

**DEPARTMENT OF
THE MARINE AND
NATURAL
RESOURCES**

**FEASIBILITY STUDY
OF THE POTENTIAL
FOR A FERRY
SERVICE LINKING
ACHILL ISLAND TO
THE ERRIS
PENINSULA**

FINAL REPORT

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TABLE OF CONTENTS

CONCLUSIONS AND RECOMMENDATIONS.....(i – iii)

1.	INTRODUCTION.....	1
1.1	Background.....	1
1.2	Purpose.....	1
1.3	The Consultants Approach.....	2
1.4	Structure of the Report.....	3
2.	AREA ANALYSIS.....	4
2.1	Location.....	4
2.2	Demographic Profile.....	6
2.3	Socio-economic Profile.....	8
2.4	Tourism.....	10
2.5	Transport Infrastructure.....	18
2.6	Need for a Ferry.....	20
2.7	“Comparator” Ferry Services.....	24
3.	TECHNICAL FEASIBILITY.....	26
3.1	Short Ferry Routes – General Principles.....	26
3.2	Proposed Route.....	27
3.3	RO-RO Ferry.....	29
3.4	Terminal Infrastructure – General.....	33
3.5	Operating Model.....	44
4.	ECONOMIC AND FINANCIAL FEASIBILITY.....	48
4.1	Capital Costs.....	48
4.2	Running Costs.....	48
4.3	Income Projections.....	51
4.4	Breakeven Analysis.....	54
4.5	Cost Benefit Analysis.....	56
5.	ENVIRONMENTAL IMPACTS.....	58
5.1	Environment.....	58
6.	POLICY.....	61
6.1	Government Departments and State Agencies.....	61

Appendices:

- A: Terms of Reference
- B: List of Consultations/Submissions
- C: Short crossing coastal and island ferries in Ireland and Scotland
- D: Terminal Sites
- E: Financial Projections and Analysis

List of Tables:

Section 2:

- Table 201: Population in Achill Island and Erris Peninsula
- Table 202: Number of Households
- Table 203: Number of Pupils (Schools) in Achill Island and Erris Peninsula
- Table 204: Principal Economic Status 1996 v 1986
- Table 205: Social Class (15+ years)
- Table 206: Registered Tourist Accommodation Stock
- Table 207: Tourist Accommodation Quality
- Table 208: Accommodation Reservations at Tourism Information Offices
- Table 209: Visitors to County Mayo* (000s)
- Table 210: Overseas Tourism Revenue to County Mayo* (IR£m)
- Table 211: Accommodation Capacity in Westport
- Table 212: Projected Tourist Summer Demand
- Table 213: Projected Local Demand (Annual)
- Table 214: Short Crossing Coastal Island Ferries in Ireland 2002

Section 3:

- Table 301: Indicative Summer Schedule
- Table 302: Off season schedule
- Table 303: Proposed Fare Structure + Price Range
- Table 304: Simulation of Car Traffic Potential

Section 4:

- Table 401: Schedule of Costs Blacksod Pier – Proposed Terminal
- Table 402: Schedule of Costs - Doogort Slipway
- Table 403: Schedule of Costs - Lough Doo (Ridge Point)
- Table 404: Schedule of projected crew costs
- Table 405: Schedule of projected fuel costs
- Table 406: Summary of Annual Operating Costs (Year 1)
- Table 407: Categorisation of Projected Demand
- Table 408: Projected Income by Category and Season
- Table 409: Scenario A – Low Fare Tariff / Scenario B – High Fare Tariff

List of Figures:

Section 2:

Figure 2.1: Overseas Visitors v Domestic

Figure 2.2: Accommodation Used – All Visitors

Figure 2.3: Desired Changes - All Visitors

Figure 2.4: Comparison of Journey Times and Mileage between Achill and Erris

Section 3:

Figure 3.1: Jura Glen GA

Figure 3.2: Percentage Frequency of Occurrence of Wind Directions

Figure 3.3: Stub End Slipway

Figure 3.4: Vessel Berthed Bow on Slipway

Figure 3.5: Terminal Marshalling Area

Figure 3.6: Proposed RO/RO Ferry Terminal at Blacksod

Figure 3.7: Proposed RO/RO Ferry Terminal at Doogort

Figure 3.8: Proposed RO/RO Ferry Terminal at Ridge Point

Section 4:

Figure 4.1: Breakeven Analysis (Lower Ticket Price)

Figure 4.2: Breakeven Analysis (Higher Ticket Price)

**CONCLUSIONS AND
RECOMMENDATIONS**

CONCLUSIONS & RECOMMENDATIONS

Proposed Ferry Service

- The proposed ferry service would provide an alternative, but non-essential, transport link between the two peripheral rural areas of Achill Island and the Erris (Mullet) Peninsula.
- The proposed origin and destination areas are sparsely populated and currently served by respective administrative, distribution, retail, service and transport hubs of Westport/Castlebar for Achill and Ballina for Erris. There is little evidence of any current pattern of regular or frequent travel between Achill and Erris, or visa versa, for purposes of employment, trade, education, health, sports, or other commercial and social activities.

Projected Demand

- The incidence of local demand appears to be very limited. However, experience in other locations has demonstrated that the operation of a frequent service at a competitive price can generate demand as a result of convenience and new opportunities or reasons to travel.
- The principal market for the proposed ferry would be expected to be from visitors to the area. Achill is a traditional resort area, with nearby Westport a significant tourist hub. The introduction of a ferry service would create a new and interesting touring route in northwest Mayo, thereby increasing the level of visitation, particularly to Erris. This in turn would result in an increase in the average length of stay in the area by touring visitors, provide an additional day trip activity for visitors staying in the area, with both combining to generate increased economic activity and a greater dispersal of benefits throughout Achill and Erris.
- The tourist demand for a ferry service, however, would be highly seasonal, as domestic visitors predominate with a high concentration over the summer months.
- Year-round local demand is likely to be low, as the service would not deliver significant time and mileage saving for residents within the catchment areas at both ends of the proposed route. In contrast, other cross-water non-essential services, such as the Killimer - Tarbert; Cork Harbour crossing, and Passage East ferry, are located on national routes and deliver significant convenience and travel economies for a mix of regular private and commercial users.

Technical Feasibility

- The preferred route would link Blacksod Point (Erris) with Doogort (Achill), a distance of 5.1 nautical miles. The terminals were evaluated on the basis of location, access, potential marshalling areas, berthing facilities, exposure and other operating conditions. A Stub End slipway is recommended. The capital costs to upgrade terminal slipways and associated facilities at Blacksod and Doogort are estimated at €357,000 and €795,000 respectively.
- A drive-through catamaran of the Jura Glen class - offering a speed of 15 knots, carrying up to 20 cars with over 60 passengers - is the preferred vessel for the route. Ferries of other classes were evaluated but rejected on ground of ability to cope with conditions on the route and speed. The preferred vessel would allow for an hourly sailing in each direction at peak times. The estimated cost of the vessel is between €1.8 and €2.2million, depending on final specification and place of construction.
- Incremental use of the ferry might include a service to/from Innisbiggle, which currently has no vehicular access.

An Operating Model

- A high frequency summer schedule (end May - early September) of up to 14 crossings in each direction daily would be proposed, while an off-season schedule of approximately 6 round-trips per day is proposed. As fuel is the principal variable cost, a high frequency schedule has been proven to maximise demand.
- A tariff of between €12 and €15 for single trips, or between €20 and €25 for round trips, for car including passengers is proposed, based on comparable routes, journey time and anticipated price sensitivity of the potential market. Fare categories should also include commercial, motorbike and foot passengers. It is anticipated that local demand would be offered at least a 25% discount.
- A simulated demand pattern model indicates that up to 19,000 one-way car journeys (sectors) can be comfortably accommodated on the preferred vessel type over a 15-week summer season. This would represent an average ranging between a high of 80% on up to 3 peak time sailings per day and a low of 10% to 15% utilisation on early morning and late evening sailings.
- It is estimated that the projected demand for the serviced would be of the order of 27,000 one-way car journeys (sectors) per annum. Of this total an estimated 18,000 would be tourist demand during a 15-week summer season.

Environmental Impacts

- The scale of the proposed ferry is unlikely to have a negative affect on the landscape, create noise or other forms of pollution. Some other developments currently proposed in the area are likely to have much greater impacts. A ferry service could enhance the visitor experience of the area's natural environment.
- The proposed ferry could benefit agriculture and fishing industries. No evidence of sensitive wildlife species or underwater archaeological sites were found, within the time permitted for the survey, that might be adversely impacted by the proposed operation - terminal and en route, unless significant dredging were to take place.

Financial & Economic Viability

- ❑ The income projections, based on estimated demand and high range fare levels, suggest an annual income of €331,000 in the early years. 82% of this income would be generated during the summer period.
- ❑ A shortfall of at least €125,000 against estimated annual operating costs of €455,000 is projected. If the annual cost of vessel is included the shortfall would be of the order of €378,000 per year.
- ❑ It would appear that the proposed ferry service would not be viable without substantial financial support for acquisition and for ongoing running costs. Assuming that the cost of terminal infrastructure being met by central or local government, and a contribution to equivalent to 75% of the capital cost of the vessel the projected income of €331,000 fails to provide for annual operating costs and servicing charges on 25% of capital (est. combined cost of €519,000 p.a. based on preferential cost of capital over 10 years).
- ❑ A cost benefit analysis indicates that the Net Present Value (NPV) - the difference between the present value of a future flow of profits accruing from the project and its capital costs - is negative through a 20 year period.

Conclusions

- ❑ While the proposed ferry represents a good opportunity for tourism development to the area, the potential market demand for the ferry service suffers from a significant structural weakness - a high dependency on tourist demand over a relatively short season without any inherent local market need for the service.
- ❑ Price resistance, especially in the local market, would represent a particular risk in the achievement of a year-round demand for the service in the light of the marginal time and convenience benefits that the service would deliver.
- ❑ While there might be some frustration of potential demand on peak sailing during a short period in the summer season, an increase in the size of vessel with its associated increased capital and operating costs, could not be justified. Incremental costs would be disproportionate to any incremental income earning opportunities.
- ❑ A seasonal operation is unlikely to be a viable option due to lack of alternative use of capital equipment and problems posed by seasonal crewing. The route and its operating conditions limit the opportunity to source a suitable ro-ro vessel on charter or lease, although this might warrant further investigation for a summer season operation.

1. INTRODUCTION

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1.1 Background

Following a tender process, the Department of the Marine and Natural Resources appointed Tourism & Transport Consult (TTC), in association with Marine Development Limited (MDL), to undertake a feasibility study of a proposed ferry service linking Achill Island to the Erris Peninsula (also known as the Mullet Peninsula) in County Mayo.

1.2 Purpose

The purpose of the study is to examine the feasibility of the provision of a ferry service linking two peripheral areas and communities.

The scope of the study, as set out in the Terms of Reference, include examining and reporting on the following:

- 1) *“Potential demand, on a year round basis, for a ferry service linking Achill Island to the Erris Peninsula. A quantitative assessment should be made of the likely usage of a ferry service by (1) residents and (2) visitors. Indicate the optimum daily and yearly operating timetable for the service in terms of level and frequency of service.*
- 2) *Possible locations for landing points for a ferry service covering, inter alia, road access, environmental factors, construction and maintenance costs.*
- 3) *Potential environmental impact of a ferry service and the likely cost of maintaining the local marine, offshore and access route environments.*
- 4) *Possible types of ship available to provide the service and their cost to purchase or lease.*
- 5) *Likely cost of maintaining and operating a ferry service and the likely revenues – determine the tariff likely to be required to ensure the service is profitable.*
- 6) *Potential environmental and other benefits of not developing the ferry service.*
- 7) *Similarities and dissimilarities between the proposed ferry service and other island ferry services including those whose operation is being subsidized by the State, and,*
- 8) *Any other matters relevant to the proposed ferry service, its establishment, operation and maintenance.”*

[A copy of the Invitation to Tender, including the Terms of Reference, is attached as *Appendix A*]

1.3 The Consultants Approach

The study process used included the following:

- Collection, review and detailed analysis of data and published reports on population, tourism, economic, traffic and business statistics, as well as meteorological and tidal data.
- Consultations and interviews with a cross-section of public and private sector stakeholders.
- Site visits and solicitation of views, including “comparator” ferry routes in peripheral island/peninsular situations in Ireland, Northern Ireland and Scotland.
- A detailed reconnaissance of the area to assess possible sites for the ferry terminals at Achill Island and Erris Peninsula.
- A detailed environmental assessment of the area.
- An objective assessment based on the consultants' experience.

Unfortunately, the timing of the study did not allow for primary research, especially amongst visitors to the area.

The consultants wish to acknowledge the contribution of many interested organisations and individuals that willingly gave of their time, information and experience.

[A list of consultations/submissions held in association with the study is attached as *Appendix B*]

The key issues addressed by the study include:

- An assessment of the local resident population, tourists, commercial communities, their current travel patterns by origin and destination, purpose and frequency, and their likely usage patterns.
- An examination of options for ferry terminals, including projected infrastructure requirements, including approach roads and potential assembly areas for vehicles.
- The selection of the most appropriate type of vessel taking account of the potential trade, the weather conditions and the type of terminal.
- The design of a ferry service operation plan to match projected market demand and technical characteristics.
- A financial appraisal and cost-benefit analysis including capital cost of vessel and infrastructure, and detailed running costs.
- Comparison of annual running costs against potential income based on variable fare structures.
- A sensitivity analysis of variations in demand on financial operating model.
- A rigorous environmental assessment potential environmental impacts of a ferry service on local marine, offshore, terminal points and access routes environments and the costs associated with maintaining these environments.

The study was conducted over a six (6) week period from March 25 to May 03, 2002.

1.4 Structure of the Report

- Chapter 2:** Presents an analysis of the Achill and Erris areas as a background to an assessment of the need for a ferry service. This section also includes an examination of comparable coastal and island ferries elsewhere in Ireland.
- Chapter 3:** Assesses the technical feasibility of the proposed ferry service, detailing the shore infrastructure, the specification of the most suitable vessel, and presents a simulated operating schedule.
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- Chapter 5:** Considers the environmental and social impacts of the introduction of the proposed ferry service.
- Chapter 6:** Provides an overview of policy from a number of Government Departments and Government Agencies relating to the operation of a ferry service linking Achill Island and Erris Peninsula.

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2. AREA ANALYSIS

2.1 Location



2.1.1 Achill

Achill is Ireland’s largest offshore island, connected by bridge to Corraun Peninsula on the mainland at Achill Sound. The Corraun Peninsula and Inisbiggle are included in the study area of this feasibility study.

The island of Achill is 24 kms long and 19 kms wide. There are a number of small villages including Achill Sound, Doega, Cashel, Bunacurry, Keel, Doogagh, and Doogort. Achill and Glassillaun are situated on Corraun Peninsula, which is approximately 10kms long and 10kms wide.

The area is rich in scenic resources, the landscape being varied with mountains (Corraun, Knockmore, Minaun, Croaghaun and Slievemore), lakes, rivers, cliffs (the highest sea cliffs in Europe) and sandy beaches (5 Blue Flag beaches). Many areas on Achill and Corraun are

recognised as being in an excellent state of conservation by their designation as Special Areas of Conservation, Special Protection Areas for Birds and Natural Heritage Areas.

Achill is rich in archaeological remains providing evidence of human settlement 5,000 years ago. There are megalithic tombs and promontory forts at Slievemore, on Atlantic Drive and on Achill Beg Island. The area also has abundant historical sites: The remnants of Famine history and emigration can be found in the Deserted Village close by Dugort at the base of Slievemore mountain, and at Ailt, Kildownet; Grace O'Malley's Castle and the Achill Mission are the most famous of many other historical sites.

The island has close literary, historical, artistic and political connections with the past – Captain James Boycott, Sir Robert Peel, Heinrich Boll had residences on the island, and artists Paul Henry, Robert Henri, Charles Lamb and Derek Hill all spent time there. James Lynchehaun, the inspiration for J.M. Synge's *Playboy of the Western World* was born in Polranny, Achill Sound.

The eastern section of Achill Island is a Gaeltacht area, with rich cultural, music, folklore and historical traditions.

2.1.2 The Erris Peninsula

Erris or Mullet is a low-lying peninsula 33 kilometres long and 12 kms at its widest point, narrowing to about 400 metres in the region of Elly Bay. Belmullet is the largest town (pop 1,851), situated at the north of the peninsula and small villages of Binghamstown, Corclough and Eachléim (Aughleam). Geesala, a Gaeltacht area, is the setting for J.M. Synge's *The Playboy of the Western World*.

The west coast, exposed to the Atlantic, is bare of vegetation, while the east overlooks the sheltered inlet of Blacksod Bay. An open landscape of wild marshes and lakes, with a soft coastline, it is largely remote.

The Erris Peninsula is rich in significant archaeological remains as well as historical sites. The ruins of the successor of St. Deirbhile's 6th century church with its Romanesque west doorway, her possible grave, and some early cross-pillars are located at Fallmore on the southwest end of the peninsula. An early ecclesiastical site is also found at Kilmore. The northern coastline contains the remains of a number of promontory forts.

The area is renowned for its unique bird life. Termoncarragh Lough, now under the protection of the Irish Wildlife Conservancy, is home to the Red Necked Phalarope. Admission to the reserve is by appointment only. The islands of Inishkea are well-known bird sanctuaries, providing habitats for a large colony of Barnacle Geese, and Inishglora hosts a large colony of Storm Petrels.

Offshore, the uninhabited islands of Duvillaun More, Inishkea North and South (St. Colmcille) and Inishglora (St. Brendan the Navigator) give lie to the remains of some early ecclesiastical settlements including the ruin of Cross Abbey, a small medieval church the foundation of which is attributed to St. Brendan the Navigator in the 6th century, and a number of finely incised cross slabs. Inishglora is associated with the Irish mythological fable 'The Children of Lir' and it is said to be the burial place of the children.

The Mullet peninsula is a Gaeltacht area with a rich heritage of traditional music, song and dance.

Large areas of the peninsula are designated Special Areas of Conservation, National Heritage Areas and Special Protection Areas.

2.2 Demographic Profile

2.2.1 Population

Total population in both Achill (including Corraun and Inisbiggle) and Erris has declined in recent years. The decline is particularly significant in Achill (-16.8%), where the 1996 Census enumerated 3,471 persons compared with 4,182 in 1981. The population in Erris, 3,775 in 1996 is down from 3,996 in 1981, a drop of -5.5%.

This decline in Achill and Erris continued during a time of population growth in the county, 1991 – 1996.

Table 201: Population in Achill Island and Erris Peninsula

	1981	1986	1991	1996	± % change 1996/1981
Achill	4,182	4,150	3,588	3,479	-16.8%
Erris	3,996	3,980	3,764	3,775	-5.5%
Total	8,178	8,130	7,352	7,254	-11.3%

Source: Central Statistics Office National Census

2.2.2 Population Density

The population density is low and the rural population is very scattered. The average population density for the study area is 14.7 persons per km² approximately, which is lower than the average density for the county as a whole (20 persons per km²).

2.2.3 Age Structure

The area displays an aging population structure over the past two decades: a steady decline in the number of births combined with an increase in the over 65 years age group. Higher proportions of older people tend to live in the more isolated rural areas. A reduction in the age group 20 to 24 is due to out-migration, a pattern which once established is difficult to reverse as young people who move away seldom return on a permanent basis.

Changes in the population structure of Erris and Achill reflect a national trend of lower birth rates and increasing maturity.

2.2.4 Number of Households

The drop in birth rate and out-migration by the 20 – 24 age group are the factors that are affecting population decline in both Achill and Erris. Despite the decline in total population, the number of households has remained virtually static on Achill and increased by +9.2% on the Erris Peninsula, indicating smaller family units and a high incidence of elderly persons living alone.

Table 202: Number of Households

	1981	1986	1991	1996	± % change 1996/1981
Achill	1,159	1,122	1,171	1,161	+0.2%
Erris	999	1,039	1,055	1,091	+9.2%
Total	2,158	2,161	2,226	2,252	+4.4%

Source: Central Statistics Office National Census

2.2.5 School Population

The number of pupils at school has declined since 1995, particularly in the primary sector. One primary school on Achill closed in August 2001.

Table 203: Number of Pupils (Schools) in Achill Island and Erris Peninsula

	Achill		Erris		Total		
	1995/ 1996	2000/ 2001	1995/ 1996	2000/ 2001	1995/ 1996	2000/ 2001	
<u>Primary</u>	170 (5)	167 (5)	448 (5)	380 (5)	618 (10)	547 (10)	-11.5
<u>Secondary</u>	132 (1)	122 (1)	927 (2)	925 (2)	1,059 (3)	1,047 (3)	-1.0
Total	302 (6)	289 (6)	1,305 (7)	1,375 (7)	1,677 (13)	1,594 (13)	-4.9

Source: Department of Education, Statistics Section.

