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Waste Management Licensing,
EPA Headquarters
Johnstown Castle
Johnstown
Co Wexford

26th May 2010

Re: ***Waste Licence Review Application to extend the existing Kilmainhamwood composting facility to accept and treat an additional 19,200 tonnes per annum of non-hazardous biodegradable waste, located in Ballnalurgan, Kilmainhamwood, Kells, Co. Meath***

Dear Sir/Madam,

On behalf of our client Padraic Thornton Waste Disposal Ltd, (trading as Thorntons Recycling), please find attached a Waste Licence Review Application and accompanying Environmental Impact Statement for the Kilmainhamwood Composting Facility.

The Waste Licence Review Application, in hardcopy and digital format is provided and the content of the electronic files on the accompanying CD-ROM(s) contain a true copy of the original application.

An Environmental Impact Statement (EIS) in hardcopy and digital format is submitted with this application and the content of the electronic files on the accompanying CD-ROM(s) contain a true copy of the original EIS.

We have also included a cheque for €6,000 in respect of the application fee.

Yours sincerely,

Pat O Neill
TOBIN Consulting Engineers

KILMAINHAMWOOD COMPOST FACILITY EXTENSION
BALLYNALURGAN, KILMAINHAMWOOD, KELLS, CO. MEATH

Waste Licence Application

WASTE LICENCE APPLICATION FORM

May 2010

WASTE LICENCE APPLICATION FORM

KILMAINHAMWOOD COMPOST FACILITY EXTENSION

BALLYNALURGAN, KILMAINHAMWOOD, KELLS, CO. MEATH

May 2010

TOBIN CONSULTING ENGINEERS

TOBIN
Patrick J. Tobin & Co. Ltd.

REPORT

PROJECT: **Application for Extension of Existing Composting Facility at Kilmainhamwood, Co. Meath**

CLIENT:
Thorntons Recycling
Unit S3B Henry Road
Parkwest Business Park
Dublin 12

COMPANY:
TOBIN Consulting Engineers
Block 10-4
Blanchardstown Corporate Park
Dublin 15

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DOCUMENT AMENDMENT RECORD

Client:	**Thorntons Recycling**
Project:	Application for Extension of Existing Composting Facility at Kilmainhamwood, Co. Meath
Title:	Waste Licence Application Form

PROJECT NUMBER: 5361				**DOCUMENT REF: 5361-04-01**			
A	Final	ED	06-01-10	PON	24-05-10	DG	24-05-10
Revision	**Description & Rationale**	**Originated**	**Date**	**Checked**	**Date**	**Authorised**	**Date**
TOBIN Consulting Engineers							

Waste Licence Application Form

EPA Ref. Nº: *(Office use only)*	

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Management Acts 1996 to 2003.

Environmental Protection Agency
P.O.Box 5000, Johnstown Castle Estate, County Wexford
Telephone: 053-60600 Fax: 053-60699

Environmental Protection Agency
Application for a Waste Licence

WASTE MANAGEMENT ACTS 1996 to 2003

CONTENTS

INTRODUCTION

A valid application must contain the information prescribed in the Waste Management (Licensing) Regulations 2004 (SI No. 395 of 2004). **The applicant is <u>strongly</u> advised to read the *Application Guidance Notes* for Waste Licensing, available from the EPA.**

The applicant must conform to the format set out in the guidance notes for applications. Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. page 5(i) of 45, etc. **The basic information should for the most part be supplied in the spaces given in application form** and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be clearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look carefully through all aspects of the form and provide the required information, in the greatest possible detail.

All maps/drawings/plans must be no larger than A3 size and scaled appropriately such that they are clearly legible. In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend " In the event that this information is deemed not to be held as confidential, it must be returned to .....". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the " Access to Information on the Environment" Regulations) should be stated in the Application Form, where relevant.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

CHECKLIST

Articles 12 and 13 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) set out the information which must, in all cases, accompany a waste licence application. In order to ensure that the application fully complies with the legal requirements of Articles 12 and 13 of the 2004 Regulations, all applicants should **complete** the following.

In each case, refer to the attachment number(s) of your application which contain(s) the information requested in the appropriate sub-article.

Article 12(1) In the case of an application for a waste licence, the application shall -

(a) give the name, address and, where applicable, any telephone number and telefax of the applicant (and, if different, the operator of the facility concerned), the address to which correspondence relating to the application should be sent and, if the applicant or operator is a body corporate, the address of its registered office or principal office,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

(b) give the name of the planning authority in whose functional area the relevant activity is or will be carried on,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

(c) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(d) give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the facility or premises to which the application relates,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

(e) describe the nature of the facility or premises concerned, including the proposed capacity of the facility or premises, and in the case of application in respect of a landfill of waste, the requirements specified in Annex 1 of the Landfill Directive,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

(f) specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act, and in the case of an application in respect of the landfill of waste, specify the class of landfill in accordance with Article 4 of the Landfill Directive,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

(g) specify, by reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000, the quantity and nature of the waste or wastes which will be treated, recovered or disposed of,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

(h) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity,

LOCATION	Attachments A and G	
CHECKED	**Applicant** ☒	**Official** ☐

(i) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures for the activity,

LOCATION	Attachments A and D	
CHECKED	**Applicant** ☒	**Official** ☐

(j) provide information for the purpose of enabling the Agency to make a determination in relation to the matters specified in paragraphs (a) to (g) of section 40(4) of the Act,

LOCATION	Attachments A and L	
CHECKED	**Applicant** ☒	**Official** ☐

(k) give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made,

LOCATION	Attachments A and E	
CHECKED	**Applicant** ☒	**Official** ☐

(l) give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit or abate such emissions,

LOCATION	Attachments A and E	
CHECKED	**Applicant** ☒	**Official** ☐

(m) identify monitoring and sampling points and indicate proposed arrangements for the monitoring of emissions and the environmental consequences of any such emissions,

LOCATION	Attachments A and F	
CHECKED	**Applicant** ☒	**Official** ☐

(n) describe any proposed arrangements for the prevention, minimisation and recovery of waste arising from the activity concerned,

LOCATION	Attachments A and H	
CHECKED	**Applicant** ☒	**Official** ☐

(o) describe any proposed arrangements for the off-site treatment or disposal of solid or liquid wastes,

LOCATION	Attachments A and H	
CHECKED	**Applicant** ☒	**Official** ☐

(p) describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emission,

LOCATION	Attachments A and J	
CHECKED	**Applicant** ☒	**Official** ☐

(q) describe the proposed measures for the closure, restoration, remediation or aftercare of the facility concerned, after the cessation of the activity in question,

LOCATION	Attachments A and K	
CHECKED	**Applicant** ☒	**Official** ☐

(r) in the case of an application in respect of the landfilling of waste, give particulars of –

(i) such financial provision as is proposed to be made by the applicant, having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the Act, and

LOCATION	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(ii) such charges as are proposed or made, having regard to the requirements of section 53A of the Act,

LOCATION	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(s) state whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (S.I. No. 476 of 2000) apply,

LOCATION	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(t) in the case of an activity which gives rise or could give rise to an emission into an aquifer containing the List I and II substances specified in the Annex to Council Directive 80/68/EEC of 17 December 1979, describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6,7,8,9 and 10 of the aforementioned Council Directive,

LOCATION	Not Applicable	
CHECKED	**Applicant** ☒	**Official** ☐

(u) include a non-technical summary of information provided in relation to the matters specified in paragraphs (a) to (t) of this sub-article,

LOCATION	Attachment A	
CHECKED	**Applicant** ☒	**Official** ☐

Article 12(4) Without prejudice to Article 13(1) and (2), an application for a licence shall be accompanied by -

(a) a copy of the relevant page of the newspaper(s) in which the notice in accordance with article 6 has been published,

LOCATION	Attachment B6	
CHECKED	**Applicant** ☒	**Official** ☐

(b) a copy of the text of the notice or notices erected or fixed in accordance with article 7,

LOCATION	Attachment B6	
CHECKED	**Applicant** ☒	**Official** ☐

(c) where appropriate, a copy of the notice given to a local planning under article 9,

LOCATION	Attachment B6	
CHECKED	**Applicant** ☒	**Official** ☐

(d) a copy of such plans (appropriately scaled and no larger than A3 size), including a site plan or plans and location map or maps, and such other particulars, reports and supporting documentation as are necessary to identify and describe, as appropriate -
(i) the position of the notice in accordance with article 7,

LOCATION	Drawing No. 5361-2600	
CHECKED	**Applicant** ☒	**Official** ☐

(ii) the point or points from which emissions are made or are to be made, and

LOCATION	Drawing No. 5361- 2604	
CHECKED	**Applicant** ☒	**Official** ☐

(iii) the point or points at which monitoring and sampling are undertaken or are to be undertaken,

LOCATION	Drawing No. 5361-2604	
CHECKED	**Applicant** ☒	**Official** ☐

(e) such fee as is appropriate having regard to the provisions of articles 40 and 41.

INCLUDED Y/N	Yes	
CHECKED	**Applicant** ☒	**Official** ☐

Article 12(5)(a) & (b) An application shall comprise 1 signed original of the application and 2 copies in hardcopy format plus 2 copies of all files in electronic searchable PDF format on CD-Rom.

HARDCOPIES PROVIDED Y/N	Yes	
CHECKED	**Applicant** ☒	**Official** ☐

CD OF PDF FILES PROVIDED? Y/N	Yes	
CHECKED	**Applicant** ☒	**Official** ☐

Article 13 Where a development requires an Environmental Impact Assessment to be carried out, 1 signed original and 2 copies in hardcopy format of the environmental impact statement plus 16 copies in electronic searchable PDF format on CD-ROM should accompany this application.

EIA REQUIRED ? Y/N	Yes	
CHECKED	**Applicant** ☒	**Official** ☐
3 HARD COPIES OF EIS INCLUDED ? Y/N	Yes	
CHECKED	**Applicant** ☒	**Official** ☐
16 CD versions of EIS, as PDF files, PROVIDED? Y/N	Yes	
CHECKED	**Applicant** ☒	**Official** ☐

PROCEDURES

It is recommended that pre-application consultations with the Agency are undertaken before a formal submission of the waste licence application.

The procedure for making and processing of applications for waste licences, and for the processing of reviews of such licences, appear in the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) and are summarised below. The application fees that shall accompany an application are listed in the Second Schedule to the Regulations.

Prior to submitting an application the applicant must publish in a local newspaper, and erect on site, a notice of intention to apply. An applicant, other than a local authority in whose functional area the development is located, must also notify the Local Planning Authority, in writing, of their intention to apply.

An application for a licence must be submitted on the appropriate form (available from the Agency) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form, supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each emission point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions being to facilitate both the applicant and the Agency in the provision of the information and its assessment. Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. No waste management facility is exactly the same and hence each application will require different information. It is therefore possible that some of the sections of this application form may not be relevant to the activity concerned. **Where information is requested in the application form, which is not relevant to the application, the words "not applicable" should be clearly written on the form. The abbreviation "N/A" should not be used.**

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person. **Should the applicant**

consider information to be confidential, then the nature of this information, and the reasons why it is considered confidential should be clearly stated in an attachment to the Application Form. This information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to (representative of the applicant)".

Applicants should be aware that a contravention of the conditions of a waste licence is an offence under Section 39 of the Waste Management Acts 1996 to 2003.

The provision of information in an application for a waste licence which is false or misleading is an offence under Section 45 of the Waste Management Acts 1996 to 2003.

Note: Drawings. The following guidelines are included to assist applicants:

- *All drawings submitted should be titled and dated.*
- *They should have a **unique reference number** and should be signed by a clearly identifiable person.*
- *They should indicate a scale and the **direction of north**.*
- *All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the site location can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.*

The provision of information in an application for a waste licence, which is false or misleading, is an offence under s45 of the Acts.

SECTION A NON-TECHNICAL SUMMARY

A Non-Technical Summary is to be submitted. The summary should include information on those aspects outlined in the Guidance Note and must comply with the requirements of Article 12 (1) (u) of the Waste Management (Licensing) Regulations, S.I. 395 of 2004.

The Non-Technical Summary should form **Attachment A.1**.

SECTION B GENERAL

B.1 Applicant's Details

Name*:	Padraic Thornton Waste Disposal Ltd, (trading as Thorntons Recycling)
Address:	Unit S3B,
	Henry Road,
	Park West Business Park,
	Dublin 12
Tel:	01 6235133
Fax:	01 6235131
e-mail:	Tom@thorntons-recycling.ie

* This should be the name of the applicant which is current on the date this Waste Licence Application is lodged with the Agency. It should be the name of the legal entity (which can be a limited company or a sole trader). A trading/business name is not acceptable.

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Name:	Pat O Neill
Address:	TOBIN Consulting Engineers,
	Block 10-4,
	Blanchardstown Corporate Park,
	Dublin 15
Tel:	01-8030401
Fax:	01-8030409
e-mail:	pat.oneill@tobin.ie

Address of registered or principal office of Body Corporate (if applicable)

Address:	Padraic Thornton Waste Disposal Ltd, (trading as Thorntons Recycling)
	Unit S3B,
	Henry Road,
	Park West Business Park,
	Dublin 12
Tel:	01 6235133
Fax:	01 6235131
e-mail:	Tom@thorntons-recycling.ie

If the applicant is a body corporate, the following information must be attached as **Attachment B1**:

a) a Certified Copy of the Certificate of Incorporation or Memorandum and Article of Association;
b) the Company's Registration Number from the Companies Registry Office; and
c) a list of the Company Directors.

State the interest of the applicant in the land which is subject to the application. The applicant is (please check):

Landowner	☒
Lessee	☐
Prospective Purchaser	☐
Other (please specify)	

Name and address of all occupiers of the land on which the Activity is situated (if different from applicant named above).

Name:
Address:

Tel:
Fax:
e-mail:

Name and address of the current* owner(s) and lessees of the land, buildings and ancillary plant on which the activity is or will be situated (if different from applicant named above).
An appropriately scaled drawing(≤A3) showing the above details should be included in **Attachment B1.**

Name:
Address:

Tel:
Fax:
e-mail:
*Current at the time the application is submitted

B.2 Location of Activity

Name:	Kilmainhamwood Compost Facility,
Address*:	Ballynalurgan,
	Kilmainhamwood,
	Kells,
	Co. Meath
Tel:	01 6235133
Fax:	01 6235131
e-mail:	Tom@thorntons-recycling.ie

* Include any townland

National Grid Reference (8 digit 4E,4N)	E2793 N2912

Location maps (≤A3), appropriately scaled, with legible grid references should be enclosed in **Attachment B.2.** The site boundary must be outlined on the map in colour.

B.3 Planning Authority

Give the name of the planning authority in whose functional area the activity is or will be carried out.

Name:	Meath County Council
Address:	County Hall,
	Railway Street,
	Navan,
	Co. Meath
Tel:	046-9097040
Fax:	046-9097001

Has the Planning Authority received written notification from the applicant of the application to The Environmental Protection Agency for a Waste Licence under Article 9 of the Waste Management (Licensing) Regulations?

Planning Authority notified	**Yes** ☒
	No ☐

Planning Permission relating to this application:

has been obtained	☐
is being processed	☒
is not yet applied for	☐
is not required	☐

Local Authority Planning File Reference No:	KA901007

Attachment B.3 should contain ***the most recent*** planning permission, including a copy of ***all*** conditions, and the required copies of any EIS should also be enclosed. For existing activities, **Attachment B.3** should also contain copies of of the most recent waste licence and any permits in force at the time of submission. Where planning permission is not required for the development, provide reasons, relevant correspondence, *etc.*

B.4 Sanitary Authority

In the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority or other body, give the name of the sanitary authority in which the sewer is vested or by which it is controlled and the waste water treatment plant (if any) to which the sewer discharges.

Name:	N/A
Address:	
Tel:	
Fax:	

The applicant must enclose, as **Attachment B.4,** a copy of any effluent discharge licence and/or agreement between the applicant and the body with responsibility for the sewer.

B.5 Other Authorities

The applicant should tick the appropriate box below to identify whether the activity is located within the Shannon Free Airport Development Company (SFADCo.) area.

Within SFADCo. Area	**Yes** ☐	**No** ☒

The applicant should indicate the **Health Board Region** where the activity is or will be located.

Name:	HSE Executive Dublin North East
Address:	Dublin Road,
	Kells
	Co.Meath
Tel:	046 9280621
Fax:	046 9241784

B.6 Notices and Advertisements

Articles 6 and 7 of the Waste Management (Licensing) Regulations 2004 requires all applicants to advertise the application in a newspaper and by way of a site notice. See *Guidance Note.*

Attachment B.6 should contain a copy of the site notice and an appropriately scaled drawing (≤A3) showing its location on site. **The original application must include the complete newspaper in which the advertisement was placed**. The relevant page of the newspaper containing the advertisement should be included with the original and three copies of the application.

B.7 Type of Waste Activity, Tonnages & Fees

B.7.1 Specify the class or classes of activity in Table B.7.1, in accordance with the Third Schedule or Fourth Schedule to the Waste Management Acts 1996 to 2003, to which the application relates (check the relevant box(es) and mark the principal activity with a 'P').

Attachment B.7 should identify the principle activity and include a brief technical description of each of the other activities specified. **There can only be one principal activity.**

TABLE B.7.1 THIRD AND FOURTH SCHEDULES OF THE WASTE MANAGEMENT ACTS 1996 TO 2003

Waste Management Acts 1996 to 2003			
THIRD SCHEDULE **Waste Disposal Activities**	**Y/N**	**FOURTH SCHEDULE** **Waste Recovery Activities**	**Y/N**
1. Deposit on, in or under land (including landfill).		1. Solvent reclamation or regeneration.	
2. Land treatment, including biodegradation of liquid or sludge discards in soils.		2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).	**P**
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.		3. Recycling or reclamation of metals and metal compounds.	
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.		4. Recycling or reclamation of other inorganic materials.	
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.		5. Regeneration of acids or bases.	
6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule.	**X**	6. Recovery of components used for pollution abatement.	
7. Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).		7. Recovery of components from catalysts.	
8. Incineration on land or at sea.		8. Oil re-refining or other re-uses of oil.	
9. Permanent storage, including emplacement of containers in a mine.		9. Use of any waste principally as a fuel or other means to generate energy.	
10. Release of waste into a water body (including a seabed insertion).		10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.	
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.		11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	
12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.		12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	
13. Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	**X**	13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.	**X**

TABLE B.7.2 MAXIMUM ANNUAL TONNAGE

The maximum annual tonnage of waste to be handled at the site should be indicated and the year to which the quantity relates indicated.

Maximum Annual Tonnage (tpa)	40,000
Year	2011

B.7.3 FEES

State each class of activity for which a fee is being submitted as per Part I of the Second Schedule of the Waste Management (Licensing) Regulations 2004, S.I. No. 395 of 2004. Note: two fees are required if disposal and recovery are to occur.

Waste Activity	**Fee (in €)**
Disposal of Waste (appropriate disposal activity 1.1 – 3.3)	Not Applicable
Recovery of Waste (4)	6,000

TABLE B.7.4 (FOR A LANDFILL APPLICATION)

STATE WHICH OF THE FOLLOWING IS RELEVANT TO THE CURRENT APPLICATION

(a) landfill for hazardous waste	☐
(b) landfill for non-hazardous waste	☐
(c) landfill for inert waste	☐

B.8 SEVESO II DIRECTIVE

State whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous substances) Regulations, 2000 (S.I. No. 476 of 2000), apply.

Regulations Apply	Yes ☐	No ☒

If yes, **Attachment B.8** should include the relevant details**.** Supporting information, as well as copies of any Hazardous Operation Studies (HAZOP) carried out for the site, should also be included in the attachment.

SECTION C MANAGEMENT OF THE FACILITY

Advice on completing this section is provided in the *Guidance Note*.

C.1 Technical Competence and Site Management

This information should form **Attachment C 1**.

Details of the applicant's experience and qualifications, along with that of other relevant employees, should be summarised as shown below. Statements of duties, responsibilities, experience and qualifications should be submitted for each position named below. Additional information, including the management structure and an organisational chart, should be included in **Attachment C 1.**

Name	Position	Duties and Responsibilities	Experience /Qualifications
Tom McDonnell	Facility Manager	Full-time, Permanent	Detailed in Attachment C1
Gary Brady	Managing Director	Full-time, Permanent	Detailed in Attachment C1
Shane Thornton	Operations Director	Full-time, Permanent	Detailed in Attachment C1
Mercedes Feely	Group Environmental Manager	Full-time, Permanent	Detailed in Attachment C1
Tommy Rogers	Health and Safety Manager	Full-time, Permanent	Detailed in Attachment C1

C.2 Environmental Management System

Attachment C 2 should contain the Environmental Management System (EMS) details required.

C.3 Hours of Operation

Attachment C 3 should contain details of hours of operation for the waste facility, civic waste facilities and other facilities.

(a) Proposed hours of operation.
(b) Proposed hours of waste acceptance/handling.
(c) Proposed hours of any construction and development works at the facility and timeframes (required for landfill facilities).
(d) Any other relevant hours of operation expected.

C.4 Conditioning Plan

Address as **Attachment C 4,** in the case of a LANDFILL Application, and only for the review of a Landfill Waste Licence.

SECTION D INFRASTRUCTURE & OPERATION

D.1 Infrastructure

Complete the following table detailing the site infrastructure. **Attachment D 1** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.1. Additional advice on completing this section is provided in the application *Guidance Note*.

Table D.1. Infrastructure		**y/n**	**Comments**
D.1.a	**Site security arrangements including gates and fencing**	Y	See Attachment D1
D.1.b	**Designs for site roads**	Y	See Attachment D1
D.1.c	**Design of hardstanding areas**	Y	See Attachment D1
D.1.d	**Plant**	Y	See Attachment D1
D.1.e	**Wheel-wash**	Y	See Attachment D1
D.1.f	**Laboratory facilities**	N	Not Applicable
D.1.g	**Design and location of fuel storage areas**	Y	See Attachment D1
D.1.h	**Waste quarantine areas**	Y	See Attachment D1
D.1.i	**Waste inspection areas**	Y	See Attachment D1
D.1.j	**Traffic control**	Y	See Attachment D1
D.1.k	**Sewerage and surface water drainage infrastructure**	Y	See Attachment D1
D.1.l	**All other services**	Y	See Attachment D1
D.1.m	**Plant sheds, garages and equipment compound**	N	Not Applicable
D.1.n	**Site accommodation**	Y	See Attachment D1
D.1.o	**A fire control system, including water supply**	Y	See Attachment D1
D.1.p	**Civic amenity facilities**	N	Not Applicable
D.1.q	**Any other waste recovery infrastructure**	N	Not Applicable
D.1.r	**Composting infrastructure**	Y	See Attachment D1
D.1.s	**Construction and Demolition waste infrastructure**	N	Not Applicable
D.1.t	**Incineration infrastructure (if applicable).** **Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive**	N	Not Applicable
D.1.u	**Any other infrastructure**	N	Not Applicable

D.2 Facility Operation

In **Attachment D 2** describe the plant, methods, processes and operations of the waste facility, as required by the *Guidance Note*.

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

LANDFILLS

The following Sections D3 to D7 should only be completed for Landfill Applications. Reference should be made to the Agency landfill manual 'Landfill Site Design (2000)' when completing this section.

D.3 Liner System

Complete the following table regarding the liner system to be used for the landfill/landfill extension and detail the information requested as **Attachment D.3**. ***Items D3c to D3g should only be completed for immediate projects only (ie Years 1 & 2).*** A schedule of Liner construction activities for the medium to long term need only be listed in item D3a below, since Condition 3 of any licences granted will provide reporting requirements for any future projects.

TABLE D.3 LINER SYSTEM

		y/n	Comments
D.3.a	**Provide information to fulfil Annex 1 of the Landfill Directive**	N	Not Applicable
D.3.b	**What type of liner system is specified?**	N	Not Applicable
D.3.c	**Has a Quality Control Plan been specified?**	N	Not Applicable
D.3.d	**Has a Quality Assurance Plan been specified?**	N	Not Applicable
D.3.e	**Have independent, third-party supervision, testing and controls been specified?**	N	Not Applicable
D.3.f	**Have basal gradients for all cells and access ramps to the cells been designed?**	N	Not Applicable
D.3.g	**Has a leak detection survey been specified?**	N	Not Applicable

D.4 Leachate Management

Complete the following table detailing leachate management arrangements. Further information should be included in **Attachment D.4.**

TABLE D.4.1 LEACHATE MANAGEMENT ARRANGEMENTS

		y/n	Comments
D.4.a	**Is there a Leachate Management Plan?**	N	Not Applicable
D.4.b	**Have annual quantities of leachate been calculated?**	N	Not Applicable
D.4.c	**Has the total quantity of leachate been calculated?**	N	Not Applicable
D.4.d	**Have the size of the cells been specified taking account of the water balance calculations?**	N	Not Applicable
D.4.e	**Has a leachate collection system been specified?**	N	Not Applicable
D.4.f	**Has a leachate storage system been specified?**	N	Not Applicable
D.4.g	**Has a system for monitoring the level of leachate in the waste been designed?**	N	Not Applicable
D.4.h	**Is leachate recirculation proposed/practised?**	N	Not Applicable
D.4.i	**Has leachate treatment on site been specified?**	N	Not Applicable
D.4.j	**Has leachate removal been specified?**	N	Not Applicable

D 5 Landfill Gas Management

All landfill sites should have suitable arrangements for the management of landfill gas. **Attachment D.5** should contain the appropriate documentation. Information provided should follow the sequence, and use the headings, established in Table D.5. ***Items D5g to D5m should only be completed for immediate or current gas collection projects only (ie Years 1 & 2).*** A schedule of gas management aspects for the medium to long term need only be listed in item D5f below, since Condition 3 of any proposed decision/licence will provide reporting requirements for any future projects.

