63	0.33	0.98	0.98	3.92
1.00	245.00	5.92	1.18	11.84	8.88	27.82
1.50	367.50	4.35	1.74	8.16	8.16	22.42
1.50	367.50	4.35	2.18	8.71	32.65	47.89
1.00	245.00	0.61	0.31	1.22	4.59	6.73
5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
1.00	245.00	16.48	3.30	8.24	10.98	38.99
2.00	490.00	0.66	2.64	1.32	2.64	7.25
1.00	245.00	0.11	0.44	0.22	0.44	1.21
		143.83	**34.05**	**132.08**	**156.77**	**466.72**

2.9 The daily number of vehicle movements for each construction component is then calculated by dividing the total number of vehicles across the entire construction programme by the number of working days. For example, daily HGV movements for the 'Roads (EMG2 Main Site)' component is 21.09 calculated as (7,750 / 367.50).

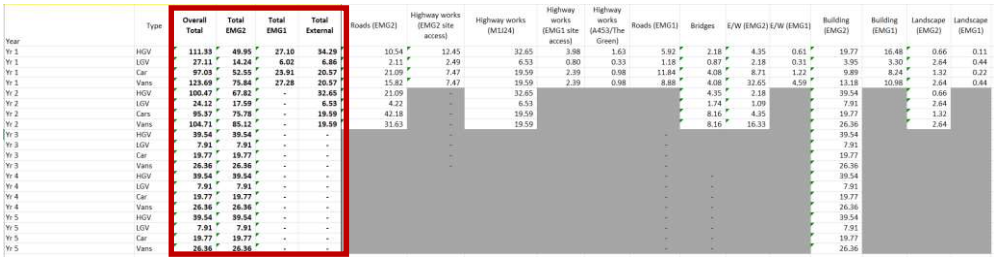
		Average Movements per Day				
Yrs	Day	HGV	LGV	Car	Van	Total
1.50	367.50	21.09	4.22	42.18	31.63	99.12
1.00	245.00	12.45	2.49	7.47	7.47	29.88
2.00	490.00	32.65	6.53	19.59	19.59	78.37
1.00	245.00	3.98	0.80	2.39	2.39	9.55
0.20	49.00	1.63	0.33	0.98	0.98	3.92
1.00	245.00	5.92	1.18	11.84	8.88	27.82
1.50	367.50	4.35	1.74	8.16	8.16	22.42
1.50	367.50	4.35	2.18	8.71	32.65	47.89
1.00	245.00	0.61	0.31	1.22	4.59	6.73
5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
1.00	245.00	16.48	3.30	8.24	10.98	38.99
2.00	490.00	0.66	2.64	1.32	2.64	7.25
1.00	245.00	0.11	0.44	0.22	0.44	1.21
		143.83	**34.05**	**132.08**	**156.77**	**466.72**

2.10 The daily number of movements is then profiled out for each year of construction based on the length of time that particular component is expected to take. To ensure a worst-case assessment, all components are set to start in Year 1, however in reality components will be staggered, for example a certain amount of earthworks is required before you can start constructing buildings.

2.11 Where a particular component is expected to end mid-way through a year i.e. 'Roads (EMG2 Main Site)' has a duration of 1.5 years, the daily values are taken in full for one of the years and divided by two for the other year, to calculate an average. This depends on each component, for example earthworks start early on in the construction programme, so daily movements for earthworks are taken in full for Year 1, whilst road construction would start later, and so daily movements are taken in full for Year 2.



2.12 Using the daily number of movements for each year of construction, total movements for works at EMG2, EMG1 and external highway works are calculated.



2.13 Within the 'Daily_Hourly Flows' tab, the average number of daily movements (one-way) for each vehicle type across each year are calculated using the values above (left hand side of table). These are then multiplied by two to derive two-way movements (right hand side of table), assuming that any vehicle arriving must then depart.

Vehicle Type	Avg Daily Movements (one-way)				Avg Daily Movements (two-way)			
	Overall Total	EMG2	EMG1	Highway Works	Overall Total	EMG2	EMG1	Highway Works
Yr 1	**359**	**193**	**84**	**82**	**718**	**385**	**169**	**165**
HGV	111	50	27	34	223	100	54	69
LGV	27	14	6	7	54	28	12	14
Car	97	53	24	21	194	105	48	41
Van	124	76	27	21	247	152	55	41
Yr 2	**325**	**246**	**-**	**78**	**649**	**493**	**-**	**157**
HGV	100	68	-	33	201	136	-	65
LGV	24	18	-	7	48	35	-	13
Car	95	76	-	20	191	152	-	39
Van	105	85	-	20	209	170	-	39
Yr 3	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 4	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-
Yr 5	**94**	**94**	**-**	**-**	**187**	**187**	**-**	**-**
HGV	40	40	-	-	79	79	-	-
LGV	8	8	-	-	16	16	-	-
Car	20	20	-	-	40	40	-	-
Van	26	26	-	-	53	53	-	-

2.14 In this instance, peak construction traffic is expected to occur in Year 1, as highlighted yellow in the table above. These worst-case values have therefore been adopted when converting daily movements to peak hour.

2.15 The following percentage breakdown of arrivals and departures for each vehicle type is assumed, with the traditional network peak periods highlighted yellow. These percentages are based on historic survey work undertaken by Segro.

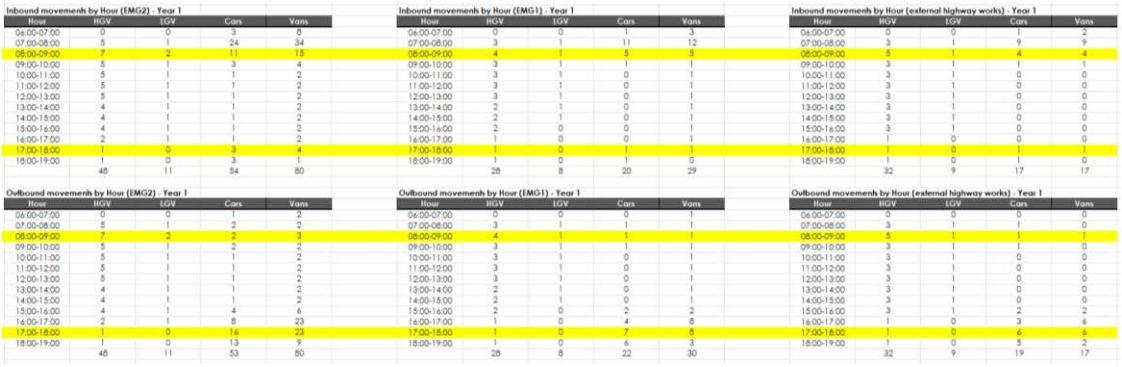
% Arrivals by Hour

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	6%	10%
07:00-08:00	10%	10%	45%	45%
08:00-09:00	15%	12%	20%	20%
09:00-10:00	10%	10%	5%	5%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	2%	2%
16:00-17:00	4%	6%	2%	2%
17:00-18:00	3%	3%	5%	5%
18:00-19:00	2%	2%	5%	1%
	100%	100%	100%	100%

% Departures by Hour

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0%	0%	1%	2%
07:00-08:00	10%	10%	3%	2%
08:00-09:00	15%	12%	4%	4%
09:00-10:00	10%	10%	4%	2%
10:00-11:00	10%	10%	2%	2%
11:00-12:00	10%	10%	2%	2%
12:00-13:00	10%	10%	2%	2%
13:00-14:00	9%	10%	2%	2%
14:00-15:00	9%	9%	2%	2%
15:00-16:00	8%	8%	8%	8%
16:00-17:00	4%	6%	15%	30%
17:00-18:00	3%	3%	30%	30%
18:00-19:00	2%	2%	25%	12%
	100%	100%	100%	100%

2.16 Hourly arrivals and departures for each vehicle type are then calculated by multiplying the daily one-way movements to the percentages above. This has been split by the various locations, EMG2, EMG1 and Off-site highway works as they will have different origin/destination points on the network.



2.17 From this, total arrivals and departures can be calculated. This provides the final peak hour construction movements, which are set out in the report ref EMG2-BWB-GEN-XX-RP-TR-0013 and to be used for further assessment.

Inbound movements by Hour (total development) – Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	6	12
07:00-08:00	11	3	44	56
08:00-09:00	17	3	19	25
09:00-10:00	11	3	5	6
10:00-11:00	11	3	2	2
11:00-12:00	11	3	2	2
12:00-13:00	11	3	2	2
13:00-14:00	10	3	2	2
14:00-15:00	10	2	2	2
15:00-16:00	9	2	2	2
16:00-17:00	4	2	2	2
17:00-18:00	3	1	5	6
18:00-19:00	2	1	5	1
	110	29	98	120

Outbound movements by Hour (total development) – Year 1

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	2
07:00-08:00	11	3	3	2
08:00-09:00	17	3	4	5
09:00-10:00	11	3	4	2
10:00-11:00	11	3	2	2
11:00-12:00	11	3	2	2
12:00-13:00	11	3	2	2
13:00-14:00	10	3	2	2
14:00-15:00	10	2	2	2
15:00-16:00	9	2	8	10
16:00-17:00	4	2	15	37
17:00-18:00	3	1	29	37
18:00-19:00	2	1	24	15
	110	29	98	120

2.18 The formulas in-built within the spreadsheet assume that vans have an occupancy rate of 3 people. It has been agreed with the TWG for vans to adopt an occupancy rate of 2 people per van. The values for vans in the tables above have therefore been multiplied by 1.5 to calculate this. These are shown in the tables at the bottom of the excel spreadsheet, with the revised total development construction vehicles shown below.

