

Tyrone - Cavan Interconnector

Volume 3 - Part 3(c) of 5

Consolidated Environmental Statement
Appendices



Part funded by
EU TEN-E Initiative

NI Northern Ireland
Electricity



Produced in association with:



9th Floor
The Clarence West Building
2 Clarence Street West
Belfast
BT2 7GP

Telephone: +44 (0)28 9060 7200
Fax: +44 (0)28 9060 7399
Website: www.aecom.com

**This document is Volume 3 : Appendices Part 3 of the
Tyrone – Cavan Interconnector Environmental Statement (ES).**
The whole ES consists of a number of documents printed separately and should be read
together.

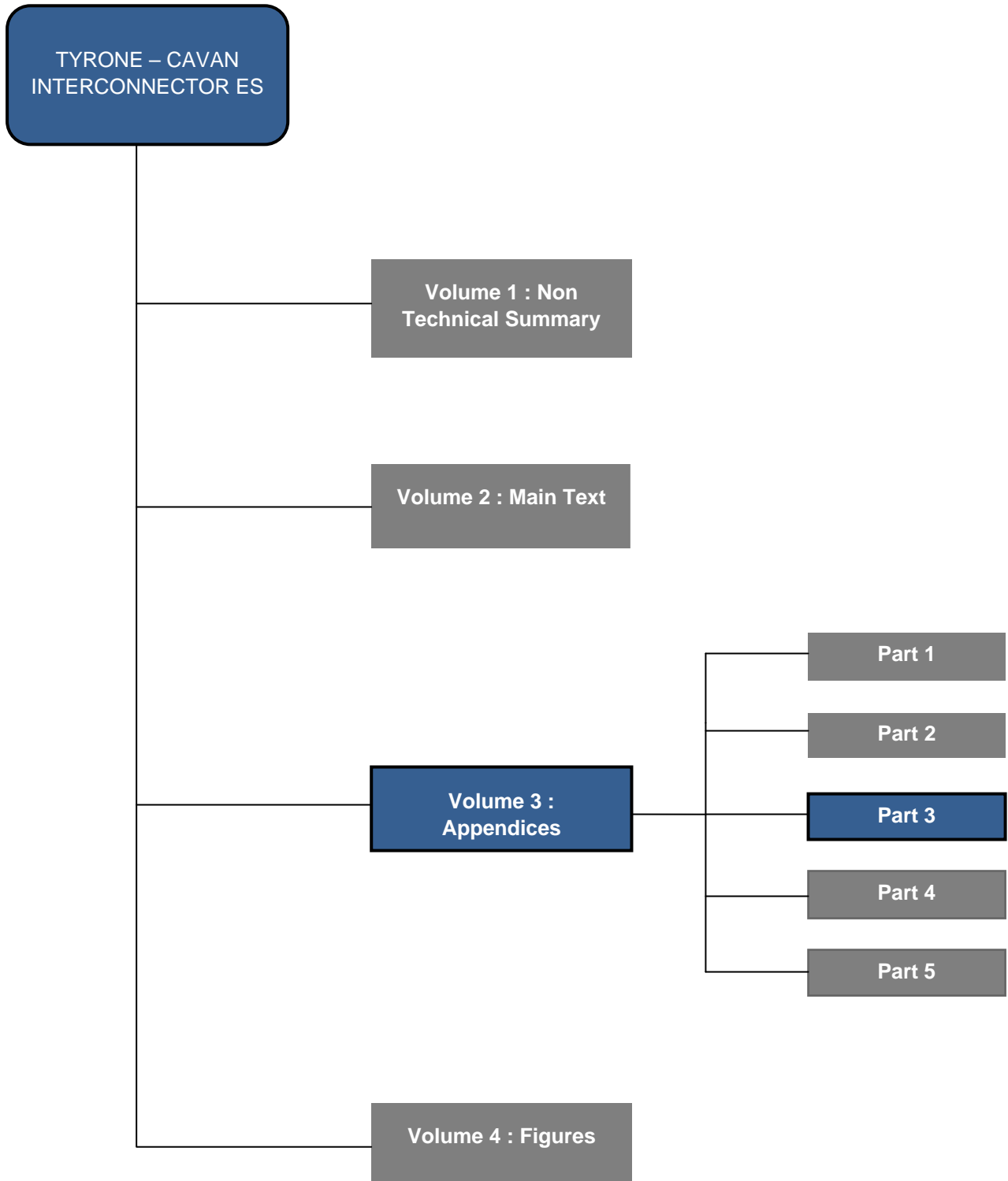


Table of contents

Volume 3 Appendices Part 1

Appendix 2A	Utility Regulator Letter
Appendix 4A	ECOFYS Letter
Appendix 4B	PB Power Report (2013)
Appendix 4C	Turleenan - Kingscourt 400kV Project Visual Assessment of New Tower Outline 2007
Appendix 5A	Outline Construction Environmental Management Plan (OCEMP)
Appendix 5B	Substation Drainage Technical Note
Appendix 5C	Minimum and Maximum 400kV Tower Foundations
Appendix 5D	Substation Planting Schedule
Appendix 6A	Section 1: Consultation Summary Response Tables and Responses

Volume 3 Appendices Part 2

Appendix 6A	Section 2: Consultation Responses 2006 - 2013
-------------	---

Volume 3 Appendices Part 3

Appendix 7A	DECC Code of Practice
Appendix 7B	Email from St. Jude Medical
Appendix 8A	Legislation and Planning Policy
Appendix 8B	NIEA WMU Response
Appendix 9A	Details of ASSI designations
Appendix 9B	Historical Ordnance Survey Plans
Appendix 10A	Consultations
Appendix 10B	Bat Appendices
Appendix 10C	Phase 1 Habitat Survey Target Notes
Appendix 10D	Plant Species List

Volume 3 Appendices Part 4

- Appendix 10E Badger Appendix
- Appendix 10F Breeding Birds
- Appendix 10G Wintering Birds
- Appendix 10H Article 6 ToLS
- Appendix 10I Conservation Status
- Appendix 11A Explanation of Noise Terms
- Appendix 11B Line Noise Applet Prediction Notes
- Appendix 11C Background noise levels recorded along the proposed overhead line route and substation in 2005
- Appendix 12A Cultural Heritage Features
- Appendix 12B Criteria for Impact Significance
- Appendix 12C Ulster Museum Records
- Appendix 12D Aerial Photographs
- Appendix 12E Cultural Heritage Features within Wider Study Area.
- Appendix 12F Built Heritage
- Appendix 13A Individual Properties Assessment Table
- Appendix 13B Cumulative Assessment Table
- Appendix 14A Summary of Individual Land Parcel Impacts

Volume 3 Appendices Part 5

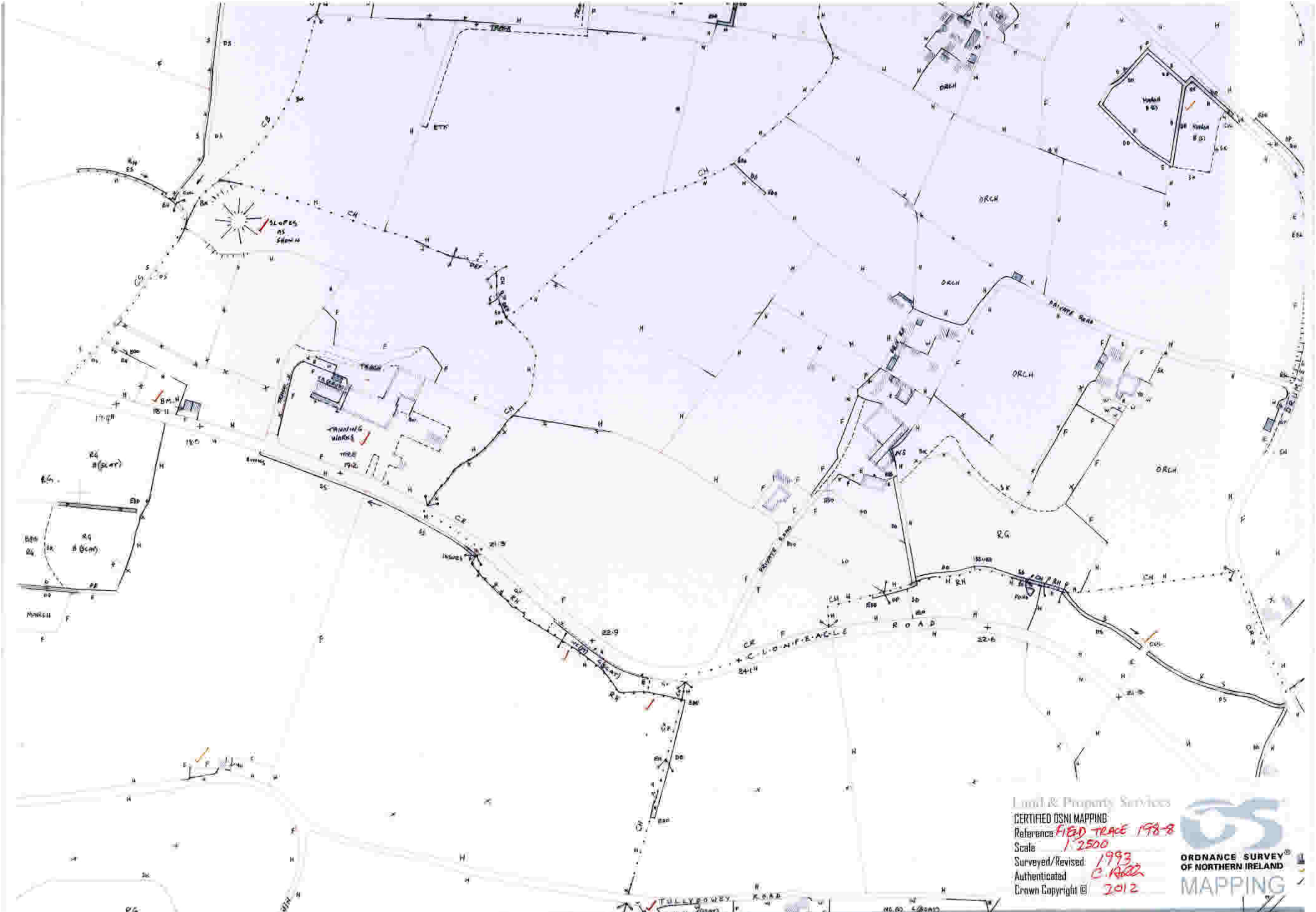
- Appendix 17A Turleenan Substation Flood Risk and Surface Water Management
- Appendix 18A Transport Assessment

For ease of use this document has been printed in A4 format. Should a larger format be required, an electronic version is available at www.nie.co.uk.

Alternatively a printed A3 version may be obtained by contacting NIE at:

NIE Major Projects
120 Malone Road, Belfast, BT9 5HT
Tel: 08457 643 643

Appendix 9B Historical Ordnance Survey Plans



Land & Property Services
 CERTIFIED OSNI MAPPING
 Reference **FIELD TRACE 198-8**
 Scale **1:2500**
 Surveyed/Revised **1993**
 Authenticated **C. Kelly**
 Crown Copyright © **2012**





Tullydowey House
Extract from Tyrone County Series 6" map 1834

OS
ORDNANCE SURVEY
OF IRELAND

IRISH GRID CO-ORDINATE

Scale 1:2500

Land & Property Services

0 20 40 60 80 100
Metres

Tullydowey House

Extract from Tyrone County Series 6" map 1851



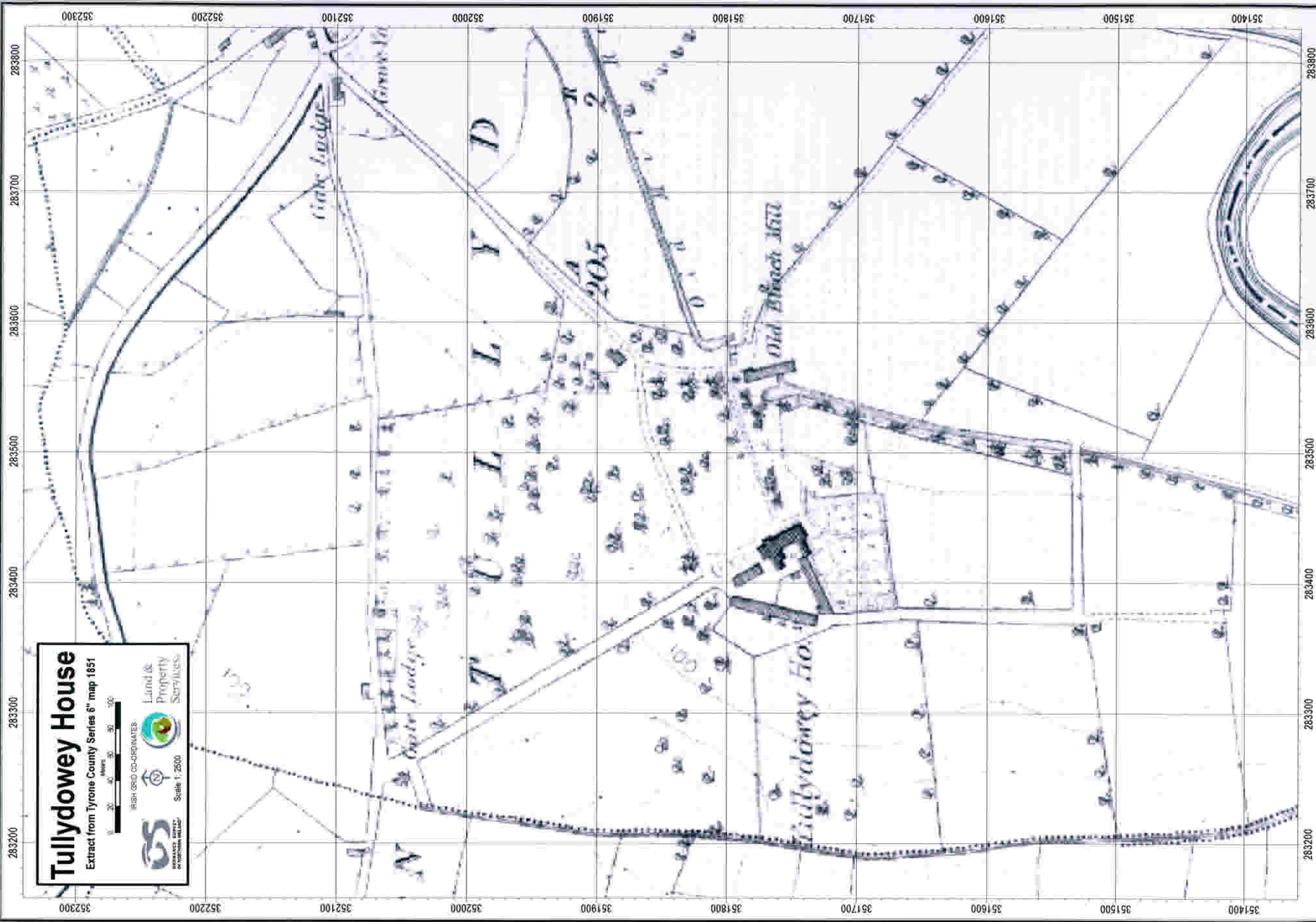
IRISH GRID CO-ORDINATES:



