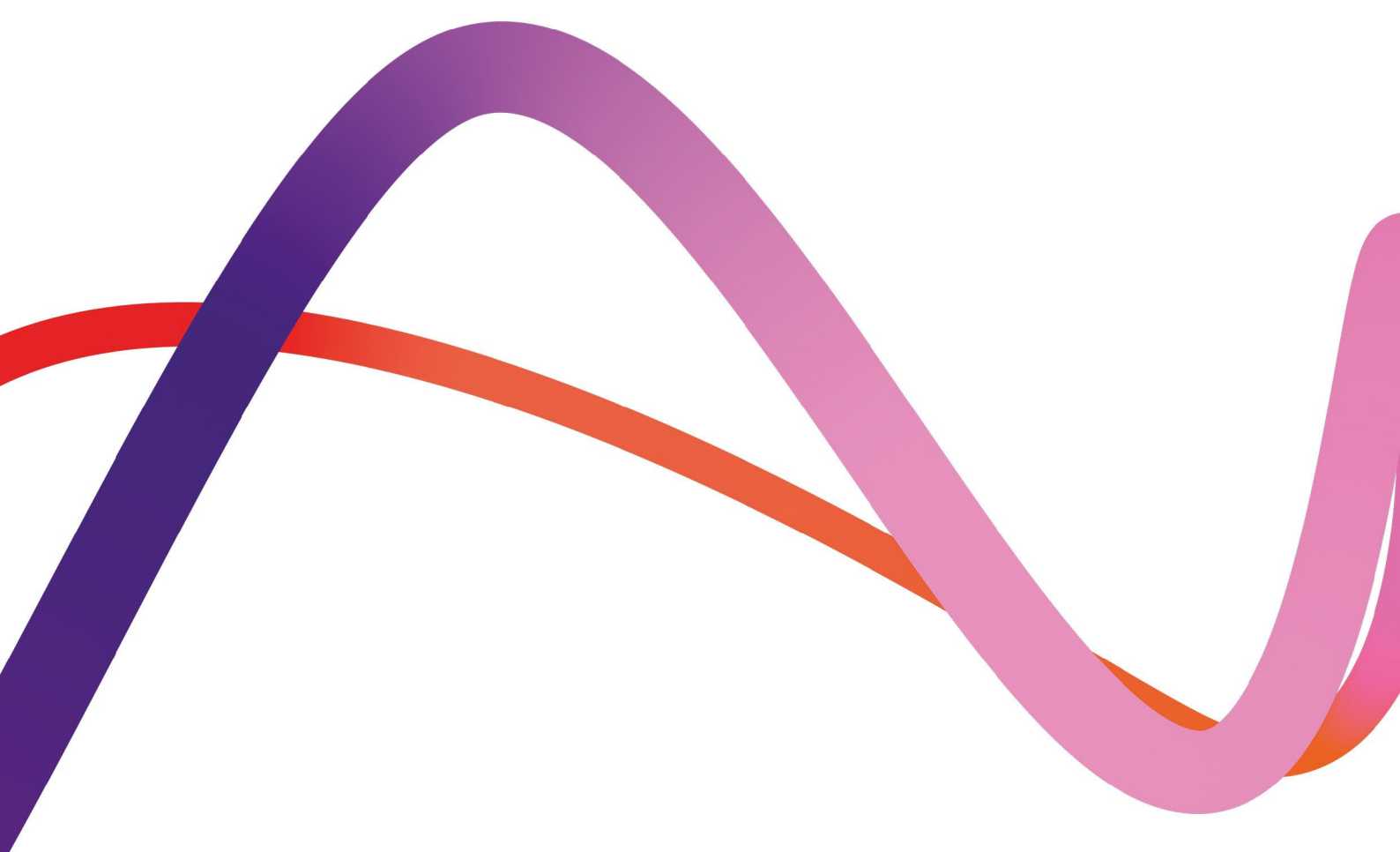


Medworth Energy from Waste Combined Heat and Power Facility

Revision: 1.0
July 2023



Technical Note:

Regulation of Noise Controls (acoustic fence)

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with energy.**



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1. Introduction

1.1 Purpose of this Technical Note

1.1.1 On 17 July 2023, the Applicant met representatives from Cambridgeshire County Council (CCC) and Fenland District Council (FDC), including the Environmental Health Officer (EHO) to review how the Development Consent Order (DCO) would interact with the Environmental Permit (EP) with respect to noise monitoring, control, and enforcement. The concern expressed by CCC and FDC was, there may be a regulatory gap due to the acoustic fence being within the DCO Order limits, but outside of the EP installation boundary, see **Appendix A** for the respective boundaries. Consequently, HGV traffic noise on New Bridge Lane may not be adequately controlled. This Technical Note presents information to provide clarity on the interaction between the EP and DCO regimes, confirming there is not a regulatory gap.