Table D.5. Landfill Gas Management

		y/n	Comments
D.5a	**Is there a Landfill Gas Management Plan?** **Provide estimates of the volumes of landfill gas which will be produced by the waste disposed of in the site for the next 20 years, and compare to the EPER list for methane:**	N	Not Applicable
D.5b	**Is there a passive venting system?**	N	Not Applicable
D.5c	**Does the passive system cover all of the filled area?**	N	Not Applicable
D.5d	**Have gas alarm systems been installed in the site buildings?**	N	Not Applicable
D.5e	**Have measures been installed to prevent landfill gas migration (e.g. barriers)?**	N	Not Applicable
D.5f	**Has a time-scale been proposed for the installation of landfill gas infrastructure?**	N	Not Applicable
D.5g	**Is gas flaring undertaken at the site?**	N	Not Applicable
D.5h	**Is there an active (i.e., pumped) landfill gas extraction system?**	N	Not Applicable
D.5i	**Does the active system cover all of the filled area?**	N	Not Applicable
D.5j	**Is landfill gas used to generate energy at the site?**	N	Not Applicable
D.5k	**Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate?**	N	Not Applicable
D.5l	**Has a maintenance programme for the control system been specified?**	N	Not Applicable
D.5m	**Has a condensate removal system been designed?**	N	Not Applicable

D.6 Capping System

Complete the following table detailing the design of the capping system. **Attachment D.6** should contain the appropriate documentation. ***Items D6e to D6k should be completed for immediate projects only (ie Years 1 & 2).*** Condition 10 of any proposed decision/licence will provide reporting requirements for capping requirements beyond this timeframe.

Table D.6 Capping System

		y/n	Comments
D.6a	**Has the daily cover been specified?**	N	Not Applicable
D.6b	**Has the intermediate cover been specified?**	N	Not Applicable
D.6c	**Has the temporary capping been specified?**	N	Not Applicable
D.6d	**Has the Capping System been designed and does it meet the requirements of the Landfill Directive Annex 1 (3.3)?**	N	Not Applicable
D.6e	**Does the Capping System include a flexible membrane liner?**	N	Not Applicable
D.6f	**Have all capping materials been specified?**	N	Not Applicable
D.6g	**Has a Method Statement for construction been produced?**	N	Not Applicable
D.6h	**Has a Quality Control Plan been produced?**	N	Not Applicable
D.6i	**Has a Quality Assurance Plan been produced?**	N	Not Applicable
D.6j	**Has a programme for monitoring landfill stability been developed?**	N	Not Applicable
D.6k	**Has a programme for monitoring landfill settlement been developed?**	N	Not Applicable

SECTION E EMISSIONS

Give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made.

The applicant should address in particular any emission point where the substances listed in the Schedule of S.I. 394 of 2004 are emitted.

E.1 Emissions to Atmosphere

Details of all point emissions to atmosphere should be supplied. Table E.1.(i) (for Landfill Gas Flare emissions) must be completed for all landfills with a flare. Complete Table E.1(ii) and E.1(iii) for all other main emission points, including stack sources (incinerator stacks, landfill gas utilisation plants, air handling unit emissions etc.). Complete Table E.1(iv) for minor/fugitive/ground emission points.

E.2 Emissions to Surface Waters

Attachment E.2 Tables E.2(i) and E.2(ii) should be completed where relevant.

E.3 Emissions to Sewer

Attachment E.3 Tables E.3(i) and E.3(ii) should be completed, where relevant.

E.4 Emissions to Groundwater

Describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6, and 7 of Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances.

Table E.4(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment E.4**

E.5 Noise Emissions

Give particulars of the source, location, nature, level, and the period or periods during which the noise emissions are made or are to be made.

Table E.5(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment E.5**

E.6 Environmental Nuisances

Attachment E.6 should contain the appropriate documentation. Information provided should follow the sequence, and use the headings as relevant established in Table D.6. Additional advice on completing this section is provided in the *Guidance Note*.

TABLE E.6 ENVIRONMENTAL NUISANCES

Bird Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Dust Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Fire Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Litter Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Traffic Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Vermin Control	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐
Road Cleansing	**Control method specified**	**yes** ☒	**no** ☐	**not applicable** ☐
	Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

SECTION F CONTROL & MONITORING

F.1: Treatment, Abatement and Control Systems

Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation/facility. Details of treatment/abatement systems (air and effluent emissions) should be included, together with appropriately scaled schematics (≤A3) as appropriate.

For each Emission Point identified complete Table F.1 of the Annex, and include detailed descriptions and appropriately scaled schematics (≤A3) of all abatement systems.

Attachment F.1 should contain any supporting information.

F.2- F. 9. Monitoring and Sampling Points

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as **Attachments F.2 to F.6** and meet the advice published by the Agency in the relevant BAT Note. For Landfills the additional **Attachments F.7 to F.8** should be completed. Furthermore for a landfill application the applicant must refer to the Agency *Landfill Monitoring Manual (2003)* for further details on monitoring requirements for proposed facilities.

Include details of monitoring/sampling locations and methods.

F.2 Air
- to include Dust, Odour

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

F.3 Surface Water

Monitoring of surface water shall be carried out at not less than two points, one upstream from the waste facility and one downstream.

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

F.4 Sewer Discharge

Monitoring of sewer discharge shall be carried out at the point specified by the local authority/Agency.

Monitoring Arrangements specified	**yes** ☐	**no** ☐	**not applicable** ☒
Monitoring points identified, (plus 12-figure grid references)	**yes** ☐	**no** ☐	**not applicable** ☒
Attachment included	**yes** ☐	**no** ☐	**not applicable** ☒

F.5 Groundwater

Groundwater monitoring is required at all landfill facilities; and certain other waste facilities depending on waste activities and the underlying aquifer vulnerability.

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

F.6 Noise

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

F.7 Meteorological Data

Monitoring Arrangements specified	**yes** ☒	**no** ☐	**not applicable** ☐
Monitoring points identified, (plus 12-figure grid references)	**yes** ☒	**no** ☐	**not applicable** ☐
Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

Application for Landfills require the additional Attachments F.7 to F.8, to be completed:

F.8 Leachate

Monitoring Arrangements specified	**yes** ☐	**no** ☐	**not applicable** ☒
Monitoring points identified, (plus 12-figure grid references)	**yes** ☐	**no** ☐	**not applicable** ☒
Attachment included	**yes** ☐	**no** ☐	**not applicable** ☒

F.9 Landfill Gas

Complete each of the following tables to show whether information has been included on aspects of landfill gas monitoring. **Attachment F.9** should also contain information to show whether the data given in Tables F.9.(a) and F.9(b) below represents actual or anticipated data. Complete Table F.9 as follows:

Table F.9 (a) Landfill Gas Monitoring for existing landfill gas flares / utilisation plants

Parameter	Concentration (mg/Nm^3)	Proposed Frequency of Analysis	Information Included Y/N	Method of Analysis	Information Included Y/N
Inlet					
Methane (CH_4) % v/v					
Carbon dioxide (CO_2) %v/v					
Oxygen (O_2) % v/v					
Outlet					
Volumetric Flow Rate					
SO_2					
Nox					
CO					
Particulates					
TA Luft Class I, II, III organics					
Hydrochloric acid					
Hydrogen Fluoride					

Table F.9(b) Landfill Gas Monitoring

Parameter	Proposed Frequency of Analysis		Information Included Y/N	Method of Analysis	Information Included Y/N
	Gas boreholes / vents/ wells/ perimeter locations	Facility Office			
Methane (CH_4) % v/v					
Carbon Dioxide (CO_2) % v/v					
Oxygen (O_2) % v/v					
Atmospheric Pressure					
Temperature					

Table F.9 (c) Landfill Gas Infrastructure

Equipment	Monitoring Frequency	Information Included Y/N	Monitoring Action	Information Included Y/N
Gas Collection System				
Gas Control System				

Monitoring Arrangements specified	**yes** ☐	**no** ☐	**not applicable** ☒
Monitoring points identified, (plus 12-figure grid references)	**yes** ☐	**no** ☐	**not applicable** ☒
Attachment included	**yes** ☐	**no** ☐	**not applicable** ☒

SECTION G RESOURCES USE & ENERGY EFFICIENCY

G.1 Raw Materials, Substances, Preparations and Energy

Attachment G.1 should contain a list of all raw, product and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity. Information on any insecticides, herbicides or rat poisons etc. should also be provided with their respective data and safety sheets. The Standard Forms, provided in Annex 1, should be used in the description of these materials, substances, etc., where relevant. Additional advice on completing this section is provided in the *Guidance Note*.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

G.2 Energy Efficiency

A description of the energy used in or generated by the activity must be provided in **Attachment G.2**.

Attachment included	**yes** ☒ **no** ☐ **not applicable** ☐

SECTION H MATERIALS HANDLING

H.1 Waste Types and Quantities – Existing & Proposed

Provide an estimation of the quantity of waste likely to be handled in relation to each class of activity applied for. This information should be included in Table H.1(a).

TABLE H.1(A). QUANTITIES OF WASTE IN RELATION TO EACH CLASS OF ACTIVITY APPLIED FOR

Waste Management Act 3rd Schedule (Disposal) Activities			Waste Management Act 4th Schedule (Recovery) Activities		
Class of Activity Applied For		Quantity (tpa)	Class of Activity Applied For		Quantity (tpa)
Class 1			Class 1		
Class 2			Class 2	P	40,000
Class 3			Class 3		
Class 4			Class 4		
Class 5			Class 5		
Class 6	X	1,625*	Class 6		
Class 7			Class 7		
Class 8			Class 8		
Class 9			Class 9		
Class 10			Class 10		
Class 11			Class 11		
Class 12			Class 12		
Class 13	X	1,625	Class 13	X	8,280

*Approximately 4% i.e. 1,625 tonnes of total input would be residual waste of contamination of incoming feedstock which would go for disposal

In Table H. 1 (B) provide the annual amount of waste handled/to be handled at the facility. Additional information should be included in **Attachment H.1.** The tonnage per annum should be given of that expected for the life of the licence, with at least the next five years tonnages provided. For Landfill Review applications provide an estimate of the quantity of waste already deposited in (i) lined cells; (ii) unlined cells.

TABLE H.1(B) ANNUAL QUANTITIES AND NATURE OF WASTE

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
2009	20,800		20,800
2010	25,000		25,000
2011	40,000		40,000
2012	40,000		40,000
2013	40,000		40,000

A detailed inventory of the types and quantities of wastes currently handled at the site and proposed to be handled should be submitted as Table H.1 (C).

TABLE H.1 (C) WASTE TYPES AND QUANTITIES

WASTE TYPE	TONNES PER ANNUM (existing)	TONNES PER ANNUM (proposed)	TOTAL (over life of site) tonnes
Household	16,000	24,500	24,500
Commercial	2,000	10,000	10,000
Sewage Sludge	2,000	3,000	3,000
Construction and Demolition	Not Applicable	Not Applicable	Not Applicable
Industrial Non-Hazardous Sludges	800	2,500	2,500
Industrial Non-Hazardous Solids	Not Applicable	Not Applicable	Not Applicable
Hazardous ***(Specify detail in Table H 1.2)**	Not Applicable	Not Applicable	Not Applicable
Inert Waste imported for restoration purposes	COMPLETE FOR LANDFILL & CONTAMINATED LAND FACILITIES ONLY		

*** TABLE H.1.2 HAZARDOUS WASTE TYPES AND QUANTITIES**

HAZARDOUS WASTE	DETAILED DESCRIPTION * REFERENCE SHOULD BE MADE TO THE RELEVANT EUROPEAN WASTE CATALOGUE CODES AS PRESENTED BY COMMISSION DECISION 2000/532/EC	Tonnes Per Annum (Existing)	(Tonnes Per Annum Proposed)
Waste Oil	Not Applicable		
Oil filters	Not Applicable		

Asbestos	Not Applicable		
Paint and Ink	Not Applicable		
Batteries	Not Applicable		
Fluorescent Light Bulbs	Not Applicable		
Contaminated Soils	Not Applicable		
OTHER HAZARDOUS WASTE (APPLICANT TO SPECIFY)			

Attachment H.1 should contain any relevant additional information.

It should be noted that an applicant may be issued with a licence which restricts the type of wastes which may be deposited.

H.2 Waste Acceptance Procedures

Procedures for checking waste loads as they arrive at the facility must be included. These should follow the requirements of the Agency's Waste Acceptance Manual. A copy of these procedures and other associated documentation should be included as **Attachment H.2.**

H.3 Waste Handling

Waste handling and the operating procedures used at the facility including waste treatment processes should be described in **Attachment H.3**. Included in the attachment should be information on the plant used on site and on the methods and processes for handling waste on-site. Special requirements hold for contaminated soil facilities, see *Guidance Note*.

In addition, an application for a Landfill requires Section H.3.a to be completed:

H.3a Waste Handling at the Landfill Facility

State whether all waste will be subject to treatment prior to landfilling. Provide information as to the quantities of biodegradable municipal waste and how the targets of the Landfill Directive (1999/31/EC) relating to that waste type are to be achieved. In particular describe how the following will be achieved:

(a) a reduction by 16/07/06 to 75% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(b) a reduction by 16/07/09 to 50% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(c) a reduction by 16/07/16 to 35% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(d) Evidence should be provided to show that energy will be used efficiently.

H.4 Waste Arisings

Waste Arisings should be considered for all contaminated soil applications. Details of all waste materials generated on the site including, name, description and nature as well as the source(s) should be identified. The quantities of each type of waste generated on an annual/monthly basis should be calculated and stated in Tables H.1(i) and H. 1(ii) of the application form. Applicants should also provide conversion factors used to relate volume (m^3) and tonnage (t) for their waste stream.

SECTION I EXISTING ENVIRONMENT & IMPACT OF THE FACILITY

Detailed information is required to enable the Agency to assess the existing environment. This section requires the provision of information on the ambient environmental conditions at the site prior to the commencement of waste management activities or prior to the receipt of a review application.

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

I.1.Assessment of atmospheric emissions

Describe the existing environment in terms of air quality with particular reference to ambient air quality standards.

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to the atmosphere are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Attachment I.1 should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required.

I.2. Assessment of Impact on Receiving Surface Water

Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Table I.2(i) should be completed

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to water are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment I.2.**

I.3. Assessment of Impact of Sewage Discharge.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other supporting information should form **Attachment I.3.**

I.4 Assessment of impact of ground/groundwater emissions

The scope and detail of this assessment will depend to a large extent on the extent and type of ground emissions at any site, which in turn are related to the risk. Details should be included in **Attachment I.4**. Comprehensive guidelines are contained in the *Application Guidance Note,* and include particular requirements for landfill and brownfield facilities.

Describe the existing groundwater quality. Tables I.4(i) should be completed.

I.5 Ground and/or groundwater contamination

Summary details of known ground and/or groundwater contamination, historical or current, on or under the site must be given.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, appropriately scaled plans/drawings (≤A3), documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment I.5**.

I.6 Noise Impact.

Give details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Ambient noise measurements
Complete Table I.6(i) in relation to the information required below:

(i) State the maximum Sound Pressure Levels which will be experienced at typical points on the boundary of the operation. (State sampling interval and duration)

(ii) State the maximum Sound Pressure Levels which will be experienced at typical noise sensitive locations, outside the boundary of the operation.

(iii) Give details of the background noise levels experienced at the site in the absence of noise from this operation.

Prediction models, appropriately scaled maps (≤ A3), diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment I.6.**

I.7 Assessment of Ecological Impacts & Mitigation Measures

The ecology of the site and the surrounding area should be assessed in the vicinity of the largescale waste facilities such as landfill or incinerator developments. An assessment of the ecology should form **Attachment I.7.** Comprehensive guidelines are contained in the *Application Guidance Note*

SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE

Describe the existing or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage.

Also outline what provisions have been made for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods.

Describe the arrangements for abnormal operating conditions including start-up, leaks, malfunctions or momentary stoppages.

Supporting information should form **Attachment J.**

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION AND AFTERCARE

Describe the existing or proposed measures to minimise the impact on the environment after the activity or part of the activity ceases operation, including provision for post-closure care of any potentially polluting residuals.

For Landfill Applications, capping proposals are required, and reference should be made to the *Landfill Manual on 'Restoration and Aftercare'* published by the Agency, when completing this section.

Please refer to Attachment K

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

SECTION L STATUTORY REQUIREMENTS

L. 1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (i)] of the Waste Management Acts 1996 to 2003 will be met.

Applicants should also describe how the proposed facility will comply with the requirements of BAT. In particular reference should be made to the considerations referred to in Annex IV of Council Directive 96/61/EC concerning integrated pollution prevention and control.

Attachment L.1 should contain the documentation requested above, along any relevant additional information.

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

L.2 Fit and Proper Person

The WMA in Section 40(4)(d) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant (if the applicant is not a local authority) is a fit and proper person. Section 40(7) of the WMA specifies the information required to enable a determination to be made by the Agency.

- Indicate whether the applicant or other relevant person has been convicted under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

Please refer to Attachment L

- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees (Link to Section C.1 of the application).

Please refer to Attachment C1

- Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity (Link to Section K of the application).

Please refer to Attachment L

Supporting information should be included as **Attachment L 2** with reference to where the information can be found in the application.

Attachment included	**yes** ☒	**no** ☐	**not applicable** ☐

SECTION M DECLARATION

Declaration

I hereby make application for a licence / revised licence, pursuant to the provisions of the Waste Management Acts 1996 to 2003 and Regulations made thereunder.

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website. This consent relates to this application itself and to any further information, submission, objection, or submission to an objection whether provided by me as Applicant, any person acting on the Applicant's behalf. or any other person.

Signed by : _____ **Date :** 20/5/10
(on behalf of the organisation)

Print signature name: GARY BRADY

Position in organisation : DIRECTOR

Company stamp or seal:

ANNEX 1 STANDARD FORMS

Standard forms are provided in this section for the recording and presentation of environmental monitoring and site investigation results

TABLE E.1(i) LANDFILL GAS FLARE EMISSIONS TO ATMOSPHERE
Emission Point:

Emission Point Ref. N^{o}:	Not Applicable
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details Diameter: Height above Ground(m):	
Date of commencement of emission:	

Characteristics of Emission :

CO		mg/m^3
Total organic carbon (TOC)		mg/m^3
NOx		mg/Nm^3 0^{o}C. 3% O_2(Liquid or Gas), 6% O_2(Solid Fuel)
Maximum volume of emission		m^3/hr
Temperature	^{o}C(max) ^{o}C(min) ^{o}C(avg)	

(i) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 Page for each emission point)

Emission Point Ref. N^{o}:	Refer to Section 9 of Volume II of the EIS and attachment F.2 of this Waste Licence Review Application Form.
Source of Emission:	
Location :	
Grid Ref. (12 digit, 6E,6N):	
Vent Details Diameter: Height above Ground(m):	
Date of commencement:	

Characteristics of Emission :

(i) Volume to be emitted:			
Average/day	m^3/d	Maximum/day	m^3/d
Maximum rate/hour	m^3/h	Min efflux velocity	$m.sec^{-1}$
(ii) Other factors			
Temperature	^{o}C(max)	^{o}C(min)	^{o}C(avg)
For Combustion Sources: Volume terms expressed as : ☐ wet. ☐ dry. _____$\%O_2$			

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE - Chemical characteristics of the emission (1 table per emission point)

Emission Point Reference Number: Refer to Section 9, Volume II of the EIS.

Parameter	Prior to treatment[1]				Brief description of treatment	As discharged[1]					
	mg/Nm^3		kg/h			mg/Nm^3		kg/h.		kg/year	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max

1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^oC,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

TABLE E.1(iv): EMISSIONS TO ATMOSPHERE - Minor /Fugitive

Refer to Section 9, Volume II of the EIS.

Emission point Reference Numbers	Description	Emission details[1]				Abatement system employed
		material	mg/Nm$^{3(2)}$	kg/h.	kg/year	

1 The maximum emission should be stated for each material emitted, the concentration should be based on the maximum 30 minute mean.
2 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^{o}C101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

TABLE E.2(i): EMISSIONS TO SURFACE WATERS
(One page for each emission)

Emission Point:

Emission Point Ref. N^{o}:	Refer to Section 8, Volume II of the EIS.and attachment F.2 of this Waste Licence Review Application Form.
Source of Emission:	
Location :	
Grid Ref. (10 digit, 5E,5N):	
Name of receiving waters:	
Flow rate in receiving waters:	_____$m^3.sec^{-1}$ Dry Weather Flow _____$m^3.sec^{-1}$ 95%ile flow
Available waste assimilative capacity:	kg/day

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.2(ii): EMISSIONS TO SURFACE WATERS - Characteristics of the emission (1 table per emission point)

Emission point reference number : Refer to Section 8, Volume II of the EIS.

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	

TABLE E.3(i): EMISSIONS TO SEWER (One page for each emission)

Emission Point: Not Applicable

Emission Point Ref. N^{o}:	
Location of connection to sewer :	
Grid Ref. (10 digit, 5E,5N):	
Name of sewage undertaker:	

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

TABLE E.3(ii): EMISSIONS TO SEWER - Characteristics of the emission (1 table per emission point)

Emission point reference number : Not Applicable

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	

TABLE E.4(i): EMISSIONS TO GROUNDWATER (1 Page for each emission point)

Emission Point or Area: Not Applicable

Emission Point/Area Ref. Nº:	
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
Location :	
Grid Ref. (10 digit, 5E,5N):	
Elevation of discharge: (relative to Ordnance Datum)	
Aquifer classification for receiving groundwater body:	
Groundwater vulnerability assessment (including vulnerability rating):	
Identity and proximity of groundwater sources at risk (wells, springs, etc):	
Identity and proximity of surface water bodies at risk:	

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day _____day/yr

Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet

Refer to Section 10, Volume II of the EIS and attachment F.6 of this Waste Licence Review Application Form.

Source	Emission point Ref. No	Equipment Ref. No	Sound Pressure[1] dBA at reference distance	Octave bands (Hz) Sound Pressure[1] Levels dB(unweighted) per band									Impulsive or tonal qualities	Periods of Emission
				31.5	63	125	250	500	1K	2K	4K	8K		

1. For items of plant sound power levels may be used.

TABLE F.1: ABATEMENT / TREATMENT CONTROL

Emission point reference number : Refer to Section 9.2 and Section 2.7.5, Volume II of the EIS.

Control[1] parameter	Equipment [2]	Equipment maintenance	Equipment calibration	Equipment back-up

Control[1] parameter	Monitoring to be carried out[3]	Monitoring equipment	Monitoring equipment calibration

[1] List the operating parameters of the treatment / abatement system which control its function.
[2] List the equipment necessary for the proper function of the abatement / treatment system.
[3] List the monitoring of the control parameter to be carried out.

TABLE F.2 to F.8 : EMISSIONS MONITORING AND SAMPLING POINTS - (1 table per media)

Dust

Emission Point Reference No(s). : D1 (DA), D2 (DB), D3 (DC). (Refer to Drawing No. 5361-2604)

Parameter	Monitoring frequency	Accessibility of Sampling Points
Dust (mg/m^2/day)	Quarterly	
Bacteria	Annually	
Aspergillus fumigatus	Annually	

Atmosphere

Emission Point Reference No(s). : BF1, BF2 (Refer to Drawing No. 5361-2604)

Parameter	Monitoring frequency	Accessibility of Sampling Points
Biofilter		
Inlet and Outlet Gas		
Ammonia	Monthly	
Hydrogen sulphide	Monthly	
Mercaptans	Monthly	
Bed Media		
Odour Assessment	Daily	
Condition and depth of biofilter	Daily	
Moisture content	Monthly	
pH	Bi-annually	
Ammonia	Bi-annually	
Total viable counts	Bi-annually	
General		
Sprinkler System	Check operation Daily	
Fan	Check operation Daily	
Negative Pressure	Monthly	

Noise

Emission Point Reference No(s). : N1. (Refer to Drawing No. 5361-2604)

Parameter	Monitoring frequency	Accessibility of Sampling Points
$L(A)_{EQ}$ [30 minutes]	Quarterly	
$L(A)_{10}$ [30 minutes]	Quarterly	
$L(A)_{90}$ [30 minutes]	Quarterly	
Frequency Analysis(1/3 Octave band analysis)	Quarterly	

Surface Water

Emission Point Reference No(s). : SW1, SW2. (Refer to Drawing No. 5361-2604)

Parameter	Monitoring frequency	Accessibility of Sampling Points
pH	Quarterly	
Ammonia (as NH4)	Quarterly	
Suspended Solids	Quarterly	
Mineral Oils	Quarterly	
Chloride	Quarterly	

Ground Water

Emission Point Reference No(s). : B1, B2, B3. (Refer to Drawing No. 5361-2604)

Parameter	Monitoring frequency	Accessibility of Sampling Points
Groundwater Level (wells)	Biannual	
Ammoniacal Nitrogen	Biannual	
Chloride	Biannual	
PH	Biannual	
Sulphate (SO_4)	Biannual	
Metals / non metals	Annually	
List I/II organic substances (Screen)	Annually	
Nitrate	Annually	
Total P/orthophosphate	Annually	
Faecal Coliforms	Annually	
Total Coliforms	Annually	

TABLE Ff: Fugitive ENVIRONMENT MONITORING AND SAMPLING LOCATIONS (1 table per media)

Monitoring Point Reference No : A1, A2, A3, DA, DB, DC (Refer to Drawing No. 5361-2604)

Parameter	Monitoring frequency	Accessibility of Sampling point
Bacteria	Annually	
Aspergillus fumigatus	Annually	
Dust	Quarterly	

Table G.1 Details of Process related Raw Materials, Intermediates, Products, etc., used or generated on the site

Refer to Attachment G of this Waste Licence Review Application

Ref. Nº or Code	Material/ Substance(1)	CAS Number	Danger(2) Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R(3) - Phrase	S(3) - Phrase

Notes: 1. In cases where a material comprises a number of distinct and available dangerous substances, please give details for each component substance.
2. c.f. Article 2(2) of SI Nº 77/94
3. c.f. Schedules 2 and 3 of SI Nº 77/94

TABLE H.1(i): WASTE - Hazardous Waste Recovery/Disposal

Waste material	EWC Code	Main source[1]	Quantity		On-site Recovery/Disposal (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			
Not Applicable							

[1] A reference should be made to the main activity / process for each waste.

