

INVESTIGATION  
OF FERRY SERVICE BETWEEN  
WHIDBEY & CAMANO ISLANDS

May, 1995



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# Island County Ferry Study

## TABLE OF CONTENTS

<b>I</b>	<b>EXECUTIVE SUMMARY.....</b>	<b>1</b>
<b>II</b>	<b>PURPOSE AND SCOPE .....</b>	<b>3</b>
<b>III</b>	<b>NEED SURVEY.....</b>	<b>4</b>
3.1	INTERVIEWS.....	4
3.1.1	Introduction .....	4
3.1.2	Island County Government .....	5
3.1.3	Other Government and Associated Organizations .....	7
3.1.3.1	The Economic Development Council.....	7
3.1.3.2	Island Transit .....	7
3.1.3.3	NAS Whidbey .....	8
3.1.3.4	The Nonmotorized Transportation Study.....	8
3.1.3.5	Miscellaneous.....	9
3.2	BUSINESSES, HOMEOWNERS ASSOCIATION, AND SMALL FREIGHT .....	9
3.2.1	Businesses.....	9
3.2.2	The Homeowners Association .....	9
3.2.3	Freight .....	10
3.3	TELEPHONE SURVEY .....	10
3.3.1	Overview of Survey Methodology .....	10
3.3.2	Questionnaire Design.....	11
3.3.3	Results .....	11
3.3.4	Analysis.....	14
3.4	NEWSPAPER SURVEY .....	15
3.4.1	Procedure.....	15
3.4.2	Results .....	16
3.4.3	Analysis.....	17
3.5	OPEN HOUSE FORUMS.....	18
3.6	CONCLUSIONS FROM THE NEEDS SURVEY .....	18

# Island County Ferry Study

<b>IV FERRY OPERATION .....</b>	<b>20</b>
4.1 ALTERNATIVES .....	20
4.2 VEHICLE VERSUS PASSENGER-ONLY SERVICE .....	20
4.3 TERMINAL SITES .....	20
4.4 TRAFFIC AND SCHEDULES .....	25
4.5 ADMINISTRATION .....	26
4.6 VESSELS .....	27
4.7 FACILITIES .....	28
4.7.1 Passenger Ferry Terminals .....	28
4.7.1.1 Whidbey Island .....	28
4.7.1.2 Camano Island .....	28
4.8 COSTS .....	31
<b>V CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>32</b>

**APPENDIX A.**

SURVEY FORMS AND NEWSPAPER ADVERTISEMENTS .....	33
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**APPENDIX B.**

TERMINAL FACILITIES .....	34
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**APPENDIX C.**

REFERENCES .....	35
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# Island County Ferry Study

## LIST OF TABLES

Table III-1	Interisland Travel by County Employees .....	6
Table III-2	Average Monthly Cost to Island County for Interisland Travel by County Employees .....	6
Table III-3	Raw Data from Telephone Survey of Whidbey & Camano Islands .....	11
Table III-4	Data From Telephone Survey on Fare Structure .....	15
Table III-5	Telephone and Newspaper Survey Comparison.....	17
Table IV-1	Washington State Ferries Traffic to Whidbey Island, 1994 .....	25

# Island County Ferry Study

## LIST OF FIGURES

Figure III-1	Results of Telephone Survey of Whidbey & Camano Islands.....	12
Figure III-2	Results of Telephone Survey of Whidbey Island Only .....	12
Figure III-3	Results of Telephone Survey of North Whidbey Island Only .....	13
Figure III-4	Results of Telephone Survey of South Whidbey Island Only .....	13
Figure III-5	Results of Telephone Survey of Camano Island Only .....	14
Figure III-6	Results of Newspaper Survey of Whidbey & Camano Islands.....	16
Figure III-7	Results of Newspaper Survey of Camano Island Only .....	16
Figure III-8	Results of Newspaper Survey of Whidbey Island Only .....	17
Figure IV-1	Whidbey Island/Camano Island Saratoga Passage .....	21
Figure IV-2	The Coupeville Wharf.....	22
Figure IV-3	Beaching Vehicle Ferry.....	23
Figure IV-4	Route Simulation Passenger Only Ferry Service Schedule Coupeville-Oak Harbor-Camano.....	26
Figure IV-5	International Catamaran 18M. WATERBUS.....	27
Figure IV-6	Potential Passenger Ferry Pier Madrona Beach, Camano Island.....	30