1.2 Structure of this document

- Section 2.0 – Review of noise mitigation and the interaction between the EP and DCO
- Section 3.0 – Conclusion



2. Review of noise mitigation and the interaction between the EP and DCO

2.1 Background

2.1.1 The proposed acoustic fence at 10 New Bridge Lane (see **Appendix B**) is necessary to control noise from activities within the EfW CHP Facility Site, including HGV movements (for which the EA has jurisdiction under the Environmental Permitting (England and Wales) Regulations 2016, as amended ('EPR')), but also from development traffic manoeuvring external to the EfW CHP Facility Site on New Bridge Lane (activities not regulated by the EA under the EPR). As the acoustic fence serves a dual purpose, it must be installed at 10 New Bridge Lane. Installing the acoustic fence at the EfW CHP Facility Site's southern boundary (north of New Bridge Lane) would not control noise from traffic manoeuvring on New Bridge Lane, nor would it be an effective mechanism for controlling noise from HGV's at the vehicle entrance operating within the permit installation boundary (the dominant source identified in the noise impact assessment supporting the EP application) as the acoustic fence would need to be opened to allow access and egress of HGV's to/from the EfW CHP Facility Site and, consequently, that specific noise source/impact would still be present with a barrier on/within the site boundary in place.

2.2 Pre-Application Consultation with the Environment Agency

2.2.1 During pre-application consultation with the EA to discuss the approach to the EP and the information to be considered, the EA confirmed it has no jurisdiction over noise from vehicle movements on the local road network (in this instance New Bridge Lane) and, as such, that source should not be included in the noise assessment that supports the EP application. This position was confirmed in the EA's notice of consultation on the EP application (<https://consult.environment-agency.gov.uk/psc/pe13-2tq-medworth-chp-limited/>):

"We can take account of...The impact of noise and odour from traffic on site. We cannot take account of... The impact of noise and odour from traffic travelling to and from the site."

2.2.2 The decision not to include the acoustic fence within the proposed EP installation boundary was a very deliberate one. As the acoustic fence must be located off-site on third party land for effective noise control, there is a risk, in terms of pollution incidents, and/or potential for contamination to be found at the point of EP surrender due to third party activities which, through no involvement of its own, the operator would become liable for if the land on which the acoustic fence was installed was included within the installation boundary.



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2.3 Regulation of the acoustic barrier

Environmental Permit

2.3.1 Notwithstanding the acoustic fence being external to the installation boundary, there are still effective mechanisms under the EP for the EA to e.g., require the operator to repair any defects which may occur to the acoustic fence throughout its lifetime. The acoustic fence is listed as a control technique in both the noise impact assessment and noise and vibration management plan that accompanied the EP application. These operating techniques are generally added to Table S1.2 of the EP and a generic condition within the main body of all permits typically includes:

“The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in Schedule 1, Table S1.2, unless otherwise agreed in writing by the Environment Agency. If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in Schedule 1, Table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.”

2.3.2 It is also possible for the EA to include off-site conditions in permits, in a similar manner as that used for e.g., continuous off-site ambient air quality monitoring, that would require ongoing maintenance of the acoustic fence. Hence, contrary to initial views expressed by CCC and FDC that there are no control measures available under the EP, effective controls are available. For clarity, references in the noise impact assessment supporting the EP to HGV’s on the local road network being excluded solely relates to their exclusion from the predictive noise model that accompanies the EP application (to ensure the predictions are consistent with activities included in the EA’s jurisdictional scope under the EPR), not the exclusion of the acoustic fence as a control technique, or exclusion of HGV manoeuvring on New Bridge Lane from the specification of the acoustic fence.