Inbound movements by Hour (total development) - Year 1 (adjusted for van occupancy)

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	6	18
07:00-08:00	11	3	44	84
08:00-09:00	17	3	19	38
09:00-10:00	11	3	5	9
10:00-11:00	11	3	2	3
11:00-12:00	11	3	2	3
12:00-13:00	11	3	2	3
13:00-14:00	10	3	2	3
14:00-15:00	10	2	2	3
15:00-16:00	9	2	2	3
16:00-17:00	4	2	2	3
17:00-18:00	3	1	5	9
18:00-19:00	2	1	5	2
	110	29	98	180

Outbound movements by Hour (total development) - Year 1 (adjusted for van occupancy)

Hour	HGV	LGV	Cars	Vans
06:00-07:00	0	0	1	3
07:00-08:00	11	3	3	3
08:00-09:00	17	3	4	8
09:00-10:00	11	3	4	3
10:00-11:00	11	3	2	3
11:00-12:00	11	3	2	3
12:00-13:00	11	3	2	3
13:00-14:00	10	3	2	3
14:00-15:00	10	2	2	3
15:00-16:00	9	2	8	15
16:00-17:00	4	2	15	56
17:00-18:00	3	1	29	56
18:00-19:00	2	1	24	23
	110	29	98	180

Appendix 2. Construction Traffic Flow Calculations Spreadsheet Extract

Rev 4

Construction Traffic Movements (One Way)

Component	Input Unit	Quantity	HGV	LGV	Car	Vans	Total	Development Totals HGV	LGV	Car	Van	Total	Yrs	Day	Average Movements per Day HGV	LGV	Car	Van	Total
Roads (EMG2 Main site)	m2	15500	0.5000	0.1000	1.0000	0.7500	2.3500	7,750	1,550	15,500	11,625	36,425	1.50	367.50	21.09	4.22	42.18	31.63	99.12
Highway Works (EMG2 Site Access)	m2	6100	0.5000	0.1000	0.3000	0.3000	1.2000	3,050	610	1,830	1,830	7,320	1.00	245.00	12.45	2.49	7.47	7.47	29.88
Highway Works (M1 J24)	m2	32000	0.5000	0.1000	0.3000	0.3000	1.2000	16,000	3,200	9,600	9,600	38,400	2.00	490.00	32.65	6.53	19.59	19.59	78.37
Highway Works (EMG1 Site Access)	m2	1950	0.5000	0.1000	0.3000	0.3000	1.2000	975	195	585	585	2,340	1.00	245.00	3.98	0.80	2.39	2.39	9.55
Highway Works (A453/The Green)	m2	160	0.5000	0.1000	0.3000	0.3000	1.2000	80	16	48	48	192	0.20	49.00	1.63	0.33	0.98	0.98	3.92
Roads (EMG1)	m2	2900	0.5000	0.1000	1.0000	0.7500	2.3500	1,450	290	2,900	2,175	6,815	1.00	245.00	5.92	1.18	11.84	8.88	27.82
Bridges	Item	2	800	320	1500	1500	4120	1,600	640	3,000	3,000	8,240	1.50	367.50	4.35	1.74	8.16	8.16	22.42
Earthworks (EMG2)	m3	1600000	0.0010	0.0005	0.0020	0.0075	0.0110	1,600	800	3,200	12,000	17,600	1.50	367.50	4.35	2.18	8.71	32.65	47.89
Earthworks (EMG1)	m3	150000	0.0010	0.0005	0.0020	0.0075	0.0110	150	75	300	1,125	1,650	1.00	245.00	0.61	0.31	1.22	4.59	6.73
Buildings (EMG2)	ft2	3229174	0.0150	0.0030	0.0075	0.0100	0.0355	48,438	9,688	24,219	32,292	114,636	5.00	1,225.00	39.54	7.91	19.77	26.36	93.58
Buildings (EMG1)	ft2	269098	0.0150	0.0030	0.0075	0.0100	0.0355	4,036	807	2,018	2,691	9,553	1.00	245.00	16.48	3.30	8.24	10.98	38.99
Landscaping (EMG2)	ft2	3229174	0.0001	0.0004	0.0002	0.0004	0.0011	323	1,292	646	1,292	3,552	2.00	490.00	0.66	2.64	1.32	2.64	7.25
Landscaping (EMG1)	ft2	269098	0.0001	0.0004	0.0002	0.0004	0.0011	27	108	54	108	296	1.00	245.00	0.11	0.44	0.22	0.44	1.21
								85,479	**19,270**	**63,900**	**78,370**	**247,019**			**143.83**	**34.05**	**132.08**	**156.77**	**466.72**

NOTE1: highway works based on single site access and initial highway mitigation pack. This is likely to change based on emerging strategic highway solution.
NOTE2: EMG1 proposals not included, potentially add to buildings as sq ft?

Note: This part needs amending to include extra columns for all the lines added above

Year	Type	Overall Total	Total EMG2	Total EMG1	Total External	Roads (EMG2)	Highway works (EMG2 site access)	Highway works (M1J24)	Highway works (EMG1 site access)	Highway works (A453/The Green)	Roads (EMG1)	Bridges	E/W (EMG2)	E/W (EMG1)	Building (EMG2)	Building (EMG1)	Landscape (EMG2)	Landscape (EMG1)
Yr 1	HGV	**111.33**	**49.95**	**27.10**	**34.29**	10.54	12.45	32.65	3.98	1.63	5.92	2.18	4.35	0.61	19.77	16.48	0.66	0.11
Yr 1	LGV	**27.11**	**14.24**	**6.02**	**6.86**	2.11	2.49	6.53	0.80	0.33	1.18	0.87	2.18	0.31	3.95	3.30	2.64	0.44
Yr 1	Car	**97.03**	**52.55**	**23.91**	**20.57**	21.09	7.47	19.59	2.39	0.98	11.84	4.08	8.71	1.22	9.89	8.24	1.32	0.22
Yr 1	Vans	**123.69**	**75.84**	**27.28**	**20.57**	15.82	7.47	19.59	2.39	0.98	8.88	4.08	32.65	4.59	13.18	10.98	2.64	0.44
Yr 2	HGV	**100.47**	**67.82**	**-**	**32.65**	21.09	-	32.65				4.35	2.18		39.54		0.66	
Yr 2	LGV	**24.12**	**17.59**	-	**6.53**	4.22	-	6.53				1.74	1.09		7.91		2.64	
Yr 2	Cars	**95.37**	**75.78**	-	**19.59**	42.18	-	19.59				8.16	4.35		19.77		1.32	
Yr 2	Vans	**104.71**	**85.12**	-	**19.59**	31.63	-	19.59				8.16	16.33		26.36		2.64	
Yr 3	HGV	**39.54**	**39.54**	-	-		-				-				39.54			
Yr 3	LGV	**7.91**	**7.91**	-	-		-				-				7.91			
Yr 3	Car	**19.77**	**19.77**	-	-		-				-				19.77			
Yr 3	Vans	**26.36**	**26.36**	-	-		-				-				26.36			
Yr 4	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 4	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 4	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 4	Vans	**26.36**	**26.36**	-	-						-	-			26.36			
Yr 5	HGV	**39.54**	**39.54**	-	-						-	-			39.54			
Yr 5	LGV	**7.91**	**7.91**	-	-						-	-			7.91			
Yr 5	Car	**19.77**	**19.77**	-	-						-	-			19.77			
Yr 5	Vans	**26.36**	**26.36**	-	-						-	-			26.36			

TOTAL

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Appendix Four
Silt Management Plan

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SEGRO Logistics Park
East Midlands Gateway
Phase 2 (EMG2)

Outline Silt Management Plan (SMP)

June 2025

The East Midlands Gateway Phase 2
Development Consent Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 2025

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CONTENTS

APPENDICES

1.0 Introduction

1.1 Purpose of Document

1.1.1 This outline Silt Management Plan (SMP) has been prepared to manage and control on site surface waters during earthworks, with recommended measures to avoid uncontrolled surface water runoff to surrounding areas and to inhibit potential pollution resulting from the discharge of silt containing surface waters into the site surface water drainage system, and subsequently into the wider hydrological system. The following is included within this SMP:

- An introduction to the study area and development proposals;
- The identification of sensitive surface water receptors within the study area and the surrounding vicinity;
- Description of typical measures that will be applied during the earthworks phase, in order to mitigate the potential of silt reaching any of the identified sensitive receptors; and
- The inclusion of a surface water site inspection checklist, to ensure consistent and consecutive monitoring of any silt throughout the earthworks.

1.2 Site Details

1.2.1 The study area of this SMP comprises the land upon which the **EMG2 Works** and **Highway Works** are to be constructed pursuant to the DCO Application. These components of the **EMG2 Project** are described in more detail within the Construction Environmental Management Plan (CEMP), **Document DCO 6.3A**. The corresponding Parameters Plan is presented within **Document DCO 2.5** and the **Highway Works** General Arrangement Drawings are provided as **Document DCO 2.8**.

1.2.2 It is understood that the silt management techniques for the **EMG1 Works** of the MCO Application will comprise those which are stated within the Silt Management Plan appended to the CEMP that was previously approved with the EMG1 DCO.

1.3 Proposed Development

1.3.1 Details of the proposed development pertaining to each component of the DCO Application are summarised below:

EMG2 Works:

1.3.2 Development for a comprehensive logistics and advanced manufacturing development with supporting and co-located office and other ancillary functions, together with an upgrade to the EMG1 substation and the provision of a community park. The **EMG2 Works** will comprise the DCO Works Nos. 1 to 5 and 20 to 21.(Components Plan - **Document DCO/MCO 2.7**):

Highway Works:

1.3.3 A package of highways works is proposed including access to the EMG2 Works, improvements around Junction 24 of the M1 and some minor works on the local highways networks / pedestrian cycle routes. The **Highway Works** will comprise DCO Works Nos. 6 to 19 (Components Plan – **Document DCO 2.**7). The Highways Plan General Arrangement is presented as **Document DCO 2.8**.

1.3.4 Throughout the earthworks pertaining to the DCO Application, areas that are non-paved and / or non-vegetated are prone to surface water runoff with high silt loads. Therefore, silt mitigation measures are recommended throughout the construction phase to limit the volume of potential silt laden run-off.

1.3.5 The proposed development at the **EMG2 Works** requires cut and fill procedure to form a series of flat development platforms (**Document DCO/MCO 6.14M**). **EMG2 Main Site** plateau level plans indicate the creation of several plateau levels (zones) across the site, ranging from 66.750 m AOD in the far southern area to 89.000 m AOD in the far north eastern area. This cut will include the stripping of site topsoil and shallow soils, thus disturbing the natural in-situ strata. Additionally, 3 No. landscape bunds with up to 12.0 m fill are proposed along the western edge of the **EMG2 Works**, to provide a visual obstruction between the development and the nearby town of Diseworth.

1.3.6 It is anticipated that the proposed development at the **Highways Works** will comprise minimal cut and fill earthworks, and therefore the risk of silt laden run-off is considered to be lower than that at the **EMG2 Works**. Despite this, sensitive receptors to potential silt laden run-off at the **Highway Works** has been considered within **Section 2.3** and measures outlined in **Section 3.0** applicable to the **EMG2 Works** would be effective and should be applied to the **Highway Works**.

1.4 Concepts of silt management

1.4.1 Silt management concepts relate to the implementation of mitigation measures initially targeted at preventing the erosion of soils resulting in silt laden runoff during the earthworks (for example, the use of hydroseeding on material stockpiles), and then subsequently targeted at the treatment, volumetric reduction and migration limitation of silt laden run-off.

1.4.2 The two predominant methods to mitigate and treat potential silt laden run-off on a construction site comprise either the creation of temporary drainage, or the modification of site permanent drainage. This outline SMP focuses on the creation of temporary drainage throughout the site earthworks phase. **Appendix A** (courtesy of Frog Environmental) provides deployment guides for the silt management techniques discussed below.