Land & Property Services

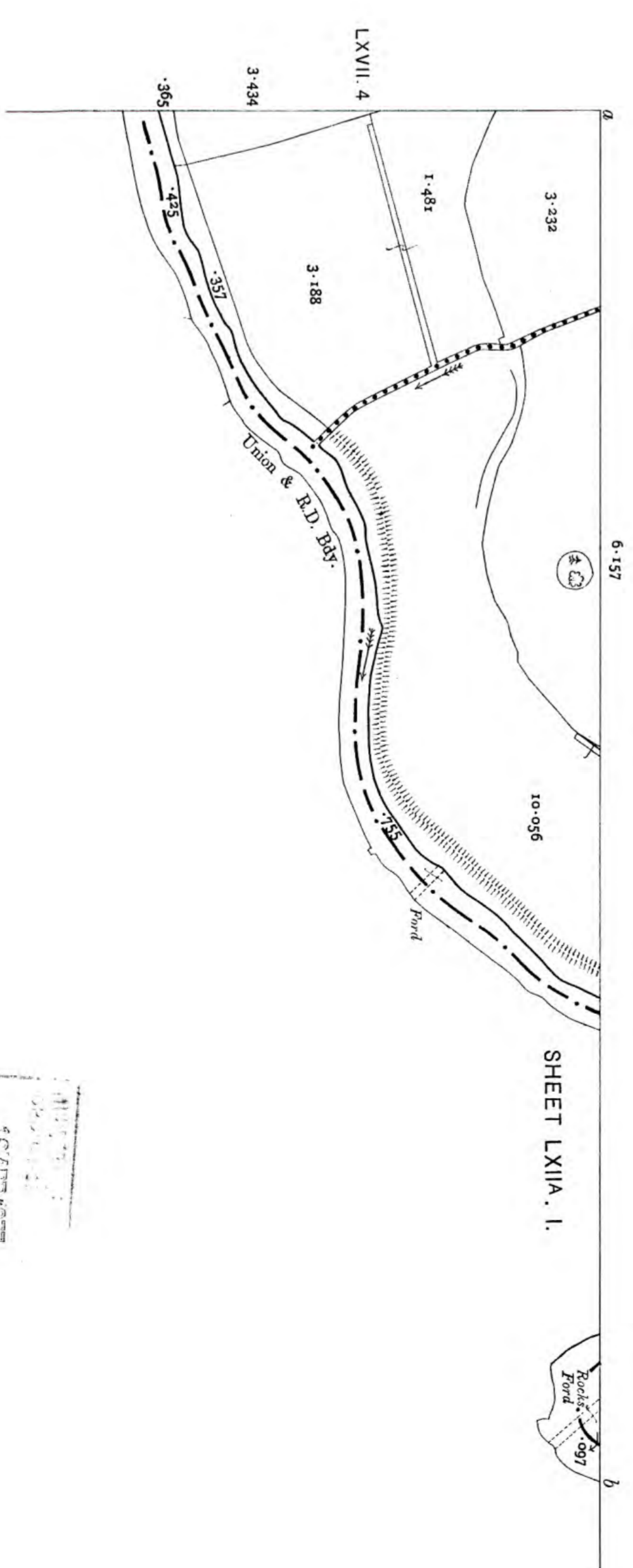


Scale 1: 2500





C O A R M A G H



Surveyed in 1907.

CHARACTERISTICS AND SYMBOLS FOR BOUNDARIES, &c.

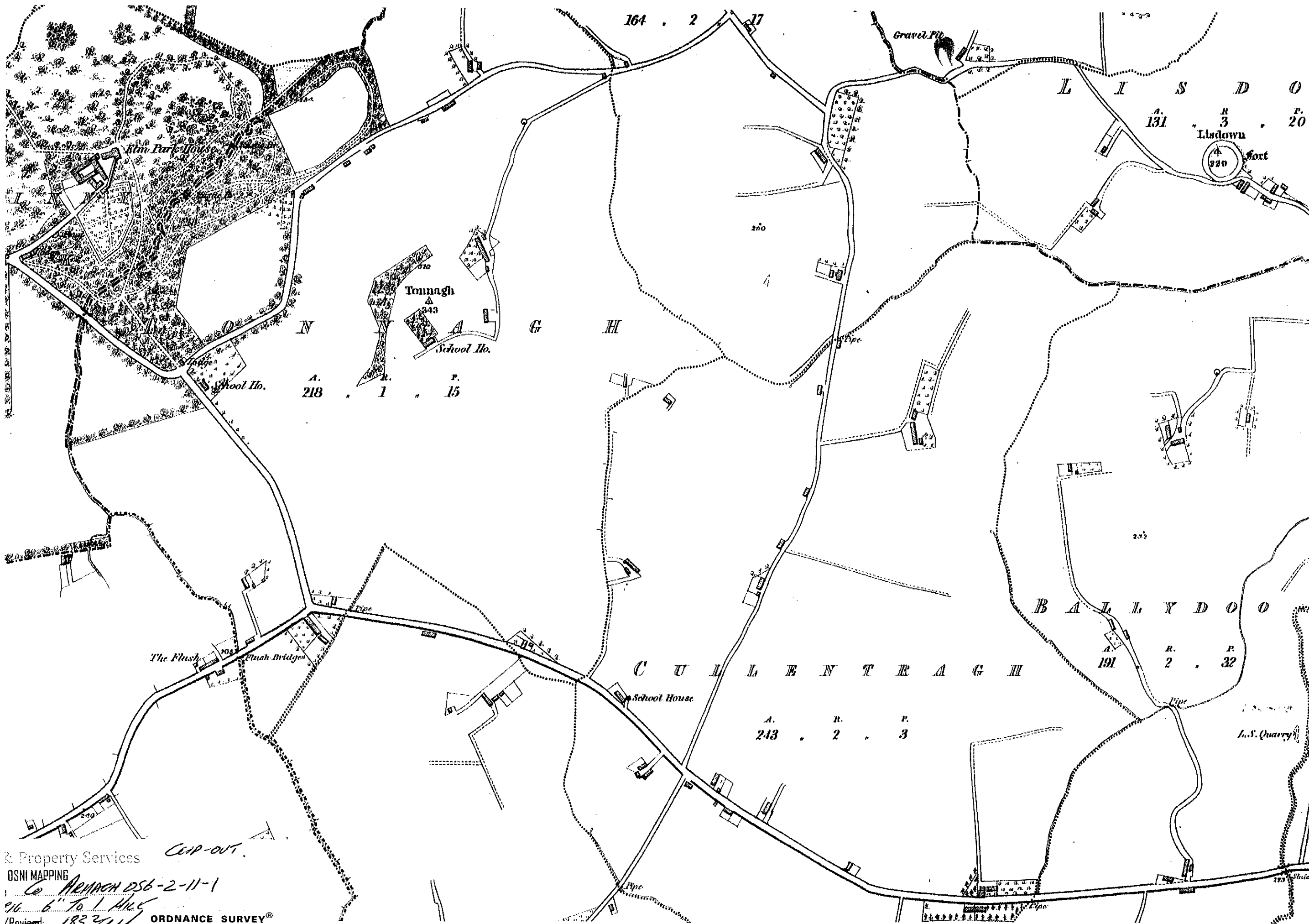
County Boundary	---	Distance (Scale of 1/2500)	---
Parish Boundary	---	Distance (Scale of 1/2500)	---
Municipal Boundary	---	Distance (Scale of 1/2500)	---
Watercourse	---	Distance (Scale of 1/2500)	---
...

The boundaries are given in feet above the Low Water of Spring Tides in Dublin Bay, which is 2 feet below a mark on the base of Paddy Light-house. Altitudes indicated thus (as 247) refer to Bench Marks on Dublin Bay, which are those marked thus (+22) to various levels.

Scale - 1 inch being 25.344 inches or a Square Mile or 309.13 feet to one inch.

Price 6/6 Net.

Printed by the Ordnance Survey Office, Phoenix Park, Dublin, 1908.



