



**ENVIRONMENTAL IMPACT STATEMENT**

**FOR**

**BEAUMONT QUARRY RESTORATION,  
CORK**

**Volume 3 of 3 – Appendices**

**Prepared for:**

Cork City Council,  
City Hall,  
Cork

**Prepared by:**

Fehily Timoney & Co.,  
Core House,  
Pouladuff Road,  
Cork

**May 2006**

**ENVIRONMENTAL IMPACT STATEMENT**  
**FOR**  
**BEAUMONT QUARRY RESTORATION,**  
**CORK**  
**Volume 3 of 3 – Appendices**

**DOCUMENT CONTROL SHEET**

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Rev. Nr.	Description of Changes:	Prepared by:	Checked by:	Approved by:	Date:
0	Issue to Client	JQ'S	ME	<i>CM</i>	11/05/07

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## APPENDICES

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## Appendix 1

### Pre- Submission Correspondence with Interested Parties

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Councillor Michael Ahern  
3 Kenley Crescent  
Westgate Road  
Bishopstown  
Cork

27 July 2006

**RE: Environmental Impact Statement (EIS) and Waste Licence Application for the proposed infilling of Beaumont Quarry with inert material.**

Dear Councillor Ahern

Cork City Council has appointed Fehily Timoney and Company to prepare an Environmental Impact Statement and a Waste Licence application for the proposed infilling of the disused Beaumont Quarry with inert material. It is the objective of the City Council to restore the site for use as a public amenity.

The site occupies an area of approximately 3.5 hectares. Figure 1 shows the location of the proposed development.

It is proposed to in-fill the quarry area with inert material (i.e. material which meets the criteria specified in Article 2(e) of Annex II of the European Council Directive 1999/31/EC on the Landfill of waste). A total of 250,000 tonnes of inert material is likely to be required to reach the required finished ground levels at the site.

As part of the consultation process, we would be interested in receiving any comments relevant to your area of expertise or interests by 25<sup>th</sup> August 2006. If you have no comments to make, we would be grateful if you would please acknowledge receipt of this letter.

**CORE HOUSE, POULADUFF ROAD, CORK, IRELAND**

T: +353 21 4964133 F: + 353 21 4964464 E: [info@fco.ie](mailto:info@fco.ie) W: [www.fehilytimoney.ie](http://www.fehilytimoney.ie)

Directors: Eamon Timoney Declan O'Sullivan Gerry O'Sullivan Walter Quirke Oliver Tierney  
Associates: Declan Egan Clodagh Mahony Adrian Duffy Bernadette Guinan  
Paul Kelly Sean Callery Daragh Quill Company Secretary: John Hallahan

Registered in Ireland, Fehily Timoney & Company Ltd. Number 180497  
Registered Office: Core House, Pouladuff Road, Cork. VAT Registration Number: IE6580497D

If you have any queries with regard to this request, please contact the undersigned.

Yours sincerely

---

Jerome O'Sullivan  
for and on behalf of **Fehily Timoney & Company**

Encl.

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**Proposed List of Organisations to be Consulted for the infilling of Beaumont Quarry**

Salutation	Contact	Position	Organisation	Address 1	Address 2	Address 3	Address 4	Address 5
Mr. Lumley	Mr. Ian Lumley	Heritage Officer	An Taisce	Tailors Hall	Backlane	Dublin 8		
Mr. Matthews	Mr. Paddy Matthews	Planning Officer	The National Heritage Council	Rothe House	Kilkenny			
Mr. McCarthy	Mr Michael McCarthy	Environmental Assessment Division	Department of Environment, Heritage and Local Government	Development Applications Unit	The National Parks and Wildlife Service	Dun Sceine	Harcourt Lane	Dublin 8
Sir/Madam		Secretary	Department of Community, Rural and Gaeltacht Affairs	Dun Airmhíon	43 - 49 Mespil Road	Dublin 4		
Mr. Wayne	Mr. John Wayne	Coordination Unit	Department of Communications Marine and Natural Resources	Leeson Lane	Dublin 2			
Ms. Twomey	Ms. Niamh Twomey	City Heritage Officer	Cork City Council	Navigation House	Albert Quay	Cork City	Co. Cork	
Ms. Brett	Ms. Ciara Brett	Executive Archaeologist	Planning & Development Directorate	Navigation House	Albert Quay	Cork City	Co. Cork	
	Mr. Danny O'Keeffe	Conservation Ranger	National Parks and Wildlife Service		Government Building's	Sullivan's Quay	Cork	
Mr. Smyth	Mr. Tony Smyth	Director of Engineering	Office of Public Works	51 Stephen's St,	Dublin 2			

Dr. Newton	Dr. Stephen Newton	Services Senior Conservation Officer (Research & Surveys)	BirdWatch Ireland	Green Rockingham House	Newcastle	Co. Wicklow		
Ms. Fields	Ms. Sarah Fields	Development Officer	Irish Wildlife Trust	Sigmund Business Centre	93A Lagan Road	Dublin Industrial Estate	Glasnevin	Dublin 11
Mr. Good	Mr. Jervis Good	Divisional Ecologist	Department of Environment, Heritage and Local Government	The National Parks and Wildlife Service	Government Building's	Sullivan's Quay	Cork	
Mr. O Grada	Mr. Fionn O Grada	Tourism Development Officer	Department of Arts, Sport and Tourism	Kildare Street	Dublin 2			
Mr. Towey	Mr. Martin Towey	Corporate Policy Planning	Irish Aviation Authority	Aviation House	Hawkins Street	Dublin 2		
Sir/Madam		Secretary	Health and Safety Authority	10 Hogan Place	Dublin 2			
Sir/Madam		Secretary	Health Service Executive	Oak House	Limetree Avenue	Millennium Park	Naas	Co. Kildare
Dr. Creighton	Dr. Ronnie Creighton	Minerals & Mining Industry	Geological Survey of Ireland	Beggars Bush	Haddington Road	Dublin 4		
Mr. Murphy	Mr. Sylvester Murphy	Environmental Section	Department of Agriculture and Food	Johnstown Castle Estate	Co. Wexford			

**Mr. Dan Buggy**



Roads Directorate,  
Room 303,  
2nd Floor,  
City Hall,  
Cork.

**Mr Kevin Terry**

Director of Service  
Planning and Development Directorate  
Navigation House  
Albert Quay  
Cork

**Mr Gerard O'Beirne**

Director of Environment  
Floor 3  
Norwich Union  
89/90 South Mall  
Cork

**Mr Joe Kennelly**

Recreation, Amenity and Culture Directorate,  
First Floor,  
Cork City Council,  
Abbey Court House,  
Georges Quay,  
Cork.

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Fón/Tel: 021-4966222  
Líonra/Web: www.corkcity.ie  
R-Phost/E-mail: planning@corkcity.ie

Planning & Development Directorate  
Navigation House,  
Albert Quay,  
Cork.

Ref

FEHILY TIMONEY & Co.	
Received by	<i>[Signature]</i>
Date	
Action	
Distribution	21 AUG 2006
Job No:	<i>JS</i>
Correspondence No:	
Comment:	15

Jerome O' Sullivan  
Fehily Timoney and Company  
Core House,  
Pouladuff Road,  
Cork.

16<sup>th</sup> August 2006

**RE: Environmental Impact Statement for Beaumont Quarry.**

Dear Mr. O' Sullivan,

In response to your letter of 27<sup>th</sup> July 2006 I comment as follows:

There are **no** Recorded Monuments and Places (RMP) located within the proposed development site at Beaumont Quarry. A burial ground is located outside and to the north of the site. This site, Ballintemple Graveyard (CO074-65), is listed in the RMP and so is afforded protection under National Monuments Legislation. The Zone of Archaeological Potential for this graveyard falls partially within the proposed development site.

The quarry is situated in the former demesne of **Beaumont House**. This house is indicated on the Ordnance Survey 1<sup>st</sup> Edition (1850's) map of the area. The country house and its demesne were dominant features of the Irish countryside throughout the 18<sup>th</sup> and 19<sup>th</sup> century. One of the features of country house demesnes was icehouses. There is an icehouse indicated on the O.S. map in approximately the northern portion of Beaumont Quarry. I note also that a townland boundary runs through the site. If the boundary is still in existence and is to be impacted upon, then it is recommended that it be fully recorded prior to its removal. I am aware that there have been considerable changes to the landscape within the proposed development site since the nineteenth century due to the former function (quarry) of the site. However there may be some areas of the site which have not been disturbed and so would require archaeological monitoring.

The details submitted are insufficient for me to give a detailed response. There are a number of questions which need to be clarified in order to fully assess what, if any, archaeological intervention is required. Is it planned to infill the entire site? Will there be any ground disturbance –and if so, to what extent? Any ground disturbance would need to be archaeologically monitored –due to the proximity to a recorded monument and the size and scale of the development.



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Líonra/Web: [www.corkcity.ie](http://www.corkcity.ie)  
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Planning & Development Directorate  
Navigation House,  
Albert Quay,  
Cork.

Ref

I would recommend that the Cultural Heritage section of the EIS address the above considerations. I would need to review the EIS/application when it is completed in order to comment adequately.

If you have any queries regarding the above please do not **hesitate** to contact me.