DCO Application

2.3.3 The acoustic fence specification has been designed based on the outputs from the noise assessment supporting the DCO Application (**Appendix 7D Outline Operational Noise Management Plan Volume 6.4 [REP3-015]**). That assessment includes contributions from HGV’s manoeuvring within the EfW CHP Facility Site, but also includes additional contributions from HGV’s operating on New Bridge Lane. Furthermore, the **Outline Operational Noise Management Plan Rev 4, Appendix 7D, (Volume 6.4) [REP5-014]**, specifically developed for the DCO Application, which addresses the impacts from HGV’s on New Bridge Lane, also includes the acoustic fence as a mitigation measure. Conditions to adhere to this management plan, whilst supporting ongoing access to the acoustic fence and the requirement to construct and maintain it throughout the lifetime of the Proposed Development, would be secured by DCO Requirements (see **Figure 2-3**).



Figure 2-1: Extract from Outline Operational Noise Management Plan

5. Noise Control Measures

5.1 Embedded noise control

5.1.1 The EFW CHP Facility Site lies within a predominantly industrial area with the nearest dwelling, 10 New Bridge Lane, on the opposite side of New Bridge Lane from the southern boundary. As outlined in **Section 3**, 9 New Bridge Lane has been purchased by the Applicant and hence will not be a sensitive Receptor during the operation of the EFW CHP Facility.

5.1.2 An acoustic fence will be provided to 10 New Bridge Lane to reduce daytime sound levels from fixed plant and waste delivery vehicles. A diagram indicating the proposed location of the acoustic fence is provided in **Figure 5.1 Proposed acoustic fence to 10 New Bridge Lane**. The Applicant will engage with the owner and occupier of 10 New Bridge Lane to discuss the detailed design of the acoustic fence and agree installation and maintenance access agreements. The agreed details, which will also include the height, materials and noise attenuation calculations will be set out in a report which will be forwarded to the relevant planning authority for its agreement prior to the commencement of its construction.

2.3.4 The rights to install and maintain the acoustic fence for the lifetime of the Proposed Development on the land identified in **Appendix A** (plot number 12/8a¹) is secured in Schedule 8 of the **draft DCO Rev 4, (Volume 3.1) [REP5-006]**. **Figure 2-2** provides the relevant extract from Schedule 8.

¹ For further details see Book of Reference Rev 5 (Volume 4.1) [REP3-009] and Land Plans Rev 4 (Volume 2.2) [REP3-003].



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Figure 2-2: Extract from Schedule 8 of the Draft DCO Rev 4

SCHEDULE 8		Article 25
LAND IN WHICH ONLY NEW RIGHTS ETC. MAY BE ACQUIRED		
Table 8		
(1) <i>Number of plot shown on the land plans</i>	(2) <i>Rights etc. which may be acquired</i>	
11/8a	<p>Rights to install, retain, use, maintain, inspect, alter, remove, refurbish, reconstruct, replace, protect and improve acoustic fencing and gates and any other ancillary apparatus or works as necessary</p> <p>Rights to pass and repass on foot, with or without vehicles, plant and machinery for all purposes in connection with the construction, use, maintenance and decommissioning of the acoustic fencing and gates</p> <p>Restrictions on erecting buildings or structures, altering ground levels, planting trees or carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights or damage acoustic fencing and gates</p>	

2.3.5 The detailed design for the acoustic fence and the Operational Noise Management Plan (ONMP) is secured by DCO Requirement 19, **draft DCO Rev 4, (Volume 3.1) [REP5-006]**. The wording of DCO Requirements 19 is provided in **Figure 2-3**. Note, the “Works No.” referred to are described in Schedule 2 of the **draft DCO** and reproduced in **Appendix B**. “Works No. 10” is the acoustic fence at 10 New Bridge Lane. The acoustic fence is required to be implemented before construction of the Access Improvements to New bridge Lane (“Works No. 4A”).

Figure 2-3: Draft DCO Requirements 19 (noise management)

Noise management

19.—(1) No part of Work No. 4A may commence until the residential use at plot numbers 11/4a and 11/4b shown on the land plans and described in the book of reference has ceased unless otherwise agreed by the relevant planning authority.

(2) Plot numbers 11/4a and 11/4b shown on the land plans and described in the book of reference must not be used for residential purposes until the authorised development has been decommissioned in accordance with requirement 28 unless otherwise agreed by the relevant planning authority.

(3) No part of Work No. 4A may commence until Work No. 10 has been constructed. Work No. 10 must be maintained until the authorised development has been decommissioned in accordance with requirement 28 unless otherwise agreed by the relevant planning authority.

