

Approval of AA1 (B) Plan

1.

This approval refers to Action Area Plan 1(B), as defined in the Wicklow Environs & Rathnew Local Area Plan 2008-2014, submitted on the 18th December 2009 by PD Lane & Associates on behalf of Crackington Ltd. The submitted Urban Framework Plan is taken as forming part of the submitted action area plan for the purposes of this approval.

Any application within Action Area 1 (B) must take cognisance of this approved action area plan and all relevant development control standards/policies within the Wicklow County Development Plan 2004 and any subsequent County Development Plans, and the Wicklow Environs & Rathnew Local Area Plan 2008-2014, and any subsequent Wicklow Environs LAP, as applicable.

2.

The development of AA1 (B) shall be in accordance with the submitted AA1 (B) Plan subject to the following additional requirements:

2.1 Phasing

- No more than 250 residential units reliant on access (both direct and indirect) from the proposed RIRR shall be occupied until circa 12 acres of Active Open Space lands and 4.5 acres of public park (or similar provision) have been laid out for use by the future residents of the area.*
- No more than 500 residential units reliant on access (both direct and indirect) from the proposed RIRR shall be occupied until circa 20 acres of Active Open Space lands and 6.0 acres of Open Space & Amenity lands along Rathnew Stream (or similar provision) have been laid out for use by the future residents of the area.*
- Prior to commencement of development in Phase 2 access to all lands reliant on the RIRR for access (both direct & indirect) shall be made available.*
- No development shall commence in Phase 2 until the construction of the RIRR from north of the Rathnew Stream to the Old N11 has commenced.*
- No development in Phase 2 shall be occupied until the construction of the RIRR from the R750 to the Old N11 has been completed and is open to traffic.*
- No development in Phase 1 shall be commenced until the detailed design of the RIRR from the R750 to the Rathnew Stream is approved in writing by the Road Authority.*

- *No development in Phase 2 shall be commenced until the detailed design of the RIRR from the Rathnew Stream to the Old N11 is approved in writing by the Road Authority.*
- *No development shall commence until the Water Services Authority has confirmed in writing that a public water supply will be available to serve any proposed development.*
- *Prior to the submission of the first planning application for development in AA1 (B) an overall "trunk network" design for the foul and surface water drainage and the water supply for the entire of AA1 (B) shall be submitted for the written approval of the Water Services Authority.*
- *Prior to the submission of any planning applications for development in AA1 (B) a detailed Flood Impact Assessment for the relevant areas shall be submitted for the written agreement of the Planning Authority. The relevant areas are to be agreed in writing with the Water Services Authority. Every landowner in the relevant areas shall be afforded the opportunity of being involved in the commissioning and production of the FIA.*

2.2 Infrastructure, Services & Transportation

- *All access points/junctions shown on the RIRR are indicative only and shall be subject to detailed design and shall be supported, where necessary, by Traffic Impact Assessments/Transport Assessments at the detailed design of the RIRR stage or Planning Application stage, whichever occurs first.*
- *Direct access from the R750 to any development within AA1 (B) shall not be permitted unless the Road Authority agrees in writing that such access would not impact on the safety and free flow of the R750 or any traffic calming measures that the Road Authority may propose for the area. Any planning application that, includes a direct access from the R750 to the AA1 (B) lands, shall be accompanied by a Traffic Impact Assessment/Transport Assessment and the relevant Road Safety Audits.*
- *Pedestrian Walkways shall be provided at the early stage of the development of AA1 (B) to ensure that future residents are adequately connected with the existing town centre and that a circuitous pedestrian route, via the R750 and the AA1 (B) lands, is available for them. The exact location and route of the pedestrian walkways shall be agreed at each relevant planning application stage.*
- *The design of the foul sewer network shall ensure that the use of pumping stations is avoided, except in exceptional circumstances where no other option exists. All development in AA1 (B) should drain to the Newrath & Rathnew Pumping Stations or the Wicklow Town gravity system.*

- *The water supply for AA1 (B) shall be from the Council's proposed 250mm watermain traversing the R750, which will be fed from the upgraded Broomhall Reservoir.*

2.3 Urban framework Plan

- *The density of residential development in AA1 (B) shall comply with the allowable densities detailed in the Wicklow County Development Plan 2004 and any subsequent County Development Plans, the Wicklow Environs & Rathnew Local Area Plan 2008-2014, and any subsequent Wicklow Environs LAP, and the Sustainable Residential Development in Urban Areas Guidelines 2009.*
- *The location of "Landmark Opportunities" shall be such that such structures/buildings are located at prominent sites in AA1 (B) that address a major road junction or a civic space/public realm or a public park. No "Landmark Opportunities" shall be located so as to impede potential access to any lands.*

2.4 Open Space

- *Active Open Space areas, Open Space & Amenity areas and Pedestrian Walkways shall be designed and constructed in accordance with the requirements of the Community & Enterprise Section of Wicklow County Council and the Council's Active Open Space Policy document (2007).*
- *Active Open Space shall be provided in tandem with residential development. The development of residential units reliant on access from the Port Access Road shall be accompanied by the provision of Active Open Space over and above that which has been provided as part of residential development reliant on access from the RIRR.*

2.5 Flood Impact Assessment

- *The Flood Impact Assessment should have regard to the Guidelines for Planning Authorities "The Planning System and Flood Risk Management" November 2009. In particular, where necessary, Justification Tests should be undertaken for any areas of AA1 (B), which are at risk of flooding.*

2.6 Disclaimer

The approval of this Action Area by Wicklow County Council in its role as Planning Authority does not commit it to the provision of services.

The Planning Authority does not take responsibility for the accuracy of the documents submitted as part of this Action Area.

The Planning Authority reserves the right to agree modifications to the Action Area Plan, where appropriate, in the interest of proper planning and sustainable development.

Approval of Urban Framework Plan for AA1 (B)

1.

This approval refers to the Urban Framework Plan for Action Area Plan 1 (B), as defined in the Wicklow Environs & Rathnew Local Area Plan 2008-2014, submitted on the 18th December 2009 by PD Lane & Associates on behalf of Crackington Ltd.

Planning applications for development on relevant lands within Action Area 1 (B) must take cognisance of this approved UFP and all relevant development control standards/policies within the Wicklow County Development Plan 2004 and any subsequent County Development Plans, and the Wicklow Environs & Rathnew Local Area Plan 2008-2014, and any subsequent Wicklow Environs LAP, as applicable.

2.

The development of AA1 (B) shall be in accordance the submitted UFP subject to the following requirements:

- The density of residential development in AA1 (B) shall comply with the allowable densities detailed in the Wicklow County Development Plan 2004 and any subsequent County Development Plans, the Wicklow Environs & Rathnew Local Area Plan 2008-2014, and any subsequent Wicklow Environs LAP and the Sustainable Residential Development in Urban Areas Guidelines.*
- The location of "Landmark Opportunities" shall be such that such structures/buildings are located at prominent sites in AA1 (B) that address a major road junction or a civic space/public realm or a public park. No "Landmark Opportunities" shall be located so as to impede potential access to any lands.*

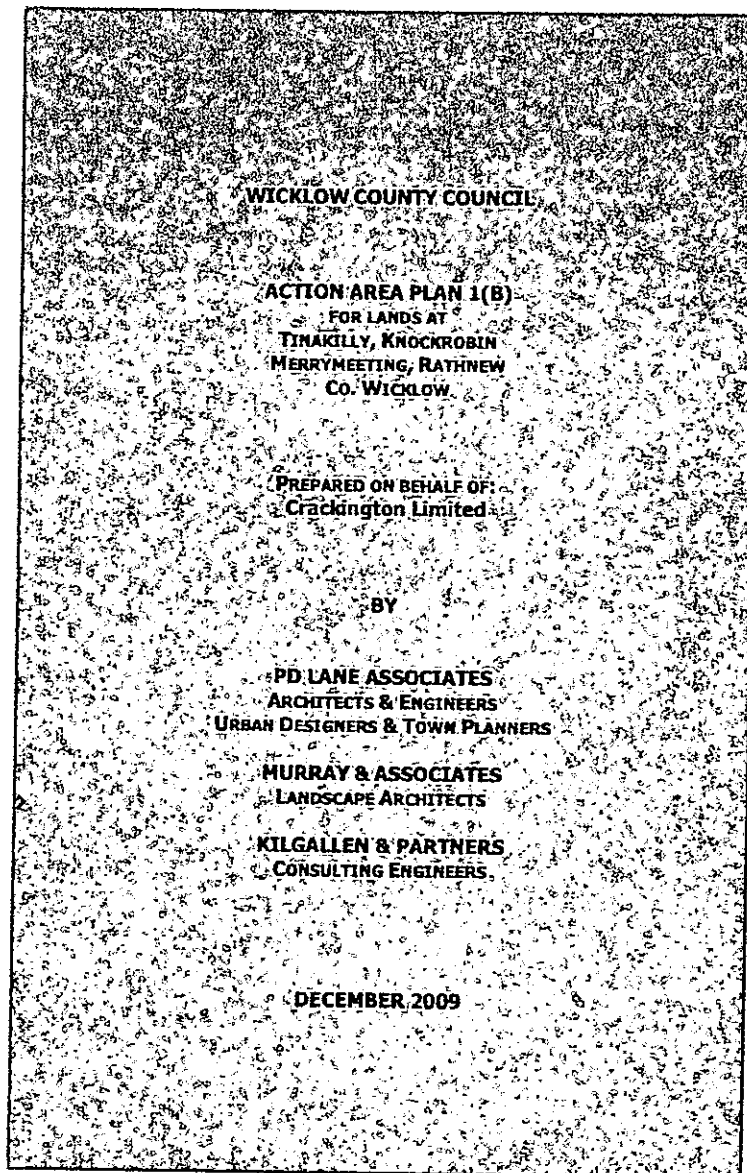
3. Disclaimer

The Planning Authority does not take responsibility for the accuracy of the documents submitted as part of this UFP.

The Planning Authority reserves the right to agree modifications to the UFP, where appropriate, in the interest of proper planning and sustainable development.

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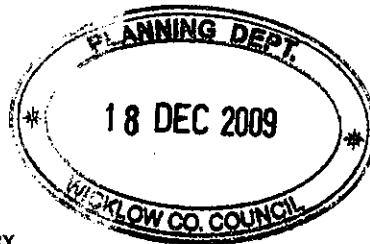
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INTRODUCTION / EXECUTIVE SUMMARY

The Wicklow Environs and Rathnew Local Area Plan 2008-2014 ('LAP') states that an Action Area Plan 1 ('AA1') shall be completed for the lands at Tinakilly, Newrath, Rosanna Lower, Knockrobin, Clermont (Merrymeeing and Rathnew).

Due to the expansive area of AA1 the LAP allows for two separate Action Area Plans to be completed within AA1: Plan A to the north of Rathnew Stream ('AA1(A)') and Plan B to the south of Rathnew Stream ('AA1(B)'). The indicative Rathnew Inner Relief Road ('RIRR') alignment traverses AA1, north and south of Rathnew Stream, and across Clermont 3rd level Campus.

This document is the final AA1(B) proposal to Wicklow County Council for their consideration. Crackington Limited as the largest landowner within AA1(B) initiated the Action Area Plan process in October 2008.

Several earlier draft AA1(B) documents (and additional documents) were proposed by Crackington Limited to Wicklow County Council and for the consideration of the relevant landowners and stakeholders - October 2008, November 2008, March 2009, July 2009.

Prior to the adoption of the LAP, Crackington Limited instructed Kilgallen & Partners, Consulting Engineers and PD Lane Associates to examine the design and alignment of the proposed RIRR, as indicated on the draft Local Area Plan.

After the adoption of the LAP, work on the design and alignment of the RIRR intensified in consultation with the Roads Department, Wicklow County Council and the relevant landowners and stakeholders.

Kilgallen & Partners submitted drawings of the RIRR to the Roads Section, Wicklow County Council in October 2008, after which a series of meetings took place and a further submission was submitted in December 2008. This submission was altered in March 2009, June 2009, August 2009 and again in November 2009. The November 2009 RIRR proposal is the current design and alignment proposed by Kilgallen & Partners for the consideration of Wicklow County Council (please find attached documentation in Appendix V) and relevant stakeholders.

Between October 2008 and December 2008, PD Lane Associates undertook the initial stages of formulating AA1(B) for the consideration of all relevant landholders and stakeholders. In October 2008 the initial proposed draft AA1(B) was sent out for stakeholder consultation. The majority of the significant landowners responded in one form or another regarding the draft proposal.

John Spain Associates, on behalf of Claremont Holdings Limited, issued a letter of objection to the draft proposal - in particular, the manner and approach taken when producing the draft Urban Framework Plan (and its content), access to and from the RIRR, phasing of residential development in AA1(B).

A meeting was held between representatives of Claremont Holdings Limited and Crackington Limited on the 25th November 2008. Following on from that meeting Crackington Limited lodged a AA1(B) submission with Wicklow County Council and representatives of Claremont Holdings Limited and Crackington Limited exchanged written correspondence (please find documentary evidence attached in Appendix II).

Eileen Howell issued a letter of objection to her lands being included in any submission - in particular, the issue of the public riverside walkway through her lands was raised.

Pauline Furlong made contact with PD Lane Associates and made it clear that she had issues with the landuse zoning objective on her lands in AA1(B) and that she had objections to the public walkway traversing her lands.

In late January 2009, Wicklow County Council responded to the AA1(B) submission made by Crackington Limited, issuing 8 points that needed to be addressed further.

In February and March 2009 Wicklow County Council and representatives of Crackington Limited held meets regarding the response by Wicklow County Council.

Following on from these meetings and having regard to the written and verbal submissions from significant landholders within AA1(B), Crackington Limited agreed to address a number of issues and initiate another consultation process with key stakeholders for their consideration.

The issues raised by Wicklow County Council's response regarding the Flood Impact Assessment and Heritage Appraisal were dealt with by submissions by Kilgallen & Partners, Consulting Engineers and Murray & Associates, Landscape Architects respectively (please find attached Appendices III and VI).

Crackington Limited proposed to sub-divide the residential phasing into two sections: RIRR Phasing and Port Access Road Phasing. And to link the phasing of residential development with the provision of Active Open Space and Open Space & Amenity lands.

Crackington Limited proposed to examine an alternative or temporary route alignment for both the Indicative Pedestrian Walkway and the RIRR in order to provide greater flexibility and scope within the AA1(B) process.

The alternative Indicative Public Walkway traverses Crackington Limited's residential zoned land, linking the Riverside Walk with the proposed indicative walkway to the front of Tinakilly House Hotel. Thereby providing an alternative option that addresses the issues brought up by Eileen Howell and Pauline Furlong in their submissions.

The alternative RIRR alignment proposed was a temporary or optional route if the final phase of the Relief Road is delayed (or otherwise) was dismissed and removed. This temporary or optional route was deemed unnecessary, as the Clarke Family and Crackington Limited initiated consultation and negotiation on the alignment of the proposed RIRR between the Newcastle Road and the old N11.

In May 2009, John Spain Associates, on behalf of Claremont Holdings Limited responded to the revised AA1(B) document (March 2009) received by Crackington Limited in the form of two submissions. Wicklow County Council responded to these submissions in June 2009.

On the strength of this correspondence between Wicklow County Council and Claremont Holdings Limited, Crackington Limited revised the Urban Framework Plan (UFP) and revised the proposed RIRR in order to provide direct access to Claremont Holdings Limited's landholding.

In June 2009, McGill Planning, on behalf of the Clarke Family began consultation with Crackington Limited regarding the alignment of the proposed RIRR from the Newcastle Road to the old N11. Kilgallen & Partners, Consulting Engineers proposed several route alignments across the Clarke landholding for their consideration. In August 2009, an alignment was agreed by both parties in the presence of representatives of Wicklow County Council Planning Section and Roads Section.

In August 2009, Kilgallen & Partners revised the RIRR in order to accommodate a direct vehicular link to Claremont Holdings Limited lands, and a traffic report was undertaken by Transportation Planning Services Limited on behalf of Claremont Holdings Limited in September 2009. The UFP and the AA1(B) and RIRR were revised accordingly on the strength of this report.

Kilgallen & Partners undertook a traffic impact assessment for the RIRR on the lands between the Newcastle Road and the old N11 on the Clarke Family lands.

The Urban Framework Plan was again revised in November 2009 with respect to John Spain & Associates and Wicklow County Council's comments (see revised UFP in Appendix IV).

This Action Area Plan seeks to provide a framework for the delivery of a significant extension to the settlement of Rathnew, which will involve the delivery of the RIRR that will provide access to Clermont 3rd level Campus and prevent congestion in the village core.



1. SITE LOCATION & DESCRIPTION

The townlands of Rathnew, Tinakilly, Knockrobin and Merrymeeting are all to the east and south of the village core of Rathnew. Tinakilly and Rathnew townlands are directly south of Rathnew Stream, Merrymeeting is along the main Wicklow/Dublin Road (R750) and Knockrobin is further east towards the Area of Conservation (AC).

The AA1(B) lands are defined to the west and southwest by Rathnew Village and the main Wicklow/Dublin Road (R750), to the south by the Port Access Road, to the east by the Area of Conservation (AC) adjoining The Murrough, and to the north by Rathnew Stream. At Merrymeeting the AA1(B) lands are adjoining the new junction for the Wicklow Town Relief Road that will connect into the RIRR and the Port Access Road.

The lands within AA1(B) were recently subject to a review and adoption of the Wicklow Environs and Rathnew Local Area Plan 2008-2014 ('2008 LAP'). The following is an approximate acreage breakdown of the zoning patterns within AA1(B), adopted in the 2008 LAP:

Infill Residential Zoned land (R1) - c.20 acres
New Residential Zoned Land (R & R2) - c.90 acres
Town Centre Activities (TC) - c.0.2 acres
Employment & Retail Warehousing (E) - c.15 acres
Open Space & Amenity (OS1) - c.30 acres
Active Open Space (OS2) - c.65 acres

An indicative future road alignment for the delivery of the RIRR traverses the AA1(B) lands at Tinakilly, and an Indicative Pedestrian Walkway traverses the AA1(B) lands along Rathnew Stream (with an alternative link as shown on the Action Area Detail Plan) into the Area of Conservation adjoining The Murrough and back towards Tinakilly House Hotel and down Tinakilly Avenue towards the Wicklow/Dublin Road (R750).

Generally, the topography of the land falls away from Tinakilly House Hotel towards Rathnew, Knockrobin, Rathnew Stream and the Area of Conservation adjoining The Murrough. Significant groups of trees are found mainly on the approach avenues, and surrounding Tinakilly Hotel and Knockrobin House, with rows of mature trees delineating some field boundaries.

2. STATUTORY PLANNING CONTEXT

The Wicklow Environs and Rathnew Local Area Plan 2008-2014 identifies eleven locations within the settlement of Wicklow in need of sustainable, comprehensive and phased development (Action Areas 1 - 11). These locations include the AA1 lands at Tinakilly, Newrath, Rosanna Lower, Knockrobin, Clermont (Merrymeeting and Rathnew) that are mostly undeveloped, but are subject to development pressures.

This Action Area Plan sets out the framework for the future development of the AA1(B) lands in accordance with the policies and objectives, contained in the Wicklow Environs and Rathnew Local Area Plan 2008-2014 and the Wicklow County Development Plan 2004-2010.

In order to complete this Action Area Plan document, a review of the following local, regional and national plans was carried out:

- National Spatial Strategy 2002-2020
- Regional Planning Guidelines for the Greater Dublin Area 2004-2016
- Wicklow County Development Plan 2004-2010
- Wicklow Environs & Rathnew Local Area Plan 2008-2014
- Wicklow & Environs Integrated Framework Plan for Land Use and Transportation 2005
- Residential Density Guidelines for Planning Authorities 1999
- Childcare Facilities Guidelines for Local Authorities 2001
- Draft Planning Guidelines on Sustainable Residential Development in Urban Areas

Action Area Plans are not Statutory Plans under the Planning and Development Act, 2000 (as amended). They are designed to provide more site-specific details than would be practicable in a Development Plan relating to larger areas. Once agreed by a Planning Authority an Action Area Plan remains in place for an indefinite period, and planning applications can proceed.

RESIDENTIAL DENSITY GUIDELINES, 1999

The majority of the Residential zoned lands within AA1(B) would be defined as 'Outer Suburban/Greenfield' Sites under the Residential Density Guidelines, 1999. With the exception of the lands immediately adjoining the existing village settlement which could be defined as 'Inner Suburban/Infill' lands.

In accordance with the Residential Density Guidelines for 'Inner Suburban/Infill' lands 'a balance has to be struck between the reasonable protection of the amenities and privacy of adjoining dwellings, the protection of established character and the need to provide infill.' These areas 'should be capable of proposing their own density and character.'

In accordance with the Residential Density Guidelines for 'Outer Suburban/Greenfield Sites' densities of between 14-20 per acre 'should be encouraged generally.' Development at densities less than 8 per acre 'should generally be discouraged in the interests of land efficiency.'

WICKLOW & ENVIRONS INTEGRATED FRAMEWORK PLAN FOR LAND USE & TRANSPORTATION, 2005

In 2004 Wicklow County Council and the Dublin Transportation Office (DTO) together commissioned Cunnane Stratton Reynolds to undertake a land use and transportation study for the Wicklow and Environs area. The purpose of the Integrated Framework Plan was to review the planning, development and transportation context and provide detailed land use and transportation proposals for the future development of the settlement.

The development of the AA1 lands will take into account the proposals and recommendations of this Framework Plan.

NATIONAL SPATIAL STRATEGY 2002-2020

The National Spatial Strategy for Ireland, 2002-2020 (NSS) sets out the basis on which all areas of the county will have the opportunity to develop to their potential within a national spatial planning framework for the period up to 2020.

In the Greater Dublin Area Region (Counties Dublin, Wicklow, Kildare and Meath) critical mass will be enhanced through Dublin performing as a 'gateway' supported by the Primary Development Centres at Wicklow, Naas, Newbridge, Kilcullen, Balbriggan, Navan and Drogheda.

Wicklow is located on the coastal National Transport Corridor connecting Belfast and Dublin to Wexford and Rosslare. It is envisioned that the Primary Development Centres will be the locations of which development outside of Dublin City is concentrated: *"these development centres have a unique role in Irish terms, given the scale of the Dublin City region and the need for internal balance between the city and its surrounding counties."*

The implications of the designation of Wicklow Town as a Primary Development Centre in terms of economic and population growth are considerable. The NSS states: *"the Primary Development Centres need to aim at a population level that supports self sustaining growth, but which does not undermine the promotion of critical mass in other regions. This suggests an ultimate population horizon of up to 40,000 people for the Primary Development Centres"*



REGIONAL PLANNING GUIDELINE 2004-2016

Wicklow is designated a Large Growth Town 1 in the Regional Planning Guidelines and is located within the Hinterland area of the Greater Dublin Area.

The indicative settlement hierarchy states that the population of a Large Growth Town 1 such as Wicklow should be in the range of 25,000-40,000 persons and should become an attractive location for investment with a strong profile internationally. The settlement of Wicklow and Rathnew have a current population of c.12,000, which is considerably lower than this indicative population target. The development of the AA1 lands will help to address this population deficit.

WICKLOW COUNTY DEVELOPMENT PLAN 2004-2010

According to the Wicklow County Development Plan 2004 - 2010 the scheduled town of Wicklow/Rathnew is classified as a Large Growth Town I. The Plan sets out a development path that the town of Wicklow/Rathnew will follow:

- consolidate development within this area;
- promote increased densities;
- enhance public transport systems and increase and;
- encourage a shift to public transport.

The 2004-2010 County Development Plan recorded a series of population projections showing continued growth in the 1990's and up to 2016. According to these population projections, the town of Wicklow/Rathnew has a current population of c.12,000 persons, which is set to increase to a maximum population level of c.17,500 persons by 2010, with a proposed maximum population level by 2016 of 22,500. The development of the AA1 lands will help to address this population target.

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WICKLOW ENVIRONS AND RATHNEW LOCAL AREA PLAN 2008-2014

According to the Wicklow Environs and Rathnew Local Area Plan 2008-2014 a target population of c.21,000 for the town of Wicklow and its Environs is envisaged during the lifetime of the Plan (2008-2014). With this in mind, the Local Area Plan proposes Action Area 1 for the zoned lands at Tinakilly, Newrath, Rosanna Lower, Knockrobin, Clermont (Merrymeeting and Rathnew).

The key considerations in preparing Action Area 1 are:

- *Provision of a new inner relief road for Rathnew to facilitate access to new developments from the existing road network, to prevent congestion at the Rathnew mini roundabout due to the development of AA1 and to achieve good traffic circulation in the area.*
- *Development of residential units of high standards of design and layout. An Urban Framework Plan shall be prepared by urban design specialists, for development in the area of the new Rathnew Town Centre zone and the 'R2: High Density Residential Zone'. The plan shall include specific objectives regarding the form that new development should take, including objectives on land uses and density, access, the massing and height of buildings, the location of landmarks, streetscape, public realm and public spaces.*
- *Development of a third level education facility at Clermont with the development of an adjoining research and knowledge based commercial area, on lands zoned CC.*
- *The reservation of lands around Clermont for the future provision of student accommodation, on lands zoned CC.*
- *The reservation of lands to the north east of Clermont for the possible future expansion of the college, on lands zoned CC.*
- *Development of lands for Employment as indicated on the map, including the provision of retail warehousing, on the area of land measuring 3ha between the R772 (old N11) and the new Rathnew relief road (to be accessed from the new relief road). The use of these employment lands will require the development of high quality environments that will not adversely affect the natural environment of the area and accordingly height and site development standard restrictions will be employed accordingly. These developments should employ a plot ratio in accordance with the County Development Plan; small building units will be encouraged with high quality landscaping. The development of these lands shall include overall site master plan that incorporates details such as phasing, planting, landscaping, the use of proposed and visual impact of the development. The amenities of adjoining properties shall be protected.*
- *Areas of open space shall be provided as part of the development of the college, with lands zoned for Active Open Space to the east/south of Tinakilly providing sports facilities for both the college and the wider community.*
- *A formal landscaped public amenity walkway along both sides of the river shall be provided, as indicated on the map. That portion of the proposed walkway that is in the vicinity of the 'AC: Area of Conservation' zone, shall be subject to consultation and agreement with the 'National Parks and Wildlife Service'. The plan shall include suitable proposals to ensure that walkway areas are maintained as safe, usable areas, free from anti-social behaviour.*
- *A Heritage Appraisal / Impact Assessment shall be undertaken to assess the impact the development proposals on heritage features. The 'curtilage' of the protected structures shall be defined.*
- *A Flood Impact Assessment shall be prepared relating to the development of this Action Area.*
- *Lands shall be reserved to allow for the development of the sanitary services to service the development of the area.*
- *A comprehensive landscaping plan shall be submitted relating to the lands immediately adjoining the existing avenue to Tinakilly House from the proposed relief road to the hotel and leisure zoning. This landscaping plan shall include mounding and dense planting.*
- *Plan A shall be for lands north of Rathnew Stream; Plan B shall be for lands south of Rathnew Stream. The plans shall comply with the overriding objectives for the entire AA1, as set out above.*
- *Prior to agreeing any Action Area Plan, agreement shall be reached on the design, alignment and delivery of the new access route that traverses the Action Area. Only 40% of residential development will be permitted in advance of the full completion of this link road.*
- *Prior to agreeing any Action Area Plan, the Urban Framework Plan for the new Rathnew Town Centre zone and the 'R2: High Density Residential Zone', shall be prepared and agreed.*

3. DEVELOPMENT STRATEGY

CONSULTATION

A draft Action Area Plan consultation document was submitted to all landowners and stakeholders within the AA1(B) boundaries in October 2008, and a number of responses were received at the time. A proposed AA1(B) submission was lodged with Wicklow County Council in November 2008.

Claremont Holdings Limited and Eileen Howell made written responses to the proposed Action Plan and a meeting was held between representatives of both Claremont Holdings Limited and Crackington Limited in November 2008.

Representatives of Crackington Limited had two meetings with Wicklow County Council, in February and March 2009, and having regard to the letter of response on AA1(B) from Wicklow County Council, Crackington Limited decided to re-issue a revised AA1(B) document (March 2009) for stakeholder consultation (including relevant landowners in AA1(A) regarding the RIRR).

In May 2009, John Spain Associates, on behalf of Claremont Holdings Limited responded to the revised AA1(B) document (March 2009) received by Crackington Limited. Wicklow County Council responded to these submissions by Claremont Holdings Limited in June 2009.

Subsequent to the correspondence and consultation with John Spain & Associates, on behalf of Claremont Holdings on-going discussions and correspondence has taken place between PD Lane Associates and John Spain & Associates regarding the Urban Framework Plan and Action Area Plan (AA1(B)).

On the strength of this correspondence between Wicklow County Council and Claremont Holdings Limited, Crackington Limited revised the Urban Framework Plan (UFP) and revised the proposed RIRR in order to provide direct access to Claremont Holdings Limited's landholding.

In June, McGill Planning, on behalf of the Clarke Family began consultation with Crackington Limited regarding the alignment of the proposed RIRR from the Newcastle Road to the old N11. In August 2009, an alignment between the Newcastle Road and the old N11 was agreed by both parties in the presence of Wicklow County Council Planning Section and Roads representatives.

In August, the proposed RIRR spur road into Claremont Holdings Limited's landholding was designed by Kilgallen & Partners and considered by John Spain Associates, on behalf of Claremont Holdings Limited.

Extensive consultation has been undertaken between all parties relevant to this Action Plan and consensus and collaboration between the stakeholders has been sought throughout the process.



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PHASING

It is considered appropriate to phase the proposed development within this Action Area Plan.

Phase I

Development of 40% of the Residential zoned lands in AA1 (and associated provision of Active Open Space and/or Open Space & Amenity lands for amenity use), Town Centre Activities zoned lands in AA1(B), and the Employment zoned lands in AA1(B) shall be permitted prior to the completion of the RIRR.

The permitted Residential development should include an appropriate quantum of Active Open Space and/or Open Space & Amenity lands for amenity use, in the ownership of the individual landholders carrying out residential development, to be agreed at planning application stage with the Planning Authority.

Due to the differing nature and extent of the major residential landholdings within AA1 the provision of amenity uses maybe in the form of both Active Open Space and Open Space & Amenity lands. For example, in some cases the quantum of lands to be provided for amenity use associated with permitted residential development could be a combination of the following:

- both Active Open Space and Open Space & Amenity lands
- only Open Space & Amenity lands
- only Active Open Space lands

Crackington Limited propose to include c.12 acres of Active Open Space, 4.5 acres of public park along Tinakilly Avenue and c.6 acres of Open Space and Amenity lands along Rathnew Stream within Phase I development.

The Residential zoned lands associated with the Port Access Road at the southern part of AA1(B) should not be considered part of the RIRR phasing and therefore not part of this 40% permitted Residential development. The Port Access Road phasing should be permitted in tandem with the delivery of the Port Access Road and be considered a separate phasing objective.

Any other residential development permitted within AA1(B) that is not reliant on access from the RIRR should not form part of the 40% restriction/phasing on permitted Residential development as laid down within AA1.

Phase II

Development of the remaining Residential (and associated Active Open Space or Open Space & Amenity) within AA1(B), is considered appropriate when the RIRR has been delivered to the old N11 or the Newcastle Road.

The proposed Indicative Priority Junctions and Indicative Access Points are indicative locations where the zoned lands within AA1 can be accessed from the RIRR and the Main Street.

4. INFRASTRUCTURE, SERVICES & TRANSPORTATION

Transport

ROADS

Vehicular access to the AA1(B) lands will be made from the Merrymeeting Interchange (R750) along the proposed RIRR to Rathnew Stream (with a certain amount of development accessed from the Main Street subject to normal planning application procedures).

It is a requirement within AA1, for the future overall road infrastructure of the settlement of Wicklow/Rathnew, that the RIRR is constructed between the Merrymeeting Interchange (R750) and the old N11 (R772).

It is envisaged that the first part of the RIRR will be constructed to Rathnew Stream (from the Merrymeeting Interchange), under AA1(B). The second part of the RIRR from Rathnew Stream to the old N11 will be constructed as part of AA1(A).

Crackington Limited are committed to the delivery of the proposed RIRR from the Merrymeeting Interchange to Rathnew Stream as part of Phase I development (outlined above), subject to appropriate planning permissions through normal planning procedures.