Yours sincerely

Ciara Brett  
Executive Archaeologist  
Cork City Council

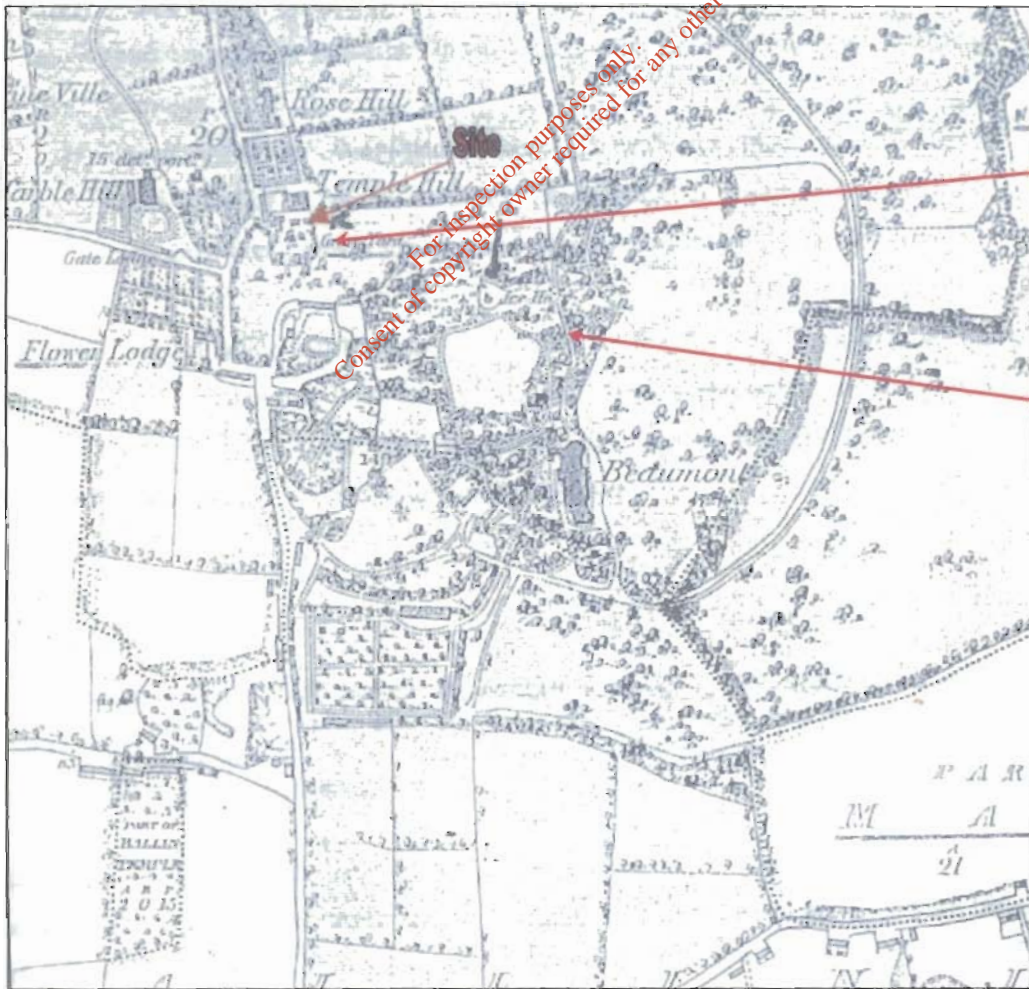
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**Zone of Archaeological Potential surrounding Ballintemple Graveyard (CO074-65)**



**Location of Beaumont Quarry**

Extract from RMP Map, Sheet 74



**Ballintemple Graveyard (CO074-65)**

**Approximate Location of Beaumont Quarry**



**Department of Arts, Sport and Tourism**  
AN ROINN EALAÍON, SPÓIRT AGUS TURASÓIREACHTA

FEHILY TIMONEY & Co.	
Received by	ST
Date	
Action	Jerome O'S
Distribution	02 AUG 2006
Job No:	
Correspondence No:	6
Comment:	

Our Ref: T-21-11-3

Your Ref:

28 July, 2006

Mr Jerome O'Sullivan  
Fehily Timoney & Co  
Core House  
Pouladuff Road  
Cork.

Dear Mr Jerome O'Sullivan

Re: Correspondence from Fehily, Timony & Company

I have to tell you that I will be leaving this office in August-maybe you would inform any of your colleagues who write to me on these matters. I wonder does your company send these letters to Fáilte Ireland where Mr Paddy Mathews has professional expertise? Fáilte Ireland is clearly a prescribed body under the planning and development regulations which are currently being reviewed and, going forward, Fáilte Ireland will very much be the primary source of comment in these matters.

I have enjoyed corresponding with your firm and I wish you all well.

Yours sincerely

Fionn Ó Grada

Tourism Impact Assessment

Tel: (01) 6313872

E-mail: Fionnograda@dast.gov.ie



**IRISH AVIATION AUTHORITY**  
ÚDARÁS EITLÍOCHTA NA hÉIREANN

AVIATION HOUSE, HAWKINS STREET, DUBLIN 2, IRELAND  
TEL: (01) 671 8655 FAX: (01) 679 2934  
WEB SITE: www.iaa.ie

27<sup>th</sup> July 2006

**Mr. Jerome O'Sullivan**  
Fehily Timoney & Company  
Core House  
Pouladuff Road  
Cork

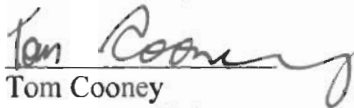
**Re: Proposed infilling of Beaumont Quarry with inert material**

Dear Mr. O'Sullivan

I refer to your pre-planning query of 27<sup>th</sup> July 2006, to the Irish Aviation Authority, concerning the proposed infilling of the disused Beaumont Quarry, Cork City. I wish to advise you that we have no observations on the proposals.

Thank you for bringing the matter to our attention.

Yours sincerely



Tom Cooney  
Corporate Affairs

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<b>FEHILY TIMONEY &amp; Co.</b>	
Received by	ST
Date	Jerome O'S
Action	
Distribution	01 AUG 2006
Job No:	
Correspondence No:	7
Comment:	



REGISTERED OFFICE: AVIATION HOUSE, HAWKINS STREET, DUBLIN 2, IRELAND  
REGISTERED No: 211082

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DONAL DOWLING, JACQUELINE JAMESON, ANNE NOLAN

David Kennedy Snr,  
3 Majella Terrace,  
Beaumont Cottages,  
Cork.  
021 4362228  
086 3724354

FEHILY TIMONEY & Co.	
Received by	ST
Date	
Action	
Distribution	18 AUG 2006
Job No:	Jos
Correspondence No:	
Comment:	2

Jerome O'Sullivan,  
Fehily Timoney & Company,  
Core House,  
Pouladuff Road,  
Cork.

17<sup>th</sup> August 2006.

Re: Beaumont Quarry: Proposed Infilling with Inert Material.

Dear Mr. O'Sullivan,

My wife and I live in close proximity to the Beaumont Quarry, with our residence backing onto Murphy's Lane, no more than 20 metres from the quarry boundary. We have not seen any plans for the infilling activities to be carried out and have several concerns that we wish to raise with you at this moment.

- (1) In the recent past, Ascon Ltd was stationed on lands at the quarry entrance during the city main drainage works. Ascon Ltd used an entrance to the quarry lands located at the junction of Churchyard Lane and Beaumont Cottages. This entrance was used on a daily basis by heavy vehicles, vans and cars belonging to Ascon Ltd. The Ascon Ltd drivers were extremely aggressive in their driving and there were several incidents of near misses between Ascon trucks and local residents cars entering and exiting Beaumont Cottages. We would request that this entrance to the quarry is not used for any activities and remain permanently closed. We believe that this entrance is not suitable for the size and volumes of trucks that will use the quarry facility. We feel that alternative access arrangements should be made on the main Boreenmanna Road, which is large enough to cater for heavy vehicles.  
The movements of the Ascon Ltd trucks up and down Churchyard Lane also proved problematic as the trucks proved to be too large for the width of the road at the top of Churchyard Lane. We feel that all trucks using the quarry facility are brought to and from the facility via the Boreenmanna Road and not allowed to use Churchyard Lane.

- (2) The rear of our house looks on to the quarry via Murphy's Lane and over the years several trees have grown at the boundary of the quarry that have provided screening of the quarry from our house. We would request that these trees are not removed, as they are a valuable scenic feature at the quarry boundary. They will also help to screen the views of the infilling activities that will be carried out and possibly help to reduce noise levels at the boundary.
- (3) We would request that infilling activities are only carried out Monday to Friday, between the hours of 9 am to 5 pm, with no Saturday or Sunday work. There will be a significant increase in the dust and noise levels from the increased truck movements into and out of the quarry and moving equipment working within the quarry. Our residence is within 20 metres of the quarry boundary and we feel that a respite in activities in all infilling activities at evenings, nights and weekends would be due consideration for those of us living in close proximity to the quarry.
- (4) The existing quarry is frequently used by large groups of young people late at night as a general meeting place. Large amounts of cans and bottles of alcohol are regularly scattered around the quarry area where the meetings take place. It would be expected, as per experiences in other areas of the city, that the planned public amenity space shall attract young people of all ages congregating at evenings and night times. We would hope that an allowance is made when designing the quarry as a public amenity space, that a border fence will be erected at the border of the quarry and Murphy's Lane.