(4) Prior to the date of final commissioning of any part of Work No. 1, 1A, 2A, 2B and 9(a), an operational noise management plan for that part must be submitted to and approved by the relevant planning authority.

(5) The operational noise management plan submitted for approval must be substantially in accordance with the outline operational noise management plan.

(6) The relevant planning authority must consult with the Environment Agency before approving the operational noise management plan.

(7) The operational noise management plan must be implemented as approved under subparagraph (4).

2.3.6

In addition to the Operational Noise Management Plan and erection of the acoustic fence, the Outline Construction Environmental Management Plan (CEMP) (**Volume 7.12**) [REP5-022] includes additional information on traffic management and general noise mitigation. The Detailed CEMP is secured by Requirement 10 of the draft DCO, reproduced in **Figure 2-4**.

Figure 2-4: Draft DCO Requirements 10 (CEMP)

Construction environmental management plan

10.—(1) No part of the authorised development may commence until a construction environmental management plan for that part has been submitted to and approved by the relevant planning authority.

(2) The construction environmental management plan submitted for approval must be substantially in accordance with the outline construction environmental management plan.

(3) The relevant planning authority must consult with the Environment Agency before approving the construction environmental management plan.

(4) All construction works associated with the authorised development must be undertaken in accordance with the approved construction environmental management plan unless otherwise agreed with the relevant planning authority.



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2.3.7 Both the Outline ONMP and CEMP are certified documents in the **draft DCO Rev 4, (Volume 3.1) [REP5-006]**. **Figure 2-5** provides relevant extracts from Schedule 13.

Figure 2-4: Draft DCO Requirements 10 (CEMP)

SCHEDULE 13 Article 42

DOCUMENTS AND PLANS TO BE CERTIFIED

Table 10

<i>(1)</i> <i>Document name</i>	<i>(2)</i> <i>Document reference</i>	<i>(3)</i> <i>Revision number</i>	<i>(4)</i> <i>Date</i>
outline construction environmental management plan	7.12	3	April 2023
outline operational noise management plan	6.4 (ES Appendix 7D)	3	April 2023

“outline construction environmental management plan” means the document of that name identified in Table 10 of Schedule 13 and which is certified by the Secretary of State as the outline construction environmental management plan for the purposes of this Order;

“outline operational noise management plan” means the document of that name identified in Table 10 of Schedule 13 and which is certified by the Secretary of State as the outline operational noise management plan for the purposes of this Order;