TABLE H.1(ii) WASTE - Other Waste Recovery/Disposal

Refer to the Process Flow Diagram provided in Section 2.5.4 of Volume II of the EIS.
Refer to Attachment A (g) of this Waste Licence Review Application.

Waste material	EWC Code	Main source[1]	Quantity		On-site recovery/disposal[2] (Method & Location)	Off-site Recovery, reuse or recycling (Method, Location & Undertaker)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes / month	m^3 / month			

1 A reference should be made to the main activity/ process for each waste.
2 The method of disposal or recovery should be clearly described and referenced to Attachment H.1

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: Refer to Appendix 2.4 and Appendix 8.2 Volume IV of the EIS

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	Date	Date	Date	Date			
pH							
Temperature							
Electrical conductivity EC							
Ammoniacal nitrogen NH_4-N							
Chemical oxygen demand							
Biochemical oxygen demand							
Dissolved oxygen DO							
Calcium Ca							
Cadmium Cd							
Chromium Cr							
Chloride Cl							
Copper Cu							
Iron Fe							
Lead Pb							
Magnesium Mg							
Manganese Mn							
Mercury Hg							

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
Nickel Ni							
Potassium K							
Sodium Na							
Sulphate SO_4							
Zinc Zn							
Total alkalinity (as $CaCO_3$)							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Nitrite NO_2							
Nitrate NO_3							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Phosphate PO_4							

Table I.4(i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: Refer to Appendix 2.4 and Appendix 8.2 Volume IV of the EIS

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
pH							
Temperature							
Electrical conductivity EC							
Ammoniacal nitrogen NH_4-N							
Dissolved oxygen DO							
Residue on evaporation (180°C)							
Calcium Ca							
Cadmium Cd							
Chromium Cr							
Chloride Cl							
Copper Cu							
Cyanide Cn, total							
Iron Fe							
Lead Pb							
Magnesium Mg							
Manganese Mn							
Mercury Hg							
Nickel Ni							
Potassium K							
Sodium Na							

GROUNDWATER QUALITY (SHEET 2 OF 2)

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	Date	Date	Date	Date			
Phosphate PO_4							
Sulphate SO_4							
Zinc Zn							
Total alkalinity (as $CaCO_3$)							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Arsenic As							
Barium Ba							
Boron B							
Fluoride F							
Phenol							
Phosphorus P							
Selenium Se							
Silver Ag							
Nitrite NO_2							
Nitrate NO_3							
Faecal coliforms (/100mls)							
Total coliforms (/100mls)							
Water level (m OD)							

Table I.6(i) Ambient Noise Assessment

Refer to Section 10 Volume II of the EIS and Appendix 2.4 Volume IV of the EIS.

Third Octave analysis for noise emissions should be used to determine tonal noises

	National Grid Reference	Sound Pressure Levels		
	(5N, 5E)	$L(A)_{eq}$	$L(A)_{10}$	$L(A)_{90}$
1. SITE BOUNDARY				
Location 1:				
Location 2:				
Location 3:				
Location 4:				
2. NOISE SENSITIVE LOCATIONS				
Location 1:				
Location 2:				
Location 3:				
Location 4:				

NOTE: All locations should be identified on accompanying drawings.

KILMAINHAMWOOD COMPOST FACILITY EXTENSION
BALLYNALURGAN, KILMAINHAMWOOD, KELLS, CO. MEATH

Waste Licence Application

ATTACHMENTS

May 2010

ATTACHMENTS TO
WASTE LICENCE APPLICATION FORM

KILMAINHAMWOOD COMPOST FACILITY EXTENSION

BALLYNALURGAN, KILMAINHAMWOOD, KELLS, CO. MEATH

May 2010

TOBIN CONSULTING ENGINEERS

TOBIN
Patrick J. Tobin & Co. Ltd.

REPORT

PROJECT: **Application for Extension of Existing Composting Facility at Kilmainhamwood, Co. Meath**

CLIENT:
Thorntons Recycling
Unit S3B Henry Road
Parkwest Business Park
Dublin 12

COMPANY:
TOBIN Consulting Engineers
Block 10-4
Blanchardstown Corporate Park
Dublin 15

www.tobin.ie

DOCUMENT AMENDMENT RECORD

Client:	**Thorntons Recycling**
Project:	Application for Extension of Existing Composting Facility at Kilmainhamwood, Co. Meath
Title:	Attachments to Waste Licence Application Form

PROJECT NUMBER: 5361				DOCUMENT REF: 5361-04-01			
A	Final	ED	06-01-10	PON	24-05-10	DG	24-05-10
Revision	**Description & Rationale**	**Originated**	**Date**	**Checked**	**Date**	**Authorised**	**Date**
TOBIN Consulting Engineers							

TABLE OF CONTENTS

Appendices

ATTACHMENT A: NON TECHNICAL SUMMARY

Attachment A1- Non Technical Summary

This non-technical summary is prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004:

Article 12 (1)(u),"include a non-technical summary of the information provided in accordance with paragraphs (a) to (t) of this sub-article".

a) The address and contact details below are those of the applicant, the operator & the contact details of the registered company office

The address and contact details of the applicant and the registered company office are:

Padraic Thornton Waste Disposal Ltd, (trading as Thorntons Recycling),
Unit S3B,
Henry Road,
Park West Business Park,
Dublin 12
Tel: 01 6235133
Fax: 01 6235131
e-mail: Tom@thorntons-recycling.ie

The address and contact details for correspondence are:

Pat O Neill,
Tobin Consulting Engineers
Block 10-4,
Blanchardstown Corporate Park,
Dublin 15.
Tel: 01 8030 401
Fax: 01 8030 410
e-mail: pat.oneill@tobin.ie

The planning authority in whose functioning area the activity will be carried out on is:

Meath County Council
County Hall,
Railway Street,
Navan,
Co. Meath
046-9097040
046-9097001

(c) The address and contact details of the sanitary authority: Not applicable

(d) The location of the proposed development is Ballynalurgan, Kilmainhamwood, Kells, Co. Meath

The National Grid Reference for the proposed development is E2793 N2912

(e) The nature of the Kilmainhamwood compost facility in outlined in the following Non Technical Summary

INTRODUCTION

General

The facility is currently licensed to process 20,800 tonnes of biodegradable waste per annum. The high quality compost produced is used as a soil conditioner in commercial agriculture, as material for landscaping, as organic soil conditioner or as a custom growing media. The facility has been operational since September 2006. Thorntons Recycling proposes to extend the existing facility to accept and treat up to 40,000 tonnes of biodegradable waste per annum.

The location of the composting facility in relation to the surrounding regional setting is shown on Figure 1.

The construction activities for the proposed development include:

- Extensions to the existing facility buildings;
- Facility administration building in the form of offices, tea station, toilets and showers; and
- Other works required to integrate the proposed extensions and facility administration building into the existing facility.

Site Location and Background

The existing composting facility is located on a landholding in the townland of Ballynalurgan, approximately 4km south of Kingscourt, Co. Cavan and 6km northwest of Nobber, Co. Meath. The R162 regional road runs to the south and southwest of the site. Access to the facility is provided by means of an entrance onto the R162 and a site road of approximately 0.85 km in length.

The overall landownership boundary is approximately 13.2ha. The landownership area is shown on Figure 2. The site lands are situated at an elevation of between 60m and 88m AoD. To the east and west of the application site, the land rises gently from low hills reaching high points of 173m AoD at Carrickleck to the east and 155m AoD at Boynagh to the west.

The existing hedgerows and an area of coniferous forestry that surrounds the existing facility provide screening.

Need for Environmental Impact Statement (EIS)

The consequences of any major engineering project are required to be presented in the form of an Environmental Impact Statement (EIS). The EIS, as prepared, contains a description of the existing environment, information on the scale and nature of the proposed development, an impact assessment of the proposed development and mitigation measures to reduce the impact on the receiving environment. This document provides a non-technical summary of the overall EIS describing the existing environment, the proposed development and potential impacts and mitigation measures.

GENERAL LEGEND

APPLICATION BOUNDARY

ACTIVITY BOUNDARY

SITE NOTICE LOCATION

NOTES

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

200m 0 200m 400m 600m

Rev	Date	Description	By	Chkd.
B	25.05.10	ISSUED FOR WLA	MN	PO'N
A	30-06-09	ISSUED FOR EIS	MN	P.O'N

Client: Thorntons recycling

Project: KILMAINHAMWOOD FACILITY EXPANSION

Title: REGIONAL SITE LOCATION MAP

Scale @ A3: 1:20,000

Prepared by: M. Nolan | Checked: P. O'Neill | Date: June 2009

Project Director: D. Grehan

TOBIN Consulting Engineers,
Block 10-4, Blanchardstown Corporate Park,
Dublin 15, Ireland.
tel: +353-(0)1-8030406
fax:+353-(0)1-8030409
e-mail: dublin@tobin.ie
www.tobin.ie

Drawing No.: Figure 1

Revision: B

PROPOSED FRONT EXTENSION

PROPOSED REAR EXTENSION

PROPOSED SURFACE WATER ATTENUATION

EXISTING COMPOSTING FACILITY

PROPOSED FACILITY ADMIN. BUILDING

SITE BOUNDARY & EXTENT OF LAND IN OWNERSHIP OF APPLICANT

EXISTING ACCESS ROAD

EXISTING SITE ENTRANCE

SITE NOTICE LOCATION

TO KINGSCOURT

TO NOBBER

NEWCASTLE

R162

Cross-slab

1.83m FF

CS

UND

CD

Top of Bank

Electricity Lines

GENERAL LEGEND

APPLICATION BOUNDARY

ACTIVITY BOUNDARY

SITE NOTICE LOCATION

X

NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES
5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

50m 0 50m 100m 150m

Rev	Date	Description	By	Ckd.
B	25.05.10	ISSUED FOR WLA	MN	PON
A	30-06-09	ISSUED FOR EIS	MN	PON

Client: Thorntons recycling

Project: KILMAINHAMWOOD FACILITY EXPANSION

Title: SITE LOCATION MAP

Scale @ A3: 1:5000

Prepared by:	Checked:	Date:
N.Vennard	P.O'Neill	February 09

Project Director: D.Grehan

Drawing Status:

TOBIN
Patrick J. Tobin & Co. Ltd.
TOBIN Consulting Engineers,
Block 10-4, Blanchardstown Corporate Park,
Dublin 15, Ireland.
tel: +353-(0)1-8030406
fax:+353-(0)1-8030409
e-mail: dublin@tobin.ie
www.tobin.ie

Drawing No.: Figure 2

Revision: B

EXISTING SITE AND PROPOSED DEVELOPMENT

Description of the Existing Site

The site at Ballynalurgan, Kilmainhamwood, Kells, Co. Meath is situated approximately 2.4 km northeast of the village of Kilmainhamwood, 6km northwest of the village of Nobber, Co. Meath, and 4km south of Kingscourt, Co. Cavan. The site, of approximately 13.2 hectares, is in the townlands of Ballynalurgan and Newcastle.

The site is made up of two fields. One field, of approximately 7.7 hectares, extends from the Kingscourt to Nobber road (R162) in the southwest to a second inner field, to the northeast of the site. The second inner field, of approximately 5.5 hectares, previously planted for commercial forestry, is now the location of the existing Kilmainhamwood Compost facility.

As part of the development of the existing facility, a 5m wide road of approximately 0.85km in length was constructed from the composting facility to the R162 regional road to facilitate the movement of delivery vehicles to the composting facility located in the inner field.

The gross floor area of the existing composting buildings (indoor area) is approximately 4550m^2. The existing facility buildings are a steel portal frame design featuring 3.0m high mass concrete walls and green cladding. The apex of the roof is 12.5m above ground level. The existing facility comprises of 22 No. positively aerated composting bays and 2 No. positively aerated Animal By-product (ABP) treatment tunnels. The existing facility also includes a waste reception area, a compost screening area and an odour abatement area. The gross footprint of the existing composting buildings and odour abatement area is approximately 5639m^2.

An ESB substation building is located adjacent to the composting facility buildings. The floor area of this building is approximately 34m^2.

Plate 1: Existing Kilmainhamwood Compost Facility

DESCRIPTION OF THE PROPOSED DEVELOPMENT

Description of the Proposed Development

The facility is currently permitted, as per EPA waste licence W0195-01, to accept and process 20,800 tonnes of biodegradable waste per annum. The current facility has been operational since September 2006.Thorntons Recycling now propose to extend the existing facility to accept and process up to 40,000 tonnes of biodegradable waste per annum.

Proposed Extensions to Facility Buildings

The current application proposes to extend the existing facility buildings in order to provide sufficient processing capacity for the additional tonnage. It is proposed to construct a 38m x 25m front extension (approximately 1167m^2 – including 201m^2 ramp for waste acceptance) on the southwest side of the existing facility and a rear extension 39m x 30m (approximately 1043m^2) on the northeast side of the existing facility.

The front extension will serve as a new waste reception area. It is proposed to construct a 2m high ramp, with a maximum slope of 1:10, on the southeast side of this extension to facilitate waste acceptance.

The rear extension will serve as an Animal By-product (ABP) treatment and storage area. This extension will also feature a roofed "drive through" section which will provide a covered area (controlled environment) for the loading of finished compost into vehicles for dispatch from the facility.

The extensions to the buildings will be a steel portal frame design featuring 3.0m high mass concrete walls and green cladding (to match character of the existing buildings). The height of the proposed extensions will not be any higher than the existing buildings.

The existing weighbridge currently located to the southwest of the existing facility buildings will be relocated to facilitate the footprint of the front extension on the southwest side of the existing facility.

Planted trees adjacent to the existing facility will be removed to facilitate the proposed extensions. A total area of approximately 3200m^2 of planted trees will be cleared. Following the construction of the proposed extension to the facility the gross floor area of the composting buildings (indoor area) will be approximately 6550m^2.

Proposed Facility Administration Building

Presently, office and employee welfare accommodation of a temporary nature is provided at the Kilmainhamwood Compost facility in the form of portacabins. As part

of the current application, it is proposed to construct a facility administration building to include offices, tea station, locker room, toilets and shower area. This will be a single storey building with a pitched and tiled roof. External walls will be of block work construction with a plastered finish.

Proposed Upgrade to Odour Abatement System

The existing composting system involves material being composted in open bays whereby odourous air is displaced to the building headspace. Hence large odourous air volumes (101,000m^3/hr) require treatment, which is deemed inefficient in regard to power consumption. The odour abatement system currently in operation at the Kilmainhamwood Compost facility involves biofiltration.

Thorntons Recycling has commenced the upgrade of the odour abatement system on site in order to further reduce the odour emission rate from the facility. Each existing composting bay within the facility building has been enclosed/roofed (such that the distance from the floor of the composting bay to the underside of the roof is 6m), thus significantly reducing the volumes of process air that require treatment. Works on enclosing existing composting bays were completed on site in January 2010. The displacement of odourous air, from the composting process, to the headspace of the building is now prevented thereby implementing double containment features and allowing for the specific treatment of this odourous air. In addition Thorntons Recycling propose to process the odourous air generated within the enclosed composting bays in an acid scrubber to minimise ammonia carryover to the biofiltration system.

The existing facility is certified to International Standards for Environmental (ISO14001), Health and Safety (OHSAS 18001) and quality (ISO9001) and operates an Integrated Management System (IMS). In regard to the proposed scrubber unit, all safety and environmental aspects will be incorporated into the Integrated Management System.

Proposed Agricultural Grade Compost

It is proposed that the compost produced at the intensified and extended facility will be an agricultural grade compost. Refer to pages 13-16 herein for further details.

Proposed Ancillary Works

Other works required to integrate the proposed extensions to the facility buildings and the proposed facility administration building into the existing facility will include:

- Extension to surface water drainage network;
- Foul water drainage network from proposed facility administration building to the existing waste water treatment plant;

Surface water attenuation infrastructure is also proposed for the Kilmainhamwood Compost facility. The areas adjacent to the proposed extensions to the facility buildings and the proposed facility administration building will be landscaped.

Site Infrastructure

The existing site infrastructure includes a weighbridge, site security arrangements, site accommodation in the form of temporary portacabins, site road, wastewater treatment plant for site accommodation, surface water drainage, water storage tank for fire fighting measures, car parking, and other services (including telephone system, 400V three phase electricity from substation, and on site borehole for provision of water).

Planning has already been secured for all the permanent site infrastructure mentioned above as part of the original proposal. Construction of such infrastructure has been completed. This infrastructure will facilitate the proposed extension to the Kilmainhamwood Compost facility.

The existing waste water treatment plant and associated percolation area is more than adequate to serve the proposed facility administration building. The foul pipe network will be extended to facilitate this proposed building.

The existing borehole well (BH3) is located adjacent to the existing water storage tank on elevated ground. An onsite water treatment plant at the point of entry to the facility administration building to treat the well supply to drinking water standard will be developed. It is proposed to provide a package plant in the tea station, within the proposed facility administration building, providing chlorination and filtration.

Two networks of surface water pipes serve the existing facility, the first collecting roof water and the second collecting surface water run off from the yard. All surface water run off from the roofs of the existing facility buildings is collected and reused where possible within the composting process. Surplus surface water run off is piped to a drainage ditch located along the eastern boundary of the site and flows in a south-eastern direction prior to eventually discharging into the Dee River.

It is proposed that the additional surface water generated by the proposed facility extensions will be reused where possible within the composting process with any surplus surface water run off diverted to the drainage ditch located along the eastern boundary of the site.

A proprietary grit interception trap and a proprietary oil interceptor (Class 1) have been installed at the facility through which all intercepted run off from outdoor hardstanding areas is diverted. The outfall from the grit trap and oil interceptor is discharged to the drainage ditch located along the eastern boundary of the site. The existing grit trap and oil interceptor have sufficient spare capacity to treat additional

storm water generated by the proposed facility extension.

Surface water attenuation infrastructure is proposed for the Kilmainhamwood Compost facility. A low lying forested area adjacent and south east of the existing facility building will be used to provide storage volume to cater for a 1 in 100 year storm event. The greenfield runoff rate to the existing drainage ditch will be controlled by a hydrobrake. An overflow, downstream of the oil interceptor, will discharge into the storage area. When the storage area fills, some water will infiltrate to ground and the remainder will discharge back to the existing drainage ditch over time.

Site Management

The facility manager is responsible for the day to day operation of the facility in compliance with all legislative and regulatory requirements. The facility manager is part of the Thorntons Recycling management team.

The facility operates, as permitted, on a daily basis from 8.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm on Saturdays. The hours of operation will be the same for the composting facility following the proposed extension. Waste that is accepted at the composting facility at or near closure of operating hours will be discharged in the waste reception area, stored overnight and handled during the next working day.

There are 4 No. personnel currently employed to operate the Kilmainhamwood Compost facility, to process 20,800 tonnes per annum in accordance with current permissions. The current staff is comprised of a facility manager, production supervisor and two general operatives. The proposed extension of the Kilmainhamwood Compost facility to process a maximum of 40,000 tonnes per annum of organic waste will require an additional two general operatives.

All staff employed by Kilmainhamwood Compost receives Environmental, Health and Safety, and in house composting process training. The existing facility is certified to International Standards for Environmental (ISO14001), Health and Safety (OHSAS 18001) and quality (ISO9001) and operates an Integrated Management System (IMS).

All waste traffic access the facility by turning from the R162 into the site entrance, and then travelling along the facility access road until the inner facility entrance is reached. Given the length of the access road (0.85km) from the R162, there is no possibility of traffic on the R162 being affected by vehicles queuing to enter the facility.

An adequate number of signs are positioned strategically around the facility to facilitate the efficient movement of waste delivery and compost removal vehicles. Car

parking is provided for employees, delivery personnel and visitors at the facility.

Facility Operation

The existing composting process at the Kilmainhamwood Compost facility is capable of processing a range of biodegradable wastes. Presently, composting feedstock accepted at the facility include:

- Brown bin biowaste;
- Grease trap waste;
- Catering waste from hotels and restaurants;

Typical amendment materials accepted at the facility include sawdust and woodchip generated from other waste streams. In compliance with the current EPA Waste Licence, no hazardous waste is accepted at the facility.

The extended facility will be capable of processing increased quantities of biowaste (up to 40,000 tonnes per annum). The additional feedstock is expected to include biowaste derived from brown bin source separated household collections. This is driven by the continuous roll out of the brown bin in the North East Region and the resultant need for biological treatment capacity.

Waste Acceptance

All feedstock is delivered to the facility in covered/enclosed vehicles. All waste delivery vehicles are required to drive onto the facility weighbridge where the gross weight of the vehicle is recorded. The weighbridge operator records all details on a computerised software system called WIMS (Waste Information Management System).

Waste is only accepted from contractors who have a contract with Thorntons Recycling. This ensures that all contractors have been assessed in advance and waste characterisation profiling has been carried out.

Feedstock Blending

Moisture and carbon to nitrogen ratio are important factors in determining the correct composting conditions suitable for high rate aerobic composting. As a result the incoming feedstock, following shredding (if deemed necessary), is mixed with seed compost and other amendments including sawdust and woodchip. These supply a readily available carbon energy source to the microorganisms.

The Composting Process

Following the mixing and blending process, the feedstock is moved by loading shovel and placed in the composting bays for the initial phase of composting (typically a one week process) where the level of microbial activity and hence oxygen consumption

are highest.

The composting process is a forced aeration temperature feedback system. The composting bays feature an automated forced aeration system. There is an aeration fan behind each composting bay to blow air up through the pile and control temperature. The system maintains a temperature ceiling of 60°C by means of the on-demand removal of heat by ventilation through temperature feedback control.

Throughout all stages of the composting process, temperature is monitored by use of temperature probes. This helps to ensure that the bays are being adequately aerated. Moisture is checked by means of a "squeeze" test which is a non-quantitative method of estimating moisture.

After the initial phase of high rate composting, the material is moved by loading shovel to composting bays in the maturation area of the facility where the compost is matured by aerating the compost for another 10-12 days.

Following this stage, the compost is processed through a trommel screen fitted with 12mm and 40mm screens. The minus 12mm fraction produced by the screening process is placed in a bulking tunnel which allows enough material to be bulked in order to fill the pasteurisation tunnel. This normally takes approximately 3 weeks. The material is then transferred in to an Animal By-product (ABP) treatment tunnel where the temperature of the material is maintained at 70^{o}C for a minimum of 1 hour, in line with the requirements of the Department of Agriculture, Fisheries and Food (DAFF).

Samples of compost product are subsequently sent for laboratory testing (E. Coli and Salmonella) to a DAFF approved laboratory and left in situ until analysis results are returned from the laboratory. This process from when material enters the ABP tunnel and final results are received may take up to 3 weeks.

Odour Abatement System

The odour abatement system currently in operation at the Kilmainhamwood Compost facility involves biofiltration. The existing 2 No. biofilters at the Kilmainhamwood Compost facility comprise of a firm concrete floor and surrounding concrete walls. The floor has a fall towards a drained sump situated at one end of the chamber for water drainage. A false floor acts as the support for the biofilter media. The sump liquid is pumped back to the waste reception area within the composting building.

Plate 2: Existing Biofilters at Kilmainhamwood Compost Facility

Compost Product

Currently, the high quality compost produced at the Kilmainhamwood Compost facility is used as a soil conditioner in commercial agriculture, as material for landscaping, as organic fertiliser and as a custom growing media.

It is proposed that the additional compost generated by the proposed extension and intensification of the Kilmainhamwood facility will be used as a soil conditioner in commercial agriculture. The compost, produced by the facility, has the benefit of providing particular nutrients to nutrient deficient lands. For example, compost from the facility is currently spread on lands in County Louth where a deficiency in zinc has been identified. The compost, being a valuable source of nutrients, is applied to lands in conjunction with nutrient management plans.

Working in association with a local agronomist, the facility has developed a land-bank of local long term arable land that can accommodate all compost produced at the facility. This land-bank (approximately 1,500 hectares), within 50 kilometres of the facility, of long term arable land can accommodate all compost produced at the existing facility and all additional compost that will be produced by the proposed extension and intensification of the facility. The land-banks are located in Dunsany in County Meath and Ardee in County Louth. Refer to Figure 2.1.

The agronomist liaises with landowners and, using maps and soil analysis, recommends the spread rate of compost per acre and outlines buffer zones where compost should not be spread. Additionally the agronomist monitors the crops at crop establishment and advises the farmer on nutrition in order to achieve optimum results.

To ensure a uniform spread rate of compost, the facility invested in a state of the art compost spreader which is used in conjunction with a 200 HP John Deere tractor.

Product development is never ending at the facility. Thorntons Recycling currently provide finished compost to landscape gardeners. The facility has also facilitated a ‘take back scheme’ for Dublin City council, where 10,000 bags of compost were

made available at Dublin civic amenity centres to members of the public. A scheme was also undertaken at the civic amenity centre in Dunboyne, in County Meath, where the public could collect compost.

The production of bagged compost for sale is a further potential outlet for high quality product produced by the facility.

As part of the review of the current EPA waste licence (W0195-01) required for extension of the facility and intensification of waste acceptance, Thorntons Recycling propose the production of 'agricultural grade compost' specifically for use as a fertiliser and soil improver on agricultural land. It is proposed that this compost, while not meeting the high stability requirements specified in Schedule E of the current waste licence (W0195-01), will meet all other requirements specified in the current waste licence and its associated Technical Amendment A including trace elements and pathogens.

Agricultural grade compost can be produced following the initial and intensive phase of composting (typically a 4 week process) where easily degradable components of the feedstock, such as proteins, sugars, fats and starches, are broken down. Agricultural grade compost will also be processed to Animal By-Product (ABP) treatment standards as required by the Department of Agriculture, Fisheries and Food. The conversion of proteins, sugars, fats and starches by way of the composting process renders the resultant material unattractive to animals, birds and other wildlife, thereby avoiding related nuisances when spread on agricultural land.