# Island County Ferry Study

## I EXECUTIVE SUMMARY

This study was performed to determine if there is a need for ferry service between Whidbey Island and Camano Island. The study was further tasked to characterize the ferry service, if it is determined that a service is needed.

Using The Island County Comprehensive Transportation Plan as the criteria for establishing the need for ferry service, five focus groups of inter-island transportation requirements were investigated in interviews that involved about 500 people, (nearly 1% of the County population). The investigations focused on each of the following subjects:

- the needs of County Government for efficiently conducting inter-island business.
- the perceptions of government support organizations (Port Commissioners, Economic Development Council, etc.) to the need for inter-island transportation.
- public preference based on a random telephone survey of 200 households, proportioned by area population.
- public preference based on write in comments in response to newspaper ads.
- public preference as developed in three Open House forums.

The results of these investigations were consistent and mutually supportive. It was established that between eight and twenty county employees travel from Coupeville to Camano Island each day (the variation is seasonal) losing three working hours per day and costing the County an average of \$27,000 per month in travel costs and lost time. Camano Island residents required to do business with the County seat also lose three hours in travel time between Camano Island and Coupeville, whereas a ferry trip will save at least one hour of this time.

Surprisingly, the random telephone interviews and the write in comments were in very close agreement as follows:

- 28-30% would not use any ferry service.
- 65-70% would use the ferry with about 50% preferring a vehicle ferry for mainland access from the middle of Whidbey Island.

While the need appears to be easily established, the means is not. Ferry transportation should be one leg of an intermodal system rather than an end in itself, and Camano Island is not, in most cases, the final destination of those responding. While there is strong interest from the northern end of Whidbey Island in a vehicle ferry to provide a connection to I-5, there is equally strong concern in most groups that the State roads and local access roads to the potential ferry pier sites on Camano Island cannot accommodate additional traffic, particularly during commuting hours. A vehicle ferry between Whidbey Island and Camano Island should therefore not be considered except as one link in a transportation corridor to I-5 from Whidbey Island. The infrastructure cost of a vehicle ferry system between Whidbey Island and Camano Island will be a relatively small part of the total cost of expanding the transportation corridor between central Whidbey Island and the I-5 corridor.

# Island County Ferry Study

The benefits of a Passenger-Only Ferry (POF), however, seem much more attractive. Island Transit indicated a strong commitment to support inter-island transportation by providing bus service from park and ride lots on both islands to passenger ferry docks. This would remove one of the major obstacles to placing ferry terminals on both sides. With this as a possible solution to the connecting transportation and parking problems, the remaining questions are terminal location, capital costs, and operational costs. The study identified the Coupeville Wharf as a logical terminal in Coupeville and the marina in Oak Harbor as another. On Camano Island there are no existing piers suitable for use, but the Yacht Club at Madrona Point has a suitable site for constructing a passenger-only ferry pier, provided that parking is restricted to a few possible spots.

Cost estimates were prepared for the modifications required to the Coupeville Wharf. The construction of a pier at Madrona Point and the modifications to the Coupeville Wharf came to approximately \$750,000. A simulated ferry service during County working hours was prepared and vessel capital and operating costs were prepared based on the simulated service and an average ridership of sixteen passengers per trip. The cost of a new ferry vessel to perform the service (purchased either by The County or by a private operator) would be approximately \$800,000. Conservative estimates for operating costs, matched with potential savings in travel costs indicate a daily saving to the County of approximately \$500 per day (\$11,000 per month) after subsidies to ferry operation.