Crackington Limited do not own any land north of the Rathnew Stream within AA1(A) and are not in any legal position to insist that any other landowners deliver the remainder of RIRR in a particular fashion they consider appropriate.

However, Crackington Limited are committed to promoting the delivery of the remainder of the RIRR that traverses land in the ownership of Ascal Properties Limited, Wicklow County Council and Akley Properties Limited. To this extent, Crackington Limited have made contact with these landowners and letters of agreement to the proposed design, alignment and delivery of the remainder of the road are attached herewith.

Extensive discussions and design meetings took place between representatives of Crackington Limited and the Clarke Family regarding the section of the proposed RIRR between the Newcastle Road and the old N11, with an agreement being reached between both parties as to the best way forward in terms of design and access.

Crackington Limited are committed to promoting the construction of a link road (spur), to abut the Claremont Holdings Limited lands, during the construction of that section of the RIRR from the Hotel Avenue to the Rathnew Stream.

This link road will be designed and constructed to the appropriate standards necessary to facilitate the development of Claremont Holdings Limited's lands, as per the Local Area Plan zoning objectives.

Claremont Holdings Limited shall pay a fair and equitable financial contribution towards the cost of the RIRR and link road.

Provision is made within the AA1(B) for the potential access from the Main Street to Claremont Holdings Limited's land to the rear of the main street, subject to appropriate planning permissions through normal planning procedures.



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PEDESTRIAN AND CYCLIST FACILITIES

Dedicated pedestrian and cyclist facilities will be provided in accordance with specific objectives of the Wicklow and Environs Local Area Plan 2008-2014 along the proposed RIRR and into residential areas.

Drainage

Separate systems for the collection and disposal of surface water and foul sewerage will be provided in accordance with the Wicklow Environs Local Area Plan 2008-2014.

FOUL SEWERAGE

It is proposed that foul and wastewater effluent generated by the development will discharge to the new Wastewater Treatment Plant at The Murrough to the east of AA1(B). Two pumping stations have been indicated on the Action Area Detail Map.

SURFACE WATER DRAINAGE

Various appropriate techniques will be employed to ensure that the treatment of surface water run-off from the development lands will comply with the principles of sustainable urban drainage.

Water supply

Potable water supply to the development lands will be taken from the existing public mains.

CONCLUSION

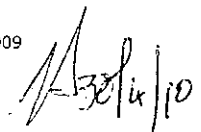
This Action Area Plan provides a viable solution for the future development of these lands that will deliver a self-sustaining, vibrant residential community with active open space and amenity areas, employment opportunities, local facilities, an efficient road network (the proposed Rathnew Inner Relief Road) and the provision of necessary community and recreation facilities.

Crackington Limited has undertaken a significant stakeholder consultation process, in order to produce this document, and all stakeholders have been consulted and responded to appropriately during this process.

With this in mind, we respectfully request Wicklow County Council to adopt this Action Area Plan in order to secure the appropriate future sustainable development of these lands at Rathnew, Co. Wicklow.



Malcolm Lane
BA MRUP MA (UD)
PD Lane Associates

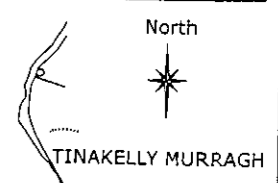


APPENDIX I
MAPS & PLANS

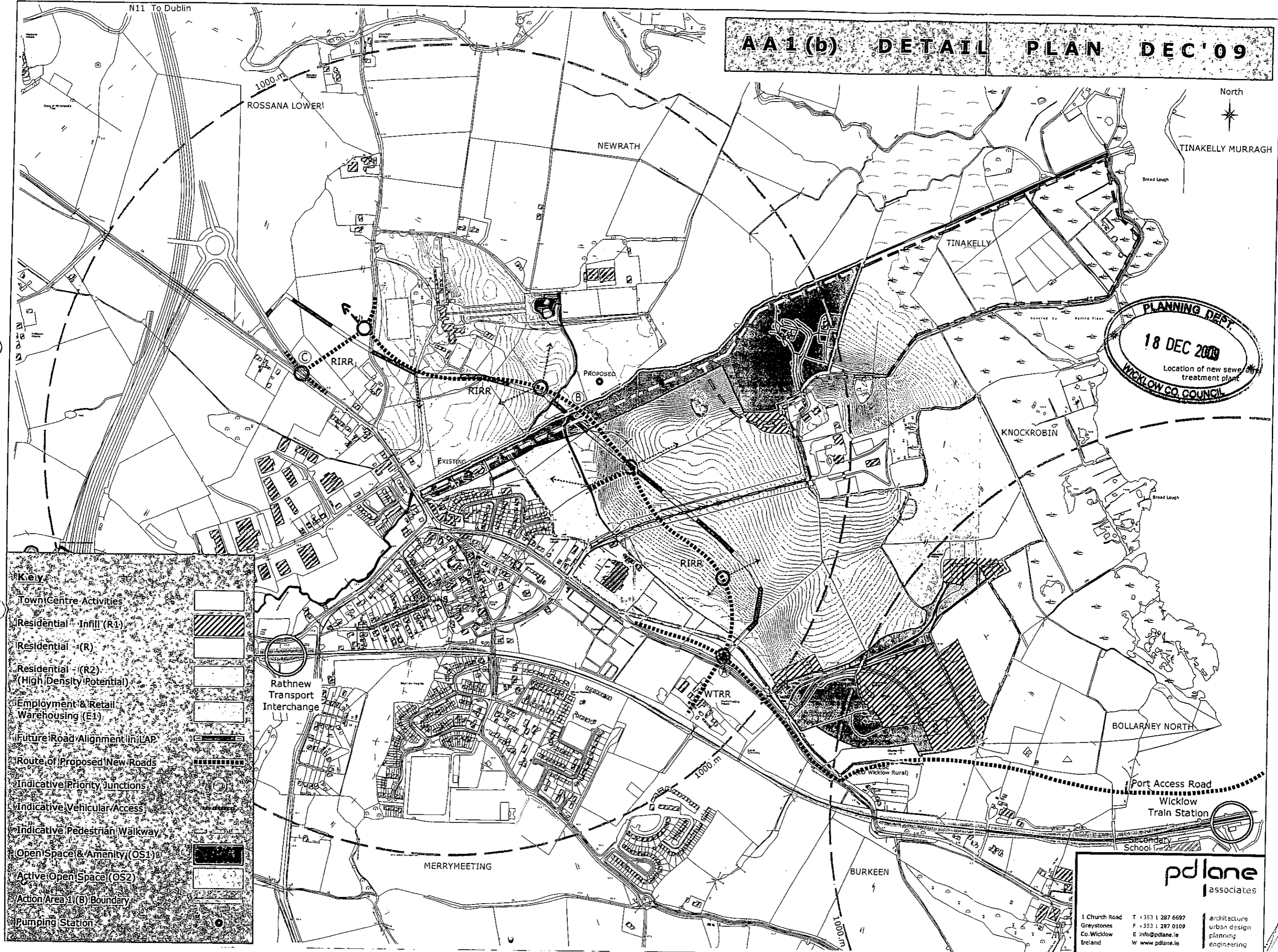


M.30/4/10

AA1 (b) DETAIL PLAN DEC '09



PLANNING DEPT.
18 DEC 2009
 Location of new sewerage
 treatment plant
 WICKLOW CO. COUNCIL



Key

- Town Centre Activities
- Residential - Infill (R1)
- Residential - (R)
- Residential - (R2) (High Density/Potential)
- Employment & Retail Warehousing (E1)
- Future Road Alignment in LAP
- Route of Proposed New Roads
- Indicative Priority Junctions
- Indicative Vehicular Access
- Indicative Pedestrian Walkway
- Open Space & Amenity (OS1)
- Active Open Space (OS2)
- Action Area 1 (B) Boundary
- Pumping Station

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architecture
 urban design
 planning
 engineering

AA1 (b) LAND OWNERSHIP

North



TINAKELLY MURRAGH

Broad Lough

TINAKELLY

KNOCKROBIN

Broad Lough

BOLLARNEY NORTH

Wicklow Train Station

School

MERRYMEETING

BURKEEN

pd lane
associates

1 Church Road
Greystones
Co. Wicklow
Ireland

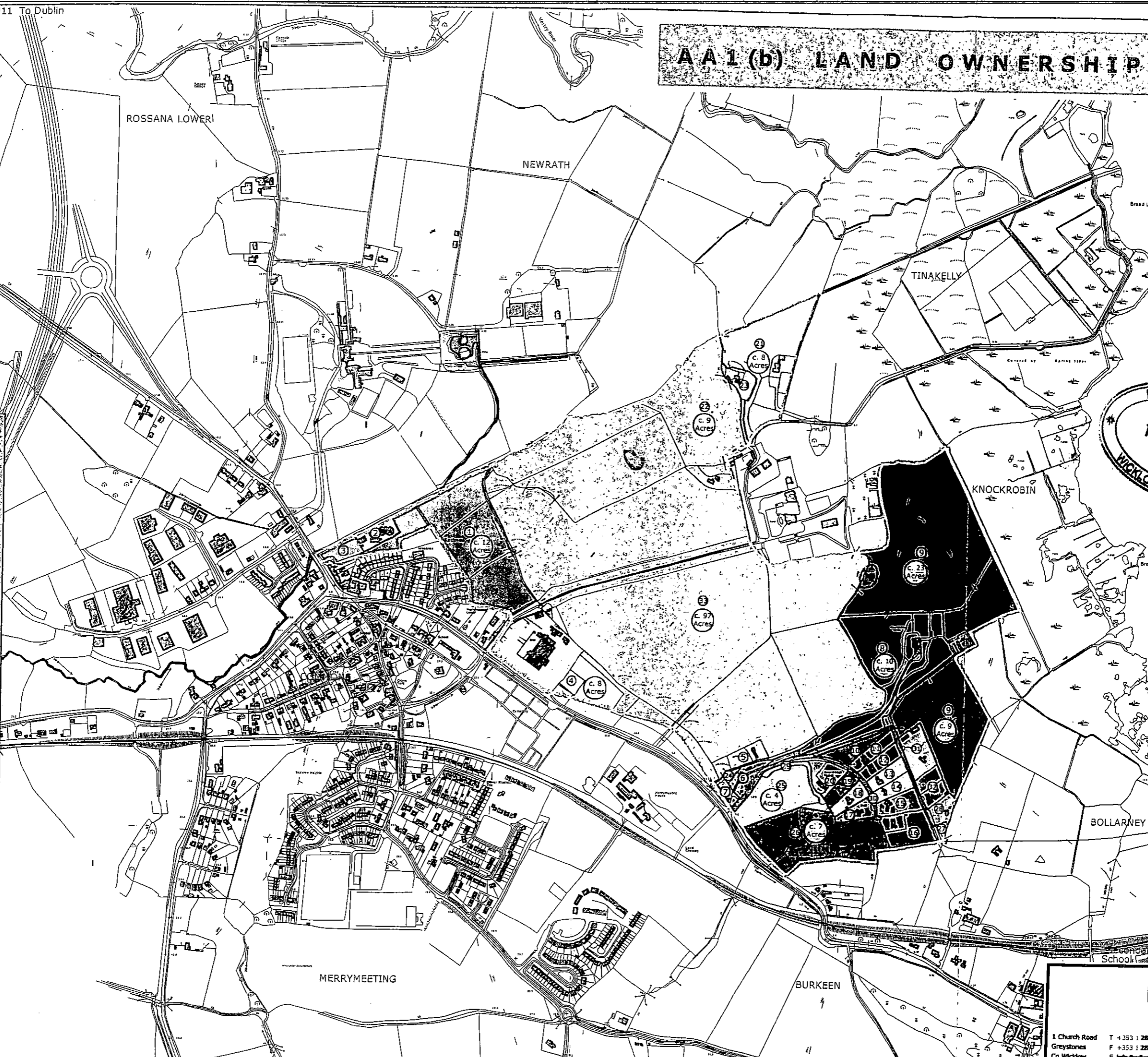
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architecture
urban design
planning
engineering

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- N11 To Dublin
- ROSSANA LOWER
- NEWRATH
- TINAKELLY MURRAGH
- Broad Lough
- TINAKELLY
- KNOCKROBIN
- Broad Lough
- BOLLARNEY NORTH
- Wicklow Train Station
- School
- MERRYMEETING
- BURKEEN
- Orderance Survey Ireland License No. 0002108 © Government of Ireland
- Key**
1. Claremont Holdings Ltd.
 2. Wicklow County Council
 3. Claremont Holdings Ltd.
 4. Stratford
 5. Van Oer Berg
 6. Helys Medical Real Ltd.
 7. Fayard & Francis
 8. O'Neil
 9. O'Keefe
 10. Rogers
 11. Butler & Wilson
 12. Conlon
 13. Carey & Gorman
 14. Swaine & Tolan
 15. Somers & Malcher
 16. James
 17. Kerr
 18. Kavanagh
 19. Kerr
 20. Hillm
 21. Fowl
 22. Purdy
 23. Ryan
 24. Matheson
 25. Galvra Properties Ltd.
 26. Dolan
 27. O'Rourke
 28. Fitzpatrick
 29. Harty
 30. Vincent Rooney Ltd.
 31. O'Grady
 32. Moran
 33. Crackington Ltd.
- Action Area 1 (b) Boundary



APPENDIX II
CONSULTATION DOCUMENTS



[Handwritten signature]



John Spain Associates

Planning & Development Consultants
Chartered Town Planners & Chartered Surveyors

10 Lower Mount Street
Dublin 2

Tel 01 662 5803

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Mr. Fergal Keogh
Wicklow County Council
Planning Section
County Buildings
Whitegates
Wicklow Town
Co. Wicklow



Our Ref: JSA/Rathnew_08065
Date: 5th October 2009

Dear Fergal,

Re: **ACTION AREA PLAN 1 (B) LANDS AT RATHNEW COUNTY WICKLOW.**

1.0 INTRODUCTION

1.1 Further to your letter of the 8th September 2009, we enclose for your attention a copy of a Traffic Impact Assessment (TIA) prepared by Transportation Planning Services (TPS) Ltd relating to the potential development of the 12.57 acre site at Rathnew Main Street within the ownership of our clients, Claremont Holdings Ltd.

1.2 We set out below a number of observations on the TIA, as it relates to both the potential access from Main Street, Rathnew to the Claremont Holdings lands and also as it relates to the Rathnew Inner Relief Road. Additionally, and in response to your letter of the 8th September 2009, we also set out a number of other general observations on the Draft Action Area Plan 1(B) and Draft Rathnew Urban Framework Plan, both currently being prepared by Crackington Ltd.

2.0 TRAFFIC IMPACT ASSESSMENT (TIA)

Potential Access from Main Street

2.1 The TIA demonstrates that access to the subject lands is achievable from Main Street, Rathnew. The TIA examines the acceptability of the access proposals in terms of layout and the capacity of the local road network to accommodate the additional traffic associated with the potential access arrangements. The key points of the TIA are as follows:

- The subject site is currently accessed from Main Street by means of a simple priority junction that provides access to the Wicklow County Council pumping station. It is considered that the principle of direct access from Main Street is well established in the area;

Managing Director: John P. Spain BBS MRUP MRICS ASCS MRTPI MIPI

Executive Directors: Erika Casey BA (MOD) MRUP MRTPI MIPI Gavin Daly BA Dip (ERM) MIPI

John Spain Associates Ltd. trading as John Spain Associates. Directors: J. Spain, S. Spain.

Registered in Ireland No. 396306. Registered Office: 10 Lower Mount Street, Dublin 2. VAT No. IE 6416306U

Associate Offices:

London

Manchester

Leeds

- An analysis of the trip generation associated with an example development of 75 residential units on the site indicates that the development of the site would not generate significant AM or PM peak hour traffic;
- An examination of the available sightlines achievable at the access junction with Main Street shows that visibility sightlines of 4.5 metres by 70 metres into both the leading and non-leading traffic directions are achievable. These visibility sightlines are in accordance with Table 2/1 of the National Roads Authority Publication TD 41/95;
- In terms of the impact of the access on the surrounding road network, the junction has been modelled using PICADY5 software. The results indicate that the AM and PM peak traffic periods at this junction experiences almost free flow traffic conditions with no material queuing projected within this junction. The results also show that this junction would operate with reserve capacity of over 85% during peak AM and PM traffic periods.

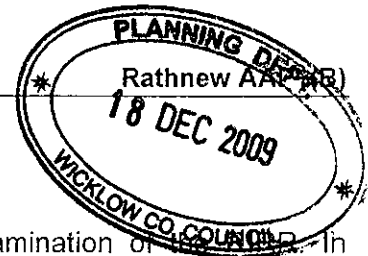
2.2 In light of the above, it is respectfully submitted that the Draft AAP1(B) and Draft Rathnew Urban Framework Plan currently being prepared by Crackington Ltd should highlight the potential for access from Main Street to the Claremont Holdings lands. Specifically, it is submitted that the following amendments should be made:

Draft Rathnew Urban Framework Plan - July 2009

- The 'Movement Vehicular' diagram in the Draft UFP of July 2009 should indicate an access to the Claremont Holdings lands from Main Street;
- The text under the 'Movement Vehicular' section of the Draft UFP, particularly the final paragraph on Page 15 of the July 2009 Draft UFP should be amended to include reference to potential access to the Claremont Holdings lands from Main Street;
- The 'Key Frontages' diagram on Page 18 of the July 2009 Draft UFP should be amended to take account of the potential access from Main Street to the Claremont Holdings lands (it should be noted that this key frontage is also considered inappropriate due to the fact that it is located over a wayleave granted by our client to Wicklow County Council for access the pumping station);
- The 'Urban Framework Plan' diagram on Page 21 of the July 2009 Draft UFP should be amended in accordance with the above.

Draft AAP1(B) – March 2009

- Section 4 entitled 'Infrastructure, Services and Transportation' should be amended to include reference to the potential access from Main Street to the Claremont Holdings lands;
- The Draft AAP1(B) Detail Plan should be amended to indicate the potential for access from Main Street to the Claremont Holdings lands;
- The Draft AAP1(B) should outline that any residential development within the AAP1(B) area which does not rely upon the RIRR for access, will not be subject to the restriction of the Wicklow / Rathnew Local Area Plan which states that "only 40% of residential development will be permitted in advance of the full completion of . . ." the RIRR.



Proposed Rathnew Inner Relief Road (RIRR)

- 2.3 The TIA produced by TPS Ltd also provides an examination of the RIRR. In particular, the TIA questions the function of the RIRR, outlining that *"the proximity of the RIRR to the existing road links within the village, the length of the RIRR, the number of proposed junctions and its alignment would suggest that motorists may well route through the village rather than use a somewhat more circuitous RIRR. Motorists remaining on these road links will have little impact on the existing or future daily or peak hour traffic profiles on these links as ample road link capacity is available for the foreseeable future"*.
- 2.4 It has been demonstrated in the TIA that access to the subject lands is achievable from Rathnew Main Street. However, in order to ensure (i) the proper integration of the Claremont Holdings lands with the remainder of the AAP1(B) area and (ii) that a potential alternative access to the Claremont Holdings lands is available in the case where the access from Main Street cannot accommodate the volumes of traffic associated with the development of the Claremont Holdings lands, it would be appropriate for provision to be made for direct access from the RIRR to the Claremont Holdings lands.
- 2.5 The objection of our clients, Claremont Holdings, to the route of the proposed RIRR has been set out in detail in previous correspondence. In particular, concern was expressed that the proposed route of the RIRR fails to provide direct access to our client's landholding, thus creating a ransom situation which may detrimentally impact upon the coherent development of the AAP1(B) area. It is therefore considered that there remain serious issues in relation to the RIRR which need to be addressed. It remains the position of our clients that the RIRR should pass through or adjoin the lands within the ownership of Claremont Holdings in order to avoid the creation of ransom strips. As previously outlined, this involves only a relatively minor amendment to the route of the RIRR, re-aligning the road further to the west as it passes over the Rathnew stream. Our client has previously expressed his consent to the route of the RIRR traversing the lands within his ownership (letter of the 23rd July refers).
- 2.6 Notwithstanding the concerns outlined previously in relation to the function of the RIRR, it is recognised that the correspondence from Crackington Ltd of the 15th July 2009, enclosing the Draft Rathnew Urban Framework Plan (July 2009) and changes to the RIRR, show the construction of a link from a priority junction on the RIRR to the eastern boundary of the Claremont Holdings lands. Whilst the intention of this link road is recognised, there are no assurances that this link road will be constructed in the short to medium term, again leading to a situation where the Claremont Holdings lands are sterilised from development. The construction of the link road, including the timing of its delivery, would be entirely within the control of Crackington Ltd.
- 2.7 It is accepted by Wicklow County Council in the letter of the 8th September that *"the only restriction in relation to the construction of the RIRR will be to ensure that the Local Area Plan objective that only 40% of the residential development can take place in AA1(B) prior to the full completion of the RIRR is adhered to"*. It is further accepted in the said letter that Crackington Ltd will retain full control over the construction and completion of the RIRR.
- 2.8 It must be accepted that the above situation could potentially lead to a circumstance whereby Crackington Ltd obtain planning permission for the

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development of 40% of the residentially zoned land within the AAP1(B) area, together with the construction of that part of the RIRR required to facilitate the residential development. The remainder of the land within the AAP1(B) area (i.e. that not subject to the planning permission) is effectively sterilised from development pending the completion of the RIRR, which remains entirely in the control of Crackington Ltd. Crackington Ltd may be left with little or no incentive to complete the RIRR in the short to medium term and, as is understood from the letter of the 8th September, Wicklow County Council will retain no control over when the RIRR is completed.

- 2.9 The above situation would clearly be unacceptable. With the potential for a 10 year planning permission and the possible extension of the duration of the life of a planning permission, there is a possibility that other development land within the AAP1(B) area may be sterilised for a period of in excess of 12 years.
- 2.10 It is accepted that any landowner within the AAP1(B) area that wishes to utilise the RIRR to provide direct access to development land must make an appropriate contribution towards the cost of the delivery of the RIRR and our client expresses their willingness to enter into negotiations in this regard at an appropriate time in the future.
- 2.11 Our client's are willing to consider a situation whereby the Draft AAP1(B) indicates potential access to our client's lands from Main Street, Rathnew, with an additional access point provided by way of a link road from the RIRR. However, this is subject to the a firm commitment by Crackington Ltd, to be set out in the Draft AAP1(B), that (i) the link road will be constructed to immediately abut the eastern boundary of the Claremont Holdings lands, thus avoiding the creation of a ransom strip, (ii) the link will be designed and constructed to a standard necessary in order to facilitate the development of the lands within our client's ownership, and (iii) a firm commitment as to the timing for the completion of the link road. It is submitted that this link road, together with the necessary portion of the RIRR to ensure that the link road can access the local road network, should be constructed prior to the commencement of any development within the AAP1(B) area.

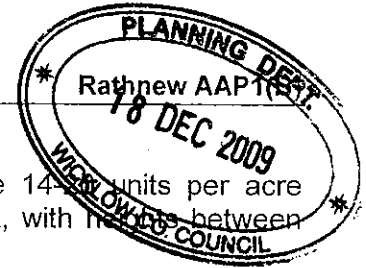
3.0 SPECIFIC COMMENTS IN RELATION TO THE DRAFT UFP AND DRAFT AAP1(B)

Indicative Open Space and Pedestrian Walkways

- 3.1 We would generally welcome the response from Wicklow County Council of the 8th September 2009 as it relates to pedestrian walkways and open space which are indicative only and subject to detailed examination at planning application stage. We understand that any approved AAP1(B) and Rathnew UFP will address the principle of the provision of open space and pedestrian walkways and will not specify specific routes and areas.

Massing, Density and Height

- 3.2 We have previously raised concern in relation to the 'Massing, Density and Heights' section of the Draft UFP (July 2009) and now wish to clarify our position. The third paragraph of this section refers to the western portion of the area zoned for 'Residential (R2 – High Density Potential) and suggests that *"the density, mass and building height for this area should be at the lower limit at the 14-20 units per acre, medium density units, with a maximum height of three storeys"*. The section



goes on to propose densities at the upper range of the 14-20 units per acre guideline towards the RIRR and along the Riverside Park, with heights between three and five storeys.

- 3.3 Whilst it is accepted that there must be a transition in terms of height and density between the existing residential development to the west of the AAP1(B) area and any new development, it is not considered appropriate to restrict land zoned for Residential (R2 – High Density Potential) to densities at the lower range of the 14-20 units per acre guideline. It is considered that these lands should achieve densities in the region of 20 units per acre, whilst ensuring that the residential amenity of the existing residential properties is not detrimentally impacted upon. In addition, the restriction on height to three storeys (within the western portion of the high density residential development area) is inappropriate and would severely restrict the potential for achieving appropriate densities through the planning application process.
- 3.4 Furthermore, concern is raised that this section of the Draft UFP promotes increased densities as development moves away from Rathnew town centre. It is considered that development density should decrease with increased distance from the services and facilities provided in the town centre. This is clearly the intention of the adopted Wicklow / Rathnew Local Area Plan, which zones the AAP1(B) land in a manner which would promote increased densities towards the town centre (i.e. the zoning moves from 'Town Centre Facilities' to 'Residential (High Density Potential)' to 'Residential' as it moves away from the town centre).
- 3.5 It is respectfully requested the Draft UFP be amended to take account of these issues.

4.0 SUMMARY AND CONCLUSIONS

- 4.1 This correspondence has clarified, by reference to a Traffic Impact Assessment (TIA) produced by TPS Ireland Ltd, that an analysis of the potential for access from Rathnew Main Street to the Claremont Holdings lands is achievable in principle and would not lead to any issues in relation to capacity or road safety. It is respectfully requested that the potential for this access road be identified in the Draft AAP1(B) and Draft Rathnew UFP currently being prepared by Crackington Ltd and that a number of amendments, as detailed in this submission, are made to the Draft AAP1(B) and Draft UFP to take account of this potential access route.
- 4.2 A number of concerns remain in relation to both the function and route of the Rathnew Inner Relief Road (RIRR). In particular we remain unclear as to how the planning authority propose to ensure that the development of land within the AAP1(B) area is not sterilised as a result of the sole responsibility of Crackington Ltd for the delivery of the RIRR. Our clients remain of the opinion that the RIRR should be re-aligned to traverse or immediately adjoin the Claremont Holdings lands. It is recognised that an appropriate financial contribution from our client will be required in return for the benefit of the utilisation of the RIRR.
- 4.3 Subject to the appropriate commitments in relation to delivery and ransom strips, and appropriate commitments that the link road will be designed and constructed to an appropriate standard to serve the development of our client's lands, our client will also consider the provision of a link road from the RIRR which will provide access to the Claremont Holdings lands. This link road will only be accepted in

conjunction with the potential access from Main Street being indicated in the Draft AAP1(B).

- 4.4 It is respectfully requested that the 'Massing, Density and Height' section of the Draft UFP is amended to ensure an appropriate framework for the maximisation of the use of the lands zoned for 'Residential (R2 – High Density Potential) lands, in terms of both the indicative density and height of development. Amendments are also suggested in terms of the overall approach to density, which it is submitted, should decrease with increasing distance from the town centre.
- 4.5 Our client expresses his willingness to meet with both Crackington Ltd and Wicklow County Council to discuss any aspect of the above.

Yours sincerely,

John Spain Associates
John Spain Associates

cc Malcolm Lane, PD Lane Associates
TPS Ltd
Claremont Holdings



**Proposed Residential Development
Main Street
Rathnew
County Wicklow**

Traffic Impact Assessment

Prepared for

**John Spain Associates
Chartered Town Planning Consultants**

September 2009



M. A. L.



Contents.

Introduction.

Scope of the Traffic Impact Assessment. Section 2.0

Existing Roads and Traffic Conditions. Section 3.0

Proposed Residential Development Traffic Matters. Section 4.0

Layout and Capacity of Proposed Site Access Arrangements with Main Street. Section 5.0

Proposed Rathnew Inner Relief Road. Section 6.0

Conclusions. Section 7.0

Appendices.

Appendix 1.0.

TRICS 2009(a) Output File.

Appendix 2.0.

Drawing No. 109-A62-LP01.

Appendix 3.0.

PICADY5 Output Files.

M. 22/10

1.0 Introduction.

- 1.1 TPS Limited have been retained by John Spain Associates to undertake a Traffic Impact Assessment (TIA) relating to a possible residential development on lands under the control of Claremont Holdings Ltd.
- 1.2 These possible development lands of some 12.57 acres are located off the Main Street in Rathnew, County Wicklow and are subject to three different zoning objectives under the Wicklow Environs / Rathnew Local Area Plan 2008 – 2014. The majority of the site is zoned for Residential (R2 – High Density Potential), with a portion of the site close to Main Street zoned for Town Centre Activities (TC) and a length of land along the Rathnew Stream zoned for Open Space and Amenity (OS1).
- 1.3 The purpose of this report is to identify the feasibility of vehicular access from the existing road network within Rathnew Village to serve part of the lands subject to Action Area Plan 1. For the purposes of this traffic assessment we have assumed that in the region of 75 residential units would be accessed to part of the Claremont Holdings Ltd lands with vehicular access from existing road network within Rathnew Village via Main Street. The residual Claremont Holdings Ltd land would be accessed from an alternative location. This TIA also considers the development of these lands within the context of the Rathnew Inner Relief Road (RIRR).
- 1.4 The methodology used within this report complies with best practise for Traffic Impact Assessments indicated within key technical publications, which include:
 - *'Traffic and Transport Assessment Guidelines'* National Roads Authority (September 2007)
 - *'Guidelines for Traffic Impact Assessments'* The Institution of Highways and Transportation.

2.0 Scope of the Traffic Impact Assessment.

- 2.1 In this traffic report we will identify the existing road and traffic conditions and assess the relative level of impact the proposed development is likely to have on the local road network.
- 2.2 Where appropriate, measures to address the management of both the existing traffic and the development traffic on the local road network will be discussed.
- 2.3 In this report we will also comment on the proposed vehicular site access arrangements and the general internal road layout serving the proposed development and comment on these proposed access arrangements. In addition this report, which addresses the likely traffic impact of the proposed development, will generally be structured as follows:
 - Assessment of the existing traffic conditions on the road network in the vicinity of the proposed development.
 - Assessment of the trip rates for the proposed residential development traffic matters.
 - Assignment of the trip distribution patterns associated with the proposed development and traffic growth projections onto the adjacent road network.

- Capacity and operational assessments of the likely impact of the proposed development on the local road network.
- Consideration of the proposed Rathnew Inner Relief Road

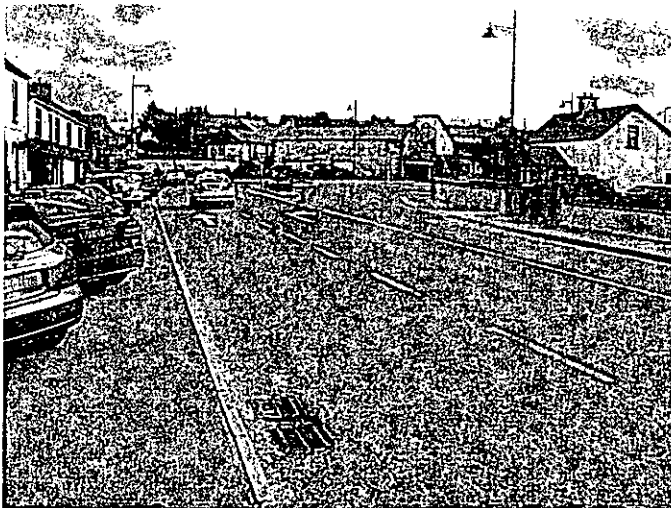


3.0 Existing Road and Traffic Conditions.

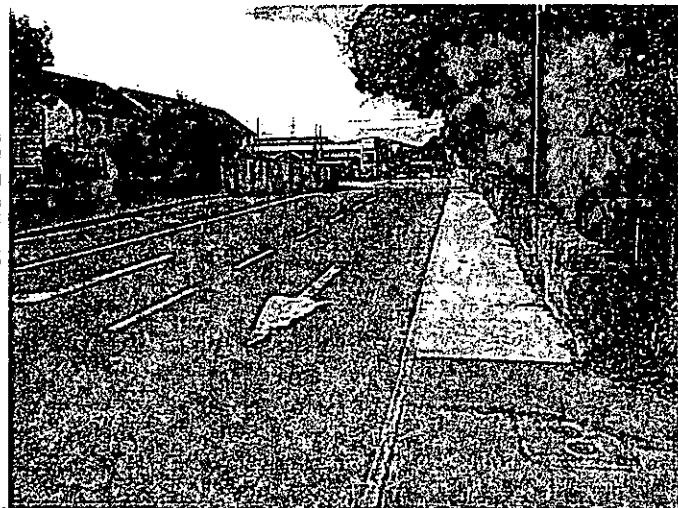
Existing Road Network.