Property Services
DSNI MAPPING

Co. ARMAGH DS6-2-11-1

Scale 6" to 1 Mile

Revised 1832

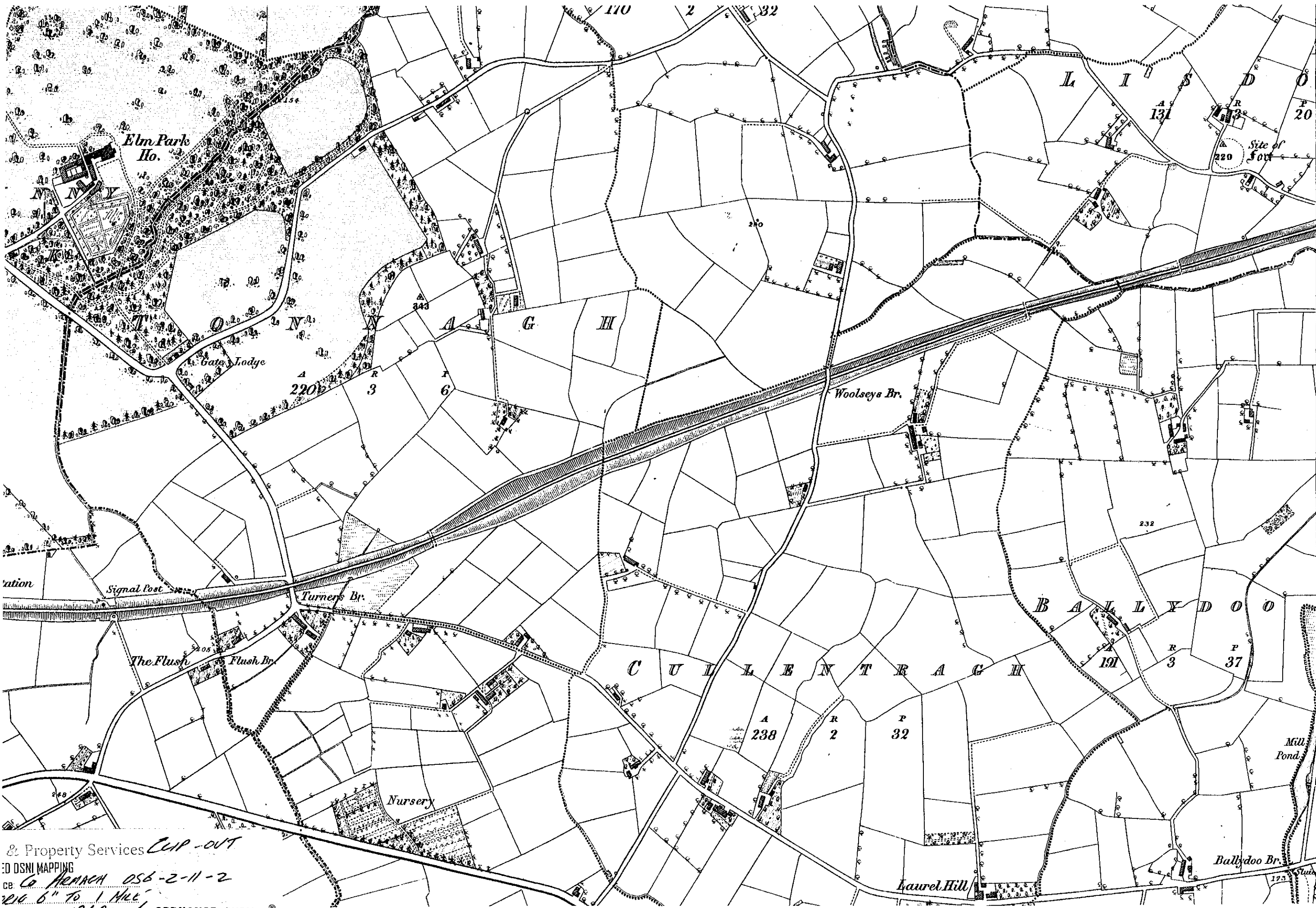
Drawn by W. O'Brien

ORDNANCE SURVEY®
OF NORTHERN IRELAND

MAPPING

CAP-OUT

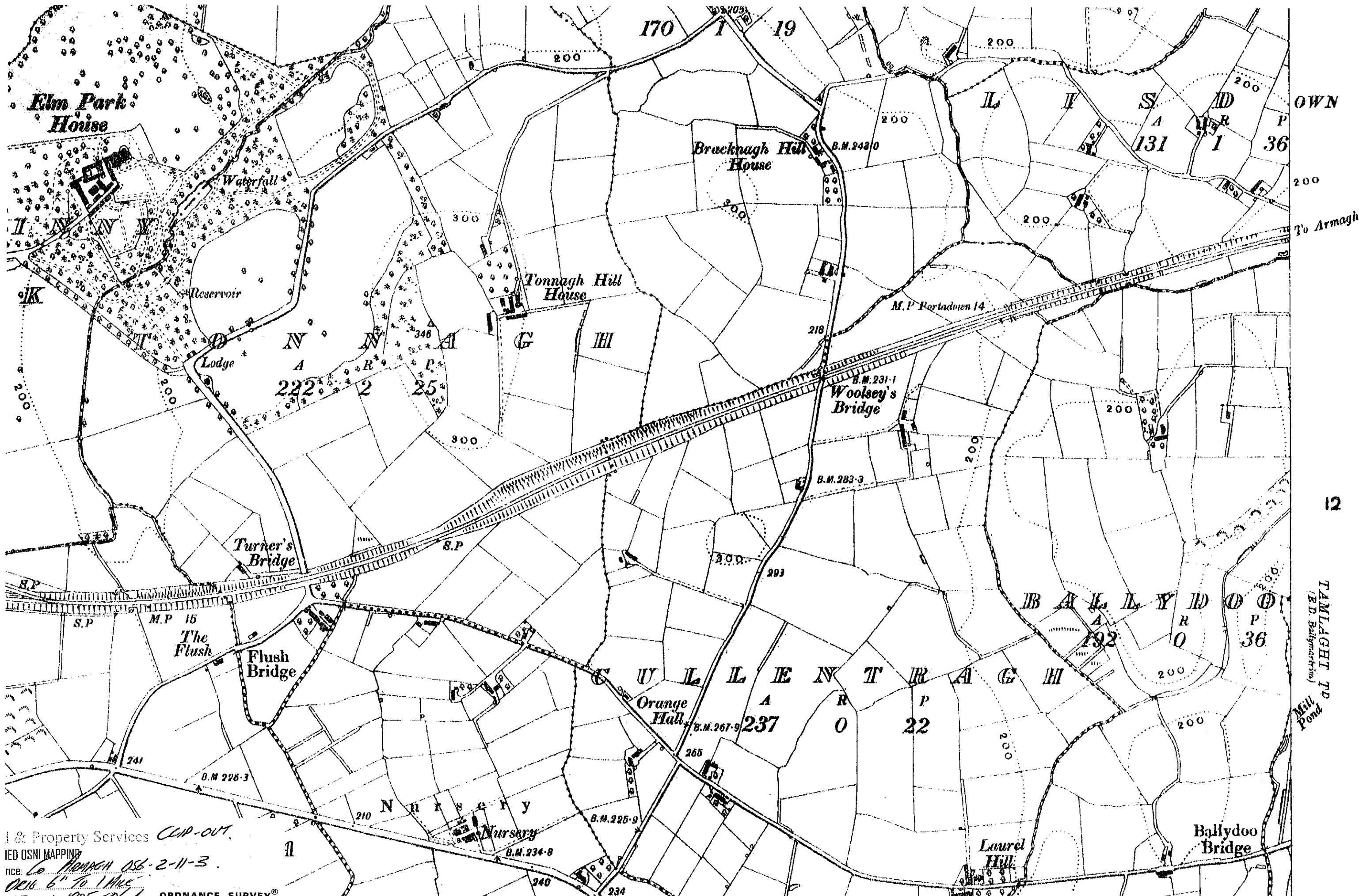
to Armagh



to Belfast

12

& Property Services *CIP-OUT*
 OSNI MAPPING
 Co. FENNA 056-2-11-2
 6" to 1 Mile
 1860
 ORDNANCE SURVEY OF NORTHERN IRELAND
 MAPPING
 Copyright © 2010



I & Property Services *CPD-OUT*
 IED OSNI MAPPING
 DATE: *Co. DOWN 08-2-11-3*
0216 6" to 1 Mile
 red/Revised: *1905 1906*
 Original: *W. B. Allen*

ORDNANCE SURVEY®
 OF NORTHERN IRELAND

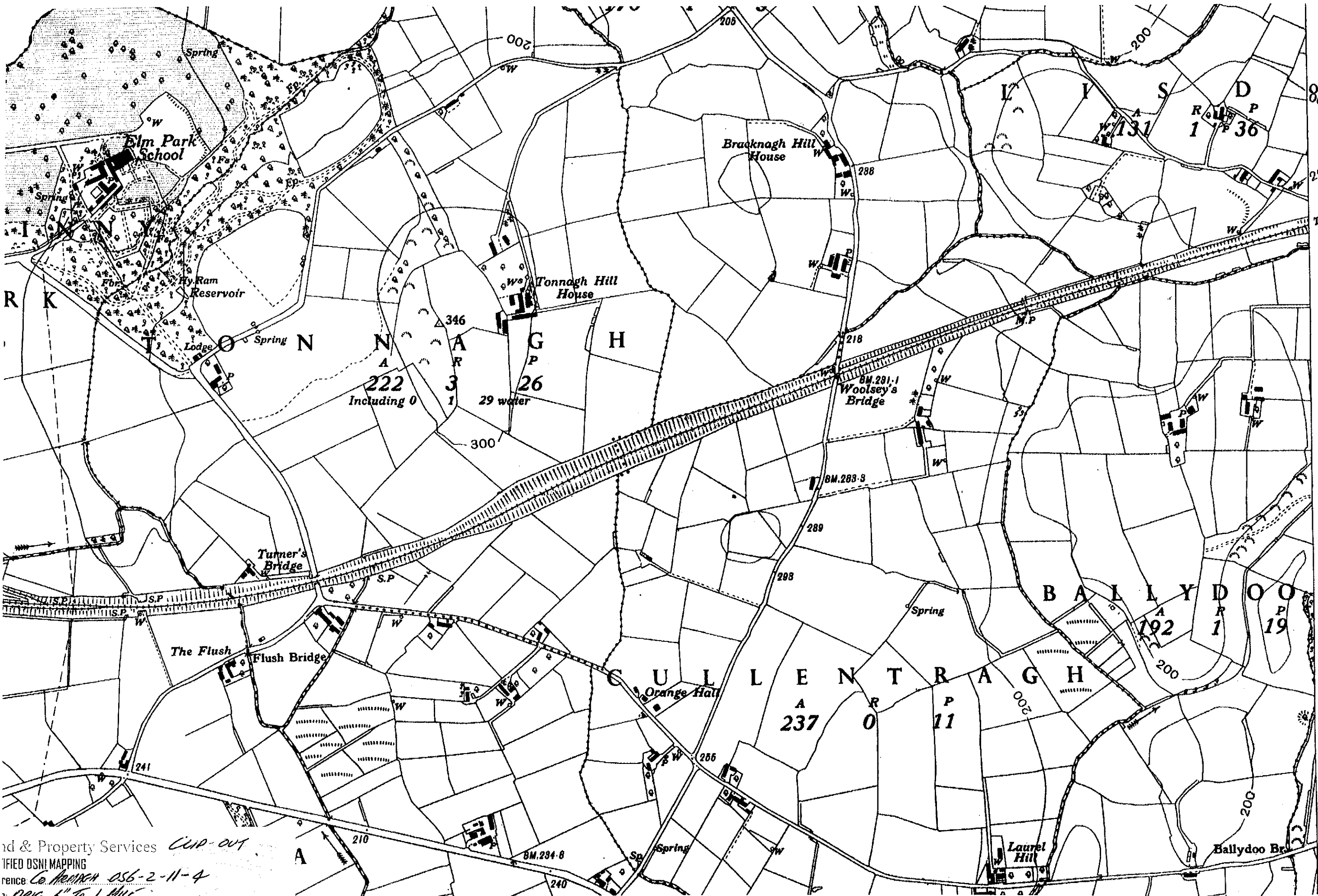
OWN

To Armagh

12

TAMLAGHT TD
(B.D. Ballymaghinlin)