Three factors favor passenger-only ferry service:

- **Cost Saving:** The potential monetary saving to the County in the transportation of County employees to Camano Island is significant, particularly with Federal matching funds available to assist in the capital programs.
- **Convenience:** The benefit to Island County residents is in convenience and conservation of time and resources.
- **Conformance:** Passenger-only service falls within and supports the goals and standards established in the Island County Transportation Plan.

The study therefore recommends that the County pursue the possibility of passenger-only ferry service between Whidbey Island and Camano Island in more detail.

# Island County Ferry Study

## II PURPOSE AND SCOPE

The purpose of this study was to:

1. Determine if there is a need for an inter-island ferry system between Whidbey and Camano Islands.
2. If there is a need, determine the type and level of services indicated.

The scope of the work performed was as follows:

- Interviews were conducted with potential County government users of the service to determine if a ferry system would benefit County government by expediting inter-island transportation for government business.
- Interviews were conducted with concerned government agencies and councils such as port commissioners, city council members, and transportation providers.
- Telephone interviews were conducted with 200 randomly chosen residents of Camano and Whidbey Islands to a prepared questionnaire that provided statistical data, to represent the County residents.
- A questionnaire, similar to that used for the telephone interviews, was published in both Whidbey Island newspapers as well as the Stanwood/Camano Island newspaper, and responses were received and evaluated.
- Open Houses were held in Langley, Oak Harbor, and on Camano Island. The results of the telephone and newspaper surveys were presented at these open house meetings and comments were solicited from the public.
- The results of the five surveys (County government, associated organizations, random telephone, newspaper, and open house) were evaluated individually and in combination.
- Possible routes and sites for ferry service were identified and evaluated both for operational possibilities, infrastructure requirements, and potential costs.
- A report was prepared to present the results to the Regional Planning Transportation Organization Policy Board, the Island County Planning Commission, and the Camano Community Council.

# Island County Ferry Study

## III NEED SURVEY

### 3.1 INTERVIEWS

Interviews were conducted by person to person contact, a random telephone poll, responses to newspaper ads, and open houses. In all, close to 500 people were either interviewed, volunteered comments, or responded to the written solicitations. There were very few frivolous or irrelevant comments and the interviewing team found both the public and private segments to be cooperative, forthcoming, and helpful.

#### 3.1.1 Introduction

The Island County Comprehensive Transportation Plan includes the following goals for standards and capacity within County transportation systems:

- Provide a safe, comfortable, and reliable transportation system.
- Reduce consumption of energy through an efficient and convenient transportation system.
- Keep travel time for people and goods as low as possible.
- Emphasize the movement of people and goods other than vehicles in order to obtain the most efficient use of transportation facilities.

The land use and transportation planning goals of the Plan include the following:

- Encourage compatibility between transportation facilities and surrounding development.
- Secure adequate land for needed transportation system improvements.

Also, under OBJECTIVES, PRINCIPLES AND STANDARDS, the Plan addresses Ferries specifically and states that Island County in cooperation and coordination with the Regional Transportation Planning Organization (RTPO) and the Port Districts should:

- a. Encourage the Puget Sound Regional Council to work with the state and local jurisdictions and agencies on the development of an around Puget Sound mass transportation policy and arterial plan for improved passenger-only ferry service.
- b. Initiate feasibility studies of additional access for waterborne transportation between Whidbey and Camano Island and other mainland destinations. (Enclosure added.)

Simply stated, the NEED Survey was a study to determine if a ferry system is consistent with the Transportation Plan. The requirement was measured in terms of the goals established in the Comprehensive Transportation Plan.

# Island County Ferry Study

## 3.1.2 Island County Government

The initial survey of government entities involved face to face and telephone conversations with various segments of Island County government. The purpose of these interviews was:

- to determine the perception of Island County Government as to the need for a ferry system between Whidbey and Camano Islands.
- to establish the level of need for Island County employees to travel this route and, from this information, to establish the potential cost benefit to the county in providing this service.
- to determine particular advantages and disadvantages of such service.