2.3 Socio-economic Profile

The difference between the two communities is most evident in economic terms, and the dissimilar experience of each area is revealed by the change in principal economic status between 1986 and 1996.

2.3.1 Principal Economic Status

While the community on Achill enjoyed increased employment (+19%), a decline in unemployment (-3.9%), and a significant drop in the number involved in full-time home duties, Erris residents experienced increased unemployment (+23.2%), an increase in the number of those in full-time home duties (+23.2), and a smaller increase in employment (+5.6%).

In both areas, only a minority of the population are at work, 20% in Achill and 24% in Erris. Unemployment data relates to 1996, and may have changed in the intervening years, reflecting the increase in employment nationally.

In both communities, a significant decline in the under 15 years age group occurred, particularly in Achill (-40.5%), which was double the level of decline in Erris (-20.2%). However, a substantial increase in the number of students in Erris (+54.7%) may be a precursor for out-migration as that group enters the 20 to 24 age group.

Table 204: Principal Economic Status 1996 v 1986

	Achill			Erris		
	1986	1996	± % change 1996/1986	1986	1996	± % change 1996/1986
At work	578	688	+19	863	911	+5.6
Unemployed	459	441	-3.9	338	415	+22.8
Student	282	299	+6	214	331	+54.7
Home duties	1,079	778	-27.9	857	658	+23.2
Retired	418	418	NC	361	377	+4.4
Under 15 yrs	1,135	675	-40.5	1,230	982	-20.2
Other	199	132	-33.7	117	101	-13.7
Total	4,150	3,431	-17.3	3,980	3,775	-5.2

Source: Central Statistics Office National Census

2.3.2 Social Class

In 1996, the socio-economic profile is roughly similar in both areas, with 14.8% of the population in the 'professional / managerial / technical' category, 9.4% are classified as 'non-manual' and 17.9% are in the 'skilled manual' category. A substantial proportion, 37.2%, is either semi-skilled or unskilled.

Table 205: Social Class (15+ years)

	Achill		Erris		Total	
	No.	%	No.	%	No.	%
Professional	46	1.7%	30	1.1%	76	1.4%
Managerial and Technical	355	12.8%	392	14.0%	747	13.4%
Non-manual	218	7.9%	305	10.9%	523	9.4%
Skilled manual	504	18.2%	493	17.7%	997	17.9%
Semi-skilled	493	17.8%	695	24.9%	1,188	21.4%
Unskilled	546	19.8%	331	11.9%	877	15.8%
Other employed and unknown	601	21.8%	547	19.6%	1,148	20.7%
Total	2,763	100.0%	2,793	100.0%	5,556	100.0%

Source: Central Statistics Office National Census (1996)

2.3.3 At Work by Industry

Employment in agriculture, forestry and fishing appear to be decline, and is estimated to account for less than 15% of employment in the area. Commerce and services provide approximately one in every three jobs, while construction and manufacturing combined are the next largest employers.

2.3.4 Service Centre

While limited services – administrative, commercial and professional are provided on Achill and Erris (Belmullut) the principal service centres are Westport/Castlebar and Ballina respectively.

Westport/Castlebar serve as a distribution and services hub for Achill, providing local government, retail, medical, professional services and entertainment. Ballina is the corresponding administrative retail and services centre for the Erris peninsula

2.4 Tourism

2.4.1 Achill

Achill is a traditional holiday resort area, drawing its visitors primarily from the domestic and Northern Ireland markets. Tourism to Achill is highly peaked in the summer months of July and August. Achill also attracts increasing numbers of overseas touring visitors. As a tourism area Achill had been in decline until it was designated under the Seaside Resort Renewal Scheme. The traditional villages then came under pressure following a substantial increase in holiday home developments that were funded by the scheme (250 new units were built under the scheme). There would now appear to be an over-supply of this form of accommodation on Achill. However, these self-catering units attract winter weekend visitors enabling a number of restaurants to remain open throughout the year.

Despite such developments other areas of the island remain largely undeveloped. The main tourism resources on Achill are:

- Sea Angling
- 5 Blue Flag beaches
- Watersports – scuba diving, surfing, windsurfing, canoeing;
- Golf (9 holes)
- Pitch and Putt;
- Walking
- Horse riding
- Guided Tours
- Crafts
- Gaeltacht courses
- Summer camp (ages 7 – 16)
- Festivals
 - Achill Walking Festival (March)
 - Seafood Festival (July) with shore angling competition and boat angling competition
 - Achill Yawl Racing Competition (TBA)
 - RNLI Sea Angling boat competition (July)
 - Juvenile International Boat Angling Competition (August)
 - St Coleman's Sea Angling Competition
 - Feis Acla (August)
 - Scoil Acla (August) (Culture, music, writing and drawing classes and workshops)
 - Achill Archaeological Field School (May – August)

While Achill falls into the Ireland West Tourism region, it is also promoted by Mayo Naturally and Achill Tourism (Turasóireacht Acla).

Future plans for Achill include an indoor leisure centre in the medium term (3 years) and an 18-hole golf course in the longer term (5 years).

2.4.2 Erris

Tourism is relatively underdeveloped in Erris. However, a number of key appeals and tourism resources are to be found there:

- Carne Golf Links - an 18-hole champion links golf course,
- Blue Flag beaches at Mullach Rua and Elly,
- Gaeltacht summer schools
- Water sports – diving, sailing, canoeing, windsurfing
- Boat trips to Inishkea Islands, Inishglora and Dubh Oilean
- Walking / cycling
- Festivals
 - Sea angling (Annual Belmullet Sea Angling Festival in August)
 - International Folk Arts Festival, Feile Iorrais and Inver Festival, Belmullet
 - La an Locha (15th August)
 - School of Celtic Studies
 - Ionad Deirbhile Heritage Centre

A report, *Mayo - Sustainable Tourism in the Coastal Zone* by An Taisce and Mayo Council, published in 2000, concluded that

'There is currently a relatively limited infrastructure to serve tourism there is pressure for new development.'

In December 2001, Frank Fahey TD, Minister for Marine and Natural Resources launched a new group to oversee the development of sustainable marine based tourism in the Mullet Peninsula. The group comprises representatives of The Marine Institute, Údaras na Gaeltachta, the local Leader company, Mayo County Council, Ireland West Tourism, and a local representative. Among the objectives that have been set for the Group are:

- The development of quality family home accommodation;
- The creation of quality cuisine standards based on natural and organic locally produced food;
- The development of traditional living accommodation tastefully assimilated into the landscape in accordance with planning guidelines;
- The Development of appropriate indoor health, leisure and thalassotherapy facilities;
- The establishment of a centre of excellence for Irish traditional music; and
- The creation of walking, cycling horse riding, angling, angling and outdoor pursuit infrastructure assimilated into the natural environment.

Future plans for further development in Erris include a Leisure Centre / Pool at Belmullet.

Erris falls in to the Ireland West Tourism area, and is also promoted by Mayo Naturally based at Westport, as well as Erris Tourism (Turasóireacht Iorrais Teo).

2.4.3 Tourism Accommodation in Achill and Erris

An analysis of registered tourist accommodation in both locations highlights the disparity between Achill where a range and quantity of accommodation capacity exists, and Erris where the range and supply available is limited.

Table 206: Registered Tourist Accommodation Stock

Accommodation	Achill		Erris		Total	
	Premises	Rooms	Premises	Rooms	Premises	Rooms
Hotel	7	128	1	10	8	138
Guesthouses	3	37	0	0	3	37
B&B	13	60	9	34	22	94
Health Farms	0	0	0	0	0	0
Historic House	0	0	0	0	0	0
Hostel	1	30	0	0	1	30
Self Catering (Units)	64	139	10	10	74	149
Specialist Accommodation	<u>1</u>	<u>55</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>55</u>
Total	89	449	20	54	109	503

Source: Gulliver (April 2002)

Table 207: Tourist Accommodation Quality

Accommodation	Achill		Belmullet	
	Premises	Rooms	Premises	Rooms
Hotel				
1*	2	27	1	10
2*	2	29		
3*	1	10		
Ungraded	2	62		
Guesthouse				
1*	1	8		
3*	1	15		
New	1	14		
Self-catering (Units)				
1*			1	1
2*	6	6	5	5
3*	10	20	1	1
4*	46	111	3	3
New	1	2		
Total	74	304	11	20

Source: Gulliver (April 2002)

2.4.4 Tourist Information Office Accommodation Bookings

Relative to other tourist centres in Mayo, the Achill Tourist Information Office (TIO) serviced a low level of accommodation bookings. However, the Achill TIO operates only during July and August. During a difficult year for tourism in 2001 due to Foot and Mouth restrictions the level of bookings handled Achill increased by +16% while other centres recorded a decline.

Table 208: Accommodation Reservations at Tourism Information Offices

	2000	2001	± % change 2001/2000
Westport	35,763	33,250	-7
Knock Village	8,392	8,568	+2
Knock Airport	6,457	8,180	+27
Ballina	7,961	6,866	-14
Castlebar	7,497	5,418	-28
Achill	2,024	2,348	+16

Source: Ireland West Tourism

2.4.5 Overseas Visitor Demand in County Mayo

Overseas Tourism in County Mayo

Overseas tourism to County Mayo has grown by 20.8% since 1997, mainly due to strong growth from North America and Britain.

Table 209: Visitors to County Mayo* (000s)

	1997	1998	1999	2000	± change 2000 / 1997
Britain	105	104	128	130	+23.8
M Europe	106	97	102	114	+7.5
N America	71	75	86	96	+29.7
Other areas	17	13	15	20	+17.6
Total	298	288	331	360	+20.8

Source: Bord Fáilte

*Note: Estimates are derived from 3 year rolling averages

Table 210: Overseas Tourism Revenue to County Mayo* (IR£m)

	1997	1998	1999	2000	± change 2000 / 1997
Britain	22	24	26	39	+77.3
M Europe	10	10	10	15	+50.0
N America	11	16	19	22	+100.0
Other areas	2	2	1	2	-
Total	45	50	57	78	+73.3

Source: Bord Fáilte

*Note: Estimates are derived from 3 year rolling averages

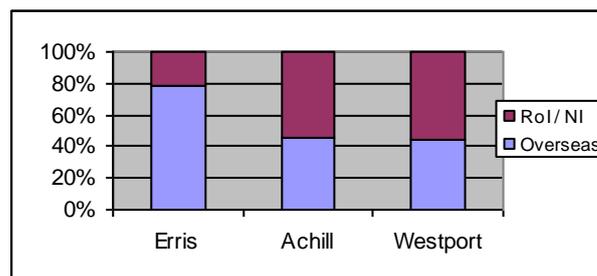
2.4.6 Tourism in Achill and Erris – Visitor Characteristics and Experience

In the course of a study by An Taisce and Mayo County Council *Mayo - Sustainable Tourism in the Coastal Zone* a visitor survey was carried during July, August and September 1999. While the responses are not weighted to the actual visitor profile, the results are valuable in that they are location specific and likely to be still current. (583 interviews were carried out in three locations – Erris, Achill and Westport).

Profile of Visitors

Overseas visitors were relatively more important in Erris, compared with Achill and Westport. In total 56% were foreign visitors and 44% were from Northern Ireland and Republic of Ireland. Overseas visitors to the area were predominately British (60%), followed by mainland Europeans (30%+).

Figure 2.1: Overseas Visitors v Domestic



Source: Mayo – Sustainable Tourism in the Coastal Zone – Visitor Survey

Family groups are very noticeable amongst visitors to the area, reflecting the high incidence of home holidays. Westport, however, is a popular coach tour stopover and touring base for overseas visitors.

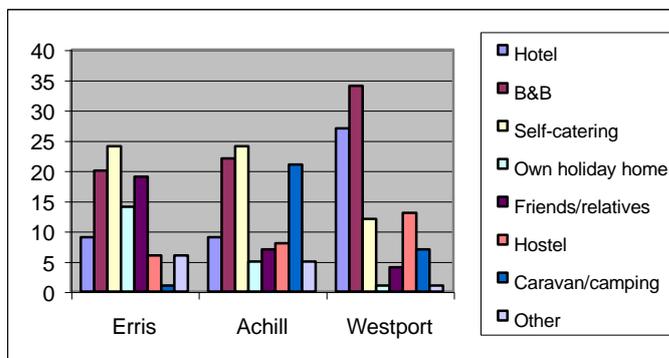
A high proportion of visitors have family connections with Mayo, particularly those visiting Erris.

The majority of visitors cited scenic quality as their pre-conceived image of the area. The special appeals attracting visitors to the area include, scenery, wild / unspoilt landscape, friendly people, water / beaches and fishing. The area is largely perceived as quiet and uncrowded.

Accommodation Used

Bed & Breakfast accommodation is the most popular form used, followed by rented self-catering and hotels. A higher proportion of visitors to Erris stayed with friends / relatives and also in their own holiday homes.

Figure 2.2: Accommodation Used – All Visitors



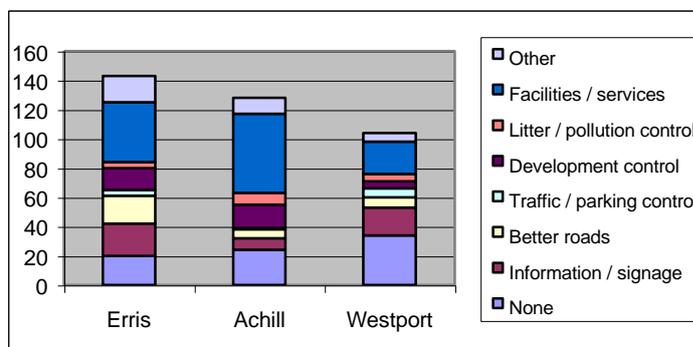
Source: Mayo – Sustainable Tourism in the Coastal Zone – Visitor Survey

Visitor Reactions

Visitor experience matches expectations to a very high level, particularly in relation to scenery and friendly people. This would appear to be especially true of those visiting Erris. Up to 93% expressed an intention of returning to the area.

When asked what changes they would like to see in the specific location, visitor’s suggestions for change mainly related to facilities including wet weather attractions, better roads, control of litter and pollution, better information and improved signage, and control of development. A significant proportion did not want to change anything.

Figure 2.3: Desired Changes - All Visitors



Source: Mayo – Sustainable Tourism in the Coastal Zone – Visitor Survey

Dislikes of the locality were cited as: nothing (almost one-third), poor roads and signage (particularly in Erris), too much development (Achill) and a general lack of facilities

The most popular holiday activities were walking, water sports, fishing, sightseeing and relaxing.

2.4.7 Westport as a Centre for Tourism

Westport, located on the edge of Clew Bay, is one of the few planned towns in Ireland. It was designed by James Wyatt in the 18th century. It is an important tourist centre that has seen strong growth in recent years, attracting individuals, families, groups and conferences and is a popular overnight stop for touring coaches.

Westport is a designated member of ‘Heritage Towns of Ireland’ and in 2001 the town won the Overall Award in the National Tidy Towns Competition.

Tourism accommodation capacity is substantial at more than 1,500 rooms, and a good range is available.

Table 211: Accommodation Capacity in Westport

Accommodation Category	Number of Premises	Number of Rooms
Hotel	10	628
Guesthouses	7	72
B&B Country homes	67	288
Health Farms	2	15
Hostel	2	139
Self Catering*	132	365
Total	220	1,507

Source: Gulliver (April 2002)

Westport serves as a tourism 'hub' with a wide range of visitor services and facilities including:

- Restaurants
- Westport House
- Walking / Cycling
- Horse riding
- Guided town walks
- Golf
- Thallasootherapy centre
- Water sports – sailing, windsurfing, canoeing, diving
- Sea angling, freshwater angling,
- Clew Bay Heritage centre
- Westport Leisure Park – Swimming pool and leisure centre

In addition Westport hosts a number of annual events, including:

- Europe Food and Culture Festival (May)
- Westport Street Festival (July / August)
- Horse and Pony Fair (September)
- Patrician Week (September)
- Westport Arts Festival (September)

2.4.8 Future Outlook

The prospects of tourism in the area, and the broader western region, are positive, as Ireland continues to attract increasing numbers of visitors particularly from Britain and mainland Europe. While international tourism has suffered a short-term decline, the forecast is for renewed growth in the medium term.

The study area should experience growth in tourism due to a combination of factors including:

- A buoyant domestic and Northern Ireland market for holidays and short-breaks;
- a growing interest and participation in activity holidays;
- an increasing interest in the environment;
- expanded all services through Knock Airport; and
- investment in tourism under the ERDF Tourism Development Programme (2000 – 2006)

However, a continuing characteristic of tourism to the area is likely to be high peaking of demand over a relatively short summer season. Product development, especially weather independent facilities, together with increased usage of second holiday homes and self-catering properties, can improve the seasonal spread of visitors to the area.

Tourism development projects in the area under development or at proposal stage include:

- A National Park at Ballycroy, to include a nearby visitor interpretative centre
- An arts centre in Belmullet
- An indoor swimming pool and leisure centre at Belmullet
- A heritage centre at Blacksod
- A marina at Blacksod
- A dive centre on Achill
- A new 18 hole golf course on Achill
- An equestrian centre on Achill
- A writers' retreat on Achill
- An indoor water based leisure centre on Achill

There are outline plans for the development of at least one resort hotel (4*) close to Belmullet and to Keel.

2.5 Transport Infrastructure

Access a critical element of infrastructure for business, tourism and social development. Access impacts directly on investment levels and competitiveness in an area and affects quality of life for those who live there. Rural economies are particularly dependent on access and transport for the sustainability of communities within them.

'.....perceived infrastructural deficit in rural areas is seen as the most basic element of the restricted ability of rural areas to access essential services, participate in employment and take part in social activities.'

National Spatial Strategy – Irish Rural Structure and Gaeltacht Areas.

The National Spatial Strategy investigated the relationship between remoteness and economic performance. Rural areas were allocated into six broad groups according to their remoteness scores. Both Achill and Erris fall into a number of remoteness groups, and into the most remote group in terms of distance from urban areas of a substantial size.

The difference in the performance of these groups is statistically significant, particularly in relation to employment performance and variation. Distance from the National Road Network is the most significant factor.

2.5.1 Air

Air access into County Mayo is best served by the international airport at Knock. The airport, which caters for approximately 200,000 passengers annually, provides year-round daily scheduled services to Dublin and London, with more limited services to Manchester. During the summer, tourist, charters from Germany, Switzerland and the Netherlands use the airport.

2.5.2 Road

Road travel and transport is the most important mode of travel in County Mayo. Therefore the supply and quality of road infrastructure is crucial.

Mayo is served by

- Key national routes N4, N5, N6, N26, N17 and N60;
- Key regional routes N84, N84, N58, N59; and
- Key coastal routes N59 and R314.

The roads in Achill and Erris are classified as local roads that link to the coastal routes.

The Western Development Commission is committed to the principle (among others) of '*the upgrade of coastal routes to support tourism and marine development*'.

2.5.3 Rail

The most important rail line to Mayo is the Dublin – Westport route, also serving Claremorris, Castlebar, Manulla and Ballina. A line connecting Claremorris to Sligo is closed and disused, and a line connecting Claremorris with Athenry (which has a freight line to Ennis) is closed for engineering works.

2.5.4 Bus

While most Expressway services of Bus Eireann connect Ballina or Westport (via Castlebar) with major cities and international gateways within Ireland, the area is served by a number of local services and limited inter-city services. These services connect Keel with Westport/Castlebar and Blacksod with Belmullet/Ballina

In addition several local bus operators provide community based services and charter services for local residents

2.6 Need for a Ferry

2.6.1 Ferry as an Alternative Transport Link

The proposed ferry link, effectively servicing two peripheral areas would provide an alternative access route rather than an essential transport service.

Short crossing coastal ferry services, other than essential public service or tourist services to/from off-shore islands, already operate elsewhere in Ireland. Such services provide an alternative transport route that offers greater convenience and represent significant savings in travel time and mileage driven. Example would include Killimer – Tarbert Ferry on the Shannon and the Cork cross-harbour services.

An examination of the proposed ferry link would suggest that the saving in time and/or mileage driven is only significant for a limited number of point-to-point journeys where the incidence of such travel is likely to be very low as the origin and destination points are other than the principle population settlements and service centre.

As illustrated on *Figure 2.4* overleaf, the maximum advantage in journey time offered by a proposed ferry on a short trip between Keel – Belmullet would be approximately 15 minutes with the increased outlay of a ferry fare. Such a time advantage could be easily lost by pre-boarding, waiting time and/or ferry delays.

2.6.2 Resident and Services Travel Pattern

Based on widespread discussions with public sector representatives, community organisations, businesses and interested individuals it would appear that the incidence of communication between the resident populations of Achill and Erris is currently very limited.