Mill Pond



OWN
200

200

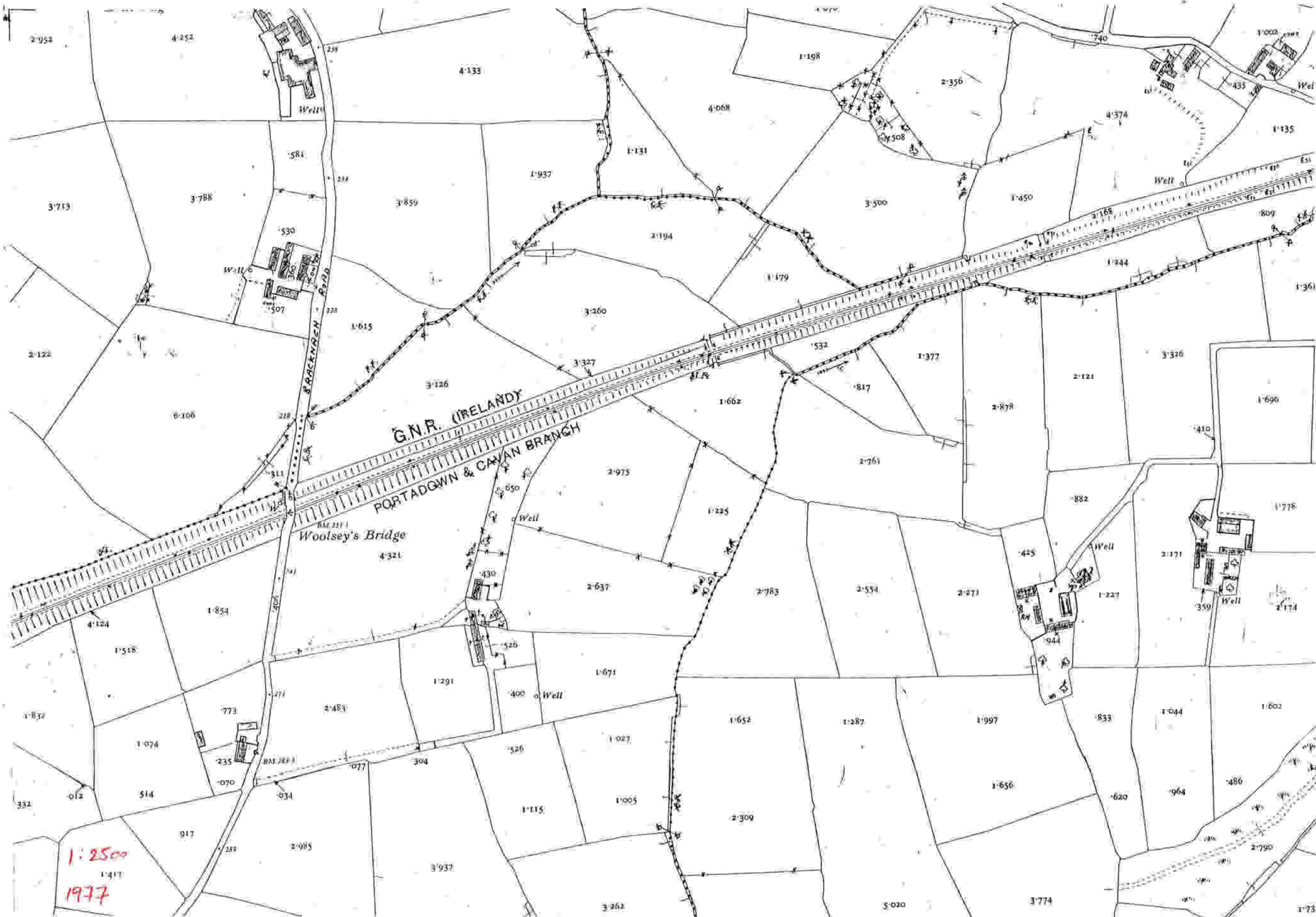
To Armagh

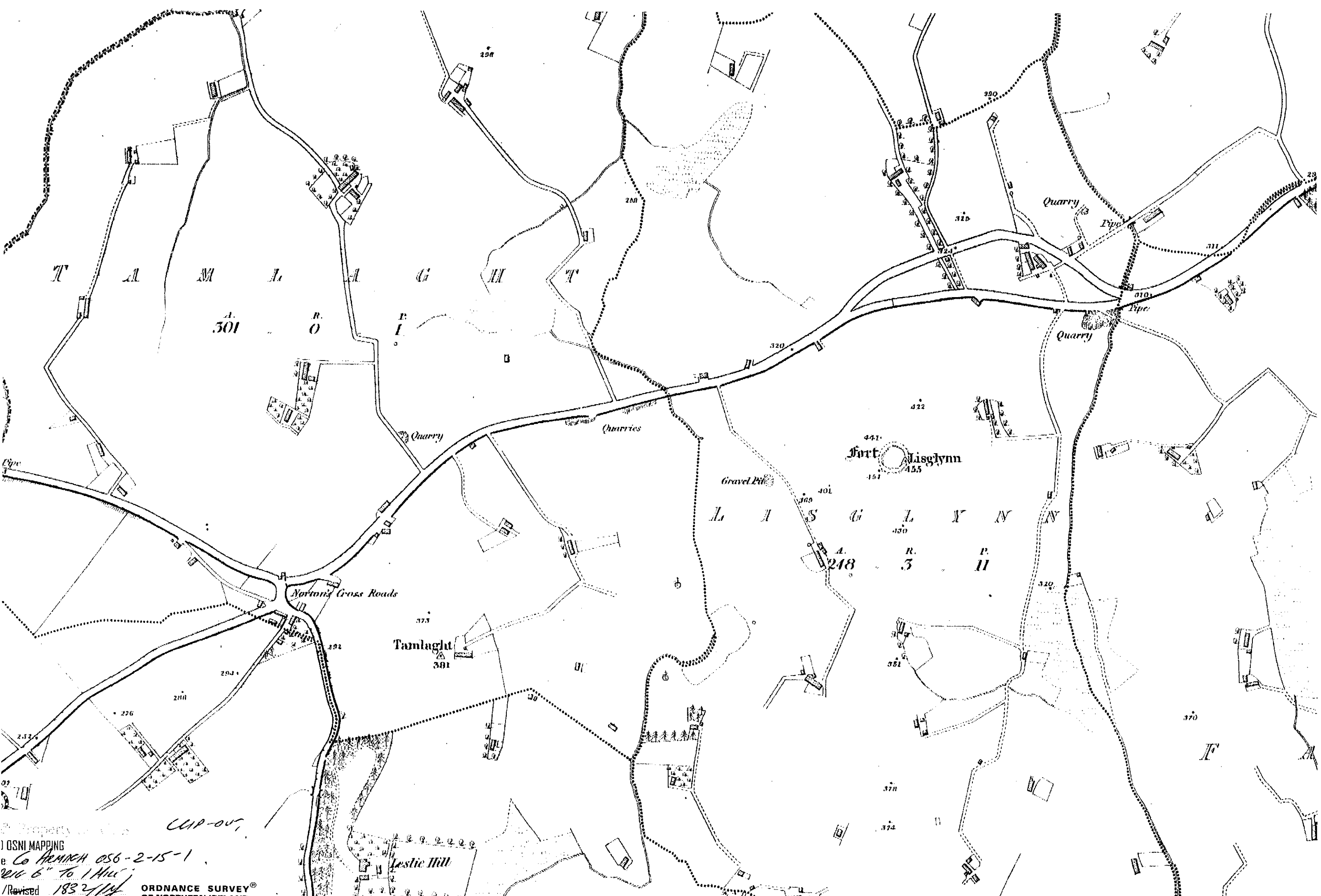
12

TAMLAGHT TP

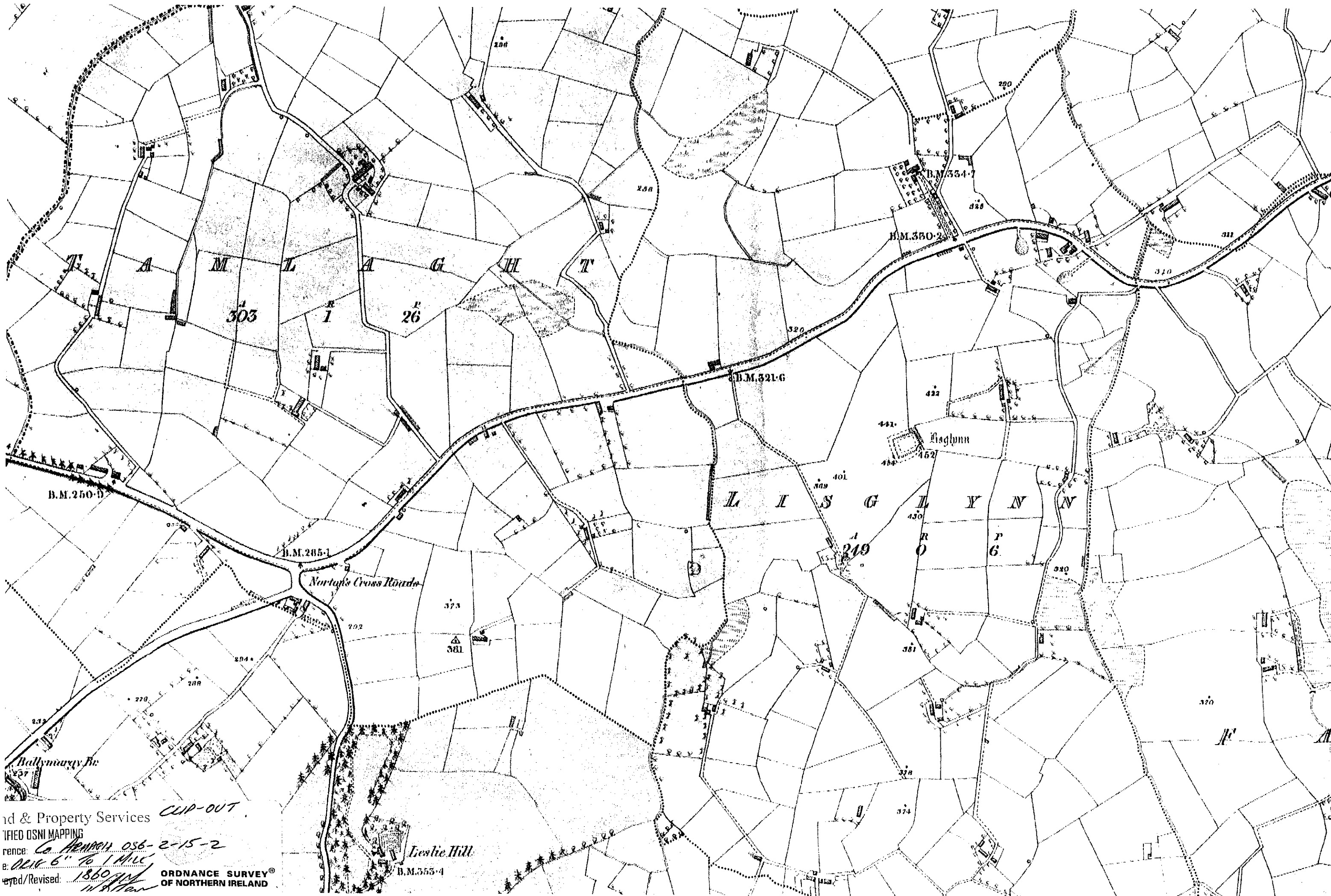
Land & Property Services *CUP-OUT*
 DIGITIZED OSNI MAPPING
 Reference: *Co. Down OS6-2-11-4*
 Scale: *OS6 6" to 1 Mile*
 Checked/Revised: *19.5.94*
 Anticipated: *19.5.94*

ORDNANCE SURVEY®
 OF NORTHERN IRELAND
 MAPPING

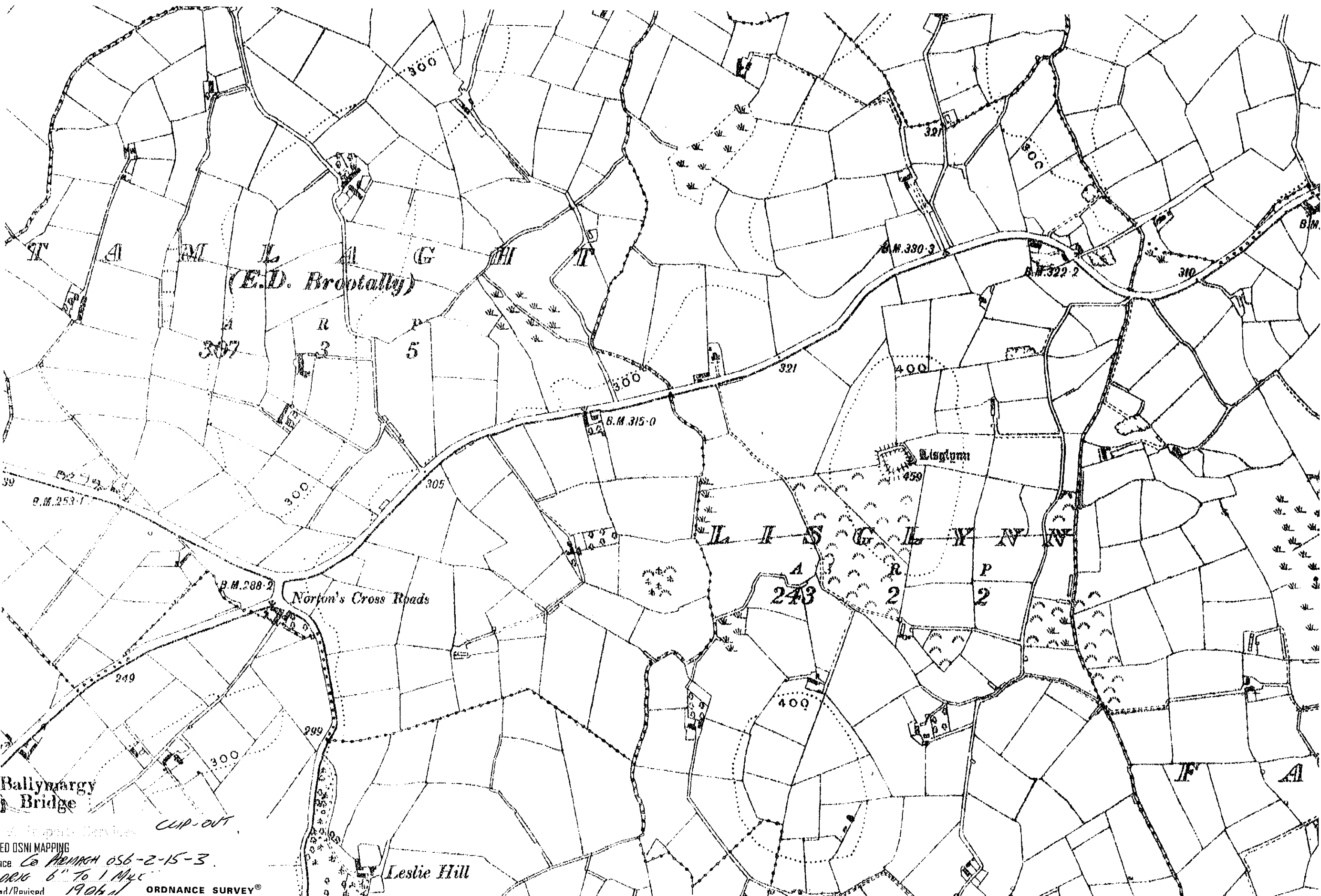




Property of the
 OSNI MAPPING
 Co ARMINGH 056-2-15-1
 2016 6" to 1 Mile
 /Revised 1832/14
 ORDNANCE SURVEY
 OF NORTHERN IRELAND



Land & Property Services *CLIP-OUT*
 UNIFIED OSNI MAPPING
 Reference: *Co. Antrim OS6-2-15-2*
 Scale: *OS 6" to 1 Mile*
 Surveyed/Revised: *1860*
 ORDNANCE SURVEY®
 OF NORTHERN IRELAND



(E.D. Brootally)

Lislym

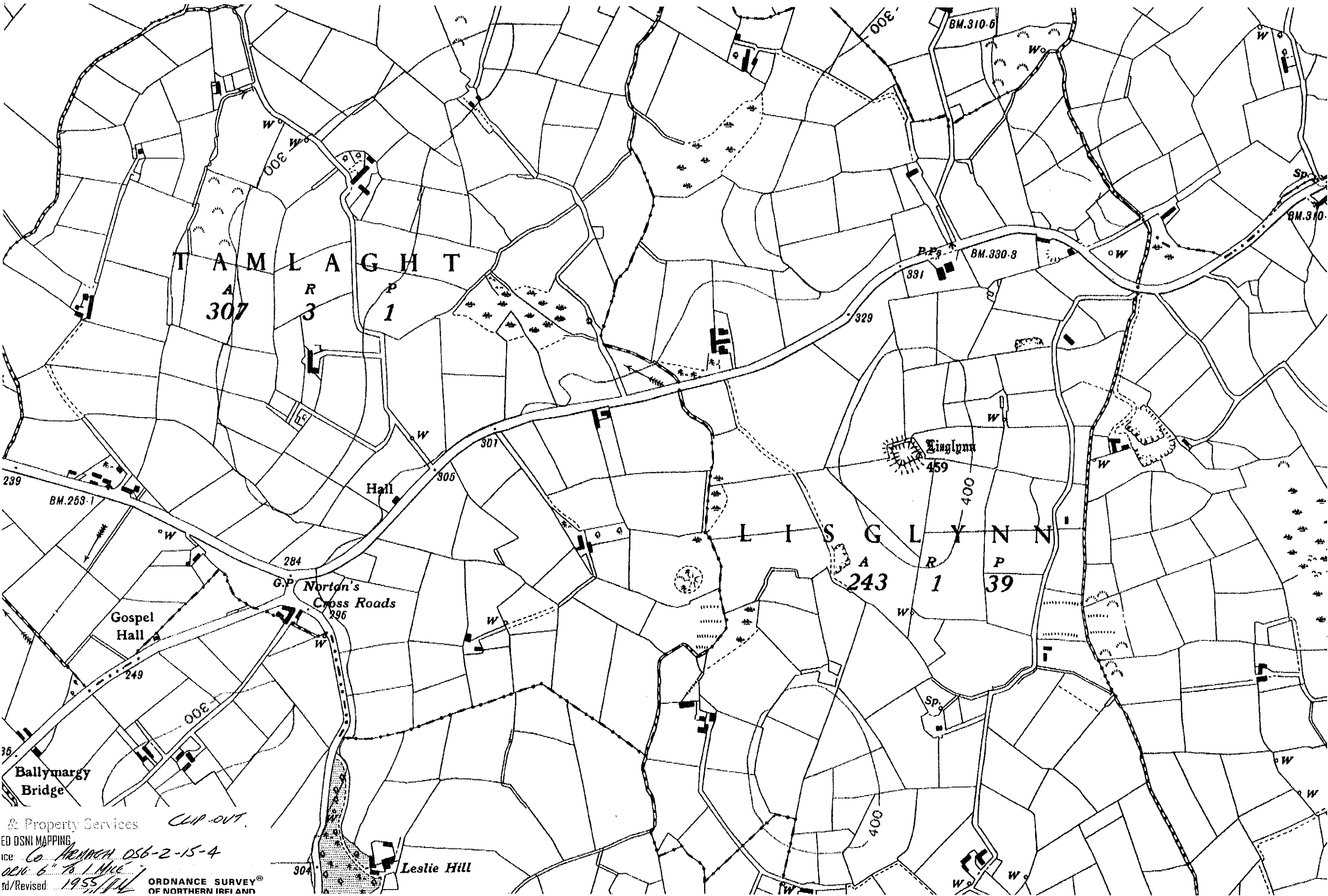
Norton's Cross Roads

Ballymargy Bridge

Leslie Hill

CUT-OUT

ED OSNI MAPPING
ICE Co. REFERENCE 056-2-15-3
ORIG 6" To 1 Mile
rd/Revised 1964
ORDNANCE SURVEY®