I would greatly appreciate if you could provide us with some indication of the plans for the public amenity space covering issues such as layout, finished levels etc. At this moment in time we have no objections in principle to the proposed infilling of the quarry and development as a public amenity space, but would welcome adequate information on the development.

Yours sincerely,

  
David Kennedy.

CC: Cllr Donal J. Counihan, 17 Silverdale Avenue, Ballinlough, Cork.





23<sup>rd</sup> August 2006

Mr Jerome O Sullivan  
Fehily Timoney & Co  
Consulting Engineers  
Core House  
Pouladuff Road  
Cork

Your Ref: Q:/2006/011/09/JOS/JMC

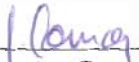
**RE: Environmental Impact Statement and Waste Licence Application for Proposed infilling of Beaumont Quarry with inert material**

Dear Mr O Sullivan

I refer further to your correspondence dated 27<sup>th</sup> July 2006 in connection with the above.

As the area surrounding Beaumont Quarry is residential and the proposed works will not impact on agriculture, the Department of Agriculture and Food has no comment to make concerning the proposal.

Yours sincerely,

  
Louise Conroy  
Environment Section  
053 9163466

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FEHILY TIMONEY & Co.	
Received by	ST
Title	
Action	Jerome O'Sullivan
Date	24 AUG 2006
Justified	
Correspondence No:	8
Comment:	

Joharstown Castle Estate,  
Co. Wexford, Ireland.

Eastát Chaisleán Bhaile Sheomach,  
Chonae Loch Garman, Éire.

Tel: 053 - 63400 Fax: 053 - 42339  
www.agriculture.gov.ie W&T Reg. IE4773186Q



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

HSE-Southern Region  
South Lee Environmental Health Dept.  
Father Matthew Quay  
Cork

Tel: 021-4927703  
Fax: 021-4927704

Mr. Jerome O'Sullivan  
Fehily Timoney & Company  
Core House  
Pouladuff Road  
Cork

30<sup>th</sup> August 2006

**RE:**

FEHILY TIMONEY & Co.	
Received by	<i>[Signature]</i>
Date	
Action	<i>Jerome O'Sullivan</i>
Distribution	06 SEP 2006
Job No:	
Correspondence No:	6
Comment:	

**Environmental Impact Statement (EIS) and Waste License Application for the proposed infilling of Beaumont Quarry with inert material.**

Dear Mr. O'Sullivan,

I refer to the recent correspondence relating to the above proposed development. It is envisaged that there would be some public health concerns that we would like to bring to light at this early stage of the Environmental Impact Assessment (EIA) process.

Because of the urban location of the site, the potential impacts involve a large number of people. I have separated the areas of public health concern into construction phase and operation phase. The construction impacts while relatively short lived have the potential to impact adversely the public in the area. Once commissioned, the impacts would be negligible. The benefits of the area being provided with a new public amenity would far outweigh any negative impacts.

### **Construction Phase**

#### **Pest Control:**

Major earthworks that would be involved in this proposed development would pose a serious risk of infestation of pests such as rats and mice. Mitigation measures should include a pest control plan with detailed inspections of the site regularly. It is also imperative that good construction practise be employed to ensure that the area is kept clear of any sources of food that would attract rodents.

#### **Groundwater:**

Measures should be taken to prevent any contamination of the groundwater during construction. Some mitigating measures that should be considered should include proper handling and storage of fuels and the availability and use of spill kits.

**Water Quality:**

The drinking water quality of the area should not be compromised by this proposed development. Existing published water quality data and other information regarding foul sewerage services, stormwater drainage, water supply and natural surfacewaters should be examined as part of the water environment assessment.

**Noise:**

Reducing the severity of potential impacts of the construction phase of this operation on the local resident should be addressed as a priority. Mitigation measures should include avoiding nighttime work and management and control of site noise to comply with Environmental Protection Agency standards. Temporary screening should be installed during noisy activities such as the actual infilling of the quarry. The local residents should be given regular information on the construction works and progress.

**Dust:**

A dust control programme should be employed as a mitigating measure to ensure that the local residents are not impacted by construction dust.

**Operational Phase****Pest Control:**

A pest control plan should still be employed once the public amenity is available.

**Groundwater:**

It is not envisaged that there would be any significant impacts arising for hydrogeology from the project. However, the application of herbicides should be controlled.

**Water Quality:**

It is not envisaged that there would be any significant impacts arising for water quality from the project.

**Noise:**

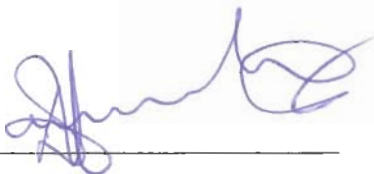
It is not envisaged that there would be any significant impacts arising for noise from the project.

**Dust:**

It is not envisaged that there would be any significant impacts arising for dust from the project.

If you have any queries with regard to this submission, please contact the undersigned.

Yours sincerely,



**Declan Hamilton**  
**Principal Environmental Health Officer**

**Jerome O'Sullivan**

---

**From:** Reception  
**Sent:** 17 August 2006 09:47  
**To:** Jerome O'Sullivan  
**Subject:** FW: Re - Beaumont Quarry Proposed Infill

Jerome,  
FYI

Mary

-----Original Message-----

From: vlevis@vodafone.ie [mailto:vlevis@vodafone.ie]  
Sent: 16 August 2006 18:26  
To: Reception  
Subject: Re - Beaumont Quarry Proposed Infill

For the attention of Mr J O'Sullivan,

I would like to inquire as to the plans your company have to undertake work in Beaumont Quarry, Ballintemple, Cork. As a resident of the area I would have concerns re the following - Access to the quarry for both work carried out and public access afterward? What inert material consists of? What timeframe will work be carried out to the quarry? Which part/s of the quarry will be effected by the proposed infill? If you have any documentation/maps available I would appreciate viewing such plans.

Regards  
Valerie Levis  
10 Beaumont Cottages,  
Ballintemple,  
Cork

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Fehily Timoney & Co

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Department of Arts, Sport and Tourism  
AN ROINN EALAÍON, SPÓIRT AGUS TURASÓIREACHTA

Our Ref: T-21-11-3  
Your Ref: Q/2006/011/09/JOS/JMC

28 July, 2006

Mr Jerome O'Sullivan  
Fehily Timoney & Co  
Core House  
Pouladuff Road  
Cork.

FEHILY TIMONEY & Co.	
Received by	ST
Date	Jerome O'S
Action	
Distribution	02 AUG 2006
Job No:	
Correspondence No:	6
Comment:	

Dear Mr Jerome O'Sullivan

Re: Infilling of Beaumont Quarry with inert material

I refer to your letter of 27 July, 2006 regarding the above. This Department does not have a local office or local expertise sufficient to comment in any detail on the geological aspects of this proposal. However, the Department would warmly welcome the provision of a new public leisure facility which we understand from your letter to be the final objective in this matter.

Yours sincerely

Fionn Ó Grada  
*Tourism Impact Assessment*

Tel: (01) 6313872  
E-mail: [Fionnograda@dast.gov.ie](mailto:Fionnograda@dast.gov.ie)



Fón/Tel: 021-4966222  
Líonra/Web: www.corkcity.ie  
R-Phost/E-mail: planning@corkcity.ie

Planning & Development Directorate  
Navigation House,  
Albert Quay,  
Cork.

Ref

FEHILY TIMONEY & Co.

Received by: *ST*  
Date:  
Action:  
Distribution: 15 AUG 2006  
Job No: 508.  
Correspondence No: 12.  
Comment:

Mr Jerome O Sullivan  
Fehily Timoney and Co  
Core House  
Pouladuff Rd  
Cork

14<sup>th</sup> August 2006

**Re: EIS and Waste Licence Application for the proposed infilling of Beaumont Quarry with inert material**

Dear Mr O Sullivan,

I refer to your letter in relation to an EIS and Waste Licence application for the proposed infilling of Beaumont Quarry with inert material.

I have requested a copy of the plans for this proposal from our internal team and I will revert to you if I have any comments in relation to this proposal.

Yours faithfully,

*Niamh Twomey*  
Niamh Twomey  
Heritage Officer

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AN TAISCE – THE NATIONAL TRUST FOR IRELAND

Our Ref: 20060816-4-Beaumont Quarry

Mr Jerome O'Sullivan  
Fehily, Timoney and Company,  
Core House,  
Pouladuff Road,  
Cork.

16 August 2006

RE: **Proposed Infilling of Beaumont Quarry, Co Cork**

Dear Mr O'Sullivan

Thank you for your letter of 27 July 2006.

Information should be sought and provided on the Planning and Waste Management Act compliance record of all parties involved in this proposal.

Yours sincerely,

IAN LUMLEY,  
Heritage Officer.

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FEHILY TIMONEY & Co.	
Received by	ST.
Date	
Action	
Distribution	18 AUG 2006
Job No:	38.
Correspondence No:	
Comment:	5.