1.4.3 **Section 1.5** below sets out the existing and permanent drainage at the **EMG2 Works** and **Highway Works.**

1.5 Existing and Proposed Drainage

EMG2 Main Site

1.5.1 The Flood Risk Assessment for the **EMG2 Works** completed by BWB Consulting (**Document DCO/MCO 6.13I**) has informed the existing and proposed drainage at the site, summarised below.

Existing Drainage

1.5.2 A public surface water sewer is present in the eastern vicinity of the **EMG2 Works**, running parallel to the adjacent piped watercourse located between Donnington Services and the Diseworth Brook to the east and south of the site, respectively. This sewer outfalls just upstream of the A42 culvert.

1.5.3 A minor watercourse and a series of field / drainage ditches are present in the south eastern corner of the **EMG2 Works.** The associated outfall is via a piped connection which outfalls to a larger pipe, running parallel to the A42 with its outfall to the Diseworth Brook beneath the A42 road bridge.

1.5.4 It is understood that no further drainage exists at the site. This is due to the nature of the **EMG2 Works,** comprising open agricultural fields with vegetative cover. The stripping of this vegetative cover and topsoil across the site as part of the earthworks is anticipated to reduce the rate of infiltration, and therefore simultaneously increase the rate of surface run-off. Disruption to the predominantly cohesive material underlying the site is anticipated to increase the likelihood that the surface run-off is silt laden during the construction phase.

Permanent Drainage

1.5.5 A series of Sustainable Drainage Systems (SuDS) basins, referred to as 'Detention Basins' are proposed along the far western **EMG2 Works** perimeter, each sized for a 1 in 100 year + 25% critical storm event. In this area of the site, the basins are interconnected by a proposed surface water sewer with the indicative flow direction of surface water to the south.

1.5.6 The proposed detention basins continue along the southern site perimeter, interconnected by surface water sewers and swales. Two below ground attenuation tanks, each sized for a 1 in 100 year + 25% critical storm event, are proposed in the centre of the southern site area to accommodate the additional storing of water from the associated catchment areas. In the southern site area, the indicative flow direction of surface water is to the east / south east, towards the proposed downstream proprietary treatment system providing the final stage of treatment to surface water prior to discharge from the site. Discharge of this surface water is proposed via a surface water outfall to a ditch upstream from M1 highway drainage.

Highway Works

1.5.7 The Flood Risk Screening for the **Highway Works** completed by BWB Consulting (**Document DCO/MCO 6.13J**) has informed the existing and proposed drainage across the works, summarised below. It is uncertain where the existing drainage outfalls.

Existing Drainage

1.5.8 The **Highway Works** is positively drained (water is directed away from the Highway by gravity), for example the existing M1 kerb drainage. In the event of exceedance of the existing highway drainage, relatively shallow surface water would likely remain on the highway at nominal depths.

Proposed Drainage

1.5.9 The proposed development of the **Highway Works** will introduce new impermeable surfaces. The additional surface water run-off will be directed into the existing highway drainage, accommodated through the addition of new surface water storage infrastructure / basins constructed in the location of the works.

1.5.10 This is proposed to allow the additional runoff to be stored at the location it is generated and drain into the downstream drainage network when capacity is available. Therefore, the downstream network is able to be retained and will ensure that the existing conditions are preserved. There is also option of enhancing the available storage within the existing downstream highway basins, to accommodate for the additional runoff from the development.

2.0 Source, Pathway, Receptor Relationship

2.0.1 The below section assesses the potential sources, pathways and sensitive receptors of potential silt pollution at the **EMG2 Works** and **Highway Works**, specific to the earthworks phase. This assessment has informed the appropriate mitigation measures recommended throughout the earthworks to significantly slow or inhibit the silt pathways.

2.0.2 As discussed within **Section 1.3**, the proposed earthworks at the **Highways Works** are anticipated to be on a notably smaller scale than that of the **EMG2 Works**. Therefore, it is considered that the likelihood of a potentially complete silt source, pathway, receptor linkage is low.

2.1 Potential Sources of Silt

2.1.1 The predominant sources of silt pollution to the surface water receptors pertaining to the DCO Application / Scheme are anticipated to originate from the general earthworks pertaining to the development outlined within **Section 1.3**, including:

- The movement of materials and machinery around the site;
- The stockpiling of materials on-site; and
- Cut and fill operations.

2.1.2 A combined geo-environmental and geotechnical intrusive ground investigation at the **EMG2 Main Site** was scoped, specified and managed by Fairhurst, with the site work carried out by Structural Soils Ltd between September 2022 and October 2022. The ground conditions encountered during the investigation are summarised within **Table 1** below.

Table 1: Ground Conditions – EMG2 Main Site, 2022

Stratum	Depth to base of stratum (m bgl)	General Description
Topsoil	0.10 – 0.85	Firm to very stiff brown/reddish brown CLAY with silt, sand and gravel of quartzite, mudstone, siltstone, sandstone, flint and quartz.
Made Ground	0.20 – 3.00, encountered locally	Variable, but cohesive dominant. Generally CLAY with subordinate sand and gravel of siltstone, mudstone, limestone, quartzite, sandstone, brick, glass, concrete and ceramic tile.
Oadby Member	1.70 – 16.40	Stiff to very stiff greyish brown/dark grey CLAY with subordinate silt, sand and gravel of mudstone, siltstone sandstone, quartz, flint and chalk with occasional cobbles.

Glaciofluvial Deposits	0.40 – 17.30	Variable interbedded cohesive and granular soils: Cohesive deposit: firm to very stiff CLAY with variable silt, sand and gravel content. Granular deposit: medium dense to very dense gravel with variable CLAY, silt and sand content.
Gunthorpe Member	1.40 – 18.50	MUDSTONE interbedded with siltstone and sandstones.
Diseworth Sandstone	Unproven, discontinuous across the site	Very weak to medium strong fine to medium grained SANDSTONE. Discontinuous, appearing as discrete SANDSTONE strata interbedded with mudstone and siltstone.

2.1.3 The findings of two Preliminary Sources Study Reports (PSSRs) completed by BWB for the Junction 24 improvements (**Document DCO/6.14E**) and the construction of highway infrastructure to facilitate access to the **EMG2 Works** (**Document DCO/MCO 6.14F**) pertaining to the **Highway Works** has informed the ground conditions for this part of the DCO Application, presented below.

Table 2: Junction 24 Improvements Ground Model

Stratum	Top Depth (m bgl)		Base Depth (m bgl)	
	Min	Max	Min	Max
Topsoil	Ground Level		0.10	0.80
Made Ground	Ground Level		0.40	11.30
Fill / Possible Fill	Ground Level		0.70	1.80
Superficial Deposits	Ground Level		0.70	6.80
Mercia Mudstone (weathered)	Ground Level		Not Proven	
Mercia Mudstone	8.23	11.80	Not Proven	

Table 3: Highway Improvements (EMG2 Works Access) - Central and Eastern Area

Stratum	Typical Profile	Description
Hardstanding	0.00 m to 0.30 m	N/A
Made Ground	0.30 m to 0.80 m	
Mercia Mudstone Group (Clay)	0.80 m to 3.50 m	Brown or reddish brown silty very sandy clays.
Weathered Mercia Mudstone Group (Siltstone)	3.50 m to 6.00 m (base not proven)	Gravelly clayey sand and slightly gravelly, sandy silty clay with frequent lithorelicts.

Table 4: Highway Improvements (EMG2 Works Access)- Western Area

Stratum	Typical Profile	Description
Hardstanding	0.00 m to 0.30 m	N/A
Made Ground	0.30 m to 0.80 m	
Oadby Member or Glaciofluvial Deposits	0.30 m to 0.90 m	Slightly sandy silty gravelly clay or slightly silty slightly gravelly sandy clay.
Mercia Mudstone Group (Clay)	0.90 m to 5.80 m	Reddish brown silty clay.
Weathered Mercia Mudstone Group (Siltstone)	5.80 m to 10.00 m	Gravelly clayey sand and slightly gravelly silty clay with frequent lithorelicts.

2.1.4 Due to the predominantly cohesive nature of the ground conditions across the DCO Application, as outlined above, the general earthworks (including cut and fill, stockpiling of materials and the movement of the materials and machinery around the site) is likely to create the potential for silt laden run-off, requiring appropriate consideration and mitigation management.

2.2 Potential Silt Pathways

2.2.1 Plausible pathways for silt pollution to impact the sensitive receptors identified in **Section 2.3** below include direct surface run-off, surface run-off via on site land drains and run-off via the proposed surface water drainage network.

2.3 Sensitive Receptors to silt and surface water flows

2.3.1 The hydrogeological regime of the **EMG2 Main Site** and **Highway Works** has been reviewed utilising publicly available information, such as the Environment Agency (EA) Flood Map for Planning Online Portal, supplemented by the findings of the Flood Risk Assessment / Screening Documents completed by BWB and appended to **Chapter 13: Flood Risk and Drainage** (**Documents DCO/MCO 6.13I** and **6.13J**).

2.3.2 Sensitive surface water receptors within the development boundaries of the EMG2 Works and the immediate surrounding vicinity are presented below. Figure 1, sourced from the Groundsure Report obtained as part of the BWB PSSR (**Document DCO/MCO 6.13I**) is presented below, to show these features:

EMG2 Works (on-site)

- The Hall Brook, which outfalls from the East Midlands International Airport (EMIA) and flows alongside the westernmost boundary of the **EMG2 Works** for around 450 m before being diverted west and subsequently south to enter the nearby village of Diseworth;Existing drainage ditch transecting the centre of the **EMG2 Works**, and outfalls in the south eastern corner, just north of Long Holden (a road located to the south of the **EMG2 Works**); and

- The existing surface water drainage and foul water sewers.

