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Construction Management Plan

Jepco

Gedney Marsh H3 Access Road Project

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1. INTRODUCTION

JEPSCO, always at the forefront of innovation and sustainability have embarked upon an ambitious venture to develop and operate a highly efficient, ultimately Carbon Neutral, Agricultural infrastructure at their existing Lincolnshire base.

JEPSCO's ultimate development of the site shall consist of sustainable year round growing supported by renewable energy sources which will serve to contribute towards ongoing decarbonisation of the UK grid and the national target of achieving zero carbon emission by 2050.

The overall project is subdivided into three main elements which shall be delivered in the order listed to a line with Jepco's business model.

- Agritech development Norfolk House Farm as per planning registration no: PP-10163701
- Renewable energy generation.
- Energy storage and distribution.

The Agritech Project has already been submitted for planning and is being considered under planning reference no: PP-10163701. During the submission and consideration of this application, and the development of the pre-planning applications for the subsequent applications, it became apparent that a wider review of access to the site would be required.

Although the operational traffic volumes generated by the completed development are not considered to be onerous, the routing of same through small villages such as Gedney Dyke will serve only to compound an already difficult situation traffic movement.

Hence, in consultation with all stakeholders, Jepco and their partners have taken the decision to apply for permission to construct a new roadway which shall bypass all populated area and provide direct access from the site to the A17.

2 PROPOSED DEVELOPMENT

Key to the accommodation of the development of Jepcos plans is the ability to transport both construction and production materials into a relatively remote site from the main road network.

To maximise the efficiency of this operation, Jepco, with their local partners have devised a scheme to construct a new road North of Gedney Dyke and linking from the B1359 to the existing private Wurth road and re-joining Roman Bank at the Hovenden Golf Club and hence joining the A17 at the Lowgate junction where the volumes and types of vehicle can be better accommodated.

The location of this proposed road is as indicated on figure 1 & 2 below.