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3rd Floor, 1A South Mall, Cork.

Telephone: 1890 289 389 Fax: 021 - 425 1217 Website: <http://www.hsa.ie>

Fehily Timoney & Company Ltd  
Core House  
Pouladuff Road  
Co. Cork

06 Sep 2006

Ref. 69050/1

**Re: Environmental Impact Statement and Waste Licence Application for the proposed infillinf of Beaumont Quarry with inert material & your letter of July 27<sup>th</sup> 2006.**

Dear Sir/Madam,

With reference to the above correspondence the Authority wishes to advise that there are no Seveso Establishments within the vicinity of the proposed development.

Yours sincerely,

  
Angela Moriarty  
Process Industries Unit

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FEHILY TIMONEY & Co.	
Received by	SA
Date	
Action	Jerome O'Sullivan
Distribution	07 SEP 2006
Job No:	
Correspondence No:	33
Comment:	



EXCELLENCE  
THROUGH  
PEOPLE

HEALTH AND SAFETY AUTHORITY  
AN TÚDARÁS SLÁINTE AGUS SÁBHÁILTEACHTA



Mr. Jerome O'Sullivan  
Fehily Timoney & Company  
Cove House  
Pouladuff Road  
Cork

FEHILY TIMONEY & Co.	
Received by	ST.
Date	
Action	
Distribution	14 AUG 2006
Job No:	SS.
Correspondence No:	13.
Comment:	

"Kakuri",  
Hettyfield,  
Douglas, Cork.  
Tel: (021) 4291400  
Fax: (021) 4294496  
11/08/2006

Dear Jerome,

Thank you for your letter of 27<sup>th</sup> July regarding the EIS and Waste Licence application for the proposed infilling of Beaumont Quarry with inert material

I believe that a quarry which is rarely used by the public should become a safe and attractive public amenity area.

The operation of filling the quarry with inert material must be closely monitored to ensure that the work does not in any way adversely affect the quality of life of local residents.

The public must be made fully aware of what constitutes "inert material" so that acromony does not surface during the operation

Yours sincerely  
Jim Corr (Councillor)

**Appendix 2**  
**Abacus Transportation Traffic Surveys**

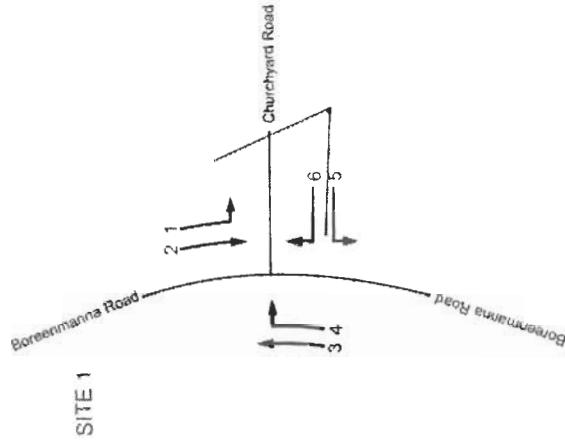
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# Site Location



For inspection purposes only.  
Consent of copyright owner required for any other use.

# Movement Numbers & Directions



Job number:

ATH/06/239

Client:

FTCO

Job date:

5<sup>th</sup> September 2006

Job day

Tuesday

Drawing No:

ATH/06/239-1

Author:

BCK

## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL CLASSIFIED JUNCTION COUNT

SEPTEMBER 2006  
ATH/06/239

SITE: 01

DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road

DAY: Tuesday

TIME	MOVEMENT 1						MOVEMENT 2						MOVEMENT 3					
	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT
06:00	0	0	0	0	0	0	2	1	0	0	0	3	7	1	0	0	0	8
06:15	0	0	0	0	0	0	3	0	0	0	0	3	4	2	0	0	0	6
06:30	1	0	0	0	0	1	2	0	0	0	0	2	5	1	0	0	0	6
06:45	0	0	0	0	0	0	6	1	0	0	0	7	9	1	1	0	0	11
H/TOT	1	0	0	0	0	1	13	2	0	0	0	15	25	5	1	0	0	31
07:00	0	0	1	0	0	1	8	4	0	0	0	12	18	6	2	0	0	26
07:15	0	0	0	0	0	0	18	3	0	0	0	21	21	3	2	1	0	27
07:30	4	0	0	0	0	4	35	1	3	0	0	39	44	9	1	1	0	55
07:45	0	0	0	0	0	0	37	4	2	0	1	44	75	11	4	0	1	91
H/TOT	4	0	1	0	0	5	98	12	5	0	1	116	158	29	9	2	1	199
08:00	0	0	0	0	0	0	44	6	0	0	0	50	112	10	3	0	0	125
08:15	0	0	0	0	0	0	61	9	0	0	0	71	128	13	12	0	0	153
08:30	7	1	1	0	0	9	73	5	0	0	0	82	118	11	0	0	0	129
08:45	9	0	0	0	0	9	67	5	1	0	0	75	107	8	0	0	0	115
H/TOT	16	1	1	0	0	18	245	25	6	2	0	278	465	42	15	0	0	522
09:00	7	3	0	0	0	10	38	1	1	0	0	46	70	18	2	0	0	90
09:15	5	0	0	0	0	5	34	4	1	0	0	39	66	12	3	0	0	81
09:30	5	0	0	0	0	5	33	4	2	0	0	39	47	8	4	1	0	60
09:45	3	0	0	0	0	3	33	8	3	0	1	45	47	10	2	0	0	59
H/TOT	20	3	0	0	0	23	138	22	7	1	1	169	230	48	11	1	0	290
10:00	1	0	0	0	0	1	33	4	1	0	0	38	44	11	4	0	0	59
10:15	1	1	0	0	0	2	27	4	0	0	0	31	31	7	2	1	0	41
10:30	6	2	0	0	0	8	25	9	2	0	0	36	45	8	2	0	0	55
10:45	6	1	0	0	0	7	33	3	3	0	0	39	45	1	2	0	0	48
H/TOT	14	4	0	0	0	18	118	20	6	0	0	144	165	27	10	1	0	203
11:00	3	0	0	0	0	3	21	5	0	0	0	26	34	10	1	0	0	45
11:15	5	0	0	0	0	5	30	1	0	1	0	32	45	9	1	0	0	55
11:30	4	2	0	0	0	6	33	6	3	2	0	44	33	6	3	1	0	43
11:45	3	1	0	0	0	4	37	8	2	1	0	48	45	6	2	2	1	56
H/TOT	15	3	0	0	0	18	121	20	5	4	0	150	157	31	7	3	1	199
12:00	4	0	0	0	0	4	32	7	1	1	0	41	48	8	2	0	0	58
12:15	5	0	0	0	0	5	31	2	0	0	1	34	42	8	2	1	0	53
12:30	6	0	0	0	0	6	28	4	2	0	0	34	37	11	1	1	0	50
12:45	3	1	0	0	0	4	36	7	1	0	0	44	44	6	1	0	0	51
H/TOT	18	1	0	0	0	19	127	20	4	1	1	153	171	33	6	2	0	212

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## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL CLASSIFIED JUNCTION COUNT

