

# CHAPTER 10

## TRANSPORT ASSESSMENT

## TABLE OF CONTENTS

10.0	CHAPTER 10 TRANSPORT ASSESSMENT.....	10-3
10.1	Introduction and Current Site Setting .....	10-3
10.2	Transport Baseline Conditions 2017 .....	10-3
10.3	Updated Transport Assessment 2017 .....	10-4
10.4	Cumulative Impact Assessment 2017 .....	10-6

## APPENDICES

Appendix 10A	Transport Assessments of 2015 and 2017
Appendix 10B	Design drawings approved under Conditions 6, 62 and 63 ESS/34/15/BTE

## 10.0 CHAPTER 10 TRANSPORT ASSESSMENT

### 10.1 Introduction and Current Site Setting

All access to and from the Integrated Waste Management Facility (IWMF) site (for construction and site operations), will be to and from the A120 (Coggeshall Road) via an existing junction east of Bradwell and a private access road that is already constructed as far as Bradwell Quarry. Access to the IWMF site will be provided via an extension to the existing access road that will be developed to a standard suitable for use by all road-going vehicles.

From the A120 the access road crosses the River Blackwater. The road is of two-lane width as far as the crossing point at Church Road; thereafter it previously reduced in width to a single carriageway road with passing bays before crossing Ash Lane and continuing on into Bradwell Quarry and Blackwater Aggregates plant. However, in 2016, the implementation of the IWMF planning permission (ESS/34/15/BTE) resulted in the widening of the access road between Church Road and Ash Lane. The crossings of Church Road and Ash Lane are 'at-grade' with restricted single lane crossing for the access road and concreted bollard surrounds to prevent HGV movements into or from these country lanes. The existing design and layout of these junctions and the existing traffic control measures employed on the crossing points with Church Road and Ash Lane were assessed as being suitable, subject to minor modifications and improvements for the proposed IWMF traffic, which were implemented in 2016.

A consultation on options for a new section of the A120 between Braintree and the A12, to replace the existing connection between Braintree and Marks Tey, was launched on 17 January 2017. Nevertheless, the IWMF's existing planning permission demonstrates how it will be acceptably accessed via the existing junction on the A120 Coggeshall Road east of Bradwell. In the event a new A120 is constructed and opened, leading to the de-trunking of the existing road, GFC has agreed to pay the Highways Authority (through its Section 106 Agreement) a contribution towards traffic management mitigation measures on the former A120 route (e.g. through the village of Bradwell, for example).

The current situation with regard to the access road extension proposals is exactly the same as indicated in the original application and permission. A full set of detailed design drawings was submitted and approved under the submission of details against planning conditions 6, 62 and 63 of planning permission ESS/34/15/BTE. Excluding the numerous long sections and cross sections, the principal design detail drawings are presented within Appendix 10B.

### 10.2 Transport Baseline Conditions 2017

The Site A2 and Site A3 and A4 environmental impact assessments (EIAs) traffic counts were carried out along the existing site access road in 2013; which indicated that traffic movements along the existing site access road (associated with the existing quarrying operations) had reduced from those reported in 2006 due to the recession [Presented within Table 10.2 from Chapter 10 of the Site A2 and Site A3 and A4 EIAs – Details of the Site A3 and A4 traffic count survey of 2013 are presented below].

**Table 10.2: Site Access Observed Traffic Levels 2013**

TIME PERIOD	ARRIVALS		DEPARTURES	
	2006	2013	2006	2013
07:30 – 08:30	27 (15)	20 (12)	29 (22)	22 (13)
17:00 – 18:00	3 (2)	1 (0)	6 (0)	5 (0)

*Note: Figures in brackets represent HGVs*

Highway Agency requirements for future year junction capacity assessments have relaxed from 15 years to 10 years since the submission of the original junction capacity assessments associated with the IWMF site. The original IWMF junction capacity assessments, which

included the HGV movements associated with Blackwater Aggregates' existing quarrying operations, considered the design year of 2025, which represented the most reasonable worst case scenario.

Personal Injury Accident data obtained for the period 2006 to 2011 for Site A2 and 2010 to 2013 for Site A3 and A4, indicated that since the original assessment, a further six Personal Injury Accidents had been reported, namely:

- Between 2006 and 2011 three accidents were recorded: one accident occurred at the junction of Church Road - which involved a private vehicle that had disregarded the restrictive access signs along the existing site access road from the A120 and struck a pick-up truck travelling along Church Road; and, two accidents were recorded on the A120 some distance (approximately 170 m) from the existing site access road junction with the A120 involving private vehicles turning right from Doghouse Lane; and
- Between 2010 and 2013 three further accidents were recorded on the A120 – two in the vicinity of Doghouse Lane involving rear end shunts; and, one at the western end of the dual carriageway involving a motorcycle losing control whilst overtaking (some distance from the existing site access road junction with the A120).