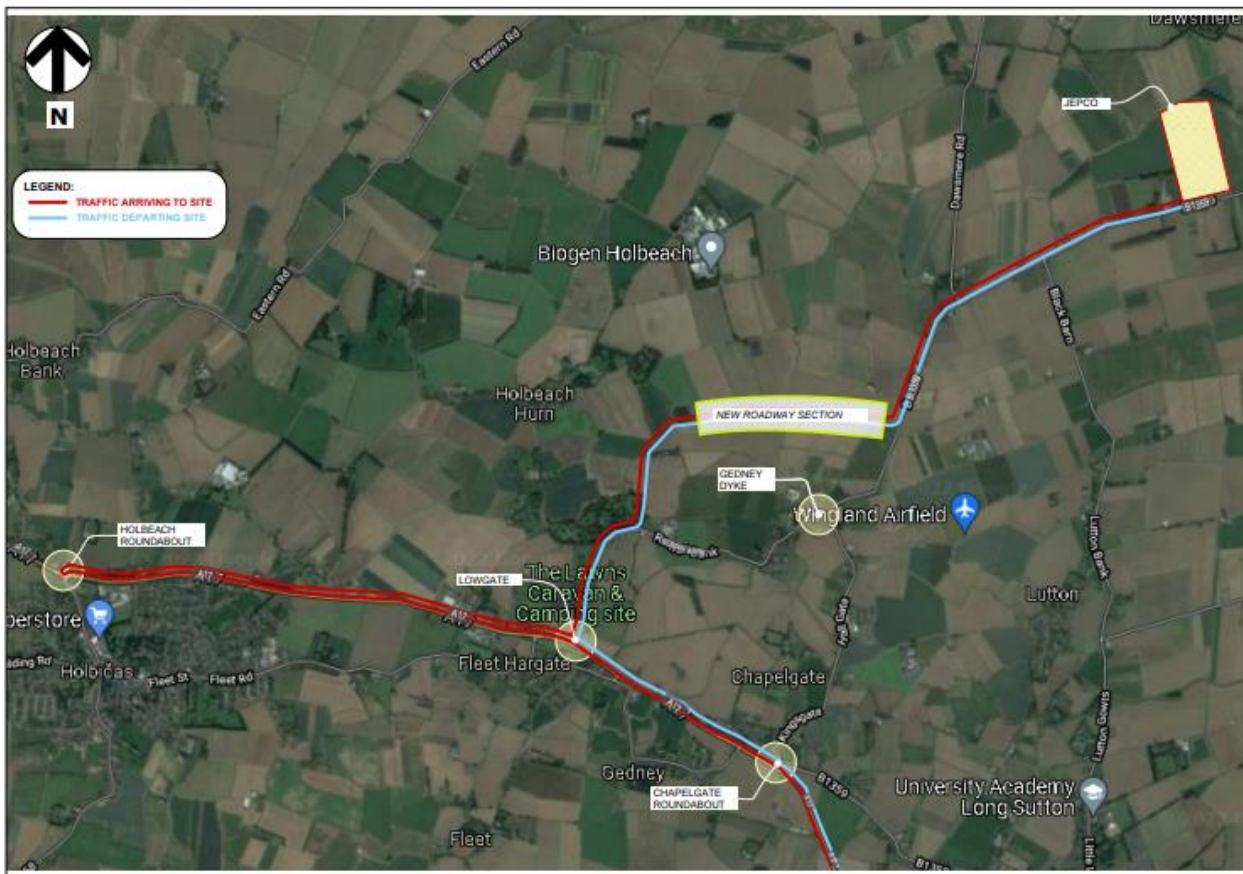


Figure 1

Once completed this road shall provide clear access to the initial and all further phases of the development as well as the permanent operations of the site and the sustainable future development of the area. It is intended that the road shall be available for all users which shall significantly improve the local network providing access to private vehicles and farm machinery without the need to travel through Gedney Dyke.

Given the nature of the Lowgate junction as a Tee junction onto the A17, vehicles turning North onto same and vehicles turning East from same currently experience some difficulty in crossing the carriageway and hence to avoid exacerbating this issue it is intended to impose a strict traffic regime on all vehicles entering and leaving the site to ensure a minimal impact on the operations of the A17 in accordance with the transport statement accompanying this application.

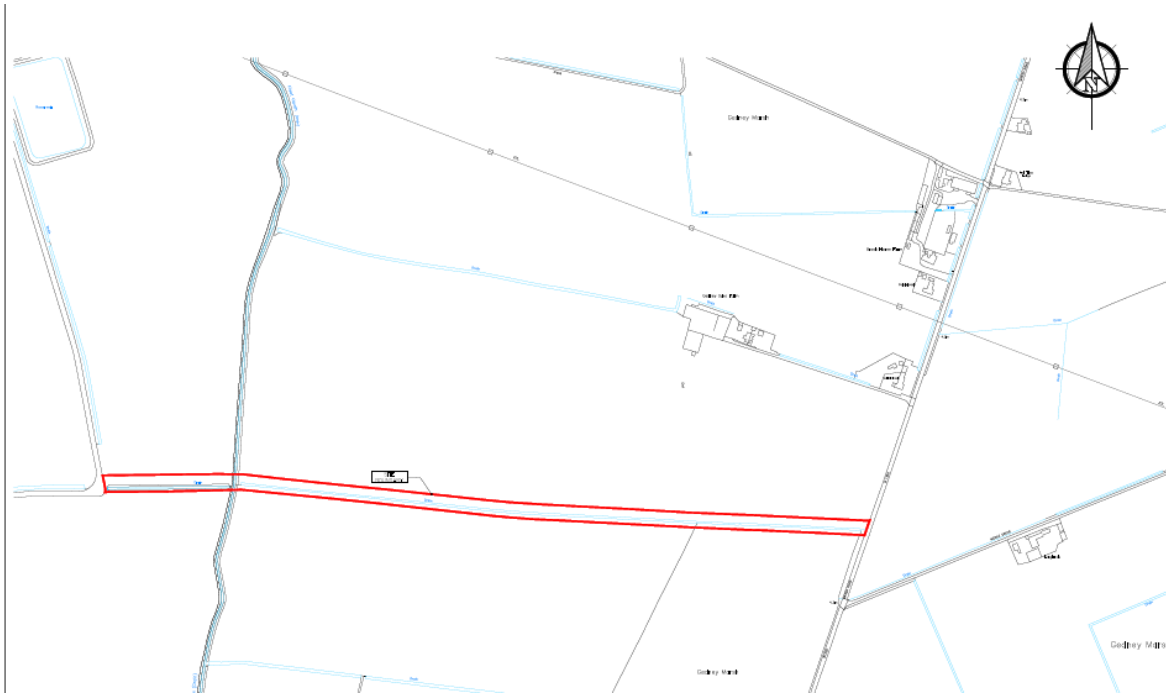


Figure 2

The proposed road shall be constructed of reinforced concrete similar to the existing and in accordance with M.O.T. requirements.