It would appear that the administration, trading, health, educational and social needs are either catered for independently within each area or from separate centres, i.e. Westport/Castlebar in the case of Achill and Ballina in the case of Erris. This is largely due to a number of factors, including:

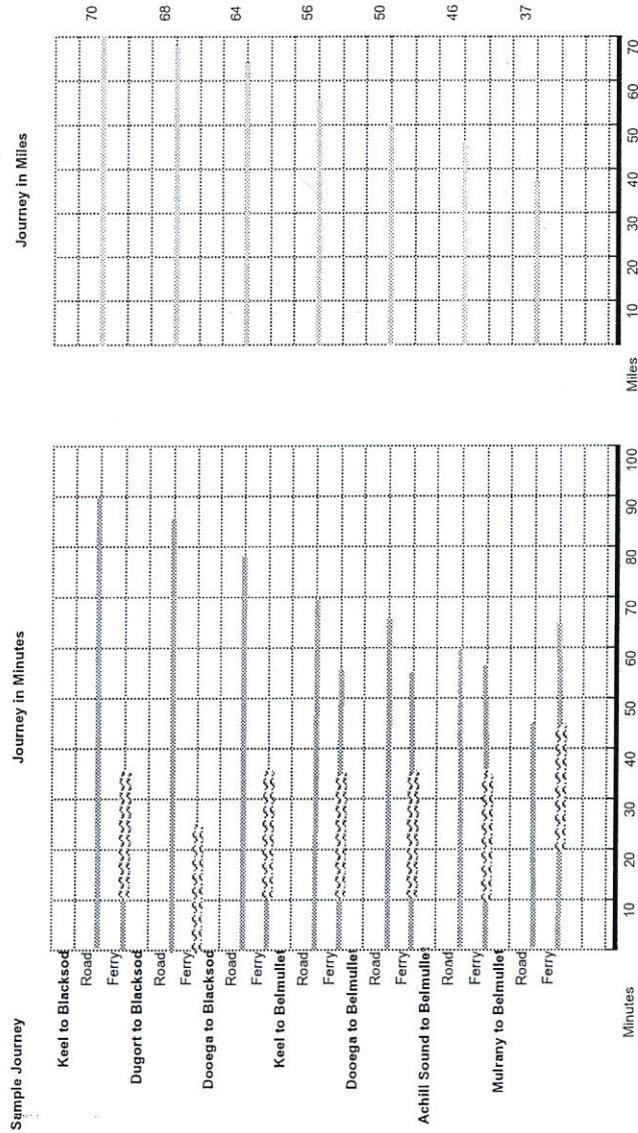
- similarity of scale, population and services profile in each of the two areas;
- distinct service and distribution 'hubs' based on distance and road networks; and
- discrete social and cultural patterns as a result of physical separation and remoteness.

Informal research would indicate a limited incidence of demand amongst the respective resident communities where a ferry link would represent a journey convenience and/or reduction in travel time or hardship. It should be noted that the market identification approach precludes any formal survey of user free tolerance.

The incidence of the need to travel for employment, essential services and distribution purposes is very limited at present. A limited market has been identified as follows:

- up to 10 daily commuter residents in Achill with employment in Erris (Belmullet);
- local authority and state agency personnel servicing a common administrative area;
- limited daily deliveries e.g. bakery and courier services; and
- casual labour in agriculture, fishing and construction.

Comparison of Journey Times and Mileage between Achill and Erris*



* Assumes no waiting time at ferry

Tourism and Transport Consult (TTC)
Marine Development Limited

The above is based on an analysis of current necessary or essential travel patterns. The introduction of a new transport link, however, could create new employment and business opportunities, and/or alter existing job and trading patterns. The most significant opportunities would appear to be employment opportunities created by the proposed gas pipe-line operation which could draw labour from Achill. In addition a ferry service would open up seasonal employment opportunities for residents of Erris.

Discretionary or non-essential travel between the two areas is currently limited to attendance at sporting and other events, and, more recently, Achill residents travelling to play golf at Carne.

A ferry link could encourage greater interaction between the two communities for social and recreational travel, including day-trips, sports, and other events.

2.6.3 Expanded Tourism Product

It is apparent that the current scale, composition and characteristics of tourism in Achill is very different from tourism in the Erris Peninsula. This, in large part, reflects differing appeals and attractions of each area, the guest accommodation capacities, and the stage of development of each area in terms of tourism infrastructure. Achill has had a strong tradition in tourism as a resort destination, while in contrast Erris is a more environmentally attractive remote area with visitations on a much smaller scale.

However, tourism based on the natural environment and on man-made facilities and attractions is seen as a tool of economic and social development in each area.

Both Achill and Erris could potentially benefit from an increase in touring visitors which account for the majority of overseas tourists to Ireland.

Nearby, Westport attracts large numbers of visitors, while the Ceide Fields visitor attraction is growing in popularity on overseas visitors' itineraries.

Currently it would appear that only a relatively small share of tourists visit both Achill and Erris due to location and road network as a visit to Keel or Blacksod each involve a considerable 'backhaul' journey.

The introduction of the ferry service under consideration could have significant tourism impacts, principally:

- the creation of a tourist route joining Erris (Sculpture Trail) with Achill; and
- the facilitation of day-trips for touring and/or recreational purposes. The latter would include golf, angling, and watersports.

The ferry link would greatly influence the tourist flows, increase the length of stay or 'dwell' time in the area. Furthermore, the ferry service could act as a tourist attraction in its own right delivering a rare travel opportunity, providing unique vistas and of particular interest to sea life enthusiasts. A ferry service would also add to the list of 'things to do', particularly for based holidaymakers in the area.

Such a ferry service could provide a convenient and attractive link enabling visitors to visit Céide Fields, Erris and Achill and the National Park at Ballycroy. It would also permit the promotion of extended walking and cycling routes; the expansion of multiple centred golf and watersports holidays. With the significant tourist population based on Achill and in Westport, it is not unreasonable to assume that the Erris Peninsula would be the prime beneficiary in terms of incremental tourist visits and economic impacts.

2.6.4 Demand Projections

Based on the foregoing analysis it is apparent that the primary demand for the proposed ferry service would be from tourists, with a low level potential from the resident communities.

Given such a scenario the market potential for such a discretionary service is best arrived at by means of market definition and penetration rather than an approach based on transportation modelling techniques.

Tourist Demand

A projected demand level by tourists has been predicted on the comparable experience of visitors to tourist attractions in remote areas. The average annual visitation level to such attractions tend to be in the range of 30,000 to 50,000 per year, excluding visits by school tours and local groups.

Therefore it appears reasonable to project say a mid point of 40,000 tourist passengers per year. Based on an assumed party size of 2.25 they would generate a market in the region of 17,800 vehicle journeys on the proposed ferry.

It is projected that the vast majority (95%) of visitor traffic would be car based, with 4% being ‘foot’ passengers/cyclists and 1% motorcycles.

In line with the assumption that the ferry would create a new circular touring route, it is projected that up to 75% of tourist demand for the ferry would be a single journey, with the balance (25%) using the ferry on a round trip basis.

Furthermore, Achill is projected to be the point of origin for a greater share of the tourist traffic, outnumbering Erris originating tourist traffic by a factor of 5:3.

For the purpose of the feasibility assessment it is assumed that the tourist traffic demand will be concentrated over a 15 week period from the end of May to early September peaking between mid July and mid August. This reflects the current tourist patterns in the area.

Table 212: Projected Tourist Summer Demand

	Season
No of tourists	40,000
No of cars	16,210
No of foot/cyclists	712
No of motorcycles	178

Resident Demand

Demand for the ferry service from local residents and businesses is difficult to predict due to the small base of potential users for whom the proposed service would represent a significant convenience and journey saving (time and/or distance). Furthermore this market segment is likely to be particularly price sensitive. Therefore, service and reliability, schedule appropriateness and fare levels will be primary determinants of demand.

Since the proposed ferry service is non-essential, the projected demand will be largely a discretionary travel option. Undoubtedly the ferry will have a novelty factor, at least initially, and could through a high frequency schedule, reliability, and at a perceived value for money fare 'create' a demand.

The following projections may be regarded as optimistic but do reflect the generative effect of short crossing ferry services elsewhere, particularly the experience in Western Scotland. They also assume a low fare regime (€15 return per car).

Table 213: Projected Local Demand (Annual)

Round trip car journey (av. 22 per day)	7,580
Commercial r/t journeys (incl: mini-buses, etc)	1,200

2.7 "Comparator" Ferry Services

A total of 21 short crossing coastal and Ireland ferries currently operate in Ireland. Of these, three (3) provide roll-on/roll-off (ro-ro) car ferry services on routes other than island to mainland routes.

The comparator routes for non-essential inland services are:

- Killimer – Tarbert (Shannon Estuary)
- Passage East – Ballyback (Waterford/Wexford)
- Carrigaloe – Glenbrook (Cork Harbour)

Each of the above services provides an alternative routing for vehicular traffic on a relatively short crossing. In the case of the cross Shannon service, the journey time is 20 minutes, while a high frequency shuttle service operates on a 4 minutes crossing of Cork harbour.

Characteristic of each of these routes include:

- a time and drive mileage saving over alternative land routings;
- a base year-round demand, including commercial and commuter traffic, augmented by tourist use; and
- a high frequency schedule operation.

The principle routes are outlined in Table 214 (below) while specific details on coastal and island ferry services in Ireland and Scotland is provided in *Appendix C*.

The tariff varies by route, related to length of crossing ranging from €3 for a short 2 minute journey to €12.50 on a 20 minute shannon crossing. Reflecting the customer base all services offer a discounted rate for multiple journeys, together with a differentiated tariff for cars, foot passengers, bikes and commercial vehicles.

Table 214: Short Crossing Coastal Ferries in Ireland 2002

Route	Passage Time	Peak Daily Frequency	Car Rates Single	Adult Pass	No of Vessels	Pax	Cars	Speed
Killimer/Tarbert	20 mins	23 rt's	12.50	3.00	2	350	60	12kn
Passage East/Ballyhack	6 – 8 mins	38 rt's	5.70	1.20	1	143	30	8kn
Carrigaloe/Glenbrook	2 – 4 mins	Shuttle	3.00	.70	2	200	28	9kn

Source: TTC data (See Appendix C)

3. TECHNICAL FEASIBILITY

3. TECHNICAL FEASIBILITY

Short Ferry Routes – General Principles

Where a ferry is to operate between two points, which are already connected by road, its success will depend on its ability to provide equivalent availability and convenience as the road. The charge for the ferry should be in line with the perceived savings of the extra road journey. In some circumstances it may be possible to argue that a ferry service enhances the tourist product and consequently, generates a demand on that basis alone.

Frequency

Demand will be maximised if the ferry operation is as frequent as possible. It is therefore better to operate with a number of smaller vessels than one large one.

At certain periods within a week and during different seasons, demand may not appear to warrant the same level of frequency. The costs remain the same with the exception of a relatively small saving in fuel if sailings are reduced. It is better to maintain full frequency to encourage traffic.

Schedule Module

Car drivers are also encouraged if a simple repeating schedule module is established. Departures should take place on easily remembered times. These will depend on the speed of the vessel and the distance between terminals.

Daily Operational Period

The first departure in the morning should be no later than 0700. The final departure in the evenings should be no earlier than 1830 in winter and 2030 in summer.

Seasonal Variations

It may take at least one full year to establish the traffic patterns. If the factors described above are maintained, it will soon become clear whether the period of operation should be modified. There may be insufficient demand in winter to warrant continuing on purely economic grounds but social advantages may prove otherwise.

Simplicity of Ticketing and Traffic Control without Reservations

A simple or automatic ticketing system, using credit/debit card wherever possible is recommended with fare collection by the crew.

Administration and Management

A manager responsible for overseeing the operation, will also ensure income reconciliation and control of all necessary expenditure for stores, spares, fuel and wages. The administrative costs should therefore, represent a small proportion of the overall operating cost.

The senior Master and senior Engineer have specific duties to ensure that the vessels are operated and maintained within the current legislation and these responsibilities would be undertaken in conjunction with the Manager and Technical Manager. There is no requirement for booking and information can be provided by recorded messages.

Technical Management

The operation of one or even two small vessels of the proposed type does not warrant the cost of a Technical Department to ensure that the vessel is maintained and operated within the legislation. Many large shipping companies have technical managers who can be contracted to undertake these duties.

There are a number of ship management companies who also have technical departments, which can be contracted to ensure that the vessel is operated, dry-docked and maintained to the standards required of a passenger vessel. They will also provide a planned maintenance scheme and check that it has been undertaken by the ship's engineer.

3.2 Proposed Route

Two possible routes were evaluated, each departing from the pier at Blacksod Point to either Doogort or Lough Doo, on the east side of Ridge Point. The distance is either 5.1 or 5.9 nautical miles respectively.



RO-RO Ferry

3.3.1 Type of Vessels

There are three types of small ro-ro vessels that operate on short sea routes similar to the proposed route across the entrance to Blacksod Bay.

i **Bow ramped vessel (Back on-Drive off)**



This type of vessel was first developed 35 years ago on the West Coast of Scotland and operated to the numerous old stone slipways common to most of the Western Isles. It was also capable of operating to steeply shelving beaches, provided they were suitably surfaced.

This class of vessel was later developed into the Island Class operated by Caledonian MacBrayne to serve many of the small islands on the West Coast of Scotland. Many currently continue to operate to islands such as Gigha, Lismore and Rathlin.

It has a number of limitations; it is near box shaped with a very bluff bow and is unable to achieve speeds more than 7 – 8 knots. It is not a sea-kindly vessel and inclined to be wet in bad weather.

Being only bow loading, vehicles have to back on board, making loading a slow process. Attempts to make the class drive through have been only marginally successful although in short sheltered routes such as Cobh (ex Isle of Skye ferries) they may serve well provided conditions are very sheltered and the route very short. The drive through replacement for the "Sound of Gigha" which is on a more exposed route has proved unreliable.

ii Drive through double-ended vessels (Sound of Scarba type)



These vessels tend to operate on routes with higher density traffic flow and have a relatively deep draft but do not carry their own ramps.

Such a route operates between McInroy's Point and Hunter's Quay on the River Clyde. The terminals require linkspans with dolphins for the vessel to lie alongside and also a greater depth of water. They are better sea boats than the "Sound of Gigha" type but the route across Blacksod Bay initially does not warrant the high cost of terminal infrastructure.

These vessels were developed and much used in Scandinavia, Orkney and the Shetland Isles. They are unable to achieve average speeds greater than 10-12 knots.

iii Drive through Catamarans



These small medium speed catamarans are steel hulled and very robust in construction. They should not be confused with the sophisticated, lightweight, high-speed craft that currently operate on the Irish Sea.

This class of vessel was developed by Sea Transport Solutions Pte, an Australian company, and named the "Jura Glen Class".

It was intended for an inter-island route on the West Coast of Scotland. Although the route has not yet started, five such vessels are operating in Australia and on the northern coast of North Island New Zealand. Three more are also under construction in Europe for routes in Holland.

These vessels have the advantage that for the equivalent length of the other two types of vessel they provide a much greater deck area. They are also able to achieve higher speeds for the equivalent power. Their stability comes from their exceptional beam and therefore their draft can be less than that required by the double-ended drive through vessel.

The freeboard may also be considerably greater than that required for either of the other two types and this not only has the benefit of making the vessel much dryer in bad weather but it can operate to a stub ended slipway which is much cheaper to construct, requiring no underwater work.

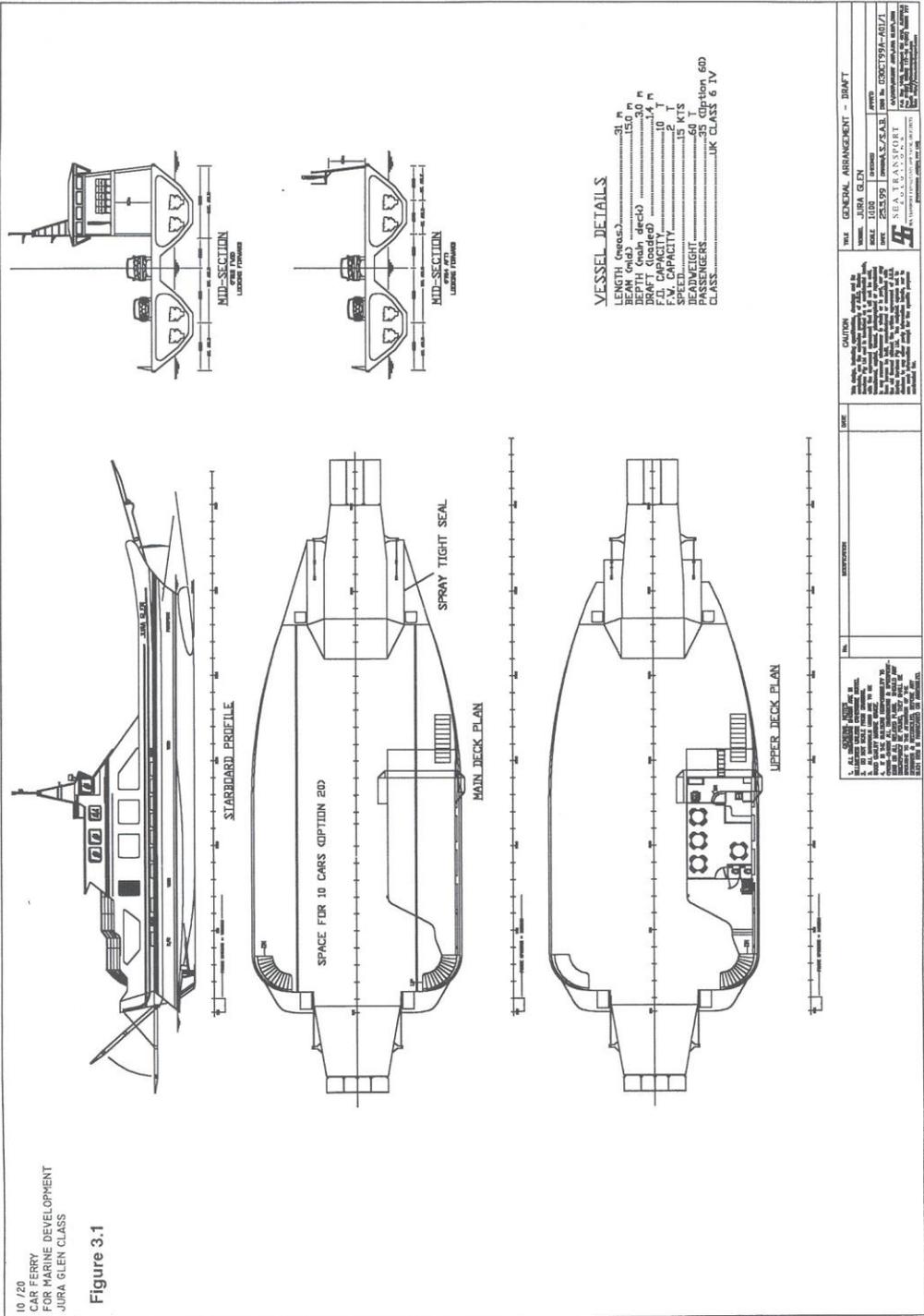
3.3.2 Preferred Vessel

The preferred vessel for this route is therefore the drive-through catamaran, similar to the Jura Glen class. It is capable of achieving average speeds of 15 knots and has a deadweight capacity to carry at least two large commercial vehicles.

The deck area is sufficient to accommodate up to 20 cars confined within barriers. The equivalent number of passengers for this capacity is 65. With such a passenger certificate, the vessel is likely to be operated by a three-man crew. Detailed specifications are illustrated in *Figure 3.1* overleaf. There is little advantage in making a vessel smaller than this as there is not a great saving in capital cost and a vessel any smaller would also be much more susceptible to weather delays and passenger discomfort.

The preferred catamaran vessel is capable of a speed of 15 knots, making it possible to achieve the voyage to Doogort in 21 minutes. This allows 9 minutes to manoeuvre, discharge and load up to 20 vehicles. This is a realistic target, making it possible for the vessel to make a 1-hour round trip with departure on the hour from one terminal and on the half-hour from the other.