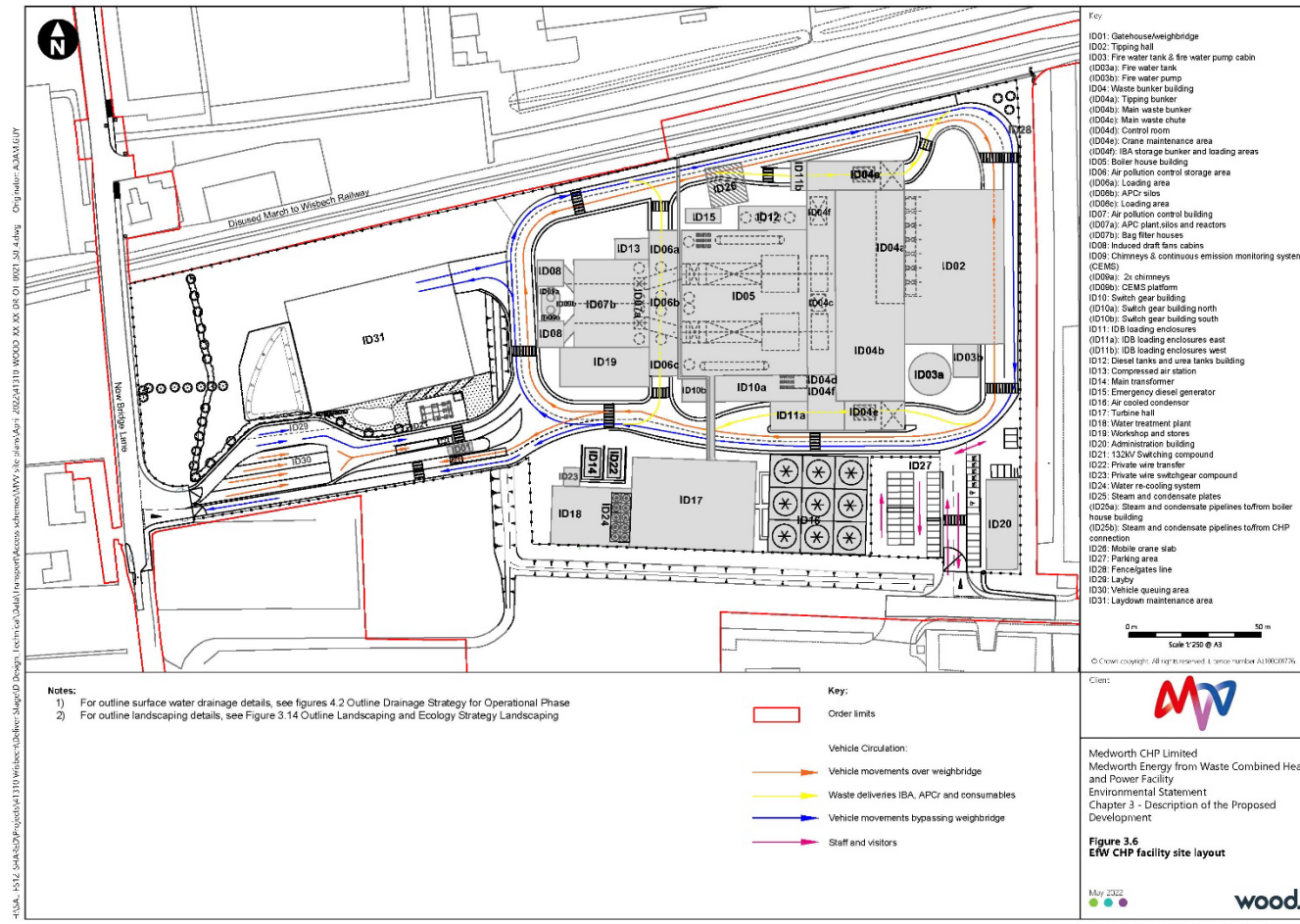


3. Conclusion

- 3.1.1 Any acoustic fence defects which contribute to adverse noise impacts associated with HGV's on New Bridge Lane are enforceable under the DCO, whilst acoustic barrier defects contributing to adverse noise impacts due to activity within the installation boundary are enforceable under both the DCO and EP (with the EA generally taking the lead role on enforcement action in this case). There is no regulatory gap in controlling/allowing enforcement action to be taken with respect to noise associated with the Proposed Development.