2.1 Extent of Works

The construction works will be linked to the development of the Main Agritech site and will be considered as an enabling phase to same with the Methodologies and sequences previously outlined for same being employed in the completion of the roadway.

It is considered that this phase of the project will take 3 months to complete and will involve the importation and laying of road base materials to initially provide a haulage route for the main project which shall then be completed to MOT standards and act as a permanent wa. The intention of this Construction Management plan is to outline works which impact public spaces and to ensure that where this occurs it is with the agreement of South Holland District Council and Lincolnshire County Council

2.2 Implementation Policy:

The following outlines the principles and approach derived during the project instigation. To expedite the project, it is intended to utilise a construction management approach where a Client appointed construction management team will manage and co-ordinate multiple trade contractors in the completion of their individual workscopes.

2.2.1 Hoarding, Site Set-up and Formation of Site Access / Egress Points

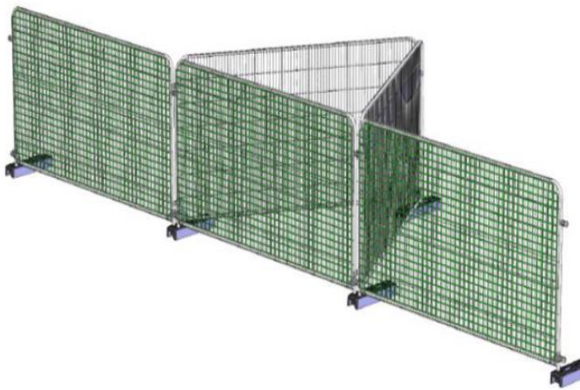
For the purposes of Site Security and Health and Safety it is intended to enclose the entire area within a secure enclosure remote from the main road and adjoining operations to minimise the impact of the site operations on the surrounding properties and businesses.

The site setup shall be sufficiently sized to cater for the approximately 20 site personnel anticipated to be on site at any one time and shall be arranged on an individual contractor basis with each individual contractor being self contained within canteen, welfare, office and storage facilities to minimise interaction between same. The individual trade contractors shall be managed by an overarching single site management team.

The site shall be arranged to be self contained with car parking, Compound and lay down areas aligned along the Southern side of the proposed roadway to leave the remainder and the site clear for development. Given the nature of the works it is forecast that stockpiling of materials other than drainage runs will occur as most deliveries will arrive and immediately be deployed.

Access to the site shall be controlled from a Security Hut on the South West corner with the remainder of the site enclosed with a Herras Type fencing as per figure 6 below.

On its Southern side this fence shall be covered with a screening net to minimise visibility onto the site. There is ample space on site for the storage of construction materials, waste and excavated material however the contractor will be discouraged from stockpiling such items in order to maintain the integrity and the security of the site.



Given the level nature of the site and minimal excavations for slabs etc, it would generally be the intention to maintain excavated material on site for the construction of berms etc and that the removal of such material off site would be minimal, although within the prospective traffic volumes and element of removal has been catered for and included within Section 5 below.

Figure 3 Site Fencing Detail

A “Just in Time” approach will be required for the delivery of particular building materials such as concrete for bases etc and the extent and route of same shall be in accordance with the schedule of Vehicle movements as outlined within Section 5. For other building materials, specific lay down areas have been identified for both the Glasshouse and the general building works.

Throughout the Implementation Phase the Site Management team will:

- Operate a Site Induction Process for all site staff;
- Ensure all site staff shall have current ‘Safe Pass’ cards;
- Ensure the Installation and maintenance of adequate site hoarding to the site boundary.
- Maintain Site Security staff at all times;
- Install access security in the form of turn-styles and gates for staff;
- Separate public pedestrian access from construction vehicular access;
- Ensure restricted access is maintained to the works.

2.2.2 Site Clearance

A percentage of these works must be undertaken as an enabling or pre contract phase to clear the site and create access for the main contract works. This will commence from the Private Wurth roadway and move Eastwards.

2.2.3 Bulk Excavation

The formation of floor slabs and new foundations will involve the excavation of substantial volumes of material, as previously outlined it is intended to maintain the majority of this material on site, however allowance has been made in the traffic figures to remove elements of same. A desk-top study of historic information relating to the vicinity notes the ground comprising of the following build-up

- Topsoil
- Sandy Silts

Rock will not be encountered on the site.

Given the nature of the existing site being rural and agricultural, the design team have always been cognisant that the primary, if not only waste to be generated from the site is the soil and stone removed from its excavations.