- 3.1 The proposed development site is located to the north of Rathnew Village on approximately 12.57 acres of lands zoned for residential development within the Action Area Plan 1 area as identified by the Wicklow Environs / Rathnew Local Area Plan 2008 - 2014. The site is bounded to the southwest by a Main Street (R750) that functions as a regional road within Wicklow County Council's road hierarchy.
- 3.2 This road formally functioned as part of the N11 strategic route linking Dublin and Wexford prior to the opening of the N11 Rathnew Bypass in 2004 and historically carried in excess of 20,000 vehicles per day.
- 3.3 In the vicinity of the proposed residential development Main Street operates with an urban speed limit of 50 kph with pedestrian footpaths and street lighting provided along both sides of this 9.5 metres wide carriageway. Echelon on-street parking is provided along the eastern side of Main Street to the south of the proposed development site.
- 3.4 Along the length of Main Street vehicular access is provided to a plethora land uses that include individual residential dwellings, residential estates, commercial and retail lands uses. These land uses are generally accessed by means of simple priority 'T' junction arrangements from Main Street. The existing land holding is accessed from Main Street by means of a simple priority junction that provides access to the Wicklow County Council pumping station.
- 3.5 Thus, it can be considered that the principle of direct vehicular access from Main Street is well established in this area.
- 3.6 Some 60.0 metres to the south of the proposed residential site Main Street forms a 3 arm 23.0 metres at grade roundabout junction with the Rathnew Road (R750).
- 3.7 The general character of Main Street in the vicinity of the proposed development site is shown within Photograph 1.0 and Photograph 2.0 below.

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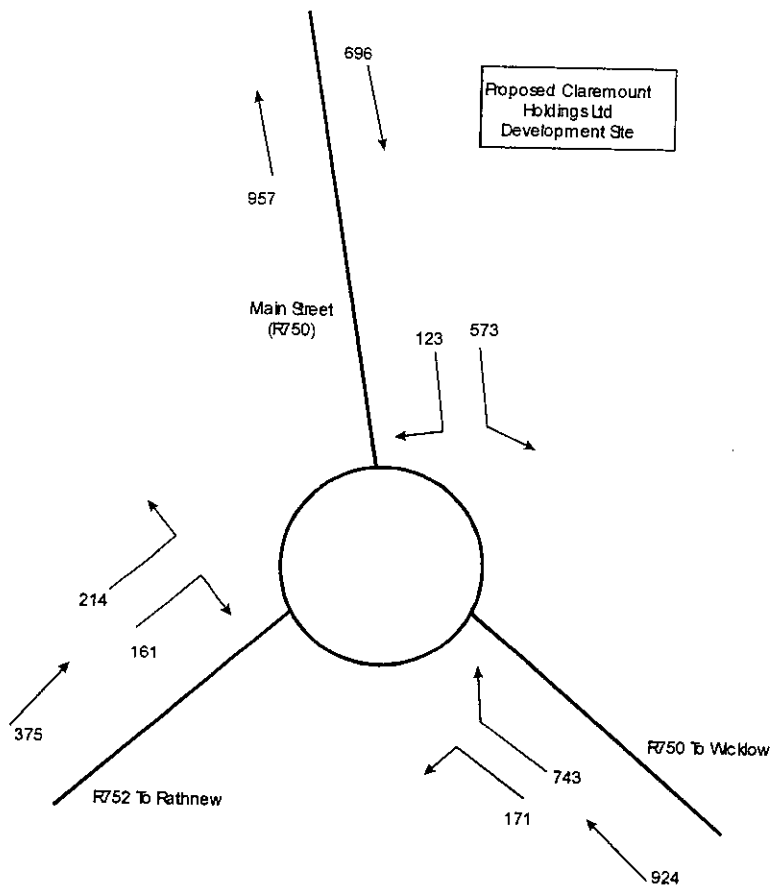
Photograph 1.0: Southbound view along Main Street
From existing site access.



Photograph 2.0: Northbound view along Main Street
from existing site access.

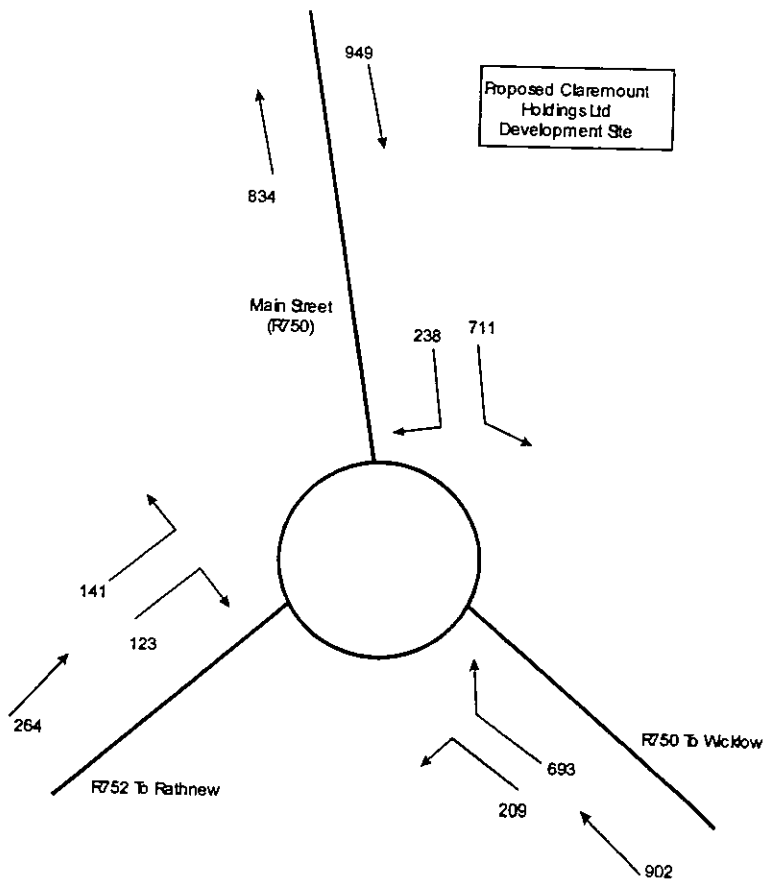
Existing Traffic Conditions.

- 3.8 In assessing the existing traffic situation at any proposed development site, analysis must be based on practical reliable traffic data gathered in a recognised and appropriate manner. The capacity and operation of any road network is dependent on the traffic volumes and traffic movements within that network.
- 3.9 Therefore, in order to assess the likely impact the development of the subject lands for residential development may have on the immediate road network in the vicinity of the subject site, and the likely operation of the proposed access arrangements we have undertaken traffic surveys on the road link and junctions in the vicinity of the proposed application site to establish current traffic patterns in the area of the site. AM and PM traffic turning count surveys were undertaken within these road links and junctions.
- 3.10 These traffic surveys covered the time periods 0700hrs to 1030hrs and 1600hrs to 1930hrs and identified that in this area the peak AM traffic period as occurring between 0815hrs to 0915hrs with the PM peak traffic period occurring between 1700hrs to 1800hrs.
- 3.11 Details of the surveyed peak hour traffic flows occurring on the road network adjacent to the development site are shown in Figures 1.0 and 2.0 below:



Existing AM Peak.

Figure 1.0.



Existing PM Peak.

Figure 2.0.

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3.12 It should be noted that during the period of the traffic surveys these road links and junctions were observed to operate well with the AM and PM peak period queues and delays typical of an urban environment. We would advise that the majority of road users within the traffic survey cordon during the AM or PM peak are regular users of these routes and are aware of the queues and delays that occur within these time periods.

4.0 Proposed Residential Development Traffic Matters.

Trip and Traffic Generation.

- 4.1 Having established the existing traffic flows in the area of the development site, we shall now consider the likely traffic flows that will be generated by the residential development on the subject site. As previously discussed we assess the feasibility of some 75 residential units accessing the Claremont Holdings Ltd lands from Main Street. The broadly represents 20% of these lands being accessed from Main Street. It should be noted that further technical assessment may identify that a higher percentage of these lands could be accessed from Main Street.
- 4.2 It is anticipated that a phased development of up to 75 residential units, which is being adopted as an example of the type and scale of development that may take place on these lands would take 3 years to complete assuming the development commences in 2010 with this residential development site being fully occupied by 2013.
- 4.3 In order to establish the likely trip generation for the above development land use the TRICS 2009(a) trip rate database (Trip Rate Information Computer System) has been reviewed. TRICS 2009(a) is a database, which uses traffic survey information to estimate traffic generation for land use development planning purposes.
- 4.4 The database consists of over 5000 traffic surveys, which therefore yields empirical rather than theoretical daily, AM and PM peak hour trip rate generation figures. The TRICS 2009(a) Database trips for the proposed residential development derived from similar residential developments in Ireland are shown in Table 1.0 below:
- 4.5 We have attached the TRICS 2009(a) output files for this land use within Appendix 1.0 to this traffic report.

VEHICLES												
Estimated TRIP rate value per 75 DWELLS												
Estimated TRIP rates shown in shaded column (for 75 DWELLS)												
TRIP RATE VALUE PER DWELLS	ARRIVALS			Total	DEPARTURES			Total	TOTALS			Total
	No. Days	Ave. DWELLS	Trip Rate		No. Days	Ave. DWELLS	Trip Rate		No. Days	Ave. DWELLS	Trip Rate	
06:00-07:00	10	225	0.020	1,531	10	225	0.073	5,457	10	225	0.093	6,988
07:00-08:00	98	136	0.066	4,977	98	136	0.239	17,922	98	136	0.305	22,899
08:00-09:00	98	136	0.132	9,909	98	136	0.367	27,506	98	136	0.499	37,415
09:00-10:00	98	136	0.155	11,632	98	136	0.212	15,925	98	136	0.367	27,557
10:00-11:00	98	136	0.145	10,869	98	136	0.182	13,630	98	136	0.327	24,499
11:00-12:00	98	136	0.182	13,641	98	136	0.185	13,905	98	136	0.367	27,546
12:00-13:00	98	136	0.211	15,807	98	136	0.191	14,297	98	136	0.402	30,104
13:00-14:00	98	136	0.198	14,831	98	136	0.195	14,600	98	136	0.393	29,431
14:00-15:00	98	136	0.204	15,274	98	136	0.202	15,162	98	136	0.406	30,436
15:00-16:00	98	136	0.268	20,088	98	136	0.207	15,538	98	136	0.475	35,626
16:00-17:00	98	136	0.309	23,146	98	136	0.199	14,954	98	136	0.508	38,100
17:00-18:00	98	136	0.351	26,289	98	136	0.219	16,452	98	136	0.570	42,741
18:00-19:00	98	136	0.286	21,418	98	136	0.223	16,750	98	136	0.509	38,168
19:00-20:00	10	225	0.232	17,369	10	225	0.195	14,607	10	225	0.427	31,976
20:00-21:00	10	225	0.185	13,842	10	225	0.139	10,415	10	225	0.324	24,257
21:00-22:00	10	225	0.146	10,914	10	225	0.097	7,254	10	225	0.243	18,168
22:00-23:00	10	225	0.111	8,352	10	225	0.076	5,723	10	225	0.187	14,075
23:00-24:00	10	225	0.062	4,658	10	225	0.039	2,961	10	225	0.101	7,619

Daily Trip generation for Proposed 75 Residential Units.

Table 1.0.

- 4.6 The AM and PM peak traffic levels that would be expected to be generated by the residential development on the subject site are shown within Table 1.0 above. These AM and PM peak traffic profiles will be used within the modelling assessments discussed later within this report in relation to the proposed site access are summarised within Table 2.0 below:

Land Use	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
75 Units	10	28	27	16



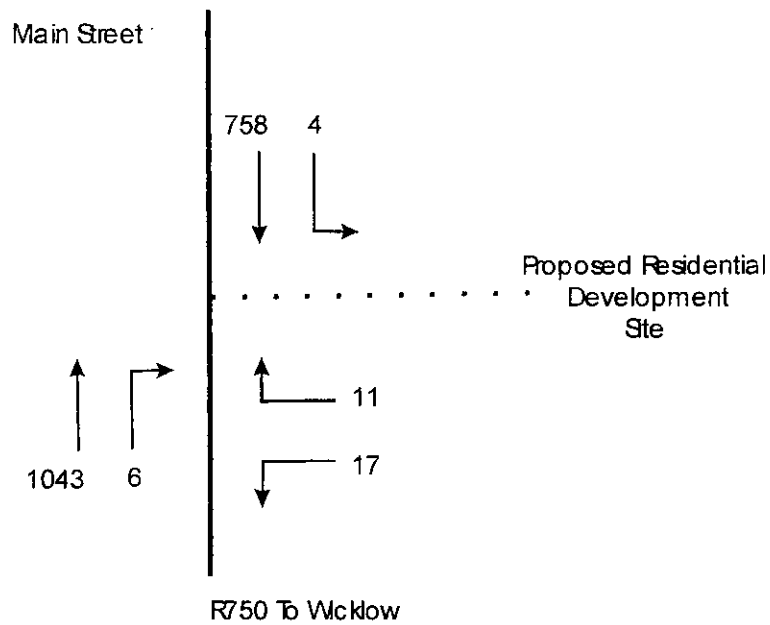
AM and PM Peak Trip generation for Residential Development.

- 4.7 It can be seen from Table 2.0 above that the proposed residential development will generate significant AM or PM peak hour traffic.

Estimation of Traffic Growth.

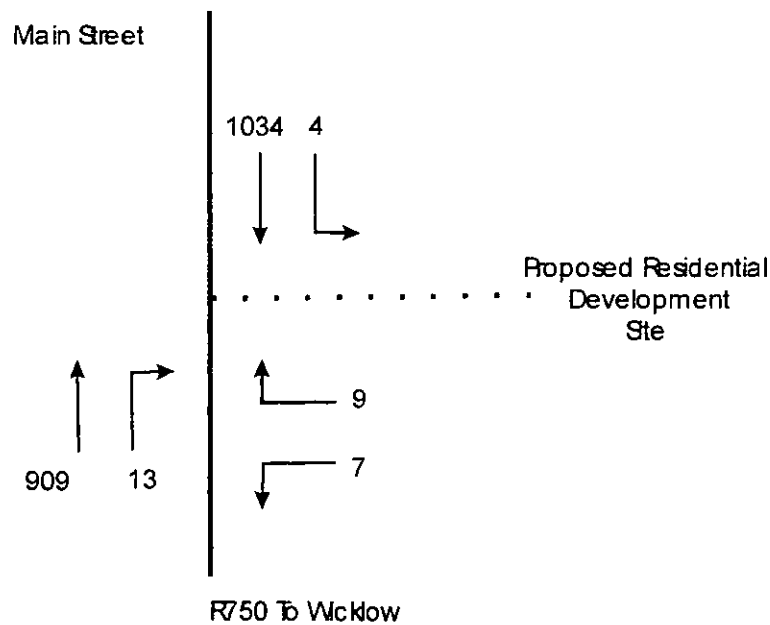
- 4.8 We do not consider that the levels of car ownership will fluctuate appreciably at this development when complete at 2013 and therefore the traffic within this site could reasonably be expected to experience very limited traffic growth in relation to time.
- 4.9 Car ownership figures would need to dramatically increase within the development site in order to have a significant effect on capacity of the surrounding road network. We do not consider this scenario likely and therefore we have not taken account for growth in the estimated levels of traffic to and from the completed development site over time.
- 4.10 In contrast to the above, the levels of traffic on the surrounding road network is likely to increase over time. It is assumed that for the most part this increase will result from development or economic growth in the area.
- 4.11 Table 15 of the National Roads Authority 'Future Traffic Growth Forecasts 2002-2040' published by the National Roads Authority, it is indicated that between 2009-2013 that traffic levels, which includes cars and light goods vehicles, could increase by 9%.
- 4.12 The assessment considers the potential for access to the proposed residential development from the existing road network via the existing site access off Main Street.
- 4.13 Therefore, we have applied the above 9% traffic growth to the existing AM and PM peak hour traffic levels recorded within the traffic survey cordon in addition the AM and PM peak traffic flows associated with the proposed residential development traffic.
- 4.14 The distribution of all this traffic assigned during the AM and PM peak periods at the projected completion year of 2013 is shown within Figures 3.0 and Figure 4.0 below:

38/10



Existing AM Peak + Traffic Growth +Development Traffic.

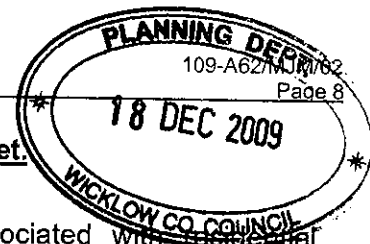
Figure 3.0.



Existing PM Peak + Traffic Growth +Development Traffic.

Figure 4.0.

4.15 Based on these preliminary traffic assessments we would expect that this level of residential development accessing the site from Main Street could be increased within further technical traffic assessments.



5.0 Layout and Capacity of Proposed Site Access with Main Street.

- 5.1 The establishment of the likely peak hour traffic levels associated with the proposed residential development on the subject site forms the basis of determining the most suitable form of access to the subject site. Furthermore the existing road character, alignment and layout provide a further indication to the form of the proposed site access.
- 5.2 It is proposed to access this residential development from Main Street via the existing simple priority 'T' junction. It is proposed to upgrade this existing access to accommodate a 6.00 metre residential access road with bell mouthed with 7.5 metre radii at its junction with Main Street. 2.0 metre wide pedestrian footpaths would also be provided along both sides of the residential estate road. The layout of this site access is shown shaded blue and grey within Drawing No: 109-A62-LP01 that is attached within Appendix 2.0.
- 5.3 The Design Manual for Roads and Bridges produced by the National Roads Authority provides guidance in relation to visibility splays that should be provided within access points onto national routes. These guidelines are now being applied by Local Authorities to regional and local roads.
- 5.4 The National Roads Authority publication TD 41/95 that at Table 2/1 suggests the extent of sightlines that should be provided within the leading and non-leading traffic directions from the proposed site access point into the Main Street should be 70.0 metres.
- 5.5 The available visibility sightlines within these junctions are 4.5 metres by 70.0 metres into both the leading and non-leading traffic directions of the distributor road. Thus, conforming to the standards set out within Table 2/1 of TD41/95 of Design Manual for Roads and Bridges. These visibility sightlines are shown in red with the attached Drawing No: 109-A62-LP01.
- 5.6 In order to assess the impact of the proposed residential development on the adjacent road links we have modelled the key junction serving the application site. This being the proposed site access at its junction with Main Street using the computer modelling program PICADY5. This is a program developed by the Transport Research Laboratory and used by traffic engineers to assess the capacity and delay at priority junctions.
- 5.7 PICADY5 output results consist of tables of demand flows for each time segment of the time-period analysis. These tables contain start and finish times for each arm, traffic demand data, capacity, ratio of flow to capacity findings, start queue length, end queue length, and queuing delay.
- 5.8 This traffic-modelling period covers AM and PM peak periods assuming the completed development at 2030 with the previously discussed existing traffic with 9% traffic growth.
- 5.9 A copy of the AM and PM PICADY5 data and results are attached as Appendix 3.0 and Appendix 4.0 to this report with a summary of the output results shown within Table 4.0 and Table 5.0 below:

Traffic Stream	Total Demand		Queuing Delay		Queue	Max.
	Veh	Veh/Hr	Min	Min/veh	Veh	RFC
B-AC	38.5	25.7	7.4	0.19	0.1	0.102
C-AB	8.3	5.5	1.2	0.14	0.0	0.016
A-B	5.5	3.7				
A-C	1043.3	695.6				

Main Street / Site Access AM Peak.

Arm A – Main Street From North. Arm B – Proposed Site Access. Arm C – Main Street From South.

Table 4.0.

AS 30/4/10

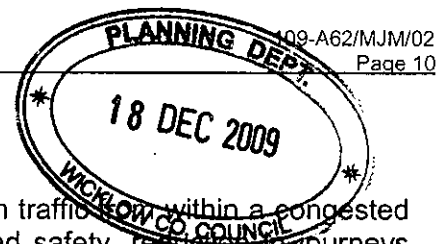
Traffic Stream	Total Demand		Queuing Delay		Queue	Max
	Veh	Veh/Hr	Min	Min/veh	Veh	RFC
B-AC	22.0	14.7	7.1	0.32	0.1	0.118
C-AB	17.9	11.9	3.1	0.18	0.0	0.041
A-B	5.5	3.7				
A-C	1423.2	948.8				

Main Street/ Site Access PM Peak.

Arm A – Main Street From North. Arm B – Proposed Site Access. Arm C – Main Street From South.

Table 5.0.

- 5.10 From the above summary tables it can be seen that the proposed site access at its junction with Main Street can accommodate the projected levels of traffic associated with the development during the AM and PM peak traffic periods projected at 2013.
- 5.11 From these summary tables it can be seen that the AM and PM peak traffic periods that this junction experiences almost free flow traffic conditions with no material queuing projected within this junction. These tables also indicate that this junction would operate with reserve capacity of over 85% during the peak AM and PM traffic periods.
- 5.12 It should be noted that this assessment assumes 100% car borne trips to achieve a "worst-case" traffic-modelling scenario.
- 5.13 These PICADY5 assessment also indicate that additional vehicular trips could be accommodated with this proposed site access from Main Street.



6.0 Proposed Rathnew Inner Relief Road.

- 6.1 A function of a relief road is to transfer strategic or through traffic within a congested urban area to achieve identified targets in relation to road safety, reduced journey times and environmental improvements.
- 6.2 This function first identified within the needs study that clearly identifies a requirement for such a road. A relief road is also envisaged as returning the congested urban area to its existing stakeholders within the area.
- 6.3 Typically these targets are achieved within the various traffic modelling assessments that are undertaken to determine the benefits the relief road will provide within various lifetime situations. The various relief road options are then further considered within the context of cost, environmental impact and deliverability.
- 6.4 A relief road in itself should not be considered within the framework of development land uses that function as trip generators that in the short term have limited impact on the operation of the relief road or the adjacent road links.
- 6.5 However in the long term as these land use developments are complete these trips then absorb any long term relief road benefit. Indeed these developments can add additional trips to the original road network that were originally to benefit from the relief road.
- 6.6 While the principle of the RIRR is recognised and the delivery of the RIRR is an objective set out within the Wicklow Environs and Rathnew Local Area Plan 2008 – 2014 is being promoted within the Rathnew Urban Framework Plan 2009 this road is dependent of the development of lands west, north west, east and north east of this road within a potential development area of approximately 200 acres. This development area includes the Claremount Holdings Ltd land area of 12.57 acres.
- 6.7 It is envisaged that within these land areas of some 200 acres high and medium density residential development would be located with the traffic associated with these developments routing via the RIRR to gain access to the broader road network. These 200 acres could realise over 1650 residential units that, at completion generate over 5500 daily inbound and 5500 daily outbound traffic movements via the RIRR.
- 6.8 The alignment of the RIRR would connect with the Wicklow Port Access Road currently under construction and located some ½ km to the south east of the village, sweep northwest to connect with the R761 by means of a roundabout junction and southwest to form a roundabout junction with the R750 some 500 metres north the village. The general alignment of the RIRR is shown with Kilgallen & Partners Drawing No 208-023-012.
- 6.9 Traffic using the RIRR would route via 3 at grade roundabout junctions and need to be aware of traffic, pedestrian and cyclist activity within a further 5 ghost island priority junctions (provided high density and medium density for land use development) along the length of this route.
- 6.10 The proximity of the RIRR to the existing road links within the village, the length of the RIRR, the number of proposed junctions and its alignment would suggest that motorists may well route through the village rather than use a somewhat more circuitous RIRR. Motorists remaining on these road links will having little impact on the existing or future daily or peak hour traffic profiles on these links as ample road link capacity is available for the foreseeable future.
- 6.11 In addition the phased residential development of 75 units on the Claremount Holdings Ltd Lands does not require access via the RIRR and has been shown to have negligible impact on the operation of the existing road links.

AS
30/12/10

7.0 Conclusions.

- 7.1 In this report we have identified the existing traffic conditions and assessed the level of impact the residential development on the subject site is likely to have on the adjacent road network. We have also identified how the proposed development can be accommodated within this existing road network.
- 7.2 We have carried out capacity assessments on the proposed access points, which indicate that under the forecast traffic conditions, assuming that the development will be completed at 2013, there will be sufficient practical reserve capacity at this location to accommodate the development proposal at 2013.
- 7.3 From the above, we conclude that the existing road and junction links to access the proposed residential development site can operate satisfactorily in accommodating the levels and types of traffic likely to be generated by the phased residential development of part of the Claremont Holdings Ltd Lands.
- 7.4 The Rathnew Inner Relief Road can also provide vehicular access to the Claremont Holdings Ltd lands.

Appendices.

Appendix 1.0.

TRICS 2009(a) Output File.



M. J. 22/12/09

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BN BARNET	1 days
	BT BRENT	1 days
	KN KENSINGTON AND CHELSEA	1 days
	SK SOUTHWARK	1 days
	WF WALTHAM FOREST	1 days
02	SOUTH EAST	
	BD BEDFORDSHIRE	2 days
	ES EAST SUSSEX	1 days
	EX ESSEX	1 days
	HC HAMPSHIRE	1 days
	HF HERTFORDSHIRE	2 days
	SC SURREY	2 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	CW CORNWALL	2 days
	DC DORSET	1 days
	GS GLOUCESTERSHIRE	1 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	3 days
	SF SUFFOLK	3 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
	LN LINCOLNSHIRE	2 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	2 days
	WM WEST MIDLANDS	3 days
	WO WORCESTERSHIRE	6 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	5 days
08	NORTH WEST	
	CH CHESHIRE	5 days
	GM GREATER MANCHESTER	2 days
	LC LANCASHIRE	2 days
	MS MERSEYSIDE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	TV TEES VALLEY	1 days
	TW TYNE & WEAR	1 days
10	WALES	
	CF CARDIFF	3 days
	CM CARMARTHENSHIRE	1 days
	CP CAERPHILLY	1 days
	WR WREXHAM	1 days
11	SCOTLAND	
	AS ABERDEENSHIRE	1 days
	EA EAST AYRSHIRE	2 days
	FI FIFE	2 days
	HI HIGHLAND	1 days
	SR STIRLING	1 days
12	CONNAUGHT	
	CS SLIGO	2 days
	GA GALWAY	3 days
13	MUNSTER	

	CR	CORK	1 days
	WA	WATERFORD	3 days
14	LEINSTER		
	KK	KILKENNY	3 days
15	GREATER DUBLIN		
	DL	DUBLIN	2 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	4 days
	DE	DERRY	3 days
	DO	DOWN	2 days
	FE	FERMANAGH	1 days
	TY	TYRONE	1 days



Filtering Stage 2 selection:

Parameter: Number of dwellings
Range: 5 to 4334 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 29/11/08

Selected survey days:

Monday	19 days
Tuesday	20 days
Wednesday	9 days
Thursday	22 days
Friday	13 days
Saturday	2 days
Sunday	13 days

Selected survey types:

Manual count	88 days
Directional ATC Count	10 days

Selected Locations:

Edge of Town Centre	8
Suburban Area (PPS6 Out of Centre)	38
Edge of Town	47
Neighbourhood Centre (PPS6 Local Centre)	4
Free Standing (PPS6 Out of Town)	1

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	74
Built-Up Zone	3
Village	1
Out of Town	2
No Sub Category	17

Handwritten signature/initials

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	10	225	0.051	10	225	0.035	10	225	0.086
01:00 - 02:00	10	225	0.030	10	225	0.023	10	225	0.053
02:00 - 03:00	10	225	0.010	10	225	0.008	10	225	0.018
03:00 - 04:00	10	225	0.008	10	225	0.006	10	225	0.014
04:00 - 05:00	10	225	0.006	10	225	0.008	10	225	0.014
05:00 - 06:00	10	225	0.008	10	225	0.023	10	225	0.031
06:00 - 07:00	10	225	0.020	10	225	0.073	10	225	0.093
07:00 - 08:00	98	136	0.066	98	136	0.239	98	136	0.305
08:00 - 09:00	98	136	0.132	98	136	0.367	98	136	0.499
09:00 - 10:00	98	136	0.155	98	136	0.212	98	136	0.367
10:00 - 11:00	98	136	0.145	98	136	0.182	98	136	0.327
11:00 - 12:00	98	136	0.182	98	136	0.185	98	136	0.367
12:00 - 13:00	98	136	0.211	98	136	0.191	98	136	0.402
13:00 - 14:00	98	136	0.198	98	136	0.195	98	136	0.393
14:00 - 15:00	98	136	0.204	98	136	0.202	98	136	0.406
15:00 - 16:00	98	136	0.268	98	136	0.207	98	136	0.475
16:00 - 17:00	98	136	0.309	98	136	0.199	98	136	0.508
17:00 - 18:00	98	136	0.351	98	136	0.219	98	136	0.570
18:00 - 19:00	98	136	0.286	98	136	0.223	98	136	0.509
19:00 - 20:00	10	225	0.232	10	225	0.195	10	225	0.427
20:00 - 21:00	10	225	0.185	10	225	0.139	10	225	0.324
21:00 - 22:00	10	225	0.146	10	225	0.097	10	225	0.243
22:00 - 23:00	10	225	0.111	10	225	0.076	10	225	0.187
23:00 - 24:00	10	225	0.062	10	225	0.039	10	225	0.101
Total Rates:			3.376			3.343			6.719

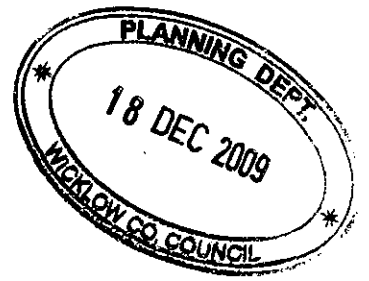
Parameter summary

Trip rate parameter range selected: 5 - 4334 (units:)
 Survey date range: 01/01/00 - 29/11/08
 Number of weekdays (Monday-Friday): 121
 Number of Saturdays: 16
 Number of Sundays: 22
 Surveys manually removed from selection: 0

Appendices.

Appendix 2.0.

Drawing No. 109-A62-LP01.



M. 20/10

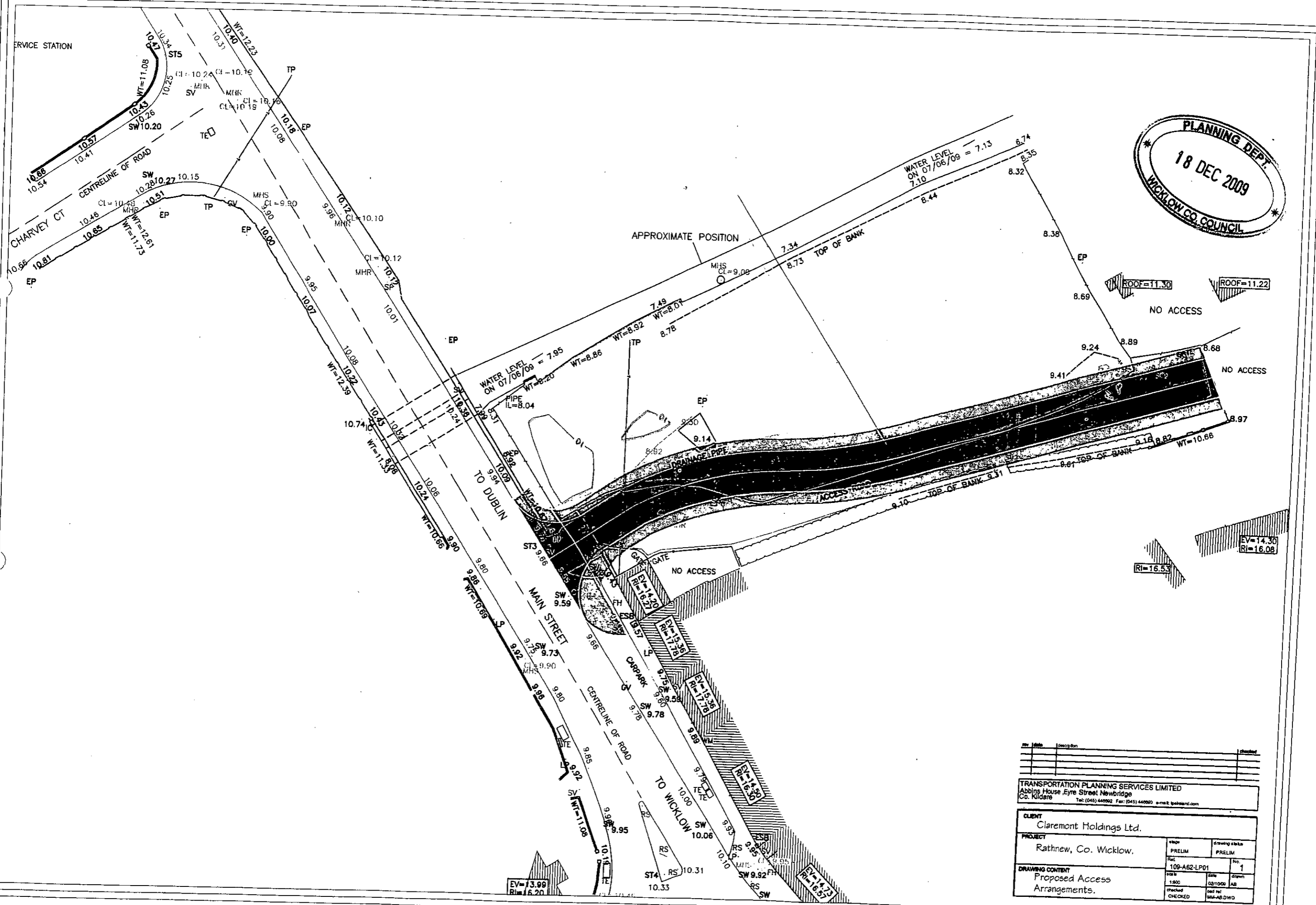
Appendices

Appendix 3.0.