SEPTEMBER 2006  
ATH/06/239

SITE: 01

DATE: 5th September 2006

LOCATION: Borenmanna Road/Churchyard Road

DAY: Tuesday

TIME	MOVEMENT 1						TOT	MOVEMENT 2						TOT	MOVEMENT 3						TOT
	CAR	LGV	OGV1	OGV2	BUS	CAR		LGV	OGV1	OGV2	BUS	CAR	LGV		OGV1	OGV2	BUS				
13:00	5	1	0	0	0	6	37	8	2	0	0	47	43	4	2	0	0	49			
13:15	6	0	0	0	0	6	29	5	1	1	0	36	40	5	2	0	0	47			
13:30	4	1	1	1	0	7	32	2	1	0	0	35	32	7	3	0	0	42			
13:45	5	1	0	0	0	6	45	2	3	1	0	51	39	7	2	0	0	48			
H/TOT	20	3	1	1	0	25	143	17	7	2	0	169	154	23	9	0	0	186			
14:00	3	0	0	0	0	3	33	3	1	0	0	37	54	4	2	0	0	60			
14:15	4	0	0	0	0	4	38	6	0	1	0	45	37	7	2	1	0	47			
14:30	14	1	0	0	0	15	38	2	0	0	0	40	50	4	2	0	0	56			
14:45	8	0	0	0	0	8	35	2	0	0	0	37	50	5	2	0	0	57			
H/TOT	29	1	0	0	0	30	144	13	1	1	0	159	191	20	8	1	0	220			
15:00	4	2	0	0	0	6	32	5	0	1	0	38	42	9	2	1	0	54			
15:15	2	1	0	0	0	3	46	3	1	0	0	50	32	5	2	0	0	39			
15:30	5	1	0	0	0	6	38	2	0	0	0	41	36	6	3	0	0	45			
15:45	6	0	0	0	0	6	41	2	0	1	0	44	39	4	4	0	0	47			
H/TOT	17	4	0	0	0	21	157	10	2	2	0	173	149	24	11	1	0	185			
16:00	7	2	0	0	0	9	36	0	0	0	0	40	44	6	3	0	0	53			
16:15	11	1	0	0	0	12	31	6	1	1	0	39	43	4	3	1	0	51			
16:30	5	2	0	0	0	7	41	7	0	0	0	48	44	3	4	0	0	51			
16:45	8	1	0	0	0	9	39	4	1	1	0	45	51	3	2	0	0	56			
H/TOT	31	6	0	0	0	37	147	21	2	2	0	172	182	16	12	1	0	211			
17:00	9	1	0	0	0	10	33	4	1	0	0	38	53	4	1	0	0	58			
17:15	4	0	0	0	0	4	27	3	0	0	0	30	47	4	1	0	0	52			
17:30	6	0	1	0	0	7	34	4	1	0	0	39	43	2	3	1	0	49			
17:45	7	1	0	0	0	8	31	5	0	1	0	37	49	5	2	0	0	56			
H/TOT	26	2	1	0	0	29	125	16	2	1	0	144	192	15	7	1	0	215			
18:00	5	0	0	0	0	5	49	0	1	0	0	50	47	3	2	0	0	52			
18:15	2	0	0	0	0	2	45	1	1	0	0	47	59	4	1	0	0	64			
18:30	5	0	0	0	0	5	34	3	0	1	0	38	36	3	1	0	0	40			
18:45	7	0	0	0	0	7	36	0	0	1	1	38	35	1	1	0	0	37			
H/TOT	19	0	0	0	0	19	164	4	2	2	1	173	177	11	5	0	0	193			
19:00	4	0	0	0	0	4	33	1	1	0	0	35	30	1	0	0	0	31			
19:15	4	1	0	0	0	5	30	2	0	0	0	32	27	1	1	0	0	29			
19:30	3	0	0	0	0	3	25	1	0	0	0	26	19	0	0	0	0	19			
19:45	1	0	0	0	0	1	21	0	0	0	0	21	22	0	0	0	0	22			
H/TOT	12	1	0	0	0	13	109	4	1	0	0	114	98	2	1	0	0	101			
P/TOT	242	29	4	1	0	276	1849	208	50	18	4	2129	2514	326	112	13	2	2967			

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## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL CLASSIFIED JUNCTION COUNT

SEPTEMBER 2006  
ATH/06/239

SITE: 01

DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road

DAY: Tuesday

TIME	MOVEMENT 4					TOT	MOVEMENT 5					TOT	MOVEMENT 6					TOT
	CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS		CAR	LGV	OGV1	OGV2	BUS	
06:00	2	0	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0
06:15	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
06:30	4	1	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0	1
06:45	2	0	0	0	0	2	3	0	0	0	0	3	2	0	0	0	0	2
H/TOT	10	1	0	0	0	11	4	0	0	0	0	4	3	0	0	0	0	3
07:00	6	1	0	0	0	7	3	1	0	0	0	4	5	0	0	0	0	5
07:15	4	1	0	0	0	5	6	0	0	0	0	6	2	1	1	0	0	4
07:30	22	5	2	0	0	29	3	0	0	0	0	3	7	3	0	0	0	10
07:45	28	5	1	0	0	34	18	2	0	0	0	20	16	2	0	0	0	18
H/TOT	60	12	3	0	0	75	30	3	0	0	0	33	30	6	1	0	0	37
08:00	33	6	1	1	0	41	22	5	0	0	0	27	18	1	0	0	0	19
08:15	41	7	1	0	0	49	32	11	1	0	0	44	10	1	0	0	0	11
08:30	45	4	2	0	0	51	51	5	0	0	0	56	24	0	0	0	0	24
08:45	72	9	2	0	0	83	26	4	0	0	0	31	24	2	0	0	0	26
H/TOT	191	26	6	1	0	224	131	25	2	0	0	158	76	4	0	0	0	80
09:00	41	6	2	0	0	49	25	6	0	0	0	31	10	1	1	0	0	12
09:15	37	2	2	0	0	41	18	3	0	0	0	21	3	1	2	0	0	6
09:30	26	4	2	0	0	32	26	4	2	0	0	32	13	1	1	0	0	15
09:45	18	7	0	0	0	25	17	4	0	0	0	21	8	1	0	0	0	9
H/TOT	122	19	6	0	0	147	86	17	2	0	0	105	34	4	4	0	0	42
10:00	19	10	3	0	0	32	21	4	0	0	0	25	8	0	0	0	0	8
10:15	17	2	2	0	0	21	25	5	0	0	0	30	7	0	0	0	0	7
10:30	17	7	1	0	0	25	26	4	2	0	0	32	5	1	0	0	0	6
10:45	23	3	2	0	0	28	31	6	0	0	0	37	6	5	0	0	0	11
H/TOT	76	22	8	0	0	106	103	19	2	0	0	124	26	6	0	0	0	32
11:00	22	5	0	0	0	27	18	2	0	0	0	20	7	1	1	0	0	9
11:15	22	6	0	0	0	28	11	6	0	0	0	17	5	0	0	0	0	5
11:30	20	1	0	0	0	21	19	8	2	0	0	29	3	2	1	0	0	6
11:45	28	3	2	0	0	33	19	5	2	0	0	26	11	2	0	0	0	13
H/TOT	92	15	2	0	0	109	67	21	4	0	0	92	26	5	2	0	0	33
12:00	24	4	2	0	0	30	21	5	1	0	0	27	7	0	1	0	0	8
12:15	23	2	1	0	0	26	28	5	0	0	0	33	6	1	0	0	0	7
12:30	18	4	1	0	0	23	29	4	1	0	0	34	7	3	0	0	0	10
12:45	21	2	2	0	0	25	40	4	0	0	0	44	7	4	0	0	0	11
H/TOT	86	12	6	0	0	104	118	18	2	0	0	138	27	8	1	0	0	36

## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL CLASSIFIED JUNCTION COUNT

SEPTEMBER 2006  
ATH/06/239

SITE: 01

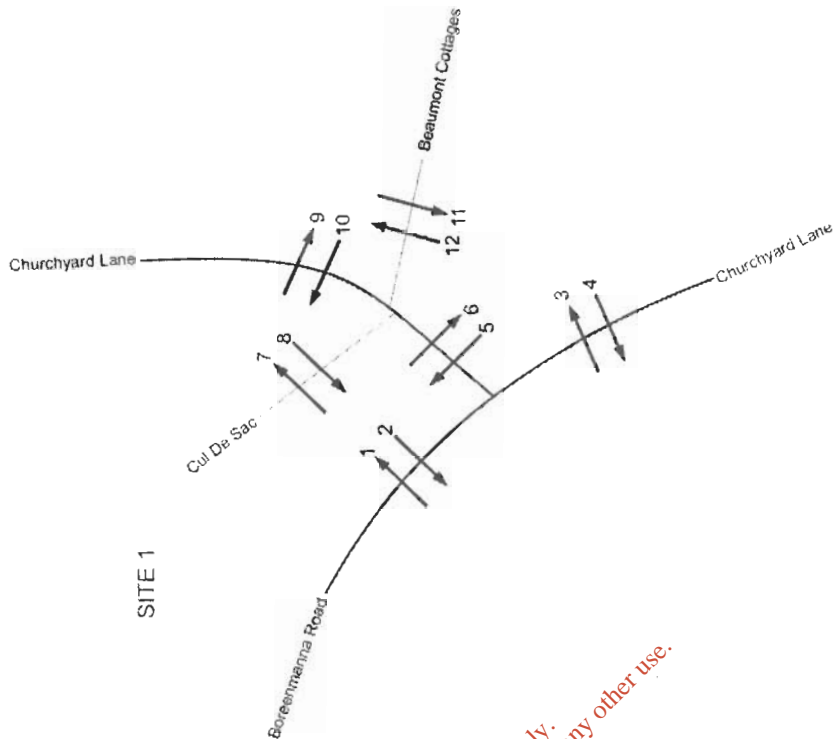
DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road