This element has therefore been considered since the outset with a view to preventing generation of this stream in so far as possible. Hence as part of the design

- Cut and fill has been balanced on site to minimise the import and export of materials (topsoil) for site works and facilitate the use of excavated materials on site.
- Excavated materials have been reused as much as possible on site where possible in the formation of the Reed bed and the reservoirs as well as banks and landscaping.

Any excess soil will be spread within other local areas of the Client holding with anything leaving site being disposed of at an appropriately licensed land fill site. An element of off site removal has been catered for as a precaution within Section 5 Construction Traffic.

2.2.4 Construction Sequence

As the construction of the roadway will be above the levels of the existing fields, It is not considered likely that tidal waters will enter in general however the area is prone to flooding so the risk associated will depend on the time of year the construction is undertaken. The concrete works will involve concrete deliveries to site and adequate wash down and wheel wash facilities will be provided for the concrete wagons.

3 ENVIRONMENTAL ISSUES

The rural situation and relative distance from substantial populated areas mean that the affect of the day to day operations of the site on the local population will be minimal other than the construction traffic. Nevertheless as part of this Construction Management Plan the following minimum issues will be implemented.

3.1 Dust

Dust prevention measures shall be included for control of any site airborne particulate pollution. The Contractor shall put in place and monitor dust levels in the vicinity using a Bergerhoff gauge instrument. The minimum criteria to be maintained shall be the limit for Environmental Agency (EA) specification for licensed facilities in the UK which is 350mg/m²/day. The Contractor shall continuously monitor dust over the variation of weather and material disposal to ensure the limits are not breached throughout the project.

3.2 Dirt

Given the volumes of construction traffic generated by the Site Works at a minimum the following shall be provided.

- 3.2.1 A wheel wash facility is provided, given the confined nature of the site A "Full-Body Self Contained" wheel wash will not be possible so the contractor must make alternative and equally effective arrangements
- 3.2.2 All vehicles will be required to pass through the wheel wash before exiting the site to the public road network. The wheel wash must be kept in place and used throughout the construction works. If conditions require it then a manned power washer shall be put in place to assist the wheel wash system;
- 3.2.3 A dedicated road sweeper shall be retained for the duration of the haulage works and Water supplies shall be recycled for use in the wheel wash. All waters shall be drained through appropriate filter material prior to discharge from the site.
- 3.2.4 The existing Road gullies surrounding the site shall be protected from discharge from the site through the use of silt socks located around same.

3.3 Noise

The Contractor will be required to monitor base noise levels at the site location before commencement of the project. Given that most construction activity can generate noise levels up to 80-90dBA, noise monitoring will be required throughout the project. Variation of noise levels from those experienced as part of everyday life in an area can result in extreme disruption, in particular at this sensitive site in a highly visible area. The Contractor shall implement measures to eliminate where possible and reduce noise levels where not.



The proposed development shall comply with BS 5228 “Noise Control on Construction and open sites Part 1: Code of practice for basic information and procedures for noise control” (or such further limits as imposed by South Holland District Council).

3.4 Vibration

The Contractor shall provide and maintain vibration monitoring equipment for the duration of the works. Condition surveys of adjoining buildings will be required before excavations commence. Vibrations shall be monitored in accordance with BS 7385-1:1990 “Evaluation and Measurement for Vibration in Buildings”, with a limit of 5mm/s ppv.

3.5 Harmful Materials

Harmful materials shall be stored on site for use in connection with the construction works only. These materials shall be stored in a controlled manner. Where on site fuelling facilities are used there shall be a bunded filling area using a double bunded steel tank at a minimum.

4 CONSTRUCTION MANAGEMENT PLAN

All access to the site shall be from the Hovendan Junction with Roman Bank and hence all construction activity shall be facilitated from the Private Wurth Road with only the final connection to the B1359 having any impact on the Public roadway. Hence it is the intention of the Construction team to minimise any impact with the public realm.

4.1 Temporary Signage

Given the location of the Construction site remote from the B1359, the requirement for temporary signage along same will be minimal..

4.2 Temporary Road Markings

Although it is not intended to complete the final wearing course, the access road widening and kerbing associated with the new site Entrance will be installed as will the associated signage and road markings as figure 9 below. On completion of the works these installations shall be renewed if required and any construction affects on same repaired prior to handover to the client. The Construction Management Plan shall include proposals for any proposed Temporary RoadMarkings. These markings must conform to the requirements of Chapter 8 of the Traffic Signs Manual.