PICADY5 Output Files.



SERVICE STATION



NO ACCESS

NO ACCESS

NO ACCESS

EV=14.30
RI=16.08

No.	Date	Description	Checked

TRANSPORTATION PLANNING SERVICES LIMITED
Abbins House, Eyre Street Newbridge
Co. Kildare
Tel: (045) 440002 Fax: (045) 440003 e-mail: tp@tpsltd.com

CLIENT Claremont Holdings Ltd.															
PROJECT Rathnew, Co. Wicklow.	<table border="1"> <tr> <td>stage</td> <td>drawing status</td> </tr> <tr> <td>PRELIM</td> <td>PRELIM</td> </tr> <tr> <td>Ref: 109-A62-LP01</td> <td>No: 1</td> </tr> <tr> <td>Scale: 1:500</td> <td>Date: 02/10/09</td> </tr> <tr> <td>Drawn: AB</td> <td>Drawn: AB</td> </tr> <tr> <td>Checked: MAB</td> <td>Checked: MAB</td> </tr> <tr> <td>Checked: MAB</td> <td>Checked: MAB</td> </tr> </table>	stage	drawing status	PRELIM	PRELIM	Ref: 109-A62-LP01	No: 1	Scale: 1:500	Date: 02/10/09	Drawn: AB	Drawn: AB	Checked: MAB	Checked: MAB	Checked: MAB	Checked: MAB
stage	drawing status														
PRELIM	PRELIM														
Ref: 109-A62-LP01	No: 1														
Scale: 1:500	Date: 02/10/09														
Drawn: AB	Drawn: AB														
Checked: MAB	Checked: MAB														
Checked: MAB	Checked: MAB														
DRAWING CONTENT Proposed Access Arrangements.															

20/10

TRL LIMITED
 (C) COPYRIGHT 2006
 CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS
 PICADY 5.1 ANALYSIS PROGRAM
 RELEASE 4.0 (SEPT 2008)
 ADAPTED FROM PICADY/3 WHICH IS CROWN COPYRIGHT
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 FOR SALES AND DISTRIBUTION INFORMATION,
 PROGRAM ADVICE AND MAINTENANCE CONTACT:
 TRL SOFTWARE BUREAU
 TEL: CROWTHORNE (01344) 770758, FAX: 770356
 EMAIL: Software@trl.co.uk

Run with file:-
 "C:\Documents and Settings\Aioife\Local Settings\temp\PICADY 5\PICADY5.vpi"
 (drive-on-the-left) at 13:15:13 on Tuesday, 22 September 2009

.RUN INFORMATION

RUN TITLE : RATHNEW AM PEAK ACCESS FROM MAIN STREET AT 2013
 LOCATION : RATHNEW
 DATE : 22/09/09
 CLIENT : JOHN SPAIN ASSOC
 ENUMERATOR : Aoiife [FUREY002]
 JOB NUMBER : 109-A62
 STATUS : TIA
 DESCRIPTION :



.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

I
I
I
I
I
I
I

MINOR ROAD (ARM B)

ARM A IS MAIN STREET NORTH
 ARM B IS SITE ACCESS
 ARM C IS MAIN STREET SOUTH

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
 STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
 ETC.

.GEOMETRIC DATA

DATA ITEM	I	MINOR ROAD B	I
I TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I (W)	9.00 M.	I
I CENTRAL RESERVE WIDTH	I (WCR)	0.00 M.	I
I MAJOR ROAD RIGHT TURN - WIDTH	I (WC-B)	0.00 M.	I
I - VISIBILITY	I (VC-B)	150.00 M.	I
I - BLOCKS TRAFFIC	I	YES	I
I MINOR ROAD - VISIBILITY TO LEFT	I (VB-C)	70.0 M.	I
I - VISIBILITY TO RIGHT	I (VB-A)	70.0 M.	I
I - LANE 1 WIDTH	I (WB-C)	3.00 M.	I
I - LANE 2 WIDTH	I (WB-A)	0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I Intercept For Slope For Opposing	Slope For Opposing I	I
I STREAM B-C	STREAM A-C	STREAM A-B
I 658.00	0.23	0.09

Aoiife

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.15-08.30										I
I	B-AC	0.42	5.86	0.072		0.06	0.08	1.1		0.18	I
I	C-AB	0.09	7.47	0.012		0.01	0.01	0.2		0.14	I
I	A-B	0.06									I
I	A-C	11.36									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.30-08.45										I
I	B-AC	0.51	5.02	0.102		0.08	0.11	1.6		0.22	I
I	C-AB	0.11	6.90	0.016		0.01	0.02	0.2		0.15	I
I	A-B	0.07									I
I	A-C	13.91									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	08.45-09.00										I
I	B-AC	0.51	5.02	0.102		0.11	0.11	1.7		0.22	I
I	C-AB	0.11	6.90	0.016		0.02	0.02	0.2		0.15	I
I	A-B	0.07									I
I	A-C	13.91									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	09.00-09.15										I
I	B-AC	0.42	5.86	0.072		0.11	0.08	1.2		0.18	I
I	C-AB	0.09	7.47	0.012		0.02	0.01	0.2		0.14	I
I	A-B	0.06									I
I	A-C	11.36									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	09.15-09.30										I
I	B-AC	0.35	6.44	0.055		0.08	0.06	0.9		0.16	I
I	C-AB	0.08	7.88	0.010		0.01	0.01	0.1		0.13	I
I	A-B	0.05									I
I	A-C	9.51									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR



QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.1
09.30	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0
09.30	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I		
I	I	I	I	I	* DELAY *	I	* DELAY *	I		
I	I	I	I	I	I	I	I	I		
I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I
I	B-AC	I	38.5	I	25.7	I	7.4	I	0.19	I
I	C-AB	I	8.3	I	5.5	I	1.2	I	0.14	I
I	A-B	I	5.5	I	3.7	I		I		I
I	A-C	I	1043.3	I	695.6	I		I		I
I	ALL	I	1980.7	I	1320.5	I	8.5	I	0.00	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.
 *****END OF RUN*****

end of file

TRL LIMITED
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 CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS
 PICADY 5.1 ANALYSIS PROGRAM
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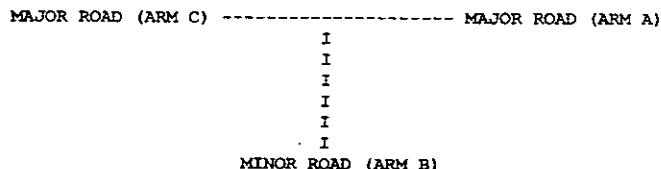
Run with file:-
 "C:\Documents and Settings\Aiofe\Local Settings\temp\PICADY 5\PICADY5.vpi"
 (drive-on-the-left) at 13:18:45 on Tuesday, 22 September 2009

.RUN INFORMATION

RUN TITLE : RATHNEW PM PEAK ACCESS FROM MAIN STREET AT 2013
 LOCATION : RATHNEW
 DATE : 22/09/09
 CLIENT : JOHN SPAIN ASSOC
 ENUMERATOR : Aiofe [FUREY002]
 JOB NUMBER : 109-A62
 STATUS : TIA
 DESCRIPTION :

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS MAIN STREET NORTH
 ARM B IS SITE ACCESS
 ARM C IS MAIN STREET SOUTH

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
 STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
 ETC.

.GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I (W)	9.00 M.	I
I	CENTRAL RESERVE WIDTH	I (WCR)	0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I (WC-B)	0.00 M.	I
I	- VISIBILITY	I (VC-B)	150.00 M.	I
I	- BLOCKS TRAFFIC	I	YES	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I (VB-C)	70.0 M.	I
I	- VISIBILITY TO RIGHT	I (VB-A)	70.0 M.	I
I	- LANE 1 WIDTH	I (WB-C)	3.00 M.	I
I	- LANE 2 WIDTH	I (WB-A)	0.00 M.	I

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

I	Intercept For	Slope For	Opposing	Slope For	Opposing	I
I	STREAM B-C	STREAM A-C	STREAM A-B	STREAM A-B	STREAM A-B	I
I	668.00	0.23	0.09			I



I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.00-17.15										I
I	B-AC	0.24	3.84	0.062		0.04	0.07	0.9		0.28	I
I	C-AB	0.19	6.55	0.030		0.02	0.03	0.5		0.16	I
I	A-B	0.06									I
I	A-C	15.49									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.15-17.30										I
I	B-AC	0.29	2.48	0.118		0.07	0.13	1.8		0.46	I
I	C-AB	0.24	5.77	0.041		0.03	0.05	0.7		0.18	I
I	A-B	0.07									I
I	A-C	18.97									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.30-17.45										I
I	B-AC	0.29	2.48	0.118		0.13	0.13	2.0		0.46	I
I	C-AB	0.24	5.77	0.041		0.05	0.05	0.7		0.18	I
I	A-B	0.07									I
I	A-C	18.97									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	17.45-18.00										I
I	B-AC	0.24	3.84	0.062		0.13	0.07	1.1		0.28	I
I	C-AB	0.19	6.55	0.030		0.05	0.03	0.5		0.16	I
I	A-B	0.06									I
I	A-C	15.49									I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	I
I	18.00-18.15										I
I	B-AC	0.20	4.73	0.042		0.07	0.04	0.7		0.22	I
I	C-AB	0.16	7.11	0.023		0.03	0.02	0.4		0.14	I
I	A-B	0.05									I
I	A-C	12.97									I

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.1
17.30	0.1
17.45	0.1
18.00	0.1
18.15	0.0



QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)
I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)
I	B-AC	I 22.0	I 14.7	I	7.1	I 0.32	I	7.1
I	C-AB	I 17.9	I 11.9	I	3.1	I 0.18	I	3.1
I	A-B	I 5.5	I 3.7	I		I	I	
I	A-C	I 1423.2	I 948.8	I		I	I	
I	ALL	I 2719.8	I 1813.2	I	10.3	I 0.00	I	10.3

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.
 *****END OF RUN*****

end of file

Belcove Properties Ltd.,
Unit 4 The Courtyard,
Carmanhall Road,
Sandyford Road,
Dublin 18.

Malcolm Lane,
P D Lane Associates,
1 Church Road,
Greystones,
Co. Wicklow

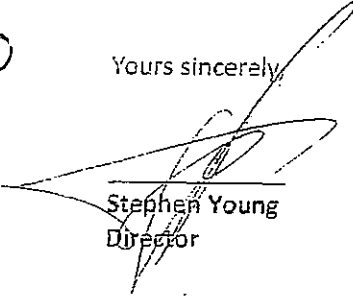
7th February 2008

Dear Malcolm,

We wish to acknowledge receipt of your letter of 6th February 2009.

We have viewed the content of the Action Area Plan 1 (b) submitted to Wicklow County Council in mid-November (2008). However, we consider that a portion of our site should be zoned residential and intend to propose this at the next review of Development Plan.

Yours sincerely,


Stephen Young
Director



Handwritten signature/initials

APPENDIX V

PROPOSED RATHNEW INNER RELIEF ROAD



Handwritten signature/initials

PD Lane Associates

From: Paul Bergin [pbergin@kilgallen.ie]
Sent: 18 December 2009 11:18
To: fclarke@wicklowcoco.ie
Cc: PD Lane
Subject: Rathnew Relief Road and Action Area 1
Attachments: 208-023-015-D2 indicative road alignment.pdf

KP ref. 8023-044

Dear Frank,
Please find attached herewith our drawing no. 8023-015_D2 which shows an indicative layout for the proposed Rathnew Relief Road between the Dublin Road and the Wicklow Road. This drawing will be included in the Action Plan for Action Area 1 which is to be submitted before Christmas.

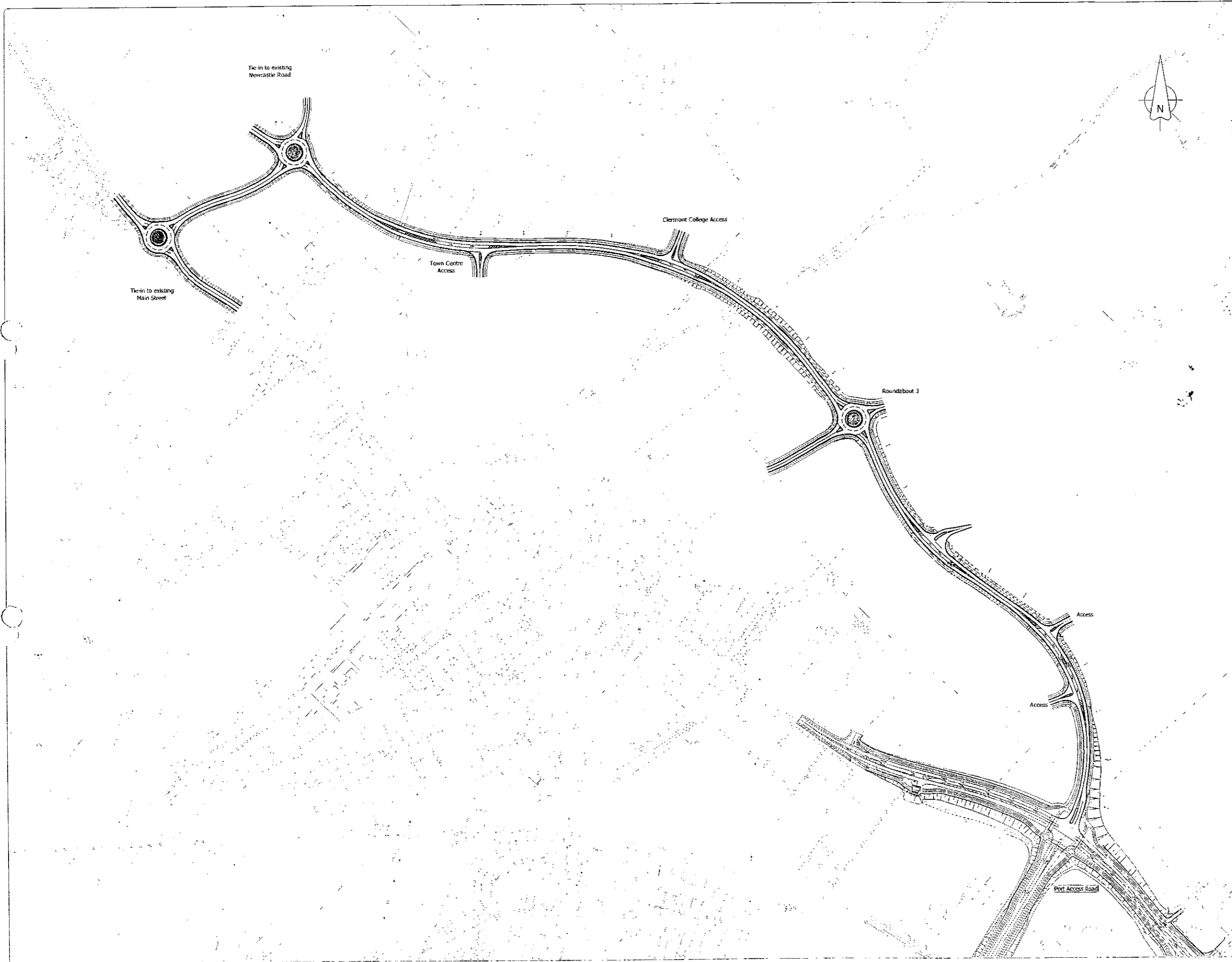
Regards

Paul Bergin
for and on behalf of
Kilgallen and Partners Consulting Engineers

Kylekiproe, Well Road, Portlaoise, Co. Laois
T: 057 866 2860
F: 057 866 2861
e: pbergin@kilgallen.ie



Handwritten signature



- NOTES
1. DO NOT SCALE FROM DRAWING. USE FIGURED DIMENSIONS ONLY.
 2. THIS DRAWING IS FOR INDICATIVE PURPOSES ONLY. IT IS PREPARED TO SUPPORT THE SUBMISSION OF AN ACTION AREA PLAN FOR ACTION AREA 1 OF THE RATHNEW LOCAL AREA PLAN. IT IS NOT TO BE USED FOR ANY OTHER PURPOSES.
 3. THIS DRAWING IS COPYRIGHT.



07	18/12/09	FB	REVISED TO ACCOMMODATE LANDOWNER REQUIREMENTS
REV	DATE	BY	NOTES

STATUS FOR APPROVAL

CLIENT CRACKINGTON LTD.

PROJECT WQLECI RATHNEW RELIEF ROAD SCHEME

FILE INDICATIVE LAYOUT FOR SCHEME ALIGNMENT

KILGALLEN & PARTNERS
 CIVIL ENGINEERS
 KYLEPROE, WELL ROAD, PORTLADISE, CO. LAOIS
 Tel: +353 87 86 4240, Fax: +353 87 86 4241
 Email: k.gallen@kilgallen.ie, Web: www.kilgallen.ie

DATE	SCALE	DRAWING NO.	REV
07/03/09	1:2000(DP1)	208-023-015	D2
DATE	DATE		
23/03/09			

Handwritten signature/initials



KILGALLEN & PARTNERS
CONSULTING ENGINEERS

Kylekiproe, Weil Road, Portlaoise
Co. Laois

Tel: +353 57 866 2860
Fax: +353 57 866 2861
Email: info@kilgallen.ie
Web: www.kilgallen.ie

YOUR REFERENCE:

OUR REFERENCE: 8023-042

DATE: 15TH DECEMBER 2009

MR. MALCOLM LANE
PD LANE ASSOCIATES
CHURCH ROAD, GREYSTONES
COUNTY WICKLOW

Re: Proposed Rathnew Relief Road: Assessment of future traffic flows at Newcastle Road Roundabout

Dear Malcolm,

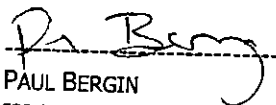
You will recall that at our meeting of 23rd September last, a preferred route for the alignment of the Rathnew Relief Road through the lands west of the Newcastle Road was identified (option no. 3 as shown on the attached drawing no. 208-023-019). However, it was requested at that meeting that the possibility of relocating the Newcastle Road Roundabout more centrally on the existing Newcastle Road be investigated. I attach herewith our drawing no. 208-023-022 which shows the resulting revised layout. For reference, we have also shown the preferred alignment in background.

Relocation of the roundabout has several negative effects:

- (i) It substantially increases the impact of the proposed scheme on Clermont College;
- (ii) It brings the roundabout and the approach from the old Dublin Road significantly closer to the Clarke landholding;
- (iii) It results in an unsatisfactory geometry for the roundabout itself which does not meet required standards and which we could not recommend.

As requested at the meeting, we have prepared an assessment of future traffic flows at the Newcastle Road Roundabout and I attach herewith a copy of our report on this Assessment.

Yours sincerely


PAUL BERGIN

FOR AND ON BEHALF OF
KILGALLEN AND PARTNERS CONSULTING ENGINEERS



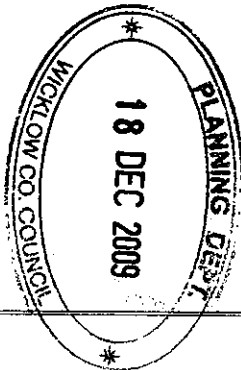
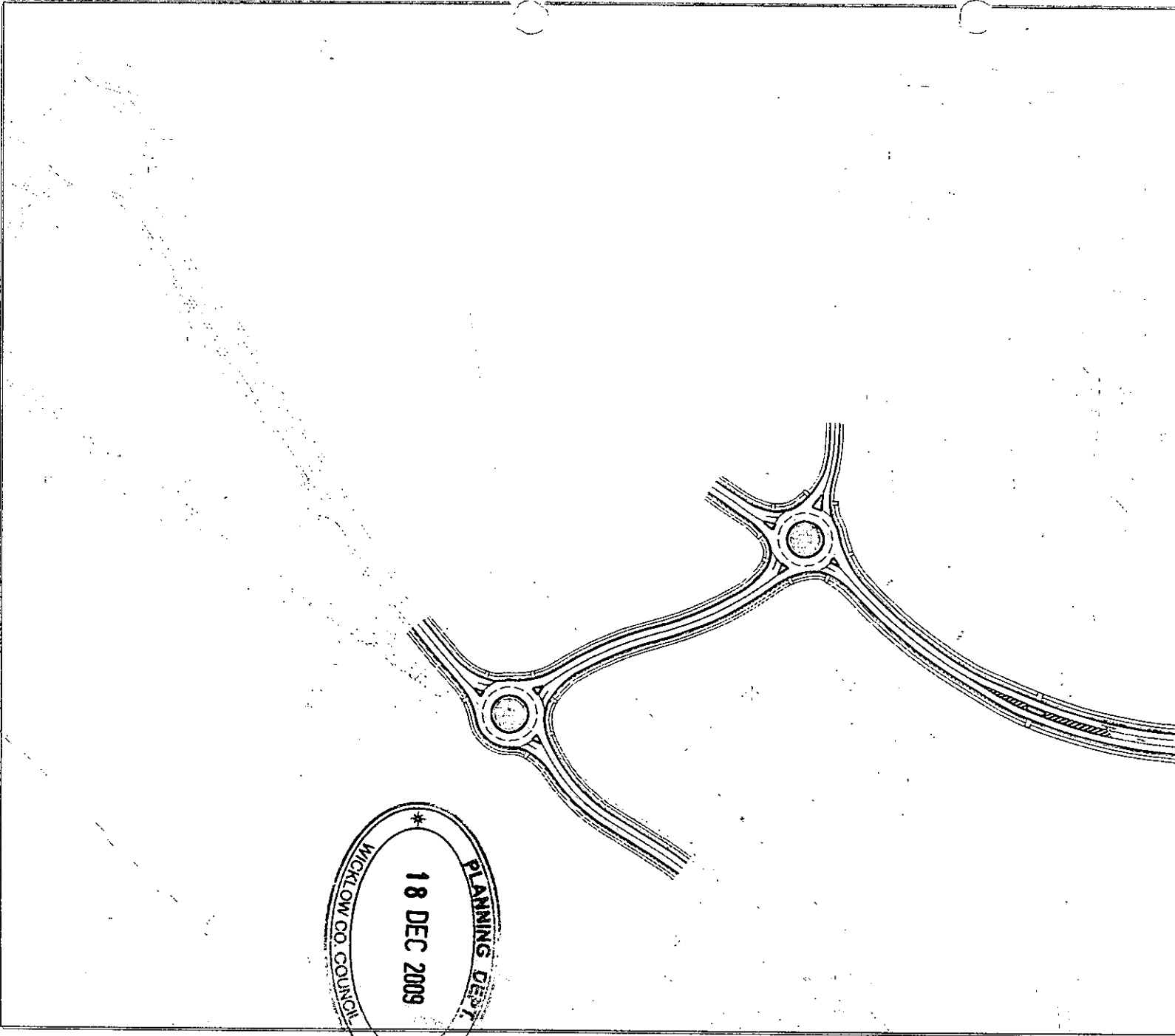
Directors

Morgan Kilgallen, B.E., Eur.Ing., C.Eng, F.I.E.I., F.C.I.Arb, D.A.L.
Paul Bergin B.E., Dip. Highway & Geotechnical Engineering, Dip. Public Administration

Associate Directors

Ian Conway BSc(Eng), Dip Eng, Tech Dip Eng, Dip Proj Mgt, CEng, MIEI
Niall O' Callaghan BSc(Eng), Dip Eng, CEng, MIEI
Matthew Tighe BEng(Hons), NCEA Dip Eng, NCEA Cert Eng, MIEI

Handwritten signature/initials



NOTES A3

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REV	DATE	BY	DETAILS

STATUS
FOR DISCUSSION

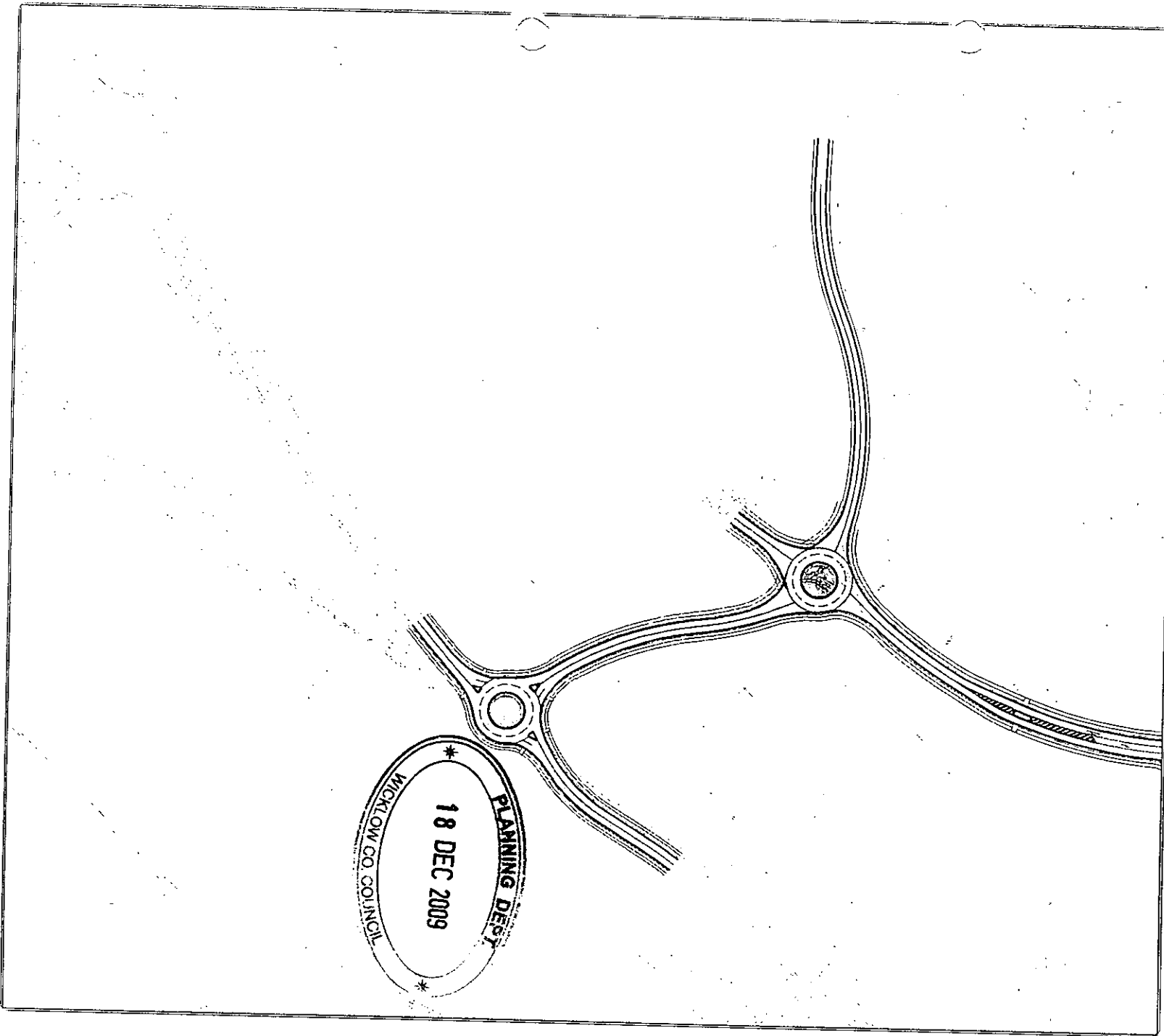
ARCHITECT
P.D. LANE ASSOCIATES

PROJECT
RATHNEW RELIEF ROAD

TITLE
ALIGNMENT OF RATHNEW RELIEF ROAD
IN VICINITY OF MRS. CLARKE'S RESIDENCE
OPTION 3

KILGALLEN & PARTNERS
KYLEKIPROE, WELL ROAD, PORTLAOISE, CO. LAOIS
Tel: + 353 57 66 62060, Fax: + 353 57 96 02861
E-mail: Info@Kilgallen.ie, Web: www.kilgallen.ie

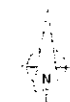
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HOC	1:2,000@A3	208-023-019	P1
CHKD:	DATE:		
PB	09.06.2009		



*
 WICKLOW CO. COUNCIL
 18 DEC 2009
 PLANNING DEPT
 *

NOTES A3

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REV	DATE	BY	DETAILS

STATUS
FOR DISCUSSION

ARCHITECT
P.D. LANE ASSOCIATES

PROJECT
RATHNEW RELIEF ROAD

TITLE
ALIGNMENT OF RATHNEW RELIEF ROAD
IN VICINITY OF MRS. CLARKE'S RESIDENCE
OPTION 3A



KILGALLEN & PARTNERS
ARCHITECTS

KYLEKIPROE, WELL ROAD, PORTLADISE, CO. LAOIS
 Tel: +353 57 86 62860, Fax: +353 57 86 62861
 E-mail: info@kilgallen.ie, Web: www.kilgallen.ie

DRN: MOC	SCALE: 1:2,000 @ A3	DRAWING NO.:	REV.:
CHK'D: PB	DATE: 11.12.09	208-023-022	P1



KILGALLEN & PARTNERS

CONSULTING ENGINEERS

REPORT ON FUTURE TRAFFIC FLOWS

NEWCASTLE ROAD ROUNDABOUT, PROPOSED RATHNEW RELIEF ROAD

COVA Unit 4, The Courtyard Garmanhall Road Sandyford Industrial Estate	Doc: 8028-R01 Rev: 00	Kilgallen & Partners Consulting Engineers Kylekinnee Wall Road Portlaoise PLANNING DEPT 18 DEC 2009 WICKLOW CO. COUNCIL
---	-----------------------	---

December 2009

CONTENTS

- 1. INTRODUCTION**
- 2. SCOPE OF ASSESSMENT**
- 3. EXISTING TRAFFIC FLOWS**
- 4. TRAFFIC FLOWS GENERATED BY DEVELOPMENT OF LANDS IN ACTION AREA 1**
- 5. ASSUMED TRAFFIC MOVEMENT PATTERNS**
- 6. ANALYSIS**
- 7. CONCLUSION**

APPENDICES

- APPENDIX A TRAFFIC FLOW FIGURES ON THE EXISTING ROAD NETWORK
- APPENDIX B TRAFFIC FLOWS GENERATED BY DEVELOPMENT OF LANDS INCLUDED IN ACTION AREA 1
- APPENDIX C RESULTS OF ARCADY ANALYSIS

1 INTRODUCTION

This report is concerned with an assessment of future traffic flows at the Newcastle Road Roundabout on the proposed Rathnew Relief Road. It is prepared on behalf of COVA and in support of its submission of an Action Area Plan for Action Area 1 of the Rathnew Local Area Plan.