DAY: Tuesday

TIME	MOVEMENT 4						MOVEMENT 5						MOVEMENT 6					
	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR	LGV	OGV1	OGV2	BUS	TOT
13:00	26	4	0	0	0	30	41	2	1	0	0	44	10	3	0	0	0	13
13:15	29	3	1	0	0	33	28	9	0	0	0	37	7	0	0	0	0	7
13:30	34	6	1	0	0	41	24	3	1	0	0	28	8	1	1	0	0	10
13:45	45	6	1	0	0	52	21	6	1	0	1	29	12	1	0	0	0	13
H/TOT	134	19	3	0	0	156	114	20	3	0	1	138	37	5	1	0	0	43
14:00	35	5	2	0	0	42	32	4	0	0	0	36	9	1	1	0	0	11
14:15	31	2	2	0	0	35	40	5	1	0	0	46	11	2	0	0	0	13
14:30	38	3	1	0	0	42	18	6	0	0	0	24	9	0	0	0	0	9
14:45	29	4	1	0	0	34	16	4	1	0	0	21	14	2	1	0	0	17
H/TOT	133	14	6	0	0	153	106	19	2	0	0	127	43	5	2	0	0	50
15:00	22	4	1	0	0	27	31	5	2	0	0	38	10	0	0	0	0	10
15:15	27	6	3	0	1	37	19	3	0	0	0	22	9	2	0	0	0	11
15:30	24	3	2	0	0	29	18	7	0	0	0	26	12	3	0	0	0	15
15:45	28	3	1	0	0	32	24	2	0	0	0	26	3	4	0	0	0	7
H/TOT	101	16	7	0	1	125	92	17	2	0	0	112	34	9	0	0	0	43
16:00	26	4	2	0	0	32	18	3	0	0	0	21	8	1	0	0	0	9
16:15	24	2	1	0	0	27	24	3	3	0	0	30	4	3	0	0	0	7
16:30	27	3	1	0	0	31	27	4	2	0	0	33	3	2	0	0	0	5
16:45	31	5	3	0	0	39	31	4	0	0	0	35	5	0	1	0	0	6
H/TOT	108	14	7	0	0	129	100	14	5	0	0	119	20	6	1	0	0	27
17:00	24	4	2	0	0	30	32	4	0	0	0	36	5	1	0	0	0	6
17:15	25	4	1	0	0	30	33	6	0	0	0	39	3	1	0	0	0	4
17:30	26	3	1	0	0	30	41	2	1	0	0	44	15	4	0	0	0	19
17:45	23	2	1	0	0	26	33	7	0	0	0	40	5	0	0	0	0	5
H/TOT	98	13	5	0	0	116	139	19	1	0	0	159	28	6	0	0	0	34
18:00	34	2	0	0	0	36	29	4	1	0	0	34	4	1	0	0	0	5
18:15	40	2	1	0	0	43	22	4	0	0	0	26	7	0	0	0	0	7
18:30	29	5	1	0	0	35	23	1	0	0	0	24	8	1	0	0	0	9
18:45	27	2	0	0	0	29	24	3	0	0	0	27	6	0	0	0	0	6
H/TOT	130	11	2	0	0	143	98	12	1	0	0	111	25	2	0	0	0	27
19:00	24	1	0	0	0	25	20	2	0	0	0	22	4	0	0	0	0	4
19:15	26	1	1	0	0	28	17	1	1	0	0	19	5	1	0	0	0	6
19:30	21	0	1	0	0	22	14	1	0	0	0	15	4	0	0	0	0	4
19:45	20	2	0	0	0	22	15	0	0	0	0	15	2	0	0	0	0	2
H/TOT	91	4	2	0	0	97	66	4	1	0	0	71	15	1	0	0	0	16
P/TOT	1432	198	63	1	1	1695	1254	208	28	0	1	1491	414	67	12	0	0	503

# Pedestrian Movement Numbers & Directions



# Site Location



Job number: ATH/06/292  
 Client: FTCO

Job date: 5<sup>th</sup> September 2006  
 Job day: Tuesday

Drawing No: ATH/06/292-1  
 Author: BCK





## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL PEDESTRIAN COUNT

SEPTEMBER 2006  
ATH/06/292

SITE: 01

DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road/Cul de Sac/Beaumont Cottages DAY: Tuesday

TIME	MVT 1			MVT 2			MVT 3			MVT 4			MVT 5			MVT 6		
	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT
07:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	1	0	1	0	0	0	0	0	0	0	2	2	0	0	0	1	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
H/TOT	3	0	3	1	0	1	0	0	0	0	2	2	0	0	0	2	0	2
08:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0
08:45	0	0	0	3	0	3	2	0	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	4	0	4	4	0	4	1	0	1	1	0	1	0	0	0
09:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
09:15	1	0	1	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0
09:30	1	0	1	0	0	0	0	0	0	2	0	2	2	0	2	0	0	0
09:45	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	0	0	0
H/TOT	2	0	2	2	0	2	6	0	6	5	0	5	2	0	2	0	0	0
10:00	2	0	2	4	0	4	1	0	1	0	0	0	0	0	0	1	0	1
10:15	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0
10:30	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
10:45	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
H/TOT	3	0	3	4	0	4	7	0	7	0	0	0	1	0	1	2	0	2
11:00	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0	1	0	1
11:30	0	0	0	2	0	2	1	0	1	1	0	1	1	0	1	0	0	0
11:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
H/TOT	1	0	1	4	0	4	2	0	2	3	0	3	1	0	1	2	0	2
12:00	1	0	1	0	0	0	2	1	3	1	0	1	1	1	2	0	0	0
12:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
12:30	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1
12:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
H/TOT	1	0	1	1	0	1	2	1	3	4	0	4	1	1	2	2	0	2

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## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL PEDESTRIAN COUNT

SEPTEMBER 2006  
ATH/06/292

SITE: 01

DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road/Cul de Sac/Beaumont Cottages DAY: Tuesday

TIME	MVT 1			MVT 2			MVT 3			MVT 4			MVT 5			MVT 6		
	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT
13:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	2	0	2
13:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
H/TOT	0	0	0	3	0	3	1	0	1	4	0	4	0	0	0	2	0	2
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
14:45	2	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
H/TOT	2	0	2	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
15:00	1	1	2	1	0	1	1	2	3	0	0	0	0	0	0	0	0	0
15:15	0	0	0	1	0	1	1	0	1	0	0	0	1	0	1	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	2	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	3	2	5	3	0	3	2	2	4	0	0	0	1	0	1	0	0	0
16:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
16:15	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0
16:30	0	0	0	2	0	2	1	0	1	1	0	1	0	0	0	2	0	2
16:45	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0
H/TOT	0	0	0	3	0	3	2	0	2	3	0	3	1	0	1	2	0	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0
17:30	2	0	2	3	0	3	1	0	1	1	0	1	0	0	0	0	0	0
17:45	1	0	1	3	0	3	0	0	0	2	0	2	0	0	0	1	0	1
H/TOT	3	0	3	7	0	7	1	0	1	4	0	4	0	0	0	1	0	1
18:00	0	0	0	1	0	1	0	0	0	2	0	2	0	0	0	1	0	1
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	0	0
18:45	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
H/TOT	1	0	1	2	0	2	0	0	0	3	0	3	1	0	1	2	0	2
P/TOT	19	2	21	34	0	34	29	3	32	27	2	29	9	1	10	15	0	15

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## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL PEDESTRIAN COUNT

SEPTEMBER 2006  
ATH/06/292

SITE: 01

DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road/Cul de Sac/Beaumont Cottages DAY: Tuesday

TIME	MVT 7			MVT 8			MVT 9			MVT 10			MVT 11			MVT 12		
	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	1	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	2	0	2
H/TOT	0	0	0	1	0	1	0	0	0	1	0	1	6	0	6	4	0	4
08:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2
08:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	3	5	8	2	0	2
08:45	0	0	0	3	0	3	0	0	0	0	0	0	3	1	4	3	0	3
H/TOT	0	0	0	4	0	4	0	0	0	1	0	1	6	6	12	8	0	8
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
09:15	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	3	0	3
09:30	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1
09:45	0	0	0	2	0	2	0	0	0	0	0	0	2	6	8	0	0	0
H/TOT	2	0	2	2	0	2	0	0	0	0	0	0	5	6	11	7	0	7
10:00	1	0	1	4	0	4	0	0	0	0	0	0	0	0	0	3	0	3
10:15	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2
10:30	1	0	1	3	0	3	0	0	0	0	0	0	1	0	1	1	0	1
10:45	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
H/TOT	4	0	4	8	0	8	0	0	0	0	0	0	1	0	1	9	0	9
11:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0	1	0	1
11:30	0	0	0	2	0	2	0	0	0	0	0	0	3	0	3	3	0	3
11:45	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0
H/TOT	0	0	0	6	0	6	0	0	0	1	0	1	4	0	4	4	0	4
12:00	2	1	3	0	0	0	0	0	0	0	0	0	1	0	1	3	1	4
12:15	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
12:30	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	3	1	4	2	0	2	0	0	0	0	0	0	2	0	2	3	1	4

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## ABACUS TRANSPORTATION SURVEYS

BEAUMONT QUARRY TRAFFIC COUNT  
MANUAL PEDESTRIAN COUNT

SEPTEMBER 2006  
ATH/06/292

SITE: 01

DATE: 5th September 2006

LOCATION: Boreenmanna Road/Churchyard Road/Cul de Sac/Beaumont Cottages DAY: Tuesday

TIME	MVT 7			MVT 8			MVT 9			MVT 10			MVT 11			MVT 12		
	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT	ADULT	CHILD	TOT
13:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	3	0	3	0	0	0	0	0	0	4	1	5	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
13:45	1	0	1	0	0	0	0	0	0	0	0	0	3	2	5	1	1	2
H/TOT	1	0	1	4	0	4	0	0	0	0	0	0	7	3	10	2	1	3
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2
14:45	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
H/TOT	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	3	2	5
15:00	1	1	2	1	0	1	0	0	0	0	0	0	0	0	0	1	2	3
15:15	0	0	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	2	1	3	1	0	1	0	0	0	0	0	0	1	0	1	1	0	1
H/TOT	3	2	5	4	0	4	0	0	0	0	0	0	2	0	2	2	2	4
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1
16:15	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2	2	0	2
16:30	0	0	0	3	0	3	0	0	0	0	0	0	1	0	1	0	0	0
16:45	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2
H/TOT	0	0	0	4	0	4	1	0	1	0	0	0	5	0	5	5	0	5
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0
17:30	2	0	2	3	0	3	0	0	0	0	0	0	3	0	3	1	0	1
17:45	0	0	0	2	0	2	0	0	0	0	0	0	3	0	3	0	0	0
H/TOT	2	0	2	6	0	6	0	0	0	0	0	0	7	0	7	2	0	2
18:00	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1
18:15	4	0	4	1	0	1	0	0	0	0	0	0	1	0	1	2	0	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
18:45	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	8	1	9	1	0	1	0	0	0	0	0	0	3	0	3	5	0	5
P/TOT	25	4	29	42	0	42	1	0	1	4	0	4	48	15	63	54	6	60