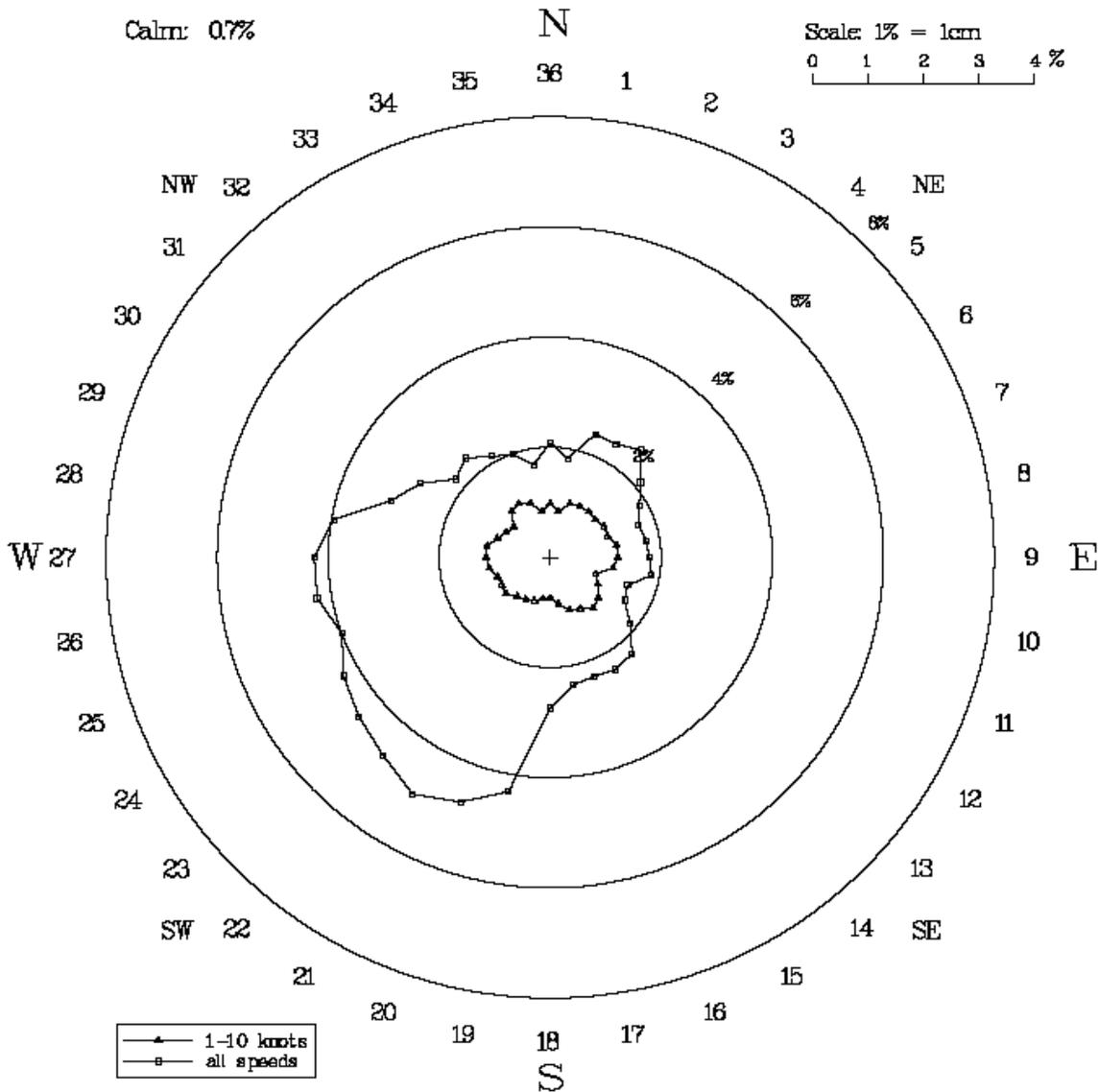
By comparison, the bow-loading vessel, with an average speed of 7.5 knots, will be unable to maintain a scheduled service speed in bad weather conditions. This gives a voyage time of 48 minutes and although turnaround would be slower, it is not possible to achieve anything better than a two-hour round trip module with a departure every other hour from each terminal.



Operational Conditions

The potential sites for terminals at each end of the route were observed during a period of exceptionally strong winds and high seas during the weekend of 19/20 January 2002. The conditions were exceptional and records from the Marine Department of Met Eireann give wind speeds of between 56 and 71 knots, Beaufort Force 12 (Hurricane). The Atlantic swell generated by this wind created an offshore wave of Hs 8.2m, which indicates a single maximum wave may have been about 13.0m high. Observations from Carricklahan Beach 5.5 kms away, show the swell crashing against the western cliffs and breaking over the offshore islands of Innishkea, Black Rock and Duvillaun. Large breakers were observed between Saddle Head and Duvillaun More with a heavy swell entering the bay. The potential route from Blacksod Point to Doogort or the east side of Ridge Point on Achill Island was observed from Blacksod Point, Kanfinalta Point, Kinrovar, Gubbinwee (close to Doona Castle), Ridge Point and Doogort Pier. Despite the weather conditions, the passage would have been well within the capability of the proposed vessel. A 'wind rose' of frequency of occurrence of wind speed and direction is presented in *Figure 3.2* overleaf.

Percentage Frequency of Occurrence of Wind Directions



Percentage Frequency of Occurrence of Wind Speeds

+ less than 0.1

0	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	over 48	knots
0.7	5.3	10.5	20.7	33.5	16.2	9.4	2.7	0.8	0.1	+	%

mean wind speed: 13.4 knots
 anemometer height: 12m

standard deviation: 7.1 knots

Met Eireann, Glasnevin Hill, Dublin 9.

3.4 Terminal Infrastructure – General

3.3.3 Terminal Options

The potential terminals examined were:

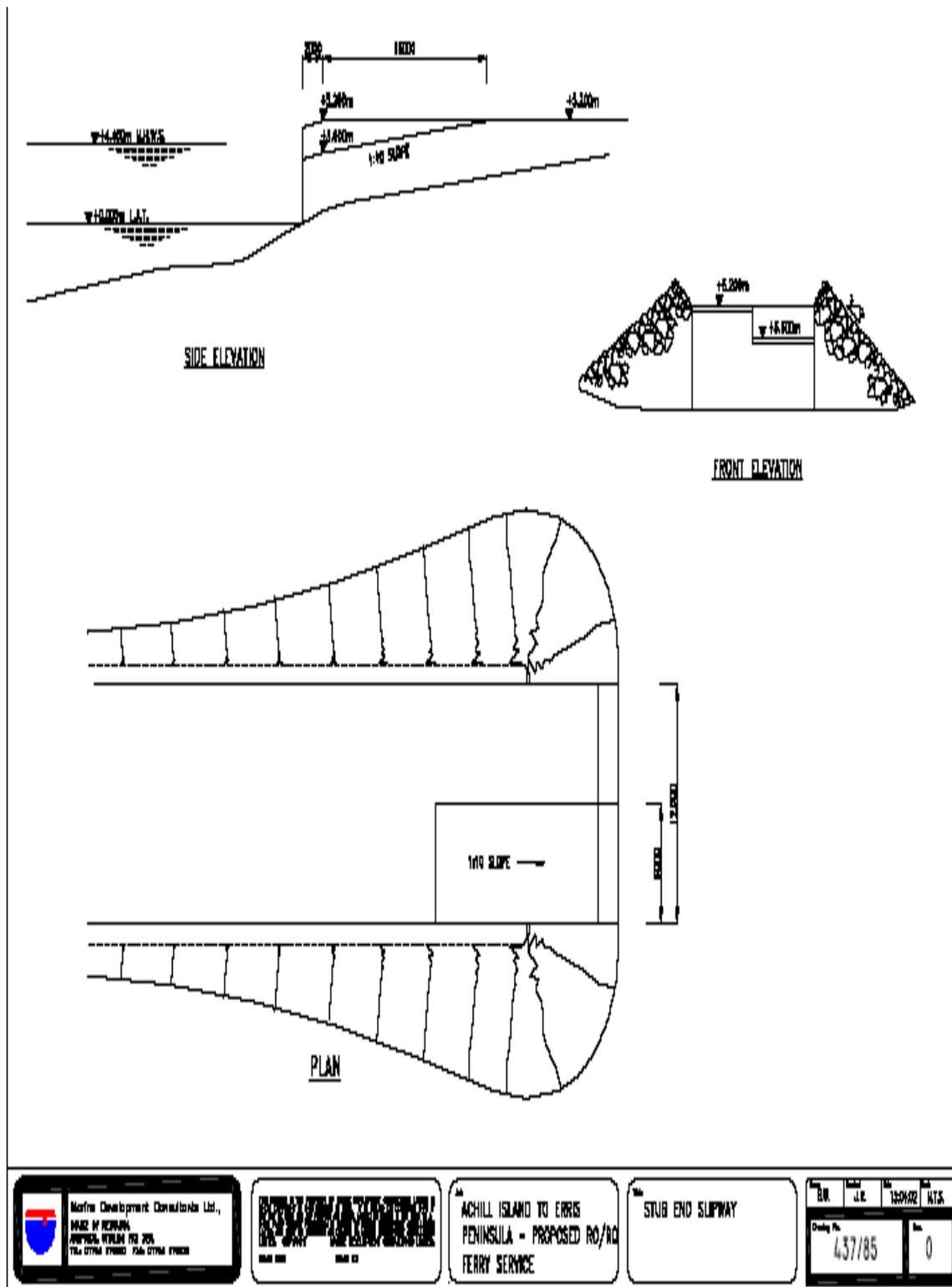
1. the stone pier at Blacksod Bay on the Erris Peninsula
2. the old quay on the east side of Ridge Point, near Lough Doo
3. the concrete pier at Doogort with the boat landing slipway

The existing infrastructure can be incorporated into a ferry terminal. Each has an access road and sufficient area to provide marshalling. The main construction involves the stub-end slipways onto which the ship will land its ramp.

Stub End Slipway

The bow loading landing craft normally operates to a slipway that runs below low water. It must be sufficiently steep to ensure that the vessel does not ground but not so steep as to create difficulty for the vehicle manoeuvring on and off. If it is built with vertical sides there is risk of accident occurring, particularly at low water in the area where the surface becomes slippery with weed.

The preferred catamaran design vessel carries an external ramp with an internal articulated section. Its freeboard at 1.50m – 2.00m is much higher than the 0.5m of the bow loading craft. The effective length of the ship's ramp is 14.00m making it possible to provide its own direct access onto the shore in the mean spring range of tide of 4.30m. This is achieved by having two adjacent sloped sections of concrete with the outer ends formed with such a gradient that they will not trip the ship's ramp. This is illustrated in *Figure 3.3* overleaf.



	Marine Development Consultants Ltd., MARINE DEVELOPMENT CONSULTANTS 100/101A SPENCER ROAD, DUBLIN 15, IRELAND TEL: 01754 378785 FAX: 01754 378786
	01754 378785 01754 378786

	ACHILL ISLAND FERRY SERVICE
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ACHILL ISLAND TO ERRIS PENINSULA - PROPOSED RO/RO FERRY SERVICE

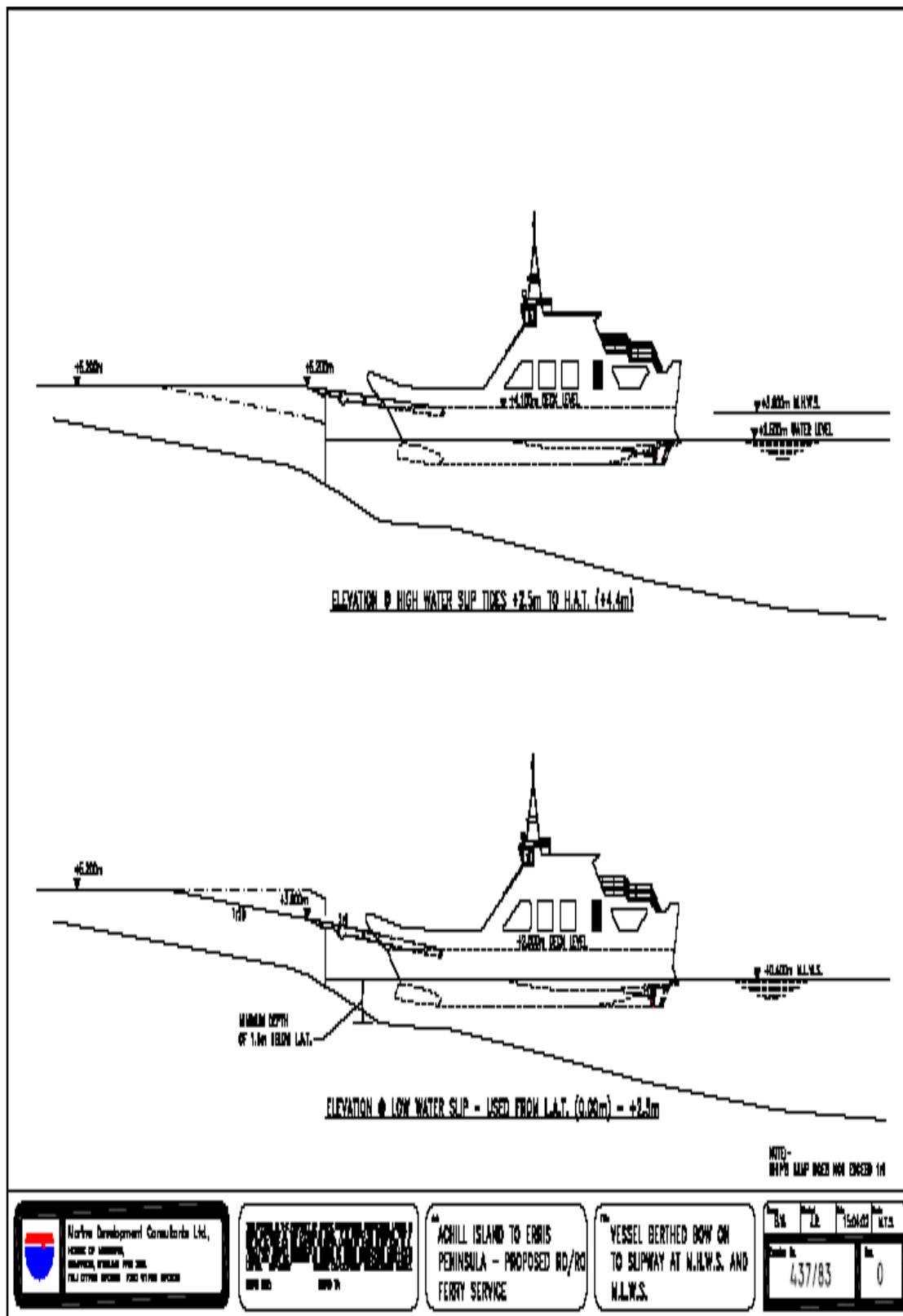
STUB END SLIPWAY

DW. J.E. 15/04/02 N.T.S. Drawing No. 437/85 Rev. 0
--

The stub-ended slipway shown is cheap to construct and provides much smoother transitions between the ship and the shore, allowing for rapid loading.

The vessel approaches the berth having first selected the appropriate level of low tide or high tide position and the ramp is lowered onto the steep sloping outer end. The vessel may hold its position by thrusting ahead and maintaining its position in line with the slipway using its rudders. By raising the ramp slightly the final position can be adjusted to ensure the optimum gradients and transitions.

Dolphins are not required although on the Ridge Point proposed berth one or two single piles may be installed to reduce the risk of the vessel being forced on to the shore in strong onshore winds. The stub end slipway is illustrated in *Figure 3.4* overleaf.



Shelter

Each of the three proposed berths is sheltered from the prevailing winds and waves although in periods of heavy western ocean swell, Doogort is subject to residual ground swell which will restrict some periods of berthing unless shelter in the form of an extension to the existing pier is incorporated.

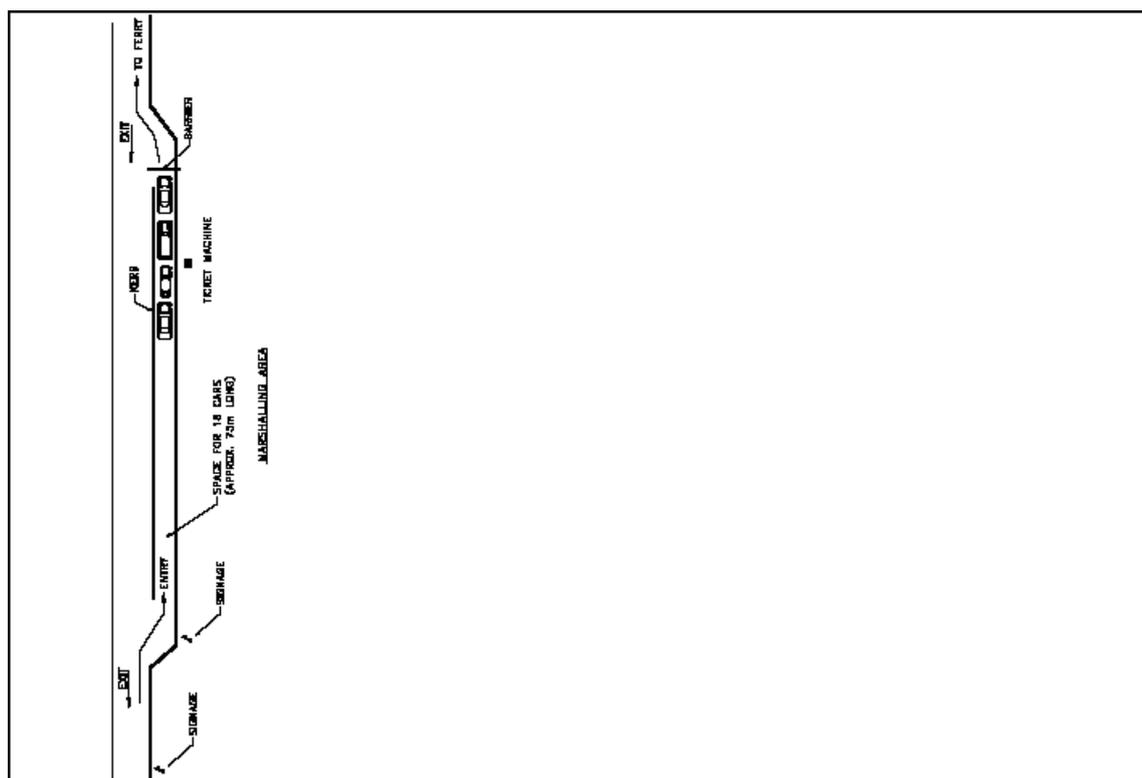
Car Marshalling

The road that approaches each terminal must be widened to become two-lane over the last 70 – 100 metres. The second lane is used for marshalling cars for the next ferry. The vehicles disembarking from the vessel will drive past the waiting vehicles and straight onto the public road. Once the disembarked vehicles are clear of the vessel the waiting cars may drive on board.

A turning area is required at the head of the slipway for vehicles waiting for foot passengers or vehicles, which need to turn away from the area.

A ticketing machine can be located in the car marshalling area, together with providing information about the way to park and the number of vehicles that will be taken on board the next sailing, as illustrated below.

Figure 3.5 Terminal Marshalling Area



3.4.2 Terminal Infrastructure – Blacksod Bay on Erris (Mullet) Peninsula

Location

The existing pier at Blacksod Bay appears to be little used. There is a slipway 600m to the north of the pier where most of the fishing boats are presently drawn up. The pier is of masonry construction and is in good condition. It is silted on its western side and it appears that there was a greater depth of water when it was in more regular use. Westerly Atlantic swells break on the off lying islands and waves that are carried into the Bay dissipate on the reef that runs to the south and west of the pier. Although residual swells continue and turn up the Bay, Blacksod Pier itself is sheltered from them. Seas from a north and east direction have a very much reduced fetch and some shelter is created by Carrigeenmore.

Approach Roads

The existing surfaced road, R313, terminates at Blacksod Point and extension of this road is not necessary. Most traffic terminates or turns before this point.

Marshalling Area

The pier itself is 12 metres wide and could provide adequate marshalling area. At the root of the pier where the road terminates there is also sufficient area to provide marshalling for vehicles.

Proposed Berth

The double level stub-ended slipway is shown on Figure 3.6 overleaf. It should be positioned as shown provided there is adequate depth of water after the sand is removed. If not, it can be located further to seaward provided it remains within the shelter of the pier. It is possible to dredge a channel, which will be kept clear by the operation of the vessel, but if the material is rock the position may have to be moved to the westward to avoid damage to the pier that may result from underwater blasting.

Current Developments

Ground investigations are currently taking place for a development at Blacksod Pier. It is anticipated that this is to make it possible for small vessels to lie against the west face of the pier in a greater depth of water throughout the tidal cycle. The proposed stub ended slipways can be moved further to the west of the pier so that they will not interfere with current developments but the approaches to these slipways and the slipways themselves will help to enclose the harbour and so improve its shelter. It is not envisaged that the ferry would interfere with any increased traffic to the developed facility.

Location

The quay and slipway are located at Creggan Carragh, approximately 750m from the road junction at Doogort on the north coast of Achill Island. In strong westerly gales residual swell passes round Slievemore Point and runs along the shore and hits the north-western face of the quay. Waves generated by north to northeasterly winds will be able to develop over a 12-mile fetch. Under normal conditions, however, it is sheltered from northwest through south to east-north-east. It is the shortest distance at 5.1 nautical miles from Blacksod Pier.

Approach Roads

There is an existing single-track surfaced road that terminates at the existing slipway.

Marshalling Area

There is parking for two or three cars in a lay-by some 30m from the slipway and this could be extended to provide a marshalling area for the vehicles in the same position. Access from this area to the new berth would be by an extension of the existing road on a rock-armoured causeway to the stub ended slip. (See *Figure 3.7* as illustration overleaf)

Existing Slipway

The existing pier consists of a masonry 'T' headed structure running approximately ENE, with a boat-landing slipway on the southern face. Parallel and at a steeper angle to this slipway is a stepped slipway, which was used for bringing boats ashore. In line with it on a plinth is a winch that does not appear to have been used for many years. The outer end 'T' head appears to have been added later than the original to provide a short berthing face parallel to the shoreline in deeper water.