Appendix A DCO Order limits and EP Installation Boundary

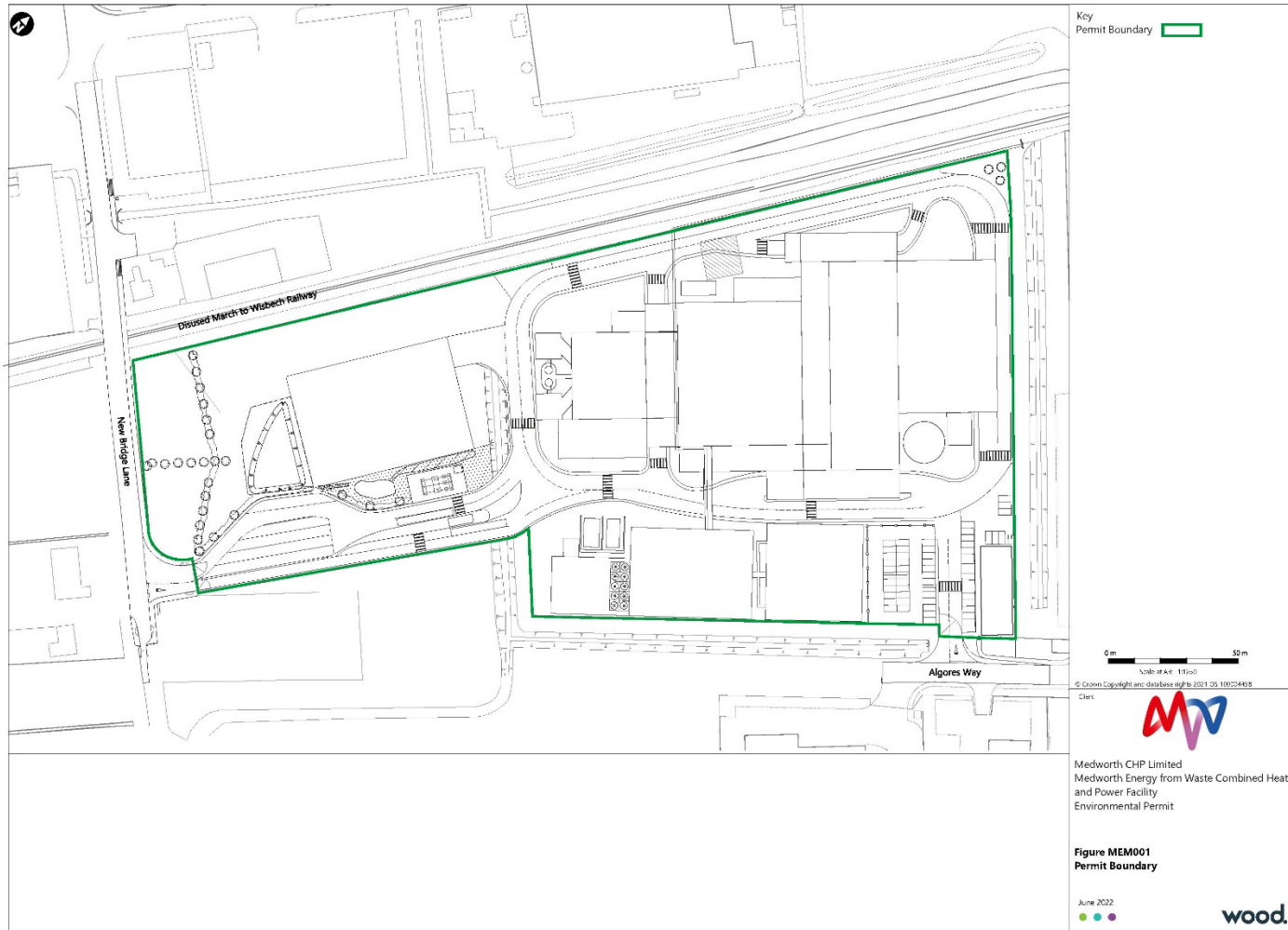


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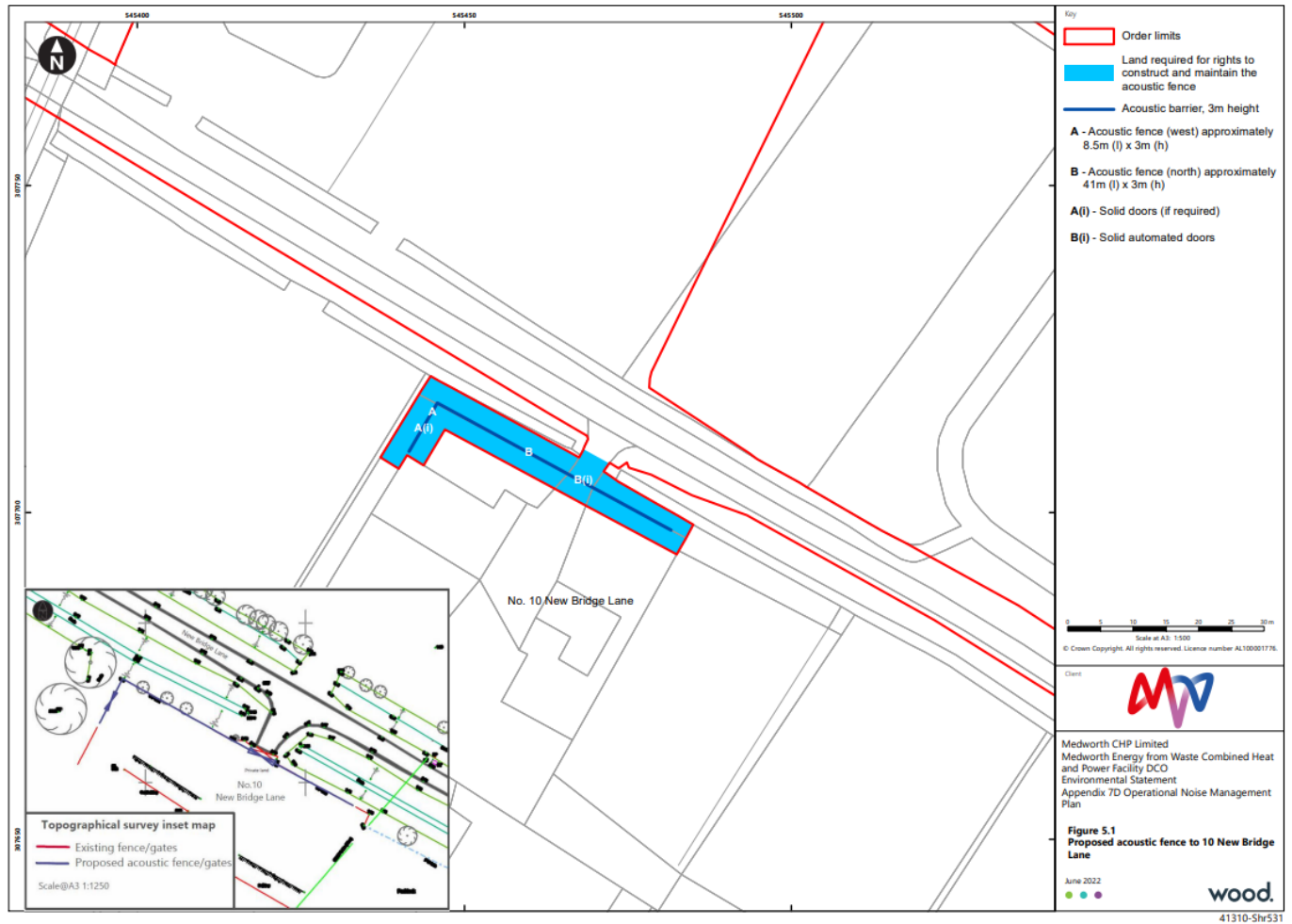