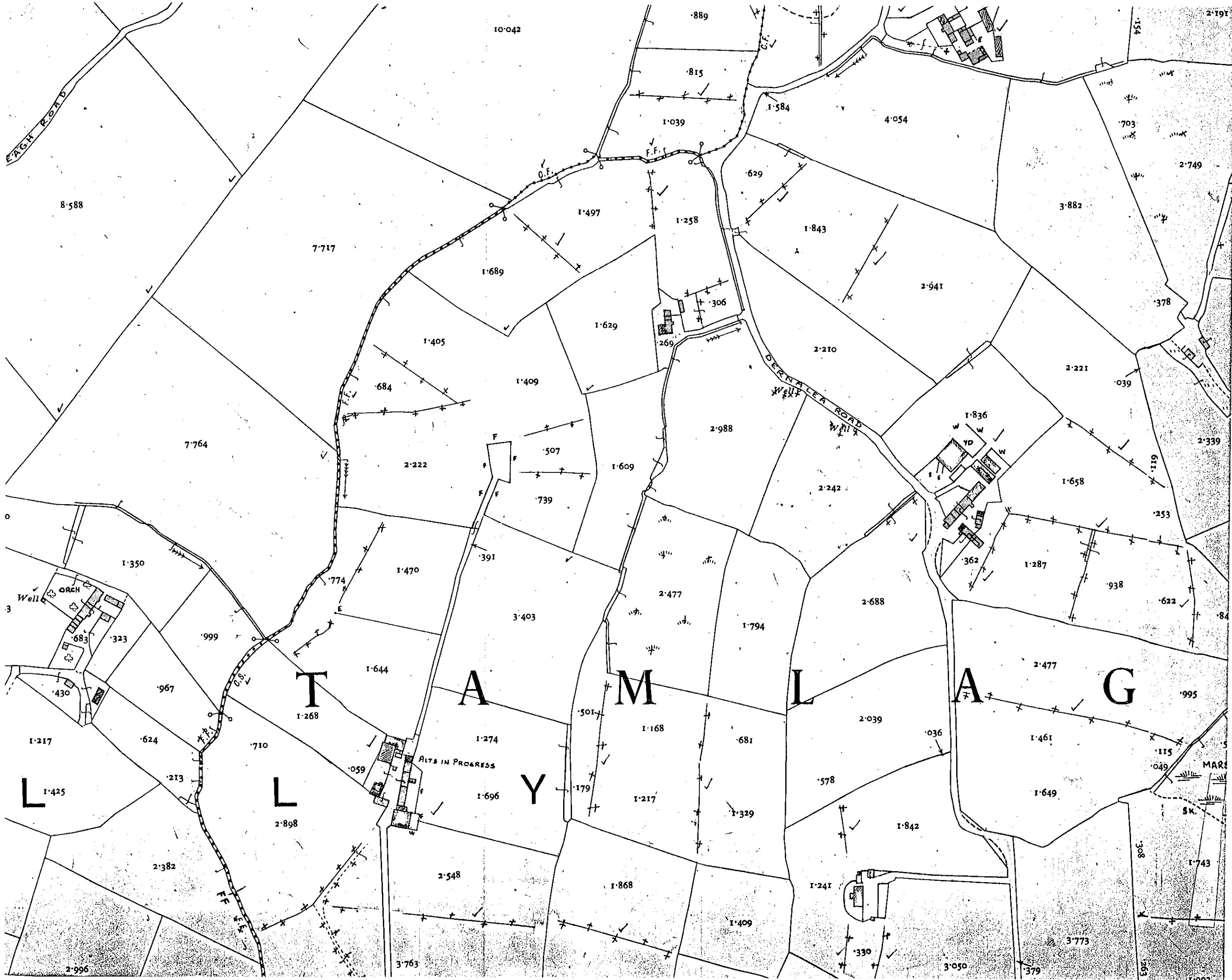
& Property Services

ED OSNI MAPPING
ice: Co. *Hennah* OS6-2-15-4

Scale: 6" To 1 Mile
1st/Revised: 1955/11

ORDNANCE SURVEY OF NORTHERN IRELAND

CLIP-OUT.



Land & Property Services *Fazio Trace*
 CERTIFIED OSNI MAPPING
 Reference: *16 234-7 NW For A' Edton*
 Scale: *1:2500*
 Surveyed/Revised: *1977/1981*
 Authenticated: *W. M. M.*
 Crown Copyright © *2010*

ORDNANCE SURVEY®
 OF NORTHERN IRELAND
 MAPPING

ARMAGH 15 SE

Summary

This map area appears to be underlain by a thick sequence of h. Palaeozoic (Ordovician?) turbidite beds apparently unroofed and striking generally with a Coleraine trend (N.E.S.W.) Dip generally moderate - steep to the S.E. Coarse grained grey/green greywackes with no massing bedded (often 5-10") strata. Grouting of these into fine grained dark shales is seen in places along with bottom structures on bedding planes. Outcrop is such that dip + strike are often difficult to ascertain. Widespread drift deposits overlie sed. rock. Thick boulder clay forms steep sided drumlins resting on h. Pal. rock pavement, typical in places. In some cases drumlins may have sed. rock cores. Boulder clay generally a stiff brown/red clay carrying mainly h. Pal. boulders + occasional quartz chips and ironed boulders.

① SMALL DIVIDED QUARRY

UP TO 100' Boulder clay covers the site with frequent exposures to top with much soil crust and mudcol obscuring the outcrop. Massing bedded dark grey/green greywackes. Coarse grained. APPEAR TO DIP GENTLY S.E. AT WESTERN END of quarry 3 greywackes are heavily jointed with prominent vertical striations (owing to the presence of a small normal fault trending N.E.-S.W. but probably continued).

② DIVIDED QUARRY

Quarry was used by the County Council, is now flooded. Up to 100' of Boulder clay with h. Pal. boulders 3"-6" set in an orange sandy clay matrix overlies massing bedded lower Palaeozoic turbidite beds. Coarse grained grey/green greywackes. Poorly developed graded bedding with thin shale developments. 2:3 on average. Bottom structure in these turbidite beds consists along with the graded bedding, that they are unroofed. Beds strike N. 20° E. Dipping around 40° to the S.E.

③ SMALL DIVIDED QUARRY

Exposure very low. Massing bedded turbidite. Very coarse grained grey/green wackes. Little fragments of 2-3" fine grey/green with heavily jointed shaly horizons which graded bedding which appears to be inverted. Dip strike difficult to ascertain. Appears to dip gently N.E.?

ARMAGH 15 8E



GEOLOGICAL SURVEY
OF
NORTHERN IRELAND

Square Miles Surveyed	Miles of Boundary Traced	Reported by	Date
4	3	J. J. [Signature]	31 June 1964
2		S. J. [Signature]	APRIL 1976

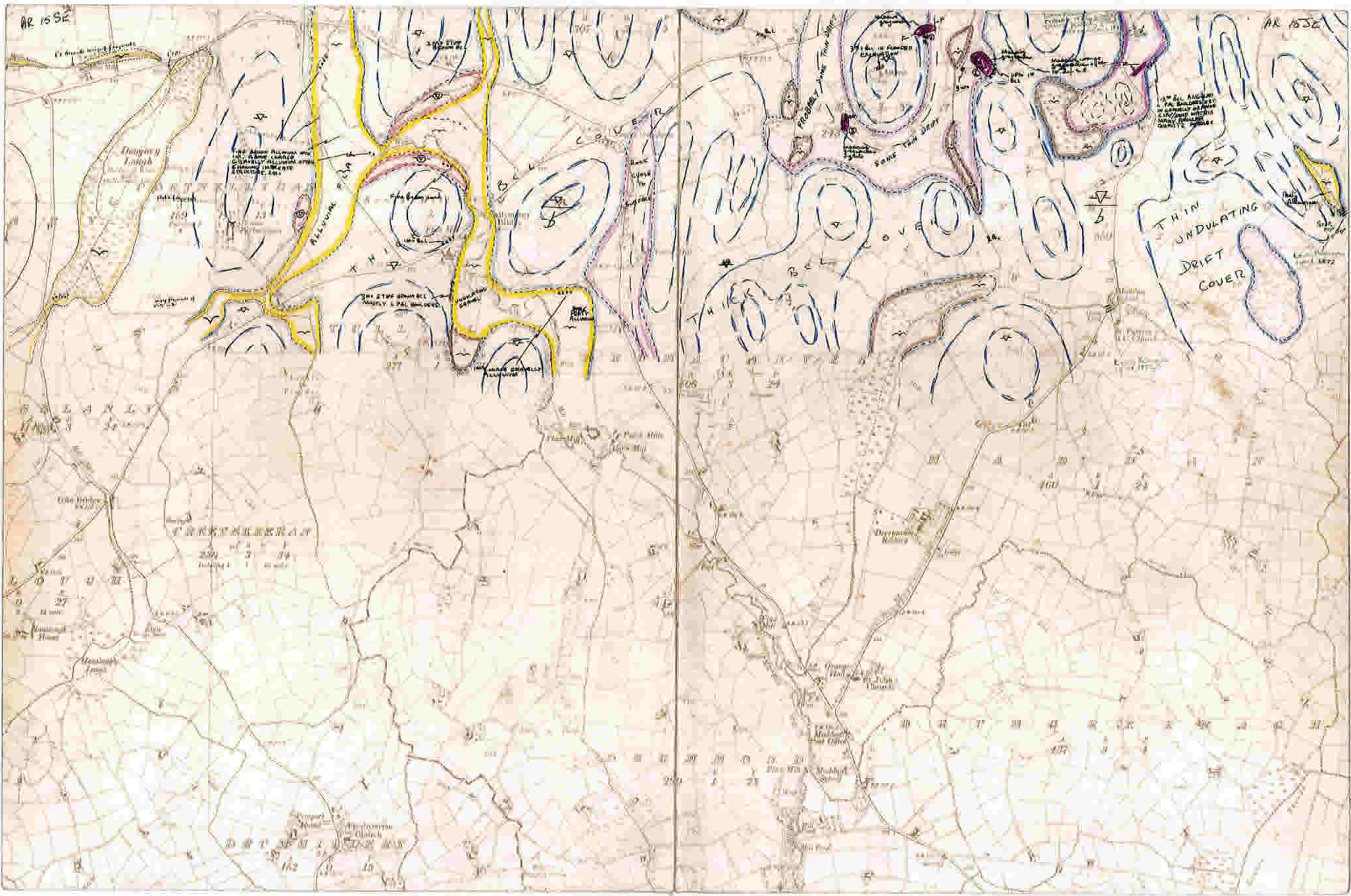
N.B.—Anyone finding this Map would oblige by sending it at once to the Geological Survey Office, 20 College Gardens, Belfast, or nearest Police Station.

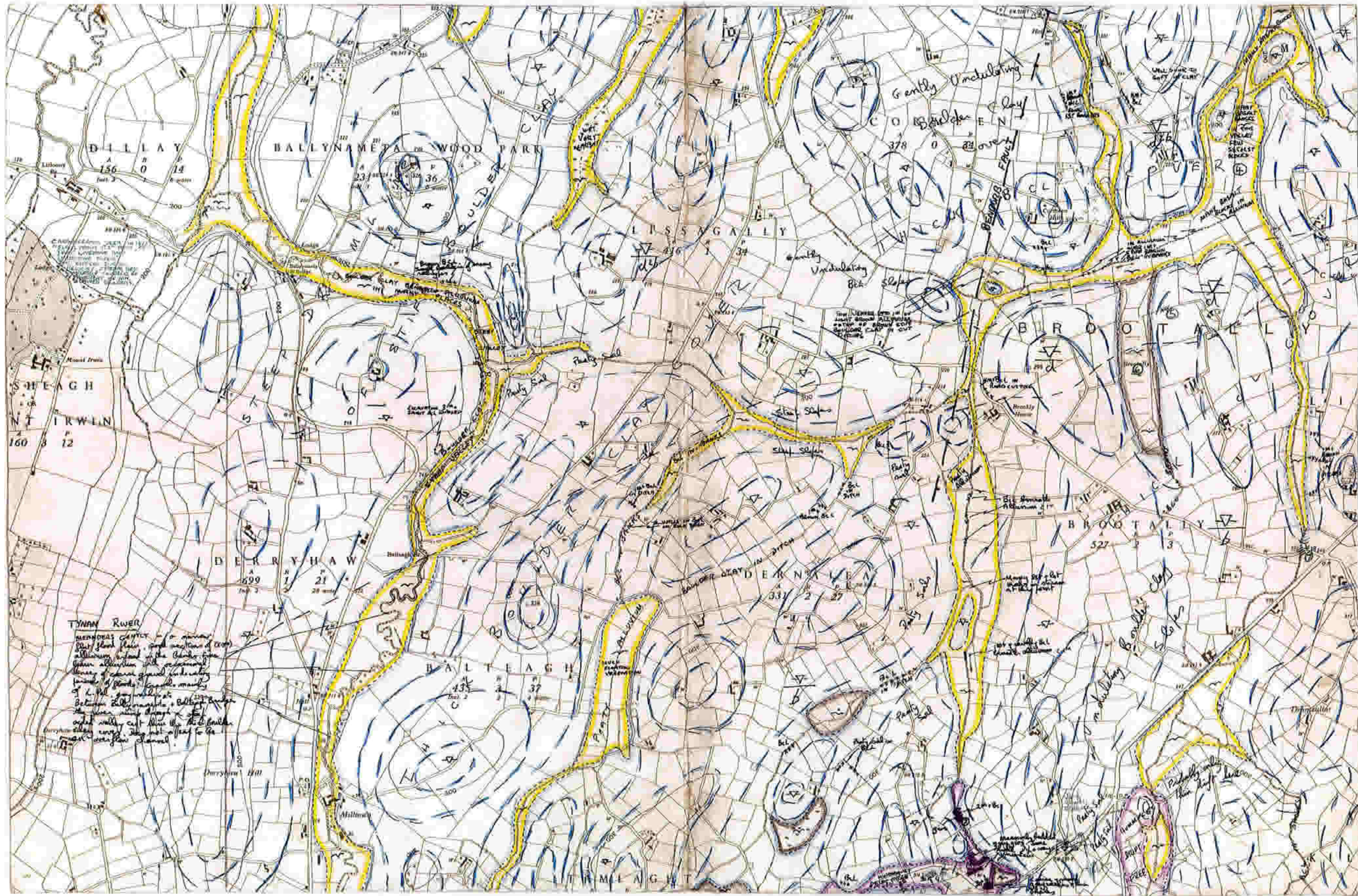
W.G. 150/84 200 5148 D.G.(A)124 Q.E. 116° WE 787/200 424 8/44

-  ALLUVIUM
-  PEAT
-  BOULDER CLAY
-  SAND + GRAVEL
-  LOWER PALAEOZOIC ROCKS ORDOVICIAN??
-  FAULT

AR 155E

AR 155E





DILLYAY
A 156 0 12
1:25,000

SHELAGH
NT IRWIN
160 8 12

DERRYHAW
A 699 1 21
1:25,000

TYNAN RIVER
MENDIPS CAPTIVE - a narrow
but flood plain, with sections of 1000
alluvium found in the banks from
below alluvium with occasional
layers of coarse gravel, sandstone
pebbles & blocks. Generally made
of L. Pale grey sandstone.
Between Ballynameta & Ballyteagh
the river runs through a steep
open valley cut into the thick basalt
which covers every slope not affected by the
main overflow channel.