Thorntons Recycling propose that the stability of agricultural grade compost produced at the Kilmainhamwood Compost Facility is less than or equal to 20 mmol O_2/kg organic solids/h (OUR – Oxygen Uptake Rate Method). In the EPA Strive Report on the "Development of an Industry-Led Quality Standard for Source-Separated Biodegradable Material Derived Compost" published in 2009, the OUR method (Veeken et al., 2003) of stability measurement is proposed as a very reliable and consistent method. Presently and in the past, farmyard manures and other organic materials (including sludges from wastewater treatment plants) having a lower stability and a greater potential for odour nuisance than the 'agricultural grade compost' proposed by Thorntons Recycling are spread on agricultural lands.

In comparison to finished compost where all biodegradable components (including cellulose and lignin structures) have been broken down, agricultural grade compost has an improved readily availability of nutrients for plant uptake. Nutrients from finished compost are slowly realised to the plants, over more than one growing season, and hence artificial fertilisers are still required for the viable production of crops. It is widely accepted that the "immediate unavailability" of nutrients in finished compost is a significant barrier to widespread use of compost in place of artificial

fertilisers in modern agriculture. The poor nutrient availability of compost compared to artificial fertilisers is highlighted in the following statement taken from a Report (Quality compost as part of a Winter Wheat Fertilizer Programme) produced by WRAP in 2008:

"Yields for compost only treatments increased in line with increased compost application but yields were significantly lower than the inorganic fertilizer treatments. Low yield on compost only treatments was due to poor nutrient availability, specifically for nitrogen, and hence poor plant uptake and crop development"

The production of compost which is not fully stabilised, and therefore with a greater immediate availability of nutrients, for agricultural applications is an environmentally acceptable method in other European countries (such as Germany). In such countries, compost, produced to a Rottegrad III standard (based on self heating test), is spread on agricultural land as a fertiliser and soil improver. Proven practices in Germany are confirmed by the following statement taken from the EPA Strive Report previously mentioned.

"For example, in Germany, compost used on agricultural land is called 'fresh compost' which is half-matured compost with a relatively high biological activity but still would have reached a high temperature phase to kill pathogens (Timmermann et al., 2003; Anonymous, 2008b)."

On the basis of comparisons available in international papers on the topic of compost stability, the stability of Rottegrad III compost (produced and applied to agricultural land in Germany) is comparable to compost produced to a stability of 20 mmol O_2/kg organic solids/h (OUR).

The production of an agricultural grade compost with readily available nutrients for plant uptake will create and open significant markets for compost produced in Ireland, thereby stimulating the composting industry and ultimately diverting biodegradable municipal waste from landfill. These markets would be sustainable in the long term in comparison to the application of compost (derived from source separated waste) as daily cover in landfills, a market likely to diminish as the role played by landfill in Irish waste management decays.

It is widely accepted that for agricultural applications, the presence of heavy metals and the level of contamination (particularly in the form of glass or plastic) in compost is a more critical factor than overall stability. Indeed, the production of finished compost (very stable) does not reduce the levels of heavy metals and/or contamination in compost. Indeed the levels of contaminants and heavy metals are concentrated due to the reduced overall mass of fully stabilised compost.

Any compost produced at the Kilmainhamwood Compost facility for other uses such as horticulture and landscaping would be stabilised to the proposed industry compost quality standard for Ireland as detailed in the EPA Strive Report (13 mmol O_2/kg organic solids/h (OUR)).

Thorntons Recycling propose that the revision of the facility waste licence by the EPA would include two individual maturity requirements, one maturity standard for 'agricultural grade compost' (20 mmol O_2/kg organic solids/h (OUR)) and a second maturity requirement (13 mmol O_2/kg organic solids/h (OUR)) for all other compost produced at the facility.

Kilmainhamwood Compost is currently licensed to accept other biodegradable materials, such as organic fines (from mechanical treatment of municipal waste), to produce a stabilised biowaste. To date no stabilised biowaste has been produced at the facility as all feedstock is from source segregated wastes. Notwithstanding the above, the Kilmainhamwood Compost facility will continue to be licensed to produce stabilised biowaste.

Nuisance Controls

The waste management facility is operated in compliance with EPA waste license (W0195-01). The facility is certified to international standards for Environmental (ISO14001), Health and Safety (OHSAS 18001) and quality (ISO9001) and operates an Integrated Management System (IMS).

Operations at the composting facility are carried out in a planned and controlled manner, thereby minimising potential nuisances such as odours, dust, noise, litter, vermin, etc.

The conditions of the licence include measures to minimise or prevent nuisance to the public occurring as a result of the operation of the facility. A complaints register detailing any complaint received from the general public in respect of the operation of the facility is maintained at the site.

Environmental Monitoring

All environmental monitoring is carried out under the conditions of the waste licence (W0195-01) for the facility, issued by the EPA. The extended facility will be operated in compliance with a revised waste licence, following a waste licence review by the EPA. Emission Limit Values (ELV) has been set by the EPA for many of the parameters to be monitored. Exceeding these values is treated as an incident and the EPA are notified accordingly.

The primary aims of these monitoring programmes are to comply with legislation, the

requirements of the EPA, to monitor the quality of the environment in the vicinity of the site and identify any adverse impacts from the operation of the facility.

As part of the Waste Licence an Annual Environmental Report (AER) is formulated that collates and reports all monitoring data each year. A comparative assessment is made with data from previous years. This report is submitted to the EPA before the March 31st each year.

ALTERNATIVES

Schedule 6 of the Planning and Development Regulation (2001) specify that the EIS should include *'An outline of the main alternatives studied by the developer and an indication of the main reasons for his or her choice, taking account the effects on the environment'*.

The EPA publication, Guidelines on the information to be contained in Environmental Impact Statements, states *'The consideration of alternatives also needs to be set within the parameters of the availability of land (it may be the only suitable land available to the developer) or the need for the project to accommodate demands or opportunities which are site specific. Such considerations should be on the basis of alternatives within the site, e.g. design, layout.*

An outdoor composting system does not allow for the provision of process and emission control measures which could lead to odour nuisances at or near the facility. The composting process is dependent on the prevailing weather conditions leading to extended composting time requirements. In addition the final quality of the product cannot be guaranteed consistently using an outdoor system and Animal By-Product requirements cannot be satisfied. An indoor composting facility will therefore be required.

Overall a tunnel or bay composting system is recommended for the extension to the Kilmainhamwood Compost facility due to the modularity of the system, its inherent flexibility, the limited need for mechanical plant, its robustness and low maintenance requirements. On the basis of the proven track record of the existing indoor bay composting system (which has operated successfully since September 2006) to produce a high quality compost product in a controlled environment with minimal impact on the environment, it is recommended that additional composting bays are constructed to facilitate the extension to the facility.

In order to optimise the volumes of process air that require treatment, it is recommended that both the existing and additional compost bays are enclosed by way of a concrete roof and canopy door, thus significantly reducing the volumes of process air that will require treatment. Only the volume of air between the composting mass

and the roof of each composting bay will require intensive odour treatment as opposed to the entire volume of the facility building.

Chemical scrubbing followed by biofiltration has been proven at numerous composting facilities for the effective treatment of sulphur based odour compounds (such as hydrogen sulphide, organic sulphides and mercaptans) and nitrogen-based compounds (such as ammonia and amines) at acceptable and justifiable operating costs.

The current application comprises of an extension to the existing facility. Hence due to the acceptance of the current facility location in the last planning decision, economies of scale and operational reasons, alternative site locations have not been contemplated. It is considered that extending an already existing facility is a more sustainable approach than the development of a new facility on a green field site.

The do-nothing scenario would represent a missed opportunity to make a contribution towards Ireland meeting its obligations under the EU Landfill Directive to divert biodegradable waste from landfill.

In a do nothing alternative, the absence of composting facilities will not contribute to local, national and European policy. Organic wastes would otherwise be disposed of by landfilling or thermal treatment both of which are the least preferred option for the treatment of biodegradable municipal waste and hence contrary to government policy.

POLICY, PLANNING AND DEVELOPMENT CONTEXT

The composting facility is currently owned and operated by Padraic Thornton Waste Disposal Ltd, trading as Thorntons Recycling. The construction of the facility commenced in October in 2005 and the facility was operational in September 2006.

The facility at Kilmainhamwood and its proposed extension is in line with waste management policy in terms of diversion of waste from landfill and the development of biological treatment facilities.

The Waste Management (Food Waste) Regulations 2009 are designed to promote the segregation and recovery of food waste arising in the commercial sector. They will facilitate, in particular, the achievement of the targets set out in Directive 99/31/EC on the landfill of waste for the diversion of biodegradable municipal waste from landfill sites to composting and biogas plants and to other forms of waste recovery. The proposed extension of the Kilmainhamwood facility will provide additional capacity for the composting of additional biodegradable waste that will arise when the Food Waste Regulations are fully implemented.

The National Strategy on Biodegradable Waste (2006) outlines Government policy for the diversion of biodegradable municipal waste (BMW) from landfill. This sets ambitious targets for operational capacity to treat source separated food and garden waste by composting and anaerobic digestion for the following years;

- By 2010 - 250,000 tonnes minimum
- By 2013 - 320,000 tonnes minimum
- By 2016 - 330,000 tonnes minimum

The report states that a significant increase in biological treatment capacity is required to meet the targets set out by the Landfill Directive. This strategy is designed to secure the diversion of biodegradable municipal waste from landfill, the key benefit is to reduce the methane emissions from landfills and to encourage the separate collection of biodegradable waste. The proposed development is a component in achieving government policy and in fulfilling the requirements under the landfill directive.

The design of the proposed extension to the Kilmainhamwood Compost facility is in line with the latest requirements of the Department of Agriculture, Fisheries and Food. These requirements favour a "one way system of material flow" of waste to prevent cross contamination.

The proposed development is in line with requirements of the North East Waste Management Plan 2005-2010 and is needed in order to meet our requirements under the Landfill Directive and to meet the recycling targets set in the Plan. The proposed development will comply with the policy for siting Biological Treatment Facilities set out in this Plan.

The proposed development is in line with the policies of Meath County Council. The proposed extension of the existing composting facility will not negatively impact on the character and amenity of the surrounding area. The existing facility and its proposed extension will continue to operate in line with current policies, and regulations.

The proposed extension and intensification of the Kilmainhamwood Compost facility is regarded as infrastructure that is required to provide urgently needed biological treatment capacity for the North East and Dublin Regions.

HUMAN BEINGS/SOCIO ECONOMIC

Introduction and Existing Environment

A desk study was carried out in order to examine all relevant information pertaining to planning and socio economic activity in the study area. The relevant national,

regional and local planning guidelines were examined along with the Meath County Development Plan 2007-2013.

Fáilte Ireland tourist literature for Meath was examined in relation to tourism amenity in conjunction with websites of relevant tourism sites and amenities for the area. In addition Ordnance Survey maps were used to identify land use and possible amenity and tourist sites that may be located in proximity to the existing composting facility.

The site is located in a rural agricultural area approximately 4km south of Kingscourt, Co. Cavan in the townlands of Ballnalurgan and Newcastle. The site lands are currently used as a composting facility and related infrastructure. The area immediately surrounding the site is predominantly farmland with residential dwellings and farm buildings located in the vicinity of the composting facility. A number of industries are located in proximity to the site. These include Gypsum Industries and College Proteins. The nearest occupied dwelling is located approximately 400m north of the existing facility and its proposed extension.

Rathe house equestrian centre outside Kilmainhamwood has been identified as a tourist facility. This is located approximately 2km to the south of the existing facility. There are no designated walking routes located in proximity to the existing composting facility.

Significant Impacts and Mitigation Measures

The composting facility is not located in close proximity to any urban areas. The proposed extension of the facility will not negatively impact on any towns or villages. There are a number of dispersed dwellings in close proximity to the site. The composting facility will therefore operate under rigid guidelines to assure residential amenity is maintained.

The proposed extension to the existing composting facility will lead to the generation of 2 no. additional jobs. Employment will also be generated during the construction phase of the development. Spin off employment will also be provided and retained by this development.

The continued operation and the proposed extension of the existing facility will have a positive impact in relation to the socio-economic standing of the surrounding area. This will take the form of retaining and providing direct and indirect jobs. All activities on site will be carried out with regard to strict environmental and safety guidelines. When all mitigation measures are complied with there should be no significant impacts arising from the facility's continued use and proposed extension. It is anticipated that the development will not have a negative impact on the everyday activities and lifestyles of local people and the surrounding environs.

FLORA & FAUNA

Existing Environment

The National Parks and Wildlife Services database of designated nature conservation areas was searched for designated sites within 5km of the site. The development site does not lie within or adjacent to any area that has been designated for nature conservation under Irish or European legislation. The nearest designated site is Ballyhoe Lough pNHA located 5.3km to the northeast.

Two habitats are present within the proposed facility activity area. Buildings and artificial surfaces habitat are of low ecological value as it is disturbed with little or no associated vegetation. Mixed broadleaved / conifer woodland which is of low - moderate ecological value as it a young plantation with low species diversity but locally important for wildlife.

No rare or protected species of plant or animal were recorded on site. The woodland on site provides potential foraging habitat for bats. However, conditions within the facility activity area are unsuitable for bat roosts. Boundary treelines may provide temporary roost sites and will be retained. All bats and their roosts are protected under the Irish Wildlife Acts.

Potential Impacts

A small section of the mixed broadleaved/conifer woodland habitat will be permanently removed for the extensions at the immediate northeast and southwest of the existing facility area. There will be no direct impact to adjacent habitats outside the proposed site activity boundary. Mitigation measures have been proposed to prevent any indirect impacts as a result of the proposed development.

This proposed development will not impact on any rare or protected flora.

Removal of a small area of the mixed broadleaved/conifer woodland habitat will lead to a loss of foraging and potentially nesting habitat for birds. However adjacent woodland and treelines will continue to provide good habitat for birds and local populations will be unaffected by the proposed development. The direct impact on nesting birds is expected to be minor providing mitigation measures are implemented.

No protected species of mammals were recorded on site. The main impact on the mammalian fauna is likely to be a minor loss of forage habitat for bats, however, the nearby woodland and treelines will continue to provide good habitat for these animals and local populations will be unaffected by the proposed development.

Mitigation Measures

Several mitigation measures have been recommended including:

- If construction works are to take place within the bird nesting season (1st March - 31st August), the area of mixed broadleaved/conifer woodland (WD2) habitat to be removed should be surveyed for nesting birds prior to works by an experienced bird surveyor. If nesting birds are present then a licence must be obtained from the National Parks and Wildlife Service. If works are to take place outside the bird nesting season then no such licence will be required.
- No materials or machinery should be stored within 5m of remaining mixed broadleaved/conifer woodland and adjacent treeline and drainage ditch habitat close to the proposed facility activity area. Materials, especially soil and stones, can prevent air and water circulating to the roots of trees/shrubs. Damage to root systems can kill trees and no roots arising from the adjacent woodland to be retained should be damaged during site clearance and groundworks.
- To minimise impacts on foraging bats; it is recommended that outdoor lighting be cowled to ensure that light does not spill out onto adjoining habitats and focuses on the works area only. Cowled lights will ensure that lighting is directed onto the proposed development site only. The height of poles should also be restricted to reduce the possibility of light pollution onto adjoining habitats.
- Biological monitoring of water quality should continue as currently exists under current EPA licensing. This will allow appropriate actions to maintain existing water quality.

SOILS/GEOLOGY & HYDROGEOLOGY

Introduction

A desk study and site visits were carried out to address the soil and geology aspects of the environment and assess the impacts of the extension on the existing soil, subsoil and bedrock environments. Existing data, including site specific site investigation reports, was consulted in the preparation of the Geology Section.

Existing Environment

The subsoils underlying the southern part of the site at Ballynalurgan, consist of gravels that have been derived from Lower Palaeozoic rocks.

Reference to the relevant geological information for this area, the 1:100,000 scale Sheet 13 – Bedrock Geological Map of Meath (GSI 1999) indicate that this is quite a varied area of bedrock geology and one of the few areas of Permo-Triassic rocks within Ireland.

The Kingscourt Sandstone Formation (KS) consists of a lower siltstone unit which grades upwards to a thickly bedded, cross laminated red sandstone. This formation conformably overlies the Kingscourt Gypsum Formation (KG).

According to the GSI, there are no karst features within 5km of the proposed activity area.

Significant Impacts

As the proposed changes to the facility do not involve any significant changes to the physical environment at the Thorntons Recycling composting site, there will be minimal impact on the geology of the underlying site.

The extension and proposed facility administration building area are currently comprised of made-ground, with the exception of an area of approximately 0.3ha of planted woodland and landscaping surrounding the perimeter. Potential risks posed to the natural geological environment at the site include the storage of chemicals and fuels and the maintenance of vehicles, mobile and fixed plant equipment.

If unmanaged, leachate from the incoming waste and the composting activities could infiltrate to ground and contaminate the underlying bedrock aquifer.

The increase in waste to be stored and composted at the facility will not impact on the surrounding environment as this material will be processed as per current operational procedures in the existing and proposed extension buildings.

Mitigation Measures

All potentially polluting run-off from the composting process will be contained within the composting facility. A diesel tank is located on site. This tank is a double skin bowser with a capacity for 2,500 litres. To minimise any impact on the underlying subsurface strata and the groundwater from material spillages all waste oils, used spill kits, etc. used during operations will continue to be stored on a bunded pallet.

Spill kits will be retained on site to ensure that all spillages or leakages are dealt with immediately & staff trained in their proper use. Any servicing of vehicles on site will be confined to designated and suitably protected areas. The sites management system for quality, health and safety and environmental is certified to international ISO Standards.

WATER

Introduction

A desk study was carried out to address the water aspects of the environment and assess the impacts of the facility extension on the existing hydrological and hydrogeological environments.

Existing Environment

The site is located in the upper catchment of the Dee River catchments, within the Neagh-Bann River District. The River Dee is located approximately 1km south of the Kilmainhamwood Facility. A surface water drainage ditch is located along the eastern boundary to the site and flows in a southeastern direction. Surface water and groundwater samples have been undertaken at the Kilmainhamwood Facility as part of the requirements of the existing EPA Waste License W0195-01.

Water Supply

Water for the facility is provided by a combination of a pumped borehole (BH3) and a rainwater storage tank. The water usage at the site is considered low. Kilmainhamwood Compost Facility is not connected to the local water mains supply. Water usage at the composting facility is only required for the washing of trailers, equipment and floors.

Water for washing will be utilised from the rainwater storage tank, the composting process will not place any demand on the onsite borehole. No water is used in the composting process as the incoming material contains excess moisture.

An onsite water treatment plant is proposed at the point of entry to the facility administration building to treat the borehole (BH3) supply to drinking water standards. It is proposed to provide a package plant in the Tea Station.

Potential Impacts of the Development

Construction Phase

The development of the site will change the setting of the site, by increasing the hardstanding area and roof area at the Kilmainhamwood Compost facility. During the construction period, a potential exists for discharge of sediment laden water from the site. This sediment laden water will be generated due to exposure of soil surfaces.

Operational Phase

The construction of the hardstanding will alter the natural hydrological setting of the site, whereby hardstanding surface run-off will be increased (from 5,918m^2 to 6,073 m^2) and natural run-off flowpaths disrupted by the construction. The generation of increased runoff, as a result of increased hardstanding area, is a direct and long-term

impact of the development. Without mitigation measures the magnitude of this impact is considered low to moderate. Appropriate mitigation measures, including surface water attenuation, are proposed to ensure that discharges from the site are managed and regulated, so as to reduce the magnitude of the potential impact.

Surface water run-off from hardstand areas has the potential to absorb potential contaminants from surfaces, i.e. spillages or leakages from vehicles, machinery, etc. The run-off could also be heavily sediment laden. Discharge of such run-off to the receiving watercourse has the potential to adversely impact water quality. This is a direct potential impact of the development, however the potential magnitude is considered moderate. Appropriate mitigation measures are proposed to ensure that surface water is protected against accidental discharges to the drainage network. An existing silt trap and oil interceptor will be utilised as part of the proposed extension. Part of the proposed extension will be constructed on an existing concrete plinth, hence minimises the potential for additional run-off.

All suspended solids and hydrocarbon concentrations recorded to date, as per the surface water monitoring regime stipulated in the existing facility waste licence, comply with the relevant Regulations.

The proposed volume of discharge from the proposed surface water system to the existing drainage ditch will be restricted. This will be achieved by the provision of surface water attenuation infrastructure on site. It should be noted that the provision of surface water attenuation for the entire facility (surface water from the existing facility is currently not attenuated) will reduce and control the discharge rate to the drainage ditch during storm events.

The operational facility at present does not discharge any effluent from the site. There are no plans too discharge any effluent within the proposed extension. Process water is reused within the facility to provide optimum moisture content for the composting process.

Flooding

The proposed development site is not located in an area naturally prone to flooding. It is not envisaged that the proposed development will have any adverse impact on the flows of the Dee River as most of the effective rainfall is surface water runoff both pre and post development and that groundwater is primarily expected to discharge to the Dee river. Following construction of the proposed extension the risk of flooding within the development is considered low.

Groundwater

Given the presence of low permeability, deep subsoil (>10m), the presence of hardstanding throughout the site and the bunded facility building, the potential

connection between the facility and the groundwater body is negligible. If there is a negligible connection between the facility and the groundwater body, the potential impact on the groundwater is therefore negligible. This applies to both existing and potential impacts.

In summary the potential impact on the surface water and groundwater environment is assessed as low.

Remedial or Mitigation Measures

Construction Phase

All site works will be conducted in an environmentally responsible manner so as to minimise any adverse impacts on the soils and water that may occur as a result of works associated with the construction phase.

With regard to on-site storage facilities and activities, any raw materials, fuels and chemicals, will be stored within structurally sound warehousing buildings and/or bunded areas if appropriate to guard against potential accidental spills or leakages. All equipment and machinery will have regular checking for leakages and quality of performance.

Appropriate measures are required during the construction period to ensure that all potential run-off is diverted through appropriate settlement tanks/grit traps.

Operational Phase

The design of the proposed development has taken into account the potential impacts associated with the construction and operation of the development on the water environment.

Surface Water

All incoming waste is and will be stored within the facility building. All composting operations take place and will continue to take place within the facility building. The finished product is and will be transported directly from the facility building off site. No compost is stored outside of the facility building. The facility building is fully bunded and therefore all waters from washing activities are contained and incorporated back into the composting process.

A small increase in hardstanding runoff (2.5%) is a consequence of the proposed extension to the facility. The proposed extension is designed to minimise hardstanding areas that generate surface water run off. Mitigation measures include the recycling, where possible, of surface water run-off from the site at the proposed development. The layout of the site has been designed for collection of surface water from roadways, paths and roofs within the development. Surface water runoff from roofs

etc. will be reused where possible within the facility. Surface water runoff from the facility to the drainage ditch will be limited to 1 year return greenfield rates. In terms of surface water run off, in order to prevent potential contamination of soil/surface water/ groundwater media with water that may be contaminated with oil/ solids, an existing grit trap and oil interceptor will process surface water from hardstanding areas prior to discharge to the proposed surface water attenuation area or the drainage ditch. The existing grit trap and oil interceptor shall be utilised for the proposed extension of the facility.

Groundwater

The groundwater potential and quality beneath the site was proven by exploratory drilling. There are no predicted impacts on the groundwater as a result of the proposed development. Groundwater levels and groundwater quality is currently and will be monitored as part of the EPA waste license.

Monitoring

During the works undertaken for the construction of the facility extension, strict monitoring of all potential polluting materials used will be maintained. The surface water attenuation infrastructure, outflow control devices, grit trap and oil interceptor will require periodic maintenance. These systems will be monitored in accordance with the latest EPA waste licence requirements.

AIR QUALITY AND CLIMATE

Dust

As part of scheduled monitoring required by the facility waste licence, dust monitoring is carried out at 3 No. locations. These locations were chosen to represent all directions of the site. Total dust deposition was measured using the Bergerhoff gauges specified in the German Engineering Institute VDI 2119 document entitled "Measurement of Dustfall using the Bergerhoff Instrument (Standard Method)." All dust-monitoring locations are below the compliance threshold limit of 350mg/m^2/day (EPA Waste Licence W0195-01), when measured using the TA Luft Bergerhoff Method during this monitoring period.

There is the potential for dust emissions during the construction of the proposed extensions. Wind blown dust emissions may arise during the construction phase of the proposed development, which may impact upon the surrounding environment. The deposition of dust and mud on the local roads is both unsightly and dangerous. Dust may be a particular problem during periods of dry windy weather. However since the construction involves minimal earthworks and the construction period is not lengthy, there will not be a significant impact from dust emissions once mitigation measures are applied.

Previous dust monitoring on site clearly illustrates that dust is currently not a nuisance issue on site. All current waste processing takes place indoors within enclosed buildings which are maintained under negative pressure thereby reducing dust emissions arising at the facility. Similarly, all future waste processing will take place indoors within enclosed buildings, therefore dust emissions from the facility are not expected to be a nuisance issue for the proposed development.

Thorntons Recycling will endeavour to ensure that dust emissions are kept to a minimum at all locations and shall take all reasonable steps to minimise dust emissions. Currently a road sweeper is available, when required, to further reduce dust emissions from the yard and site road.

In summary the following mitigation measures are proposed:

- All composting and materials handling activities will continue to be carried out indoors;
- A road sweeper will continue to be used on site when required;
- Access routes will be regularly inspected and cleaned when necessary;
- The site road and all hardstanding areas will be sprayed with water in periods of dry weather to help suppress dust emissions;

It is anticipated that with the implementation of the above mitigation measures, dust emissions will continue to be in compliance at all dust monitoring locations when measured using the TA Luft/VDI 2119/Bergerhoff Method.