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Appendix B Location of Acoustic Fence at 10 New bridge Lane





Appendix C Draft DCO Schedule 1: Authorised Development

SCHEDULES

SCHEDULE 1

Article 3

AUTHORISED DEVELOPMENT

In the County of Cambridgeshire and the County of Norfolk a nationally significant infrastructure project as defined in section 14(1)(a) (nationally significant infrastructure projects: general) and section 15 (generating stations) of the 2008 Act and associated development within the meaning of section 115(2) (development for which development consent may be granted) of the 2008 Act comprising all or part of—

In the County of Cambridgeshire

Work No. 1 – an electricity generating station with a gross installed generating capacity of up to 60 MW and capacity to process up to 625,600 tonnes of residual waste per annum, including—

- (a) fuel reception and storage facilities consisting of tipping hall, tipping bays, tipping bunker, main waste bunker, shredder, waste chutes, cranes, cabin and handling and maintenance equipment;
- (b) a combustion system including boiler house, air cooled moving grates, boilers and water tanks;
- (c) air pollution control plant and monitoring systems including silos, reactors, filter houses, fans, cabins and loading and storage areas;
- (d) a steam turbine and generator including turbine hall and cooling system;
- (e) a bottom ash handling system, including ash storage bunker, conveyors, collection bays, cranes and handling and maintenance equipment;
- (f) air cooled condenser;
- (g) compressed air system;
- (h) tank(s) for the storage of urea;
- (i) switch gear building;
- (j) control room; and
- (k) water treatment and storage plant.

Work No. 1A – two chimneys and associated continuous emissions monitoring systems and platform.

Work No. 1B – administration building, including—

- (a) roof-mounted photovoltaic solar panels to supplement energy use within the administration building, generating approximately 50kW (0.05MW) of electricity;
- (b) brown roof and green walls;
- (c) natural cooling apparatus including brise soleil to eastern elevation;
- (d) bat and bird boxes; and
- (e) rain water harvesting apparatus.

Work No. 2 – in connection with and in addition to Work Nos 1, 1A and 1B—

Work No. 2A

- (a) fire water tank and fire water pump cabin;
- (b) diesel generator and diesel storage tanks;



- (c) 132kV switching compound, transformers, switch gear, cabling, kiosk and associated telemetry;
- (d) workshop and stores; and
- (e) gatehouse and weighbridges; and

Work No. 2B

- (a) vehicle layby and queuing areas;
- (b) laydown and maintenance areas;
- (c) internal access roads and pedestrian walkways;
- (d) parking areas and electrical vehicle charging points;
- (e) pipes, cables, telecommunications and other services and associated infrastructure;
- (f) site drainage, including works to drains and culverts, potable and wastewater services and associated infrastructure;
- (g) hard and soft landscaping; and
- (h) biodiversity enhancement measures and environmental mitigation measures.