The results of the interviews of major County Departments were as follows:

- The County Public Works Department routinely sends one person per week to Camano Island. In the summer there is usually a period of two months during which a two person survey crew works on Camano Island each day.
- The Planning Department routinely has four employees traveling to Camano Island each day.
- The Health Department consistently sends approximately two nurses per day to Camano Island. Although there is a nurse at the Health Department Annex on Camano Island and she is a Camano Island resident, she has to travel to Whidbey Island two to three times per week for Women Infants and Children (WIC) responsibilities, to attend meetings, and to access medical records.
- The Sheriff's Department routinely sends one person to and from Camano Island once a week and makes two to three custodial trips (with prisoners) from Camano Island to Whidbey Island each weekend usually late at night. These custodial trips would have to be by a car ferry or by driving around to maintain security.
- • District Court in Oak Harbor holds court on Camano Island once a month. From three to six jurors come from Camano Island two to three times per month.
- • A County Commissioner usually makes a round trip to or from Camano Island about three times per week.
- • From the County Assessor's Department eight assessors commute daily to Camano Island during the summer, working ten hour days to make up for the three hours of travel time.



## ISLAND COUNTY PUBLIC WORKS

(206) 679-7331

Larry Kwarsick, Director  
Roy L. Allen, P.E., County Engineer  
Lewis J. Legat, P.E. Ass't. Co. Engr.

### MEMORANDUM

May 7, 1996

TO: Recipients of the (1995) *"Investigation of Ferry Service Between Whidbey and Camano Islands"* Study

FROM:  Mike Morton, RTPO Transportation Planner

SUBJECT: Revision of County Employee Travel Data Section (Page 6)

A recently completed review of annual travel costs incurred by the County for employees who travel to and from Coupeville Camano Island indicated that the information contained in Table III-1 and Table III-2 was in error. The ferry study (page 6) indicated that it cost the County \$324,162 in transportation expenses on an annual basis to provide services for Camano Island residents. The correct amount is \$159,679.

Attached is a revised page 6 containing the correct information. Please insert the revised page into your copy of the ferry study.

The statistical results of this survey are shown in Table III-1 below:

	Planning Dept.	Public Works Dept.	Health Dept.	Sheriff Dept.	Court	Commissioners	Assessor Dept.	TOTALS
Spring	8	34	26	30	1	16	6	121
Summer	8	34	26	30	1	16	52 <sup>1</sup>	167
Fall	8	34	26	30	1	16	7	122
Winter	8	34	26	30	1	16	74	122

Table III-1

Average Monthly Inter-Island travel by County Employees<sup>2</sup>

Using the information from Table III-1 and presuming the assumptions shown in Table III-2, we can estimate the average monthly cost to Island County Government. The results are shown in Table III-2 below:

Month	Monthly Number of Trips	Monthly Travel Mileage	Monthly Travel Time	Monthly Vehicle Expense	Monthly Cost of Travel Time	Monthly Cost/Month
March	121	15730	363	\$4,483.05	\$7,623.00	\$12,106.05
April	121	15730	363	\$4,483.05	\$7,623.00	\$12,106.05
May	121	15730	363	\$4,483.05	\$7,623.00	\$12,106.05
June	167	21060	501	\$6,002.10	\$10,521.00	\$16,523.10
July	167	21060	501	\$6,002.10	\$10,521.00	\$16,523.10
August	167	21060	501	\$6,002.10	\$10,521.00	\$16,523.10
September	122	15860	366	\$4,520.10	\$7,686.00	\$12,206.10
October	122	15860	366	\$4,520.10	\$7,686.00	\$12,206.10
November	122	15860	366	\$4,520.10	\$7,686.00	\$12,206.10
December	122	15860	366	\$4,520.10	\$7,686.00	\$12,206.10
January	122	15860	366	\$4,520.10	\$7,686.00	\$12,206.10
February	122	15860	366	\$4,520.10	\$7,686.00	\$12,206.10
<b>TOTAL/YEAR</b>	<b>1596</b>	<b>207480</b>	<b>4788</b>	<b>\$59,131.80</b>	<b>\$100,548.00</b>	<b>\$159,679.80</b>

e: Shaded area reflects summer carpool for assessors.