4.3 Operation of a Contra Flow

As previous, a contra flow system shall be installed for the period of the widening of the entrance and the installation of the new splayed entrance. It is estimated that this system will be in place for no more than 5 days.

4.4 Temporary Road Closure

No Temporary Road Closures are required to complete the works.

4.5 Temporary Traffic Signals

There are no proposals to operate Temporary Traffic Light Signals.

4.6 Arrangements for Local Access, Pedestrian and Cyclist Access

There are no proposals to alter the existing local access to the surrounding areas.

4.7 Proposed Lighting Arrangements

There are no proposals to alter the existing lighting arrangements in the area.

4.8 Proposed Use of Flag Man

Given the volume of construction traffic expected throughout the works Flag/Banks men shall be employed to direct vehicles accessing/egressing the site proper and at the junction with B1359. This requirement will be on a permanent basis during site opening times regardless of traffic movements and will ensure that there is a minimum time separation between vehicles to ensure that vehicles do not travel in convoy on the local roads departing the site. The method of control for access/egress traffic will be by means of a "stop/go" board. The recessed location of the site entrance proper will ensure that there is no restriction for traffic leaving the roadway.

4.9 Proposed Use of Barriers

A barrier shall be used at the site entrance , with security recording the registration, drivers name, and loading destination of all existing vehicles.

5 CONSTRUCTION TRAFFIC

The overall scale and remote location of the proposed project present some real considerations in the planning and implementation of the works. Given the site has direct access to the A17 corridor, cognisance must be taken of the volume of traffic generated and its impact on this junction as demonstrated in figure 10 below

Jepco Movements							
Vehicle Movements							
Infrastructural Development							
Contract		Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23 Sum
B3	Site Works						
	Prelims	230	230	250	230	230	1400
	Surface water drainage						0
	Process water drainage						0
	Foul Water drainage						0
	Electrical trenching						0
	watermain						0
	gas pipe						0
	roadways						0
	Car Park						0
	loading dock area						0
	Intake Area						0
	Waste Area						0
	Hardstanding area 1						0
	Hardstanding Area 2						0
	Site boundary						0
	Electrical upgrade						0
Project Total		230	230	250	230	230	1400

Figure 4

The numbers as stated are a noted as a single arrival or departure and hence the number of trips associated with same is double as most vehicles will enter or depart empty.

5.1 Construction Traffic Impact

As evident in figure 10, and coinciding with the Project schedule, the number of HGV movements associated with the implementation of the project will increase in number and frequency from the outset to a high point over the third and fourth month of the schedule when the major activities such as excavation, sub structure and superstructure construction are in progress concurrently. Over this period an average of four vehicles per hour will be entering and leaving the site. Reference to Appendix 2 indicates the nature and number of the vehicles to be expected with these particular busy periods mostly consisting of stone and concrete deliveries in Rigid 8 wheeler vehicles. The movement of large earthworks equipment to the site will not impact on the overall figures as the prospective contractor for these works is local to the site.

The traffic volumes generated and the nature of this traffic, although not excessive from a Road network perspective, will place further pressure on the local roads, particularly during the summer months when farm traffic approaches its peak and particularly when traffic must traverse the local Villages such as Gedney Dyke and Gedney Drove End. The Project team have therefore actively sought alternative solutions to minimise the effects on the local area

5.2 Haulage Routes

The key aspect in the transportation to and from the site is access to the A17 which as above will be achieved directly to the Lowgate junction on the A17.

Given the nature of the Lowgate junction as a Tee junction onto the A17, vehicles turning North onto same and vehicles turning East from same currently experience some difficulty in crossing the carriageway and hence to avoid exacerbating this issue it is intended to impose a strict traffic regime on all vehicles entering and leaving the site to ensure a minimal impact on the operations of the A17.