2 SCOPE OF ASSESSMENT

The scope of this assessment is to prepare an estimate of future traffic flows at the subject roundabout and to analyse the performance of the roundabout under these flow conditions. This is to be based on a Design Year of 15 years after opening (Year 2030), assumes that the lands included in Action Area 1 of the Rathnew Local Area Plan have been developed in accordance with that Plan and that the Rathnew Relief Road is full operational between the old Dublin Road and the Wicklow Road. This assessment does not include any allowances for traffic flows which might be generated by development of other lands identified for future development in the Rathnew Local Area Plan.

3 EXISTING TRAFFIC FLOWS

Existing traffic flow figures were made available by Wicklow County Council for the purposes of this assessment. These existing figures have been extrapolated to the Design Year of 2030 by the application of appropriate growth factors taken from the document "Future Traffic Forecasts 2002-2040" (NRA 2003). The resulting traffic flow figures for 2030 are included in Appendix A.

4 TRAFFIC FLOWS GENERATED BY DEVELOPMENT OF LANDS IN ACTION AREA 1

Traffic flows which will be generated by the development of the lands included in Action Area 1 have been estimated on the basis of trip rates taken from the TRICS database. TRICS is a database of traffic surveys taken across the UK and Ireland and is the industry-standard reference source of traffic figures for the estimation of traffic flows generated by new developments.

Using this database, the traffic flows which will be generated by each of the various land uses which are envisaged for Action Area 1 have been calculated in accordance with the Wicklow County Council Development Standards and are outlined in Table 4.1 overleaf.





Zoning	Approx. Site Area (ha)	Approx. GFA (m ²)	Units per ha	Total No. of Units	TRICS Category
Employment	16.25	65,000			Industrial Estate
Employment	1.20	4,800			Industrial Estate
Employment	10.30	41,200			Business Park
Retail Warehousing	1.30	3,900			Retail Park Excl. Food
Town Centre	1.30	7,800			Retail Park Incl. Food
Town Centre	1.90	11,400			Retail Park Incl. Food
Town Centre	0.60	3,600			Retail Park Incl. Food
Res. (High. Dens.)	9.30		25	233	Residential
Res.	11.00		20	220	Residential
Res.	7.10		20	142	Residential
Retail Warehousing	3.80	11,400			Retail Park Excl. Food
Hotel & Leisure				51 Bed.	Hotel

TABLE 4.1 – SITE DENSITY AND CLASSIFICATION FOR TRAFFIC IMPACT ASSESSMENT

5 ASSUMED TRAFFIC MOVEMENT PATTERNS

For the purposes of this assessment, the following assumptions were made in regard to the proportion of traffic movements from Action Area 1 Zoned Lands serving Newcastle Road Roundabout;

- Employment Lands (c.16.25 ha) north-west of Newcastle Road Roundabout – 100%;
- Employment Lands (c.10.3ha) adjacent to Newcastle Road – 100%;
- Clermont College – 100%;
- Employment Lands (c.1.2 ha) immediately adjacent to M11 Motorway – 60%;
- Hotel & Leisure Lands – 60%;
- Employment & Retail Warehousing Lands - 40%;
- Residential Lands – 40%;
- Town Centre Activities Lands – 30%.

6 ANALYSIS

To assess the operation of the proposed Newcastle Road Roundabout, the predicted traffic flows for both AM peak flows (8am to 9am) and PM peak flows (5pm to 6pm) together with the physical geometry of the roundabout were input into the computer program ARCADY (Version 5) to simulate the effect of the resulting turning movements on junction capacity. ARCADY is the industry-standard reference software for the analysis of roundabout capacity.

The results of this simulation show that traffic flows during the PM peak will place the greatest stress on the roundabout. The maximum RFC value, 0.893, occurs on the M11 approach to the Newcastle Road Roundabout. However, even on this arm, the maximum queue length in 2030 will be just less than 8 vehicles. During the AM peak, the maximum queue length will be just over 2 vehicles.

A detailed breakdown of the results of this ARCADY analysis are included in Appendix B.

7 CONCLUSION

This report is concerned with an assessment of future traffic flows at the Newcastle Road Roundabout on the proposed Rathnew Relief Road.

The assessment examines Newcastle Road Roundabout for a Design Year of 2030 for both AM flows (8am to 9am) and PM flows (5pm to 6pm).

The assessment is based on traffic figures from Wicklow County Council, development guidelines in the Wicklow County Council Development Standards, TRICS database of traffic surveys for a variety of development types and assumptions on the proportion of traffic from Action Area 1 likely to use Newcastle Road Roundabout.

Based on the above, the assessment indicates that the roundabout is likely to perform within satisfactory parameters up to and including the Design Year of 2030.

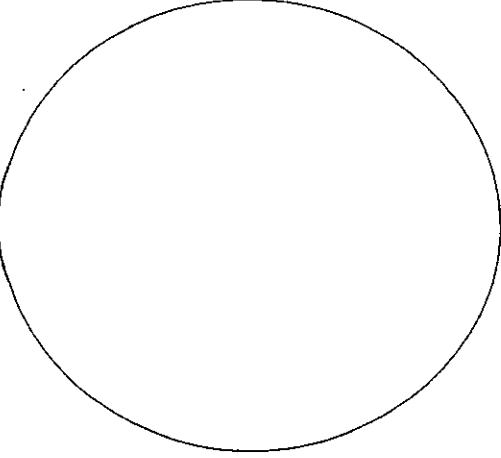


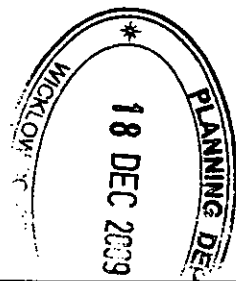


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APPENEDIX A – TRAFFIC FLOWS AT NEWCASTLE ROAD ROUNDABOUT

Proposed Rathnew Relief Road: Report on future traffic flows at Newcastle Road Roundabout

			ARM C			8:00am to 9:00am					
			Exit		Entry						
Dublin - ARM D Existing + 1.2ha Bus. Park + 1.3ha Retail 60% to Wicklow via Rathnew Relief Road			311.4	16.25 ha Ind. Est.	120.3	College Road - ARM B Existing + 10.3ha Bus. Park + 3.4ha Bus. Park + Clermont College @ 1,000 Students 70% to Dublin					
			5.2	vehicles / min	2.0						
											
Existing (2007)						516		143			
=> 60% on RR @ Design Year (2025)						627.6		173.9			
Residential @ 40%						87.5		31.9			
3.8 ha. Retail Ex. Food @ 40%						9.9		24.7			
1.2 ha. Bus Park @ 60%						34.4		5.8			
1.3 ha. Retail Ex. Food @ 40%						4.2		10.4			
Hotel @ 51bed @ 60%						5.4		3.8			
Retail Incl Food @ 30%						58.3		95.2			
College Road @ 50%			62.9		141.9						
Mrs. Clarke's Lands @ 60%			72.2		186.8						
TOTAL			962.3		674.4						
vehicles / min			16.0		11.2						
			Wicklow - ARM A								
			Existing + Residential + 3.8ha Bus. Park + Hotel + Retail								
			Entry		Exit						
			486	Existing (2007) @ Wicklow	113						
			354.6	=> 60% on RR @ Design Year (2025)	82.5						
			87.5	Residential @ 40%	31.9						
			9.9	3.8 ha. Retail Ex. Food @ 40%	24.7						
			34.4	1.2 ha. Bus Park @ 60%	5.8						
			10.4	1.3 ha. Retail Ex. Food @ 40%	4.2						
			5.45	Hotel @ 51bed @ 60%	3.79						
			58.3	Retail Incl Food @ 30%	95.2						
			141.9	College Road at 50%	62.9						
			124.5	Mrs. Clarke's Lands @ 40%	48.1						
			827.0	TOTAL	358.9						
			13.8	vehicles / min	6.0						





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APPENEDIX B – RESULTS FROM ARCADY



Proposed Rathnew Relief Road: Report on future traffic flows at Newcastle Road Roundabout

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CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

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Run with file:-

"q:\208 All jobs\208-023 Clermont Tinakelly\04 DESIGN & CALCULATIONS\4-1 Civil Design\4-1-8 Excel\
Mrs Clarke Rabout Assessment\Mrs Clarke AM PEAK.vai"
(drive-on-the-left) at 14:00:36 on Tuesday, 15 December 2009

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

Mrs. Clarke's Roundabout - AM PEAK

INPUT DATA

ARM A - Wicklow
ARM B - College
ARM C - Mrs. Clarke
ARM D - Dublin

GEOMETRIC DATA

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/
I	ARM A	I	3.65	I	6.50	I	10.00	I	20.00	I	36.00	I	30.0	I	0.621	I	25.960
I	ARM B	I	2.50	I	4.50	I	10.00	I	20.00	I	36.00	I	30.0	I	0.534	I	18.784
I	ARM C	I	3.65	I	6.50	I	10.00	I	20.00	I	36.00	I	30.0	I	0.621	I	25.960
I	ARM D	I	3.65	I	6.60	I	10.00	I	20.00	I	36.00	I	30.0	I	0.623	I	26.096

V = approach half-width
E = entry width

L = effective flare length
R = entry radius

D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

FLOW DATA USED IN THE ESTIMATION OF TURNING PROPORTIONS (VEH/MIN) -

TIME INTERVAL	ARM A	ARM B	ARM C	ARM D
08.00 - 08.15	13.8	2.1	2.0	11.2
08.15 - 08.30	13.8	2.1	2.0	11.2
08.30 - 08.45	13.8	2.1	2.0	11.2
08.45 - 09.00	13.8	2.1	2.0	11.2

TIME	TURNING PROPORTIONS (PERCENTAGE OF H.V.S)				
	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.00	ARM A	0.000	0.024	0.169	0.807
	ARM B	0.035	0.000	0.017	0.948
	ARM C	0.293	0.021	0.000	0.687
	ARM D	0.434	0.353	0.213	0.000



TURNING PROPORTIONS ARE CALCULATED FROM ENTRY AND EXIT FLOWS
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)
08.00-08.15								
ARM A	13.80	19.66	0.702		0.0	2.3	31.3	
ARM B	2.10	8.69	0.242		0.0	0.3	4.5	
ARM C	2.00	15.49	0.129		0.0	0.1	2.2	
ARM D	11.20	23.29	0.481		0.0	0.9	13.3	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)
08.15-08.30								
ARM A	13.80	19.64	0.703		2.3	2.3	34.5	
ARM B	2.10	8.61	0.244		0.3	0.3	4.8	
ARM C	2.00	15.40	0.130		0.1	0.1	2.2	
ARM D	11.20	23.29	0.481		0.9	0.9	13.8	

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	I
I	08.30-08.45									I
I	ARM A	13.80	19.64	0.703		2.3	2.3	34.9		I
I	ARM B	2.10	8.61	0.244		0.3	0.3	4.8		I
I	ARM C	2.00	15.40	0.130		0.1	0.1	2.2		I
I	ARM D	11.20	23.29	0.481		0.9	0.9	13.8		I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	I
I	08.45-09.00									I
I	ARM A	13.80	19.64	0.703		2.3	2.3	35.1		I
I	ARM B	2.10	8.61	0.244		0.3	0.3	4.8		I
I	ARM C	2.00	15.40	0.130		0.1	0.1	2.2		I
I	ARM D	11.20	23.29	0.481		0.9	0.9	13.9		I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	2.3 **
08.30	2.3 **
08.45	2.3 **
09.00	2.3 **

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.3
08.30	0.3
08.45	0.3
09.00	0.3

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

 QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.9 *
08.30	0.9 *
08.45	0.9 *
09.00	0.9 *

 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	ARM	TOTAL DEMAND		* QUEUEING * * DELAY *		* INCLUSIVE QUEUEING * * DELAY *	
		(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	A	I 828.0	I 828.0	I 135.8	I 0.16	I 135.9	I 0.16
I	B	I 126.0	I 126.0	I 18.9	I 0.15	I 18.9	I 0.15
I	C	I 120.0	I 120.0	I 8.8	I 0.07	I 8.9	I 0.07
I	D	I 672.0	I 672.0	I 54.7	I 0.08	I 54.8	I 0.08
I	ALL	I 1746.0	I 1746.0	I 218.3	I 0.13	I 218.4	I 0.13

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

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Mrs Clarke Rabout Assessment\Mrs Clarke PM PEAK.vai"
(drive-on-the-left) at 14:01:04 on Tuesday, 15 December 2009

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

Mrs. Clarke's Roundabout - PM PEAK

INPUT DATA

ARM A - Wicklow
ARM B - College
ARM C - Mrs. Clarke
ARM D - Dublin

GEOMETRIC DATA

I	ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU)
I	ARM A	I	3.65	I	6.50	I	10.00	I	20.00	I	36.00	I	30.0	I	0.621	I	25.960
I	ARM B	I	2.50	I	4.50	I	10.00	I	20.00	I	36.00	I	30.0	I	0.534	I	18.784
I	ARM C	I	3.65	I	6.50	I	10.00	I	20.00	I	36.00	I	30.0	I	0.621	I	25.960
I	ARM D	I	3.65	I	6.60	I	10.00	I	20.00	I	36.00	I	30.0	I	0.623	I	26.096

V = approach half-width
E = entry width

L = effective flare length
R = entry radius

D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

FLOW DATA USED IN THE ESTIMATION OF TURNING PROPORTIONS (VEH/MIN) -

TIME INTERVAL	ARM A	ARM B	ARM C	ARM D
17.00 - 17.15	16.2	3.8	4.5	20.8
17.15 - 17.30	16.2	3.8	4.5	20.8
17.30 - 17.45	16.2	3.8	4.5	20.8
17.45 - 18.00	16.2	3.8	4.5	20.8

TIME	TURNING PROPORTIONS (PERCENTAGE OF H.V.S)			
	ARM A	ARM B	ARM C	ARM D
17.00 - 18.00	0.000	0.001	0.011	0.988
	0.014	0.000	0.001	0.985
	0.145	0.001	0.000	0.854
	0.858	0.086	0.056	0.000

TURNING PROPORTIONS ARE CALCULATED FROM ENTRY AND EXIT FLOWS
 DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED



QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)
17.00-17.15								
ARM A	16.20	21.80	0.743		0.0	2.8	37.8	
ARM B	3.80	7.92	0.480		0.0	0.9	12.4	
ARM C	4.50	11.46	0.393		0.0	0.6	9.1	
ARM D	20.80	23.29	0.893		0.0	6.9	84.2	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/TIME SEGMENT)
17.15-17.30								
ARM A	16.20	21.77	0.744		2.8	2.8	42.2	
ARM B	3.80	7.81	0.486		0.9	0.9	13.7	
ARM C	4.50	11.31	0.398		0.6	0.7	9.7	
ARM D	20.80	23.28	0.893		6.9	7.5	109.0	

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	I
I	17.30-17.45									I
I	ARM A	16.20	21.76	0.744		2.8	2.9	42.8		I
I	ARM B	3.80	7.81	0.486		0.9	0.9	14.0		I
I	ARM C	4.50	11.31	0.398		0.7	0.7	9.8		I
I	ARM D	20.80	23.28	0.893		7.5	7.8	114.9		I

I	TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	I
I	17.45-18.00									I
I	ARM A	16.20	21.76	0.744		2.9	2.9	43.1		I
I	ARM B	3.80	7.81	0.487		0.9	0.9	14.1		I
I	ARM C	4.50	11.31	0.398		0.7	0.7	9.9		I
I	ARM D	20.80	23.28	0.893		7.8	7.9	117.7		I

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	2.8 ***
17.30	2.8 ***
17.45	2.9 ***
18.00	2.9 ***

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.9 *
17.30	0.9 *
17.45	0.9 *
18.00	0.9 *

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.6 *
17.30	0.7 *
17.45	0.7 *
18.00	0.7 *

 QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	6.9 *****
17.30	7.5 *****
17.45	7.8 *****
18.00	7.9 *****

 QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND	* QUEUEING * * DELAY *	* INCLUSIVE QUEUEING * * DELAY *
(VEH)	(VEH/H)	(MIN)	(MIN/VEH)
A	972.0	165.9	0.17
B	228.0	54.2	0.24
C	270.0	38.5	0.14
D	1248.0	425.8	0.34
ALL	2718.0	684.4	0.25

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
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APPENDIX VI
HERITAGE APPRAISAL





murray & associates
landscape architecture

Landscape Report
- Resource Planning & Masterplanning

for

Lands within Action Area Plan Area AA1(b) at
Rathnew, Co. Wicklow

CLIENT:
Crackington Ltd.



PLANNING CONSULTANT:
PD Lane Associates

February 2009

16 The Seapoint Building,
44-45 Clontarf Road,
Dublin 3, Ireland
Tel: 01 8540090
Fax: 01 8540095

mail@murray-associates.com
www.murray-associates.com

Introduction and Terms of Reference

This report was commissioned by PD Lane Associates on behalf of Crackington Ltd. to assess the existing landscape of the area east of Rathnew, Co. Wicklow in the context of the preparation of an Action Area Plan for area AA1 (B) – lands at Tinakilly, Knockrobin, Merrymeeting and Rathnew.

This report specifically addresses the following issues, as required by the Wicklow Environs and Rathnew Local Area Plan (2008-14):

- Heritage Appraisal / Impact assessment
- Landscape Public Amenity Walkway
- Tinakilly Avenue Landscape Plan

This report comprises of the following sections:

1. Landscape Resource Analysis
2. Recommendations for the Site Masterplan
3. Landscape Amenity Development – Looped Pedestrian Walking Route

The purpose of the report is to analyse the existing landscape and the natural heritage elements to identify any landscape resources that should be protected, such as trees, woodlands, structures, patterns, designed elements or views. Having identified same, recommendations are made for the protection of the most important elements as per the Action Area Plan.

Recommendations for the landscape treatment of the main avenue to Tinakelly House and the development of a looped walkway are also put forward in order to maximise the advantages of the landscape for local amenity.

This report should be read in conjunction with Drawing Nos. 1400_LR_01 and 1400_LM_01.

1.0 Landscape Resource Analysis

1.1 Landscape Context

The study area is located in the context of a landscape with both rural and urban influences. It surrounds Rathnew from north to east and lies in the north-western environs of the county town Wicklow, which lies approximately 3km south.

The landscape context includes the lands of two old demesnes with sizeable country houses – Clermont and Tinakelly – and one further old country house at Knockrobin. Tinakelly adjoins in the north to the Irish Sea coast (in the area known as the Murragh) and the townland of Coolawinna, in the east to the townland of Knockrobin, in the south to the townland of Merrymeeting and in the west to the townlands of Ballybeg and Newrath. Clermont and Tinakelly House are outside of area AA1(b) but are considered to form part of a landscape unit with the three country houses and their associated lands. Clermont adjoins in the north to the townlands of Coolawinna and Ballinapark (Newcastle Barony), in the north-west to the townlands of Mount Usher, in the west to the townlands of Rossana Lower and in the south to the townlands of Milltown North and Ballybeg. Knockrobin House to the south of the study area is smaller and has more limited associated parkland.

The topography of the study area is gently to steeply sloping lands becoming flat at the coast. Landcover is varied with parkland, mature deciduous trees and woodland, young coniferous plantations, coastal marsh, gardens, as well as residential and commercial development in the environs. Several watercourses cross the land, including the Rathnew Stream which defines the boundary between Clermont and Tinakelly demesnes and the northern boundary of area AA1(b).

The potential natural vegetation is Sessile Oak (*Quercus petraea*) forest with Bluebell (*Hyacinthoides non-scripta*) (Cross, J.R.). The bedrock in the area is the Maulin Formation from Lower Ordovician with dark to mid-grey laminated siltstones and shales (*Geology of Kildare-Wicklow page 12-13*). The soil is clay.



1.2 Landscape Assessment

In this landscape, the most interesting elements are the three historic houses with their associated grounds. Early ordnance survey maps (1840s, 1880s, 1900s) and other sources have been consulted to assemble a picture of the development of these estates.

The country houses of Clermont and Tinakelly are both listed as Protected Structures (Wicklow County Council Development plan 2004-2010). They are situated on the top of two adjoining low hills. Knockrobin House is not listed. It should be noted that Clermont and Tinakelly House are outside the area AA1 (B) but are considered in terms of context only.

Tinakelly and Clermont estates are divided by a stream, which flows into Broad Lough, which is a tidal lake on the coast where a bird sanctuary of international importance is situated. Some ditches flow into the stream.

1.2.1 Tinakelly

Tinakelly House was built from 1876 to 1883 for Robert Halpin¹. It is now used as a hotel. The historical map from 1839 (Ordnance Survey of County Wicklow sheet 25) shows a tree lined avenue from the entrance of the demesne to the top of the hill, where the centre of the park is situated. The earlier country house Tinakelly Upper, which is now ruined, lies at the end of a cross axis at the upper end of the avenue, prior to entering the Tinakelly House gateway.

The straight allée of trees is very characteristic of a formal Baroque landscape. As the more informal Landscape style came into vogue in the late 18th century it is likely that the formal aspect of the avenue was diluted to create a parkland avenue with trees of different ages and sizes spaced at irregular centres. The trees are planted in one row with a 1-2m high hedge to the base. The first 150m of the access road are bordered on both sides with stone walls. A gate with a now ruined gate lodge defines the beginning of the allée. The height difference from the gate to the top of the hill, where Tinakelly house is situated, is 20m. The avenue has a length of approximately 500m.

¹ Robert Halpin was the commander of The Great Eastern when it laid most of the world's transoceanic telegraph cables. He was born in Wicklow Town (www.tinakelly.ie).



Ruins of the access yard from Tinakelly Upper left and barn from 20th century right



Stone walls on the access road to Tinakelly House.



Hedgerows, usually with mature trees, define the different field plots of the area. A derelict quarry is situated 100m north of Tinakelly house and is now planted with conifers.

The allée is the only strong, designed feature in this landscape. Other surviving features are: boundary stone walls, ruins of the gate lodge, gate, hedgerows and hedges, remains of the access yard from Tinakelly Upper and specimen trees. It should be noted that there is no evidence that the boundaries, trees, fields and hedgerows are part of a grand design for the overall parkland, so the significance of peripheral features is diminished.

1.2.2 Knockrobin

Knockrobin House is quite different to the other houses as the building is not listed and there is no evidence of a demesne. The house first appears on the 1886 revision of the Ordnance Survey and the entrance avenue was planted with woodland and shrubbery. This arrangement has changed very little in the intervening time. There is no indication of a demesne on any of the OS mapping, but the house was set in a parkland setting with clumps of woodland and irregular field boundaries. It is likely that at least some of the surrounding land (perhaps all of Knockrobin townland) was under the control of the house, but not managed as a demesne (i.e. for the exclusive use of the family). The approach to, and positioning of, the house within the site shows influence of the Landscape style as there is an element of concealment and a sinuous, indirect route to the building which does not face the approach route, typical of this style. Also, the planting is an informal woodland rather than an avenue. The house is quite enclosed and cut off from the surrounding landscape due to the extensive planting around it. This may be because these were farmed fields and not private parkland.

An archaeological site lies to the south of Knockrobin House on the road to Wicklow in the Glebe townland. This area is shown as site of church of Drumkey on the historical map from 1838 and the later editions. Archaeological excavations in advance of the construction of the Wicklow Port Access and Town Relief Roads had shown burial grounds dating back to between 600 and 1500 AD (<http://medievalnews.blogspot.com/2007/03/archaeological-excavations-in-wicklow.html> 09/08/2007).

1.2.3 Tree Preservation Orders

The Wicklow County Development Plan 2004-2008 (Heritage & Landscape Conservation) includes in schedule 10.10 an existing tree preservation order with no. 42 for "Larch, Scots Pine and Sycamore groups of trees at Knockrobin, Wicklow town" and in schedule 10.11 four "Trees and Groups of Trees considered for preservation" with no.:

48 "Knockrobin Oak and ornamental species forming the avenue of Knockrobin House."

49 "Knockrobin A corpse of European Larch, Scots Pine and Sycamore, on Knockrobin Hill."

1.2.4 Views into and out from the study area

Views are shown on the landscape resource plan (LRP, Drawing No. 1400_LR_01) and are numbered with arrows indicating the direction of the view and relevant photographs showing the view itself. The most relevant views in terms of heritage are from elevated ground and include distant scenery such as the Irish Sea to the east and the Wicklow Mountains inland. The existing avenue to Tinakilly House is also of high local visual quality.

It should be noted that views that may have been deliberately designed as part of the original landscape have become obscured or altered due to the development of Rathnew and environs. The only exception is the framed view from the gates of Tinakelly House along the avenue to the Wicklow Mountains (Image 3 on the LRP), which is only slightly changed with some housing in the middle distance. The rest of the views are primarily of local significance.



View 3 from gate of Tinakilly House along the tree-lined avenue to the Wicklow Mountains

Views 1, 2 and 3 are of the avenue from the entrance gate up to Tinakelly house, and from Tinakelly House back down the avenue. These visual sequences are of particular significance



as a designed landscape in this area. This is an enclosed visual experience, with occasional glimpses to landscape beyond.



View 2 of tree-lined allée leading to Tinakelly House

There are fair quality views in all directions from the elevated areas around Tinakilly House. The views from there in western and south western direction include Rathnew in the middleground and the Wicklow mountains in the distance (view 4, 5;).

The visual quality of the Murragh should also be considered as a valuable landscape with an open character and large scale, with naturalistic reedgrasses and stunted trees on ditches and views of the Irish Sea.

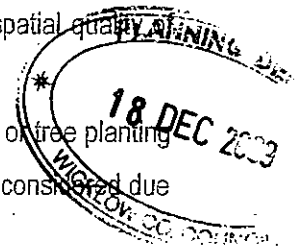


View of The Murragh

2.0 Recommendations for the Site Masterplan

The following are the Landscape Architect's recommendations for the future masterplanning of the AA1(b) area, based on the findings of the landscape resource analysis and best practice in relation to landscape planning and tree and hedgerow conservation. (To be read in conjunction with Drawing No. 1400_LM_01 – Landscape Plan.)

- The Avenue should be disturbed as little as possible. The only crossing of the Avenue should be the proposed relief road with a pedestrian crossing for pedestrians and a junction to Tinakilly House, subject to sensitive siting and design (see further recommendations below). No further vehicular links into the Avenue should be permitted. Every additional gap in the hedge would disturb the spatial quality and historic value of the Avenue.
- The proposed relief road should be in the location indicated on the landscape plan (Dwg. No. 1400_LM_01) as this is the area where the least impact will occur. Due to the topography of the Avenue, there will be some screening here as the natural dip will provide partial screening from the top of the avenue.
- Four mature trees must be felled for the crossing of the main road. New trees should be planted in the gaps of the Avenue as replacement trees for these
- A scheme of tree planting along the avenue to ensure succession as older trees mature and die in the coming years should be incorporated. This will ensure the successful management of the avenue and maintain the visual and spatial quality of the space into the future.
- Other landscape treatments on the avenue – such as mounding, shrub or tree planting outside of the tree lines, or any other intervention – should be carefully considered due to the sensitivity of this minimal landscape to change.
- The curtilage of Tinakilly house including the gardens should be respected and retained.
- The allée leading to Tinakilly House is the main feature of significance in this respect and it should be protected.
- All significant trees, particularly those with Tree Protection Orders and under consideration for same in the Knockrobin area, will be protected during development.



3.0 Landscape Amenity Development – Looped Pedestrian Walking Route

A pedestrian walkway along the stream is proposed in the Wicklow Environs Plan landuse zoning from Wicklow County Council (see Drawing No. 1400_LR_01 for indicative route). This path starts in the centre of Rathnew at the bridge on the Main Street and follows the stream for approximately 850m before linking with an existing pathway that connects to Broad Lough on the access road to Broadlough house, or loops back to Rathnew, via Tinakelly House and avenue. The route creates a stimulating, varied walk with high amenity value due to the variety of landscape and visual interests within the route including parkland, historic avenues, streams and coastal Murragh landscapes with dramatic fields of reeds and rushes, as well as mature trees, woodlands and local wildlife.

The total length of the walk would be approximately 4.6km in length from Rathnew centre to Broad Lough and back, via Tinakilly avenue. This is approximately a one-hour walk, at a brisk pace. There would also be the option of a shorter loop omitting the Murragh, which would take around 30 minutes, which may prove a popular option with locals walking for health reasons.

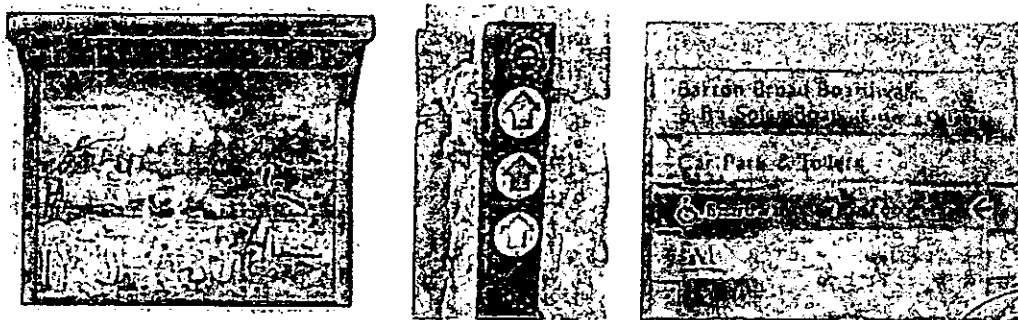
For the most part, the walkway follows existing pathways and roads. It crosses marshy areas at Broad Lough and there may be some locally wet areas along the Rathnew Stream bank. There are some drains, which flow into the stream that need to be crossed. Where necessary, the new walkway must be built as a boardwalk in order to create a reliable and all-weather, all-season walking route. A number of bridges may be required to cross over the drains. It may also be possible to connect this footpath with the path system of Clermont Campus, so that it would be possible to visit Tinakilly, Broad Lough sanctuary and Clermont Campus in one walk. Another bridge across the stream would be necessary in this case.



Indicative images of boardwalk structures

Where the walkway crosses relatively dry and firm pasture lands, the path can be constructed with a tarmac finish as per the existing path at Broad Lough or a similar finish. Additional fences may also be necessary where the path crosses private land or for health and safety.

The walking route should be designed and finished to create a visually continuous and legible route. The design for the route should involve consideration of surfacing, site furniture, waymarking and interpretative signage and symbols, lighting (if required), CCTV (if required) and associated details. These should be designed within a single concept and material palette that unites all of the disparate elements and guides the walker, highlighting points of interest and informing on local flora and fauna. This would therefore increase the amenity and educational value of the walk. Such a walkway need not be completely uniform, but the finish should link the spaces together and present a sense of unity and purpose.