Proposed Berth

It is proposed that the vessel will lie alongside the end of the existing 'T' head, heading approximately NNW into the swell. To avoid interfering with the existing slipway it is proposed that a rock armour causeway will run across the foreshore on the weather side of the existing pier. This will help dissipate the swell and prevent spray being thrown up as it hits the vertical face of the masonry and so improve conditions for small vessels using the existing pier.

The causeway will turn beyond the pier and terminate in the stub-ended slip. The inshore stub ended slip will serve at high water when there is greater depth and a greater swell. At low water, the outer slip is to be used with greater depth. It is not necessary to be alongside or tie up to the pier.

3.4.4 Terminal Infrastructure – Lough Doo (Ridge Point) on Achill Island

Location

The ruined pier is located 1.3 km southeast of Ridge Point. Access is from the main R319 at Bunacarrey where a minor road crosses the peat for about 5 kms to Valley. The last 1km reduces in width until it meets the junction with the road turning left to the south edge of Lough Doo.

Approach Roads

An unpaved and unused road then continues out to Ridge Point. At some point off this unpaved road is an almost indistinguishable road to the ruined pier. Although the road may be bottomed it is overgrown and it will be necessary to build approximately 750 metres of resurfaced road. There is no apparent habitation within 1 km of this site. The existing pier is in a more sheltered location than Doogort but is 5.9 nautical miles from Blacksod. The greater shelter is the only advantage over Doogort.

Marshalling Area

If a new road can easily incorporate the marshalling area (See *Figure 3.8* as illustration overleaf) and this should be positioned as near to the proposed berth.

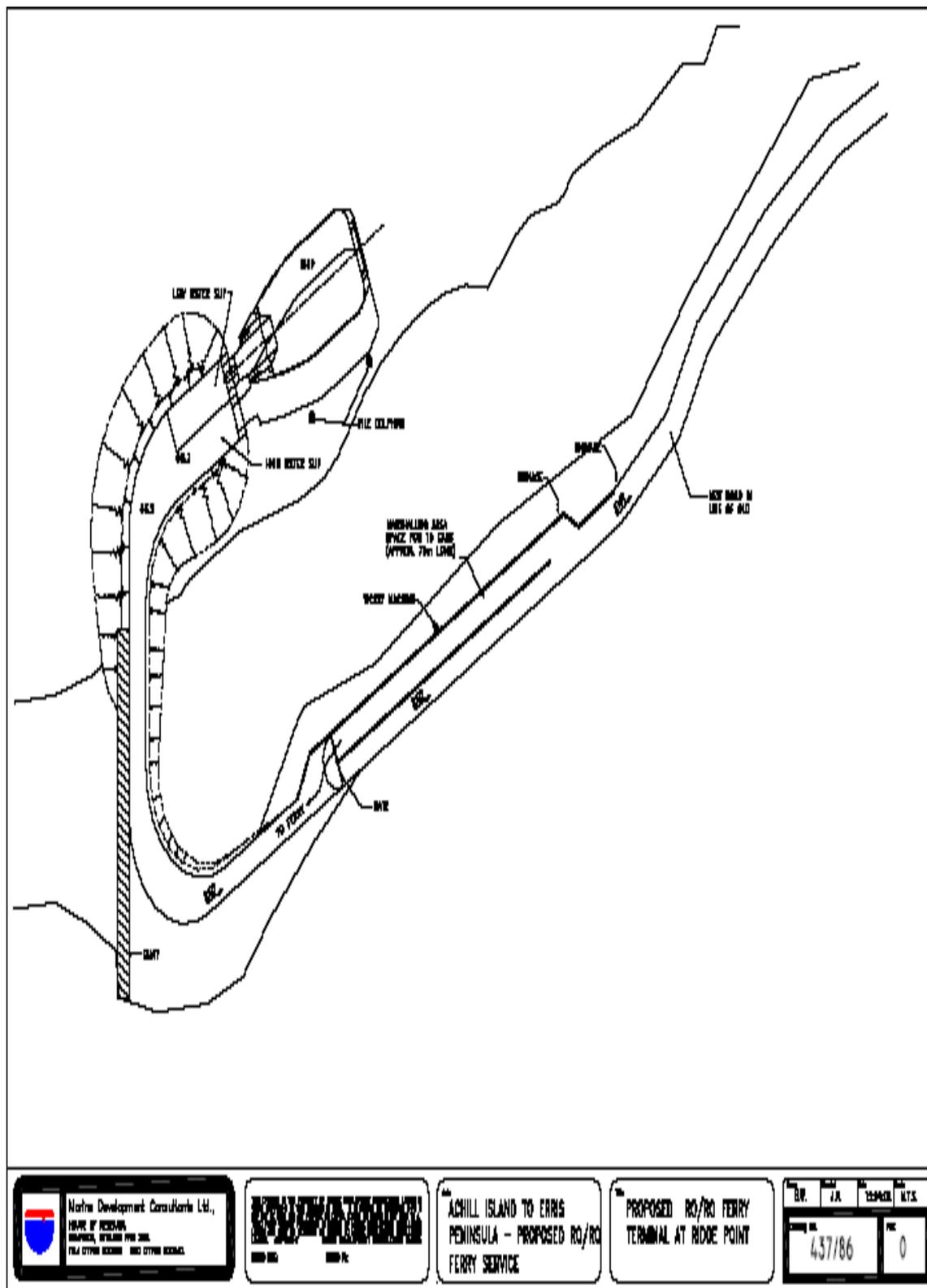
Proposed Berth

The condition of the existing pier *appears to be undermined at its outer end* although it is of solid construction. The final access to any berth would be on a rock armoured causeway built on the south side of this pier so that it can provide some shelter. The causeway would then turn southwards allowing the vessel to berth facing northwest to a similar stub ended slipway as the other two locations. It would also be necessary to provide at least two single pile dolphins, parallel to the shore, to protect the vessel from grounding in easterly winds. These single pile dolphins would not normally be used to berth alongside.

3.4.5 Conclusion

On the Erris (Mullet) Peninsula there is only one practical choice and that is within the vicinity of the existing Blacksod Pier. Ideally, the stub end slipway should be adjacent to the pier with the vessel lying alongside it. However, if development is taking place the slipway can be moved to the westward so that it does not interfere with the use by other vessels.

On the Achill Island site the preferred location is at Doogort. The final design of the proposed berth will depend on the current use of the existing pier. It has only one disadvantage in relation to Ridge Point in that the latter is probably more sheltered. Doogort is closer to Blacksod by 0.7 nautical miles, which is significant in the half-hour voyage module. It is also closer to the centre of population on Achill and has better access from the main road as well as local approach roads.




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 0000 0000 0000 0000

Achill Island to Erris
 Peninsula - Proposed RO/RO
 Ferry Service

PROPOSED RO/RO FERRY
 TERMINAL AT RIDDLE POINT

NO.	DATE	BY	REVISION
437/86			0

Operating Model

3.3.4 Indicative Schedule

A frequent mistake when starting new ferry routes is to begin with a reduced service until demand builds up. Such infrequency discourages many potential users. In addition to high frequency, length of daily operating period is a further incentive to encourage regular users.

Table 301: Indicative Summer Schedule

Depart Blacksod	Depart Achill
0700	0730
0800	0830
0900	0930
1000	1030
1100	1130
1200	1230
1300	1330
1400	1430
1500	1530
1600	1630
1700	1730
1800	1830
1900	1930
2000	2030

Off season

During the remainder of the year (September to May) should there be a demand, an indicative schedule is indicated below, that should be adopted to maximise the potential market.

Table 302: Indicative off season schedule

Depart Blacksod	Depart Achill
0800	0830
0900	0930
1300	1330
1600	1630
1700	1730
1800	1830

There will be times when it is necessary for the vessel to operate outside these periods. If a flexible crew roster is established then additional services can be offered on prior reservation or in the case of emergencies. During summer months and periods of special local events, these late sailings may be quite common at weekends.

During the off-season period (September to May) it is envisaged that the schedule would be increased at holiday times, e.g. Easter and holiday weekends.

The period of operation of a summer schedule would be adjusted to meet demand. Experience may dictate that a 'shoulder' period schedule may also appropriate.

3.5.2 Simulation of Traffic Potential

Based on assumptions in respect of demand distribution throughout the summer period and throughout the day it has been possible to simulate traffic patterns for the ferry.

The projections suggest that the schedule and capacity can cater to a demand of approx 19,000 one way journeys. (See *Table 304* overleaf).

The simulated pattern of demand based on projected primary tourism demand assumes a bias in favour of Achill as point of origin (5:3);

- A 25% incidence of round-trips amongst tourists; and
- An overall average utilisation of up to 80% on key peak sailings to a low of 10% - 15% on early morning and late evening sailings.

3.5.3 Tariffs

The proposed fare structure based on comparable ferry operators and the range of market acceptable prices, particularly within the tourism attraction category.

For the purpose of the feasibility assessment a fare range has been prepared, with an evaluation of income on both the low and high ends of the range.

The fare structure proposal reflects the various categories of traffic and provides for a substantial discount for local resident traffic as a stimulus for high frequency use.

Table 303: Proposed Fare Structure + Price Range

Category	Single	Return
Standard Rate		
Car ¹	€12.00 - €15.00	€20.00 – €25.00
Motorcycle	€6.00 - €8.00	€10.00 - €12.50
Foot passenger/bike	€2.50	€5.00
Commercial ²	€24.00 - €30.00	€40.00 - €50.00
Local resident rate		
Car	€7.50	€15.00
Commercial	€15.00	€30.00

Notes: ¹ Car and passenger
² Commercial including mini-buses

Table 304

Feasibility Study for Achill Island to Erris Peninsula Ferry Service

ACHILL ISLAND/ERRIS PENINSULA FERRY SERVICE											
SIMULATION OF CAR TRAFFIC POTENTIAL											
Summer Season											
20 Car Deck Capacity											
Schedule & Estimate of Car Traffic Potential from Achill					Aug 18 - Sept 8						
May 26 - Jun 22					Jul 22 - Aug 17						
4 Weeks					4 Weeks						
Dep. Erris	Dep. Achill	Car. Est.	Dep. Erris	Dep. Achill	Car. Est.	Dep. Erris	Dep. Achill	Car. Est.	Dep. Erris	Dep. Achill	Car. Est.
7.00am	7.30am	2	7.00am	7.30am	2	7.00am	7.30am	2	7.00am	7.30am	2
8.00am	8.30am	4	8.00am	8.30am	5	8.00am	8.30am	5	8.00am	8.30am	4
9.00am	9.30am	6	9.00am	9.30am	9	9.00am	9.30am	9	9.00am	9.30am	7
10.00am	10.30am	11	10.00am	10.30am	12	10.00am	10.30am	12	10.00am	10.30am	11
11.00am	11.30am	13	11.00am	11.30am	15	11.00am	11.30am	16	11.00am	11.30am	13
12.00am	12.30pm	13	12.00am	12.30pm	16	12.00am	12.30pm	16	12.00am	12.30pm	14
13.00pm	13.30pm	13	13.00pm	13.30pm	14	13.00pm	13.30pm	16	13.00pm	13.30pm	14
14.00pm	14.30pm	10	14.00pm	14.30pm	11	14.00pm	14.30pm	13	14.00pm	14.30pm	10
15.00pm	15.30pm	8	15.00pm	15.30pm	10	15.00pm	15.30pm	10	15.00pm	15.30pm	9
16.00pm	16.30pm	7	16.00pm	16.30pm	9	16.00pm	16.30pm	9	16.00pm	16.30pm	8
17.00pm	17.30pm	5	17.00pm	17.30pm	7	17.00pm	17.30pm	7	17.00pm	17.30pm	5
18.00pm	18.30pm	3	18.00pm	18.30pm	5	18.00pm	18.30pm	5	18.00pm	18.30pm	4
19.00pm	19.30pm	3	19.00pm	19.30pm	3	19.00pm	19.30pm	3	19.00pm	19.30pm	2
20.00pm	20.30pm	2	20.00pm	20.30pm	2	20.00pm	20.30pm	2	20.00pm	20.30pm	2
Total Daily Potential ex Achill		100	Total Daily Potential ex Achill		120	Total Daily Potential ex Achill		125	Total Daily Potential ex Achill		105
Period Total		2800	Period Total		3360	Period Total		3500	Period Total		2205
SEASON TOTAL ex Achill		:	SEASON TOTAL ex Achill		11865	SEASON TOTAL ex Achill (60% of Achill est.)		7119	SEASON TOTAL		= 18984

Tourism and Transport Consult (TTC)
Marine Development Limited

3.5.4 Incremental Use of Ferry

The Island of Innisbiggle, though inhabited, has no vehicular ferry access. During periods of low demand, a break in the schedule could be made to serve this island.

The offshore islands of Innishkea – north and south – were once well populated as shown by the large number of buildings on the map of the islands. In a similar way to Innisbiggle, if a ferry could provide a daily service to these islands it may encourage visitors and allow the island to be developed for tourist activities, particularly if trucks carrying building materials and supplies could operate on a regular basis.

In addition there may be opportunities for special charter sailings to meet the needs of groups and other one-off users.

4. ECONOMIC AND FINANCIAL FEASIBILITY

4. ECONOMIC AND FINANCIAL FEASIBILITY

4.1 Capital Costs

4.1.1 Infrastructure

Each terminal has a number of features in common and these can be costed as independent units. The following rates have been used for budgeting purposes.

Marshalling Area and Access Roads

We have allowed €40 per m² to grade and surface any area used by traffic. This assumes reasonable ground conditions and a similar standard of finish to the existing roads.

Approach Roads to Slipways

Hearing full material from blasted rock has been allowed for at a rate of €25 per m³. Rock armour stone, 500 kg to 1000 kg has been allowed for at €50 per m³, including laying and shaping.

Concrete Slipways

Surfacing of slipways on to compacted fill has been taken at €80 per m² including reinforced steel and laying. €3,000 per metre run have been allowed for walls to retain outer ends and sides of slipways. This may be in-situ concrete, P/C blockwork or sheet piles, depending on ground conditions.

Table 401: Schedule of Costs Blacksod Pier – Proposed Terminal

Item	Description	Rate	€ 000
1.	Infill Material	2,800m ³ @ €25	70.0
2.	Armour Stone	11,00m ³ @ €50	55.0
3.	Slipway - Walls	32 lin.m. @ €3,000	96.0
	- Surface	190m ² @ €80	15.2
4.	Surfacing	800m ² @ €40	32.0
5.	Oncost, Design, Supervision, etc. – 33%		88.5
Total			€356.7

Table 402: Schedule of Costs - Doogort Slipway

Item	Description	Rate	€ 000
1.	Infill Material	11,000m ³ @ €25	275.0
2.	Armour Stone	3,000m ³ @ €50	150.0
3.	Slipway - Walls	32 lin.m. @ €3000	96.0
	- Surface	190m ² @ €80	15.2
4.	Surfacing	1,525m ² @ €40	61.0
5.	Oncost, Design, Supervision, etc. – 33%		197.8
Total			€795.0

Table 403: Schedule of Costs - Lough Doo (Ridge Point)

Item	Description	Rate	€ 000
1.	Infill Material	11500m ³ @ €25	287.5
2.	Armour Stone	3500m ³ @ €40	140.0
3.	Slipway - Walls	32 lin.m. @ €3,000	96.0
	- Surface	190m ² @ €80	15.2
4.	Surfacing (Bitmac)	1321m ² @ €40	52.9
5.	Oncost, Design, Supervision, etc. – 33%		179.6
Total			€863.7

Capital Cost of the Vessel

The preferred design catamaran (drive through ro-ro, 10-car capacity) may be built in the EU where it will be more expensive than southern Europe (e.g. Croatia). The cost will depend on the extent of the fit-out and equipment.

Other areas such as the Far East may also be considered but delivery charges, must be added to the shipyard costs.

The cost is estimated to be about €1.8m to €2.2m.

Financing the Capital Cost

Capital expenditure for the cost of infrastructure for ports and harbours is normally financed by the central government or local council. There are various grants available for development in rural areas, especially those areas where there is high unemployment, special cultural conditions and a will to encourage tourism.

Whichever European, national or local funding is chosen, there are many advantages in having ferry slipways treated as part of the roads infrastructure and as such are paid for, financed and maintained through the roads budget.

Private enterprise has been known to develop its own ferry terminals but the route must be very profitable to undertake such risk.

There are a number of ways in which capital can be made available to purchase the vessel. There are tax allowances for depreciation in many countries and the vessel itself provides security. The most usual forms of ship mortgage finance are:

1. Banks
2. Specialist Finance Companies (e.g. Debis)
3. Government Funds
4. Shipbuilder's Finance
- 5.

In every case the terms of the loan will depend on the financial standing of the borrower. This may be a problem for a small local company that may be contracted to operate such a service. In the West of Scotland, financing was provided by the local council for the ship for one ferry route. It was able to get grants for a percentage of the capital cost and finance for the residual capital was obtained on very favourable terms.

Servicing of Capital

In a commercially viable ferry operation the capital is serviced by the following methods:

Infrastructure

Pier dues are charged on the vessels using the facility. Cargo dues are paid on each of the vehicles using it. For small ferry routes, this is usually agreed as a lump sum annual charge. In some cases there is a fixed sum with an extra charge if the number of vehicles exceeds a certain limit.

Where the route is not commercially viable the terminals may be treated as part of the road network and no charge be made. This may apply to the Achill / Erris route, at least during the initial start-up period.

Vessel

The income from fares on cars and passengers must be sufficient to pay running costs and contribute sufficient for servicing the interest and depreciation on the vessel's capital cost.

If this is not likely to be the case, as is possible on this proposed route, then the vessel may be owned and the financing paid by the government or local authority.

Ship mortgage finance is usually over a period of 5 to 10 years. The ship may have a 25 – 30 year life if well maintained.

For the purpose of the feasibility assessment a preferential rate of 4.875% has been used for the cost of capital employed.

In addition the financial projections include a scenario of an assumed 75% grant towards the capital cost of the vessel, in addition to the project carrying the total cost of the vessel.

4.2 Running Costs

The running costs of the vessel can be taken for one full year's operation. A period of 10 days during the off-peak season would be used for dry-docking and major maintenance.

4.2.1 Crew Costs

Table 404: Schedule of projected crew costs

	€	€
Skipper	3 x 30,000	90,000
AB/Mechanical	3 x 25,000	75,000
3 man Crew/Ticket collector	3 x 6,000	18,000
Total		€183,000

It is assumed that the vessel will be operated during the summer period by 3 crew with a 65-passenger certificate and 20 cars. In winter, it may be reduced to 2 crew for a 35-passenger certificate with 10 cars.

4.2.2 Fuel Costs

Taking duty free marine diesel at 25c per litre, the annual cost will be as follows, allowing 120 litres/hour.

Table 405: Schedule of projected fuel costs

		€
Summer	105 days (14 hours/day) @ €30 / hr	€44,100
Winter	240 days (6 hours/day) @ €30 / hr	€43,200
	Lub Oil – allow	€5,000
ALLOW SUM		€92,300

4.2.3 Insurance

Insurance for Hull & Machinery as well as P&I Insurance is likely, at least initially, to cost 1.5% to 2% of the capital cost of the vessel.

2% of €2,000,000	€40,000
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4.2.4 Stores and Spares

Stores, including uniforms and spare parts, ropes, etc. should be allowed for at a budget of €10,000.

ALLOW SUM	€10,000
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4.2.5 Dry-docking and Maintenance

During the first year dry-docking will be included in the guarantee. Bottom cleaning and propeller, shaft and rudder inspection can be undertaken mainly by the ship's crew with the vessel dried out on the high tide.

ALLOW SUM	€20,000
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When propeller changes or stern glands and shafts are to be drawn from survey, the cost will be significantly more.

4.2.6 Technical Management

The cost of a part-time sub-contracted Technical Superintendent from a larger company should be allowed at €30,000.

ALLOW SUM	€30,000
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4.2.7 Administration Costs

The Manager's salary and office costs should be allowed at €65,000.

ALLOW SUM	€65,000
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4.2.8 Marketing Costs

The costs associated with publication of service schedule, promotion and publicity within the area are projected at approximately €15,000 per annum.

ALLOW SUM	€15,000
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4.2.9 Summary of Annual Costs

Table 406: Summary of Annual Operating Costs (Year 1)

Wages	183,000
Fuel	92,300
Insurance	40,000
Stores & Spares	10,000
Dry-dock & Repairs	20,000
Admin	65,000
Marketing Brochures	15,000
Technical Management	30,000
Estimated Total	€455,300

Income Projections

4.3.1 Projected demand by category and season

Based on a market assessment evaluation with particular reference to the scale and pattern of tourist demand, the initial demand projection is estimated to be of the order of 26,000 'sectors' or one-way journeys per year.