Odour

Odour Monitoring Ireland were commissioned to carry out an odour impact assessment of the composting facility located in Kilmainhamwood, Nobber, Co. Meath. The odour impact assessment was performed using measured odour emission data from the operating facility and dispersion modelling techniques utilising AERMOD Prime. The purpose of this assessment was to ascertain the level of performance of control of the existing odour control system on reducing odour emissions at the nearest sensitive receptor in the vicinity of the facility. The dispersion modelling assessment was also used to establish emission limit values for odour threshold concentration from the exhaust of the odour control system for the proposed upgrade to the facility in order to facilitate the acceptance of increased tonnage of material for processing. This will ensure that the new proposed facility will be able to accept increased tonnage while achieving no odour impact in the vicinity of the facility.

AERMOD Prime (07026) was used to construct the basis of the odour impact assessment in accordance with the standard international methodology. Five consecutive years of meteorological data (Clones airport 2002 to 2006 inclusive) was used within the dispersion model. Fifty metre Cartesian spaced grid receptors were

used within the dispersion model examination in conjunction with topographical data processed from Ordnance Survey Ireland. The dispersion model was used in conjunction with existing and proposed source characteristics and odour emission rates in order to ascertain the extent of impact from the existing and proposed operations. In addition, the dispersion model was used to ascertain the maximum allowable level of odour emissions from the biofiltration systems. This allows for the establishment of a maximum allowable odour threshold concentration on an ongoing basis.

Each aspect of the odour control equipment and management procedures were examined and used to construct the basis of an odour management plan for the site. Specific key stress points in the overall odour control system were identified and included into the overall process verification procedure to ensure the operation of effective containment and end of pipe treatment. The overall structure of an odour management plan was developed for the facility operations to allow for efficient management and control of the odour management system.

The overall design of the odour control and management system for the composting facility considered containment, minimisation and treatment of odours generated within the facility. All composting operations including treatment are carried out indoors. The composting building is internally sealed with an expanded foam membrane to provide near 100% odour containment within the facility building. Normal roller doors are fitted to the access doors of the composting building. All odourous air generated within the existing building is collected using roof level extraction ductwork. The odourous air is directed under forced ventilation to two biofiltration systems containing a combination of woodchip and carbon media mix. The total air exchange capacity within the building is approximately 2.24 AC/hr. The measured total empty bed retention time for the biofiltration systems is 80 seconds on Biofiltration system 1 and 49 seconds on Biofiltration system 2.

The overall design of the existing composting facility containment system is effective in terms of odour containment and incorporates proven design elements. The existing composting system involves material being composted in open bays whereby odourous air is displaced to the building headspace. Hence large odourous air volumes (101,000m^3/hr) require treatment, which is deemed inefficient in regard to power consumption. In terms of the proposed upgrade, Thorntons Recycling has already enclosed each of the individual composting bays in order to allow for the capture and treatment of reduced volumes (80,000m^3/hr) of odourous air. In addition the odourous air generated by the enclosed composting bays will be treated within an acid scrubber to minimise ammonia carryover to the biofiltration system. Displacement of odourous air, from the composting process, to the headspace of the building is now prevented thereby implementing double containment features and allowing for the specific treatment of this air in an acid scrubber. The building

headspace air is longer contaminated with high concentrations of ammonia thereby negating the need to treat this air within an acid scrubber. This approach ensures the efficient capture and focused treatment of odours generated by the composting process itself ensuring that the maximum allowable odour threshold concentration in the exhaust air of the biofiltration system is achieved.

Following completion of the odour impact assessment on the existing facility design and the proposed upgrade facility design (existing facility and proposed extension including upgrading of odour abatement system), the following key conclusions were developed. These included:

1. The odour assessment report provides the structure and methodologies for the development of an overall odour management, minimisation and mitigation procedure for the relevant operating entities at the operating composting facility.
2. The overall existing building structure at the facility is effective in terms of containment since the inner building fabric has been coated with a layer of expanded foam. This minimises potential leakage from the facility building when the wind is blowing on the building.
3. Following an odour audit of the existing facility, the measured odour threshold concentration on biofiltration system 1 ranged from 1218 Ou_E/m^3 to 1,878 Ou_E/m^3 with an average odour threshold concentration of 1,514 Ou_E/m^3. The measured odour threshold concentration on biofiltration system 2 ranged from 1579 Ou_E/m^3 to 2,233 Ou_E/m^3 with an average odour threshold concentration of 1,953 Ou_E/m^3. The odour threshold concentration from biofiltration system 2 was approximately 29% higher than biofiltration system 1. The average odour emission rate from biofiltration system 1 and 2 was 15,981 Ou_E/s and 34,178 Ou_E/s, respectively. This equated to a total maximum odour emission rate of 50,159 Ou_E/s for a total volumetric airflow treatment capacity of 101,000 m^3/hr. Due to the larger volume of air passing through biofiltration system 2, the odour emission rate from this system was on average 2.14 times higher than biofiltration system 1.
4. The dispersion modelling exercise was performed utilising AERMOD Prime dispersion model and the gathered olfactometry data and source characteristics on each biofiltration system for the existing facility design. The overall odour emission rate from the biofiltration system on the day of monitoring will lead to an odour plume spread from 500 to 800 metres from the facility boundary. Greater odour plume spread is experienced in the north east/south west directions due to the fact that low dispersion estimates are associated with meteorological conditions with this wind direction and due to the fact that the local topographical features result in the receptors been at a higher elevation.
5. In terms of the proposed upgrade, improvements in double containment and scrubbing of the composting air itself will lead to increased odour removal

efficiencies on each biofiltration system. The efficient capture and zoned treatment of the odourous air will ensure sustained performance of the odour control system. Improvements in the biofiltration system design will ensure efficient air distribution within each biofilter bed. The implementation of acid scrubbing on the composting air itself will minimise the carryover of ammonia to the biofiltration bed and thereby minimise acidification of the media.

6. From the proposed upgrade facility design, a maximum allowable odour threshold concentration of 800Ou_E/m^3 was determined for biofiltration system 1 and 2. This equates to a total maximum odour emission rate of 17,778 Ou_E/s for a total volumetric airflow treatment capacity of 80,000 m^3/hr. When compared to the existing odour emission rate this is approximately 64% lower and is significantly lower than existing conditions. Following dispersion modelling utilising AERMOD Prime, no odour impact will be perceived by residential receptors in the vicinity of the facility. All residential locations will perceive an odour concentration less than 1.10 Ou_E/m^3 at the 98th percentile of hourly averages for 5 years of hourly sequential meteorological data. In addition, all residential locations will perceive an odour concentration less than 2.60 Ou_E/m^3 for the 99.5th percentile of hourly averages for 5 years of hourly sequential meteorological data. This is approximately 13% and 27% lower than the accepted odour impact criterion for such facilities.
7. This overall odour assessment report provides a strategy and design notes for the optimisation of odour minimisation, mitigation and control of odour emissions from the composting facility and provides the backbone development of an odour management and preventative maintenance plan for the processes. The guaranteed emission rates of odours will provide compliance with the odour impact criterion.

The following recommendations were developed during the study and will be implemented at the Kilmainhamwood Compost facility for the proposed facility extension and upgrade of the odour abatement system:

1. Odour management, minimisation and mitigation procedures as discussed will be implemented at the composting facility in order to prevent any odour impact in the surrounding vicinity.
2. The maximum allowable odour emission rate from the overall composting facility biofilters will not be greater than 17,776 $Ou_E\ s^{-1}$.
3. Good housekeeping practices (i.e. keep yard area clean, etc.) including closed-door management strategy (i.e. to eliminate puff odour emissions) will be maintained at current high levels. All odourous processes will be carried out indoors within the proposed facility as currently occurs.
4. The odour management plan will include a process description, management strategies for the prevention of emissions and a strict maintenance and

management program for ensuring all odour mitigation techniques remain operational at optimal capacity throughout all operational scenarios.

5. The composting facility will be operated within specifications to eliminate overloading and under loading, which may increase emissions from the processes.
6. Within the proposed upgrade and increased capacity design, the following will be implemented:
    a. The recently enclosed tunnel composting process (completed in January 2010) will be negatively ventilated to an acid scrubbing system before treatment within the upgraded odour control system.
    b. Appropriate moisture application will be installed upon the biofilter beds so as to ensure optimal operation.
    c. The air distribution system will be optimised so as to optimise equal air distribution within each biofilter bed and ensure efficient treatment of odours.
    d. Optimise and implement a SCADA system, or a similar type monitoring system for the control and monitoring of the process in terms of air handling.
    e. Optimised long life inorganic bed medium will be installed within biofilter cell 2.

Aerosols

The production of bioaerosols, such as actinomycetes, bacteria, fungi, antropods, and protozoa, from biowaste composting facilities has generated some concern. Several studies have been carried out both in Europe and the United States investigating the generation and effect of bioaerosols on workers and the neighbouring population at a range of composting facilities.

One such study was undertaken by a group of international experts on bioaerosols, risk assessment and composting who investigated the impact of bioaerosols on workers at composting facilities. The study found that although some types of bioaerosols (mainly Aspergilus fumigatus) are present in the air at composting facilities, available epidemiological evidence does not support the suggestions of allergic, asthmatic, or acute or chronic respiratory diseases in the general public at or around the several open air and one enclosed composting facility.

Their overall conclusion that ‘composting facilities do not pose any unique endangerment to the health and welfare of the general public’ is based on the fact that on-site workers at composting facilities were regarded as the most exposed part of the community, and where workers health was studied, for periods of up to 10 years on a composting site, no significant adverse health effects were found. A separate study showed that microbial and endotoxin emissions from an enclosed composting facility fitted with a biofilter are generally low and similar to background concentrations

found in ambient air.

Most bioaerosols generated during the composting process occur during the mechanical treatment of biowaste and the first stage of composting. These processes will be fully enclosed. All process steps in the facility will be equipped with air extraction and biofilter treatment of process air. It is therefore envisaged that no significant emissions of bioaerosols will occur from the Kilmainhamwood Compost facility and that no impacts are expected.

Since it is envisaged that aerosol emissions are not significant and no potential impacts are expected, no specific mitigation measures have been identified. During the mechanical treatment of the compost, workers will wear respiratory protective equipment, i.e. facemasks. All mechanical equipment such as front-end loader will be fitted with air filters and the machine cabins will have a positive pressure environment.

Climate

At the composting facility area, approximately 56% of the total annual rainfall is recorded during the winter period (October – March). This amount of precipitation (including snow) will normally be associated with more prolonged Atlantic frontal weather depressions passing over the region compared to the summer.

The wind rose for the Clones Synoptic Station shows that the prevailing winds are from the southwest. The mean wind speed at Clones Synoptic Station is 7.9 knots. This value is also applied to the existing composting facility site.

On a local scale, the climate will not be altered by the proposed development of an extension to the existing composting facility.

Composting is a degradation process that would occur naturally and therefore the production of carbon dioxide from this process is not considered to contribute to global greenhouse gas levels. Also the composting of these materials will ensure that these materials are not sent to landfill thereby reducing methane generation due to anaerobic decomposition.

As there will be no significant impact on the local or global climate, there are no mitigation measures proposed other than the operation of the facility to BAT guidelines.

NOISE AND VIBRATION

Introduction and Existing Environment

This section explores the potential Noise and Vibration impacts associated with the proposed extension to the existing compost facility at Kilmainhamwood, County Meath. The existing environment is already a composting facility which this proposed development seeks to expand. Baseline noise levels for the area were taken from the Annual Environmental Reports for the existing facility.

Significant Impacts

The potential noise and vibration impacts associated with the proposed extension to the Kilmainhamwood Compost facility are divided between the construction and operational phases of the development.

The construction phase of the development has potential to increase noise levels at noise sensitive locations surrounding the development site. The nearest noise sensitive locations are situated at distances of approximately 400m from the existing facility and proposed extensions. Predicted noise levels have been estimated using the methodology described in BS: 5228: Noise and control on construction and open sites, 1997.

Predictions are based on typical equipment used during various constructive stages of the development. Predictions are based on a L_{Aeq}1hour value with all machinery operating for a continual period of 1 hour. This may be considered a worst-case scenario as machinery may operate for shorter periods and may not work simultaneously. Additionally, calculations are based on minimum distances between site activities and the nearest noise sensitive locations. The temporary nature of the construction period and the variety of machinery used should ensure that no construction activity is operational for long periods. This phase will therefore result in short term impacts, the noise levels predicted for the construction phase of the proposed development are in accord with guidance limit values.

For operational phase noise all of the major noise producing plant associated with the proposed development will be situated within the purpose built buildings associated with the development. The noise sources associated with the proposed development in the operational phase will consist of:

- Noise generated by site operations including 2 new loading shovels and 9 no. extraction fans; and
- Noise generated by road traffic to and from the site.

With regard to noise generated from on site activity this will be composed of typical

composting facility machinery as currently used on the site as it operates at present. The majority of plant will be situated within buildings. Additional roof fans will be employed in the design of the extended portion of the operations will not cause significant impact to the nearest sensitive receptors, as they shall be similar in character and emission to those currently in operation without significant impact. All 9 of the new fans will be placed inside the site buildings, seven new fans will be in the existing reception hall and two fans will be in the new building at the end of the process.

The predicted noise levels for both the day and night time periods are comfortably within the limits outlined in the EPA Guidance Note For Noise In Relation To Scheduled Activities.

Thorntons Recycling provided the input data for the traffic noise assessment for the proposed facility extension. HGV traffic is predicted to increase by 5.8 movements per day, and car traffic is predicted to increase by 4 movements per day.

This equates to 0.64 additional HGV movements per hour and 0.44 additional car movements per hour (on the basis of a 9 hour day). These numbers are not predicted to have any significant effect on the surrounding noise climate.

Mitigation Measures

Noise from the construction phase of the project has minimal potential to increase noise levels at the nearest noise sensitive properties during this stage of the development. This phase of the development will not require proprietary noise mitigation.

As a matter of Best Practice it is proposed that various practices be adopted during construction, including:

- Appointing a site representative responsible for matters relating to noise;
- Establishing channels of communication between the Contractor/Developer, Local Authority and local Residents;
- Furthermore, it is envisaged that a variety of practicable noise control measures will be employed. These may include:
- Selection of plant with low inherent potential for generation of noise and/or vibration;
- Erection of temporary barriers around items such as generators or high duty compressors. For maximum effectiveness, a barrier should be positioned as close as possible to either the noise source or receiver. The barrier should be constructed of material with a mass of > 7kg/m2 and should have no gaps or joints in the barrier material. As a rough guide, the length of a barrier should be 5 times greater than its height. A shorter barrier should be bent around the

noise source, to ensure no part of the noise source is visible from the receiving location.

- Siting of noisy plant as far away from sensitive properties as permitted by site constraints.

The design of the site has been laid out so as to minimise noise impact on the surrounding environment. All major noise producing plant associated with the proposed facility is to be located within the site buildings and not in the open air.

This design in itself provides significant noise mitigation advantages in that the noise reaching sensitive receptors and indeed the site boundaries is much curtailed due to horizontal distance separation. Worst case operational noise levels are predicted to comfortably comply within the EPA *Guidance Note For Noise In Relation To Scheduled Activities* which outlines a limit of a free-field LAr, T value of 55dB by daytime (08:00 – 22:00), at any noise sensitive location and one of 45dB for night operations. As such, no further mitigation is required for the operational phase of the development.

LANDSCAPE AND VISUAL IMPACT

Existing Environment

The site lands are situated at an elevation of between 60m and 88m AoD. To the east and west of the application site, the land rises gently from low hills reaching high points of 173m AoD at Carrickleck to the east and 155m AoD at Boynagh to the west.

The landscape in the immediate vicinity is generally open with a gently rolling topography, with some visual enclosure formed by field hedgerows. The amount of screening provided by the existing hedgerows depends on the height of vegetation in any particular location. There is a well-developed pattern of medium sized fields throughout the study area. In some areas, particularly in the flatter areas, the fields are larger resulting in open views across the landscape. The nature of the topography results in some visual enclosure even where there is no screening vegetation. There are open panoramic views of the landscape at higher levels.

There is a large area of coniferous forestry immediately to the southwest and northeast of the existing composting facility which prevents views into the site from views in this area.

The area is located in the landscape character area, “Teervurcher Uplands”. Landscape Value is described as Moderate, Landscape Sensitivity is described as Low and Landscape Importance is Regional.

Visual Impact

The proposed extension to the composting facility will be only visible from a small number of areas to the northeast and east of the site but is generally not visible from surrounding viewpoints. The composting facility is not visible from the protected viewpoint along the R162 due to intervening existing vegetation and local topography. The Meath County Council Landscape Character Assessment describes this area as being of low sensitivity to development. The planting plan in combination with the planting plan previously submitted to Meath County Council will significantly increase the tree cover in this view and assist in the integration of the composting facility into the environment.

Mitigation Measures

A planting plan has being prepared indicating woodland edge planting around the new structures. The edge planting proposed will provide a good structural character to the surrounding woodland and increase biodiversity. The planting plan includes information on species type and planting size. A maintenance plan will be prepared for at least two years to ensure good establishment of the new planting.

CULTURAL HERITAGE & ARCHAEOLOGY

Introduction

This cultural and archaeological heritage desktop assessment was completed by TOBIN Consulting Engineers, on behalf of Thorntons Recycling, in relation to lands at Ballynalurgan, County Meath. This assessment was based on a desktop study of published and unpublished documentary completed in February 2009.

Potential Impacts

There are no known archaeological monuments within the proposed extension area of the existing compost facility. The nearest recorded monument to the proposed compost facility extension works is a Ringfort (Rath/Cashel) located at a distance of approximately 200m from the facility boundary in the townland of Raloaghan. There will be no impact on any known archaeological sites or monuments from the proposed extension works at the existing compost facility. There is the potential to reveal unknown archaeological finds/features during the proposed extension works.

Recommendations

In order to prevent any loss to potential unknown archaeological remains, a series of mitigation strategies have been recommended.

- If any archaeology is identified during ground works, development will be halted until an appropriate level of excavation and recording can be undertaken.
- This must be undertaken by a suitably qualified archaeologist to record any

sub-surface archaeological deposits and to recover any artefacts that are discovered.

- A copy of this Monitoring Report should be submitted to the Department of Environment, Heritage and Local Government for comment.

TRAFFIC & ROAD ASSESSMENT

The objective of the traffic and road assessment section of the EIS is to assess the impact that the proposed Kilmainhamwood Compost facility extension will have with respect to traffic considerations. The impacts are assessed by calculating the expected volume of traffic that will be generated by the extension of the composting facility and assess the impact that this traffic will have on the operational capacity of the road network in the vicinity of the development. In this case the existing entrance to the facility is assessed. Road safety conditions are also considered.

The nearest town to the site is Kingscourt and the facility is located approximately 4km south of the town. Access to the facility is provided by means of a priority entrance onto the R162.

The Kilmainhamwood Compost facility has been in operation since September 2006. Currently the facility processes 20,800 tonnes of biodegradable material, including kitchen and garden waste, per annum. The scope of the proposed extension of this facility is to increase the amount of biodegradable material processed to 40,000 tonnes per annum.

In order to determine the magnitude of the existing traffic flows, TOBIN used the results of a Manual Classified Traffic Survey that was carried out by Abacus Transportation Surveys Ltd. on the 3rd March 2009 at the existing entrance to the facility. This survey was carried out between the hours of 07.00 and 19.00 and distinguished between cars, buses, light good vehicles and heavy good vehicles.

The entrance to the composting facility connects to the R162 within an 80km/hr speed zone. Sight line requirements for entrances within an 80km/hr speed zone are 3m x 160m and this requirement will be satisfied at the existing entrance. The R162 is a regional road linking Kingscourt to Navan. This road is a single carriageway road with a carriageway width of approximately 6.0m. The speed limit along this stretch of road is 80km/hr and the road is suitable to cater for these speeds.

The volume of traffic related to existing operations at the compost facility (traffic generated by existing facility) has been derived from data gathered for the operation of the site during 2008. The traffic that is expected to be generated by the increased operations at the facility has been estimated assuming similar truck loads for the increased volumes of materials that will be processed. In addition to traffic related to

the delivery of materials to or from the composting facility, the facility also employs 4 full time staff. The proposed extension of the facility is expected to increase numbers to 6 full time staff.

Based on information provided by Thorntons Recycling, the vast majority of biowaste being delivered to the site arrives from the south and through Nobber. Similarly, the vast majority of finished compost being exported from the site departs to the south and through Nobber. Hence it is assumed that all additional vehicles (generated by proposed facility extension) will be travelling to and from Nobber. This assumption corresponds with the data produced by the traffic count (3rd March 2009). From the traffic survey it can be seen that this is similarly the case for cars and light vehicles.
The results of the analysis indicate that the compost facility entrance will operate below its capacity up to and including 2025 and is capable of handling the traffic that will be generated by the proposed extension of the facility. A link capacity assessment was carried out for the R162 which indicated that the R162 would operate within capacity up to and including 2025 where there will be approximately 66% spare capacity.

Existing warning signage is located at both sides of the facility entrance. It is recommended that additional warning signage is installed and maintained at 200m from either side of the existing compost facility entrance to warn traffic of the presence of slow moving vehicles.

It is recommended that:

- Adequate parking for both cars and HGVs should be provided within the proposed development;
- Appropriate warning signs indicating the presence of the entrance for traffic approaching from Nobber or Kingscourt should be provided and maintained;
- Vegetation at the entrance be maintained such that the appropriate visibility requirements are achievable.

INTERACTION OF THE FOREGOING

The potential environmental impacts of the continuation of operations and the proposed extension of this composting facility, including the measures proposed to mitigate these impacts have been outlined in the EIS.

The result of these interactions may either exacerbate the magnitude of the impact or may in fact ameliorate it. As part of the requirements of an EIS the interaction of the impacts on the surrounding environment, need to be addressed.

The most significant possible interactions are between the following potential impacts and human beings and the material assets of the area:

- Landscape
- Air quality
- Traffic

While there is potential for the impacts to interact and result in a cumulative impact, it is unlikely that any of these cumulative impacts will result in significant environmental degradation.

It should be noted that throughout the EIS, potential interaction between various environmental criteria are discussed. The baseline assessment for this project was completed prior to the design of the facility extension, which allowed for the optimisation of the site layout design. Avoidance of impacts was used throughout the design of the proposed facility. The impact and mitigation measures proposed are designed to further ameliorate the impact of the existing facility and the proposed extension of the facility on the wider environment.

(f) The relevant activities to which this application relates as specified in the Third and Fourth Schedule of the Waste Management Acts 1996 to 2003.

Principal Activity

Fourth Schedule, Class 2. 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)'
The application includes for the following:

- The operation of an indoor composting facility to accept and process biodegradable waste

The application also relates to the following activities, which are to be carried out at the Kilmainhamwood Compost Facility:

Remaining Classes Covered by Proposed Activities at the Facility

Third Schedule, Class 6 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule'.

- The screening process, following the biological process, produces a plus 40mm fraction which primarily comprises of plastic film and other large contaminants and is dispatched from the facility to a licensed facility for recovery/disposal.

Third Schedule, Class 13 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.'

The application provides for the temporary storage of material which is not suitable for composting and will be sent to landfill as a residual waste.

Fourth Schedule, Class 13 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

The application provides for

- Waste that is accepted at the composting facility at or near closure of operating hours which will be stored overnight and handled during the next working day.

(g) Waste Management (Licensing) Regulations, 2004, Part 3, 12(g):
"Specify, by reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000 the quantity and nature of the waste or wastes which will be treated, recovered or disposed of"

The wastes accepted at the facility are only those wastes as outlined in Schedule A: Waste Acceptance of licence W0195-01 and as listed under Annex 1 of the EC Working Document 'Biological Treatment of Biowaste' (2nd draft), 2001 or subsequent amendments. The majority of waste accepted and processed at the facility will be compostable food waste and it is proposed that the capacity of the facility be extended to process 40,000 tpa of waste.

The table below lists all waste types that can be accepted at the facility. Quantities will vary each year.

Waste Code	Waste Description
02 00 00	Waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	Sludges from washing and cleaning
02 01 02	Animal-tissue waste
02 01 03	Plant-tissue waste
02 01 06	Animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07	Wastes from forestry
02 02	Waste from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	Sludges from washing and cleaning
02 02 02	Animal-tissue waste
02 02 03	Materials unsuitable for consumption or processing
02 02 04	Sludges from on-site effluent treatment
02 02 99	Waste not otherwise specified
02 03	Wastes from the fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	Sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	Materials unsuitable for consumption or processing
02 03 05	Sludges from on-site effluent treatment
02 03 99	Waste not otherwise specified
02 04	Wastes from sugar processing
02 04 02	Off-specification calcium carbonate
02 04 03	Sludges from on-site effluent treatment
02 05	Wastes from the dairy products industry
02 05 01	Materials unsuitable for consumption or processing
02 05 02	Sludges from on-site effluent treatment
02 05 99	Waste not otherwise specified
02 06	Wastes from the baking and confectionery industry
02 06 01	Materials unsuitable for consumption or processing
02 06 03	Sludges from on-site effluent treatment
02 07	Wastes from the production of alcoholic and non-alcohol beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 04	Materials unsuitable for consumption or processing

02 07 05	Sludges from on-site effluent treatment
02 07 99	Waste not otherwise specified
03 00 00	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	Wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	Wastes from pulp, paper and cardboard production and processing
03 03 01	Waste bark and wood
03 03 02	Green liquor sludge (from recovery of cooking liquor)
03 03 05	De-inking sludges from paper recycling
03 03 07	Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	Wastes from sorting of paper and cardboard destined for recycling
03 03 09	Lime mud waste
03 03 10	Fibre rejects, fibre-, filler- and coating sludges from mechanical separation
03 03 11	Sludges from on-site effluent treatment other than those mentioned in 03 03 10
04 00 00	Waste from the leather, fur and textile industries
04 01	Wastes from the leather and fur industry
04 01 06	Sludges, in particular from on-site effluent treatment containing chromium
04 01 07	Sludge, in particular from on-site effluent treatment free of chromium
04 02	Wastes from the textile industry
04 02 20	Sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from unprocessed textile fibres
15 00 00	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and cardboard packaging
15 01 03	Wooden packaging
19 00 00	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 09 02	Sludges from water clarification
19 09 03	Sludges from decarbonation
20 00 00	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	Separately collected fractions (except 15 01)
20 01 01	Paper and cardboard
20 01 08	Biodegradable kitchen and canteen waste
20 01 25	Edible oil and fat
20 01 38	Wood other than that mentioned in 20 01 37
20 02	Garden and park wastes (including cemetery waste)
20 02 01	Biodegradable waste
20 03	Other municipal wastes
20 03 01	Mixed municipal waste
20 03 02	Waste from markets
20 03 04	Septic tank sludge

(h) The raw and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity.