Derryhew Hill
Mallin

MELAGH

BALLYNAMETA WOOD PARK

LISSAGALLY

BROOTALLEY

BROOTALLEY

BALLYTEAGH

MELAGH

Gently undulating
Boulder clay

Gently undulating
Boulder clay

on dully Boulders
Slopes

Probably only
thin drift here

SANDY CLAY IN DITCH

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Small
stone cutting

Appendix 10A Consultations

**Appendix 10A – All NIEA Natural Heritage Correspondences –
2011 - 2008**

2011

Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 5 April 2011
Telephone: 028 905 69615
Your Ref: O/09/0792
Our Ref: 17178-7& 8

Full
RE: Erection of a single circuit 400kv overhead line (33.9km) from a new 400/275KV substation at Trewmount Road Moy to the border where it connects with the proposed network in the Republic of Ireland
Location: Land to the rear of 152 Trewmount Road in the townland of Turleenan Moy Dungannon Co Tyrone and overhead electrical transmission line from Trewmount Road Moy to the townlands of Crossreagh and Crossbane Co Armagh

Dear Mr Moore

I refer to your consultation letter for the above planning application which was received in this office on 19 January 2011. We acknowledge receipt of an Addendum to the Environmental Statement (ES) (Volumes 1-3). We also acknowledge receipt of an objection statement.

Position

Following further consideration of the information contained within the ES and Addendum, NIEA, Natural Heritage has **no objection** to the proposed development **subject to conditions** which would overcome our concerns.

Appraisal of the proposal: Natural Heritage Interest

NIEA, Natural Heritage considers that a new survey is not required for this proposal as it is unlikely that there are waterbodies which are suitable as breeding ponds for newts within 200 metres of the proposed line route.

Following further consideration of the ES and Addendum we note that the waterbodies adjacent to Towers 32, 43 and 83 are identified as "watercourses" as shown on the legend of Figure 10.1 to 10.10 (Habitat Map) of Volume 4 of the ES. Towers 22 and 23 are located to the east of a pond as shown on the legend of Figure 10.1 to 10.10 (Habitat Map) of Volume 4 of the ES. The attributes of this pond and elements of the surrounding landform are unsuitable for newts – this has been identified in the aerial photography within Volume 4 of the ES, including Figures 1.7, 10.13 and

13.7c.

The results of the badger survey presented in the ES addendum record low incidences of badger evidence and activity within 150 metres of any tower locations. We welcome the intention to undertake a pre-construction badger survey. Should this survey record any new badger setts then a licence will be required for any works to be carried out within 25m of the entrances of any occupied setts.

The bat survey report concludes that the proposal is unlikely to have an adverse impact on the areas local bat population. There will be a loss of some trees which may potentially be used by bats. We consider that once all mature trees to be removed and lopped have been identified, they shall be inspected for the presence of bats by an experienced bat worker or surveyor on the day of felling.

Recommendations

Should approval be granted, the following Conditions should be attached to the Decision Notice.

Conditions

Once all mature trees to be removed and lopped have been identified, any potential roost sites shall be inspected for the presence of bats by an experienced bat worker or surveyor on the day of felling. If evidence of bats is found during inspection, all work shall cease immediately and advice shall be sought from the Northern Ireland Environment Agency Wildlife Inspector.

Reason: To minimise the impact of the proposal on the local bat population.

Deflectors shall be inserted on lines that cross the Blackwater River Valley.

Reason: To reduce the risk of collision to swans.

Works in the vicinity of watercourses shall avoid contact with the watercourse surface and bed.

Reason: To minimise the impact of the proposal on bats.

All works to take place within 25 metres of existing badger sett entrances on site shall be supervised by an NIEA Protected Species Licence holder.

Reason: To mitigate potential impacts to badgers on the site.

Informatives

The applicant's attention is drawn to The Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 (as amended), which states that it is an offence to deliberately capture, injure or kill a wild animal of a European protected species included in Schedule II of these Regulations, which includes all species of bat. It is also an offence;

(a) Deliberately to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;

(b) Deliberately to disturb such an animal in such a way as to be likely to;

(i) Affect the local distribution or abundance of the species to which it belongs;

(ii) Impair its ability to survive, breed or reproduce, or rear or care for its young; or

(iii) Impair its ability to hibernate or migrate;

- (c) Deliberately to obstruct access to a breeding site or resting place of such an animal; or
- (d) To damage or destroy a breeding site or resting place of such an animal.

To avoid any breach of The Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 (as amended), all mature trees and/or buildings to be removed should be checked on the day of felling for the presence of bats, by an experienced bat worker or surveyor.

If there is evidence of bat activity on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast. BT72JA. Tel. 02890 569623

The applicant's attention is drawn to The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), which states that it is an offence to deliberately capture, injure or kill a wild animal of a European protected species included in Schedule II of these Regulations, which includes otters (*Lutra lutra*). It is also an offence;

- (a) Deliberately to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
- (b) Deliberately to disturb such an animal in such a way as to be likely to:
 - (i) affect the local distribution or abundance of the species to which it belongs;
 - (ii) Impair its ability to survive, breed or reproduce, or rear or care for its young; or
 - (iii) Impair its ability to hibernate or migrate;
- (c) Deliberately to obstruct access to a breeding site or resting place of such an animal; or
- (d) To damage or destroy a breeding site or resting place of such an animal.

If there is evidence of otter activity on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast. BT72JA. Tel. 02890 569623

The applicant's attention is drawn to the Wildlife (Northern Ireland) Order 1985 which indicates that it is an offence to intentionally kill, injure or take any wild animal included in Schedule 5 of this Order which includes the badger (*Meles meles*). It is also an offence to disturb these animals or damage or obstruct access to their place of refuge, or damage or destroy anything which conceals or protects their place of refuge.

If there is evidence of badger on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast. BT72JA. Tel. 02890 569623

The applicant's attention is drawn to the Wildlife (Northern Ireland) Order 1985 which indicates that it is an offence to intentionally kill, injure or take any wild animal included in Schedule 5 of this Order which includes the smooth newt (*Lissotriton vulgaris*). It is also an offence to disturb these animals or damage or obstruct access to their place of refuge, or damage or destroy anything which conceals or protects their place of refuge. Tel. 02890 569623

If there is evidence of newts on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast. BT72JA. Tel. 02890 569623

The applicant's attention is drawn to the Wildlife (Northern Ireland) Order 1985 which states that it is an offence to intentionally kill, injure or take any wild bird. It is also an offence to take or damage or destroy the nest of any wild bird while that nest is in use or being built; or take or destroy an egg of any wild bird. If any person intentionally disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or disturbs dependent young of such a bird they shall be guilty of an offence. **It is therefore advised that tree and hedge loss should be kept to a minimum and removal should not be carried out during the bird-breeding season between 1st March and 31st August.**

Yours sincerely

Development Management Team

Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 29 March 2011
Telephone: 028 905 69615
Your Ref: O/09/0792
Our Ref: 17178-7&8

Full
RE: Erection of a single circuit 400kv overhead line (33.9km) from a new 400/275KV substation at Trewmount Road Moy to the border where it connects with the proposed network in the Republic of Ireland
Location: Land to the rear of 152 Trewmount Road in the townland of Turleenan Moy Dungannon Co Tyrone and overhead electrical transmission line from Trewmount Road Moy to the townlands of Crossreagh and Crossbane Co Armagh

Dear Mr Moore

I refer to your consultation letter for the above planning application which was received in this office on 19 January 2011. We acknowledge receipt of an Addendum to the Environmental Statement (Volumes 1-3). We also acknowledge receipt of an objection statement.

Position

NIEA, Natural Heritage considers that there is **insufficient information** provided with the application to assess the importance of natural heritage interests. We cannot give a position on this application until further information is received. **In the absence of this, NIEA, Natural Heritage will recommend refusal of the application on the grounds of insufficient information.**

Appraisal of the proposal: Natural Heritage Interest

Addendum B of the ES Addendum contains a bat report, target notes, and a badger report.

Following further consideration of the target notes we note that several of the proposed tower locations are in close proximity to areas of standing water (pond). We consider that these water bodies may have potential as breeding ponds for smooth newt *Lissotriton vulgaris*. The tower locations which are in close proximity to areas recorded as standing water (pond) are as follows: 22, 23, 32, 43 and 83

We therefore consider that a newt survey of these areas is required as they are within 200 metres of areas of standing water (pond).

This survey of these areas must be to NIEA, NH specifications and should be carried out between **Mid March** and **Mid June**. The specification is attached with this response and can be found at http://www.doeni.gov.uk/niea/newt_survey.pdf

Once the survey has been received NIEA, NH will be in a position to give further consideration to this proposal.

Yours sincerely

Development Management Team

NEWT SURVEY - SPECIFIC REQUIREMENTS

The smooth newt *Lissotriton vulgaris* (formerly *Triturus vulgaris*) is the only species of newt in Northern Ireland, and is protected under Schedules 5, 6 & 7 of the Wildlife (Northern Ireland) Order 1985. It is an offence to intentionally kill, injure or take a newt, possess or control any live or dead specimen or anything derived from a common newt, unless acquired lawfully, disturb newts or obstruct access to their place of refuge, or destroy or damage anything that conceals or protects their place of refuge.

Although newts are widespread across Northern Ireland, suitable habitat for the species is in decline. Newts breed in ponds and areas of standing water with vegetation cover close by. Ponds are exceptionally vulnerable, and face many threats, including drainage and infill. To ensure your development proposals comply with the Order, Northern Ireland Environment Agency has asked you to carry out an appropriate Newt survey. You should follow these guidelines:

- The surveyor contracted to undertake this work must have relevant experience which is deemed acceptable to the Department, for example an ecological consultant with experience of, and/or qualifications in amphibian surveying.
- The date and time of the survey and the qualifications of the surveyor should be included in the survey report.
- Newt surveys should be carried out between **Mid March** and **Mid June**.
- Surveys must be carried out within one year of submission to the department.
- The survey should establish whether Newts are active or inactive in the waterbody and surrounding terrestrial area. The survey should include the surrounding 200m of terrestrial habitat associated with the waterbody.
- The information should be presented in a written report and must include large scale maps at 1:500 scale. The methods used for survey must be included within the survey report (bottle

traps are not permitted in Northern Ireland). All evidence of use by Newts found, for example eggs, or sightings, should be included.

- If necessary, the survey should recommend the most appropriate mitigation measures which will protect Newts on site from impacts caused by the development. Mitigation measures should address impacts pre, during and post construction phase. The survey should also stipulate whether the proposed mitigation measures will require a Protected Species Licence.
- In the event that the planning application goes to appeal or public inquiry, persons contracted to carry out surveys may be required to appear at, or give evidence to the appeal or inquiry.

For more information on Newts and development, contact:

Wildlife Officer, Tel: (028) 9065 69602

Northern Ireland Environment Agency
Klondyke Building,
Cromac Avenue,
Gasworks Business Park
Belfast BT7 2JA

2010

28 MAY 2010

Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 26 May 2010
Telephone: 028 905 69615
Your Ref: O/09/0792
Our Ref: 17178-2,4,5 and 6

Full

RE: Erection of a single circuit 400kv overhead line (33.9km) from a new 400/275KV substation at Trewmount Road Moy to the border where it connects with the proposed network in the Republic of Ireland

Location: Land to the rear of 152 Trewmount Road in the townland of Turleenan Moy Dungannon Co Tyrone and overhead electrical transmission line from Trewmount Road Moy to the townlands of Crossreagh and Crossbane Co Armagh

Dear Mr Moore

I refer to your consultation letters for the above planning application which was received in this office on 9, 15 and 20 April 2010 and 13 May 2010. We acknowledge the receipt of objection letters.

We have considered the issues related to ecology which have been raised in the objection letters and request the submission of information which was omitted from the Environmental Statement.

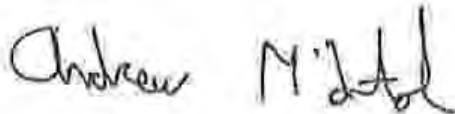
We note that the numbering sequence of target notes in Appendix D1 of Volume 3 of the Environmental Statement does not include the following target notes (TN): TN 1-5, 9, 10, 16-21, 23-28, 30, 33-37, 40-42 and 48-52. We consider that these TNs should be submitted to NIEA: Natural Heritage for consideration. We do note that the TNs included in the Environmental Statement relate to those areas within the line route study area which are of nature conservation value.

The badger survey does not provide a map outlining the location of recorded setts within the site. A report should be submitted of this survey and presented in the following format:

- The date and time of the survey and the qualifications of the surveyor should be included in the survey report.
- The survey should establish whether or not Badgers have established sett(s) (active or inactive) or use the area for foraging. All evidence of use by Badgers found, for example latrines, hair caught on wire or bedding should be included.

- The information should be presented in a written report and must include large scale maps at 1:500 scale for those areas in the line route study area where badger setts were recorded.

Once this information has been provided NIEA: Natural Heritage can provide further consideration to this proposal.