The most recent Personal Injury Accident data contained on the 'Essexworkstraffweb' website shows that between September 2013 and August 2016 there were two additional slight recorded Personal Injury Accidents on the A120 within the vicinity of the site access junction but no accidents at the haul road crossings of Church Road or Ash Lane.

No accidents have been recorded associated with HGV vehicle movements travelling to or from Bradwell Quarry along the A120.

### 10.3 Updated Transport Assessment 2017

The original Transport Assessment assumed that operational traffic levels to and from the IWMF site would increase year on year up to 2031/2032. To provide a robust worst-case assessment it was assumed that traffic levels would remain constant throughout the life of the IWMF and would not gradually increase over time from an initial low level. Furthermore, it was assumed that operational vehicles would either arrive at the site loaded and leave empty or arrive at the site empty and leave loaded, i.e. no back hauling would occur.

No changes whatsoever are proposed to: the total quantity of wastes that will be recovered, recycled and treated at the IWMF, or the number of vehicles that will travel to and from the Site.

In addition, Conditions 3, 4, 34, 35 and 36 of the existing planning permission relate to vehicle movements to and from the IWMF site (in line with the original assessment), namely:

**Condition 3:**

*The total number of Heavy Goods Vehicle (HGV<sup>1</sup>) movements associated with the excavation of materials (i.e. overburden, sand, gravel, and boulder clay) and import and/or export of materials associated with the operation of the completed Integrated Waste Management Facility (IWMF<sup>2</sup>) hereby permitted shall not exceed the following limits:*

- 404 movements 202 in and 202 out per day (Monday to Friday);
- 202 movements 101 in and 101 out per day (Saturdays); and

- shall not take place on Sundays, Public or Bank Holidays, except for clearances from Household Waste Recycling Centres between 10:00 and 16:00 hours as required by the Waste Disposal Authority and previously approved in writing by the Waste Planning Authority. No HGV movements shall take place outside the hours of operation authorised in Conditions 34 and 36 of this permission.

<sup>1</sup> An HGV shall be defined as having a gross vehicle weight of 7.5 tonnes or more

<sup>2</sup> IWMF shall be defined as the buildings, structures and associated plant and equipment for the treatment of waste at the site.

**Condition 4:**

The total number of HGV vehicle movements associated with the construction of the IWMF (including deliveries of building materials) when combined with the maximum permitted vehicle movements under Condition 3 shall not exceed the following limits:

- 404 movements 202 in and 202 out per day (Monday to Sunday).

No HGV movements shall take place outside the hours of operation authorised in Condition 35 of this permission.

**Condition 34:**

No removal of soils or excavation of overburden, boulder clay, sand and gravel shall be carried out other than between the following hours:

- 07:00-18:30 hours Monday to Friday; and,
- 07:00 -13:00 hours Saturdays;

and shall not take place on Sundays, Bank and Public Holidays except for water pumping, environmental monitoring and occasional maintenance of machinery, unless temporary changes are otherwise approved in writing by the Waste Planning Authority.

**Condition 35:**

The construction works (including deliveries of building materials) for the development hereby permitted shall only be carried out between 07:00 - 19:00 hours Monday to Sunday and not on Bank and Public Holidays except for occasional maintenance of machinery, unless temporary changes are otherwise approved in writing by the Waste Planning Authority.

**Condition 36:**

No waste or processed materials shall be imported or exported from any part of the IWMF other than between the following hours:

- 07:00 and 18:30 hours Monday to Friday;
- 07:00 and 13:00 hours on Saturdays, and,
- not on Sundays, Public or Bank Holidays except for clearances from Household Waste Recycling Centres on Sundays and Bank and Public Holidays between 10:00 and 16:00 hours as required by the Waste Disposal Authority and previously approved in writing by the Waste Planning Authority.

On the basis that there have been no significant changes, the findings of the original Transport Assessment remain unchanged.