EMG2 Main Site (off-site)

- The Diseworth Brook, located to the south west of the **EMG2 Works**, with its associated flood zones located approximately 240 m south;
- The Long Whatton Brook (rename of the Diseworth Brook, where is passes beneath the A43 and M1 embankments to the immediate east of the **EMG2 Works** and is joined by the Westmeadows Brook), flowing towards the east to join the River Soar; and
- The River Soar – A Main River which flows approximately >2 km east of the **Works.**

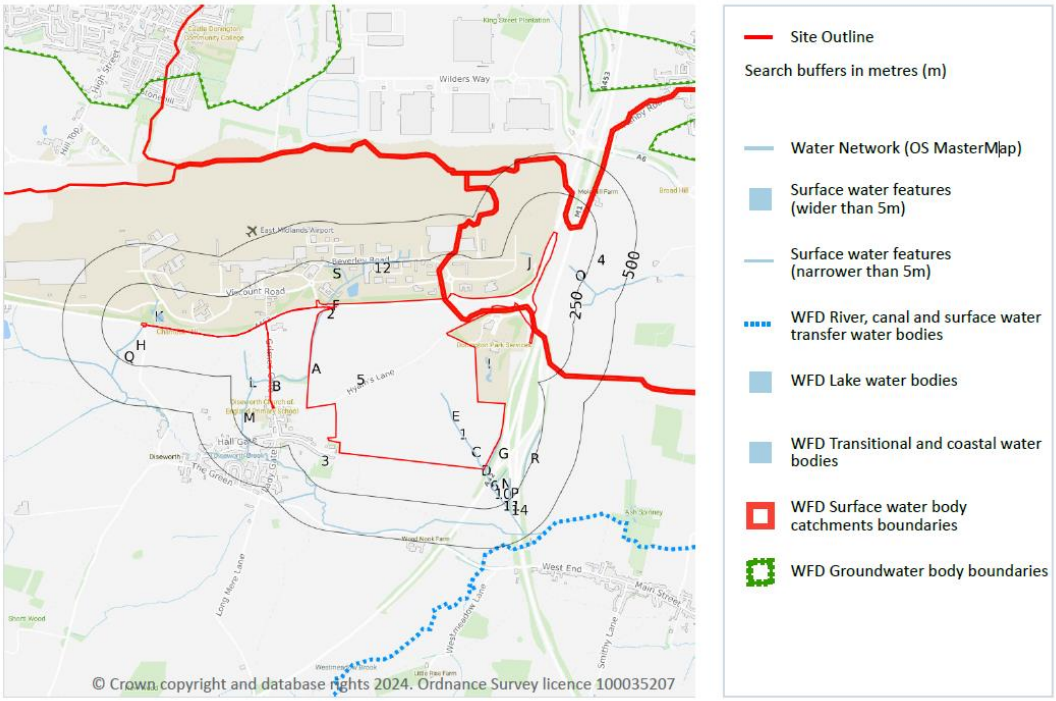


Figure 1: Hydrology of the EMG2 Works and surrounding area, sourced from the Groundsure Report obtained as part of the BWB PSSR (**Document DCO/MCO 6.13I**)

2.3.3 Sensitive surface water receptors within the development boundaries of the **Highway Works** and the immediate surrounding vicinity are presented below. Figure 2, sourced from the Groundsure Report obtained as part of the BWB PSSR (**Document DCO/MCO 6.13J**) is presented below, to show these features:

Highway Works (on-site)

- The existing surface water drainage along the perimeters of the road networks (uncertain outfall point).

Highways Works (off-site)

Due to the distance covered by the Highway Works, reference has been made to the individual components based on the 'Components of the Proposed Development' Plan (**Document DCO/MCO 2.7):**

- The River Soar – A Main River which flows approximately >1.80 km east of DCO Works No. 12 (M1 J24 minor works);
- Unnamed river / drainage ditch, located approximately 795 m east of DCO Works No. 12, within northern Kegworth (M1 J24 minor works);
- Unnamed river / drainage ditch flowing through Lockington, located approximately 595 m west of DCO Works No. 10 (A50 westbound merge);
- Unnamed tributary of the River Soar, which flows beneath Whatton Road), located approximately 265 m east of DCO Works No. 8 (M1 northbound alterations);
- Diseworth Brook, flowing beneath the M1, located approximately 195 m south of the northernmost DCO Works No. 16 (M1 northbound signage alterations); and
- Long Whatton Brook (tributary of the River Soar), flowing beneath the M1, located approximately 250 m south of the northernmost DCO Works No. 16 (M1 northbound signage alterations).

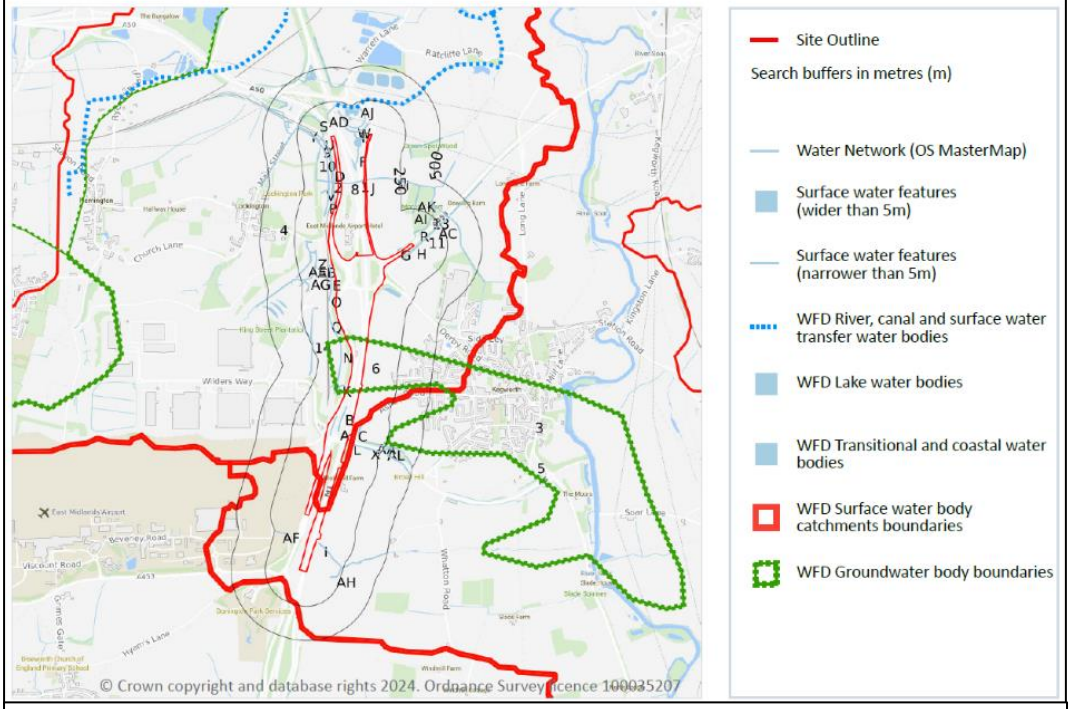


Figure 2: Hydrology of the Highway Works and surrounding area, sourced from the Groundsure Report obtained as part of the BWB PSSR (**Document DCO/MCO 6.13J**)

2.4 Surface Water Baseline Monitoring

2.4.1 Fairhurst carried out surface water sampling and testing at the **EMG2 Works** in October 2024. In total, four surface water samples were obtained from water features, such as streams and irrigation ditches, within the **EMG2 Main Site** and surrounding area. The water samples were then submitted for laboratory chemical analysis, the results of which should be utilised and referenced throughout the earthworks phase as surface water baseline data. This sampling strategy and associated findings are presented within the Fairhurst EMG Phase 2, Derby Technical Note (**Document DCO 6.14D**).

3.0 Silt Control Measures

3.0.1 The below section presents the specific measures which are recommended during the earthworks in order to break the potentially complete silt pathways previously identified. These measures comprise the treatment, slowing and capturing of silt-laden surface run-off.

3.0.2 This is an outline Silt Management Plan, and the measures presented below pertaining to the **EMG2 Works** may also be utilised during the wider development area (including the **Highway Works**). However, it is recommended that a specific silt management plan is developed for each component of the development to thoroughly assess and mitigate the risks.

3.0.3 **Appendix B** of this report presents an outline Silt Management Plan (SMP) markup overlying the BWB Consulting Concept Drainage Strategy (Drawing No. EMG2-BWB-WAT-ZZ-M2-CD-0501_Main Site Conceptual Drainage Strategy) for the **EMG2 Main Site.**

3.1 Construction Working Areas

Management of Earthworks

3.1.1 The size and extent of all working areas across should be reduced as much as practically possible as the weather requires during the earthworks, to reduce the potential for silt-laden surface runoff, particularly in times of increased precipitation. This may include imposing constraints on working in wet weather conditions.

3.1.2 The proposed site levelling at the **EMG2 Main Site** comprising a topsoil / shallow soil strip to achieve the eight plateau zones displayed within the preliminary earthworks cut and fill plan, (**Document DCO/MCO 6.14M**)**,** as well as any levelling proposed as part of the **Highway Works,** should be minimised as much as practically possible. The site strip should be carefully managed in general accordance with a phased site strip plan, which enables the development of specific areas of the site, whilst maintaining surface cover on the other areas to encourage infiltration, and thus minimise surface run-off. Landscaping of any proposed soft landscaped areas should be completed as soon as possible, to mitigate silt-laden run-off from newly completed parts of the development.

3.1.3 Due to the presence of shallow groundwater (perched water) encountered during the 2022 ground investigation at the **EMG2 Main Site** (for example, 1.25 m bgl within Made Ground and 3.85 m bgl within Glaciofluvial Deposits), the corresponding Ground Investigation Report (**Document DCO 6.14B**) recommended the implementation of appropriate dewatering measures during excavation. This should also be considered for the **Highway Works** to facilitate access to the **EMG2 Main Site**.

3.1.4 The BWB PSSR for the M1 J24 Improvements ((**Document DCO/6.14E**) anticipates potential groundwater between 3.40 m bgl and 17.00 m bgl, utilising available British Geological Survey (BGS) historical borehole log findings along the line of the M1. Therefore, dewatering during excavation may also be considered.

3.1.5 The cohesive nature of the superficial deposits and bedrock across the DCO Application decreases the likelihood of any groundwater infiltration as such, but instead increases the likelihood that surface water (precipitation) will pool, particularly on the more impermeable clay lenses. Site management personnel are to ensure that all discharge generated during dewatering is visually free of silt through consistent monitoring. This should be maintained throughout the earthworks and recorded appropriately according to a site inspection checklist (such as the checklist presented within **Appendix C**).

Management of Machinery and Material Movement

3.1.6 Prior to any works commencing at the site, designated machine and dumper tracking routes are to be agreed. These routes should avoid tracking near to any identified sensitive receptor. Where possible, machinery should avoid surfaced roads, and only make use of specific designated crossing points. This is with the intention to minimise the movement of any site plant on and off nearby roads, in turn minimising the tracking of excess materials onto surrounding road surfaces.

3.1.7 The earthworks should allow for the provision of a road sweeper on site, and within the surrounding road network (such as Hyam's Lane which transects the **EMG2 Main Site**) to minimise the potential of any silt being tracked off the site. The frequency and duration of the road sweeper visits should be assessed by on site management personnel, but should generally be increased in times of bulk earthworks and wet weather conditions.

3.2 Stockpiling of Material

3.2.1 Consideration should be given to the location of stockpiled material throughout the earthworks phase, where designated stockpile zones should be located as far as possible from any sensitive receptors identified. Access routes to the stockpiles should be via a surfaced road, to minimise machinery tracking on unsurfaced ground when moving the material.