Andrew McIntosh
On behalf of NIEA: Natural Heritage



An agency within the Department of the
Environment
www.environment.gov.uk



NATIONAL INFRASTRUCTURE PLANNING

Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 29 April 2010
Telephone: 028 905 69615
Your Ref: O/09/0792
Our Ref: 17178-3

Full

RE: Erection of a single circuit 400kv overhead line (33.9km) from a new 400/275KV substation at Trewmount Road Moy to the border where it connects with the proposed network in the Republic of Ireland

Location: Land to the rear of 152 Trewmount Road in the townland of Turleenan Moy Dungannon Co Tyrone and overhead electrical transmission line from Trewmount Road Moy to the townlands of Crossreagh and Crossbane Co Armagh

Dear Mr Moore

I refer to your consultation letter for the above planning application which was received in this office on 12 April 2010. We acknowledge receipt of a submission by Michael Burrows Associates on behalf of SEAT dated 19 February 2010.

On page 8 of the submission a formal request has been made under the Environmental Information Regulations (NI) 2004 for details of any formal or informal advice or agreements limiting or forming the scope and methodologies to be employed during ecological surveys carried out by the applicant in relation to this proposal.

Accordingly we submit with this letter the following information:

1. Copy of an e-mail from Cormac Loughran of AECOM dated 21 May 2009 providing a bat survey methodology for the proposal.
2. Draft bat survey methodology (21 May 2009).
3. Letter dated 10 August 2009 detailing the bat survey methodology which was detailed at a meeting held on 10 June 2009.
4. Letter from NIEA: Natural Heritage to Planning Service dated 27 January 2009 (This letter has not been presented in Appendix A of Volume 3 of the Environmental Statement).



Andrew McIntosh
On behalf of NIEA: Natural Heritage



Northern Ireland Environment Agency
Natural Heritage
Klondyke Building
Cromac Avenue
Gasworks Business Park
BELFAST
BT7 2JA
Email: planningreminders@doenl.gov.uk



Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 3 February 2010
Telephone: 028 905 69615
Your Ref: O/09/0792
Our Ref: 17178-1

Full

RE: Erection of a single circuit 400kv overhead line (33.9km) from a new 400/275KV substation at Trewmount Road Moy to the border where it connects with the proposed network in the Republic of Ireland
Location: Land to the rear of 152 Trewmount Road in the townland of Turleenan Moy Dungannon. Overhead electrical transmission line detailed in Form P1(NIE) application attached

Dear Mr Moore

I refer to your consultation letter for the above planning application which was received in this office on 8 January 2010. We acknowledge receipt of an Environmental Statement (ES).

Position

NIEA, Natural Heritage has **no objection** to the proposed development **subject to conditions** which would overcome our concerns.

Appraisal of the proposal: Natural Heritage Interest

The Environmental Statement provides a report of ecological assessment of habitats and species present along the interconnector route. We note that bat surveys, as agreed with NIEA: Natural Heritage, are ongoing, and bat roosts, flightlines and feeding areas, and 2010 results will be issued in a separate report to NIEA: Natural Heritage.

We are content with the quality of the ecological reports contained within the ES, and consider that a number of mitigation measures are required to minimise the impact of the proposal on local biodiversity.

Recommendations

Should approval be granted, the following Conditions should be attached to the Decision Notice.



Conditions

Any removal of hedgerow trees, cutting of hedgerows and woodland clearance shall take place outside the bird breeding season which lasts from the 1st of March to the 31st of August.

Reason: To protect breeding birds and protect the biodiversity of the site.

Deflectors shall be inserted on lines that cross the Blackwater River Valley.

Reason: To reduce the risk of collision to swans.

Works in the vicinity of watercourses will avoid contact with the watercourse surface and bed.

Reason: To minimise impacts to riverine habitats.

Once all mature trees to be removed and lopped have been identified, any potential roost sites shall be inspected for the presence of bats by an experienced bat worker or surveyor on the day of felling. If evidence of bats is found during inspection, all work shall cease immediately and advice shall be sought from the Northern Ireland Environment Agency Wildlife Officer.

Reason: To minimise the impact of the proposal on bats.

Informatives

The applicant's attention is drawn to The Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 (as amended), which states that it is an offence to deliberately capture, injure or kill a wild animal of a European protected species included in Schedule II of these Regulations, which includes all species of bat. It is also an offence;

- (a) Deliberately to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
- (b) Deliberately to disturb such an animal in such a way as to be likely to:
 - (i) Affect the local distribution or abundance of the species to which it belongs;
 - (ii) Impair its ability to survive, breed or reproduce, or rear or care for its young; or
 - (iii) Impair its ability to hibernate or migrate;
- (c) Deliberately to obstruct access to a breeding site or resting place of such an animal; or
- (d) To damage or destroy a breeding site or resting place of such an animal.

To avoid any breach of The Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 (as amended), all mature trees and buildings to be removed should be checked on the day of felling for the presence of bats, by an experienced bat worker or surveyor.

If there is any evidence of bats on site, all works must cease immediately and further advice must be sought from the NIEA Wildlife Officer (Tel: 02890 569623), as a European Protected Species (EPS) License may be required.



The applicant's attention is drawn to The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), which states that it is an offence to deliberately capture, injure or kill a wild animal of a European protected species included in Schedule II of these Regulations, which includes otters (*Lutra lutra*). It is also an offence:

- (a) Deliberately to disturb such an animal while it is occupying a structure or place which it uses for shelter or protection;
- (b) Deliberately to disturb such an animal in such a way as to be likely to:
 - (i) affect the local distribution or abundance of the species to which it belongs;
 - (ii) Impair its ability to survive, breed or reproduce, or rear or care for its young, or
 - (iii) Impair its ability to hibernate or migrate;
- (c) Deliberately to obstruct access to a breeding site or resting place of such an animal; or
- (d) To damage or destroy a breeding site or resting place of such an animal.

If there is evidence of otter activity on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast, BT72JA. Tel. 02890 569623

The applicant's attention is drawn to the Wildlife (Northern Ireland) Order 1985 which indicates that it is an offence to intentionally kill, injure or take any wild animal included in Schedule 5 of this Order which includes the badger (*Meles meles*). It is also an offence to disturb these animals or damage or obstruct access to their place of refuge, or damage or destroy anything which conceals or protects their place of refuge.

If there is evidence of badger on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast, BT72JA.

The applicant's attention is drawn to the Wildlife (Northern Ireland) Order 1985 which indicates that it is an offence to intentionally kill, injure or take any wild animal included in Schedule 5 of this Order which includes the smooth newt (*Triturus vulgaris*). It is also an offence to disturb these animals or damage or obstruct access to their place of refuge, or damage or destroy anything which conceals or protects their place of refuge.

If there is evidence of newts on the site, all work must cease immediately and further advice must be sought from the Wildlife Officer, Northern Ireland Environment Agency, Klondyke Building, Cromac Avenue, Gasworks Business Park, Lower Ormeau Road, Belfast, BT72JA.

The applicant's attention is drawn to the Wildlife (Northern Ireland) Order 1985 which states that it is an offence to intentionally kill, injure or take any wild bird. It is also an offence to take or damage or destroy the nest or egg(s) of these birds or to disturb bird(s) while they are building, in or at a nest, or whilst they have dependant young. Where the bird is included in Schedule 1 of the Order any offence is liable to a special penalty.



Andrew McIntosh

Andrew McIntosh
On behalf of NIEA: Natural Heritage



An Agency within the Department of the
Environment
www.doe.govt.nz



INVESTOR IN PEOPLE

2009

Northern Ireland Environment Agency
Natural Heritage
Klondyke Building
Cromac Avenue
Gasworks Business Park
BELFAST
BT7 2JA
Email:
planningreminders@doeni.gov.uk

Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 2 September 2009
Telephone: 028 905 69615
Your Ref: O/08/0822
Our Ref: 16506-3

PAD

RE: PAD for proposed North South Electricity Interconnector

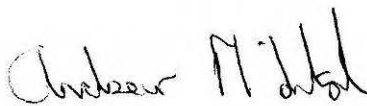
Location: Lands within Armagh District Council and Dungannon Borough Council

Dear Mr Moore

I refer to your consultation letter for the above planning application which was received in this office on 19 August 2009. We acknowledge receipt of the following chapters of the Draft Environmental Statement: 2, 3, 4, 7 and 13.

Following meetings with the applicant we are aware that Bat surveys, which were requested in our response dated 27 January 2009, are currently on-going. We understand that because of the scale of the proposal, it will only be possible to complete the bat surveys by 2010. However we understand that bat surveys of the most suitable habitat for bats, and potential roosts are nearing completion, and will be submitted in the form of a report in October 2009.

We would like to defer comment at this stage, until we formally receive a report detailing the 2009 bat surveys through Planning Service.



Andrew Mc Intosh
On behalf of NIEA: Natural Heritage

Mr A Moore
Planning Service
Planning Service Headquarters
Millennium House
17-25 Great Victoria Street
Belfast
BT2 7BN

Date: 27 January 2009
Telephone: 028 905 69615
Your Ref: O/08/0822
Our Ref: 16506-1

PAD

RE: PAD for proposed North South Electricity Interconnector

Location: Lands within Armagh District Council and Dungannon Borough Council

Dear Mr Moore:

I refer to your consultation letter for the above planning application which was received in this office on 6 January 2009. We acknowledge receipt of a draft Environmental Statement (ES) submitted in CD-ROM format.

Position

NIEA, Natural Heritage considers that there is **insufficient information** provided at present with the application to fully assess the importance of natural heritage interests. It is unlikely that we will object to this proposal on nature conservation grounds, subject to appropriate conditions. However as some surveys are on-going, and we consider further surveys to be required, we wish to defer full comment until we have all the information which we consider to be relevant.

Appraisal of the proposal: Natural Heritage Interest

The scheme covers a large geographical area and includes a number of habitats present, as highlighted in Appendix H1 of the ES. Some of these habitats may be used by species which are protected under The Wildlife (Northern Ireland) Order 1985 (as amended).

We note that the nearest recorded badger sett is located 40m from the nearest line route. Any works closer than 25m to badger setts will require a licence from the NIEA Natural Heritage Wildlife Officer. Evidence of otter activity has been provided.

We note the bird surveys presented in the ES. We further note that additional bird surveys are scheduled for 2008-2009 and will provide comment on this upon receipt of this information.

We note that bat surveys have not been undertaken at this stage, rather an assessment of the potential use of habitat features by bats. We consider that there may be mature trees within the line route which support roosting bats, and these should be subject to a bat survey.



We are concerned that there may be potentially suitable habitat for newts within parts of the proposed line route. We note that Target Notes 8, 32 and 39, for example, may be habitat which is suitable for newts, and consider that a newt survey is required.

Additional Information Required

- Bat roost survey of mature trees along the route
- Newt survey of wetland habitats along the route
- Presentation of the additional ornithological survey work currently being undertaken.

Once this additional survey work has been presented in the ES, NIEA, NH will be in a position to give further consideration to this proposal.

Andrew Mc Intosh
On behalf of NIEA: Natural Heritage

2008

Faber Maunsell
1st Floor
24 Linenhall Street
Belfast
BT2 8BG

Job No	45457 1BLE
Client	Faber Maunsell-Belfast
Drawn by	J.M.D. J.M.D.
CD	AM AMM
CL	CL
Date	02 JUN 2008
	AMM
	02/06/08
	00600

29th May 2008

Dear Ms Doyle,

RE: PROPOSED TYRONE TO CAVN INTERCONNECTOR – 400Kv OVERHEAD LINE SUBSTATION

Thank you for your letter on the 1st November 2007 to the Environment and Heritage Service which was received on 5th November 2007.

Environment and Heritage Service, Natural Heritage (EHS), does hold some site specific information at this time (see below). The scheme includes and may have an adverse impact designated Areas of Special Scientific Interest and priority wetland habitats. Please see attached maps. We are concerned that the scheme may impact the hydrology of the area and this will in turn impact on priority fen habitat. These potential impacts should be included in the EIA. The River Black water is also included in the scheme. This River and its tributaries contain Species of Conservation Concern (SOCC) and Priority Species. Potential impacts on the River Blackwater should also be included in the EIA.

I would advise that you carry out a search for additional information on the recommended websites, details attached. These may contain relevant information.

I have also enclosed advice on the scope of work that EHS considers necessary for Environmental Impact Assessment in respect of development sites

It is recommended that you contact EHS to discuss the definition and methodologies of the baseline surveys required. Specifications for surveys can be provided on request.

If you have any queries or would like to discuss any of this advice, please contact me directly. Please quote the EHS reference number with your enquiry.

These maps are included with this letter.



Jennifer Firth
On behalf of EHS, Natural Heritage

Results of EHS Search – Ref CB 14478

Date 29th May 2008

Site specific information

The scheme includes area of high nature conservation value and is also near to Areas of Special Scientific Interest (ASSI). Please see maps included with this letter.

Additional sources of information which may be relevant

1. Environment and Heritage Service website www.ehsni.gov.uk includes:
 - Details of all regional, national and international designated sites in Northern Ireland
 - Northern Ireland Biodiversity Strategy
 - Northern Ireland Biodiversity Action Plans
 - Areas of Outstanding Natural Beauty
 - Landscape Character Areas
 - Environmental Legislation

2. Details of important geological and geomorphological features throughout Northern Ireland are available through CEDaR on the Habitas website at: <http://www.habitas.org.uk/escr/>

3. Details of Recorder sites can be obtained from CEDaR, these can be accessed by contacting the Ulster Museum, 12 Malone Road, Belfast BT9 5BN. Envelopes should be marked 'Info request' to CEDAR.

General Scoping Guidance

This information is **illustrative** and is not intended to be a definitive statement of the environmental information to be included in the Environmental Statement (ES). It is recommended that the developer remain in contact with EHS throughout the process of Environmental Impact Assessment (EIA) and production of the ES.

General Points:

- The scoping study phase of the EIA should identify the **key topic areas** where the proposed development has the potential to cause either adverse or beneficial effects on the environment.
- The range and extent of direct and indirect impacts on flora and fauna must be considered, both during and post construction, and in the short and long term.
- The EIA should consider direct effects on landscape and public perception of change.
- A combination of landscape assessment and visual assessment should be used.
- Cumulative impacts on flora, fauna and landscape of proposed and existing structures.

Flora and Fauna

The EIA should cover both habitats and species of flora and fauna (especially protected species). It should include both the proposed site and its surroundings.