## 10.4 Cumulative Impact Assessment 2017

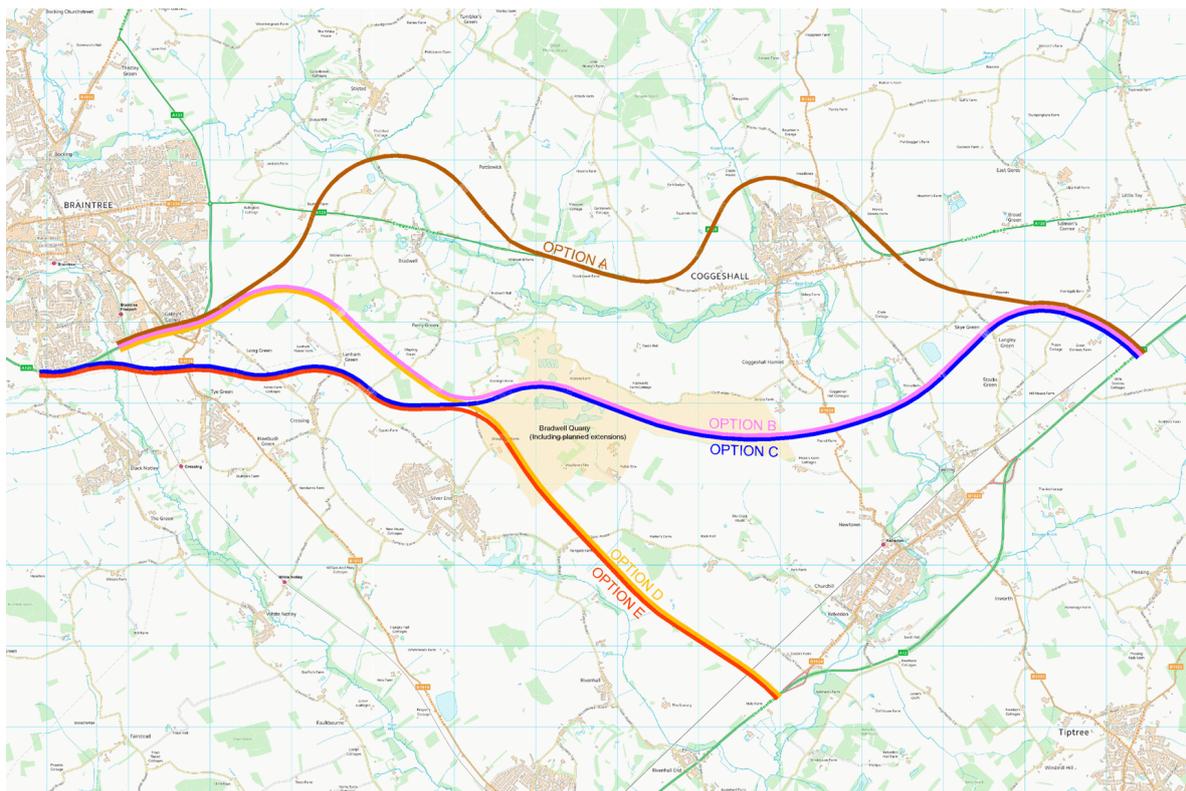
The transport assessments set out within chapter 10 of the original EIA for the IWMF were undertaken on the basis that the traffic movements associated with the IWMF would be additional to those associated with the existing Bradwell Quarrying operations. In other words, the assessments assume that the haul road, its crossover junctions with Church Road and Ash Lane and its junction with the A120 would be used by the existing quarry traffic and the traffic attracted to the IWMF facility. The junction capacity assessments at the junction of the haul road with the A120, which did not highlight capacity concerns, included for TEMPRO based background traffic growth and therefore implicitly included for Local Plan development allocations. Furthermore, submissions during the determination period of the original IWMF planning application were undertaken on the same cumulative basis but for a robust design year of 2025.

The assessments, inherently take account of traffic related to the potential temporary stockpiling operations across New Field because these are a normal part of on-going mineral extraction and restoration operations. Such temporary operations will allow for the storage, retention and subsequent reuse of site won materials to be retained within the site, rather than their excavation and transportation off-site for reuse or disposal as was originally assessed in the 2008 application. In other words, such proposals would mitigate the need for the export of overburden soils (and associated HGV movements) from the IWMF site.

On the 23 December 2016, Gent Fairhead & Co Limited received planning permission ESS/44/16/BTE for the Installation of an abstraction point, pumping equipment and water main from the River Blackwater to the IWMF site (ESS/34/15/BTE) using an existing abstraction licence (Environment Agency ref AN/037/0031/001/R01) at land between the River Blackwater and the IWMF site. Where the pipeline crosses Cuthedge Lane it will be installed using trenchless technologies (i.e. directionally drilled) to pass the water main under the road. As such, no road closures or traffic management measures should be required, and there would not be a significant increased impact on traffic with such small-scale temporary measures.