3.2.2 Prevention measures should be put into place to minimise the potential mobilisation of silt from the stockpiled site material, predominantly through aeolian erosion and subsequent deposition into sensitive receptors. The following measures are recommended:

- Stockpiles should be stored in bunds no greater than 2 m in height;
- All stockpiles should be sufficiently compacted incrementally with use of a mechanical excavator bucket to ensure adequate consolidation of material;
- All stockpiles should be temporarily covered with the use of a seal to minimise the generation of silt-derived dust. This seal may be in the form geotextile or plastic covers secured to the ground and stockpile, or via hydroseeding techniques to produce an 'anchor' via plant roots, consolidating the material; and
- Where the above measures are unsuccessful in reducing the generation of silt from stockpiled material, then the use of silt fencing should be considered.

3.3 Temporary Plot Drainage

3.3.1 The below section presents the silt management measures which are recommended for the **EMG2 Main Site,** in conjunction with the development of temporary plot drainage. These measures aim to treat, slow and capture any silt suspended within the site run-off, before

reaching the permanent SuDs basins, and can also be applied – with context – to the wider development.

3.3.2 The concept of these measures may be applied to the **Highway Works**, whereby all works should be planned with a temporary surface water design in place for each phase of the construction.

Temporary Settling Basins – EMG2 Main Site

3.3.3 As outlined within **Section 1.5**, the permanent detention basins / below ground tanks along the western and southern site boundaries of the **EMG2 Main Site** are to accommodate the necessary storm water storage at the site post development.

3.3.4 However, during the earthworks, it is recommended to excavate out a temporary settling basin / pond for each Plot, to enable the treatment, slowing and capturing of silt from any silt-laden run-off upstream of the permanent SuDs basins. This subsequently will reduce the likelihood and volume of silt-laden runoff entering the permanent drainage network. Silt management methods recommended for use within each Plot are discussed below.

Temporary Settling Basins - Construction

3.3.5 During construction of the temporary settling basins within each Plot, the plateau levels should be temporarily adjusted such that runoff is directed straight into the basins. Consideration should also be given to the adoption of temporary soil bunds around each Plot to prevent any exceedance flows from bypassing the deployed silt treatment measures.

3.3.6 Each settling basin will need to be stabilised to prevent them from becoming a source of silts. As outlined within Table 1, the ground conditions beneath the site are predominantly cohesive. Therefore, stabilisation of the fines within this material will reduce the likelihood of erosion and thus silt generation.

Temporary Settling Basins – Silt Mitigation Measures to be Deployed

3.3.7 The inflow of run-off into each temporary settling basin should be controlled via scour protection methods or a headwall. This will act to reduce the rate of erosion via hydraulic methods, and thus subsequently reducing the volume of silt generation.

3.3.8 The headwall within each temporary basin can then facilitate secondary protection by the installation of a rock bund which surrounds the perimeters of the headwall. This will prevent silt from being drawn into the bed, and thus reduce the volume of potential silt in suspension.

3.3.9 A sluice gate, or similar, should be installed within each of the temporary settling basins to ensure that each basin can be closed off from the wider drainage system, in the case of emergencies. The condition of the gates should be monitored throughout the earthworks by on site personnel, to ensure they remain sufficient. In the event of any silt bypassing the recommended surface water management then proposed measures should be implemented and the sluice should be closed immediately to prevent any potential silt pollution. The sluice should remain closed until the silt mitigation measures have been corrected accordingly.

3.3.10 Each Plot temporary settling basin should have a sediment forebay to dissipate the energy of the incoming run-off and to allow for the sediment to settle (desilt) before entering the drainage

network. If required, the runoff which enters into each of the temporary settling basins may be treated through the use of a flocculant to remove the bulk loading of silt.

Temporary Drainage Channels

3.3.11 Temporary drainage channels should be constructed within each Plot to direct the treated run-off from the individual temporary settling basins into the permanent SuDs, located along the western and southern site perimeters. The treated run-off should be moved within the drainage channels via pumping or by gravity, with further flocculent addition if required.

3.3.12 All temporary drainage channels should be appropriate lined to prevent them from becoming the source of silts.

Outfall into Permanent SuDs Basins

3.3.13 The permanent SuDs basins are intended to provide the final polishing treatment of the silt-laden run-off. All SuDs basins should be lined with a series of FlocMats and SiltMats, appropriately scaled to suit the needs on site.

3.3.14 In the event that the SuDs basins require desilting and reconditioning post construction, consideration should be given to the use of dewatering bags to simultaneously pump and treat the water.

4.0 Monitoring Procedures and Records

4.0.1 The site conditions and silt management measures implemented should be monitored throughout the earthworks of the DCO Application by on site management personnel. A 'Site Inspection Checklist' should be completed on a weekly basis to ensure that a comprehensive record of the effectiveness of the system is maintained. A preliminary inspection checklist pertaining to the **EMG2 Main Site** (applicable to **Highway Works**) is presented within **Appendix C**, with the designated inspection locations (subject to agreement) presented within **Appendix B** of the Silt Management Plan. The frequency of the inspection should be increased in periods of wet weather conditions and during times of bulk earthworks. This should include the inspection of designated monitoring points, such as those provided below:

- Inspection of all temporary settling basins and temporary drainage channels to monitor for silt-laden runoff entering the permanent drainage basins;
- Maintenance, cleaning and replacement of erosion protection measures, such as FlocMats, SiltMats, sluice gates and use of flocculant (if required);
- The monitoring of the general conditions of the site with respect to silt management, and the identified sensitive receptors at strategic locations to assist in identifying any alterations required to the implemented protection methods throughout the duration of the earthworks.

4.0.2 The site inspection checklist is a live document, and should be reviewed and updated when required to reflect any changes to the site conditions and operations during the earthworks. This also applies to the silt management methods implemented throughout the site, where changes to mitigation measures may be required to ensure their adequacy.

4.0.3 The measures and guidance set out in this document may be applied to the wider construction phase; however, it is recommended that a specific silt management plan is completed for each Plot.

APPENDICES

APPENDIX A- SILT DEPLOYMENT GUIDES (FROG ENVIRONMENTAL)

Floc Mat® Deployment Guidance

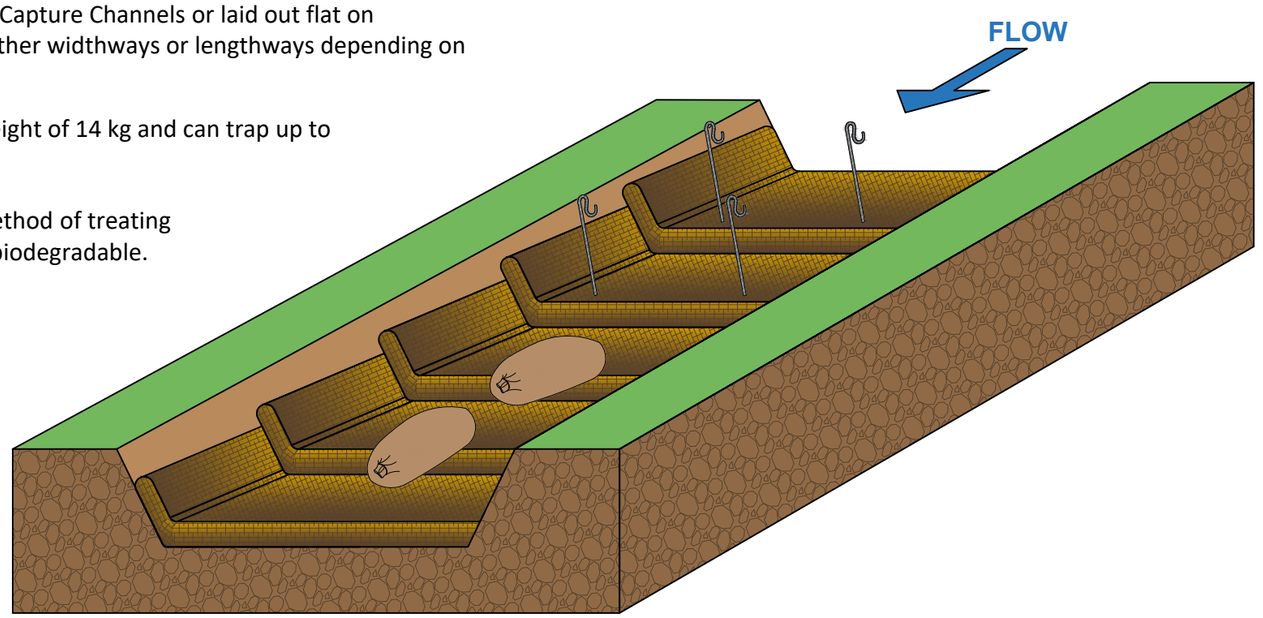
Designed by Frog Environmental, Floc Mat is an environmentally-friendly water treatment and silt capture mat that treats muddy water and prevents silt pollution.

The mat fibres are coated with Clearflow Gel Flocculant, an environmentally safe product that is highly effective at treating fine silt and clay particles on construction sites.

Floc Mats can be deployed in ditches and Silt Capture Channels or laid out flat on dispersion fields. The mats can be installed either widthways or lengthways depending on ditch profile and lining.

Each mat measures 2 x 1 metres, has a dry weight of 14 kg and can trap up to 50kg of silt.

Floc Mat is a low carbon and cost effective method of treating construction site run off. The product is fully biodegradable.



Treat

Floc Mat™ treats runoff by binding sediment, aiding deposition, and improving water clarity

Slow

Capture

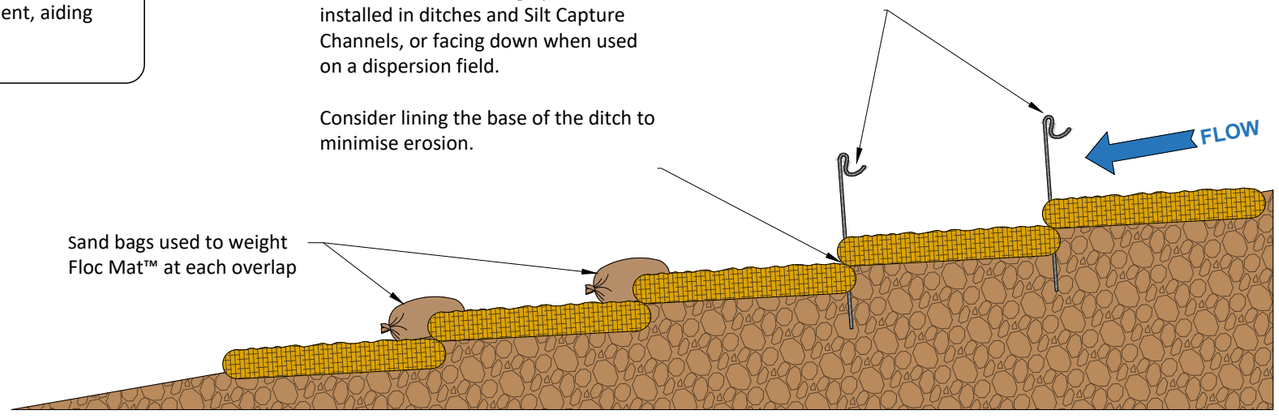
Ditches with greater than a 3 degree slope (5.2% gradient) typically require check dams to reduce the the velocity of water over Floc Mat™.