**Assumptions**

Average Hourly Pay & Benefits of Traveling Employees=	\$21.00
Average mileage per Round Trip=	130
Private Vehicle Cost per mile	\$0.285
Average Transit Time per Round Trip (hours)	3
Cost per Round Trip for 1 Person	\$100.05
Co. Vehicle Gas & Maint. is same as Reimbursing Operator of Private Vehicle	
Monthly Cost is based on 20 workdays (4 wks) per month for entire year	

Table III-2

Average Monthly Cost to Island County for Inter Island travel by County Employees

The significant conclusion from this interview process is that the cost to the County is approximately \$13,500 per month. The potential savings would, of course be offset by the cost of County support to the ferry system (ferry docks, parking, holding areas, operating subsidies if required etc.) and the cost of surface transportation on both ends, if the option chosen is a passenger-only ferry.

<sup>1</sup>Seven appraisers, 4 days/week for 6 weeks/ year. The other 48 weeks there is only 1/week.

<sup>2</sup> Revised 4/11/96 to reflect review of original data by RTPO and County Planning Department.

# Island County Ferry Study

The statistical results of this survey are shown in Table III-1 below:

	Planning Dept.	Public Works Dept.	Health Dept.	Sheriff Dept.	Court	Commissioners	Assessor Dept.	TOTALS
Spring	4	1	2	3/wk <sup>1</sup>	6-9/mth.	1	0	8+
Summer	4	3	2	3/wk	6-9/mth.	1	8	19+
Fall	4	3	2	3/wk	6-9/mth.	1	8	19+
Winter	4	1	2	3/wk	6-9/mth.	1	0	8+

Table III-1  
Inter-Island travel by County Employees

Using the information from Table III-1 and presuming the assumptions shown in Table III-2, we can estimate the average monthly cost to Island County Government. The results are shown in Table III-2 below:

Month	Daily No. of Employees	Travel		Cost/Day	Cost/Mo
		Mileage	Time		
March	8	1040	24	\$800.40	\$16,008.00
April	8	1040	24	\$800.40	\$16,008.00
May	8	1040	24	\$800.40	\$16,008.00
June	18	2340	54	\$1,800.90	\$36,018.00
July	20	2600	60	\$2,001.00	\$40,020.00
August	20	2600	60	\$2,001.00	\$40,020.00
September	19	2470	57	\$1,900.95	\$38,019.00
October	19	2470	57	\$1,900.95	\$38,019.00
November	18	2340	54	\$1,800.90	\$36,018.00
December	8	1040	24	\$800.40	\$16,008.00
January	8	1040	24	\$800.40	\$16,008.00
February	8	1040	24	\$800.40	\$16,008.00
<b>TOTAL/Year</b>	<b>162</b>	<b>21060</b>	<b>486</b>		<b>\$324,162.00</b>
<b>Average Daily Cost</b>				<b>\$1,350.68</b>	
<b>Average Monthly Cost</b>					<b>\$27,013.50</b>
<b>Assumptions</b>					
Average Hourly Pay & Benefits of Traveling Employee =					\$21.00
Average Mileage per Round Trip =					130
Private Vehicle Cost per Mile (in Cents) =					28.5
Average Transit Time per Round Trip (hours) =					3
Cost per Round Trip for 1 person =					\$100.05
Co. Vehicle Gas & Maint. is same as Reimbursing Operator of Private Vehicle					
Monthly Cost is based on 20 workdays (4 wks) per month for the entire year					