The projected demand is estimated as follows:

Table 407: Categorisation of Projected Demand

Tourist	€17,800	One-way journeys
Local	€8,780	One-way journeys
TOTAL	€26,580	

Given the projected high dependency on tourist use, upwards of 70% of the annual traffic would fall within the 15 week summer period.

4.3.2 Projected Income

At the lower fare rate on the basis of projected traffic total annual income is estimated at €276,000. If fares are charged at high range, the annual income would amount to €331,000. The breakdown of projected annual income by category and season is outlined below.

Table 408: Projected Income by Category and Season

	Low Fare Rate		High Fare Rate	
	€000s		€000s	
Tourist Traffic	197	(72%)	247	(75%)
Local Traffic	79	(28%)	84	(25%)
Total	276		331	
Summer	216	(78%)	271	(82%)
Off-peak	60	(22%)	60	(18%)
Total	276		331	

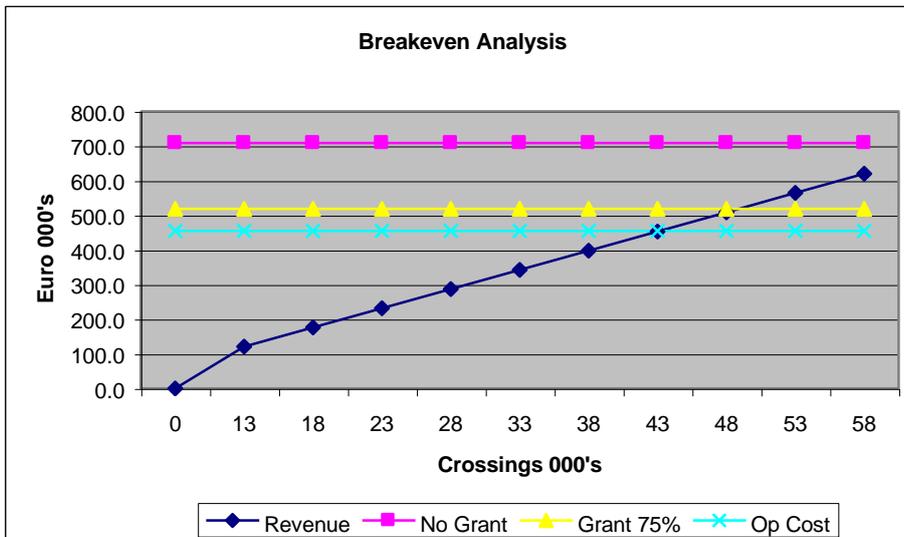
Further details on income projections and Breakeven Analysis are included in Appendix E.

Breakeven Analysis

4.4.1 Based on lower fare level

Projected income falls 40% short of meeting operating expenses - an annual shortfall of €179,000 - without any consideration of servicing the capital cost or depreciation of the vessel. At the projected level of staff on the lower tariff basis the income falls well short of the ability to meet operating costs and makes it impossible to contribute to the cost of servicing the capital outlay on the vessel.

Figure 4.1: Breakeven Analysis (Lower Ticket Price)

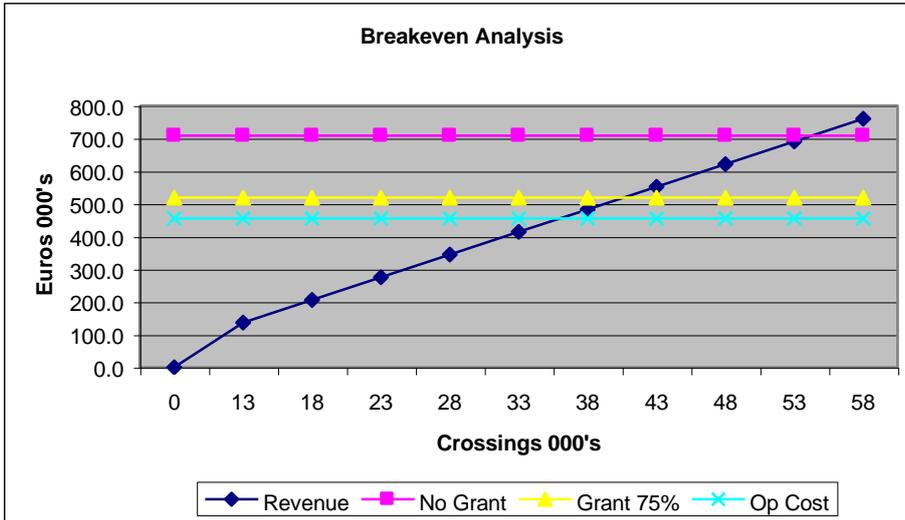


In order to cover operating costs, on the lower fare level, with the projected mix of business between tourists and local, approximately 43,000 journeys/sectors would be required.

4.4.2 Based on higher fare level

At the proposed higher tariff, projected income would meet 73% of operating costs, excluding cost of capital expenditure and depreciation representing a shortfall of €125,000 per year.

Figure 4.2: Breakeven Analysis (Higher Ticket Price)



In order to meet operating costs, an annual traffic throughput in the region of 35,000 would be required. However if the cost of the vessel were to be included, the traffic volumes would have to rise to between 40,000 and 54,000 to meet between 25% and 100% of the capital outlay.

4.4.3 Conclusion

On the basis of the projected costs and income the proposed project fails to meet breakeven criteria, even on the basis of a 10% to 20% sensitivity.

While it could reasonably be expected that demand would increase over time, the project would most likely fail to meet annual outgoings due to the following inherent structural weaknesses of the market for the proposed service:

- the potential market is heavily dependent on tourist demand with a relatively small local demand; and
- a high seasonal demand over a relatively short summer period.

Price resistance, especially in the local market could represent a significant risk to the development of local usage on a year-round basis when the new service may not be perceived as delivering a value for money benefit in terms of convenience, time sailing and motoring costs.

While a 20 car space capacity vessel may constrain demand on a limited number of sailings at peak times on certain days thought-out July and August, an increased vessel size would result in both capital and operating costs (additional crew, fuel, and insurance and maintenance) disproportionate to any incremental revenue earning opportunities, and would result in a greater shortfall against operating costs on an annual basis.

Cost Benefit Analysis

The proposed project based on projected costs and income fails to produce a positive cash flow position over a 20-year period.

Furthermore, the Net Present Value (NPV) – the difference between the present value of a future flow of profits accruing from the project and its capital costs – is negative throughout the period.

Even allowing for a 75% grant towards the capital cost of vessel, the project is not viable on a cost benefit basis.

(Table 409: Scenario A – Low Fare Tariff / Scenario B – High Fare Tariff overleaf)

5. ENVIRONMENTAL IMPACTS

5. ENVIRONMENTAL IMPACTS

5.1 Environment

The timing was such that detailed fieldwork was not possible, and it was too early in the season to examine breeding bird populations or flowering plants. Information on natural history has been gleaned from conservation organisations and individuals, plus what was possible to survey during the site visits in March 2002.

The report is therefore presented on an “errors and omissions excepted” basis.

5.1.1 Fishing – Commercial

The main development for commercial fishing on Achill is at Darby’s Point on the south coast. Small-scale fishing operations exist elsewhere, such as lobster potting, with small boats and traditional craft operating from many little ports and piers, such as Dugort.

As on Achill, there are numerous small-scale operations from piers and bays all along the Mullet peninsula e.g. potting for lobster and other shellfish using small-motorised boats and traditional craft. The pier at Blacksod Point was well stacked with lobster/shellfish pots in March, and bait was pungently evident!

Such small-scale fishery operations are an important part of coastal communities, and people scattered over quite a wide area may use the ports/piers. Therefore, it is important that such activities are neither excluded nor hindered by the operations of a ferry service. For ferry services and fishing to co-exist there would need to be agreement about space allocation on the relevant piers for ferry traffic and fishing gear, vehicles, trailers and boats. There may also be a concern about the security of fishing gear – often left in the open – if and when there is an increase in tourist traffic.

5.1.2 Agriculture

At both Achill and the Mullet, agriculture is extensive rather than intensive, with both sheep and cattle evident. Grazing occurs right down to foreshore areas, and fencing is haphazard and often not stock-proof, therefore there is a need for vigilance by drivers.

Animals may be encountered on the roads.

The proposed ferry should benefit agriculture, with opportunities to move stock and equipment between two remote areas. It may be worth considering concessions for both fishing and agricultural communities in access to, and use of, the ferry.

5.1.3 Leisure and Recreation

Both Achill and the Mullet offer great opportunities for these activities, and a number of ventures are in operation. Examples are golf, shore and sea angling, sea trips (e.g. to view seals from Dugort), trips to islands, sub-aqua diving, angling in freshwaters, water sports (mainly sea-based), walking, bird watching, botany and visiting heritage sites.

The outdoors features strongly in all these activities, and numerous services have developed in support of such activities, such as boat hire, guides, diving centres, hostels, heritage centres, shops, restaurants and cafes, bed and breakfast establishments.

There is scattered and varied provision of information, from outdoor panels to leaflets and a few books. The proposed ferry terminals could provide opportunities to present information, especially by use of outdoor interpretive panels. Some information could also be provided on board ship, perhaps in the form of free leaflets and wall-mounted panels.

5.1.4 Terminals and Road Access

Blacksod Point Pier on the south tip of the Mullet and Dugort pier on north Achill. They provide the shortest and therefore most economically feasible route, and have some degree of shelter from west to southwest winds.

The roads servicing these sites are either secondary or lesser grade ways. They are in some harmony with the wild landscapes, and the temptation to widen or straighten should be resisted. The only road access construction required is widening close to the piers to enable some hard-standing for vehicles to queue.

5.1.5 Shore Areas

The north and northeast coast of Achill, are both hard and soft shores. There are Blue Flag designated beaches at Dugort and Barnynagappul strands, with rocky areas nearby. At the *Mullet*, long sandy beaches surrounded by low shorelines with rocky sections exist close to the R313 road, which links Blacksod Point with the town of Belmullet. Elly beach at Aghleam is Blue Flag designated.

Construction of vehicle waiting areas at the proposed terminals should not impinge on shorelines, nor should local sand or rock be removed. Coastal erosion studies in Ireland and elsewhere in the world often highlight the dangers of building projections into the sea, or extending existing ones, without a good knowledge of geomorphology, tides, current and sediment budgets. The extension of piers, for example, can interfere with sand and other sediment movements, often leading to loss of sediment to deeper water. Therefore it is recommended that only proposed pier extensions would require a more detailed survey of the inshore and offshore sediments and their movements.

Within the time allocated, no evidence of sensitive wildlife species or underwater archaeological sites were found at or very close to the proposed terminals.

There are no archaeological sites on land adjacent to the piers at Dugort and Blacksod Point. On Achill (north) there are clusters of sites and complexes north of Keel lough on approach to Dugort, and again around the area of Dooagh east of Dugort. Sites also occur around the lakes south of Ridge Point. The nearest site to Blacksod Point is below Knocknagrauve, on the coast south of the lighthouse.

5.1.6 General Landscapes

Both *Achill* and the *Mullet* comprise wild and beautiful landscapes, amongst the finest in western Ireland and equal to the best in Western Europe. There is evidence of un-planned or poorly planned development, mostly in scattered buildings of various design and quality.

These landscapes are best enjoyed on foot, by bicycle or from the sea. Thus a ferry route between north Achill and the Mullet could, in good weather, give travellers wonderful vistas.

Provided road traffic is not increased greatly by the operations of such a ferry, there would be little to no negative affect on the landscapes. Other proposals in the surrounding areas (Corrib Gas Field on-shore developments, sewage sludge treatment plant) and fish farming operations on the approaches to Achill (Bellacragher Bay) should have much greater impacts.

5.1.7 Flora and Fauna

The habitats in the general areas of the ferry terminals include rocky and sandy shores, machair (flower-rich maritime grasslands), lakes, freshwater and salt marshes and agricultural land. There is, as to be expected in a relatively unspoilt environment, a good variety of flowering plants, and birdlife of note (particularly on the Mullet peninsula) including breeding waders and waterfowl, and wintering waterfowl.

The proposals for ferry terminals should not affect the more sensitive areas. Dugort is the preferred terminal location on Achill as Lough Doo is served by small roads and has a range of wetland habitats that are best left undisturbed.

The Mullet peninsula, from just north of Blacksod settlement to just south of Belmullet town, is designated under EC legislation as a Special Area of Conservation (SAC), and a large panel at Elly beach at Aghleam interprets this designation. Geology, geomorphology, flora and fauna are all important within this SAC. Nearby lakes are extremely important bird habitats.

The main concern in terms of nature conservation would be the impact of greatly increased traffic in the environments of Achill and the Mullet, particularly within the Mullet SAC. Sustainable development can include walking, guided tours, nature trips, boat trips and such low-key, well planned activities, but car or coach based touring could damage these fragile areas.

Increased traffic brings temptations to widen roads, and encourages an increase in opportunistic trading and other developments. It also increases pollution, including litter.

The seabird breeding colonies of importance lie outside the proposed ferry route, on the Atlantic coast and offshore, from south of Achill north to beyond Erris Head.

5.1.8 Marine Life

Benthic (seabed) marine life is unlikely to be affected, unless dredging of channels was to take place. I have no information on seabed life for these areas.

Pelagic (near surface and surface) life can be influenced by ferry noise. Cetaceans (whales, dolphins and porpoises) are sensitive to underwater noise and vibration. However, the main (and important) cetacean zones appear to be the outer coastline and the waters of the oceanic shelf area. The Irish Whale and Dolphin Group¹ have made a submission in relation to cetaceans and the Corrib Gas Field.

It is not envisaged that the short ferry route proposed (N. Achill – Blacksod Point) would pose any problem in their regard.

Moreover, opportunities exist to raise awareness about cetaceans for passengers on a ferry. P&O Ferries have co-operated in this, so it is worth considering a small panel on board ship. Seabirds can also be viewed from ferries as they fly by or feed.

¹ Available from their website <http://iwdg.ucc.ie>

5.1.9 Noise and Pollution

The scale of this proposed operation is unlikely to provide a noise problem.

There should be no pollution, and it would be useful if litter was kept on board, and waste materials recycled or safely stored. There should be information posted at terminals about these matters, and a no-waste policy advertised on board. The opportunity to provide collection and removal of waste such as oil, netting, other fishery waste at terminal sites already exists.

6. POLICY

6. POLICY

6.1 Government Departments and State Agencies

The following consultations were made to elicit policy of the respective Government Departments that would effect / affect the operation of a ferry service linking Achill Island to Erris Peninsula.

Department of Tourism, Sport and Recreation (now Department of Arts, Sports and Tourism)

In terms of tourism policy and access infrastructure, the Department of Tourism, Sport and Recreation is concerned with access on a national scale and would not comment on local infrastructure.

However, it is within this Department's objectives that the regional spread of tourism benefits is enabled by the development of facilities, services and products, particularly in peripheral rural areas where such tourism infrastructure is lacking. The concept of a ferry service linking Achill Island with Erris Peninsula would, therefore, be supported.

Irish Coastguard, Department of the Marine and Natural Resources (now Department of the Marine)

The Irish Coastguard strongly recommends that passenger and crew numbers for every sailing would be supplied to them. This is considered essential information in the efficient and effective management of an emergency rescue mission.

The proposed ferry route is considered to cross dangerous waters, particularly in winter and during stormy conditions.

From a pollution and salvage point of view, the concern is with regard to the vessel itself - that it will comply with Irish regulations, and the volume of fuel that it carries – in the context of the pollution risk that it presents.

Department of Arts, Heritage, Gaeltacht and The Islands (now Community, Rural and Gaeltacht Affairs)

The main aim of this Department is to maintain the Irish language. It is policy to encourage schemes that improve infrastructure, attract industry, keep young people at home, and foster coláistí gaeilge.

The main focus of infrastructural development has been on the *Strategic Roads Initiative*. As part of a policy to provide one good road into each Gaeltacht area, roads between Mulranny and Achill, and between Belmullet and Blacksod have been upgraded. The work is funded by the Department of Arts, Culture, Gaeltacht & the Islands, contracted to the local authority in association with the National Roads Authority.

For island communities, the single most important issue, identified by the communities themselves, is safe and regular access to and from the mainland. The Department of Arts, Culture, Gaeltacht & the Islands have provided subsidies to ferry and air services to islands, and piers have been built to facilitate access. (70% of offshore islands are in Gaeltacht areas.)

Achill is not considered to be an island by this Department. However, Blacksod Pier, being in a Gaeltacht area, is designated as having national significance and will be significantly upgraded.

An initial view, without an in-depth assessment which would be necessary before a decision is taken, is that the Department would not consider giving a subsidy to a ferry link between Achill Island and Erris Peninsula, as such a service would not fulfil any criteria in the Department's strategic brief.

Comhdháil Oileáin na hÉireann

Achill is not a member of the Comhdháil as it is has a permanent link with the mainland. However, Inishbiggle, which is a member of Comhdháil Oileáin na hÉireann, has a serious problem with access, which is by currach only. The crossing to Bullsmouth on Achill Island is short, but considered to be among the roughest in Western Europe. The population on Inishbiggle is ageing, as families have to leave as soon as a child becomes of school age – there is no school on Inishbiggle.

It is a proposed option of this feasibility study to provide one daily service from Doogort to Inishbiggle. It is considered that a ferry service with reliable frequency generates demand, which may take a couple of years to be established. Most islands have a subsidised ferry service.

Department of Public Enterprise, Transport Planning Division (now Department of Transport)

This Department is in the process of finalising a consultancy study that will formulate policy on rural transport, due to be completed in September 2002 and is therefore unable to discuss future policy at this time.

The Department has no responsibility for ferries and would only be able to comment on land transport. Some bus services in rural areas operate in circumstances of market failure and are therefore subsidised. Bus Eireann provides 40 rural services that operate once per week, which is sufficient to meet the needs of the community. Though these services are not making money, the losses are small, and their operation is justified due to the social remit that Bus Eireann is charged with.

Department of the Environment and Local Government

Enquiries among a number of contacts in the Department of the Environment and Local Government concluded that they would have no input into policy matters where ferries are concerned.



Roinn na Mara agus Acmhainní Nádurtha

**Invitation to Tender
for the conduct of a
Feasibility study of the potential for a ferry service
linking Achill Island to the Erris Peninsula.**

January, 2002

Department of the Marine and Natural Resources
Leeson Lane
Dublin 2
Ireland

Tel: +353 1 6199371
Fax: +353 1 6199373
e-mail: maritime.transportdivision@marine.gov.ie

CONTENTS

- 1** Introduction
- 2** Scope of Consulting Services
- 3** Timetable and Reporting
- 4** Evaluation of Proposals
- 5** Fees and Conditions
- 6** Freedom of Information

Appendix A Extract from EU Council Directive 92/50/EEC

Appendix B Cover for Submission of Tender

1. Introduction

1.1 Invitation to tender

- 1.1.2 The Department of the Marine and Natural Resources requires a feasibility study of the potential for a ferry service linking Achill Island to the Erris Peninsula.

1.2 Other Information

In the interests of equity, all queries of substance will have to be raised in writing, the responses to which will be circulated to those who have indicated an interest in tendering for the assignment. Further information (except in relation to purely factual or procedural matters) should be sought from the secretariat in this way. Requests for individual meetings will not be entertained.

Appropriate queries should be addressed to the Maritime Transport Division, Department of the Marine and Natural Resources, Leeson Lane, Dublin 2, or sent by e-mail to: maritime.transportdivision@marine.gov.ie.

1.3 Financial Arrangements

Payment for all work associated with the assignment detailed by this invitation to tender will be on foot of appropriate invoices issued on completion of the consultancy report. Invoicing arrangements will be agreed with the successful tenderer following the award of contract.

1.4 **Scope of feasibility study**

The study will be confined to those matters set out in the Invitation to Tender and in this document.

1.5 **Other Aspects**

In addition to the specific requirements the study will also cover any other areas which the consultants appointed to carry out the study identify in their proposal and in the course of the assignment as requiring attention in order to meet the assignment's objectives.

2 Scope of the Consultancy Service

2.1 The consultants will be required to examine and report on the:

- 1) Potential demand, on a year round basis, for a ferry service linking Achill Island to the Erris Peninsula. A quantitative assessment should be made of the likely usage of a ferry service by (1) residents and (2) visitors. Indicate the optimum daily and yearly operating timetable for the service in terms of level and frequency of service.
- 2) Possible locations for landing points for a ferry service covering, inter alia, road access, environmental factors, construction and maintenance costs.
- 3) Potential environmental impact of a ferry service and the likely cost of maintaining the local marine, offshore and access routes environments.
- 4) Possible types of ship available to provide the service and their cost to purchase or lease.
- 5) Likely cost of maintaining and operating a ferry service and likely revenues - determine the tariff likely to be required to ensure the service is profitable.
- 6) Potential environmental and other benefits of not developing the ferry service.
- 7) Similarities and dissimilarities between the proposed ferry service and other island ferry services including those whose operation is being subsidised by the State, and ,
- 8) Any other matters relevant to the proposed ferry service, its establishment, operation and maintenance.