Work No. 3 – associated development comprising combined heat and power equipment including heat exchangers, pipework, valving, pumps, pressurisation, water treatment systems and associated instrumentation and telemetry.

Work No. 3A – associated development comprising combined heat and power equipment including steam and condensate pipes, pipe racks, supports, pipe runs, valving, electrical supply cables and associated instrumentation and telemetry, vertical expansion loops and pipe bridges.

Work No. 3B – associated development comprising combined heat and power equipment including steam and condensate pipes, pipe racks, supports, pipe runs, valving, electrical supply cables and associated instrumentation and telemetry, bellows expansion connections, vertical expansion loops and pipe bridges.

Work No. 4A – associated development comprising a new site access and access improvements on New Bridge Lane including carriageway and footway widening, highway alteration works, culverts, drains, street lighting, services and utilities connections and compact substation.

Work No. 4B – associated development comprising a new site access and access improvements Algores Way including carriageway and footway widening, highway alteration work, culverts, drains, services and utilities connections and street lighting.

Work No. 5 – associated development being a temporary construction compound and laydown area including—

- (a) hard standings;
- (b) materials storage and laydown areas;
- (c) construction fabrication areas;
- (d) generators;
- (e) vehicle parking areas;
- (f) wheel washing facilities;
- (g) accommodation, office and welfare buildings;
- (h) new or alteration to accesses;
- (i) internal haul roads; and
- (j) temporary pedestrian bridges.

Work No. 6A – comprising associated development for the potable water connection—

- (a) water pipe(s) and associated instrumentation and telemetry;
- (b) cable trenches, ducting, protection plates and jointing bays; and



- (c) horizontal directional drilling compound.

Work No. 6B – comprising associated development for the foul water connection—

- (a) water pipe(s) and associated instrumentation and telemetry; and
- (b) cable trenches, ducting, protection plates and jointing bays.

Work No. 7 – comprising associated development—

- (a) 132kV electrical underground cables and associated instrumentation and telemetry;
- (b) cable trenches, ducting, protection plates and jointing bays; and
- (c) temporary storage compounds in laybys on the A47.

In the County of Norfolk

Work No. 8 – comprising associated development—

- (a) 132kV electrical underground cables and associated instrumentation and telemetry;
- (b) cable trenches, ducting, protection plates and jointing bays; and
- (c) temporary storage compounds in laybys on the A47.

Work No. 9 – comprising associated development—

- (a) electrical substation and compound including clean air switchgear, control room kiosks and monitoring kiosks;
- (b) cables and associated instrumentation and telemetry;
- (c) cable trenches, ducting, protection plates and jointing bays; and
- (d) new or alteration to accesses, internal pedestrian and vehicular access road and parking area.

In the County of Cambridgeshire

Work No. 10 – comprising associated development, being an acoustic fence.

In connection with and in addition to Work Nos 1, 1A, 1B, 2A, 2B, 3, 3A, 3B, 4A, 4B, 5, 6A, 6B, 7, 8, 9 and 10 and, to the extent that it does not otherwise form part of those Work Nos, further associated development within the Order limits including—

- (a) external lighting infrastructure, including lighting columns;
- (b) fencing, boundary treatment and other means of enclosure;
- (c) demolition of existing buildings and structures;
- (d) signage;
- (e) CCTV and other security measures;
- (f) surface and foul water drainage facilities;
- (g) potable water supply;
- (h) new telecommunications and utilities apparatus and connections;
- (i) hard and soft landscaping;
- (j) biodiversity enhancement measures and environmental mitigation measures;
- (k) works permanently to alter the position of existing telecommunications and utilities apparatus and connections;
- (l) works for the protection of buildings and land;
- (m) establishment of temporary construction compounds, vehicle parking areas, hard standing, materials storage and laydown areas, construction fabrication areas, construction related buildings, accommodation buildings, temporary offices, structures, plant and machinery, lighting and fencing, internal haul routes and wheel wash facilities; and



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(n) site establishment and preparation works, including site clearance (including temporary fencing and vegetation removal), earthworks (including soil stripping and storage and site levelling) and excavations, the creation of temporary construction access points and the temporary alteration of the position of services and utilities apparatus and connections,
and such other buildings, structures, works or operations and modifications to, or demolition of, any existing buildings, structures or works as may be necessary or expedient for the purposes of or in connection with the construction, operation and maintenance of the works in this Schedule, but only within the Order limits and insofar as they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