For effective deployment, the edges of Floc Mat™ should overlap by approximately 15cm. Ensure the sticky side of the mat is facing up when installed in ditches and Silt Capture Channels, or facing down when used on a dispersion field.

Consider lining the base of the ditch to minimise erosion.

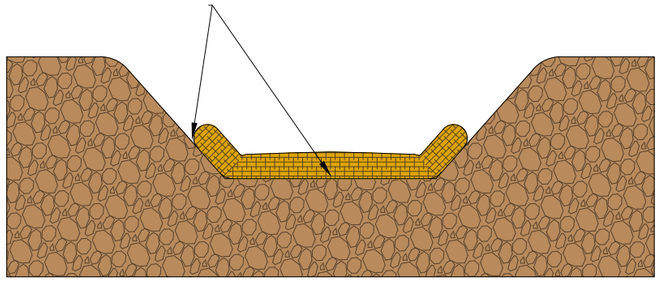
Metal stakes can be used to hold Floc Mat™ in position (soft beds only). Ensure site has permission to use stakes prior to staking.

Sand bags used to weight Floc Mat™ at each overlap



2D Side Elevation

Ensure Floc Mats™ are moulded to the profile of the ditch. This will allow water to flow on top of the mat rather than flowing underneath or around the sides.



2D Cross Section

The use of flocculants on construction sites requires permission from the environmental regulator. Proceeding with deployment of a flocculant without regulatory permission is not advised.

Drawing Ref: FM-PD-02v1	frog environmental silt, water quality & bubble curtain specialists
Revision: v1	
Scale: Drawings not to scale	

Drawings are for guidance only, not for construction purposes. Ensure risk has been assessed prior to deployment of products supplied by Frog Environmental. Further advice available by contacting us at www.frogenvironmental.co.uk/contact-us

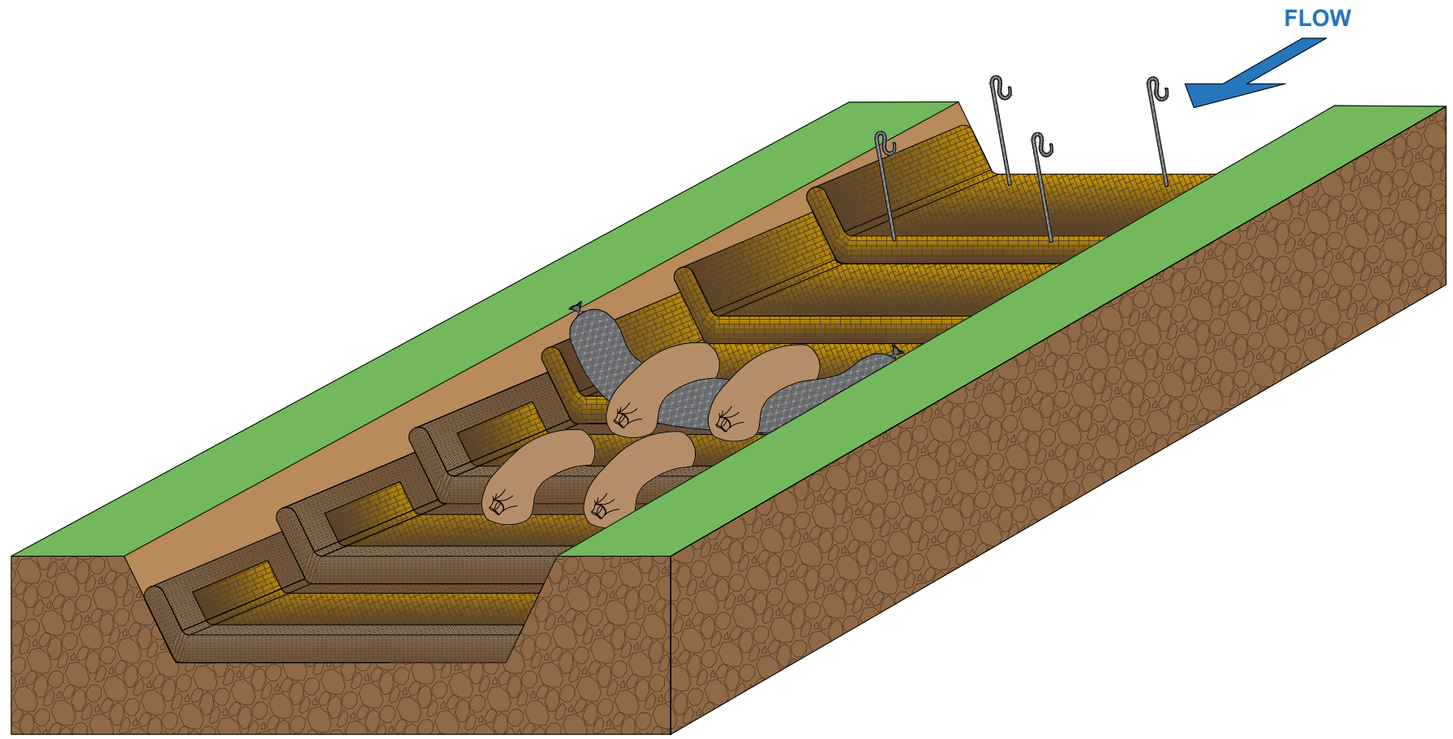
In-ditch Polishing Point

Frog Environmental's Floc Mat®, Silt Wattle and Silt Mat™ combine to make a Silt Treatment Point which manages fine mobilised silt particles, typically generated by clayey subsoils.

In-ditch Polishing Point works passively and does not require pumps to generate flow, making them a low carbon water treatment option.

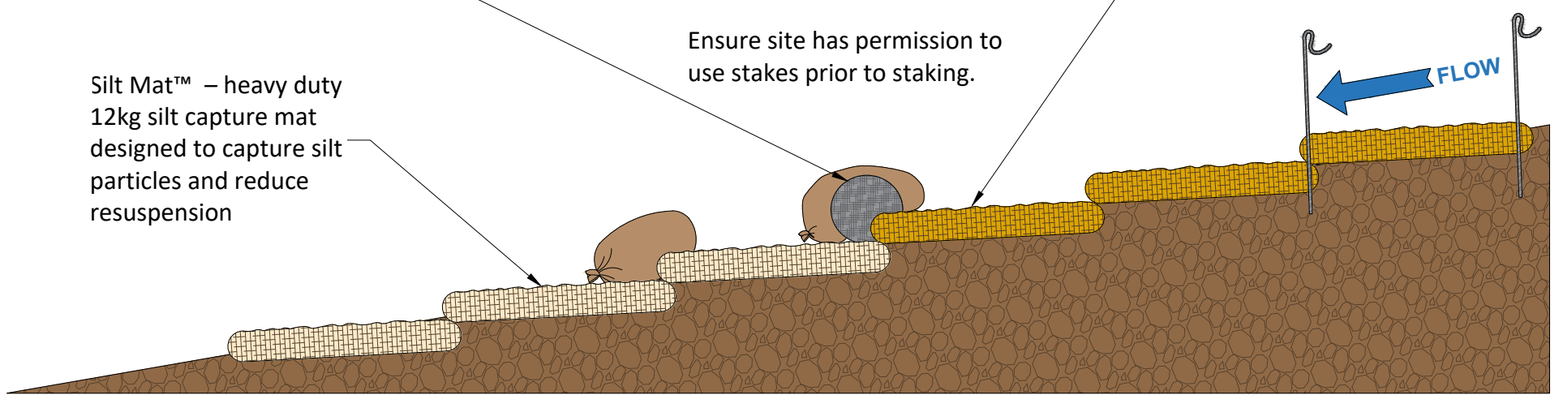
The treatment points can be deployed in ditches, swales or areas where silty water is present. Multiple points can be used to provide a scalable approach for treating silty surface water.

Every site is different, for advice on optimal placement for treatment points, contact our technical team.



Three of Frog Environmental's products perform different functions at the treatment point:

- **Treat** • Floc Mat™ treats fine particles
- **Slow** • Silt Wattle slows the flow
- **Capture** • Silt Mat™ captures silt and reduces resuspension



2D Side Elevation

Key deployment tips

- Consider lining the base of the ditch to minimise erosion.
- The edges of the mats should overlap by approximately 10cm.
- Ensure mats mould to the profile of the ditch to allow water to flow on top of mat rather than underneath or around the sides.
- Ditches with greater than a 3 degree slope (5.2% gradient) typically require check dams to reduce the velocity of water.
- Maximum water depth flowing over mats should be no more than 20cm.

Drawing Ref: STP-TD-01v1	frog environmental silt, water quality & bubble curtain specialists
Revision: v1	
Scale: Drawings not to scale	

Drawings are for guidance only, not for construction purposes. Ensure risk has been assessed prior to deployment of products supplied by Frog Environmental. Further advice available by contacting us at www.frogenvironmental.co.uk/contact-us

Gel Flocculant Deployment Guidance

Gravity-fed in-ditch sandbag check dam

Designed by Frog Environmental, using Clearflow Gel Flocculant, this system is used on construction sites to perform separation of fine silts and clayey soils from surface water run-off.

This deployment guide shows how Gel Flocculant can be installed as a low carbon water treatment solution in pipework, negating the need for pumps.

Gel Flocculant is left in situ 24/7, activating on contact with flowing water. This ensures a continuous cost-effective 'rain ready' approach to the management of water quality on site.

Depending on flow rates and silt loading, each block can last up to 120 days and treats water at 200 litres per minute.

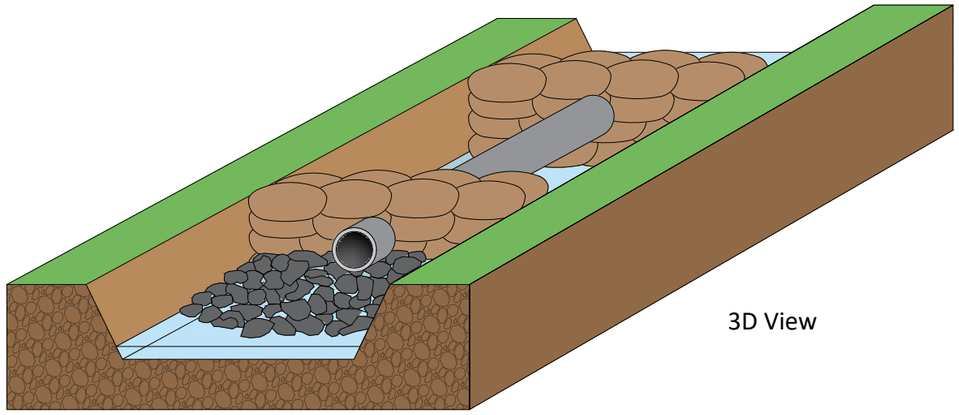
Regulatory approval is required prior to the deployment of Gel Flocculant on a construction site. Contact our technical team for specification support, settlement tests and management calculations.