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**Appendix 3**  
**Air Quality Monitoring Data**

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ANALYSIS REPORT

<b>CUSTOMER:</b>	<b>FEHILY TIMONEY &amp; COMPANY</b>	<b>SAMPLE TYPE:</b>	<b>FILTER</b>
<b>ADDRESS:</b>	Core House Pouladuff Road, Cork	<b>DATE SAMPLED:</b>	-
<b>REPORT TO:</b>	<b>JEROME O' SULLIVAN</b>	<b>DATE RECEIVED:</b>	17 August 2006
<b>ORDER NO:</b>	-	<b>DATE ANALYSED:</b>	17-21 August 2006
<b>SAMPLING PT:</b>	<b>2006-011-09</b>	<b>DATE REPORTED:</b>	21 August 2006
		<b>WORK NO.:</b>	<b>15599 C</b>

TABLE OF RESULTS

LAB REF	YOUR REF:	PM <sub>10</sub> , µg/m <sup>3</sup>
C06-Aug 283	ST 1	19.4
C06-Aug 284	ST 2	9.7

*Jennifer Keane*  
Chemistry Laboratory *JK*

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- The results relate only to the items tested.
- The analysis report **shall not** be reproduced **except in full** without written approval of the laboratory.

<b>FEHILY TIMONEY &amp; Co.</b>	
Received by	<i>ST</i>
Date	<i>Jerome O'S</i>
Action	<i>29 AUG 2006</i>
Distribution	
Job No:	
Correspondence No:	<i>9</i>
Comment:	

OUR REF: RP 2006 FEHILY TIMONEY &amp; CO. 16

PAGE 1/1

ANALYSIS REPORT

<b>CUSTOMER:</b>	<b>FEHILY TIMONEY &amp; COMPANY</b>	<b>SAMPLE TYPE:</b>	<b>DUST</b>
<b>ADDRESS:</b>	Core House Pouladuff Road, Cork	<b>DATE SAMPLED:</b>	11 July – 09 August 2006
<b>REPORT TO:</b>	<b>JEROME O' SULLIVAN</b>	<b>DATE RECEIVED:</b>	11 August 2006
<b>ORDER NO:</b>	-	<b>DATE ANALYSED:</b>	16 – 17 August 2006
<b>SAMPLING PT:</b>	<b>BEAU-WLR</b> 2006-011-09	<b>DATE REPORTED:</b>	18 August 2006
		<b>WORK NO.:</b>	<b>15578 C</b>

TABLE OF RESULTS

<b>LAB REF:</b>	<b>YOUR REF:</b>	<b>TOTAL DUST</b> mg/m <sup>3</sup> /Day	<b>ORGANIC DUST</b> mg/m <sup>3</sup> /Day	<b>INORGANIC DUST</b> mg/m <sup>3</sup> /Day
C06-Aug 237	ST 1	414	169	245
C06-Aug 238	ST 2	85	51	34
C06-Aug 239	ST 3	279	129	150

*Jennifer Keane*  
Chemistry Laboratory

- \* The results relate only to the items tested.
- \* The analysis report shall not be reproduced **except** in full without written approval of the laboratory.

<b>FEHILY TIMONEY &amp; Co.</b>	
Received by	<i>S.</i>
Date	
Action	<i>Jerome O'Sullivan</i>
Dist. Mon	<b>29 AUG 2006</b>
Job no:	
Correspondence No:	<b>6</b>
Comment:	

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## Appendix 4

### Site Investigation Data & Groundwater Quality Monitoring Data

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Strata Record		Drill Penetration, Testing and Sampling					Groundwater Records				
Depth	Description	From	To	OH/ Core	Core Length	Core Recovery	Flush Return	Casing Depth	Water Level	Depth Struck	WATER ENCOUNTERED
GL	HARD CORE FILL	GL TO 31.00 OH					100% 6.00 DEY			28.00	2
015	DARK BROWN STIFF CLAY									6.10	
1.65	BLACK SANDY GRAVELLY FILL									SLOW	
5.80	GREY VERY WEATHERED CLAYEY LIMESTONE										
8.15	GREY HARD LIMESTONE										
9.40	BROWN STIFF CLAY										
10.40	GREY LIMESTONE VERY CLAYEY										
	Borehole Complete / Incomplete									26.38	
										Cut off at	
		WATER LEVELS					FLUSH				
		Depth	Casing	Time	Flush Type	From	To				
	Morning				AIR	GL 3100					
	Evening				Loss of Flush						
	Other										
	Other										
		FIELD RECORDS					Depth at end of Shift				
		OH and Coring	Number	Type	Metres Today	Metre Total	Type	Bore Hole	Casing		
			GL 31 OH 31 31	S	31	31	S	2.610			
				P			P				
				H			H				
		Backfill: STARD PIPE					SITE BEAUMOUNT QUARRY				
Remarks:- Visitors, Instructions, Weather, etc.		Crew E. DAVIES E. BRIDY E. DAVIES					JOB No.				
		Drillers Signature					RIG TYPE				
		Client Signature					DATE				
		Daily Drilling Record					BH No.				

BRIODY DAVIES SITE INVESTIGATION LTD. No: 0169



Strata Record		Drill Penetration, Testing and Sampling						Groundwater Records							
Depth	Description	Depth From To	OH/ Core	Core Length	Core Recovery	Flush Return	Casing Depth	Water Level	WATER ENCOUNTERED			WATER LEVELS			
									Depth	Casing	Time	Flush Type	From	To	
GL	BROWN SANDY TOPSOIL	GL TO 1800 OH				100% 3.10 DRY									
015	DARK VERY SANDY STONEY CLAY														
135	CLAYEY WEATHERED BROCKEN LOOSE LIMESTONE														
325	VERY HARD GREY LIMESTONE														
935	VERY CLAYEY LIMESTONE														
985	GREY HARD LIMESTONE														
1600	CLAYEY LIMESTONE WATER														
1710	HARD GREY LIMESTONE														
Borehole Complete / Incomplete		1800 MARKS													
Remarks:- Visitors, Instructions, Weather, etc.		INSTALLATION COMPLETE ON MONDAY 7.2.00													
Crew		E. DAVIES, B. BRIDY, E. DAVIES													
Drillers Signature		[Signature]													
Client Signature		[Signature]													
Daily Drilling Record		[Signature]													
Backfill:		STAND PIPE, SITE BEAUMOUNT QUARRY													
JOB No.		KNAEBELTA													
DAY		SATURDAY													
Move From:-		5.2.00													
BH No.		4													
RIG TYPE		KNAEBELTA													
DATE		SATURDAY													
BH No.		4													
BRIODY DAVIES SITE INVESTIGATION LTD.		No		0171											

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**Appendix 5**  
**The Status and Designation of Irish Mammal Species**

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## Appendix 5 Conservation Status of Irish Mammals

The Irish Red Data Book of Vertebrates (Whilde, 1993) contains a list of mammal species that are threatened or extinct in Ireland as well as species that may be relatively common in this country but are considered of international conservation importance. Most Irish mammals are afforded protection under the 1976 Wildlife Act, Wildlife Amendment Act 2000 (and 1979 Bern Convention) although some are considered as quarry species e.g. Irish Hare. For instance, any action likely to impact on roost sites of Bats must be notified in advance to the Department of Environment, Heritage and Local Government.

All of the (then known) Irish bat species are Red Data Book species, with Whiskered Bat, *Myotis mystacinus* and Natterer's Bat, *Myotis nattereri* given an elevated threatened status. Neither of these latter species is known to occur in this part of Kerry. Hedgehog, Irish Hare, Pine Marten, Badger and Otter are all considered internationally important. Otters are also protected under international law as they are listed on the IUCN list of vulnerable species (United Nations, 1991).

Several Irish mammal species are included in Annex II of the EU Habitats Directive (92/43/EEC) Lesser Horseshoe Bats, *Rhinolophus hipposideros*, and Otter. The presence of these species of EU community interest requires the designation of a number of Special Areas of Conservation. Several species are also mentioned in Annex IV of the directive: animals of community interest in need of strict protection; e.g. Otter, Cetaceans and Bats. Annex V, details species of community interest whose 'taking' in the wild and exploitation may be subject to management measures. Annex V includes Pine Marten, and Irish Hare.

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**Appendix 6**  
**Terrestrial Macroinvertebrates**

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Plate 8.1. Female cuckoo bumblebee, *Bombus rupestris*. Photograph taken at  
Beaumont Quarry August 2006



Plate 8.2. Six-spot Burnet Moth, *Zygaena filipendulae*. Photograph taken at  
Beaumont Quarry, August 2006



## Appendix 7

### Description of Habitat Types found in the vicinity of Beaumont Quarry

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## Habitat descriptions - as per Fossitt (2000).