Daily	
Vehicle Expenses	Personnel Time
\$296.40	\$504.00
\$296.40	\$504.00
\$296.40	\$504.00
\$666.90	\$1,134.00
\$741.00	\$1,260.00
\$741.00	\$1,260.00
\$703.95	\$1,197.00
\$703.95	\$1,197.00
\$666.90	\$1,134.00
\$296.40	\$504.00
\$296.40	\$504.00
\$296.40	\$504.00

REVISED MAY 1996

Table III-2  
Average monthly cost to Island County for  
Inter-Island travel by County Employees

The significant conclusion from this interview process is that the cost to the County is approximately \$27,000 per month. The potential saving would, of course, be offset by the cost of County support to the ferry system (ferry docks, parking or holding areas, operating

<sup>1</sup>Often in the middle of the night for 2 of the 3, when a ferry wouldn't help.

# Island County Ferry Study

subsidies if required, etc.) and the cost of surface transportation on both ends, if the option chosen is a passenger-only ferry.

### 3.1.3 Other Government and Associated Organizations

Approximately twenty-five people in public organizations or organizations with public support were interviewed in this process. Comments expressed in this section represent the views expressed by the interviewees. Interviews with some specific public groups produced the following:

#### 3.1.3.1 The Economic Development Council

The general consensus obtained from the Economic Development Council is that a Passenger-only ferry would be preferred by Camano Island residents and that Whidbey Island residents would prefer a vehicle ferry<sup>2</sup>. From the Economic Development Point of View any ferry would be desirable. Some significant points made were:

- A vehicle ferry would be the more economically viable alternative access to the I-5 corridor. The connection to the Keystone ferry would be especially popular with the Island's tourism industry. There is a big demand for a vehicle ferry.
- The impact of a vehicle ferry on Camano Island could be mitigated by limiting the ferry size and times of ferry runs. A small vehicle (20-30 automobiles) ferry would add to Camano Island's traffic minimally because Camano has so many Boeing and King County employees who make up the majority of highway travelers during commuting hours.
- In order to have a ferry to Camano Island the County would have to add roads and find a place on Camano's West coast to put in a ferry relief road. An arrangement that routes traffic away from developed areas like the approaches to the Edmonds ferry dock has been suggested.
- Island Transit should be the operator and financier of the ferry operation. Island Transit earns revenue from state and federal funds as well as sales taxes (approximately .2 of 1%).

#### 3.1.3.2 Island Transit

- The Demonstration Bus System was well received on Camano Island and the supporting sales tax was passed by ballot on 16 May by a significant margin. This guarantees continuing bus service on Camano Island and the possibility of interconnecting service with ferry service.
- On Whidbey Island, Route 1 serves each major community northbound from Clinton to Deception Pass once an hour northbound and once an hour southbound in the daylight hours. In the mornings and evenings the Clinton ferry is served approximately on the half hour. Coupeville maintains a park and ride lot. Route 2 serves Oak Harbor/Skagit Valley College/NAS Whidbey (approx. once per hour). Route 4A and B serve Oak Harbor and Deception Pass (approx. once per hour).

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<sup>2</sup> See Sections III 3.3.4, 3.4.3, and 3.5 for the results of surveys on this subject.

The statistical results of this survey are shown in Table III-1 below:

	Planning Dept.	Public Works Dept.	Health Dept.	Sheriff Dept.	Court	Commissioners	Assessor Dept.	TOTALS
Spring	8	34	26.	30	1.	16	6	121
Summer	8.	34	26.	30	1	16	52 <sup>1</sup>	167
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e: Shaded area reflects summer carpool for assessors.