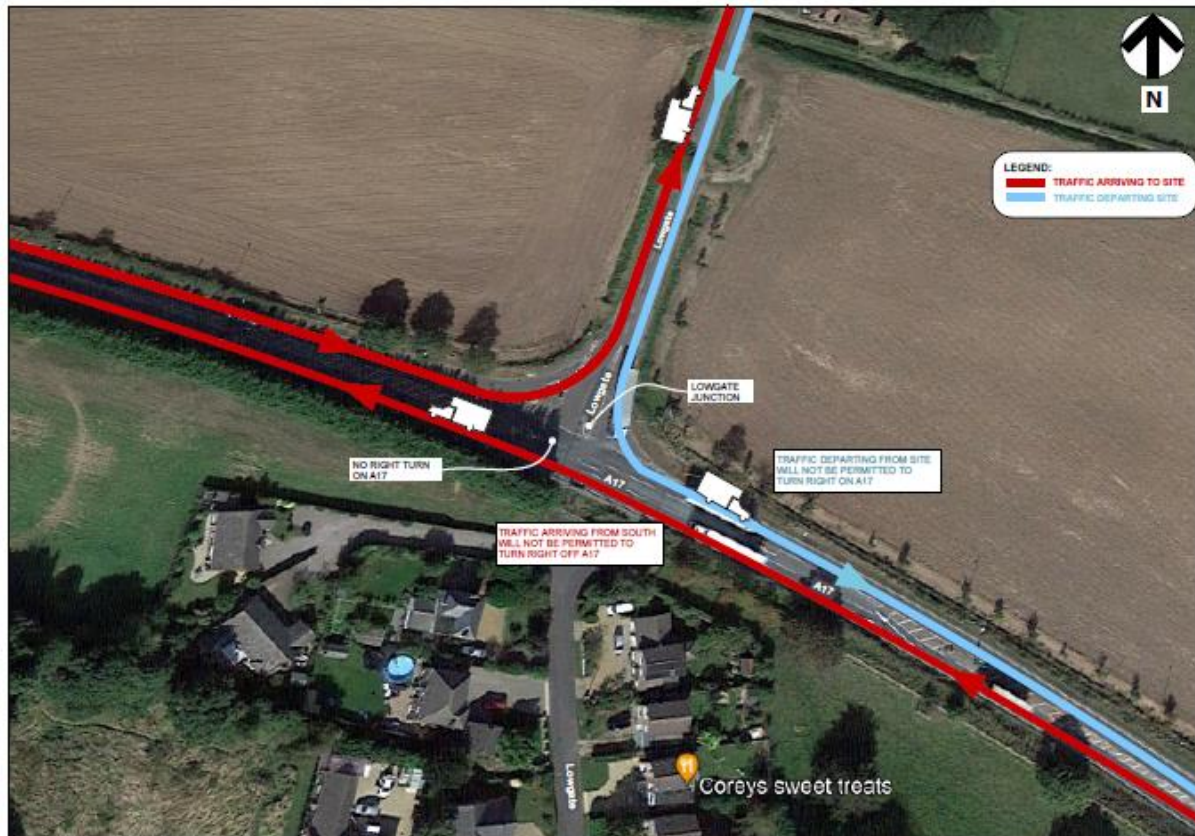


Figure 14

5.2.1 HGVs Arriving to Site

All goods vehicles arriving to the Jepco Construction site shall use the A17 corridor and exit same at the Lowgate junction. Traffic arriving from the North shall:

- Proceed Southwards through the Holbeach Roundabout at turn left at Lowgate.
- Continue onto Roman Bank and turn left onto the unnamed private road at Hovendan Golf Club.
- Follow private road and bear right until the road turns 90 degrees to the left.
- Enter temporary Haul Road created running eastwards over Fleet Haven.
- Turn left onto B1359.
- Follow B1359 and turn left into Jepco Construction Site.

Traffic arriving from the South on the A17 shall proceed Northwards past the Lowgate turn as far as the Holbeach Roundabout and then proceed South to turn left at Lowgate and thus following the same route as previous traffic.