2.2 The consultants should consult interested parties and stakeholders including the Department of Arts, Heritage, Gaeltacht and the Islands, other relevant Government Departments, Udarás Na Gaeltachta, local authorities, island co-operatives, development companies, local community and business interests and Comhdháil Oileáin na hÉireann.

2.3 The consultants should complete their study by 15 March, 2002.

3. Timetable and Reporting

- 3.1 The deadline for receipt of written tenders is 1200 hrs on Friday, 25 January, 2002.
- 3.2 It is intended to complete the evaluation process and to award the commission within four weeks of the deadline for the receipt of tenders.
- 3.3 The study is expected to take not more than three months from inception. The consultants will be expected to report in at least two parts. An outline of progress will be required at mid term with the final report to be delivered at the end of the project.
- 3.4 Three copies of the tender proposal, clearly marked “Tender for the conduct of a feasibility study of the potential for a ferry service linking Achill island to the Erris Peninsula”, should arrive in a sealed envelope at the Maritime Transport Division, Department of the Marine and Natural Resources, Leeson Lane, Dublin 2, Ireland, not later than 12:00 hrs on Friday, 25 January, 2002.

4. Evaluation of Proposals

4.1 Consultants should ensure that their proposals are clear and succinct and are structured so as to allow the Department to evaluate them as described below.

4.2 Proposals will initially be evaluated on the basis of the consultant's proven competency. Proposals should, therefore, include sufficient information to permit the Department of the Marine and Natural Resources to evaluate the competency of the tenderer to meet all the requirements of the scope of the consultancy service. This information should include:

- The background and expertise of the proposed consultancy team.
- The track record of the consultant in carrying out work of a similar nature.
- The general approach the consultant proposes to take in carrying out the assignment.
- The consultant's understanding of the issues identified in these terms of reference.
- The personnel (with an outline of their expertise and experience) and resources to be devoted to the task;
- The name, address, telephone, e-mail and fax number of any third-parties involved in the tender, together with a description of role or element of contract to be fulfilled by any third-party;
- A statement from the tenderer that none of the excluding circumstances in Article 29 of Council Directive 92/50/EEC (Co-ordinating Procedures for the Award of Public Service Contracts) applies to him/her. The said circumstances are outlined at Appendix A.

4.3 A short-list will be made of consultants who have adequately demonstrated their competency. In preparing this short-list, the Department will pay particular attention to the following:

- Completeness of proposal;
- Stated ability to meet all the requirements of the Terms of Reference of the assignment;
- Evidence of tenderers' economic and financial standing supported by the most recent annual report and balance sheet;
- Experience in financial and strategic management;
- Reliability in meeting quality and performance standards;
- Ability to deliver within time scale;
- Price (all inclusive fee to be charged for each identified element of the assignment);
- Quality of customer support.

- 4.4 A short list of one or more consultants may be invited to attend for interview before a final decision is taken on appointing any consultant. Each consultant will be required to make a presentation (with a maximum duration of half an hour) based on the proposal and to answer any questions arising. The designated project manager and all personnel identified in the proposal may be required to attend the presentation.
- 4.5 Any registerable interest involving the consultant(s) or proposed associates and the Minister for the Marine and Natural Resources, members of the Government, members of the Oireachtas or employees of the Department of the Marine and Natural Resources or their relatives must be fully disclosed in the response to this request for proposals, or should be communicated to the Department of the Marine and Natural Resources immediately upon such information becoming known to the consultant(s) or proposed associates, in the event of this information only coming to their notice after the submission of a bid and prior to the award of the contract. The terms "registerable interest" and "relative" shall be interpreted as per section 2 of the Ethics in Public Office Act, 1995.
- 4.6 All proposals will be treated as confidential.
- 4.7 Any expenses incurred in making the proposal or attending for interview will be borne by the consultant making the proposal. The Department of the Marine and Natural Resources will not pay for any expenses incurred by consultants preparing their proposals.
- 4.8 The information supplied in response to this invitation to tender will be regarded as forming part of the contract between the Department of the Marine and Natural Resources and the successful tenderer.
- 4.9 The Department of the Marine and Natural Resources reserves the right to update or alter the information contained in this document at any time, but not later than 7 days before the closing date for the receipt of tenders. Participating tenderers will be so informed, should the need arise.
- 4.10 The Department of the Marine and Natural Resources reserves the right to request additional information of the tenderers after the closing date.

5. Fees and Conditions

- 5.1 It will be a condition for the award of this commission that the successful consultant be able to produce promptly a tax clearance certificate. This will have to be furnished to enable the commission to be confirmed.
- 5.2 Payment of fees on foot of this commission will be subject to withholding tax as laid down by the Revenue Commissioners.
- 5.3 The Department of the Marine and Natural Resources will not be bound to accept either the lowest or any tender offered.
- 5.4 For the purpose of this assignment the work of the consultants shall be deemed to have been carried out in Ireland and shall be governed by the laws of Ireland.
- 5.5 In the event that the assignment must be revised or abandoned, provisions will be made by the Department of the Marine and Natural Resources for the termination of the consultant's contract without liability for the full cost.

6. Freedom of Information

- 6.1 The Department undertakes to use its best endeavours to hold confidential any information provided to it by individuals or to others on a confidential basis, subject to the Department's obligations under law, including the Freedom of Information Act. If for any reason it is wished that information provided to the Department should not be disclosed because of its sensitive nature, then it is incumbent upon the person or body when supplying the information to make clear this wish and to specify the reasons for the information's sensitivity. The Department will consult with any individual or body so supplying sensitive information before making a decision on any Freedom of Information request received. **In the event that any information supplied is not identified as confidential, with supporting reasons, then it is likely to be released in response to an FOI request.**
- 6.2 **The Department of the Marine and Natural Resources requires that all information provided pursuant to this invitation to tender will be treated in strict confidence by Tenderers. Under no circumstances may information be disclosed to other parties without the express permission of the Department. The successful consultant may be required to sign a formal confidentiality/ non-disclosure agreement.**

Appendix A

Extract from Article 29, Paragraph 1 of EU Council Directive 92/50/EEC of 18th June 1992 co-ordinating procedures for the award of public service contracts:

Extract from Article 20, Paragraph 1 of EU Council Directive 93/36/EEC of 14th June, 1993 co-ordinating procedures for the award of public service contracts:

' Article 20/29

1. Any supplier may be excluded from participation in the contract who:
 - (a) is bankrupt or is being wound up, whose affairs are being administered by the court, who has entered into an arrangement with creditors, who has suspended business activities or who is in any analogous situation arising from a similar procedure under national laws and regulations;
 - (b) is the subject of proceedings for a declaration of bankruptcy, for an order for compulsory winding up or administration by the court or for an arrangement with creditors or of any other similar proceedings under national laws and regulations;
 - (c) has been convicted of an offence concerning his professional conduct by a judgement which has the force of *res judicata*;
 - (d) has been guilty of grave professional misconduct proven by any means which the contracting authorities can justify;
 - (e) has not fulfilled obligations relating to the payment of social security contributions in accordance with the legal provisions of the country in which he is established or with those of the country of the contracting authority;
 - (f) has not fulfilled obligations relating to the payment of taxes in accordance with the legal provisions of the country in which he is established or those of the country of the contracting authority;
 - (g) is guilty of serious misrepresentation in supplying the information required under this Chapter. '

Appendix B

**Submission of tender
for the conduct of a
feasibility study of the potential for a ferry
service linking Achill Island to the Erris Peninsula**

To

**Maritime Transport Division
Department of the Marine and Natural Resources
Leeson Lane
Dublin 2
Ireland**

Name of principal Tenderer	
Tender Price (all inclusive) Euro	
Date until which tender will be kept open	
Other use only	

This document should accompany three copies of the tender in a sealed envelope, marked **"Tender for the conduct of a feasibility study of the potential for a ferry service linking Achill Island to the Erris Peninsula"** and should be delivered to the above address not later than 12:00 hrs on Friday, 25 January, 2002.

*This Department will protect information received by us on an agreed understanding of confidentiality, consistent with the FOI Act. Such information will enjoy protection in the normal course under Section 26 of that Act. **No such information provided by you will be released by us under that Act against your wishes.***

On occasion, the independent Information Commissioner, or the courts may secure release of such information under that Act, but only on public interest grounds and following consultations with the provider of the information.

**APPENDIX B:
LIST OF CONSULTATIONS/
SUBMISSIONS**

Appendix B: List of Consultants

Kieron McCann, Shipping Policy, Department of the Marine and Natural Resources

Mr Ciarán Sheedy; Ms Margaret O’Gorman; Ms Mary Jackson, Department of Tourism, Sport and Recreation

Jeff Livingstone, Director; Eugent Clonna, Regional Controller – Pollution and Salvage, Irish Coastguard, Department of the Marine and Natural Resources

Mairéad O’Reilly, Comhdháil Oileáin na hÉireann

Bertie Ó’ hAinmhire, Principal Officer, Gaeltacht Division, Furbo, Co Galway, Department of Arts, Heritage, Gaeltacht and The Islands

Ed O’Callaghan, Assistant Principal, Transport Planning Division, Department of Public Enterprise

John Sweeney, Environmental Policy Division, Department of the Environment and Local Government

Pádraig McDermot, Asst. CEO, Mayo County Enterprise Board

John Coll, Director of Services, Mayo County Development Board

Declan Turnbull, Community and Development Officer, Mayo County Development Board

Brian Quinn, Mayo Naturally

Karen Grealis, Adrian Kilbane, Achill Tourism

Caoimhin O’Corcóráin, Údarás na Gaeltachta (Belmullet)

Éamonn Ó Bróithe, Department of Arts, Heritage, Gaeltacht & Islands (Achill Office)

Peter Hynes, Director of Services, Mayo County Council (Westport)

Billy Scott, The Strand Beach Hotel, Dugort, Achill

Hugh Carey – Department of Arts, Heritage, Gaeltacht & Islands, Dúchas Heritage Service

Marriane ten Cate, Corrib Conservation Centre

Dave Dendy, Pullathomas Independent Hostel, near Belmullet, Mayo

Mary Shelley, Blacksod Point

Aghleam Heritage Centre

Domnhann Tourism Cooperative, Belmullet

Achill Island tourist information, Achill Sound

Unidentified fishermen at Achill Island

Karin Dubsky, Coastwatch Europe in Dublin

Valerie Ingram, Office of Public Works

Denise Shelvin, GAA Belmullet

Máire Ruadhan, Comharchumann Forbatha Ionad Deirbhile Teo Éachléim

Gerry Gunning, Irish Farmer's Association

Josephine Geraghty, Sea Angling and Pontoon Development Committee Blacksod

Mikey Lavelle, Fisherman, Blacksod

John Gallagher, Chairman of Heritage Committee, Local Businessman, Erris

Vincent Sweeney, Lighthouse Keeper

Dr Patrick J Lineen

Achill Sound,
Co Mayo.

Feasibility Study for Achill/Erris Ferry.

3/4/2002

Dear Sir/Madam,

Thank you for your enquiry.

I am a General Practitioner in Achill Island, and work as a doctor on Achill, Innishbiggle, Currane, and Clare Island. My work involves travel by boat to the islands, and by road throughout the area described. Some of my patients are in the Ballycroy area, From this you can judge that I have a fair knowledge of the district.

In my opinion a car ferry as proposed would be a great asset to the western edge of Co Mayo, and a useful facility for Tourism in particular. I do not see any great use being made of it for provision of medical services, except to consultants doing clinics in Achill and Belmullet on occasions. The Psychiatric services from Castlebar currently do outpatient clinics in both areas, and because of distance must do them on different days..

Occasionally an ambulance stationed in Belmullet is used to service the Achill area. But I understand that an ambulance may be based in Achill in the foreseeable future.

Patients from the Achill area are occasionally sent to the District hospital in Belmullet for convalescence, or vice versa when patients from North Mayo may be accommodated temporarily in the Nursing Unit in Achill.

There is no ferry service except a currach to Innishbiggle. If a new ferry could be made available to the Island it would be of great use to the doctors who service it and to the people of the island. It would involve of course a considerable investment in a landing facility on the island.

Weather and the open Atlantic should also be considered in this type of project. The stretch of water in question is more exposed than any other ferry that I am aware of, with no protection for the West. It would undoubtedly add to "down time", and increase insurance costs.

All things considered, I fell that such a venture ,while it may be desirable, would be so expensive in capital outlay as well as high running costs, that it is not to be lightly undertaken. The potential returns in fees or charges even running at a fairly high capacity and high fares, is unlikely to be justifiable. The potential traffic is limited both in numbers of passengers and trade goods. The operating time is limited by wind and weather, and by season.

In my opinion the potential use to the health services is negligible in real terms.

I Remain,

Yours Truly,

Patrick J Lineen.

FEASIBILITY STUDY FOR A CAR FERRY SERVICE

between Achill Island and the Erris Peninsula.

Initially I would like to state that the Health Board would support the introduction of the ferry service from an economic and tourism point of view.

In examining the impact of such a service from a health perspective we consider the likely usage by Community Services staff would be minimal. Our services are structured in such a way that clients in the Erris area access services in that region and a similar situation would pertain in the Achill area. Because of this it is unlikely that clients/patients accessing services would be travelling in either direction.

There may be occasions when staff such as Occupational Therapists, Physiotherapists whose area could cover both Achill and Erris would use the ferry. This would depend on frequency of crossings and weather conditions.

If you wish to discuss the matter further please contact me at 094 42232 or 087 6797884.

Signed:

**E. Connolly,
Community Care Administrator.**

Sandra Kernan

From: Kelly, Eileen [Eileen.Kelly@who.ie]
Sent: 10 April 2002 10:14
To: 'kernan@ttc.ie'
Subject: Car Ferry from Achill Island to Erris

Dear Sandra,
Sorry for the delay in replying re the above. I just got the letter.
Mayo Community services Occupational Therapy Service operates in both these areas- Achill and the Erris area but different therapists cover both areas. Therefore the likely uptake of a car ferry service would be negligible in the course of our work.
On a personal level, I would feel that it would be a great tourist attraction especially in the Summer months. Visitors could do a round trip taking in some spectacular scenery en route.
regards,
Eileen Kelly,
Senior Community Occupational Therapist.

From: Mary Rowan [maryrowan@eircom.net]
Sent: 24 April 2002 22:57
To: kernan@ttc.ie
Subject: Blacksod/Achill Ferry

Comharchumann Forbartha Ionad Deirbhile Eachléim Fódh Dubh Béal an Átha, Co. Mhaigheo
097- 85790

Sandra,

Follow up of phone call today, suggestions are as to possible strengths:

Commissioners of Irish Lights, Interlink, D.H.L., James Deane Couriers and Henry Gaughan Coaches 097- 81176. McGraths Coaches with tours from Westport Hotels. Delivery services, Golfers travelling to Carne 18 Hole golflinks, Water Sports, Cycling and Walking groups, Writers and Painters. Diving Clubs, Sub Aqua - Club. Angling groups, Whale watchers or shark fishing enthusiasts.

Those wishing to visit the Inishskea Islands and Inishglora may connect with a chartered boat in Blacksod.

Day trippers. There are 3 Coláistí Gaeilge in the area with approx. 900 students who may take day trips to Achill or vice versa.

With National park coming on stream in Ballycroy a ring of Mayo may be achieved as the Regional road R313 comes all the to Blacksod Pier. The Geesala Festival each year brings in many spectators to the Horse and Dog races also the International Folk Festival and other festivals.

If I think of any other ideas I'll call you later.

Hope you will advertise the Gaeltacht College for us.

Go raibh míle maith agat.

Le dea ghuí,

Máire Uí Ruadhain

**APPENDIX C:
SHORT CROSSING COASTAL
AND ISLAND FERRIES IN
IRELAND AND SCOTLAND**

SHORT CROSSING COASTAL/ISLAND FERRIES IN THE WEST OF SCOTLAND Year 2000

Island / Coast	Route	Passage Time	Peak Daily Frequency	Car Rates (S/R)		Adult Pass. Rates / (S/R)		Multi - Journey Rates		Name	Vessel Built	Pax Cap	Car Cap
				(S/R)	(S/R)	Car	Pass	Car	No Trips				
Bute	Colintraive / Rhubodach	5 mins	Shuttle	£6.40 S	£0.95 S	£38.50	£8.50	10 Sgl	Loch Duivegan	1991	150	36	
Cumbræ	Largs / Cumbræ Slip	10 mins	Shuttle	£15.30 R	£3.50 R	£39.00	£10.60	5 Ret	Loch Alaiinn Loch Riddon	1997 1986	150 199	24 12	
Mull	Lochaline / Fishnish	15 mins	15 rt's	£9.40 S	£2.05 S	£34.00	£8.65	6 Sgl	Loch Linnhe	1986	199	12	
Raasay	Sconser / Raasay	15 mins	9 rt's	£9.10 S	£2.20 S	£66.00	£16.65	10 Sgl	Raasay	1976	64	6	
Cowal	Gourock / Dunoon	20 mins	18 rt's	£6.65 S	£2.65 S	£42.50	£18.00	10 Sgl	Juno , Jupiter & Saturn	1974	510	40	
Gigha	Taynlloan / Gigha	20 mins	9 rt's	£17.45 R	£4.60 R	£54.00	£16.25	5 Ret	Loch Ranza	1987	199	12	
Cowal & Kintyre	Tarbert / Portavadie	25 mins	12 rt's	£12.30 S	£2.60 S	£44.50	£10.80	6 Sgl	Isle of Cumbræ	1977	99	15	
Arran	Claonaig / Lochranza	30 mins	9 rt's	£17.60 S	£3.90 S	£64.00	£16.40	6 Sgl	Loch Tarbert	1992	149	18	
Skye	Mallaig / Armadale	30 mins	6 rt's	£15.25 S	£2.70 S	£56.00	£11.35	6 Sgl	Clansman	1998	634	100	
Bute	Wemyss Bay / Rothesay	35 mins	17 rt's	£12.75 S	£3.15 S	£80.00	£22.45	10 Sgl	Pioneer	1974	356	32	
Ardsnamurchan	Tobermory / Kilchoan	35 mins	7 rt's	£17.60 S	£3.30 S	£64.00	£13.80	6 Sgl	Loch Fyne	1997	250	24	
Mull	Oban / Craignure	45 mins	6 rt's	£23.95 S	£3.45 S	£88.00	£14.75	6 Sgl	Isle of Mull	1988	968	80	
Lismore	Oban / Lismore	50 mins	4 rt's	£20.50 S	£2.35 S	£74.00	£9.70	6 Sgl	Loch Bute	1992	250	10	
Arran	Adrossan / Brodick	55 mins	5 rt's	£24.50 S	£4.25 S	£96.00	£17.80	6 Sgl	Caledonian Isles	1993	1000	120	

Killimer / Tarbert Route

SHORT CROSSING COASTAL / ISLAND FERRIES IN IRELAND

1_ KILLIMER / TARBERT ROUTE

SHIPS : Shannon Breeze (Yr Round) & Shannon Dolphin (Summer only)

TECHNICAL DETAILS - Shannon Breeze

Building Yard : Appledore Shipyard , North Devon , England Delivered : June 2000
Flag : Irish NRT : 199 Service Speed : 12 Knots
Length : 80.78m [Mainhull 65.40m (MLD) , Length Load WL (64.66m)]
Beam : 15m Draft : 2.75m (Amidships) , 1.675m (Load Draft MLD) Dead Wt
Engine Power : 4 x 530 HP (440 Kw downrated to 395 Kw)

VESSEL CAPACITY

Shannon Breeze : Car Equiv. Units (CEU's) : 60 Passenger Cert. : 350
Shannon Dolphin : Car Equiv. Units (CEU's) : 52 Passenger Cert. : 350
 [Built 1995]

CREWING : Shannon Breeze

3 per shift [Skipper , Engineer , Ticket collector] 2 shifts : { (M) 7am - 2pm (E) 2pm - 8pm (o/p) 10pm (pk) }
 3 Crews A,B,C [2wks on , 1wk off] (Crew A : M , E , Off ; Crew B : E , Off , M ; Crew C : Off , M , E)
Off - Peak : 9 persons (3 x3) Peak : Max 15 persons (3 x crew of 5)
 { Crew of 3 : up to 150 pax ; 4 ; 150 - 250 pax ; 5 : over 250 pax }

: Shannon Dolphin

One Crew of 5 [with cover from 'Breeze']

Total Personnel = 20

OPERATION : Shannon Breeze

Off - Peak (Oct 1 - Mar 31) : Mon - Sat 7am - 8pm Sun 10am - 8pm
Peak (Apr 1 - Sept 30) : Mon - Sat 7am - 10pm Sun 9am - 10pm