There are two main energy sources used at Kilmainhamwood Compost i.e. Electricity from the Electricity Supply board and fuel in the form of diesel purchased from a third party supplier.

The envisaged usage of fuel, electricity and water is estimated to be as follows:

Material/Resource	Current Annual Usage*	Estimated Future Annual Usage per Annum	Amount Stored On-Site
Electricity	**962,551 Kwh**	**1,400,000 Kwh**	**Not stored**
Diesel	**63,448 litres**	**110,000**	**2,500 litres**
Water	**Note 1**	**Note 1**	**100,000 litres**

*For 2008

Note 1: Kilmainhamwood compost is not connected to the local water mains and uses its rain collection tank as a source of water for the facility. This water is used for washing trailers, equipment and floors. No water is used in the process as the incoming material contains excess moisture. The capacity of the rainwater storage tank is 36m^3. Given that:

- The rainwater storage tank can provide wash water requirements for a dry weather period of 60 days; and
- 4.5mm of rainfall will replenish the tank on the basis of a total roofed area of 7961m^2;

It is reasonable to assume that all water usage for washing requirements within the composting building can be provided by collection of rainfall.

The acid scrubber will be located within the facility building. The scrubber unit will include a bunded tank for the storage of sulphuric acid. The molecular formula of the acid used is H_2SO_4.

(i) Plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures

The following plant and equipment are currently utilised at the Kilmainhamwood compost facility;

- Shredder Doppstadt AK 430
- Cat 318 C Loading Shovel (Used to load Shredder)
- Volvo Loading Shovel L90E X 2
- Forklift
- Ford Tractor
- Screener
- 3 x Fans 37.5 KW
- 24 x Fans 3 KW

2 new loading shovels and 9 no. extraction fans are anticipated for the proposed development of the existing composting facility.

Details of the methods, processes, ancillary processes, abatement, recovery and

treatment systems and operating procedures are summarised in the non-technical summary outlined in section (e) and further outlined in Volume II of the EIS.

(j) The activity will be carried out in such a manner so as to comply with environmental standards and legislation and will be carried out by a fit and proper operator, as per paragraphs (a) to (g) of Section 40 (4) of the Act;

All site activities will be carried out without the contravention of emission limits values, environmental standards and any enactments.

Activities at the Kilmainhamwood Compost Facility will be carried out in line with any permitted licence conditions and therefore will not cause environmental pollution.

Best available techniques will be used to prevent or eliminate or, where that is not practicable to limit, abate or reduce an emission from all site activities.

The proposed development is in line with requirements of the North-East Waste Management Plan 2005-2010 and is needed in order to meet Ireland's obligations under the Landfill Directive and the requirement to meet the recycling targets set in the Plan.

Details of the technical competence (in regard to a fit and proper person) of Padraic Thornton Waste Disposal Limited are provided in Appendix 6 of this waste licence review application.

Any person employed to direct or control the carrying on of the activity to which this waste licence relates has and will have the requisite technical knowledge or qualifications to carry on that activity in accordance with the licence and the other requirements of the Act.

As demonstrated in the financial statements (Appendix 1 of these attachments), Thorntons Recycling is in a position to meet any financial commitments or liabilities that the agency reasonably considers will be entered into or incurred by it in carrying on the activity to which this waste licence will relate in accordance with the terms thereof or in consequence of ceasing to carry on that activity.

Thornton's Recycling is committed to the operation of the facility such that energy will be used efficiently in the carrying on of the activities on site.

Any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 2002.

(k)- Source, location, nature, composition, quantity, level and rate of emissions arising from the activity are summarised in the non-technical summary outlined in

section (e) and further outlined in Volume II of the EIS.

(l) An assessment of the effects of any existing or proposed emissions on the environment and proposed measures to prevent or eliminate or, where this is not practical, to limit or abate such emissions is summarised in the non-technical summary outlined in section (e) and further outlined in Volume II of the EIS.

(m) Monitoring and sampling points and the arrangements for monitoring of emissions and the environmental consequences of any such emissions are summarised in the non-technical summary outlined in section (e) and further outlined in Attachment F and in Volume II of the EIS.

(n) Arrangements for the prevention, minimisation and recovery of waste arising from the activity.

The purpose of the Kilmainhamwood Compost Facility is to recover waste which otherwise would be sent to landfill.

(o) The arrangements for off-site treatment or disposal of solid or liquid wastes.

Waste fractions which are unsuitable for composting will be dispatched from the facility to a licensed facility for recovery/disposal.

The sludge from the site interceptor is cleaned and collected by Thornton Recycling Tanker Services and disposed of in a licensed disposal site. Currently, this sludge is sent to Rilta Environmental, Rathcoole, Co. Dublin. This will also be the case for future sludge arisings from the extended and intensified Kilmainhamwood facility.

(p) Existing and proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emissions,

Emergency procedures have been developed to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emissions. This includes procedures for emergency response, fire control, spillages and breakdown of essential equipment. These are provided in Appendix 2 and further detailed in Section J of this application.

(q) Measures for the closure, restoration, remediation or aftercare of the facility concerned after the cessation of the activity in question,

Kilmainhamwood composting facility is expected to be in operation for the foreseeable future. In the event that the facility closes a decommissioning and

restoration plan for the site will be put in place and requirements agreed with the EPA. More detail is provided in Section K of this application.

(r) Not Applicable

(s) SI No 476 of 2000 does not apply to the proposed development.

(t) The proposed development will comply with Council Directive 80/68/EEC

ATTACHMENT B: GENERAL

Attachment B1- Applicants Details

A certified copy of the Certificate of Incorporation is attached in Appendix 3 herein.

The Company's Registration Number is 072366.

Name(s) of company director(s): Gary Brady (Managing Director), Carmel Thornton (Chairperson), Shane Thornton (Director), Anna Marie Thornton (Director), Paul Thornton (Director).

Refer to Drawing No. 5361-2600 of WLA Drawings for the Site Ownership Plan.

Attachment B.2- Location of Activity

Refer to Sections 1.2 and 2.1, Volume II of the EIS and Figure 1.1 of the EIS for details of the Site Location, also:

a. Refer to Drawing No. 5361-2601 of WLA Drawings for the Site Location Map,
b. Refer to Drawing No. 5361-2602 of WLA Drawings for the Site Layout Plan,
c. Refer to Drawing No. 5361-2603 of WLA Drawings for the Services Plan;

Attachment B.3-Planning Authority

A copy of the previous planning permission including a copy of all conditions for the Kilmainhamwood Compost Facility is included in Appendix 4.

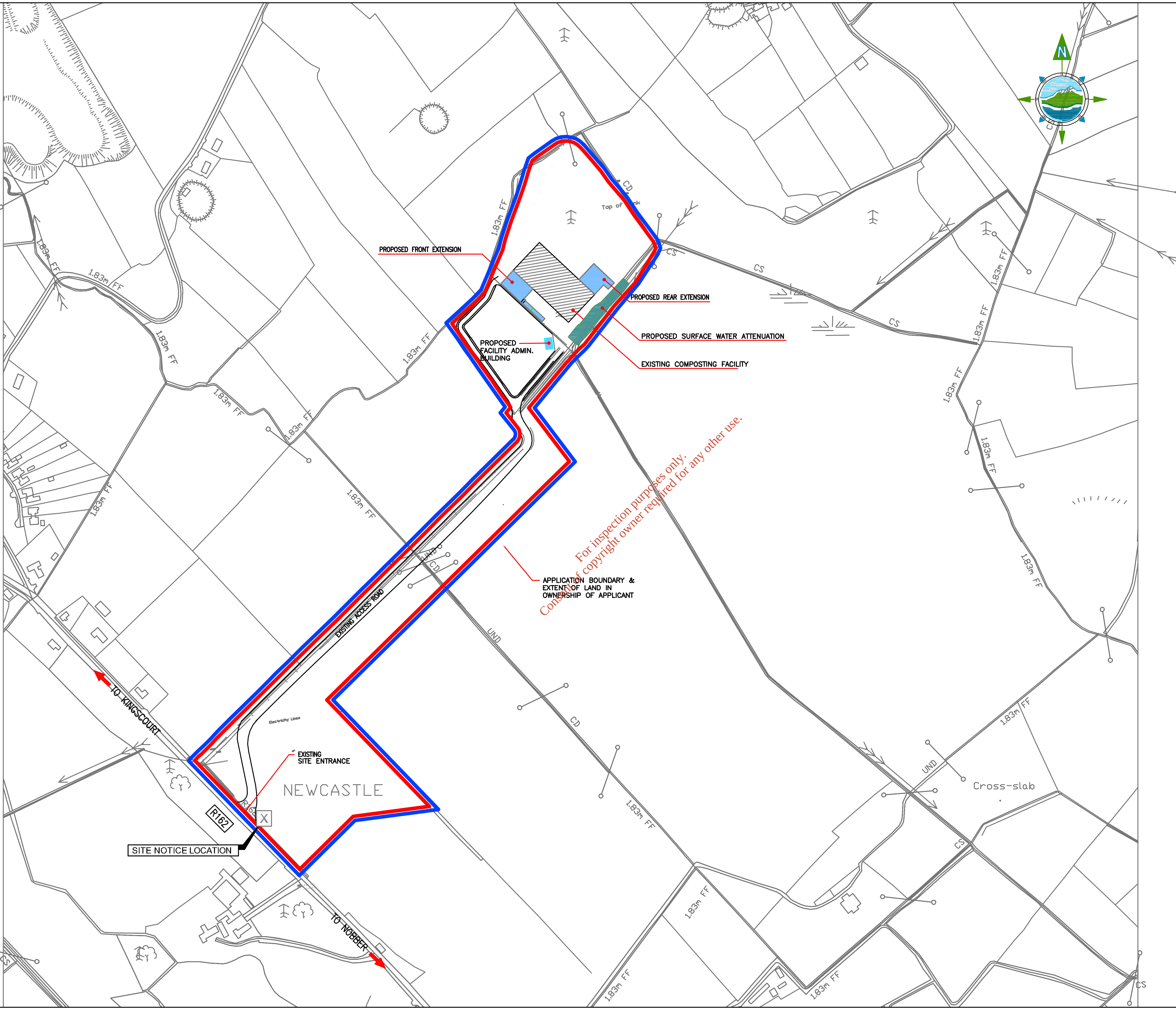
The most recent waste licence W0195-01 is included in Appendix 4.

Attachment B4-Sanitary Authority

Not Applicable

Attachment B6- Notices and Advertisements

Refer to Drawing No. 5361-2600 of WLA Drawings which shows location of site notices.



GENERAL LEGEND

LAND OWNERSHIP BOUNDARY

APPLICATION BOUNDARY

SITE NOTICE LOCATION X

NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES
5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

50m 0 50m 100m 150m

Rev	Date	Description	By	Chkd.
A	25.05.10	ISSUED FOR LICENSE REVIEW	MN	PON

Client: Thorntons recycling

Project: KILMAINHAMWOOD FACILITY EXPANSION

Title: SITE OWNERSHIP PLAN

Scale @ A3: 1:5000

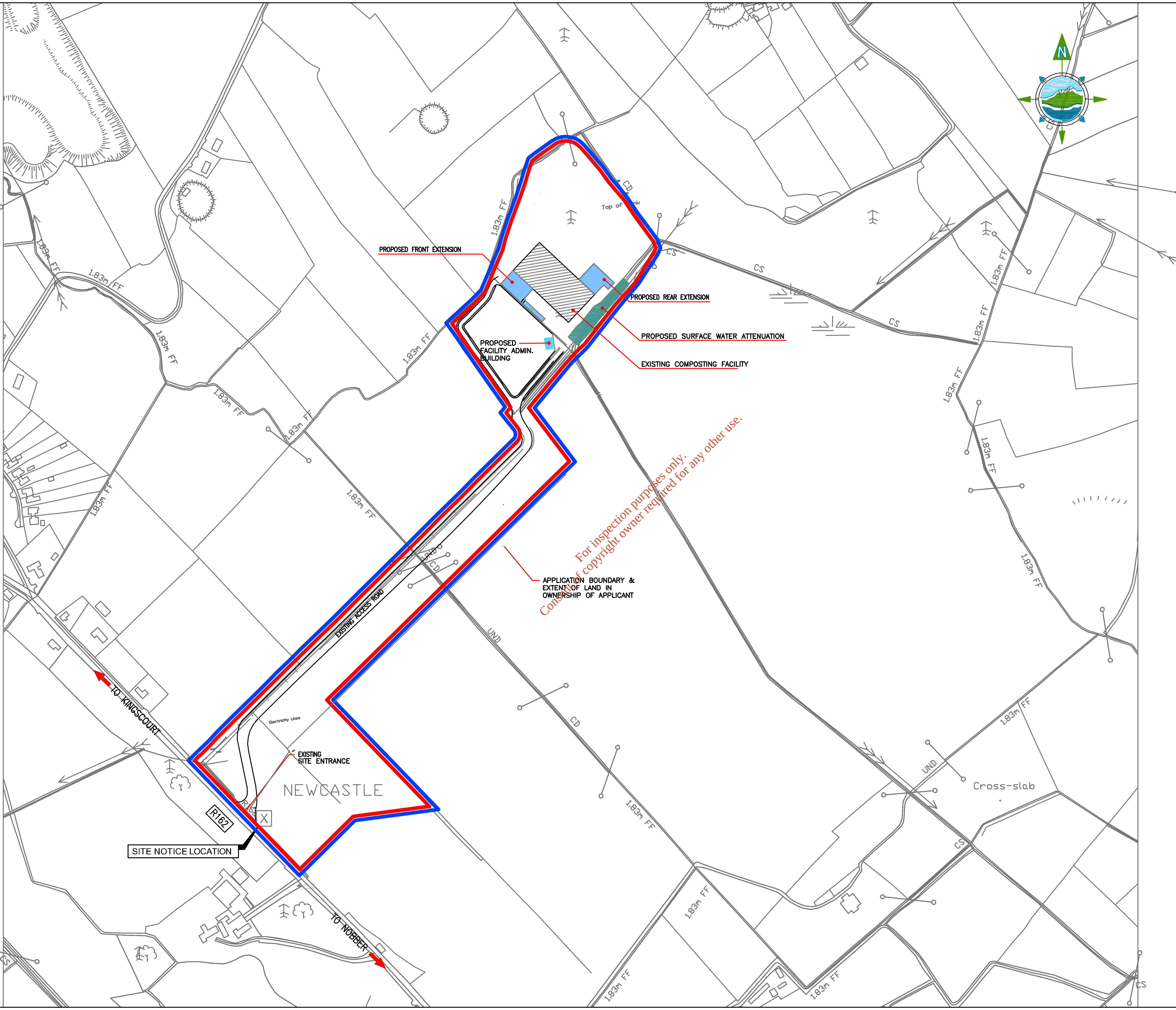
Prepared by: N.Vennard | Checked: P.O'Neill | Date: 24.03.09

Project Director: D.Grehan

Drawing Status:

TOBIN
Patrick J. Tobin & Co. Ltd.
TOBIN Consulting Engineers,
Block 10-4, Blanchardstown Corporate Park,
Dublin 15, Ireland.
tel: +353-(0)1-8030406
fax:+353-(0)1-8030409
e-mail: dublin@tobin.ie
www.tobin.ie

Drawing No.: 5361-2600 Revision: A



GENERAL LEGEND

LAND OWNERSHIP BOUNDARY

APPLICATION BOUNDARY

SITE NOTICE LOCATION X

NOTES:

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50m 0 50m 100m 150m

Rev	Date	Description	By	Chkd.
A	25.05.10	ISSUED FOR LICENSE REVIEW	MN	PON

Client: Thorntons recycling

Project: KILMAINHAMWOOD FACILITY EXPANSION

Title: SITE LOCATION MAP

Scale @ A3: 1:5000

Prepared by: N.Vennard | Checked: P.O'Neill | Date: 24.03.09

Project Director: D.Grehan

Drawing Status:

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Patrick J. Tobin & Co. Ltd.
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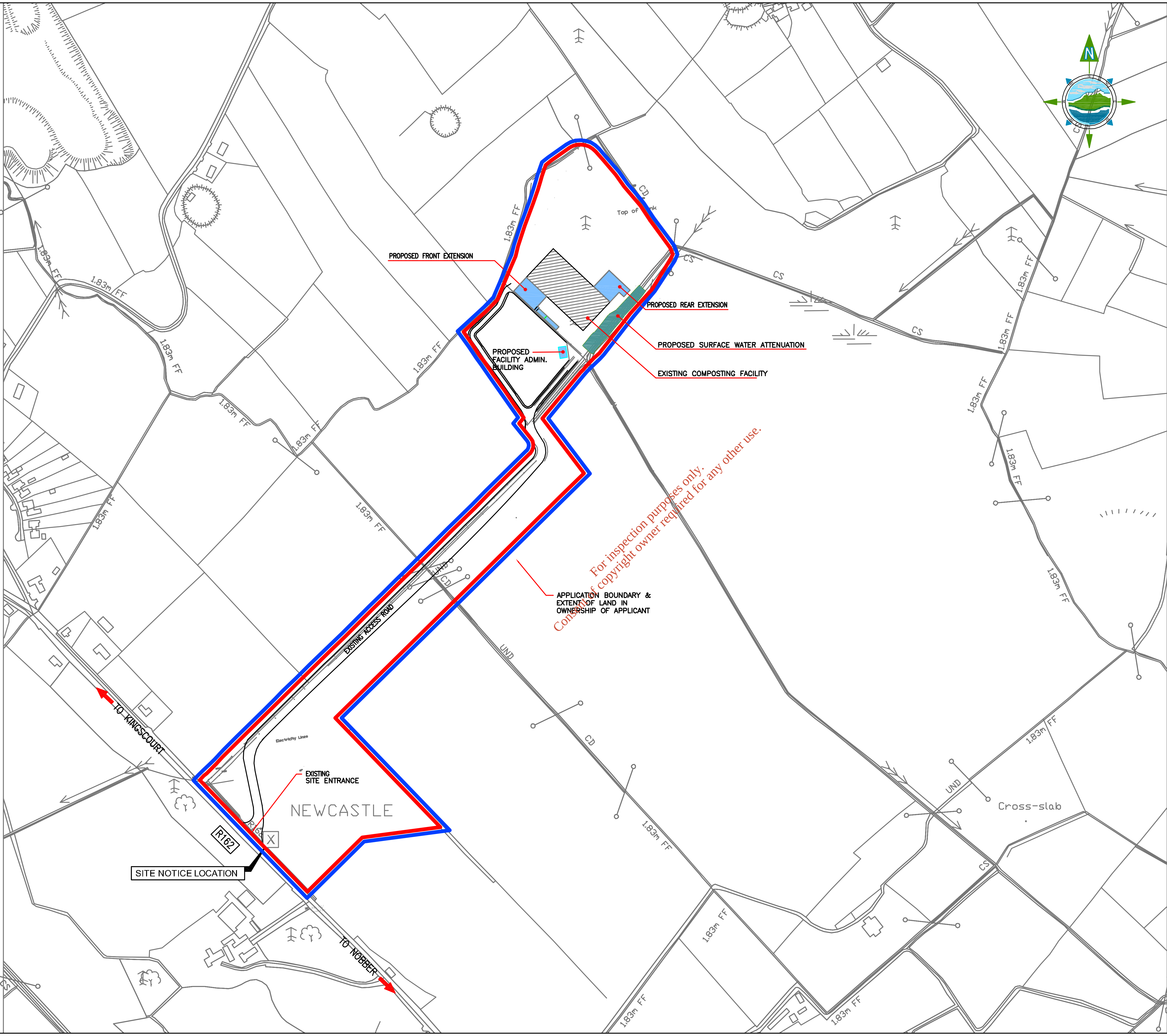
Drawing No.: 5361-2601 | Revision: A



GENERAL LEGEND

LAND OWNERSHIP BOUNDARY

APPLICATION BOUNDARY

SITE NOTICE LOCATION [X]

NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
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50m 0 50m 100m 150m

Rev	Date	Description	By	Chkd.
A	25.05.10	ISSUED FOR LICENSE REVIEW	MN	PON

Client: Thorntons recycling

Project: KILMAINHAMWOOD FACILITY EXPANSION

Title: SITE LAYOUT PLAN

Scale @ A3: 1:5000

Prepared by: N.Vennard | Checked: P.O'Neill | Date: 24.03.09

Project Director: D.Grehan

Drawing Status:

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e-mail: dublin@tobin.ie
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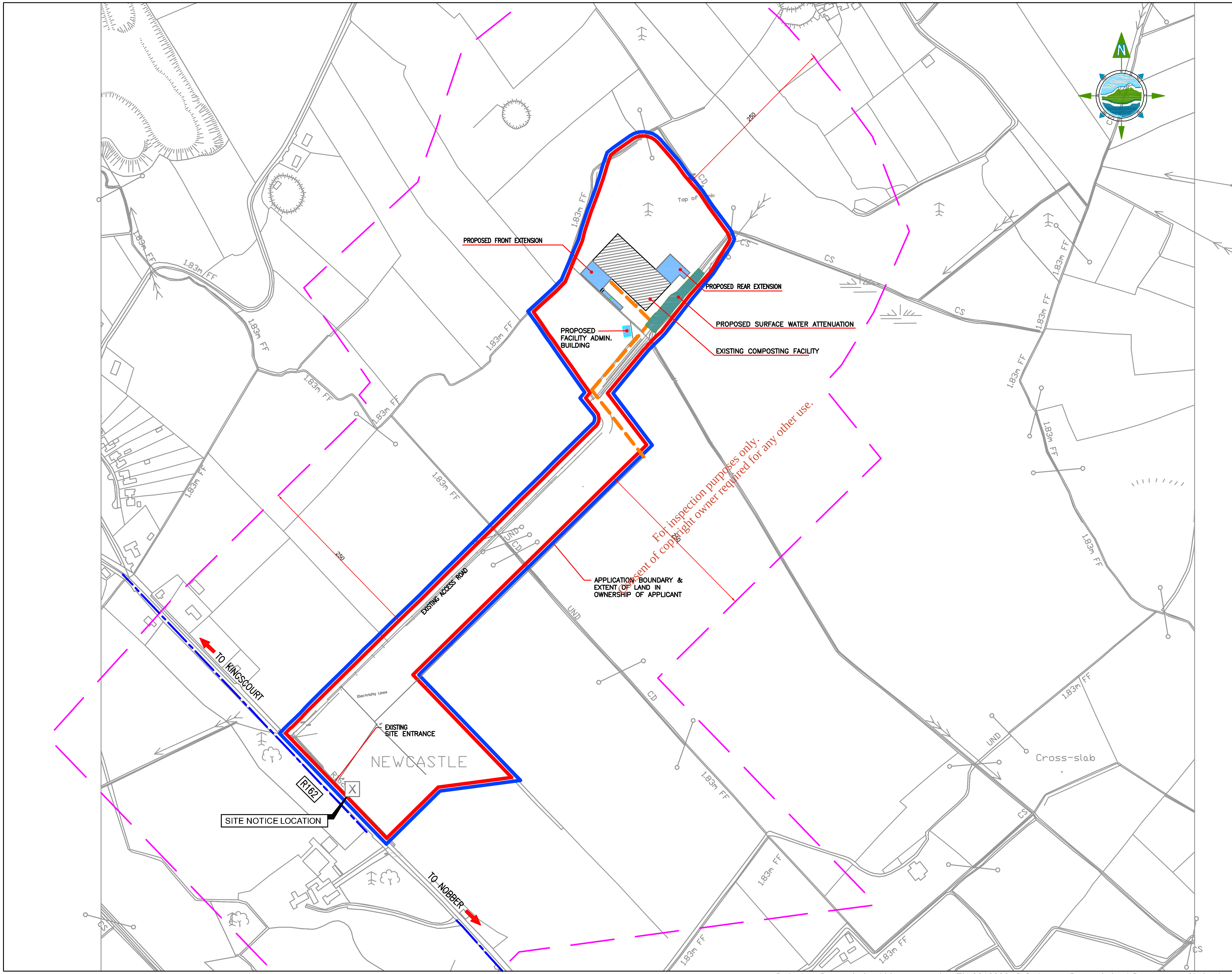
Drawing No.: 5361-2602 | Revision: A



GENERAL LEGEND

LAND OWNERSHIP BOUNDARY

APPLICATION BOUNDARY

EXISTING UNDERGROUND POWER LINE

EXISTING WATERMAIN

SITE NOTICE LOCATION

NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
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4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES
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50m 0 50m 100m 150m

Rev	Date	Description	By	Chkd.
A	25.05.10	ISSUED FOR LICENSE REVIEW	MN	PON

Client: Thorntons recycling

Project: KILMAINHAMWOOD FACILITY EXPANSION

Title: SERVICES PLAN

Scale @ A3: 1:5000

Prepared by: N.Vennard | Checked: P.O'Neill | Date: 24.03.09

Project Director: D.Grehan

Drawing Status:

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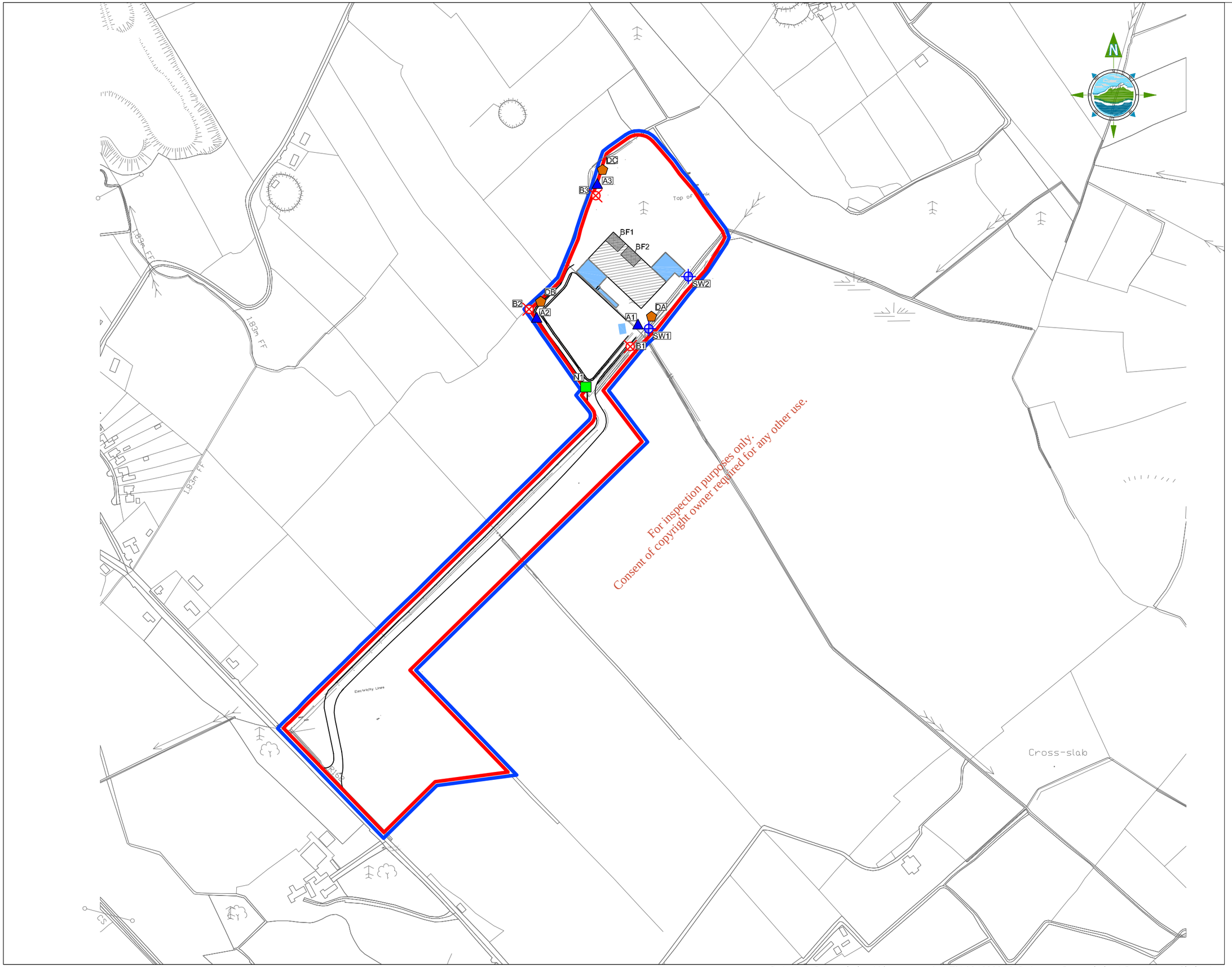
Drawing No.: 5361-2603

Revision: A



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GENERAL LEGEND

OWNERSHIP BOUNDARY

APPLICATION BOUNDARY

DUST MONITORING POINT — D2

AIR MONITORING POINT — A2

NOISE MONITORING POINT — N

BOREHOLE — B2

SURFACE WATER MONITORING POINT — SW2

BIOFILTER — BF

NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
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50m 0 50m 100m 150m

Rev	Date	Description	By	Chkd.
B	25.05.10	ISSUED FOR WLA	MN	PON
A	30-06-09	ISSUED FOR EIS	MN	PON

Client: Thorntons recycling

Project:

KILMAINHAMWOOD
FACILITY EXPANSION

Title:

ENVIRONMENTAL
MONITORING LOCATIONS

Scale @ A3: 1:10,000

Prepared by:	Checked:	Date:
N.Vennard	P.O'Neill	24.03.09

Project Director: D.Grehan

Drawing Status:

TOBIN
Patrick J. Tobin & Co. Ltd.
TOBIN Consulting Engineers,
Block 10-4, Blanchardstown Corporate Park,
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tel: +353-(0)1-8030406
fax:+353-(0)1-8030409
e-mail: dublin@tobin.ie
www.tobin.ie

Drawing No.: 5361-2604

Revision: B

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR THE REVIEW OF A WASTE LICENCE

Padraic Thornton Waste Disposal Limited

NOTICE IS HEREBY GIVEN, that, Padraic Thornton Waste Disposal Limited, Unit S3B, Henry Road, Park West Business Park, Dublin 12, has applied to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0195-01) to extend the existing composting facility to accept and treat an additional 19,200 tonnes per annum of non-hazardous biodegradable waste (over and above the permitted acceptance and treatment of 20,800 tonnes per annum of non-hazardous biodegradable waste).

The Kilmainhamwood Compost Facility is located in Ballnalurgan, Kilmainhamwood, Kells, Co. Meath (Grid Reference E2793 N2912).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2010, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Fourth Schedule, Class 2. 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)'

The facility is also covered under the following classes of activity,

Third Schedule, Class 6 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule'.

Third Schedule, Class 13. 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced'.

Fourth Schedule, Class 13 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

ACCOM. SHARING

AT WALKINSTOWN, single + double rooms to let in nice hse, €100pw + €125pw respectively, all bills incl. s/w accepted. Ph: **086 8895715**

Artane D5 - 2 single rooms to let in 4 bed house, all mod cons, close to Artane Castle SC, Beaumont, bus routes to town €325 per month per room. 0868054410

BALLSBRIDGE, near RDS, large room, suit 2 ladies, 2 gents, €500pm. Ph: **086 1524828 / 086 8032409**

BEAUMONT male to share house with 3 others, double room, all mod. cons. Close all amenities. €270 + bills. Ph: **086 4040029**

BLANCHARDSTOWN prof. person to share hse, n/s, large room with tv, broadband, close to s.centre, hosp. ind. est., €70pw inc bills. Ph **01 8212072.**

CLAREHALL, Dublin 13, dbl room available immediately, suit 1 prof n/s. €380pm. Call **086 8258328**

COOLOCK, D17. Room to let in spacious bungalow, parking avail., €100pw. **086 4037491.**

CRUMLIN RD., dbl room to rent in house, all mod cons, laundry & cooking facilities, sng occupancy only. Ph: **086 8980047**

D9, Collins Avenue. Mod. bung., large single room, ensuite, close to all amenities, €400pm services incl. **087 246 2130.**

DRUMCONDRA, Opp. St. Pat's College. Person to share 3 bed duplex apt. with 2 others, large single room, €350pm. Ph: Paul **087 364 5032.**

FAIRVIEW, Dublin 3. Double room, suit 1, 4 bed house to share with 3 others, Italian Spanish, English, mod. well kept house, €325pm. Ph: **833 1397** or **087 130 4173.**

LUCAN AREA, rooms in lux hse, nr 25a and Pennyhill. €65/€80 pw. Rent allowance accepted. Ph: **085 8371194**

New Row Sq Dublin 8. Spacious Room available inluxurious 3 bed duplex apt, great location 5 mins from Stephens Green. Secure parking 0872518462 healyjm@eircom.net

PALMERSTOWN, Woodfarm Acres, dbl bedroom, shower, toilet. **087 2554960**

RANELAGH & RATHGAR, rooms to let in modern houses, €350pm & €280pm, suit profs, **490 7439** or **086 855 1124.**

SANTRY, beside DCU, single and double bedrooms, modern house. Ph: **087 2554960**

APARTMENTS TO LET

2BD APT TO LET, Clondalkin, accepts social welfare. €850pm. Tel: **087 288 9392**

AT 55 MOUNTJOY SQ, 1 bedroom, f/f, mod. apt., suit employed persons or students. Rent negotiable. Ph: **01 282 2926.**

BELGARD SQUARE, Tallaght, 2 bedroomed apartment to let, €850 pm, social welfare accepted Ph:**086 031 2519**

BLESSINGTON STREET, Dublin 7. 1 bed apt, newly refurb, all mod cons, suit prof/prof couple. €600pm. Ph: **087 6791062**

City Centre Viking Harbour Ushers Quay adj. Luas, St. James Hospital, NCAD etc. 2 bed spacious modern newly decorated suit 2/3 sharing or couple, fully furnished, all mod cons/triton shower, car-parking available, fulltime caretaker rent €900pm **Ph: 087-7820907**

CLONDALKIN, 2 bed, f/f, main bedroom ensuite, close to all amenities, underground parking. Tel: **087 989 5440**.

CLONDALKIN VILLAGE, 1 bed, suit 2 profs, free heating, hot water & bins, rent €700 pm plus dep Ph: **087 915 7158**

D8, 1 bed apt + 2 bed flat to let, newly decorated, washer / dryer all mod cons, **087 792 3446**.

★**Drumcondra 2** Beds Apartment double rooms. Newly refurbished 5 mins walk from OConnell st. beside Matter Hospital. First to see will rent. 0861716824 mchugh.ken@gmail.com €900 pm

IFSC, large 2 bed (both ensuite) apt, beside Luas and bus, Amiens St., parking, newly dec. €1190pm. **Tel: 086 254 7866**

INCHICORE newly refurbished 2 bedroom apt. beside Luas Red Line, private and S.W. accepted. €780. Ph: **086 2172632**

MONKSTOWN, Lambda Apts, Oliver Plunket Road, beautiful 2 bed, f/f, car parking, must be viewed. **01 4659777 / 087 0505001**

RATHFARNHAM AREA, Grange Road, 2 bedroom apt, all mod cons, ready for viewing, €1000pm. Ph: **087 2599016**

TALLAGHT, 1 bed apt, f/f, car parking, avail from June 1st rent €700 p/m, Ph **087 7937038**.

TALLAGHT, Alderpark Court, 2bd apt on 3rd floor, lift, security gates, lovely apt. €850pm. Tel: **086 807 7796**

APARTMENTS TO LET

THE RICHMOND, North Brunswick St., D7. Nice 2 bed, good cond., car space, suit 3/4 people. Ph: **086 335 4407.**

★**Tyrrelstown 2** Beds Apartment Ground Floor, Newly Decorated, All Mod Cons, Plasma TV, Parking 0851423470 €900 pm

WINTER GARDEN D2, 2 mins from Trinity College, 2 bed. total refurb. to let immed. €1100 pm + dep. Ph/Txt **087 2412388**

BUSINESS FOR SALE

ESTABLISHED Auctioneering Business in Co. Meath (owners retiring). Substantial portfolio, strong residential/ retail letting practice. Option to rent or purchase their freehold offices. **Reply to Box no. 4123**

BUSINESS TO LET

DUNDALK - fully equipped, top range restaurant, groundfloor and basement in refurbished georgian building. Full details: Property Partners Laurence Gunne: **042 93 34414**

RESTAURANT to let, thriving south east town, seating for 70, old, quaint, easy managed, very central, fronting onto parking and town square. **086 821 7801**

FLATS TO LET

A STUDIO city centre, Dublin 3, North Strand, own bathroom, washer/dryer. Suit working person. €90 per week **086 3593812**

ADJACENT FAIRVIEW, 1 bed studio, suit 1-2 people, all mod cons. Ph: **087 261 5377**

★**AT Drumcondra,** Whitworth Rd., large 1 bed flat, bright & spacious, viewing an absolute must, €575 p/m. **086 8754823.**

★**AT DRUMCONDRA**, Clonliffe Rd, newly refurbed 3 bed flat, adj all amenities, viewing a must, €850pm, **086 875 4823.**

AT FAIRVIEW, bedsit, own w/c, in quiet cul de sac, suit one person. **01-8333707/087 7900111**

AT KILLESTER, 1 bed flat, suit single parent/couple, s/w accepted. Ph: **087 202 2248.**

AT NO. 4, N.C. Road, beside Park, large studio flat, newly dec, near buses and Luas. PH: **01 868 1185** or **085 743 0896**

AT SCR, city end, large 1 bed flat, suit 1/2, c/h & laundry, 5 mins LUAS. Ph: **086 246 1153.**

BELVEDERE PLACE, Dublin 1, 1 bedroom flat and 1 studio. Tel: **087 257 8671**

BOTANIC ROAD, Glasnevin, bedsit, must be working, all mod cons, car park, side entrance. Ph: **836 1058**.

BUCKINGHAM VILLAGE, D1 1 bedroom, large sitting room, bathroom/toilet, kitchen **Ph: 086-3668390**

CITY CENTRE, newly modern flats, rent allowance accepted Phone **087 6746703**

CITY CENTRE, Nth. Frederick St. Lux. 1 bedroom suit mature people **086 2796652** 3-9pm no text

CITY END OFF N.C.R., 2 bedroom s/c newly refurb., heating incl. in rent, s/w accepted, €170pw. Ph: **086 252 9277.**

CLONTARF, 1/2 bedroom flats, sitting room, kitchen, own bathroom, suit 2. Ph:**086 1647739**

D6, MOUNTPLEASANT SQ, Ranelagh, spacious 1 bed, beside Luas, Ph: **086 193 6653.**

D8, PORTABELLA, SCR, large, modern 2 bedrooms, sitting room, seperate kitchen, newly refurbished. €750pm HBE taken. Ph: **086 3062371**

DRUMCONDRA AND Phibsboro, self contained bedsit and 1 bed flat. Suit 1. Tel: **087 2396143**

DRUMCONDRA, Claude Rd. (Off Whitworth Rd.), 1 bed flat €150 pw, studio €120 pw. **830 6784**

DRUMCONDRA, very clean 2 bed flat, fully furnished, free car park, suit 2/3 people Ph: **086 8261522**

FAIRVIEW, 1 bedroom s/c flat with separate kitchen & sitting room, gfch, all mod cons. Ph: **087 0935346**

FAIRVIEW, single bedsit, full s/c, cable TV, laundry room, €450pm. Ph: **087 244 6128** or **495 2903** after 6pm.

GLASNEVIN/FINGLAS, Sycamore Rd. Large, double 1 bed to let, f/f, suit couple or single parent & child. Refs. essential Ph: **087 2434428**

GLENAGEARY, 1 bed self contained, suit quiet couple, €160pw. Ph: **087 259 7439** after 6pm

HAROLDS CROSS, bedsit, suit 1 gent, c/h, laundry facilities. Ph: **086 220 2252**

KIMMAGE, suit 1 or 2, 1 bedroom, gas c/h, alarmed, parking, own front door. Ph: **087 2452244**

N.C.R. double bed flat, 10 mins city centre, near Phoenix Park, free parking, social welcome, €140pw. Tel: **086 8106962**

FLATS TO LET

NORTH CIRC Rd., lovely, spacious bedsit, suit 1 person, 10 mins O'Connell St., c/h included, €110p/w. **087 7991677**

PHIBSBORO, 1 bedroom apt, car park, new paint, ph / P TV, bin incl, suit 1, work refs req'd. Also studio, suit 1. Ph: **086 880 6880.**

PHIBSBORO, flat, suit 1/2, all mod cons, 10 mins from town, s/w accepted. **086 250 6551**

RANELAGH, s/c 1 bedroom flat in quiet hse, inc washing machine, easy acces to city, Luas line, avail immed Ph:**087 280 5478**

SALLYNOGGIN, 2 bed flat, all mod cons, small garden, own entrance, €800pm. Ph: **086 2055661**

SOUTH CIRCULAR RD (opposite Griffith College), bedsit, f/f, s/c. €100pw. Ph: **087 2850373**

HOUSES FOR SALE

D12 CASHEL AVE., 2 bed., attic conversion, mid-tce., lge. rear gdn., block shed, in need of complete renovation. Offers. **Ph: 087-0986907** Private sale.

HOUSES TO LET

AT KCR, 2 bed townhouse, f/f, all mod cons, private parking, €1000p/m. Ph: **087 6449372**

BALLYBRACK, Dublin — 3 bed semi, end of cul de sac, s/w accepted. €1200pm. Tel: **086 832 9389**

Blackrock 5 Beds Semi Detached Edwardian B&B to rent. Ideal business opportunity. Suit couple €2,600 pm 0868532003

★**CLONEE, D15**, Hunters Run, lovely modern 3 bed house, newly redecorated, ensuite, wooden floors, close to shops, schools and bus routes, €900pm. Ph: Siobhan **087 6139196**

DONNYCARNEY, D9, 3 bed, all mod. cons., close to bus, gas c/h, €1000 p/m. ph **087 9100472**

DRUMCONDRA, 3 bed house off Clonliffe Road, all mod cons, close to all colleges & city centre, will do 10 month or 3 month lease, €1250pm. **086 814 4017.**

Drumcondra Lr at Fitzroy Ave., large 3 bed semi, c/h, garage, 2 ensuite, new bathroom wc, 1st June, refs req'd. **087 2612608**

FINGLAS EAST 3 bed semi, large garden, off street parking, €1050pm. Tel: **086 3012636**

Finglas 3 Beds Semi Detached Immaculate condition, recently refurbished , new kitchen flooring etc. Refs etc a must , Call Gary 9 - 5pm €1,000 pm 086 2008007

HAROLDS CROSS, Mount Argus, 3 bed to let, 2 double, 1 single, 2 w/c, gfch, off street parking, large living room with conservatory Ph:**086 8598663**

KILCOCK - Modern 2 bed house. 2 lge dble bedrooms. 1 ensuite. Newly refurbished to high standard. New Kitchen, Carpets, Wooden Floor etc. All mod cons. 5 min walk to train station. €900 pm. **Tel: 086 8033054**

KINSALE, mod 4 bed hse, quiet loc, w/c accessible, childrens play ground, all mod cons, sky, broadband, wk/end or mid/wk breaks also avail. **021 4774669.**

KINSEALY AREA, (5mins from Airport), 3 bed, semi det., all mod cons, reasonable rent. Ph: **087 9952652**

TALLAGHT, Sundale, 3 bed dbl glaz, c/h, 1½ bath, f/f, s.w. welcome, €950pm. **087 7937038**

Waterford City, Ferrybank, beautiful detached bungalow, 4 bed, 3 double, master ensuite, 1 single, close to city centre and train station, spacious with private front and rear gardens, easy access to Dublin road, all mod cons. Available from May. Rent €775 per month, Call **0879092807**

INDUSTRIAL PREMISES

AT TALLAGHT, D24. c. half acre secure yard to let, flex terms. Ph: **087 293 7755**

INDUSTRIAL UNITS to rent, Rathcoole area, 1000sq.ft - €625pm, 2000 sq. ft - €1250pm, 4000sq.ft - €2500pm. Contact Ivan on **087 290 4444**

WAREHOUSING UNITS from 1000- 5000sq.ft for sale, lease to purchase or rent, ready to occupy, Greenogue South West, Dublin. Ph: **257 2123/ www.philalex.ie**

LICENCED PREMISES

GALWAY CITY. Densely populated area. Westside Tavern. Totally refurbised. Mullery Auctioneers **091 567275**

SELLING OR BUYING a 7 day liquor licence Call: **(0404) 42832**

OFFICES TO LET

SERVICED OFFICES to let, flexible terms, from €99pw incl. parking, D24. Tel: **01-4137300**.

OVERSEAS PROPERTIES

WANTED Bulgarian, Spanish & Turkey property. **1890 277246.**

WANTED Montenegro, Croatia & Italy property. Ph: **087 9881234**

PREMISES TO LET

BLANCHARDSTOWN and Dublin 15 area, large and small units, own entrances. **087 2597755**

GEORGES STREET ARCADE, D.2 - Prime Retail units to let, c.250 - 550 sq.ft. Suit variety of uses. Flexible terms available. Ph: David **(01) 283 6077**

SHOPS TO LET

APPROX. 1000 sq ft. retail unit to let, The Square, Tallaght, Blacktie entrance, flex. terms avail. Replies to Box no: **5119**

Beside Arnotts D.1 suitable as Pharmacy & Jewellers. See www.nolcoproperties.com/outlet. 8726434

CHOICE OF UNITS. Clontarf Road. Suit Art supplies and framing or Epicurian shop. Craddock Estates **01 8330517**

D4, two new adjoining shops, total area 1,400 sq.ft., €1,400 pa. O'Neill's: **671 6311.**

LEGAL

I Joe Faherty am applying for the renewal of my bookmakers licence and suitability of premises at Courthouse View, Lifford, Ennis, Co. Clare.

Employment Agency Act, 1971

We Fingal Bay Contractors Limited hereby give notice of our intention to apply for renewal of our licence under the above Act to carry on the business of an employment agency at the premises specified below:

Unit 5 E Fingal Bay Business Park, Balbriggan, Co. Dublin

In the Matter of
RBS Fund Services (Ireland) Limited
(IN VOLUNTARY LIQUIDATION)
and in the Matter of
THE COMPANIES ACTS 1963 TO 2009

Notice is hereby given pursuant to Section 263 of the Companies Act 1963 that a General Meeting of the above mentioned company will be held at Marlborough House, 21 Marlborough Road, Donnybrook, Dublin 4 on 23rd June 2010 at 10.30 a.m. for the purpose of having an account laid before it showing the manner in which the winding up has been conducted and the property of the company has been disposed of and of hearing any explanations which may be given by the Liquidator, and further, pursuant to Section 305 of the Companies Act 1963 for the purpose of directing, by Special Resolution, the manner in which the books, accounts and papers of the company and of the Liquidator shall be disposed of.

Dated this 25th May 2010

SEAN POWER
LIQUIDATOR

PLANNING APPLICATIONS

DUBLIN CITY COUNCIL — I, Mr Eamon Devoy, General Secretary, on behalf of the Technical, Engineering and Electrical Union, intend to apply for permission for development at 6 Gardiner Row, Dublin 1. The development will consist of signage to the front elevation of a protected structure and pertains to previously approved drawings (planning reference no. 5994/04) for a protected structure. The signage, reading "Technical, Engineering & Electrical Union" is to be 350mm in height individually mounted brushed steel lettering in a sans-serif font, fixed to the brickwork, and located between the ground and first floor windows. The planning application may be inspected, or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of Dublin City Council during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

PUBLIC NOTICES

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR THE REVIEW OF A WASTE LICENCE

Padraic Thornton
Waste Disposal Limited

NOTICE IS HEREBY GIVEN, that, Padraic Thornton Waste Disposal Limited, Unit S3B, Henry Road, Park West Business Park, Dublin 12, has applied to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0195-01) to extend the existing composting facility to accept and treat an additional 19,200 tonnes per annum of non-hazardous biodegradable waste (over and above the permitted acceptance and treatment of 20,800 tonnes per annum of non-hazardous biodegradable waste).

The Kilmainhamwood Compost Facility is located in Ballinalurgan, Kilmainhamwood, Kells, Co. Meath (Grid Reference E2793 N2912).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2010, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Fourth Schedule, Class 2, 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)'

The facility is also covered under the following classes of activity,

Third Schedule, Class 6 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule'.

Third Schedule, Class 13. 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced'.

Fourth Schedule, Class 13 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

PLANNING APPLICATIONS

SOUTH DUBLIN COUNTY COUNCIL — Permission sought by Very Rev. Myles Healy P.P., to constuct a single storey Pastoral centre to the eastern side of the Church of the Holy Spirit, Greenhills, Dublin 12 which is a protected structure. This application may be inspected or purchased, at a fee not exceeding the reasonable cost of making a copy, at the offices of South Dublin County Council during its public opening hours 9am-4pm, Monday-Friday, and a submission or observation may be made to South Dublin County Council in writing and on payment of the prescribed fee (€20.00) within the period of 5 weeks beginning on the date of receipt by South Dublin County Council of the application.

SOUTH DUBLIN COUNTY COUNCIL — Permission sought by Michael Kelly to construct a single storey extension to the rear and side of 14 Anne Devlin Avenue, Rathfarnham, Dublin 16. The works will involve the demolition of an existing ground floor rear extension, the demolition of the garage to the side, and the construction of a tiled hip roof over the front box bay window. his application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of South Dublin County Council during its public opening hours 9am-4pm, Monday-Friday, and a submission or observation may be made to South Dublin County Council in writing and on payment of the prescribed fee (€20.00) within the period of 5 weeks beginning on the date of receipt by South Dublin County Council of the application.

PLANNING APPLICATIONS

DUBLIN CITY COUNCIL — I, Mr. Brian Montague Intend to apply for PERMISSION For development at Pravda, 35 Lower Liffey Street, Dublin 1 The development consists of Alterations to the existing licensed premises, including infill of the first floor void, providing additional 'Accessible' and general toilet facilities. Change of use to first floor ancillary space to provide a smoking area, with associated works. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of Dublin City Council during its public opening hours and that a submission or observation in relation to the application may be made in writing to the Planning Authority on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

DUBLIN CITY COUNCIL — We, Griffith Avenue Practice, intend to apply for planning permission for an extension to the existing medical consultancy practice and related use located at site, 411 Griffith Avenue, Glasnevin, Dublin 9. The proposed development will consist of the following: (a) Demolition of existing single storey waiting room and shed at the rear; (b) Demolition of existing single storey entrance hall at the front; (c) The construction of a single storey extension (76m2) organized around 4 No. Zen gardens and comprising of 3 No. consultant rooms (to relocated the existing ones), the extension to an existing consultant room, the extension to the existing waiting room and ancillary staff, storage and circulation areas; (d) The construction of a single storey extension to the front (7m2) comprising of a new entrance lobby and a disabled person toilet; (e) Refurbishment and reorganisation of the existing medical practice internally at ground floor level only and, (f) All ancillary site development works. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of Dublin City Council during its opening hours and submission or observation in relation to the application may be made in writing to the Planning Authority on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

DUBLIN CITY COUNCIL — Permission sought by Lorraine Simpson to convert attic to store area and form new roof dormer windows to gable and rear elevations at 26 Woodlawn Court, Santry, Dublin 9. The planning application may be inspected, or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of Dublin City Council during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

LOST AND FOUND

WEIMERANER DOG found, Dublin 5 area, male, house trained, friendly, not chipped. Ph: **087 778 8678** if you think he is yours.