Prior to deployment, consult your Surface Management Plan to confirm your site-specific deployment locations.

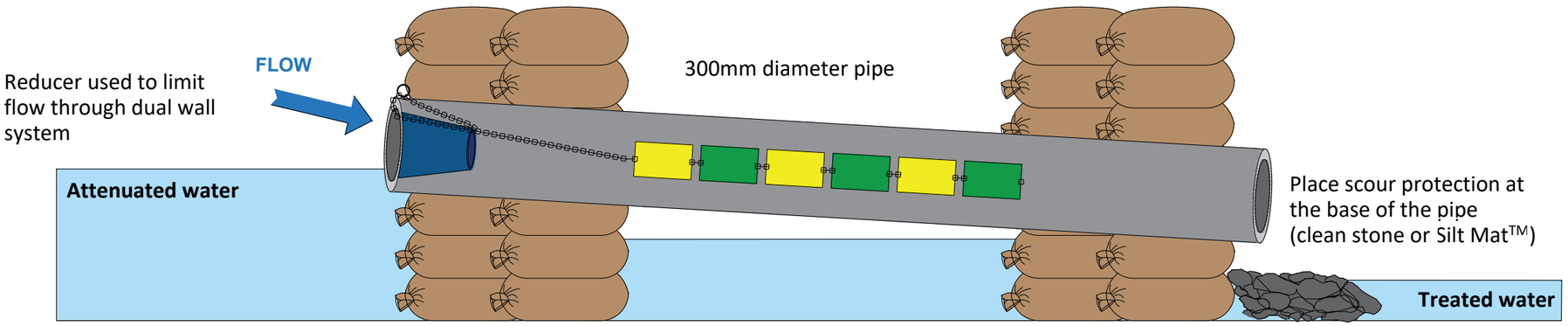
Slow — Use attenuation (eg pond or swales) to reduce the bulk of silt prior to treatment and direct the water to the treatment point

Treat — Flowing water moves through pipework where it is treated with Gel Flocculant

Capture — Flocculated particles are captured downstream of treatment. Silt Mat™ can be used for increased performance.



3D View



2D Side Elevation

Drawing Ref: GF-PD-12v1	frog environmental silt, water quality & bubble curtain specialists
Revision: v4	
Scale: Drawings not to scale	

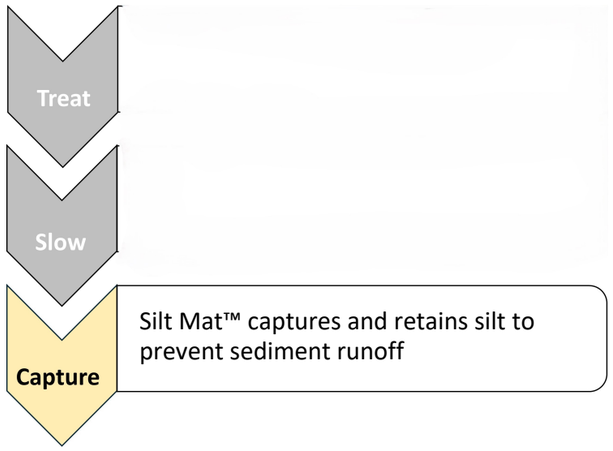
Drawings are for guidance only, not for construction purposes. Ensure risk has been assessed prior to deployment of products supplied by Frog Environmental. Further advice available by contacting us at www.frogenvironmental.co.uk/contact-us

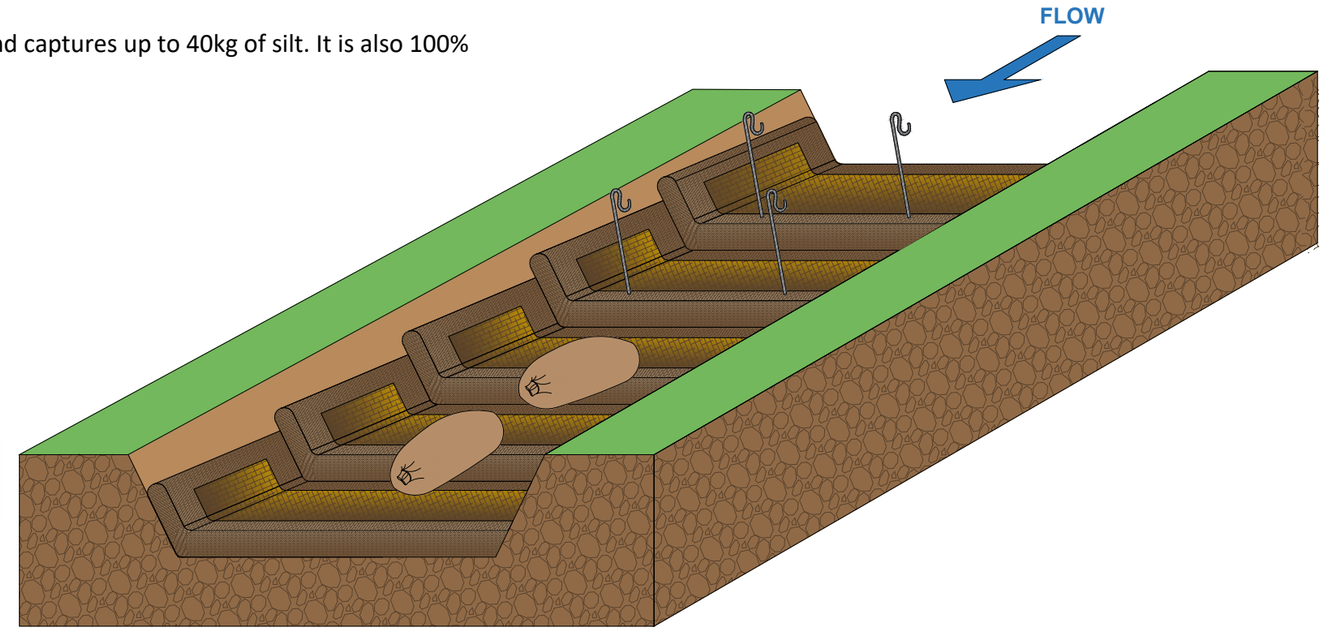
Silt Mat™ Deployment Guidance

Designed by Frog Environmental, Silt Mats™ are a simple, yet effective solution which can be laid in ditches to increase friction and trap silt particles. They also help stabilise the ditch and control erosion.

The mats can be installed either widthways or lengthways along the channel depending on ditch profile and lining.

Silt Mat has a dry weight of 12kg, measures 2m x 1m and captures up to 40kg of silt. It is also 100% biodegradable for easy disposal.





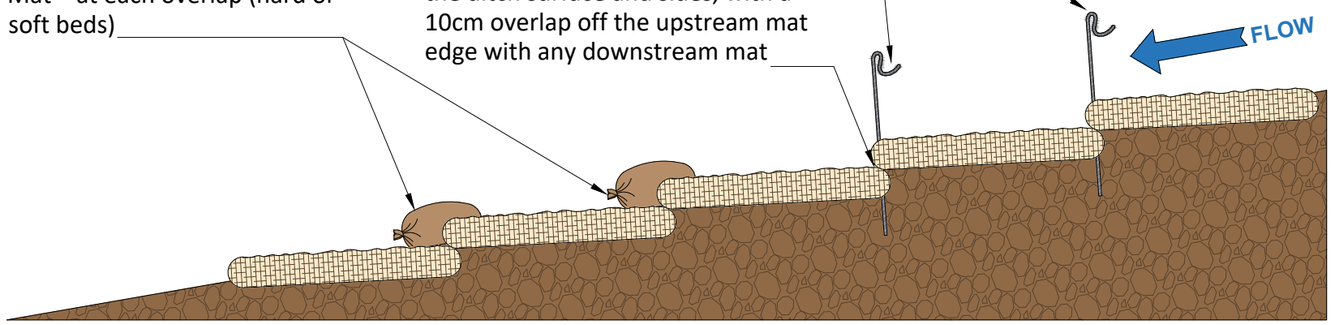
Ditches with greater than a 3' degree slope (5.2% gradient) typically require check dams to reduce the velocity of water

Metal stakes used to hold Silt Mat™ in position (soft beds only). Ensure site has permission to use stakes prior to staking.

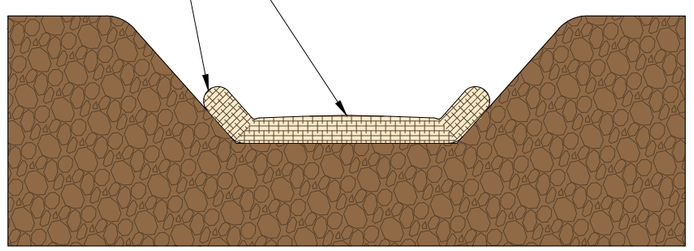
Ensure mats mould to the profile of the ditch and that their corners are elevated up the sides of the ditch to encourage water to flow on top of the mat rather than escaping underneath or at the sides

Sand bags used to weight Silt Mat™ at each overlap (hard or soft beds)

The mat needs to be in contact with the ditch surface and sides, with a 10cm overlap off the upstream mat edge with any downstream mat