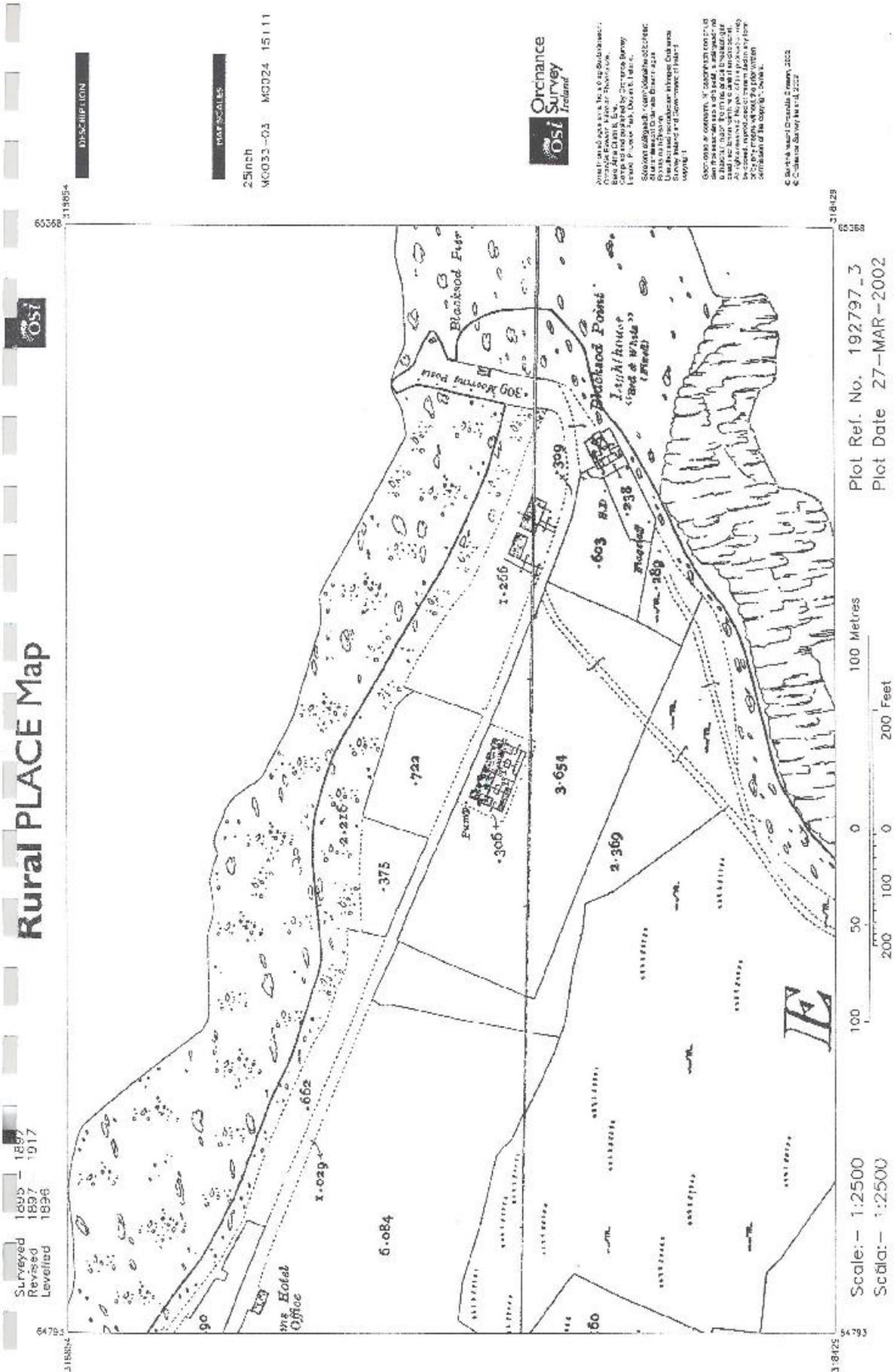
: Shannon Dolphin

Peak (June 1 - Sept 30) : Mon - Sun 10am - 6.30pm

FUEL

Type : Diesel Consumption : 100 gallons per hour [455 litres per hour]
Cost : 20p per litre [25 cents per litre]

**APPENDIX D:
TERMINAL SITES**



Rural PLACE Map

Surveyed 1895 - 1897
 Revised 1897 - 1917
 Levelled 1896

DESCRIPTION

MAP SCALES

2.5 inch
 MO033 - 03 MO024 15111



Ordnance Survey Ireland
 The Ordnance Survey is the national mapping agency for Great Britain and Ireland. It is a non-departmental public body, sponsored by the Department for Communities and Local Government. It was formed by the merger of the Ordnance Survey (which covers Great Britain) and the Ordnance Survey of Ireland (which covers Ireland). The Ordnance Survey is responsible for the production and distribution of maps and other geographical information. It also provides a range of services to the public, including the Ordnance Survey Name Book and the Ordnance Survey Grid.

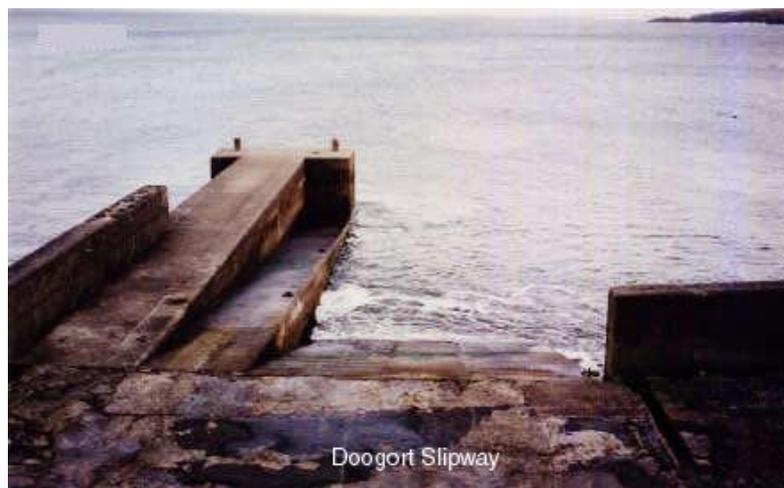
Plot Ref. No. 192797_3
 Plot Date 27-MAR-2002

Scale: - 1:2500
 Scotia: - 1:2500

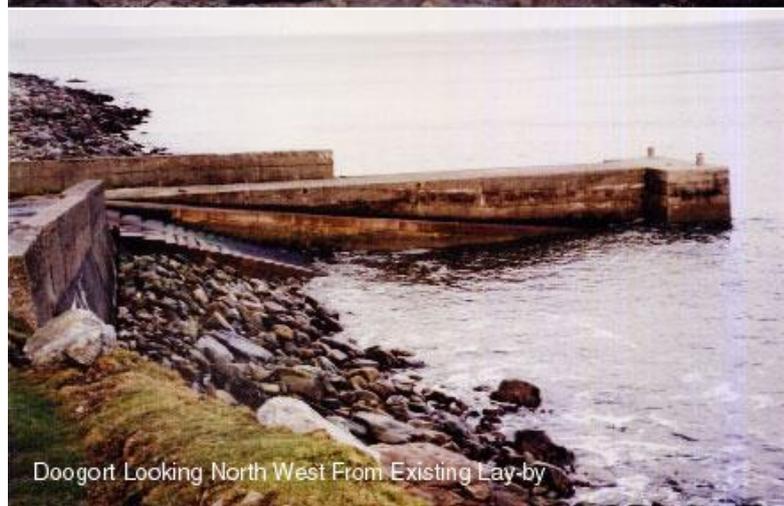
BLACKSOD



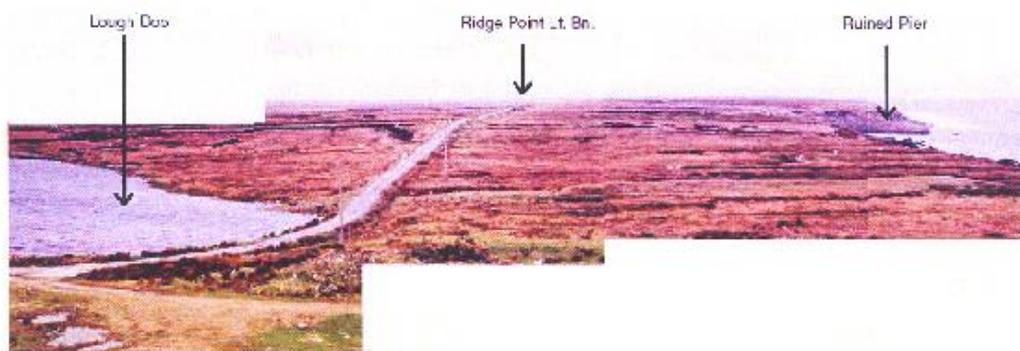
DOOGORT



Doogort Slipway



Doogort Looking North West From Existing Lay-by



**APPENDIX E:
FINANCIAL PROJECTIONS
AND ANALYSIS**

Annual Costs (Euros)				Costs	
	Total	Dep Yrs	Annual Dep	No Grant	Grant 75% operational
Capital Costs					
Terminal Costs	360,000	20	18,000	0	
Blacksod	795,000	20	39,750	0	
Ship: No grant	2,000,000	12.1212	165,000	253,000	63,250
Ship: 75% grant					
Running Costs					
Wages	Number	Wages	Total		
Skipper	3	30,000	90,000		
AB/Mechanical	3	25,000	75,000		
Ticket Collector	3	6,000	18,000	183,000	183,000
			183,000		
Fuel	Cost/Litre	Litre/hour	Days	Hours/day	Total
Summer	0.25	120	105	14	44,100
Winter	0.25	120	240	6	43,200
Lub Oil					5,000
					92,300
Insurance	Cap Cost	%	Total		
	2,000,000	0.02	40,000	40,000	40,000
Stores + Spares					10,000
Maintenance					20,000
Administration					65,000
Marketing					15,000
Tech Mgt.					30,000
Total Annual				708,300	518,550
					455,300

Final Report

Feasibility Study for Achill Island to Erris Peninsula Ferry Service

Appendix E: Revenue A

Tourism Car	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	% Return	Sing Rev	Ret Rev	Total Revenue
Car	0.95	16,910	0.75	0.25	12.00	10.00	152,190	42,275	194,465
Motorcycle	0.01	178	0.75	0.25	6.00	5.00	801	223	1,024
Foot+Bikes	0.04	712	1.00	0.00	2.50	0.00	1,780	0	1,780
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		26,580							276,119

Breakeven Analysis follows below

Tourism Car	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	3,610	0.75	0.25	12.00	10.00	32,490	9,025	41,515
Motorcycle	0.01	38	0.75	0.25	6.00	5.00	171	48	219
Foot+Bikes	0.04	152	1.00	0.00	2.50	0.00	380	0	380
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		12,580							120,964

Tourism Car	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	8,360	0.75	0.25	12.00	10.00	75,240	20,900	96,140
Motorcycle	0.01	88	0.75	0.25	6.00	5.00	396	110	506
Foot+Bikes	0.04	352	1.00	0.00	2.50	0.00	880	0	880
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		17,580							176,376

Tourism Transport Consult (TTC)
Marine Development Limited

May 2002

Feasibility Study for Achill Island to Erris Peninsula Ferry Service
Appendix E: Revenue A

Final Report

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	% Return	Sing Rev	Ret Rev	Total Revenue
Car	0.95	16,910	0.75	0.25	12.00	10.00	152,190	42,275	194,465
Motorcycle	0.01	178	0.75	0.25	6.00	5.00	801	223	1,024
Foot+Bikes	0.04	712	1.00	0.00	2.50	0.00	1,780	0	1,780
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		26,580							276,119

Breakeven Analysis follows below

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	3,610	0.75	0.25	12.00	10.00	32,490	9,025	41,515
Motorcycle	0.01	38	0.75	0.25	6.00	5.00	171	48	219
Foot+Bikes	0.04	152	1.00	0.00	2.50	0.00	380	0	380
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		12,580							120,964

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	8,360	0.75	0.25	12.00	10.00	75,240	20,900	96,140
Motorcycle	0.01	88	0.75	0.25	6.00	5.00	396	110	506
Foot+Bikes	0.04	352	1.00	0.00	2.50	0.00	880	0	880
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		17,580							176,376

Tourism Transport Consult (TTC)
 Marine Development Limited

May 2002

Final Report

Feasibility Study for Achill Island to Erris Peninsula Ferry Service

Appendix E: Revenue A

May 2002

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	27,360	0.75	0.25	12.00	10.00	246,240	68,400	314,640
Motorcycle	0.01	288	0.75	0.25	6.00	5.00	1,296	360	1,656
Foot+Bikes	0.04	1,152	1.00	0.00	2.50	0.00	2,880	0	2,880
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		37,580							398,026
Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	32,110	0.75	0.25	12.00	10.00	288,990	80,275	369,265
Motorcycle	0.01	338	0.75	0.25	6.00	5.00	1,521	423	1,944
Foot+Bikes	0.04	1,352	1.00	0.00	2.50	0.00	3,380	0	3,380
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		42,580							453,439
Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	36,860	0.75	0.25	12.00	10.00	331,740	92,150	423,890
Motorcycle	0.01	388	0.75	0.25	6.00	5.00	1,746	485	2,231
Foot+Bikes	0.04	1,552	1.00	0.00	2.50	0.00	3,880	0	3,880
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		47,580							508,851

Tourism Transport Consult (TTC)
Marine Development Limited

Final Report

May 2002

Feasibility Study for Achill Island to Erris Peninsula Ferry Service

Appendix E: Revenue A

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	41,610	0.75	0.25	12.00	10.00	374,490	104,025	478,515
Motorcycle	0.01	438	0.75	0.25	6.00	5.00	1,971	548	2,519
Foot+Bikes	0.04	1,752	1.00	0.00	2.50	0.00	4,380	0	4,380
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		52,580							564,264
Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	46,360	0.75	0.25	12.00	10.00	417,240	115,900	533,140
Motorcycle	0.01	488	0.75	0.25	6.00	5.00	2,196	610	2,806
Foot+Bikes	0.04	1,952	1.00	0.00	2.50	0.00	4,880	0	4,880
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		57,580							619,676

Tourism Transport Consult (TTC)
Marine Development Limited

Final Report

May 2002

Feasibility Study for Achill Island to Erris Peninsula Ferry Service

Appendix E: Revenue A

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	41,610	0.75	0.25	12.00	10.00	374,490	104,025	478,515
Motorcycle	0.01	438	0.75	0.25	6.00	5.00	1,971	548	2,519
Foot+Bikes	0.04	1,752	1.00	0.00	2.50	0.00	4,380	0	4,380
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		52,580							564,264
Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	46,360	0.75	0.25	12.00	10.00	417,240	115,900	533,140
Motorcycle	0.01	488	0.75	0.25	6.00	5.00	2,196	610	2,806
Foot+Bikes	0.04	1,952	1.00	0.00	2.50	0.00	4,880	0	4,880
Commercial	1.00	500	0.75	0.25	24.00	20.00	9,000	2,500	11,500
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	15.00	15.00	0	4,200	4,200
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0	1.00	15.00	15.00	0	6,300	6,300
Total		57,580							619,676

Tourism Transport Consult (TTC)
Marine Development Limited

Feasibility Study for Achill Island to Erris Peninsula Ferry Service
 Appendix E: Revenue B

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Return	Sing Rev	Ret Rev	Total Revenue
Car	0.95	16,910	0.75	0.25	15.00	12.50	190,238	52,844	243,081
Motorcycle	0.01	178	0.75	0.25	8.00	6.25	1,068	278	1,346
Foot+Bikes	0.04	712	1.00	0.00	2.50	0.00	1,780	0	1,780
Commercial	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	25.00	25.00	0	7,000	7,000
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	6,300	6,300
Total		26,580							330,732

Breakeven Analysis Follows Below.

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	3,610	0.75	0.25	15.00	12.50	40,613	11,281	51,894
Motorcycle	0.01	38	0.75	0.25	8.00	6.25	228	59	287
Foot+Bikes	0.04	152	1.00	0.00	2.50	0.00	380	0	380
Commercial	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	25.00	25.00	0	7,000	7,000
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	6,300	6,300
Total		12,580							137,086

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	8,360	0.75	0.25	15.00	12.50	94,050	26,125	120,175
Motorcycle	0.01	88	0.75	0.25	8.00	6.25	528	138	666
Foot+Bikes	0.04	352	1.00	0.00	2.50	0.00	880	0	880
Commercial	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	25.00	25.00	0	7,000	7,000
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	6,300	6,300
Total		17,580							206,246

Tourism Transport Consult (TTC)
 Marine Development Limited

May 2002

Feasibility Study for Achill Island to Erris Peninsula Ferry Service
 Appendix E: Revenue B

	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Tourism	0.95	27,360	0.75	0.25	15.00	12.50	307,800	85,500	393,300
Car	0.01	288	0.75	0.25	8.00	6.25	1,728	450	2,178
Motorcycle	0.04	1,152	1.00	0.00	2.50	0.00	2,880	0	2,880
Foot+Bikes	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Commercial	0.60	420	0.00	1.00	7.50	7.50	0	0	3,150
Local Car	0.4	280	0.00	1.00	25.00	25.00	0	0	7,000
Local Commercial									
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	0	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	0	6,300
Total		37,580							482,883
Tourism	0.95	32,110	0.75	0.25	15.00	12.50	361,238	100,344	461,581
Car	0.01	338	0.75	0.25	8.00	6.25	2,028	528	2,556
Motorcycle	0.04	1,352	1.00	0.00	2.50	0.00	3,380	0	3,380
Foot+Bikes	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Commercial	0.60	420	0.00	1.00	7.50	7.50	0	0	3,150
Local Car	0.4	280	0.00	1.00	25.00	25.00	0	0	7,000
Local Commercial									
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	0	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	0	6,300
Total		42,580							552,042
Tourism	0.95	36,860	0.75	0.25	15.00	12.50	414,675	115,188	529,863
Car	0.01	388	0.75	0.25	8.00	6.25	2,328	606	2,934
Motorcycle	0.04	1,552	1.00	0.00	2.50	0.00	3,880	0	3,880
Foot+Bikes	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Commercial	0.60	420	0.00	1.00	7.50	7.50	0	0	3,150
Local Car	0.4	280	0.00	1.00	25.00	25.00	0	0	7,000
Local Commercial									
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	0	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	0	6,300
Total		47,580							621,202

Final Report

Feasibility Study for Achill Island to Erris Peninsula Ferry Service
 Appendix E: Revenue B

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	41,610	0.75	0.25	15.00	12.50	468,113	130,031	598,144
Motorcycle	0.01	438	0.75	0.25	8.00	6.25	2,628	684	3,312
Foot+Bikes	0.04	1,752	1.00	0.00	2.50	0.00	4,380	0	4,380
Commercial	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	25.00	25.00	0	7,000	7,000
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	6,300	6,300
Total		52,580							690,361

Tourism	Prop of Tot	Crossings	Prop Sing	Prop Ret	Cost Sing	50% Ret	Sing Rev	Ret Rev	Total Revenue
Car	0.95	46,360	0.75	0.25	15.00	12.50	521,550	144,875	666,425
Motorcycle	0.01	488	0.75	0.25	8.00	6.25	2,928	763	3,691
Foot+Bikes	0.04	1,952	1.00	0.00	2.50	0.00	4,880	0	4,880
Commercial	1.00	500	0.75	0.25	30.00	25.00	11,250	3,125	14,375
Local Car	0.60	420	0.00	1.00	7.50	7.50	0	3,150	3,150
Local Commercial	0.4	280	0.00	1.00	25.00	25.00	0	7,000	7,000
Local Car Winter		7,160	0.00	1.00	7.50	7.50	0	53,700	53,700
Local Comm Winter		420	0.00	1.00	15.00	15.00	0	6,300	6,300
Total		57,580							759,521

Tourism Transport Consult (TTC)
 Marine Development Limited

May 2002

Annual Costs (Euros)		Costs	
		No grant	Grant 75% perational
Capital Costs			
Terminal Costs	Total		
Blacksod	360,000		
Doogort	795,000		
Ship: No grant	2,000,000	253,000	
Ship: 75% grant			63,250
	Dep Yrs		
	20		
	20		
	Annual Dep		
	18,000		
	39,750		
	165,000		
Running Costs			
Wages	Number	Wages	Total
Skipper	3	30,000	90,000
AB/Mechanical	3	25,000	75,000
Relief Crew	3	6000	18,000
			183,000
Fuel	Cost/Litre	Litre/hour	Days
Summer	0.25	120	105
Winter	0.25	120	240
Lub Oil			
			Hours/day
			14
			6
			Total
			44,100
			43,200
			5,000
			92,300
Insurance	Cap Cost	%	Total
	2,000,000	0.02	40,000
Stores + Spares			
Maintenance			10,000
Administration			20,000
Marketing			65,000
Tech Mgt.			15,000
			30,000
Total Annual			708,300
			518,550
			455,300