Indicative images of walkway furniture and interpretative aids

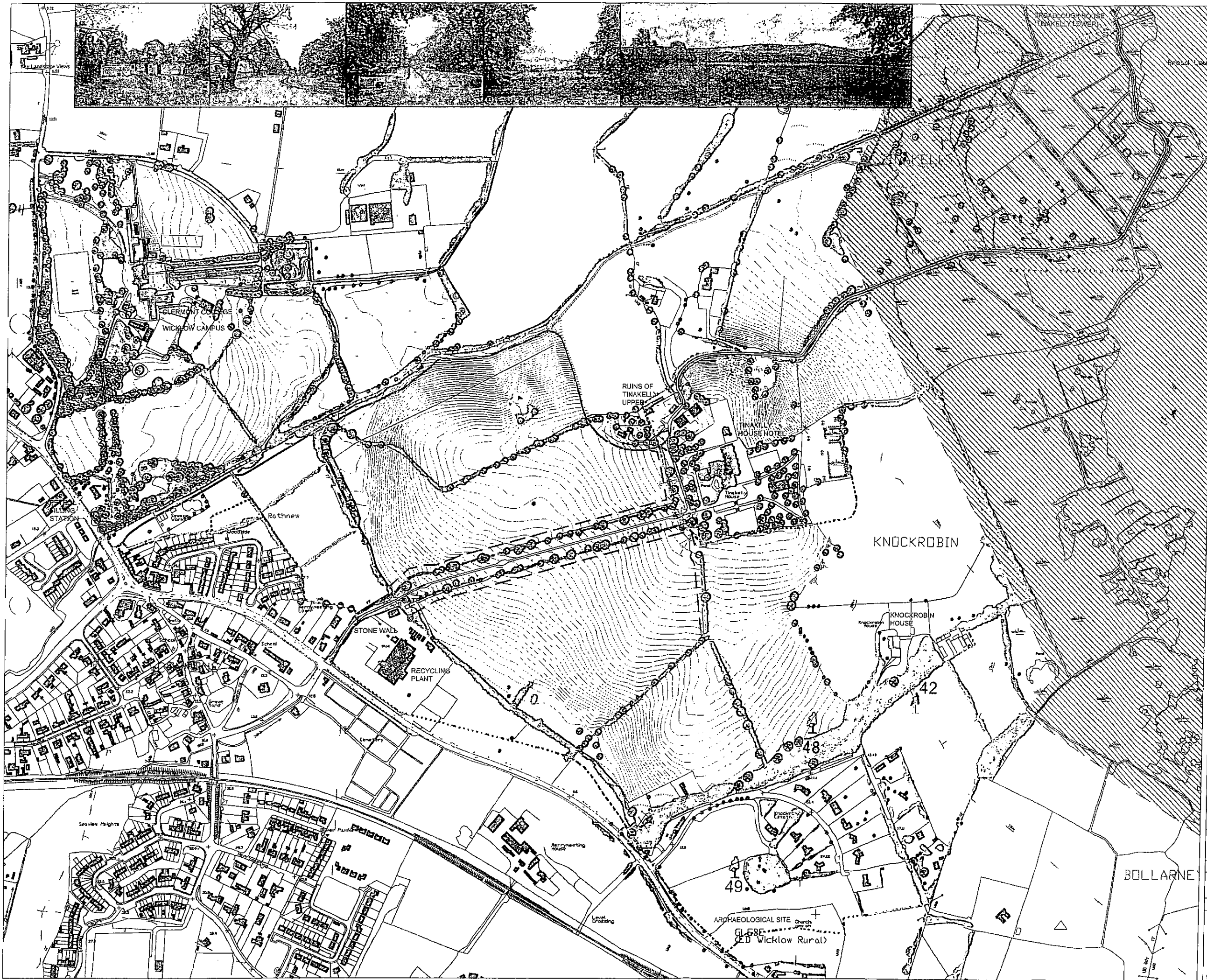
To address concerns in relation to anti-social behaviour on the walkway, the most effective deterrent is use by local people, possibly augmented by patrol by local Gardai. In design terms, the walkway should generally have an open character with views to the surroundings, so there will be no shelter or screened areas to encourage loitering. A scheme of lighting and CCTV in key areas would also aid in discouraging this kind of behaviour. The walkway could also be designed in such a way that parts of the route could be locked at night so that there is no access when the route is not in use for recreation. The most appropriate solution – or combination of measures – would be determined through consultation with local people and stakeholders at detailed design stage.

These proposals will create a walking route with intrinsic interest that is subtly enhanced to interpret the landscape and natural heritage which will heighten interest in the walk. In this way



and through the landscape treatment proposed for Tinakelly avenue, the landscape is conserved and carefully improved for public amenity while respecting the context and the value of the natural and cultural heritage.

Several objections to the proposed location of the proposed Looped Walkway have been received regarding the Walkway crossing private lands along Rathnew Stream. Further consultation with these stakeholders will be required.



- LEGEND**
- Existing trees to be retained where possible
 - Existing woodland, hedgerows, shrubs of high value, to be retained where possible
 - Existing woodland, hedgerows, shrubs of low value
 - Existing Stone Wall
 - Existing Pool, Stream, Drain
 - Existing Views (related to numbered photographs)
 - Protected Structure according to Wicklow County Development Plan 2004-2010
 - Historical Building
 - Historical Building, Ruin
 - Proposed Green Buffer to Tinakelly Avenue
 - Existing Tree Preservation Order, Source: Wicklow County Development Plan 2004-2008 Schedule 10.10 with No. In Schedule
 - Trees and Groups of Trees considered for preservation in Wicklow County Development Plan 2004-2008 Schedule 10.11 with No. In Schedule
 - Bird Sanctuary/Area of Conservation Source: Wicklow Environs Plan Landuse Zoning 25.08.2008
 - Indicative Route of Proposed Looped Walkway - Initial Phase
 - Existing paths forming a proposed looped walkway - subsequent phase
 - Indicative Route of Proposed Walkway as per Future Phase by agreement with landowners
 - Boundary of Action Area 1b

PLANNING DEPT.
18 DEC 2009
WICKLOW CO. COUNCIL

Notes

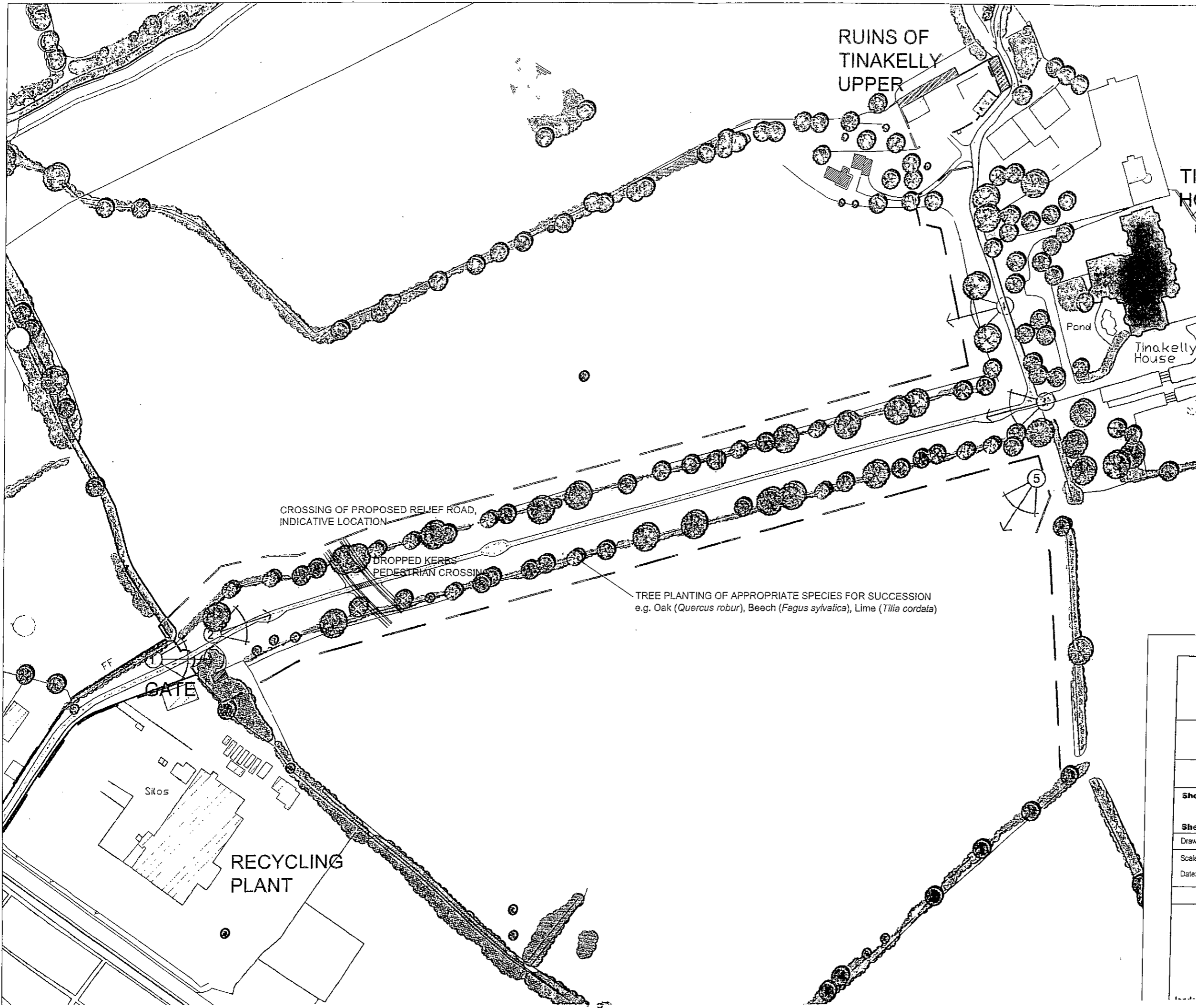
0	03/03/2009	Working Phase
1	07/07/2009	Final Review
2	02/12/2009	Drawing updates
3	11/03/2010	Visual heritage assessment
Rev.	Date	Reason

Project Title:	Wicklow County Council Action Area Plan 1(b) for Lands at Tinakelly, Knockrobin, Merrymount, Rathnew Co. Wicklow
Architects:	PD Lane Associates Architecture Urban Design Planning Engineering
Client:	Craiclington Limited
Sheet Title:	Landscape Resource Plan
Sheet No.:	1400_LR_01
Drawn by:	JS
Approved by:	MB
Scale:	1:2000
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RUINS OF TINAKELLY UPPER














Tinakelly House

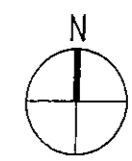
RECYCLING PLANT


CROSSING OF PROPOSED RELIEF ROAD, INDICATIVE LOCATION

DROPPED KERBS PEDESTRIAN CROSSING

TREE PLANTING OF APPROPRIATE SPECIES FOR SUCCESSION
e.g. Oak (*Quercus robur*), Beech (*Fagus sylvatica*), Lime (*Tilia cordata*)

-  Existing trees to be retained where possible
-  Existing woodland, hedgerows, shrubs of high value, to be retained where possible
-  Stone Wall
-  Pool, Stream, Drain
-  Key View from within Site
See 1400_LR_01 for photos
-  Protected Structure according Wicklow County Development Plan 2004-2010
-  Historical Building
-  Historical Building, Ruin
-  Proposed Green Buffer to Tinakelly Avenue
-  Proposed Trees to succeed existing native avenue trees over time
-  Removal of existing trees
-  Existing access road
-  Proposed walkway

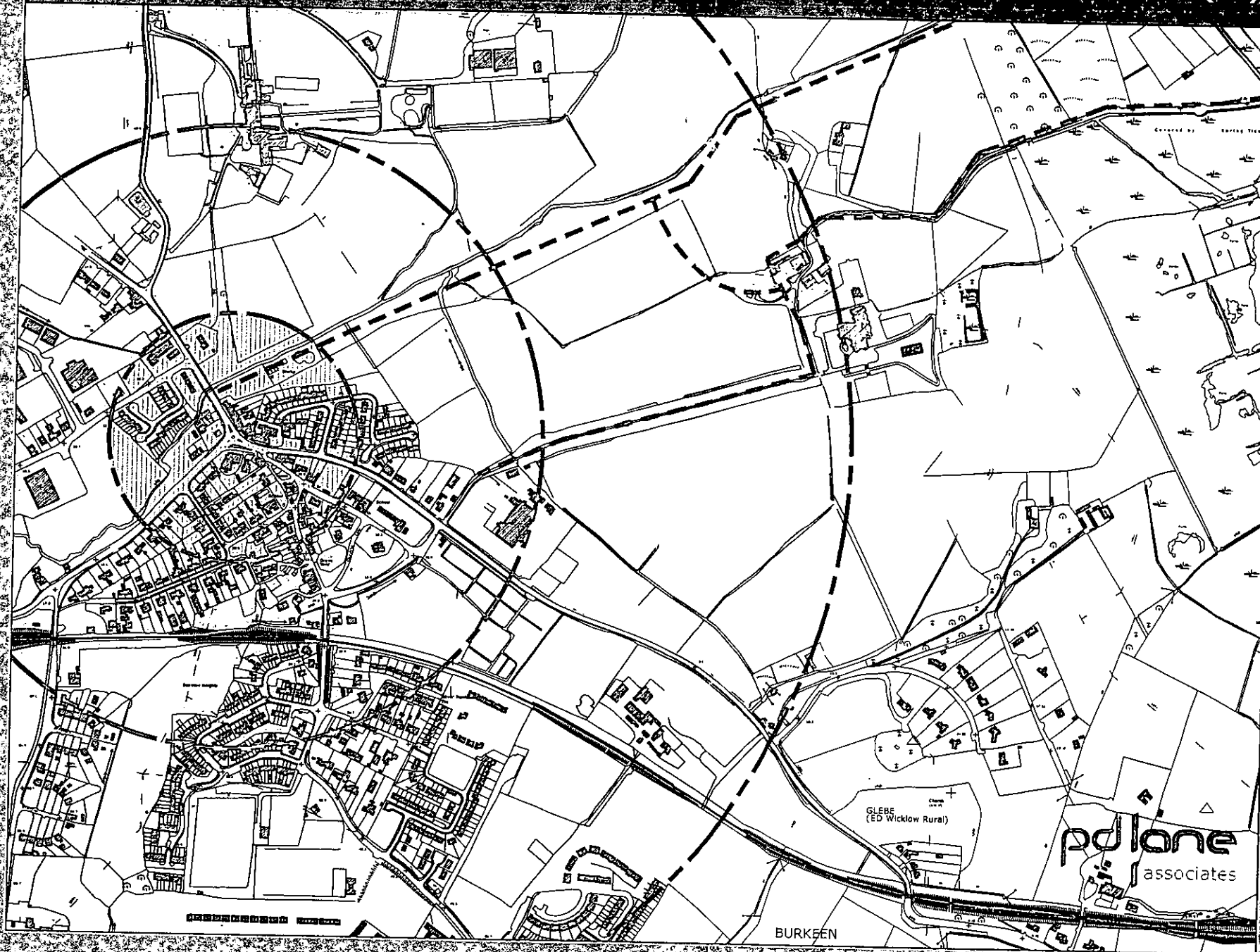


Project Title: Wicklow County Council Action Area Plan 1(b) for Lands at Tinakelly, Knockrobin, Merrymeeting, Rathnew Co. Wicklow	
Architect: PD Lane Associates Architecture Urban Design Planning Engineering	
Client: Crackington Limited	
Sheet Title: Landscape Masterplan	
Sheet No.: 1400_LM_01	
Drawn by: JS	Approved by: MB
Scale: 1/2000	Revision:
Date: November 2008	A1 O
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murray & associates	

rathnew urban framework plan

(December 2009)

proposed as part of AA1 (B)



W. 20/12/09

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introduction



December 2009

M 30/12/09

background

According to the Wicklow Environs and Rathnew Local Area Plan 2008-2014, an urban framework plan is to be prepared for the new Rathnew Town Centre Activities (TC) and Residential (R2) High Density Potential zoned lands, to the immediate east and northeast of Rathnew village.

It was agreed that an overall broad scoping urban framework plan could be lodged as part of AA1 (B). And that a more in-depth and detailed urban framework plan could be prepared for the new Town Centre Activities zone, at an appropriate time in the future (potentially as part of AA1 (A)).

The following urban framework plan (the 'Plan') has been produced by Crackington Limited after a lengthy discussion and consultation process with all relevant stakeholders in the area.

This Plan addresses, in particular, future development on lands to the immediate east and northeast of Rathnew village, on the new Town Centre Activities and High Density Potential zoned lands.

This Plan will produce a broad urban design framework consisting of a network of movement and a series of indicative public spaces, that will connect the existing village with areas designated for future development. This approach will integrate the new town centre zoned lands, existing village and future residential high density potential areas with convenient access to Clermont Campus, existing and future road and transport infrastructure.

For places to be well-used and enjoyed, they must be safe, comfortable, varied and attractive. New development should enrich the qualities of existing urban places by responding and complementing the existing setting.

New places need to be easy to get to and be integrated physically and visually with their surroundings. How to get about on foot, bicycle, public transport and car - and in that order - is extremely important.

New places should strike a balance between the natural and manmade environment and use the area's resources - landform, landscape & ecology. They need to be flexible enough to respond to future changes in use, lifestyle and demography.

This Urban Framework Plan addresses these important principles governed by good urban design and place-making.

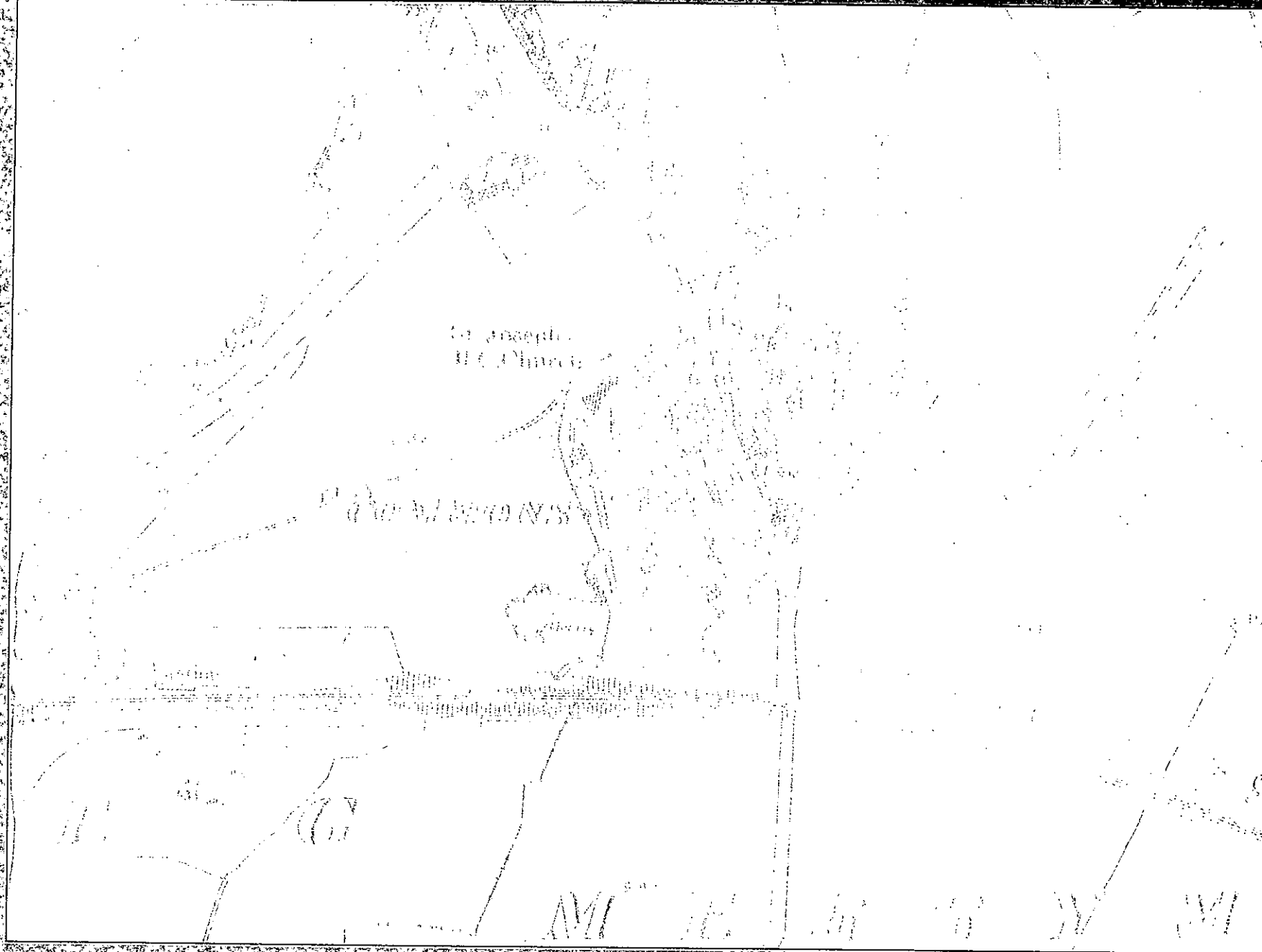
context



December 2009

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history



Rathnew can be described as a small town or village on the Dublin-Wicklow road (and at one time on the Dublin-Arklow road) half way between Ashford and Wicklow town, in north County Wicklow.

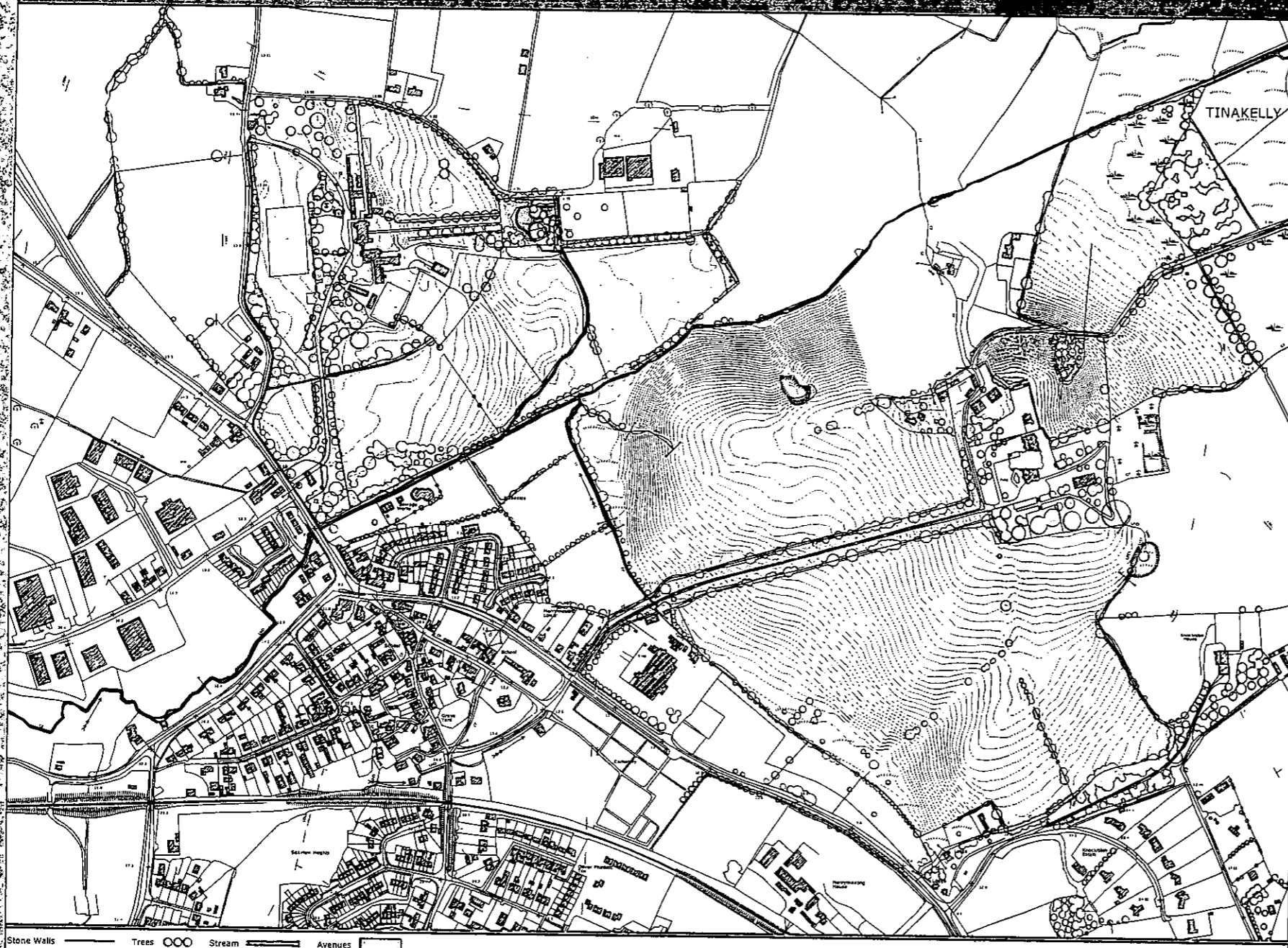
Rathnew is situated at the main entrance point (off the N11) into the county town of Wicklow.

The Ordnance Survey in their report in the early 19th century said that the Danes had occupied Rathnew in pre-Norman times. The arrival of the railway in 1863 was very important for life in the village.

A lady named Miss Blake from Rathdrum owned the Rathnew Commons in the eighteenth century. Miss Blake agreed to give this ground to anyone who wanted to build a house. There was neither law nor order in the selection of a site with the result that houses were facing every way. There was a lot of expertise in roofing with thatch at the time and the houses were completed within four days. Some of those houses lasted well into the 20th century (see below: OS Map, 1908).

But, they were not all small houses around Rathnew - large country houses like Clermont and Tinakilly were among the most important in the county in the eighteenth and nineteenth centuries. Clermont House (now Wicklow County Campus) was the home of the Yarnor family. It was built in 1730 and it is thought the architect was Francis Bindon. The house was until recently used as a girls boarding school. Tinakilly House (now Tinakilly House Hotel) was built in the late-19th century by Halpin, Captain of the Great Eastern.

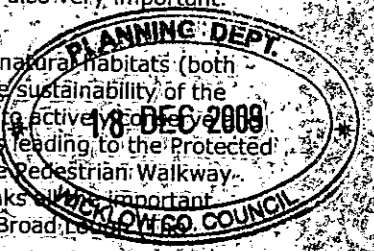
landscape



The land on which the urban framework plan is located is relatively flat, close to the village centre, with Rathnew Stream dividing the new Town Centre Activities zoned lands with the Residential (R2) high density potential lands. As the future residential development lands crosses a stream to the rear, and the east of the settlement it starts to climb eastwards up towards Tinakilly House.

Rathnew is a village of many physical qualities, contained in both its built and natural landscape. For example, the formal tree-lined avenues leading from the main street to the large Protected Structures of Clermont House and Tinakilly House are considered very unique and extremely important landscape elements. The demense walls around Clermont House and the stone bridge over Rathnew Stream are also very important.

The preservation and enhancement of natural habitats (both terrestrial and aquatic) is central to the sustainability of the area's biodiversity. The Plan will seek to actively enhance Rathnew Stream, the Avenues leading to the Protected Structures, and the proposed Indicative Pedestrian Walkway loop identified in Action Area 1, that links all the important landscape elements in the area to the Broad Leas (Murrough).



legend

December 2009

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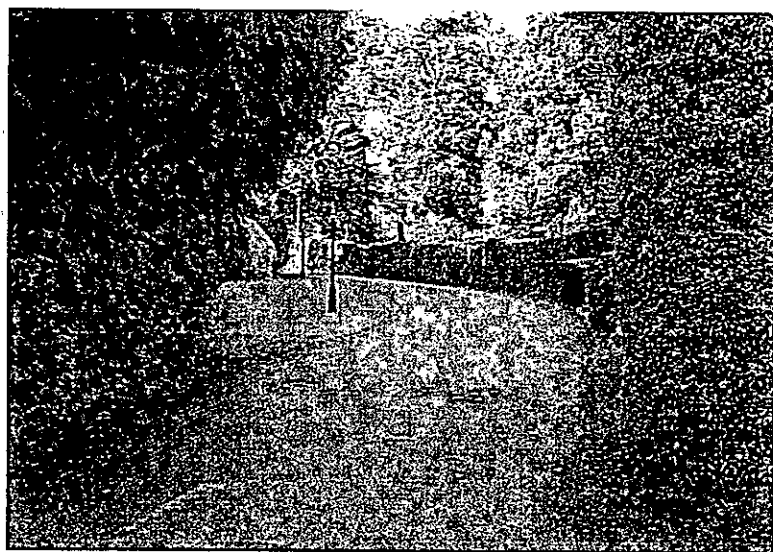
landscape images



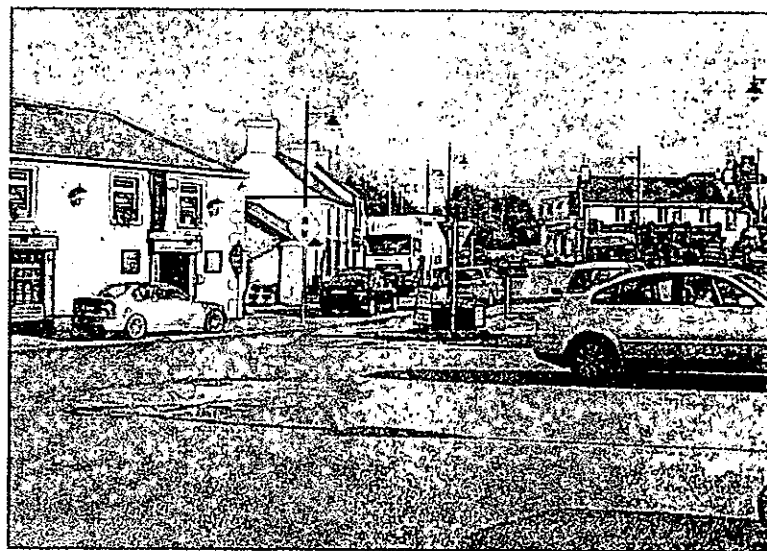
View down Tinakilly House Avenue



Existing Stone Wall

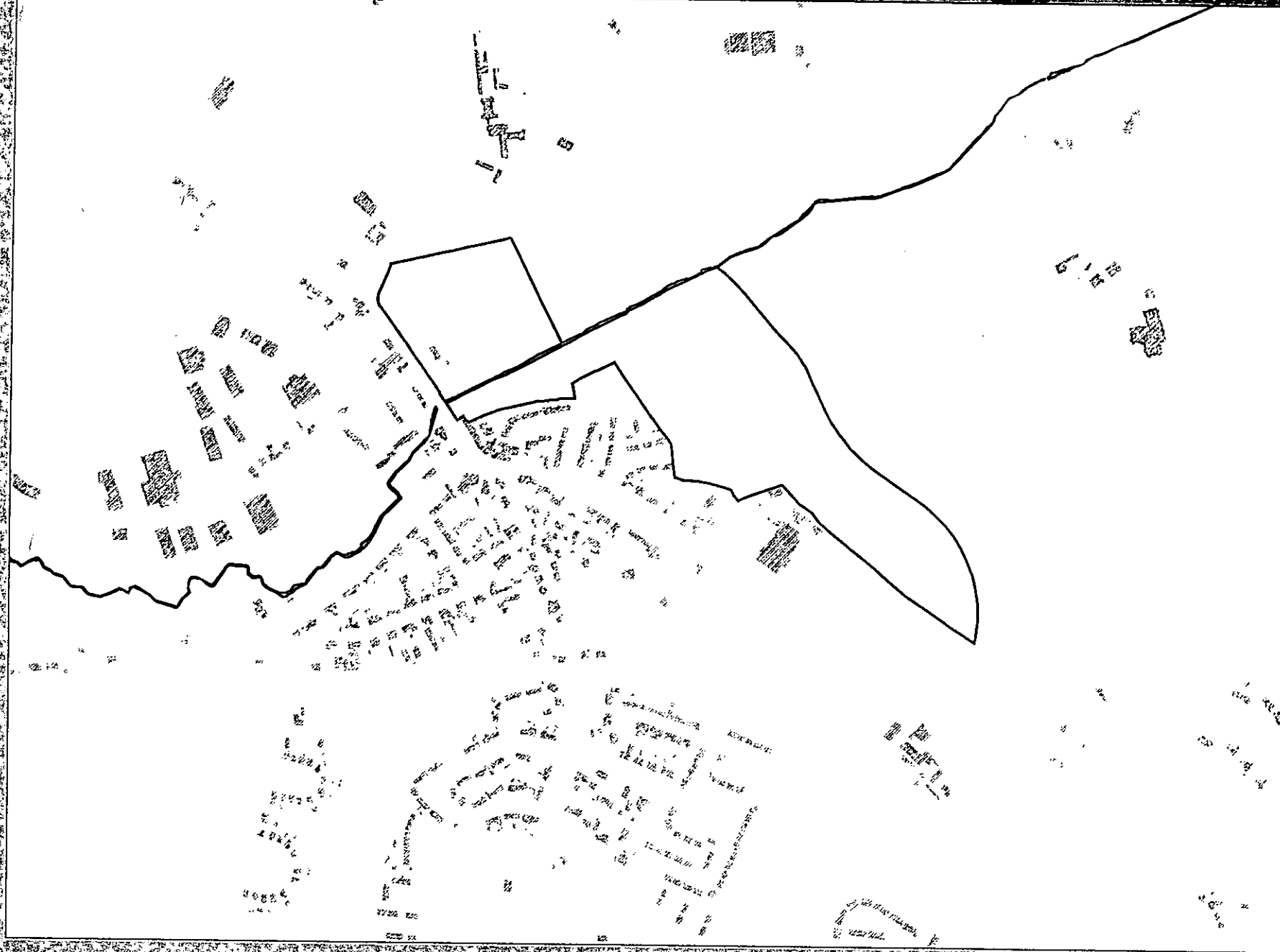


View of Clermont College main entrance.