### Amenity grassland (improved) GA2

This type of grassland is improved, or species-poor, and is managed for purposes other than grass production. It includes amenity, recreational or landscaped grasslands, but excludes farmland. Most areas of amenity grassland have been reseeded and are regularly mown to maintain very short swards. Fertilisers and herbicides are often applied but there is rarely any grazing by livestock. The sward may comprise a variety of grasses, including some that also occur in **improved agricultural grassland - GA1**, but rye-grasses (*Lolium* spp.) are rarely abundant. Broadleaved herbs such as Daisy (*Bellis perennis*), Dandelion (*Taraxacum* spp.), clovers (*Trifolium* spp.) and plantains (*Plantago* spp.) are common. Amenity grassland is typically associated with lawns and other managed grassland areas in gardens, parks, grounds of various buildings or institutions, golf course fairways, grassy sports fields and race courses.

### Dry meadows and grassy verges GS2

Dry meadows that are rarely fertilised or grazed, and are mown only once or twice a year for hay are now rare in Ireland. Most have been improved for agriculture and this type of grassland is now best represented on grassy roadside verges, on the margins of tilled fields, on railway embankments, in churchyards and cemeteries, and in some neglected fields or gardens. These areas are occasionally mown (or treated with herbicides in the case of some railway embankments), and there is little or no grazing or fertiliser application. This pattern of management produces grasslands with a high proportion of tall, coarse and tussocky grasses such as False Oat-grass (*Arrhenatherum elatius*) and Cock's-foot (*Dactylis glomerata*). Other grasses may include Yorkshire-fog (*Holcus lanatus*), Smooth Meadow-grass (*Poa pratensis*), Barren Brome (*Anisantha sterilis*) and Meadow Foxtail (*Alopecurus pratensis*). The broadleaved herb component is characterised by a range of species that either grow tall, such as Cow Parsley (*Anthriscus sylvestris*), Hogweed (*Heracleum sphondylium*), Goat's-beard (*Tragopogon pratensis*), Nettle (*Urtica dioica*) and Common Knapweed (*Centaurea nigra*), or climb the stems of others, as in the case of Bush Vetch (*Vicia sepium*) and Meadow Vetchling (*Lathyrus pratensis*). Grassy verges may support other smaller broadleaved herbs such as Pignut (*Conopodium majus*), Creeping Cinquefoil (*Potentilla reptans*) and clovers (*Trifolium* spp.).

### Scattered trees and parkland WD5

This category can be used in situations where scattered trees, standing alone or in small clusters, cover less than 30% of the total area under consideration but are a prominent structural or visual feature of the habitat. This usually occurs in areas of cultivated grassland, particularly amenity areas. In the case of parkland or parks which originate from former planting and landscaping, the proportion of non-native trees is typically high.

### Scrub WS1

This broad category includes areas that are dominated by at least 50% cover of shrubs, stunted trees or brambles. The canopy height is generally less than 5 m, or 4 m in the case of wetland areas. Scrub frequently develops as a precursor to woodland and is often found in inaccessible locations, or on abandoned or marginal farmland. In the absence of grazing and mowing, scrub can expand to replace grassland or heath vegetation. Trees are included as components of scrub if their growth is stunted as a result of exposure, poor soils or waterlogging. If tall trees are present, these should

have a scattered distribution and should not form a distinct canopy. This category does not include areas that are dominated by young or sapling trees (<5 or 4 m in height) or young conifer plantations.

### **Ornamental/non-native shrub WS3**

This category should be used for areas that are dominated by ornamental and non-native shrubs. Most of these originate from planting and can be found in formal beds and borders in gardens, parks and other landscaped areas. It also includes areas where non-native shrubs have escaped and become naturalised in urban and rural situations. The range of possible non-native shrubs is extensive but some of the more common examples include Fuchsia (*Fuchsia magellanica*), Butterfly-bush (*Buddleja davidii*), Box (*Buxus sempervirens*), Snowberry (*Symphoricarpos albus*), Cotoneaster (*Cotoneaster* spp.), Rhododendron (*Rhododendron ponticum*) and Cherry Laurel (*Prunus laurocerasus*). Ornamental/non-native shrubs should not be recorded as a separate habitat where they occur in the understorey of woodlands.

### **Hedgerows WL1**

Linear strips of shrubs, often with occasional trees, that typically form field or property boundaries. Most hedgerows originate from planting and many occur on raised banks of earth that are derived from the excavation of associated drainage ditches. Dimensions of hedgerows vary considerably, depending largely on management and composition, and are taken here as being mainly less than 5 m high and 4 m wide. When wider or taller than this, or dominated by trees, the habitat should be considered as a narrow strip of scrub or woodland, or as a **treeline - WL2**. Some hedgerows may be overgrown or fragmented if management has been neglected, but they should still be considered in this category unless they have changed beyond recognition. Linear strips of low scrub are included in this category if they occur as field boundaries.

Species composition varies with factors such as age, management, geology, soils and exposure. Hedgerows commonly support a high proportion of spinose plants such as Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Gorse (*Ulex europaeus*), Holly (*Ilex aquifolium*), Dog-rose (*Rosa canina*) or Bramble (*Rubus fruticosus* agg.), in addition to many other native and non-native trees and shrubs including, for example, Ash (*Fraxinus excelsior*), Hazel (*Corylus avellana*), Beech (*Fagus sylvatica*), Elder (*Sambucus nigra*), elms (*Ulmus* spp.) and willows (*Salix* spp.). Some of these may occur as scattered tall trees. Fuchsia (*Fuchsia magellanica*), an introduced shrub, is a common component of hedgerows in parts of the south and west of Ireland. Hedgerows frequently support climbing plants such as Ivy (*Hedera helix*), Honeysuckle (*Lonicera periclymenum*), Hedge Bindweed (*Calystegia sepium*), Cleavers (*Galium aparine*) and Bush Vetch (*Vicia sepium*). Tall grasses, including False Brome (*Brachypodium sylvaticum*) and Hairy-brome (*Bromopsis ramosa*), ferns, and woodland herbs are characteristic.

### **Treelines WL2**

A treeline is a narrow row or single line of trees that is greater than 5 m in height and typically occurs along field or property boundaries. This category includes tree-lined roads or avenues, narrow shelter belts with no more than a single line of trees, and overgrown hedgerows that are dominated by trees. Most treelines are planted and trees are often regularly spaced. They commonly comprise a high proportion of non-native species such as Beech (*Fagus sylvatica*), Horse Chestnut (*Aesculus hippocastanum*), Sycamore (*Acer pseudoplatanus*), limes (*Tilia* spp.), some poplars (*Populus* spp.) and conifers. Trees may occur on level ground or on banks of earth. The presence or absence of hedgerow or scrub at the base should be noted. If

treelines are greater than 4 m wide at the base they should be considered as narrow stretches of woodland.

### **Exposed calcareous rock ER2**

This category is used for all natural and artificial exposures of calcareous bedrock and loose rock, and any other exposures of basic rock, with the exception of unstable scree and areas of rocky coastline. It occurs in upland and lowland areas and can include inland cliffs and crags, limestone pavement, and rock surfaces that are exposed by excavation. Note that active rock quarries with ongoing high levels of disturbance are excluded (See active **quarries and mines - ED4**). There may be some patchy cover of vegetation but the total area of bare rock, with or without lichen cover, should exceed 50% for inclusion in this category. Exposed calcareous rock may support small pockets of species-rich calcareous grassland, heath or scrub vegetation. North-facing limestone cliffs in montane areas can be important for rare plant species.

Limestone pavement is a notable inclusion in this category. It includes areas of level, gently-sloping or terraced limestone bedrock that are fissured, broken or weathered along natural joints and faults to produce classic 'clint and gryke' features. Areas of loose limestone rubble known as 'shattered pavement' are also included. Large expanses of bare rock are common and, where soil cover is absent, plants are usually restricted to fissures and other spaces between the rocks. Typical colonisers include ferns (particularly *Cystopteris fragilis* and *Asplenium* spp.), and woodland plants such as Honeysuckle (*Lonicera periclymenum*), Ivy (*Hedera helix*) and Sanicle (*Sanicula europaea*). Small pockets of dry calcareous grassland, heath or scrub vegetation are common in areas where there is sufficient soil cover. The diversity of plant species on limestone pavement is typically very high. Unique combinations of arctic-alpine species such as Mountain Avens (*Dryas octopetala*) and Spring Gentian (*Gentiana verna*) occur together with Atlantic-Mediterranean species such as Wild Madder (*Rubia peregrina*), Irish Orchid (*Neotinea maculata*) and Maidenhair Fern (*Adiantum capillus-veneris*) in the Burren, and other areas of limestone pavement.

### **Artificial underground habitats EU2**

This category includes excavated underground passageways such as underground mine shafts (disused only) or wells, and rail or road tunnels. Underground archaeological features such as souterrains can also be considered here. Note that **active quarries and mines - ED4** are excluded. Artificial underground habitats are noted as possible refuges for wildlife, particularly bats.