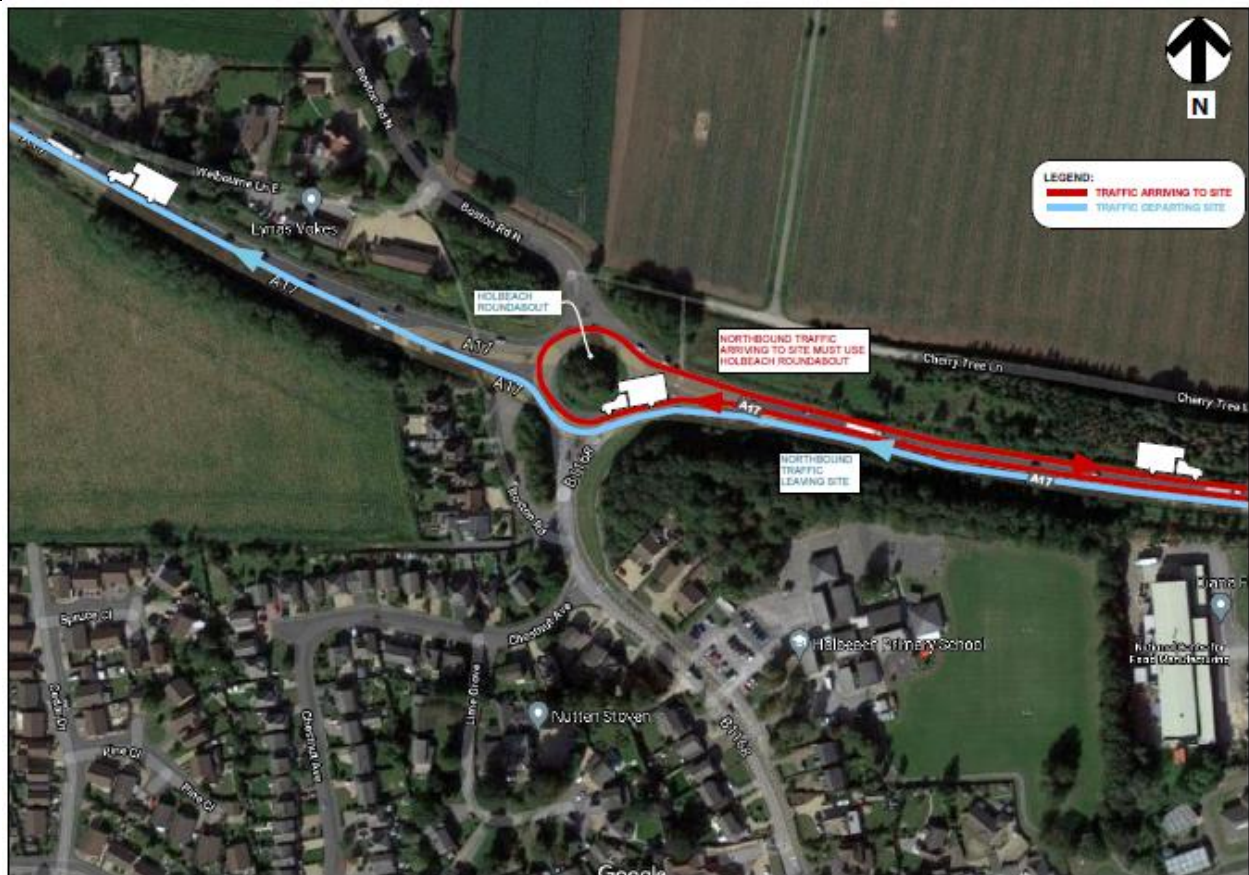


Figure 15

5.2.2 HGVs Leaving Site

All goods vehicles leaving the Jepco Construction site shall be directed to turn right only leaving the site and hence:

- Follow B1359 and turn right onto Haul Road North of Middle Drove.
- Follow Haul Road Westwards to Private road.
- Enter Private Road and bear left as far as Roman Bank.
- Turn right onto Roman Bank and proceed to Lowgate junction.
- Turn left onto A17 and proceed to Chapelgate junction.
- Southbound traffic to proceed straight on after roundabout.
- Northbound traffic to use roundabout to proceed to Northbound A17.