Existing Rathnew Village Centre

built form



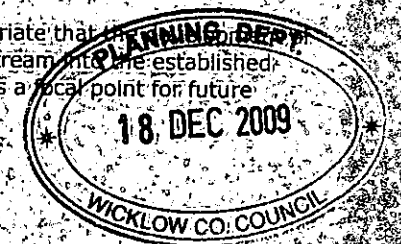
Rathnew has been described as a small town or village. The village of Rathnew has grown outwards to the south and southwest, along the main roads to Wicklow, Rathdrum (and historically Arklow). Very little expansion of the village has taken place to the east and northeast of the village core (the Dublin to Wicklow Road).

In order to balance the skewed growth pattern of the settlement of Rathnew, it is imperative that the east and northeast side of the village centre is developed in an appropriate fashion in accordance with proper planning and sustainable development. This Plan addresses the important planning and design challenges that face the future expansion of this settlement over the next 10 to 15 years.

It is considered appropriate that any development on the Town Centre Activities (TC) lands along Rathnew Main Street and to the rear of existing built form should respect and acknowledge the existing heights and building lines.

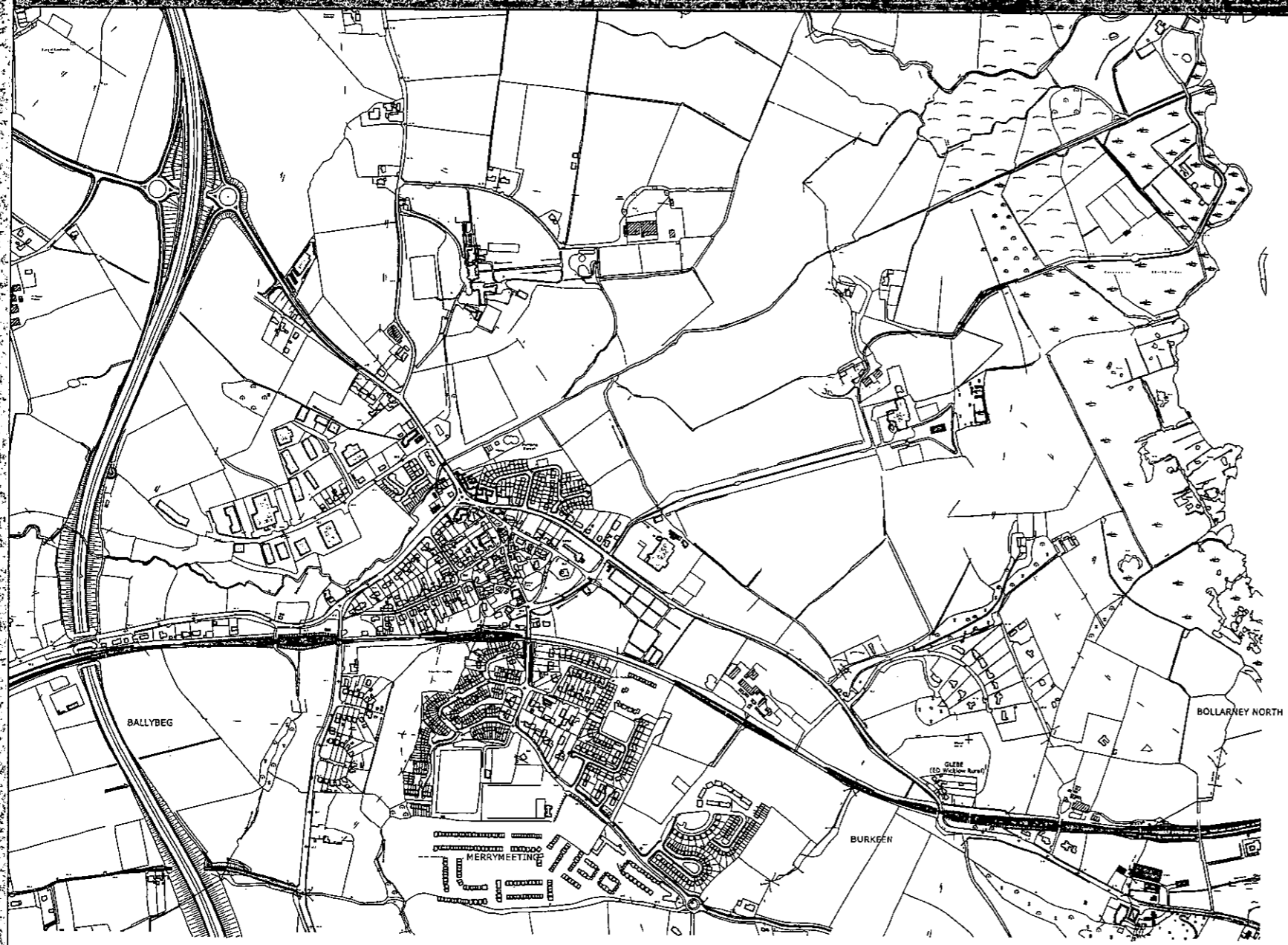
The existing built form of Rathnew has tended to turn its back on Rathnew Stream, an extremely important landscape feature and natural habitat running through the settlement.

Therefore, it is considered appropriate that the TC lands connects Rathnew Stream into the established settlement pattern and define it as a focal point for future community and economic activity.



30/10

pattern & uses



Residential Employment Community Mixed Use Agriculture

The small village core of Rathnew is reasonably compact and densely developed, with continuous frontages and a clearly pronounced street providing varied building uses. This pattern of development is a traditional form of urban development, experienced before the 20th Century.

The areas immediately surrounding the village core that were developed in the 20th Century are of a less compact, lower density residential nature. This lower densely packed pattern of development is a departure from the more traditional urban forms, with less clearly defined streets and open spaces.

Large building footprints are evident as you move beyond the more recent residential developments along the main roads radiating from the village core. These large buildings provide employment and institutional uses generally - Clermont Third Level College, Local National School, Tinakilly House Hotel and the employment area at Merrymeeting.

Generally, the village of Rathnew has a poor mixture of retail, leisure and community buildings with a number of vacant and derelict structures.

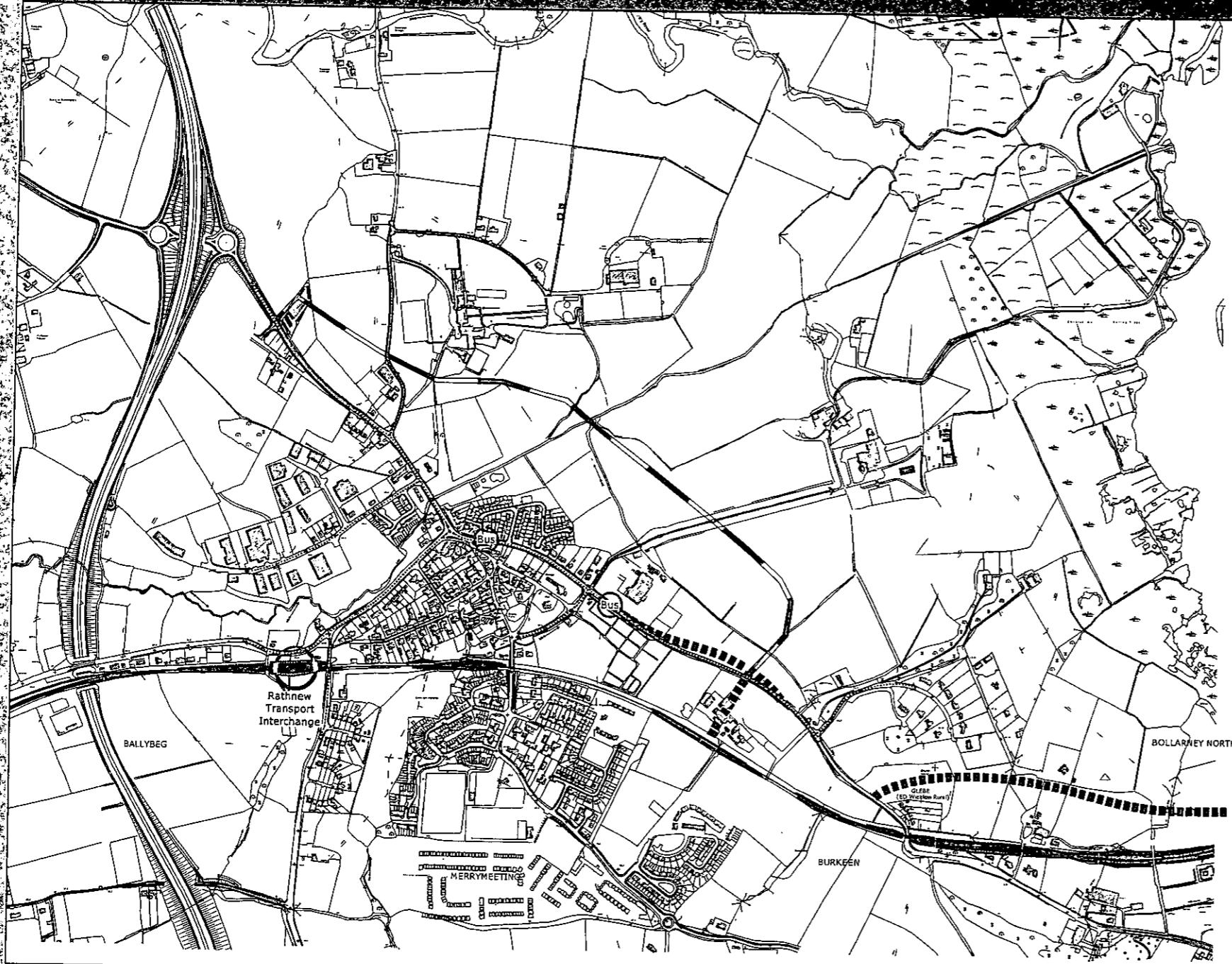
It is considered appropriate that any development of the Town Centre Activities (TC) lands should reinforce the compact and densely developed village core by providing continuous frontages and clearly pronounced streets and spaces providing a variety of building uses at their edges.

This more compact built form should 'turn the corner' along Rathnew Main Street along the stream and provide perimeter blocks along the stream and the tree-lined avenue leading to Clermont Campus.

Legend

December 2009

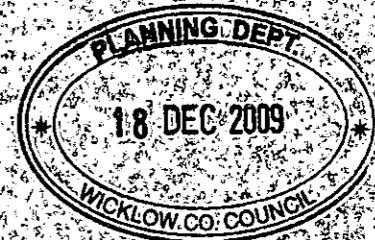
infrastructure & LUTS



The current Infrastructure Improvement plans for the area around the settlement of Rathnew include the construction of the Port Access Road, Wicklow Town Relief Road, Rathnew Relief Road and the construction of the new sewerage treatment facility for Wicklow Town, Rathnew and Ashford (at the Murrugh).

The existing road infrastructure around Rathnew is poor and sub-standard due to the volume of traffic and congestion problems caused by commuters and visitors entering and exiting Wicklow Town. Access to the third level outreach college at Clermont House is also poor along the Newcastle Road, with insufficient site lines at the historic entrance. This is not a sustainable situation as the campus expands in the future.

However, Rathnew is well-located, just off the N11 National Primary Route between Dublin and Wexford. When the Rathnew Relief Road, Port Access Road and Wicklow Town Relief Road are completed the village will have good access to Wicklow Town, Wicklow Train Station and the Port area. And therefore, will have good access to public transport, particularly when the Rathnew Transport Interchange is completed.



Legend

December 2009

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landownership



The Urban Framework Plan lands are in the ownership of a number of different landholders:

Akley Properties Limited own the majority of the Town Centre Activities (TC) zoned lands north of the stream; with the Haughton Family owning a residential plot along Rathnew Main Street zoned TC.

Claremont Holdings Limited own the remaining TC lands to the south of the stream and a significant portion of the Residential High Density Potential lands south of the stream to the immediate rear of the existing settlement.

Wicklow County Council own a section of the land along the stream to the south where there are existing infrastructural works located.

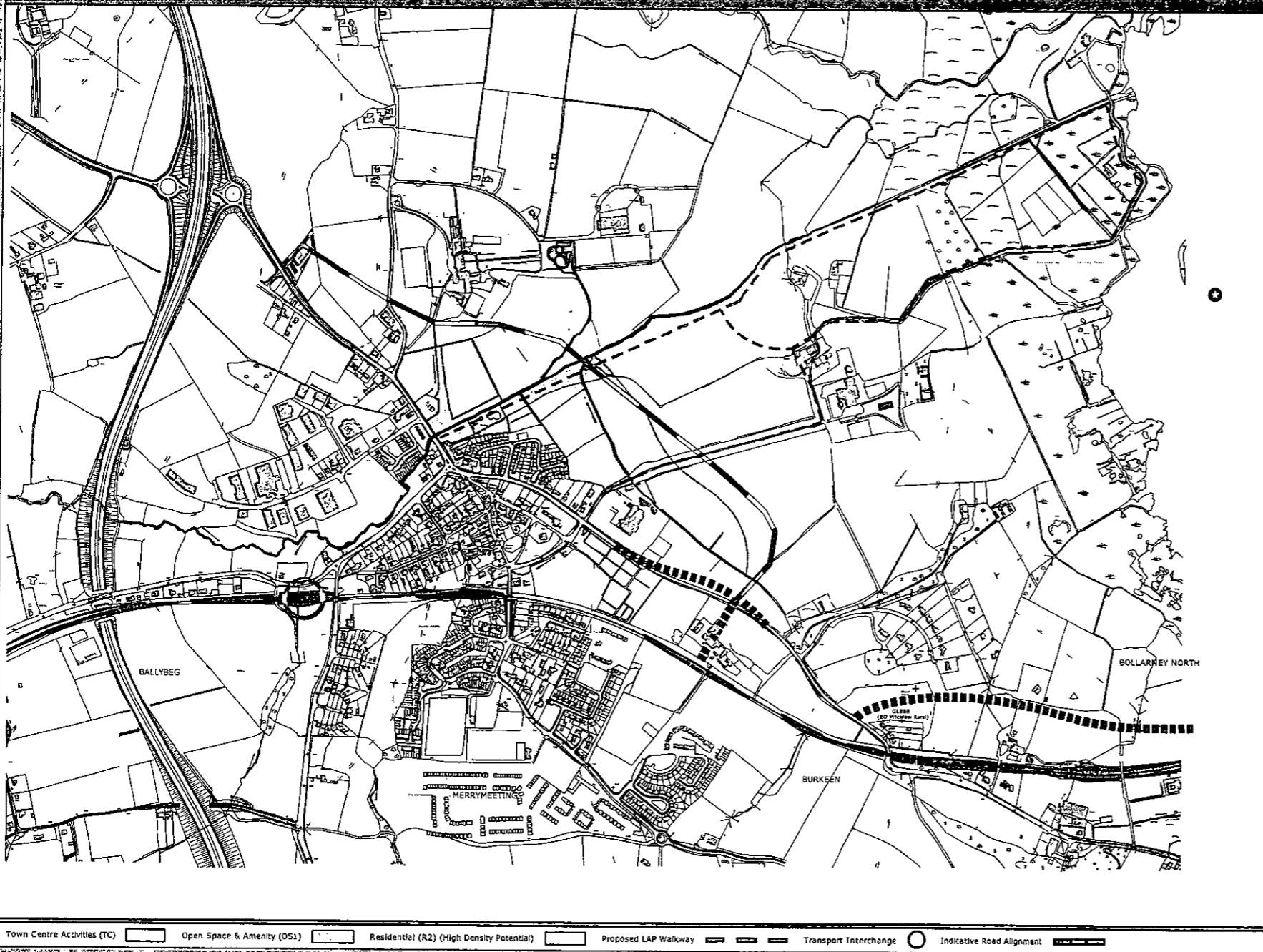
Crackington Limited own the remaining Residential High Density Potential lands south of the stream and immediately along the proposed Rathnew Relief Road.

Legend

Akley Properties Ltd. Wicklow County Council Claremont Holdings Ltd. Crackington Ltd. Haughton Family

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local area plan

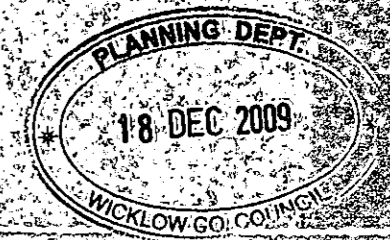


Wicklow Environs and Rathnew Local Area Plan 2008-2014 (LAP) was adopted by Wicklow County Council in 2008. Under the LAP an Action Area Plan (AA1) for the lands at Tinakilly, Newrath, Rosanna Lower, Knockrobin and Clermont is to be completed within the lifetime of the plan.

According to AA1 an urban framework plan is to be prepared for the new Rathnew Town Centre Activities (TC) and the Residential (R2) High Density Potential zoned lands adjoining Rathnew village.

Due to the size and extent of AA1, two separate Action Area Plans are allowed to be put in place: Plan A north of Rathnew Stream and Plan B south of Rathnew Stream. The urban framework plan required under AA1 effects land on both sides of Rathnew Stream, and because of this situation a broad scoping urban framework plan is being proposed as part of AA1 (B).

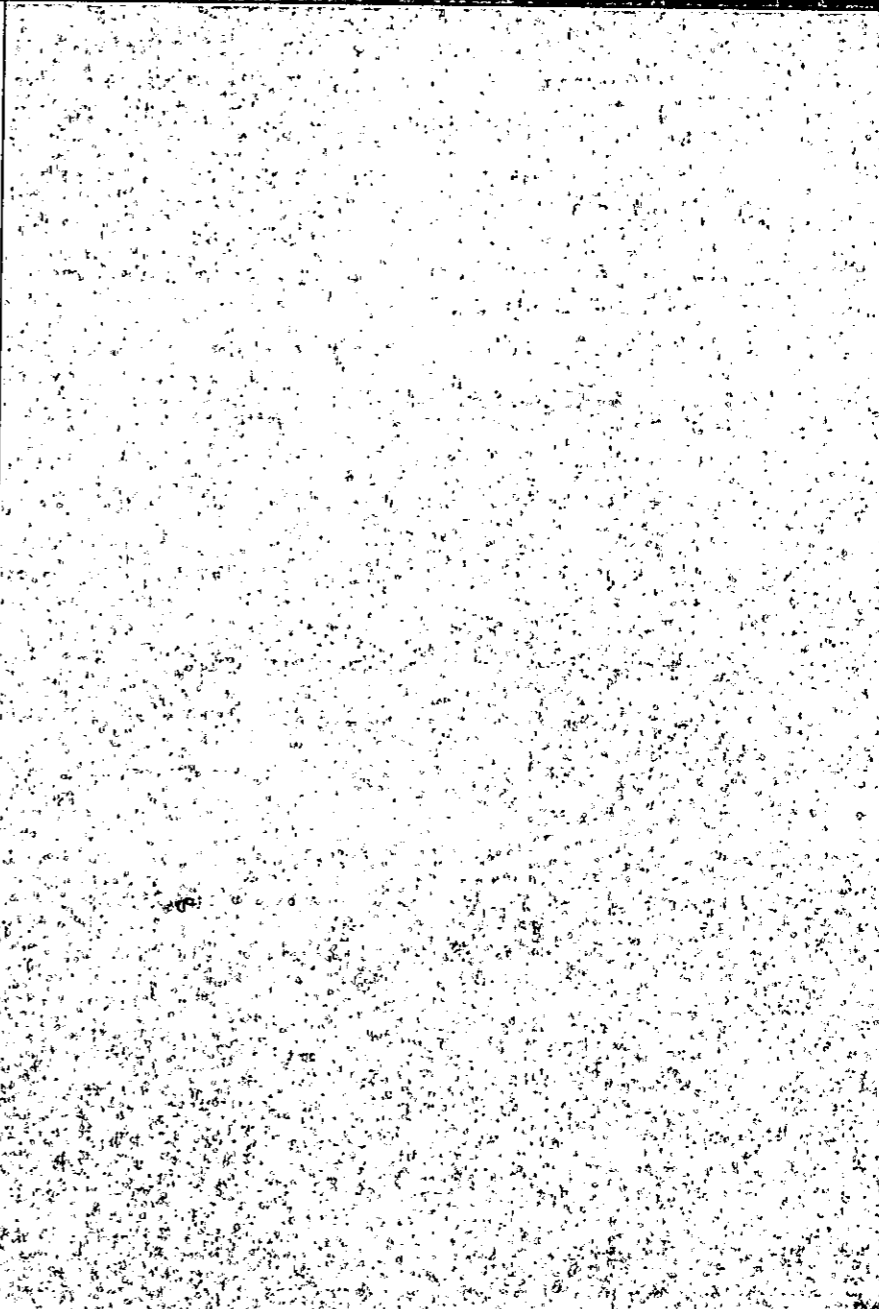
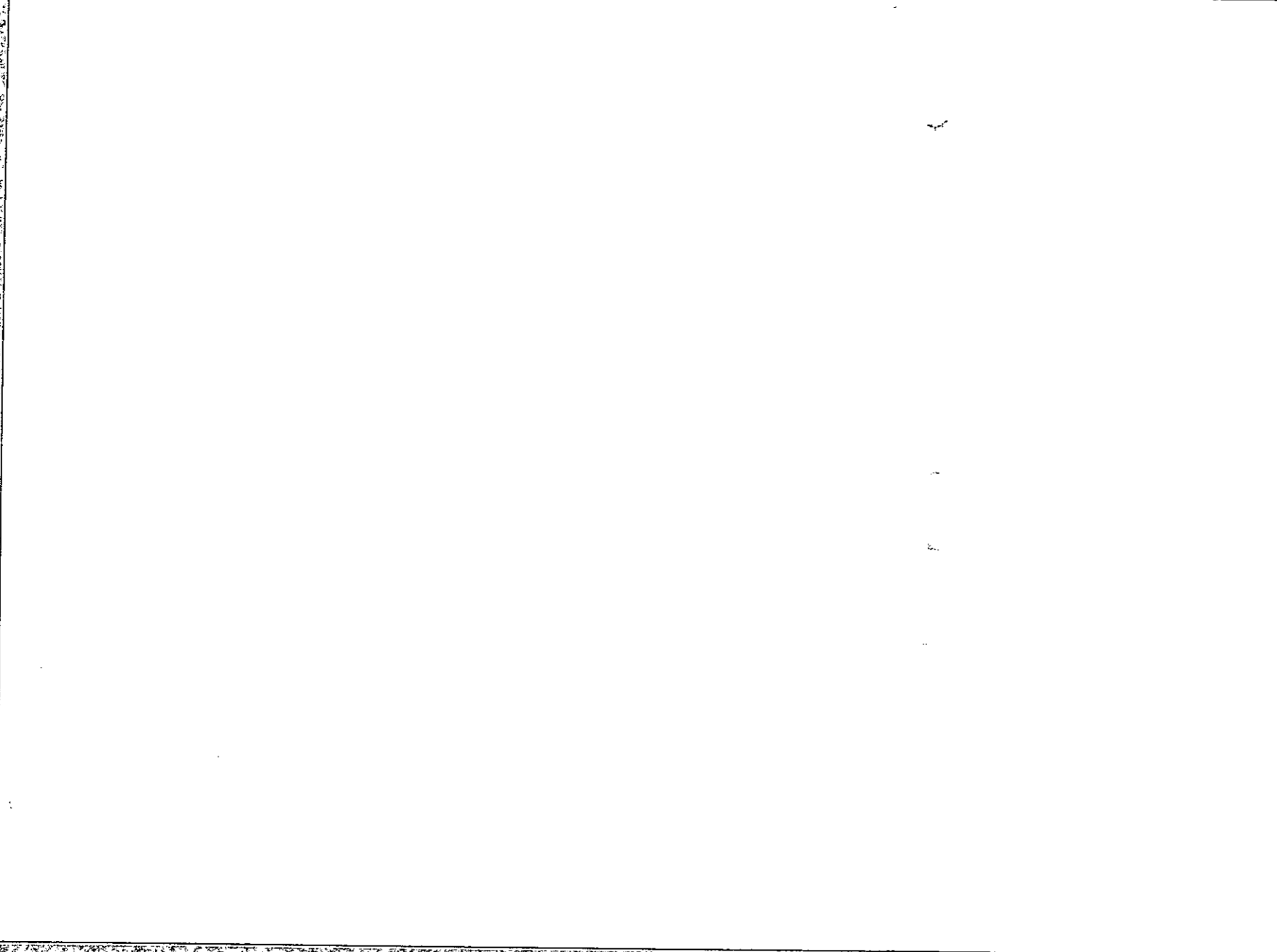
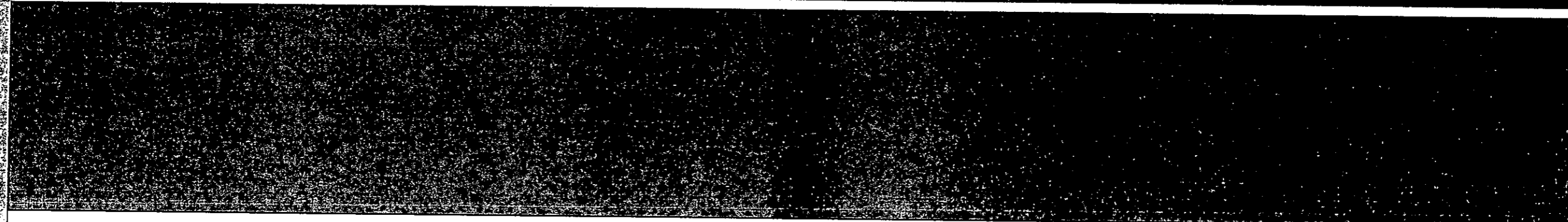
The LAP identifies a Future Road Alignment and Indicative Pedestrian Walkway that impact directly on the urban framework plan lands. The urban framework plan lands are bisected by the Rathnew Stream along which a linear strip of Open Space and Amenity is designated with associated Indicative Pedestrian Walkway loop, from Rathnew main street to the Broad Lough and back through Tinakilly and down Tinakilly Avenue.



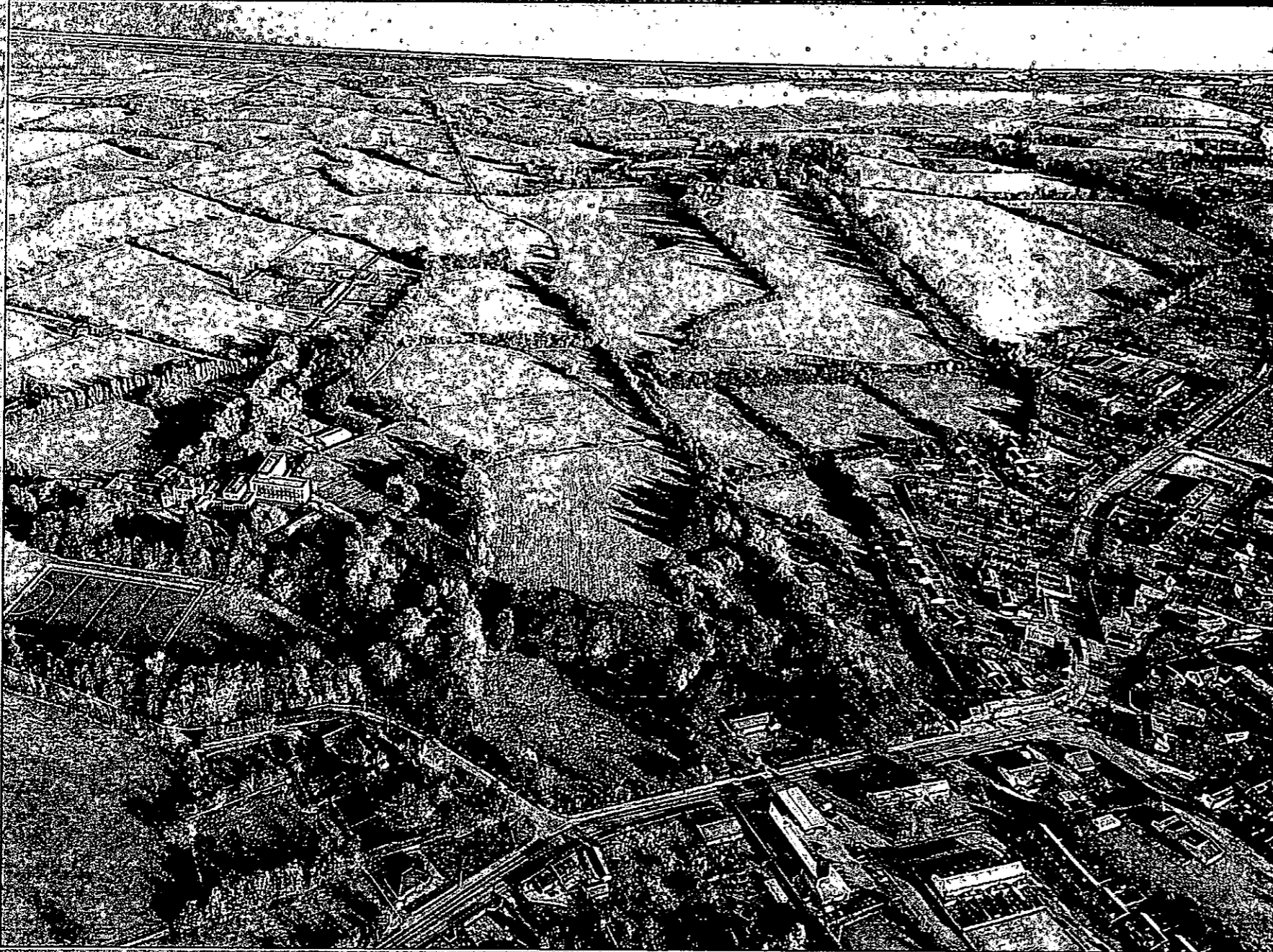
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urban framework plan



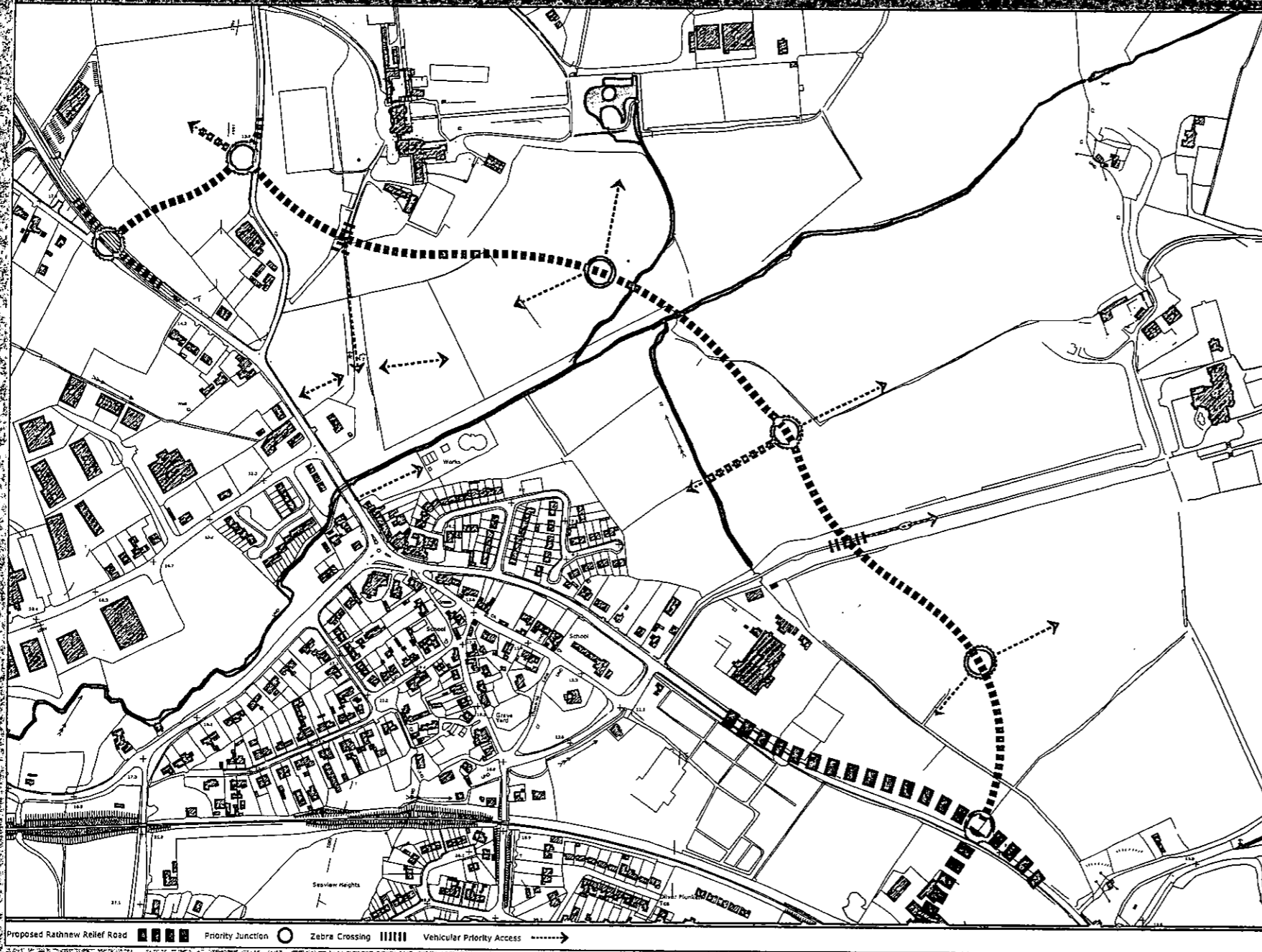
aerial view



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M. O'Sullivan

movement vehicular



The illustrated proposed Rathnew Inner Relief Road alignment is the current proposal for agreement by the Roads Department, Wicklow County Council.