**Assumptions**

Average Hourly Pay & Benefits of Traveling Employees= \$21.00  
Average mileage per Round Trip= 130  
Private Vehicle Cost per mile \$0.285  
Average Transit Time per Round Trip (hours) 3  
Cost per Round Trip for 1 Person \$100.05  
Co. Vehicle Gas & Maint. is same as Reimbursing Operator of Private Vehicle  
Monthly Cost is based on 20 workdays (4 wks) per month for entire year

Table III-2

Average Monthly Cost to Island County for Inter Island travel by County Employees

The significant conclusion from this interview process is that the cost to the County is approximately \$13,500 per month. The potential savings would, of course be offset by the cost of County support to the ferry system (ferry docks, parking, holding areas, operating subsidies if required etc.) and the cost of surface transportation on both ends, if the option chosen is a passenger-only ferry.

<sup>1</sup>Seven appraisers, 4 days/week for 6 weeks/ year. The other 48 weeks there is only 1/week.

<sup>2</sup> Revised 4/11/96 to reflect review of original data by RTPO and County Planning Department.

# Island County Ferry Study

Routes 2 and 4 combined serve the Flintstone Freeway transfer point approximately 2x every hour. This point links Routes 2 and 5 to Route 1 N and S.

- As a public transportation (no-fare) system Island Transit cannot carry small freight and would not be able to support any freight system, including a ferry, in its existing form.
- It is significant to this study that Island Transit supports the concept of passenger-only ferry service and, given the opportunity, will arrange bus schedules to bring people to and from each end of the service.

### 3.1.3.3 NAS Whidbey

- NAS Whidbey, as the largest employer on the island, will be directly impacted by any ferry service and particularly if Oak Harbor is a terminus.
- They expect to expand in the future, owing to base closures elsewhere. This will involve both military and civilian personnel.
- Many military families with professional spouses prefer to live on the mainland because of the paucity of professional jobs on the island.
- There are people who live in the Oak Harbor area and work in Everett (Boeing, Everett Homeport, etc.)
- A ferry coming into Oak Harbor would facilitate mainland living for NAS Whidbey employees and Whidbey Island living for those employed on the mainland. The Oak Harbor City Engineer reports that there are 600-700 people who live in Mt. Vernon and work in Oak Harbor. Of approximately 2,000 civilians and 8,100 military personnel working or stationed at NAS Whidbey (Oak Harbor), approximately 170 list addresses on the mainland with the majority being in the Everett-Marysville-Stanwood area (64), and the Lynnwood -Mukilteo area (28), while forty-four live on the Kitsap Peninsula and would not use a Camano Island ferry. The survey indicated that eighty to ninety percent of residents who live in Coupeville or to the North currently drive around to get to I-5 rather than take the existing Clinton-Mukilteo Ferry.

### 3.1.3.4 The Nonmotorized Transportation Study

The Nonmotorized Trails Plan addresses several issues connected with urban growth and the consequent impairment of non-motorized transportation. The Plan's goals include identifying existing trails, identifying future needs, particularly for facilities, and defining an implementation program. While encouraging non motorized transportation the county is interested in mitigating and managing population growth. A passenger-only ferry with bicycle accommodations would further this effort by providing public access to the non-motorized trail from Camano Island without introducing motorized vehicles. This would encourage both the use and protection of Island County resources and thus there appears to be a degree of synergism between the nonmotorized trails plan and a potential passenger ferry system.

# Island County Ferry Study

## 3.1.3.5 Miscellaneous

In the interviews with individuals and organizations associated with County government, the following comments were of particular interest:

- The port commissioners contacted were strongly supportive of passenger-only ferry service between Whidbey and Camano Islands, as a means of reducing the overload on the two exits from Whidbey Island while not exacerbating the existing traffic conditions on Camano Island.
- Oak Harbor is also interested in a ferry system as an alternative to a bridge which might be preferred by developers and the tourism industry. The Oak Harbor engineer expressed concern about traffic problems in downtown Oak Harbor being exacerbated by a vehicle ferry unloading in downtown Oak Harbor.
- The City of Stanwood is reconstructing 102nd Ave. NW with Intermodal Surface Transportation Efficiency Act (ISTEA) funding. This effort is focused roadway improvements but does not include widening State Road 532.