- The extent of the ecological baseline must be established and the nature of further survey work must be established. A habitat survey (i.e. JNCC phase 1) to permit identification of areas which are likely to be of high nature conservation value or particularly vulnerable to impact from the proposed development. The survey must cover flora and fauna present in all seasons.
- Following from this, the extent and nature of any further survey work that may be needed should be identified. Areas thus identified should be subject to more detailed survey i.e. JNCC Phase 2. In case of flora, this should identify species from all plant groups, which form a significant part of the vegetation, not just higher plants. Survey must cover flora and fauna

115 2011-01-01 10:00:00
115 2011-01-01 10:00:00

in all seasons. Fauna surveys should include a full bird survey. The timing of surveys is critical and must be carried out at appropriate times of year.

- Baseline surveys conducted over a short period may not identify long term trends and reference should be made to previous records.

Landscape

Landscape is a fundamental component of the wider environment and is not just associated with a limited number of designated areas of particular scenic value such as Areas of Outstanding Natural Beauty.

General points:

- Establish the current landscape designation and policies covering the site and its surroundings.
- Details of local landscape character of the site and its surroundings.
- Establish where the potential zone of influence for the development and its associated infrastructure will extend to, including combination effect with established development.
- In combination the information should establish the potential landscape key issues and the areas requiring further investigation during the baseline studies. (See *Guidelines for Landscape and Visual Impact Assessment*, The Landscape Institute and the Institute of Environmental Management and Assessment. Spon Press, London 2002).

Impact on Local Hydrology

The consequences of changes to the hydrogeological system on peatland, rivers, streams and wetland habitats should be established.

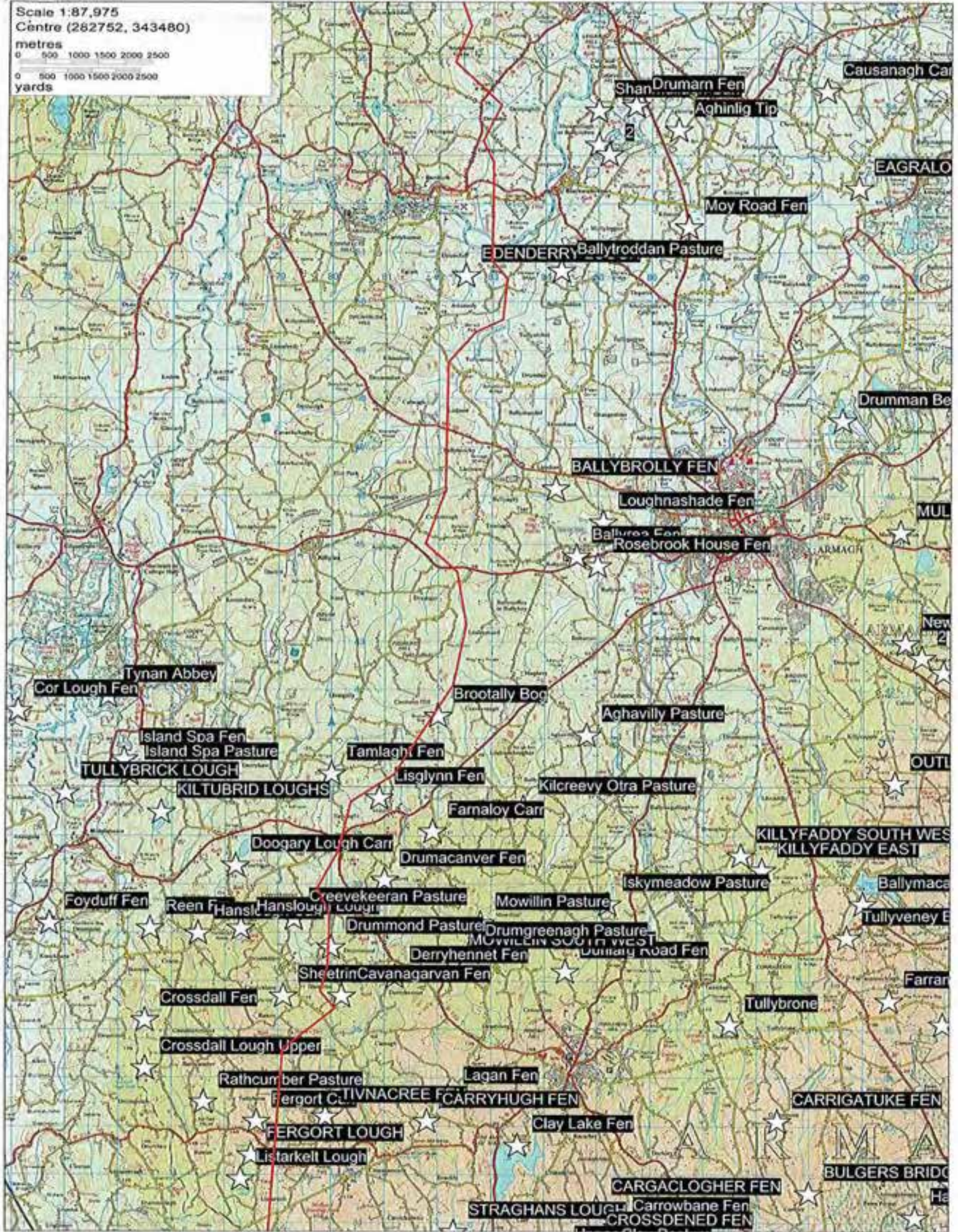
Production of an Environmental Management Plan

An environmental management plan detailing the construction phase should be included. This plan can then be utilized to control the implementation of the development so as to avoid or limit damage to fauna and flora, and should include: a record of pre-construction site conditions, details of how to minimise the environmental impacts of construction activities and the outlining of working practices – see Mitigation Measures below. Method of construction would be specified and provisions for monitoring environmental effects during operation detailed.

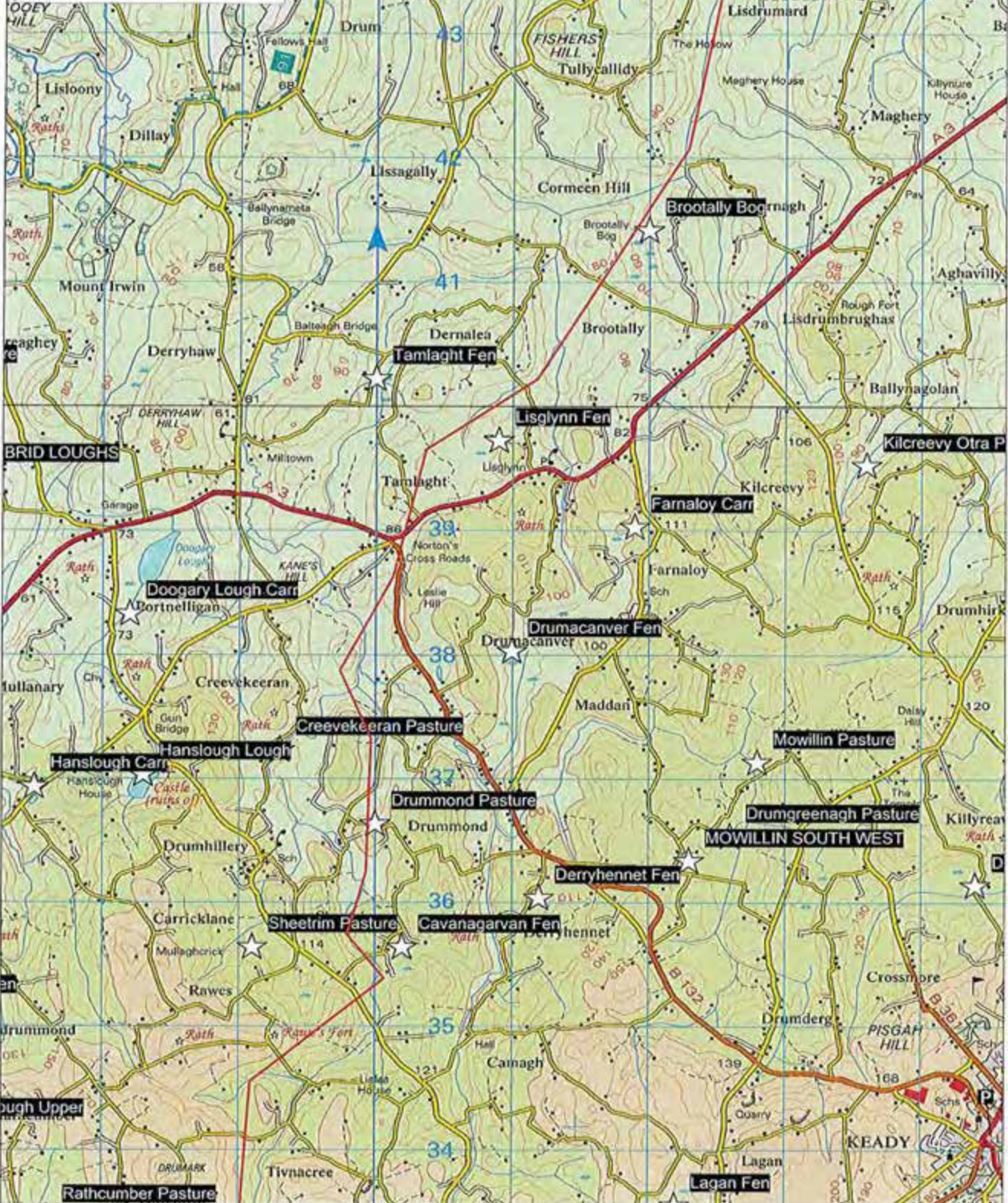
Mitigation Measures

Opportunities for reducing identified negative environmental impacts of the proposal by mitigation should be established.

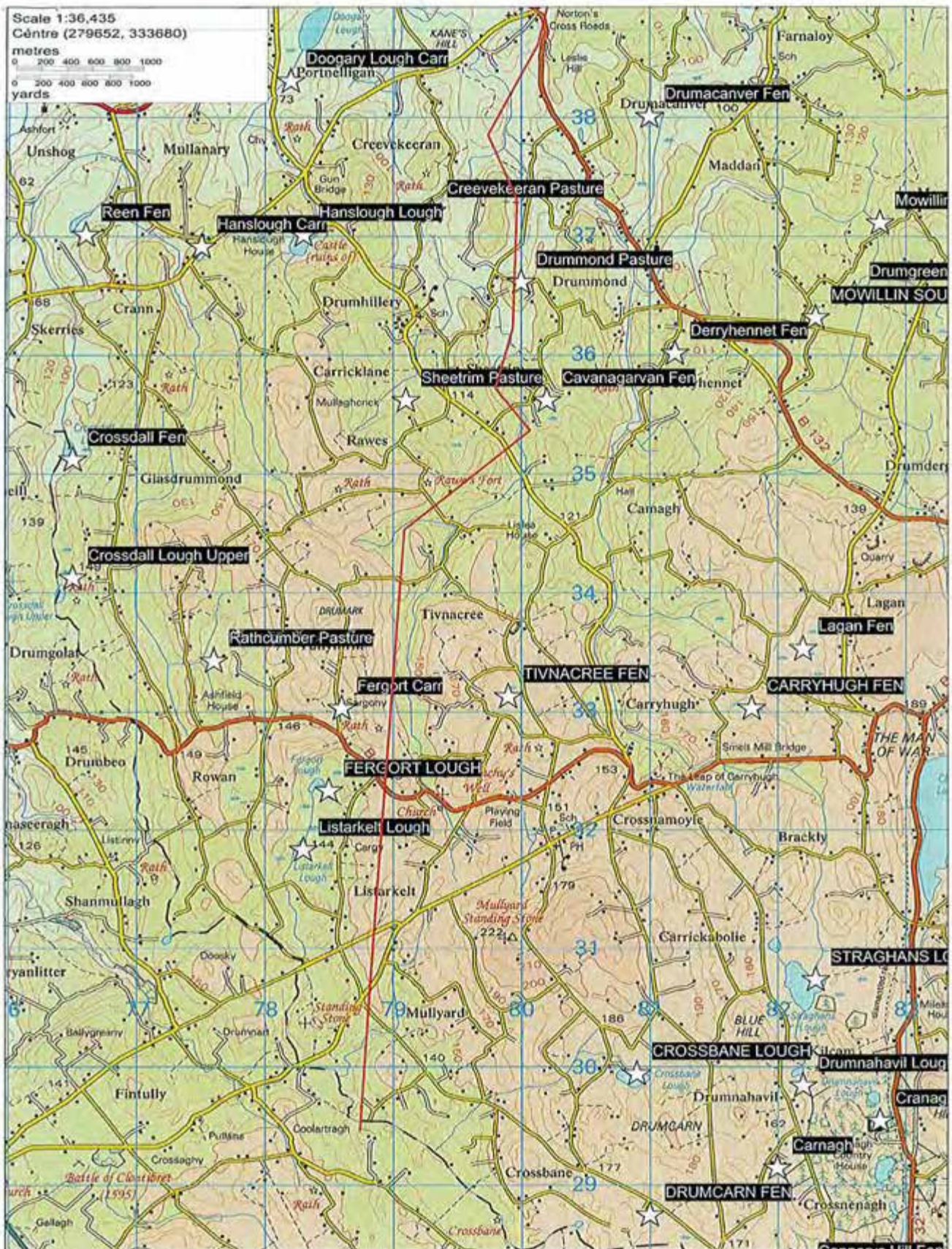
Scale 1:87,975
Centre (262752, 343480)
metres
0 500 1000 1500 2000 2500
yards
0 500 1000 1500 2000 2500



Scale 1:36,435
 Centre (280939, 338790)
 metres
 0 200 400 600 800 1000
 yards
 000 200 400 600 800 1000



Scale 1:36,435
Centre (279652, 333680)
metres
0 200 400 600 800 1000
yards
0 200 400 600 800 1000



**AREAS OF SPECIEAL SCIENTIFIC INTEREST
(ASSI)**

**BENBURB ASSI
CROSSBANE LOUGH
STRAGHANS LOUGH ASSI**

Scale 1:105,945
Centre (281750, 344228)
kilometres
0 1 2 3 4 5
yards
0 1000 2000 3000 4000 5000