It is a requirement within AA1, for the future overall road infrastructure of the settlement of Wicklow/Rathnew, that the RIRR is constructed between the Merrymeeting Interchange (R750) and the old N11 (R772).

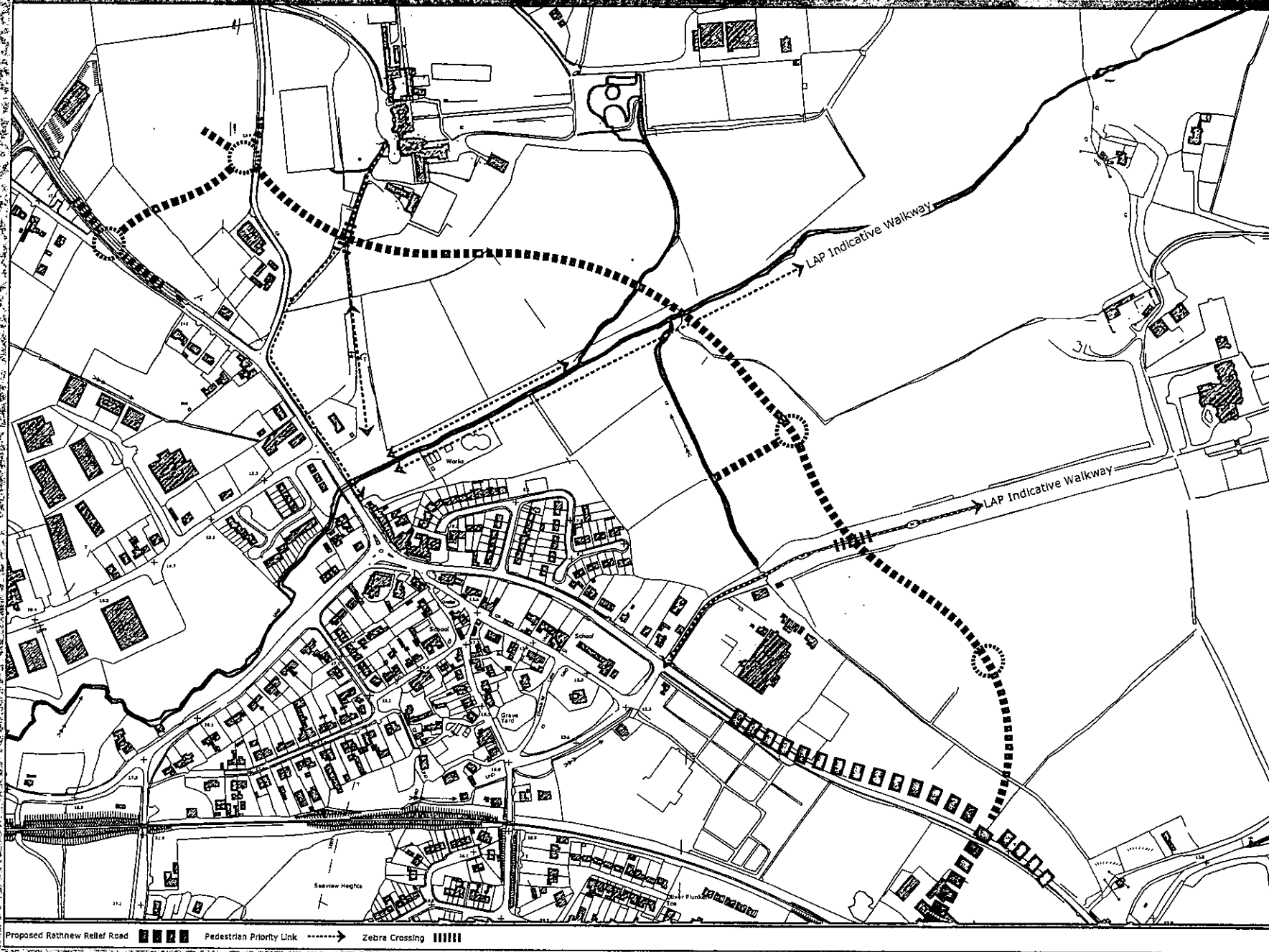
It is envisaged that the first part of the RIRR will be constructed to Rathnew Stream (from the Merrymeeting Interchange), under AA1(B). The second part of the RIRR from Rathnew Stream to the N11 will be constructed as part of AA1(A).

Importantly, the proposed Rathnew Inner Relief Road gives adequate access to Claremont Campus, 3rd level College which has poor access off the Newcastle Road at present.

Each section of the land proposed for development within the Urban Framework Plan and the wider context can be easily accessed from the proposed relief Road as illustrated below.

A portion of the zoned land to the rear of the main street shall provide vehicular access from the main street subject to the planning application process.

movement pedestrian



It is considered appropriate that any development of the Urban Framework Plan lands should integrate and connect well into the existing built form, and bring life to the existing linear movement corridor of Rathnew Stream.

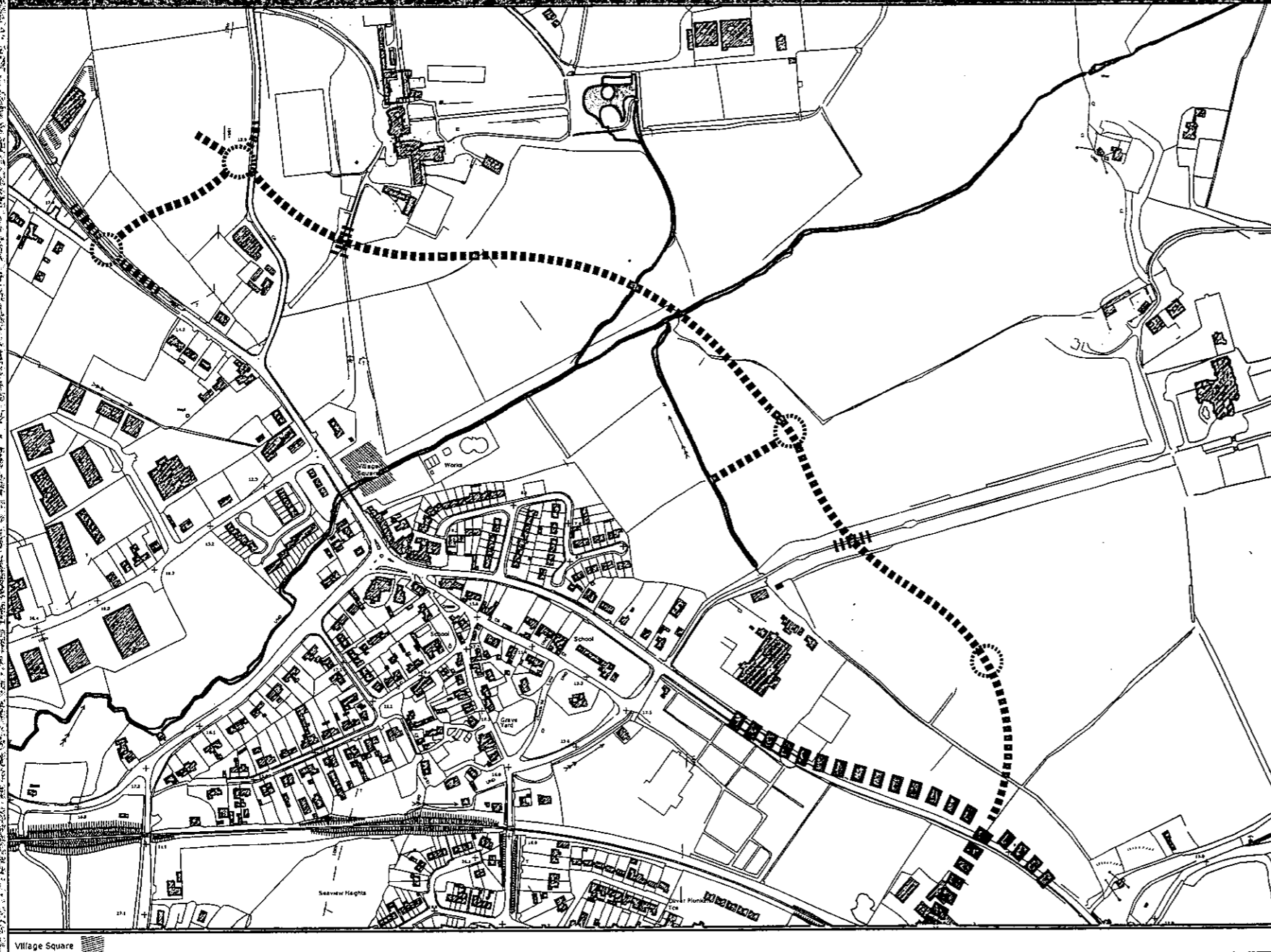
The future development of these lands should create a catalyst for greater pedestrian movement between the village core, the future development of Clermont Campus and significant future residential development to the east of the settlement.

With regard to the proposed relief road crossing Tinnakilly Avenue - Please find attached Landscape Report for more details (AA1 (b)).



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key public spaces



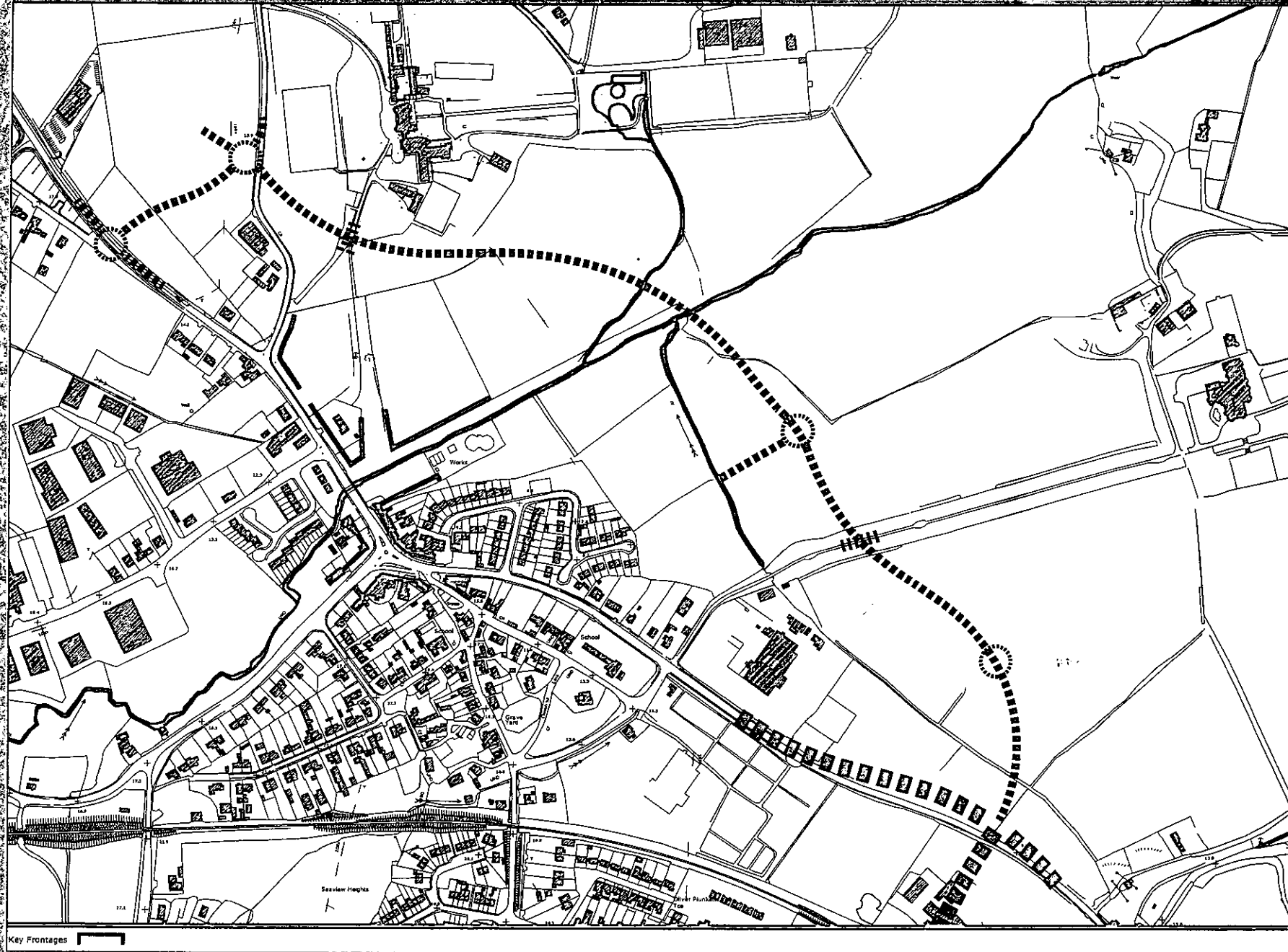
A proposed village square should be located along the existing movement network of Rathnew Main Street tapping into its established footfall and local/regional vehicular movement network.

The proposed village square is also located, importantly at the end of the direct movement network from Clermont Campus to the existing town centre, reinforcing the square's integration and footfall.

The square should be seen for civic/public use, maybe of a hard surface paving with the retention of important trees or groups of established trees at the stream along the existing bridge, integrating with the proposed built form on the southside of the stream.

An open space on the edge of the established and new development should be considered to integrate and connect the established with the new residential community, maybe in the form of a playground or child/family friendly environment.

key frontages



The key frontages proposed are considered an important continuation of the existing frontages within the village core of Rathnew.

They turn the corner of the main street where the commercial/village centre of Rathnew is located and define the public space and riverside park thus connecting the river to the village and making it part of the village fabric.

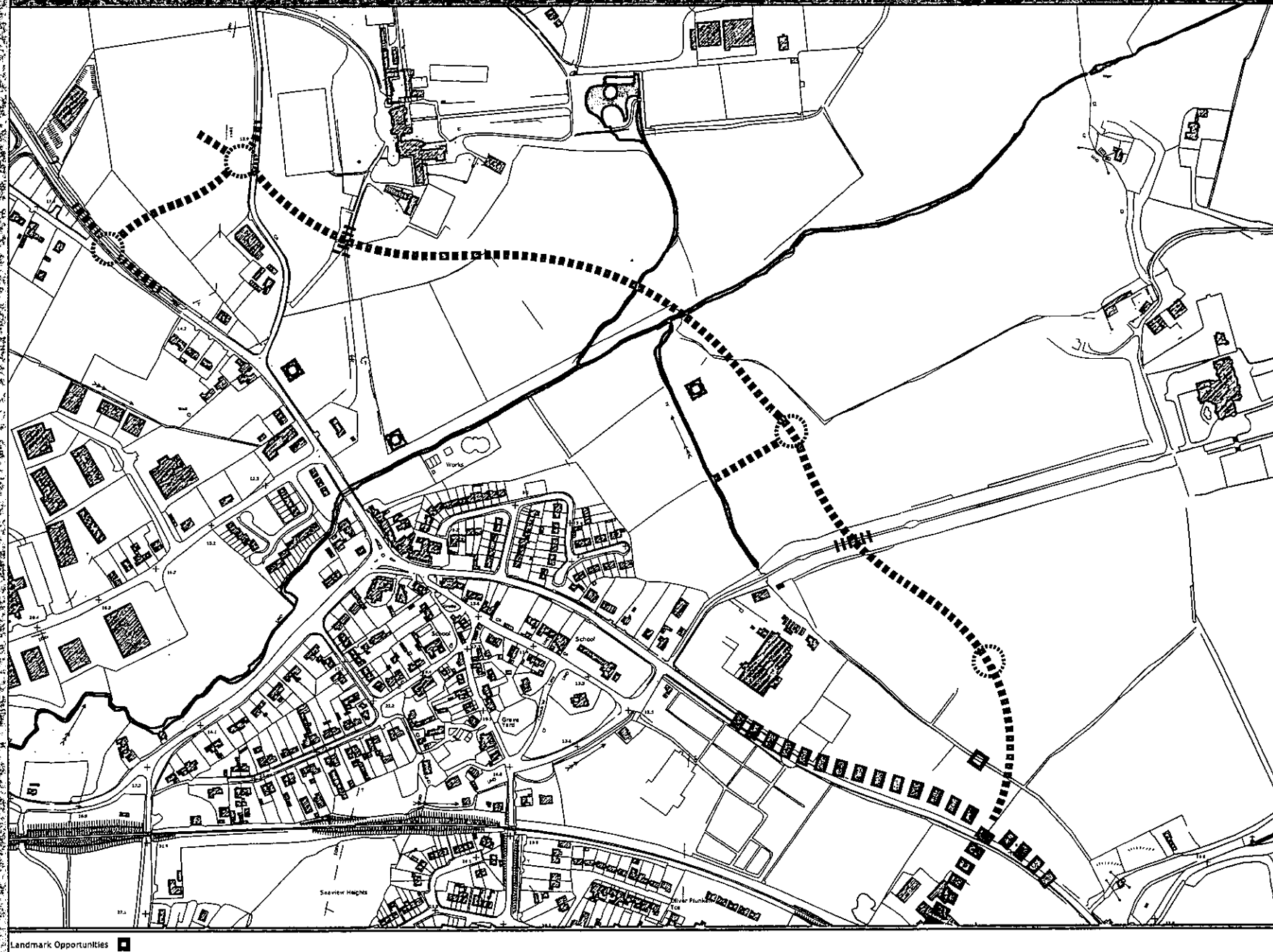
The frontages should respect established building lines and frontages of the village core whilst defining the public space at the bridge over the stream.

They will define the new public space and create continuous and compact edges of varying uses defining the village square.



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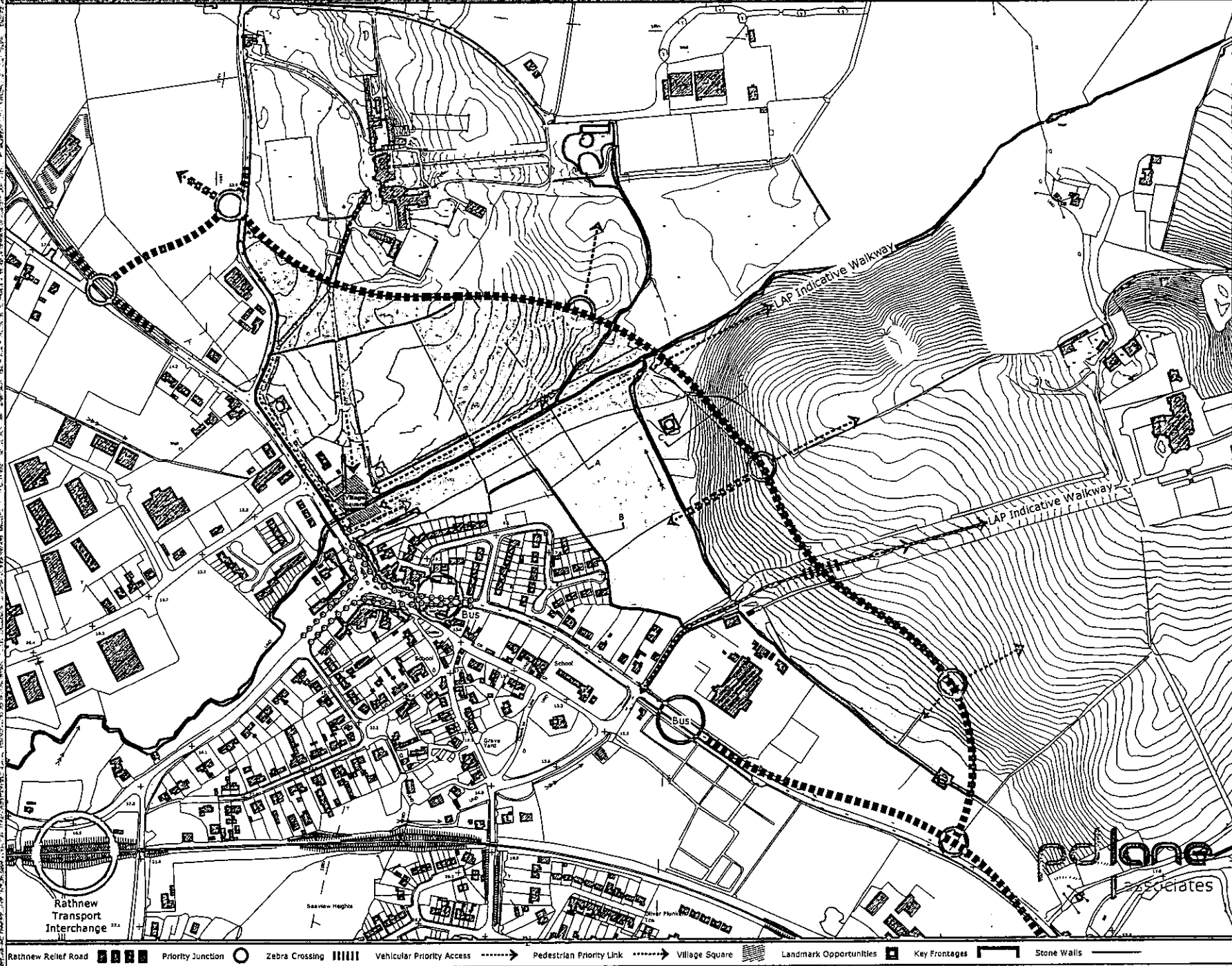
landmark opportunities



The proposed Landmark Building locations have been chosen due to their position within the framework plan that achieve a legible spatial hierarchy for the area.

The locations are exposed to the main public roads (Rathnew Inner Relief Road & Rathnew Main Street) at focal positions that help the passer-by to understand and orientate their way around established and new development.

urban framework plan



The proposed village square is located along Rathnew main street, where the indicative LAP pedestrian walkways converge with the historical link between Clermont House and the village core. The main key frontages address this public space with new Town Centre Activity uses.

A continuation of these key frontages is proposed along the north bank of Rathnew Stream leading to Wicklow County Council owned lands that provides an excellent opportunity to locate a significant community/educational facility (eg. public library).

From this point a direct pedestrian link can be made across Rathnew Stream to the riverside walkway/park area, existing and future residential development lands.

It is proposed to access the urban framework lands from three junctions along the proposed Rathnew Relief Road. And from the main street subject to the planning application process.



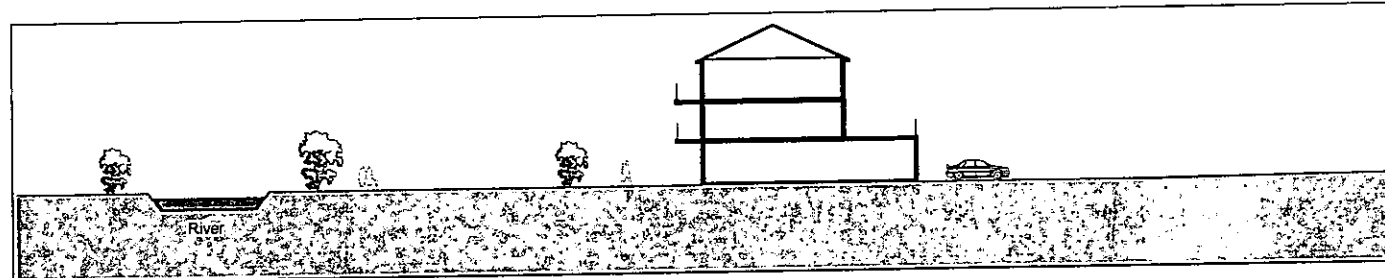
polone Associates

Rathnew Relief Road ■■■■ Priority Junction ○ Zebra Crossing ||||| Vehicular Priority Access - - - - - Pedestrian Priority Link - - - - - Village Square ■ Landmark Opportunities □ Key Frontages — Stone Walls

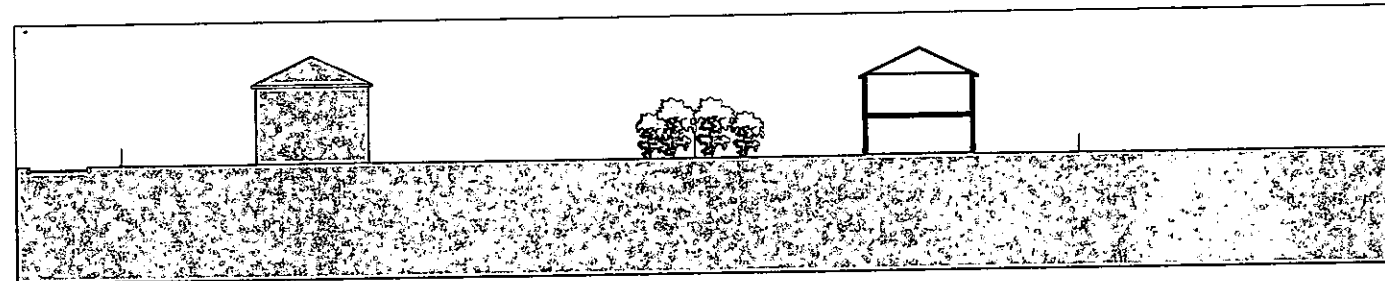
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massing, density & heights

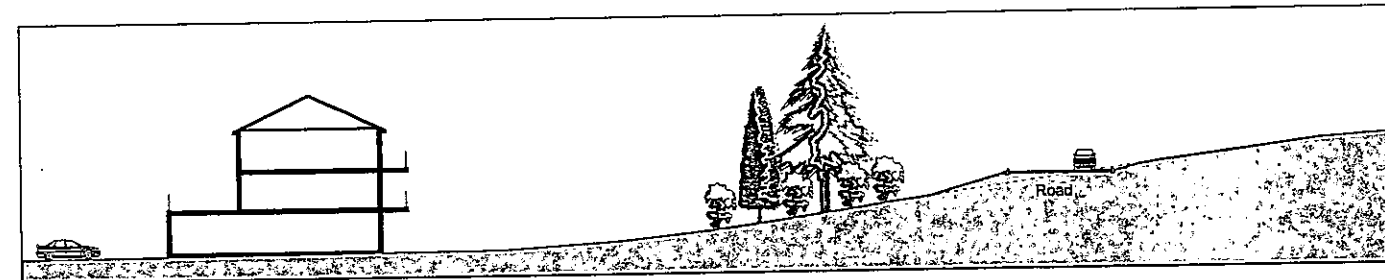
Indicative Sections



Riverside Park A-A



Existing Residential B-B



Relief Road C-C

pd lane
| associates

The High Density Potential zone is located behind the existing village core of Rathnew - to the immediate rear of existing suburban residential development.

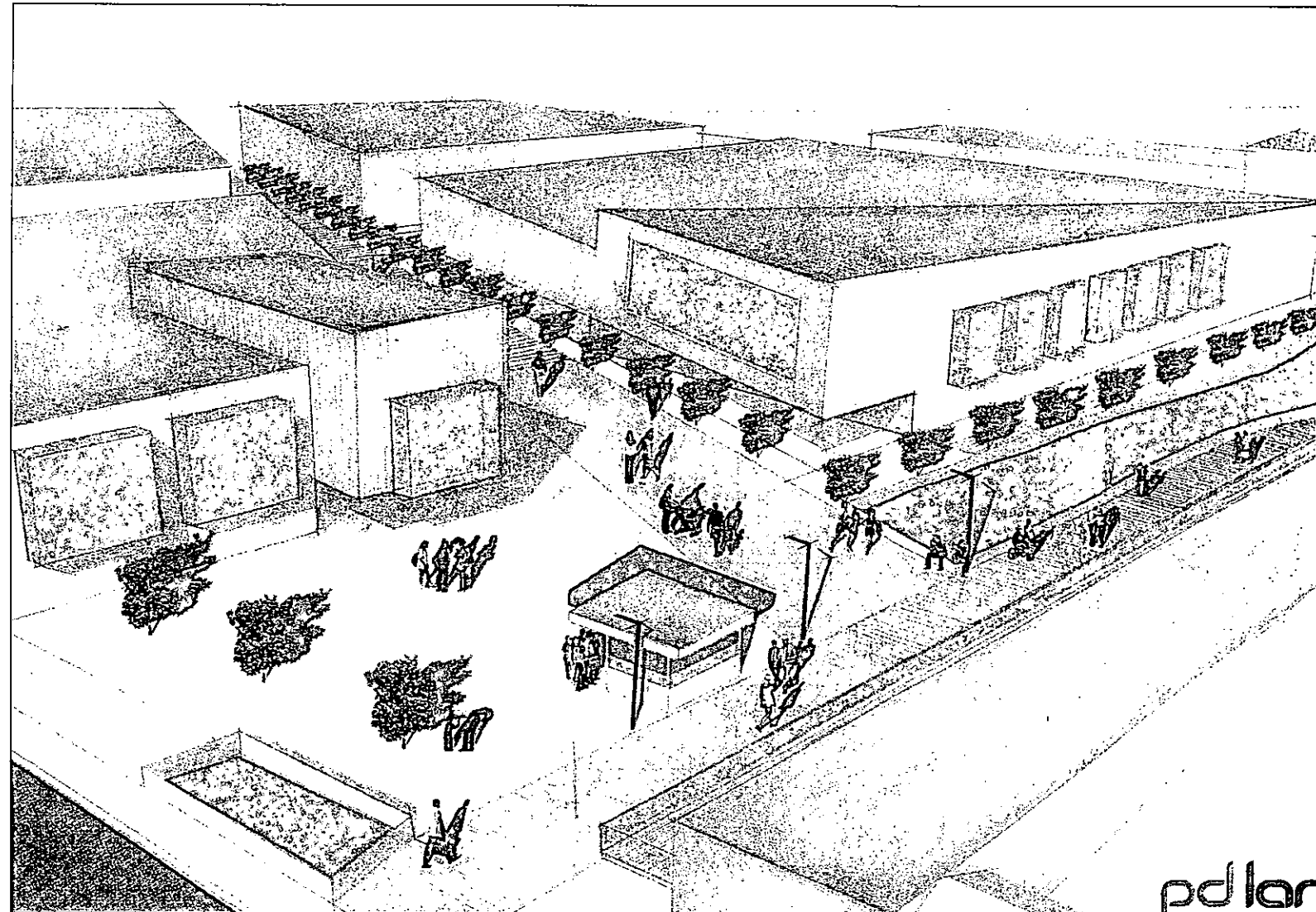
In accordance with the Residential Density Guidelines for 'Infill, backland' areas, there should be an area immediately to the rear of the existing residential development that respects the established character.

A density, mass and building height proposed for this area should be between 14-20/units per acre.

Further outwards from this area along the Riverside Park and along the Rathnew Inner Relief Road densities of up to c.20 units per acre should front onto the Riverside Park and Rathnew Inner Relief Road.

These broad massing, density & height parameters will be subject to the planning application process where they will be looked at in more detail.

village square



pd lane
| associates

The proposed village square is located along the main street of Rathnew, at the convergence of the proposed Indicative Walkway along Rathnew Stream and the proposed walkway from Clermont College.

The proposed square is seen as an extension to the existing Rathnew Main Street village core that turns the corner down the proposed Riverside Park which is responding to the existing footfall and vehicular movement along the main street.

The proposed square is seen as an opportunity to create a focal civic/community point alongside the village of Rathnew that will improve and enhance the services provided for the future growth of the settlement.

The height, massing and density should be respectful of the existing village fabric and create a new space and environment for the future growth in population and the existing residents of the settlement.

The graphic illustration below is an artist's impression of a potential urban design scenario for a new urban framework centred around a public space at Rathnew Stream, defined by mixed-use buildings providing active edges and perimeter blocks.

The design of any public space at this location should incorporate the existing mature trees on site and where possible will respect their existing historic pattern.

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