In addition, consideration was given to the wider Transport Impacts associated with the installation of the proposed electricity cable and water abstraction (and potential discharge) pipelines by Intermodal Transportation within the Addendum Environmental Statement 2015 (Appendix 10A) and, whilst temporary road and/or lane closures would be required to install the cable, the impacts associated with the works would be short term. Therefore, the overall impacts associated with the IWMF development from a highways and transport perspective are considered low with the planned implementation of good traffic management and temporary diversion works as mitigation and control. A copy of the Intermodal Transportation updated Transport Assessment of 2015, together with a letter confirming the continued reliance that can be placed on the potential impacts likely from the IWMF's development and operation is presented within Appendix 10 A.

As previously indicated, a consultation on options for a new section of the A120 between Braintree and the A12 was launched on 17 January 2017.



Five possible options are being considered for this section of the A120.

Option A: This route option is approximately 14km long, 5km of which runs along the line of the current A120. It starts just west of Galleys Corner then bypasses Bradwell to the north, crossing the River Blackwater, and then joins the current A120. East of Coggeshall, it leaves the current A120, heading south east where it joins the A12 at a new junction between Kelvedon and Marks Tey.

Option B: This route option does not follow the current A120 and is approximately 13km long. It starts just west of Galleys Corner, passes to the south of Glazenwood Park, runs through Bradwell Quarry, crosses the River Blackwater, joining the A12 at a new junction between Kelvedon and Marks Tey.

Option C: This route option does not follow the current A120 and is approximately 15km long. It starts on the Braintree southern bypass, passes north of Tye Green and Cressing, runs through Bradwell Quarry, crosses the River Blackwater, joining the A12 at a new junction between Kelvedon and Marks Tey.

Option D: This route option does not follow the current A120 and is approximately 9.5km long. It starts just west of Galleys Corner, passes south of Glazenwood Park, runs through the south-west corner of Bradwell Quarry, joining the A12 at Kelvedon south junction.

Option E: This route option does not follow the current A120 and is approximately 11km long. It starts on the Braintree southern bypass, passes north of Tye Green and Cressing, runs through the south-west corner of Bradwell Quarry, joining the A12 at Kelvedon south junction.

At this stage it is understood that Essex County Council plan to fast-track the feasibility process so it can be put forward for consideration by the Government for inclusion in the Road Investment Strategy 20-25.

The A120 routing Option A will offer HGVs entering and leaving the IWMF access to the proposed full movement junction to the north of its established site access road and its existing junction onto the A120 Coggeshall Road. The construction of a full movement junction directly to the north of the existing site entrance has the potential to remove HGV movements associated with the site's operation from the de-trunked A120 Coggeshall Road and Bradwell village.

The A120 routing Options B, C, D and E will either cross the IWMF access road (Options B and C) and/or run to the north (Options B and C) or to the west (Options D and E) of the IWMF site. Potential opportunities exist during the design and selection of A120 routing Options B, C, D and E to provide a direct means of access and egress to and from the IWMF and Bradwell Quarry, via a new junction - which could remove HGVs from the existing (or detrunked) A120 Coggeshall Road.

It is important to note that within the IWMF's Transport Assessment(s) it has been demonstrated that the IWMF can be acceptably accessed via the existing A120 Coggeshall Road. As previously indicated, in the event a new A120 route is established, and in line with GFC's existing Section 106 agreement under which it would pay a contribution to the Highways Authority, arrangements will be put in place to implement traffic management measures on the existing A120 when it is no longer a trunk road.

It is concluded that, from a traffic assessment perspective, the cumulative transport assessment for the IWMF proposal and wider foreseeable developments in and around the site has been considered and there are no potentially significant negative impacts that have been identified. In the event that a direct means of access and egress to and from the IWMF could be established to the new A120, there would be benefits relating to the removal of HGVs from the existing (or detrunked) A120 Coggeshall Road. Furthermore, if the old A120 is detrunked or bypassed and a direct point of access for the development proposal on to the new A120 is not provided the old road would still carry substantially lower traffic levels than at present but would retain its existing theoretical capacity. It could therefore be expected that traffic flow conditions on the old road would be improved and that the road would operate with substantial levels of spare capacity.

The additional assessment that has been undertaken in light of the proposed increase in stack height under this planning application has led to no fundamental change to the findings of the transport assessment.

## APPENDIX 10A

Transport Assessments of 2015 and 2017

## APPENDIX 10B

Design drawings approved under Conditions 6, 62 and 63 ESS/34/15/BTE