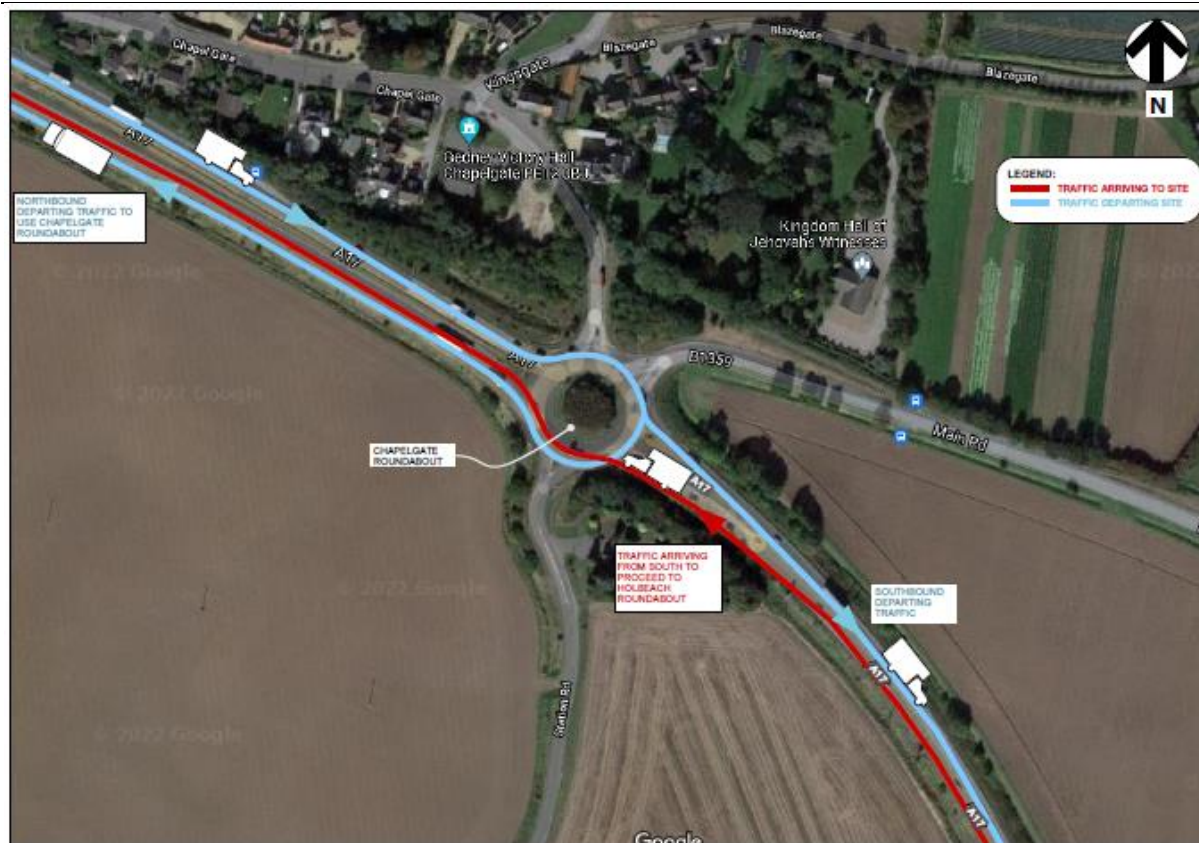


Figure 16

All contractors and suppliers shall, when submitting tenders be advised of the specific requirements for accessing and egressing the site and surveillance shall be put in place to ensure compliance with the plan.

In addition:

- Vehicles entering and leaving the site shall be logged in and out of same with the vehicles registration driver and timings recorded. This process shall be undertaken at the Site security hut remote from the B1359 at the contractors compound and shall separate the exit times of vehicles from the site.
- A Flag man/Banks man shall be employed at the junction of the site an the private road.
- No HGVS will be permitted to exit the site onto the Marsh Road B1359
- The haul road shall be barriered and manned at both ends and only vehicles associated with the Jepco Construction works will be permitted to access same.
- No Construction HGVs will be permitted to proceed through Gedney Dyke.
- A road Sweeper shall be retained at Jepco and shall periodically clean the junctions at the site entrance and both ends of the haul road.
- Construction vehicles will not be permitted to stop anywhere along the route to the A17.
- Haulage vehicles are not permitted to travel in convoys of greater than two vehicles at any time.
- Haulage vehicles must be spaced by a minimum of 250m at all times.
- It is envisaged that there will be a 100 construction workers on the site during the construction phase at peak, with 70 car spaces provided at the site.
- Private cars will not be required to use the Haul road or the lowgate junction to



minimise congestion at this point,.

- Given the remote nature of the site, Strictly at no time should haulage vehicles be parked or stopped on the road at the entrance to the site.
- All loading of excess material will occur within the site boundary.
- All off-loading of deliveries will take place within the site, away from the public road.

The increase in traffic although considerable from an existing road use perspective is relatively minor regarding network capacity and can be accommodated within the existing road network.

5.3 Working Hours

It is intended that the majority of the construction traffic will occur outside of peak background traffic hours within a six-day week with a view to minimising the impact on the operation of the existing road network. Contractors construction management plan the hours of operation are to be agreed with South Holland District Council prior to the start of works.

6.0 CONCLUSION

Jepco recognise that the implementation of a project of this scale in this type of rural location has the potential to temporarily result in disruption to the local environment and communities. Through early stage and frequent community engagement, Jepco have sought to identify the concerns of the local stakeholders and address same in their approach to the implementation of the project. The identified approach as outlined in this Construction Management plan will form part of the Selection process for each of the individual worksopes and will be strictly imposed upon the individual contractors in these undertakings. Jepco and their management team will, through all stages of the project continue to engage with all stakeholders to ensure a minimal impact on the local infrastructure and community.