MEETING POINT

BROWSE PERSONALS from sgl guys, freephone **1800 933 802**

FLIRT WITH single girls & guys. Text PARTY to **57333** or call **1550 400 800**, costs 75c/msg

GAY CONTACTS - Text GUYS to **57333**, costs 75c/msg

PROFESSIONAL, Lady with style, 52, would like to meet genuine gentleman with good sense of humour, to socialise with & possible relationship **089 4296034**

MISCELLANEOUS

5000 LEAFLETS printed €100. Ph: **451 1248** or **087 206 2714.**

USEFUL SERVICES

1 MAN AND VAN for deliveries etc. **087 2073526 / 01 8167994**

MAN, VAN from €30 **086 8110262** Phone / Fax **01 841 6770.**

VIDEO

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TOBIN
Patrick J. Tobin & Co. Ltd.

Consulting Engineers

www.tobin.ie

Block 10-4,
Blanchardstown Corporate Park,
Dublin 15, Ireland.
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Fax: +353 (0)1 8030409/10

Fairgreen House,
Fairgreen Road,
Galway, Ireland.
Tel: +353 (0)91 565211
Fax: +353 (0)91 565398

Northpoint House,
New Mallow Road,
Cork, Ireland.
Tel: +353 (0)21 4308624
Fax: +353 (0)21 4308625

Bedford Place, Howleys Quay,
Lower Shannon Street,
Limerick, Ireland.
Tel: +353 (0)61 415757
Fax: +353 (0)61 409378

Market Square,
Castlebar,
Co. Mayo, Ireland.
Tel: +353 (0)94 9021401
Fax: +353 (0)94 9021534

2nd Floor, Elgee Building,
Market Square, Dundalk,
Co. Louth, Ireland.
Tel: +353 (0)42 9335107
Fax: +353 (0)42 9331715

Planning Department,
Meath County Council,
Abbey Mall,
Abbey Road,
Navan,
Co. Meath

25th May 2010

Re: Waste Licence Review Application for the Proposed Extension of a Composting Facility at Ballynalurgan, Kilmainhamwood, Kells, Co. Meath

NOTICE IS HEREBY GIVEN, that, Padraic Thornton Waste Disposal Limited, Unit S3B, Henry Road, Park West Business Park, Dublin 12, has applied to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0195-01) to extend the existing composting facility to accept and treat an additional 19,200 tonnes per annum of non-hazardous biodegradable waste (over and above the permitted acceptance and treatment of 20,800 tonnes per annum of non-hazardous biodegradable waste).

The Kilmainhamwood Compost Facility is located in Ballnalurgan, Kilmainhamwood, Kells, Co. Meath (Grid Reference E2793 N2912).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2010, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Fourth Schedule, Class 2. 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)'

The facility is also covered under the following classes of activity,

Third Schedule, Class 6 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule'.

Third Schedule, Class 13. 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced'.

Fourth Schedule, Class 13 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

A Planning Application (Ref ka901007) has been submitted to Meath County Council in relation to this development.

Yours sincerely,

Pat O Neill
TOBIN Consulting Engineers

cc Administration, Waste Management Licensing, Environmental Protection Agency

Attachment B7-Type of Waste Activity, Tonnages & Fees

As defined by the Waste Management Act (1996), the principal activity undertaken at the site is Class 2 of the Fourth Schedule of the Waste Management Act (1996), namely:

Principal Activity

Fourth Schedule, Class 2. 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)'
The application includes for the following:

- The operation of an indoor composting facility to accept and process biodegradable waste

The application also relates to the following activities, which are to be carried out at the Kilmainhamwood Compost Facility:

Remaining Classes Covered by Proposed Activities at the Facility

Third Schedule, Class 6 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule'.

- The screening process (following the biological process) produces a plus 40mm fraction which primarily comprises of plastic film and other large contaminants and is dispatched from the facility to a licensed facility for recovery/disposal.

Third Schedule, Class 13 'Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.'

The application provides for the temporary storage of material which is not suitable for composting and will be sent to landfill as a residual waste.

Fourth Schedule, Class 13 'Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced'.

- The application provides for waste that is accepted at the composting facility at or near closure of operating hours which will be stored overnight and

handled during the next working day.

ATTACHMENT C- MANAGEMENT OF THE FACILITY

Attachment C1-Technical Competence and Site Management

Details of the applicant's experience and qualifications, along with that of other relevant employees, are summarised below.

Name	Job Title	Type of Employment	Education/Skills Level
Tom McDonnell	Facility Manager	Full-time, Permanent	Tom has a B.Agr.Sc from University College Dublin and has worked in the composting Industry since 1991. From 1991 to 2006 Tom worked with Greenhill Compost Ltd, a company involved in the production of mushroom compost. During this time Tom rose to the level of Technical Director in the company and was a key contact in the application, implementing and managing their E.P.A. Licence W0117-01. Joining Thornton's Recycling group as compost facility manager in 2006 Tom was responsible for start-up of operations at Kilmainhamwood Compost and was a Key contact in implementing all regularity conditions of E.P.A. Licence W0195-01 and Dept. of Agriculture Licence Comp-6. Under Tom's Management, Kilmainhamwood Compost won the Award for "Best Composting Facility" at the Compost Industry Awards 2008.
Gary Brady	Managing Director	Full-time, Permanent	Gary has been Managing Director in Thorntons Recycling for over four years, previously having worked at the company as Finance Manager. Gary is qualified as Member of Institute of Accounting Technicians in Ireland 1991. Qualified as Member of Institute of Certified Public Accountants in Ireland in 1994.
Shane Thornton	Operations Director	Full-time, Permanent	Owner and Director. Shane oversees the operations of the Kilmainhamwood Compost facility and will liaise directly with on site Facility Manager.
Mercedes Feely	Group Environmental Manager	Full-time, Permanent	Mercedes has a BSc (Hons) Environmental Science from University of Ulster, Coleriane and a MSc Environmental Engineering from Queen's University, Belfast. Mercedes has ten years work experience including the successful management of Waste licence WL 0044-02 of Thorntons Recycling Centre, Killeen Road, Dublin 10 and the successful implementation of Environmental Management Systems certified to ISO 14001 on all of Thorntons Recycling sites. Mercedes has also received the accredited FETAC National Skills Certificate for both 'Waste Management Modules' and 'Waste Management - On Site Assessment'. Mercedes is a trained environmental auditor. Mercedes will assist the facility manager with environmental compliance on site.
Tommy	Health and	Full-time,	Tommy has a Diploma in Industrial Engineering from the Institute of Industrial Engineering and is in his final Year of Health &

Rogers	Safety Manager	Permanent	Safety Diploma. He has 10 years emergency response services training, Trained as Safety Committee Liaison Officer for five years in Tara Mines Ltd. Responsibilities of Senior Management roles with a number of companies over a period of 10 years which included Environment, Health & Safety functions. He has received the accredited FETAC National Skills Certificate for both 'Waste Management Modules' and 'Waste Management - On Site Assessment'.

Kilmainhamwood Compost is part of the Thorntons Recycling Group and as such has access to the Management Facilities of Thorntons Recycling. These facilities include an Environmental Department which includes Mercedes Feely, David Duff and Tommy Rogers. Below is a brief outline of the management structure of the site;

Carmel Thornton	Paul Thornton	Shane Thornton	Anna Marie Thornton
Director	Director	Director	Director

Gary Brady
Managing Director

Tom McDonnell
Facility Manager

Dermot Ward
Production Supervisor

General Operatives (2)

The Facility Manager of Kilmainhamwood Compost is Tom Mc Donnell. The Production Supervisor is Dermot Ward and is deputy manager when Tom Mc Donnell is not on site. There are two Loader Shovel Drivers, Fran Dowd and Marius Lanaskuas.

Attachment C2- Environmental Management System

An Environmental Management System (EMS) has been prepared for the Kilmainhamwood Compost Facility and forms part of the Integrated Management System for the site. The EMS for this development includes the following:

- Emergency Procedures and Response Plan
- Waste Management
- Safety Procedures
- Environmental Plan
- Housekeeping Procedures
- Composting Procedures

Further details and of procedures and their associated forms are included in Appendix 2.

Attachment C3-Hours of Operation

The facility operates, as permitted, on a daily basis from 8.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm on Saturdays. The hours of operation will be the

same for the extended composting facility following the proposed extension. Waste is not accepted or handled at the facility on Sundays or on Bank Holidays.

The aeration of the composting process will operate on a continuous basis (24 hours per day; 7 days per week), and will be computer controlled in the absence of an operator on-site.

Attachment C.4-Conditioning Plan

Not Applicable

ATTACHMENT D-INFRASTRUCTURE AND OPERATION

Attachment D1-Infrastructure

a) Security including perimeter fencing, entrance gates etc.

Refer to Section 2.3.2, Volume II of the EIS and Drawing No. 5361-2402, Volume III of the EIS.

b) Designs for Site Roads

Refer to Section 2.3.4, Volume II of the EIS.

c) Design of hardstanding areas

Refer to Sections 2.3 and 8, Volume II of the EIS and Drawing No. 5361-2402, Volume III of the EIS.

d) Plant

Refer to Sections 2.5, Volume II of the EIS and Drawing No. 5361-2402, Volume III of the EIS.

e) Wheel-wash

Prior to leaving the waste reception area of the facility, the rear of vehicles and the vehicle wheels will be steam washed. The facility is not connected to the local water mains and uses some of its rain collection tank as a source of water for the facility. This water is used for washing trailers, equipment and floors. Wash water will contained and will drain back into the feedstock bunker within the building.

Refer to Sections 2.2 and 8 Volume II of the EIS.

f) Laboratory facilities

Not Applicable

g) Fuel storage (including details of bunding etc.)

A diesel tank is located on site. This tank is a double skin bowser with a capacity of 2,500 litres. To minimise any impact on the underlying subsurface strata and the groundwater from material spillages all waste oils, used spill kits, etc. used during operations will continue to be stored on a bunded pallet.

h) Waste quarantine areas

A quarantine area exists within the indoor waste reception area. The incoming waste is inspected immediately following arrival. Any waste items unsuitable for the process are removed from the waste and stored in the quarantine area.

i) Waste inspection areas

All incoming wastes are tipped into the waste reception area at the facility building. There is no waste stored or processed outside the facility building. All processes take place within the building. Following tipping on the reception floor, the waste is inspected by an operator for compliance with supposed feedstock category and level of contamination. If the load is non-compliant in terms of feedstock category or level of contamination then the waste load is removed off site and returned to a Thorntons Recycling licensed facility for further processing or onward disposal. The location of the waste reception area is shown on Drawing 5361-2403 – Volume III of EIS.

j) Traffic control

All waste traffic access the facility by turning from the R162 into the site entrance, and then travelling along the facility access road until the inner facility entrance is reached.

Car parking is provided for employees, delivery personnel and visitors at the facility. The location of the car park is detailed on Drawing No. 5361-2402 - Volume III of EIS. This is a hardstanding and paved area of concrete construction.

Traffic management to the site is dealt with in more detail in Section 13, Volume II of the EIS.

k) Sewerage and surface water drainage infrastructure.

Refer to Sections 2.3.7 and 8, Volume II of the EIS.

l) All services, including power, water, telephone, etc., and any services specific to the site location.

Other services that have been provided at the site include:

- Telephone system;
- Water from an on-site borehole;
- 400v three phase electricity (including on site substation);
- A standby diesel generator; and
- Double skin fuel bowser.

m) Plant sheds, garages and equipment compound

None are proposed for the site.

n) Site accommodation

Presently, office and employee welfare accommodation of a temporary nature is provided at the Kilmainhamwood Compost facility in the form of portacabins. It is proposed to construct a facility administration building as shown on Drawing No. 5361-2402 and Drawing No. 5361-2405 (Volume III of EIS) to include:

- Offices;
- Tea Station;
- Locker room;
- Toilets; and
- Shower area.

o) Fire control system, including water supply

Fire control measures are detailed in Section 2.6.3 of the Volume II of the EIS.

Fire response procedures and fire equipment are outlined in the Thorntons Recycling Environmental Management System (Safety Statement & Safety Management System) for Kilmainhamwood Compost Facility outlined in Appendix 2.

p) Civic amenity sites

Not Applicable

q) Any other waste recovery infrastructure

Not Applicable

r) Composting infrastructure

Refer to Section 2, Volume II of the EIS.

s) Construction and Demolition waste infrastructure

Not Applicable

t) Description of Incineration infrastructure (if applicable). Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive

Not Applicable

u) Details of any other infrastructure proposed

Not Applicable

Attachment D 2-Facility Operation

Attachment D 2a-Unit Operations

Refer to Section 2, Volume II of the EIS.

Attachment D 2b-Flow Process Diagram

A flow diagram for the composting processes at the Kilmainhamwood Compost Facility is provided in Section 2.5.4, Volume II of the EIS.

Attachment D 2c-Unit Operations Potential Emissions

The potential emissions identified from the activity are detailed in Sections 5-14, Volume II of the EIS. Details on these are given in Attachment E.

Attachment D 2d-Unit Operations Laboratory Facilities

Not Applicable

Attachment D 2e-Unit Operations Incineration

Not Applicable

Attachment D 3-Liner System

Not Applicable

Attachment D 4-Leachate Management

Not Applicable

Attachment D 5-Landfill Gas Management

Not Applicable

Attachment D 6-Capping System

Not Applicable

ATTACHMENT E-EMISSIONS

Existing Monitoring Points are located within the site, in line with the current waste licence requirements.

Attachment E.1-Emissions to Atmosphere
Refer to Section 9, Volume II of the EIS.

Attachment E.2-Emissions to Surface Waters
Refer to Section 8, Volume II of the EIS.

Attachment-E.3-Emissions to Sewer
There are no discharges to the Sewer

Attachment E.4-Emissions to Groundwater
Refer to Section 8, Volume II of the EIS.

Attachment E.5-Noise Emissions
Refer to Section 10, Volume II of the EIS.

Attachment E.6-Environmental Nuisances
Attachment E.6a-Bird Control
Refer to Section 2.6.2, Volume II of the EIS.

Attachment E.6b-Dust Control
Refer to Section 9.1, Volume II of the EIS.

Attachment E.6c-Fire Control
Refer to Section 2.6.3, Volume II of the EIS.

Attachment E.6d-Litter Control
Refer to Section 2.6.4, Volume II of the EIS.

Attachment E.6e-Traffic Control
Refer to Section 2.6.7 and 13, Volume II of the EIS.

Attachment E.6f-Vermin Control
Refer to Section 2.6.8, Volume II of the EIS.

Attachment E.6g-Road Cleansing
Refer to Section 2.6.6, Volume II of the EIS.

ATTACHMENT F-CONTROL & MONITORING

Attachment F.1-Treatment, Abatement and Control Systems

Air emissions and abatement measures are detailed in Section 9, Volume II of the EIS.

Surface and ground water emissions and abatement measures are detailed in Section 8, Volume II of the EIS.

F.2- F. 9. Monitoring and Sampling Points

Details of all sampling and monitoring points are outlined on Drawing 5361-2604 and are as specified by the current waste licence.

Attachment F.2-Air – Monitoring and Sampling Points

Refer to Sections 2.7.1 and 9.1, Volume II of the EIS for details of Dust Monitoring and Air Monitoring for micro-organisms. Dust Monitoring is carried out at the following locations

Dust Monitoring Point	Easting	Northern
D1 (DA)	279859	291960
D2 (DB)	279698	291982
D3 (DC)	279788	292173

Air Monitoring for micro-organisms is carried out at the following locations. Sample locations are predominately chosen on the basis of meteorological conditions on the day of the survey whereby one upwind location and two downwind locations are chosen to determine the bioaerosol concentration levels in the vicinity of the facility.

Air Monitoring Point (Micro-organisms)	Easting	Northern
A1	279839	291949
A2	279693	291959
A3	279780	292152

Refer to Sections 2.7.5 and 9.2 of Volume II of the EIS for details of Air Monitoring for odour parameters. Air Monitoring for odour parameters is carried out at the facility biofilters as per the locations below.

Air Monitoring Point (Odour)	Easting	Northern
BF1	279807	292068

BF2	279830	292047

Attachment F.3-Surface Water- Monitoring and Sampling Points
Refer to Sections 2.7.4 and 8, Volume II of the EIS. Surface Water Monitoring is carried out at the following locations

Surface Water Monitoring Point	Easting	Northern
SW1	279854	291942
SW2	279912	292017

Attachment F.4-Sewer Discharge- Monitoring and Sampling Points
Not Applicable

Attachment F.5-Groundwater- Monitoring and Sampling Points
Refer to Sections 2.7.2 and 8, Volume II of the EIS.

Groundwater Monitoring is carried out at the following locations

Ground Water Monitoring Point	Easting	Northern
BH1	279828	291917
BH2	279682	291971
BH3	279778	292135

Attachment F.6-Noise- Monitoring and Sampling Points
Refer to Sections 2.7.3 and 10, Volume II of the EIS.

Noise Monitoring is carried out at the following locations

Noise Monitoring Point	Easting	Northern
N1	279764	291859

Attachment F.7- Meteorological Data- Monitoring and Sampling Points
Meteorological monitoring is carried out concurrently with Dust Monitoring and Air Monitoring for micro-organisms at the Dust Monitoring Points and Air Monitoring Points (micro-organisms).

Attachment F.8- Leachate- Monitoring and Sampling Points
Not Applicable

Attachment F.9- Landfill Gas- Monitoring and Sampling Points
Not Applicable

ATTACHMENT G- RESOURCE USE AND EFFICIENCY

Attachment G.1: Raw Materials, Substances, Preparations and Energy

There are two main energy sources used at Kilmainhamwood Compost i.e. Electricity from the Electricity Supply Board and fuel in the form of diesel purchased from a third party supplier.

The envisaged usage of fuel, electricity and water is estimated to be as follows:

Material/Resource	Current Annual Usage*	Estimated Future Annual Usage per Annum	Amount Stored On-Site
Electricity	**962,551 Kwh**	**1,400,000 Kwh**	**Not stored**
Diesel	**63,448 litres**	**110,000**	**2,500 litres**
Water	**Note 1**	**Note 1**	**100,000 litres**

*For 2008

Note 1: Kilmainhamwood compost is not connected to the local water mains and uses its rain collection tank as a source of water for the facility. This water is used for washing trailers, equipment and floors. No water is used in the process as the incoming material contains excess moisture. The capacity of the rainwater storage tank is 36m^3. Given that:

- The rainwater storage tank can provide wash water requirements for a dry weather period of 60 days; and
- 4.5mm of rainfall will replenish the tank on the basis of a total roofed area of 7961m^2;

It is reasonable to assume that all water usage for washing requirements within the composting building can be provided by collection of rainfall. An onsite water treatment plant is proposed at the point of entry to the facility administration building to treat the borehole (BH3) supply to drinking water standards. It is proposed to provide a package plant in the Tea Station providing chlorination and filtration. For emergency purposes there is an over ground collection tank that holds 100,000 litres and is supplied by BH3.

The acid scrubber will be located within the facility building. The scrubber unit will include a bunded tank for the storage of sulphuric acid. The molecular formula of the acid used is H_2SO_4.

Attachment G.2: Energy Efficiency

In compliance with its current waste licence (W0195-01) as per condition 5.7.1 Kilmainhamwood Compost is required to carry out an "audit of the energy efficiency of the site". An audit programme was submitted to the Agency in relation to same on the 20th August 2008 and the Agency agreed to the submitted programme in later correspondence (EPA Reference W0195-01/AK06KF, dated the 11th September

2008).

Energy efficiency auditing has been undertaken at the facility following the Agency's agreement on the audit programme. Energy efficiency auditing will be undertaken at Kilmainhamwood Compost, in line with the agreed audit programme, following the proposed intensification and extension of the facility. .

ATTACHMENT H: MATERIALS HANDLING

Attachment H.1- Waste Types and Quantities –Proposed

Annual Tonnages of waste to be handled at Kilmainhamwood Compost Facility

Year	Proposed (Tonnes per annum)	Total (Tonnes)
2009	-	20,800
2010	4,200	25,000
2011	19,200	40,000
2012	19,200	40,000
2013	19,200	40,000
2014	19,200	40,000

Attachment H.2- Waste Acceptance Procedures

Refer to Section 2.5.2, Volume II of the EIS and current waste acceptance procedures are detailed in the AER's provided in Appendix 2.4, Volume IV of the EIS. The relevant forms for waste acceptance are included in Appendix 2.

Attachment H.3- Waste Handling

Refer to Section 2.5, Volume II of the EIS and current waste handling procedures are detailed in the AER's provided in Appendix 2.4, Volume IV of the EIS.

Attachment H.3a Waste Handling at the Landfill Facility

Not Applicable

Attachment H.4 Waste Arisings

Refer to the Process Flow Diagram provided in Section 2.5.4 of Volume II of the EIS.

Some waste will be generated from the screening process. This fraction primarily comprises of plastic film and other large contaminants which cannot be composted and is hence stored for dispatch from the facility to a licensed facility for recovery/disposal. Small amounts of municipal waste will also be generated from the site administration building and this waste will be collected in wheelie bins and collected regularly and sent to a licensed facility for recovery/disposal.

The sludge from the site interceptor is cleaned and collected by Thornton Recycling Tanker Services and disposed of in a licensed disposal site. Currently, this sludge is sent to Rilta Environmental, Rathcoole, Co. Dublin. This will also be the case for future sludge arisings from the extended and intensified Kilmainhamwood facility.

ATTACHMENT I: EXISTING ENVIRONMENT & IMPACT OF THE FACILITY

Attachment I.1- Assessment of atmospheric emissions

Refer to Section 9.2, Volume II of the EIS.

Attachment I.2- Assessment of Impact on Receiving Surface Waters

Refer to Section 8, Volume II of the EIS.

Attachment I.3- Assessment of Impact of Sewage Discharge

Not Applicable

Attachment I.4- Assessment of impact of ground/groundwater emissions

Refer to Sections 7 and 8, Volume II of the EIS.

Attachment I.5- Ground and/or groundwater contamination

Refer to Sections 7 and 8, Volume II of the EIS.

Attachment I.6- Noise Impacts

Refer to Section 10, Volume II of the EIS.

Attachment I.7- Assessment of Ecological Impacts & Mitigation Measures

Refer to Section 6, Volume II of the EIS.

ATTACHMENT J: ACCIDENT PREVENTION & EMERGENCY RESPONSE

Accident prevention and emergency response procedures are outlined in Appendix 2 and Section 2.6 of Volume II of the EIS as they form part of the Integrated Management System for the site.

ATTACHMENT K: REMEDIATION, DECOMMISSIONING, RESTORATION & AFTERCARE

The consolidated financial statements provided in Appendix 1 illustrates that Padraic Thornton Waste Disposal Limited is a financial solvent company and has the necessary monies in place to ensure that there is a financial commitment available to carry on waste collection and provide an aftercare system in the event of Thorntons Recycling ceasing to collect waste.

Kilmainhamwood Compost Facility will have no effects on the environment in the case of a shutdown. Thorntons Recycling would immediately cease to accept any more biowaste or raw materials at their facility. Over a three month period the facility would cease operation. At any time there is an adequate amount of raw material and finished compost present at the factory to mix with the biowaste. All finished compost would be disposed of through landfill, land spreading or sold to horticulturalists.

The diesel fuel tank would be emptied over the closing down period. It would then be removed from site and returned to a fuel depot. All machinery in use at the site will be Agricultural or Industrial, which can be sold immediately if work ceases. The facility building could be used for Agricultural or storage purposes, if production ceased.

The site landscaping plan will constantly be monitored and upgraded, even in the event of a shutdown. An environmental monitoring programme will be put in place to continue to monitor groundwater and air quality on site for a specified period of time after shutdown as agreed with the EPA.

ATTACHMENT L: STATUTORY REQUIREMENTS

Attachment L. 1 and L2-Section 40(4) WMA

The activity will be carried out in such a manner so as to comply with environmental standards and legislation and will be carried out by a fit and proper operator; as per paragraphs (a) to (i) of Section 40 (4) of the Act;

All site activities will be carried out without the contravention of emission limits values, environmental standards and any enactments.

Activities at the Kilmainhamwood Compost Facility will be carried out in line with any permitted licence conditions and therefore will not cause environmental pollution.

Best Available Techniques (BAT) will be used to prevent or eliminate or, where that is not practicable to limit, abate or reduce an emission from all site activities.

The proposed development is in line with requirements of the North-East Waste Management Plan 2005-2010 and is needed in order to meet Ireland's obligations under the Landfill Directive and the requirement to meet the recycling targets set in the Plan.

Details of the technical competence (in regard to a fit and proper person) of Padraic Thornton Waste Disposal Limited are provided in Appendix 6 of this waste licence review application.

Details of convictions under the Waste Management Act in regard to Padraic Thornton Waste Disposal Limited are provided in Appendix 5 of this waste licence review application.

Any person employed to direct or control the carrying on of the activity to which this waste licence relates has and will have the requisite technical knowledge or qualifications to carry on that activity in accordance with the licence and the other requirements of the Act.

As demonstrated in the financial statements (Appendix 1 of these attachments), Thorntons Recycling is in a position to meet any financial commitments or liabilities that the agency reasonably considers will be entered into or incurred by it in carrying on the activity to which this waste licence will relate in accordance with the terms thereof or in consequence of ceasing to carry on that activity.

Thornton's Recycling is committed to the operation of the facility such that energy will be used efficiently in the carrying on of the activities on site.

Any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 2002.

All necessary measures will be taken to prevent accidents in the carrying on of the activity and, where an accident occurs, its consequences for the environment will be limited.

Details of the technical knowledge and qualifications are provided in Section C.1 of this application.