2D Side Elevation

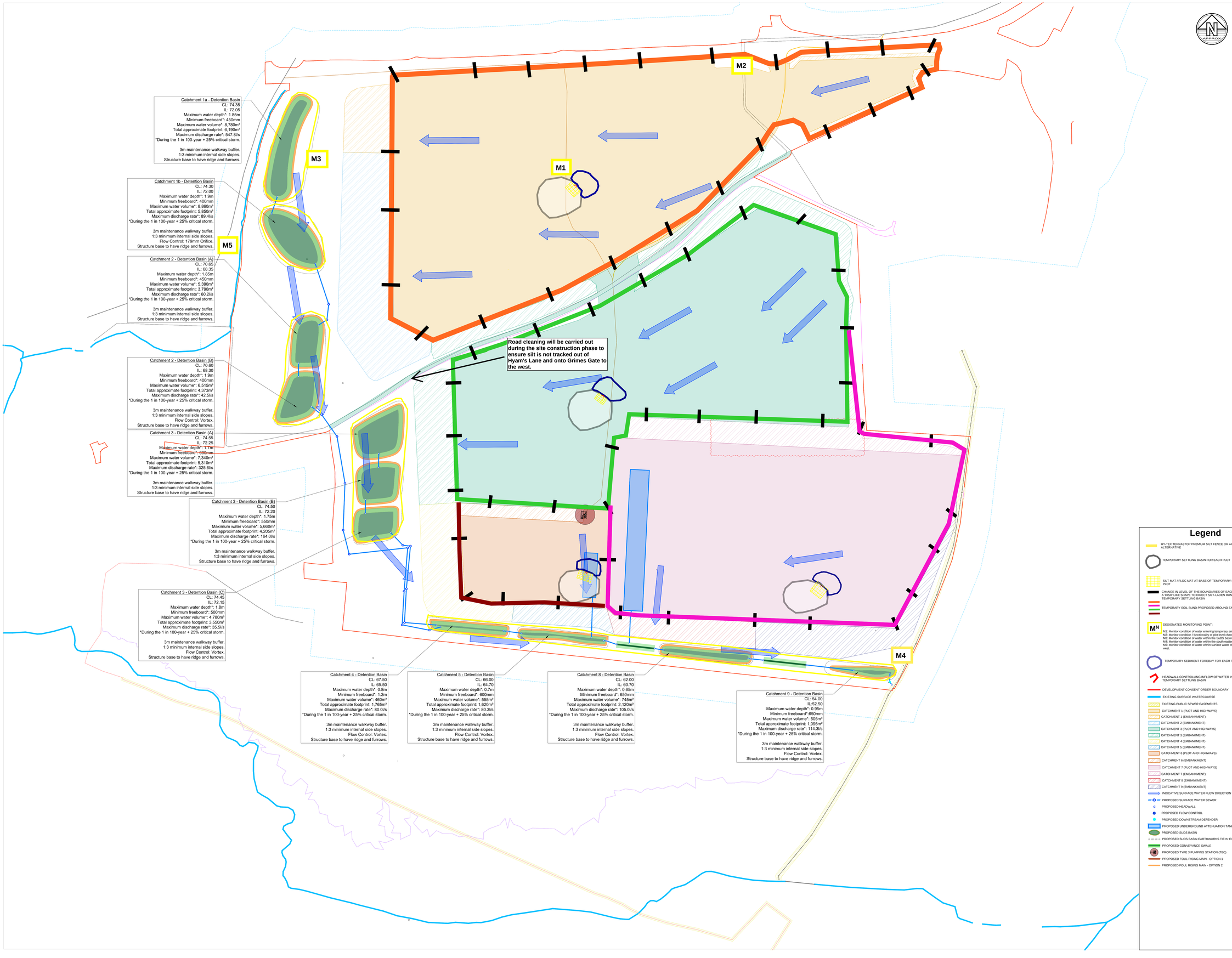


2D Cross Section

Drawing Ref: SM-PD-05v1	frog environmental silt, water quality & bubble curtain specialists
Revision: v1	
Scale: Drawings not to scale	

Drawings are for guidance only, not for construction purposes. Ensure risk has been assessed prior to deployment of products supplied by Frog Environmental. Further advice available by contacting us at www.frogenvironmental.co.uk/contact-us

APPENDIX B – SILT MANAGEMENT PLAN, OUTLINE DESIGN



Legend

- HY-TEX TERRASTOP PREMIUM SILT FENCE OR APPROVED ALTERNATIVE
- TEMPORARY SETTLING BASIN FOR EACH PLOT
- SILT MAT / FLOC MAT AT BASE OF TEMPORARY BASIN IN EACH PLOT
- CHANGE IN LEVEL OF THE BOUNDARIES OF EACH PLOT CREATING A 'DISH' LIKE SHAPE TO DIRECT SILT-LADEN RUN-OFF INTO THE TEMPORARY SETTLING BASIN
- TEMPORARY SOIL BUND PROPOSED AROUND EACH PLOT
- M1 M2 M3 M4 M5 — DESIGNATED MONITORING POINT:
  - M1: Monitor condition of water entering temporary settling basin.
  - M2: Monitor condition / function of dirt level change.
  - M3: Monitor condition of water within the SuDS basin.
  - M4: Monitor condition of water within the south eastern outfall.
  - M5: Monitor condition of water within surface water of Hall Brook to the west.
- TEMPORARY SEDIMENT FOREBAY FOR EACH PLOT
- HEADWALL CONTROLLING INFLOW OF WATER INTO EACH TEMPORARY SETTLING BASIN
- DEVELOPMENT CONSENT ORDER BOUNDARY
- EXISTING SURFACE WATERCOURSE
- EXISTING PUBLIC SEWER EASEMENTS
- CATCHMENT 1 (PLOT AND HIGHWAYS)
- CATCHMENT 1 (EMBANKMENT)
- CATCHMENT 2 (EMBANKMENT)
- CATCHMENT 3 (PLOT AND HIGHWAYS)
- CATCHMENT 3 (EMBANKMENT)
- CATCHMENT 4 (EMBANKMENT)
- CATCHMENT 5 (EMBANKMENT)
- CATCHMENT 6 (PLOT AND HIGHWAYS)
- CATCHMENT 6 (EMBANKMENT)
- CATCHMENT 7 (PLOT AND HIGHWAYS)
- CATCHMENT 7 (EMBANKMENT)
- CATCHMENT 8 (EMBANKMENT)
- CATCHMENT 9 (EMBANKMENT)
- INDICATIVE SURFACE WATER FLOW DIRECTION
- PROPOSED SURFACE WATER SEWER
- PROPOSED HEADWALL
- PROPOSED FLOW CONTROL
- PROPOSED DOWNSTREAM DEFENDER
- PROPOSED UNDERGROUND ATTENUATION TANK
- PROPOSED SUDS BASIN
- PROPOSED SUDS BASIN EARTHWORKS TIE IN EXTENT
- PROPOSED CONVEYANCE SWALE
- PROPOSED TYPE 3 PUMPING STATION (TBC)
- PROPOSED FOUL RISING MAIN - OPTION 1
- PROPOSED FOUL RISING MAIN - OPTION 2

DO NOT SCALE FROM THIS DRAWING

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.

RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM No.

CONSTRUCTION:-

DEMOLITION:-

FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE HEALTH AND SAFETY FILE.

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm).
2. DO NOT SCALE THIS DRAWING. WORK TO FIGURED DIMENSIONS ONLY.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS.
4. ALL WORK TO COMPLY WITH THE RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND THE BUILDING REGULATIONS.
5. BASE PLAN EXTRACT IS PROVIDED BY BWB, DRAWING NO. EMG2-BWB-WAT-ZZ-M2-CD-0501_MAIN SITE CONCEPTUAL DRAINAGE STRATEGY.
6. THIS DRAWING PROVIDES RECOMMENDATION OF SILT CONTROL MEASURES FOR THE EARTHWORKS PHASE
7. USE OF FLOCCULANTS TO TREAT SILT-LADEN RUN-OFF MAY BE USED, IF REQUIRED.

Rev	Date	Revision Description	Drn/Chkd/Appd
P1	04.03.25	PRELIMINARY ISSUE	JM/SM/CD

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Client: SEGRO

Project Title: EMG PHASE 2

Drawing Title: SILT MANAGEMENT PLAN

Scale @ A0	Frh Project Number	Purpose of issue	Status
1:2000	148749	PRELIMINARY	S4

Drawn	Checked	Approved
JM	SM	CD
Drawn Date	Checked Date	Approved Date
MAR 2025	MAR 2025	MAR 2025

Drawing Number: 148749-FRH-XX-00-DR-S-4000 Rev: P1

APPENDIX C – PRELIMINARY SITE INSPCETION CHECKLIST

SITE INSPECTION CHECKLIST

SITE: East Midlands Gateway Logistics Park, Phase 2 (EMG2 Project)

Name of personnel undertaken inspection: ……

Date of inspection: ……

Current weather conditions: ……

Description	Comments	Action Required?	Signature
General Site Conditions			
Are the site roads clean and relatively clear of mud / silt?	*(e.g. describe the visual appearance of roads and control measures in place)*	*(eg. If no, increase the frequency of road sweeper visits)*	
Is there any tracking over unsurfaced areas, causing silt movement?	*(e.g. describe the type of tracking, designated vehicle zones, and visual appearance of surfaces)*	*(e.g. if yes, potential increase or change in control measures to reduce silt-laden run-off from these areas)*	
Is there any dewatering of excavations occurring on site? Does the water look visually clear of silt?	*(e.g. describe the activity and location. If water is silt-laden, control measures, and disposal of silt, if present)*	*(e.g. are control measures sufficient? If no, potential replacement, increase or change of measure or inspection frequency)*	
Are control measures in place to prevent silt-laden run-off from stockpiles and unsurfaced areas?	*(e.g. note the general condition of stockpiles and control measures and if they are adequate)*	*(e.g. are control measures sufficient? If no, potential replacement, increase or change of measure or inspection frequency)*	
Is there any site run-off?	*(e.g. note the location, direction, receptor and visual appearance. Note any control measures)*	*(e.g. are control measures sufficient? If no, potential replacement, increase or change of measure or inspection frequency)*	

Designated Monitoring Points * Note these are likely to change location throughout the earthworks phase, dependent on the schedule of the works. Each plot should be monitored.			
M1 What is the water condition of the temporary settling basin? Are the sluice gates in tact / effective?	*(e.g. visual observations, any discolouring or visible silt in basin. Note condition of the control measure)*	*(e.g. is the control adequate? In good condition? May need replacing, or additional control)*	
M2 What is the condition of the sediment forebays in each Plot?	*(e.g. visual observations, note condition of the control measure and if it is serving its purpose)*	*(e.g. is the control adequate? In good condition? May need replacing, a change to the levels, or additional controls)*	
M3 What is the water condition of the SuDS basin? Is there any visual evidence of silt?	*(e.g. visual observations, any discolouring or visible silt in basin, condition of soil bunding)*	*(e.g. If visibly silted up, is a change in control measure / site inspection frequency necessary?)*	
M4 What is the water condition of the south eastern outfall (headwall) / defender?	*(e.g. visual observations, any discolouring or visible silt in basin)*	*(e.g. If visibly silted up, is a change in control measure / site inspection frequency necessary?)*	
M5 What is the water condition of the Hall Brook to the west of the site?	*(e.g. visual observations, any discolouring or visible silt in basin)*	*(e.g. If visibly silted up, is a change in control measure / site inspection frequency / surface water sampling necessary?)*	

General notes and actions to be taken after site inspection:			
Completion Record			
Position	**Name**	**Signature**	**Date**
Site Manager			