## 3.2 BUSINESSES, HOMEOWNERS ASSOCIATION, AND SMALL FREIGHT

We define this group of interviewees as those people who own and run businesses or who will be affected, either positively or negatively by ferry service. Both Whidbey and Camano Islands are growing without an inter-island ferry. Both islands have congested commuter traffic, though according to the Transportation Plan, the problem is more acute on Camano Island than on Whidbey Island.

### 3.2.1 Businesses

While traveling on Camano and Whidbey Islands informal interviews were held with several businesses and all expressed concerns about congestion while conceding that additional traffic would mean additional business for all of them. Reactions from small businesses were predictable and consistent. There were no surprises in these interviews.

### 3.2.2 The Homeowners Association

The president of the Camano Island Homeowners Association expressed the opinion that Camano Island residents are in "desperate need" of a passenger ferry, but that she is vigorously opposed to a vehicle ferry because Camano Island would become bogged down with traffic from people using it as a short cut to I-5.

The Demonstration Bus System has been well received and will hopefully continue. If passenger-only ferry service is implemented, the bus system will be necessary to avoid parking congestion.

Coupeville is the county seat and it would be a great convenience for residents to have access to the hospital, government and occasional shopping. She believes that two round trips per day would be sufficient. She is opposed to a ferry to Oak Harbor.

Supporting input was obtained during the open house on Camano Island. See Section 3.5.

# Island County Ferry Study

## 3.2.3 Freight

Two private express mail/parcel delivery services and a household goods shipper which also handles smaller shipments were interviewed. Each of these mainland businesses was established several years ago to provide service to both islands without a ferry between Camano and Whidbey Islands. Each of the mail and parcel delivery services have distribution systems based on the existing transportation systems and the household goods shipper rarely sends non-household goods shipments to either island. All of these businesses indicated that neither a passenger-only ferry nor a vehicle ferry to Camano Island would have a great impact on their businesses. They are currently using Deception Pass and the Mukilteo/Clinton Ferry to get to Whidbey Island. It is likely that the use of the ferry for routine package delivery would evolve only after reliability of service was proven.

## 3.3 TELEPHONE SURVEY

### 3.3.1 Overview of Survey Methodology

The assigned task was to randomly survey 200 people on the Islands of Camano and Whidbey. Telephone numbers were selected from the phonebooks of; Stanwood & Camano Island, 1994-1995, South Whidbey Island, July 1994, and Coupeville-Oak Harbor, 1993-1994. In order to survey the appropriate numbers from each region the approximated totals from each book were added together for an estimated phonebook population. Coupeville - Oak Harbor (North Whidbey Island), 18,533.49, South Whidbey Island 10,526.8, and Camano Island<sup>3</sup>, 4771.875. The grand total was 33,852.165.

The percentages of the population for each of the three areas came to; North Whidbey Island, 55%, South Whidbey Island, 31%, and Camano Island, 14%.

In order to divide the 200 surveys up evenly among the 3 regions we multiplied each percentage by 200 to reach the proper total. One hundred-ten residents from North Whidbey Island, sixty-two residents from South Whidbey Island, and twenty-eight residents on Camano Island were surveyed. This worked out to be approximately every 170th listing in each phonebook.

If the 170th listing was disconnected or if no one answered when called once in the morning and after a second time in the evening after 5:00 PM, the 169th listing was called. If no one was contacted following the same procedure, the 171st listing was called. We continued bracketing in each direction until someone was available by phone. One percent of those called chose not to participate. This response is valid and important to the survey and was interpreted as the resident having no opinion on the subject and would not use the service.

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<sup>3</sup>To arrive at the estimated number of Camano residents from the Stanwood and Camano Island phone book, only the residents of Camano Island were counted.

# Island County Ferry Study

### 3.3.2 Questionnaire Design

The survey was designed to determine the level of interest and need in a potential ferry service between Whidbey and Camano Islands. The first questions were geared towards assessing the travel mode and frequency of residents leaving each island. The line of questioning then led to establishing need and purpose for traveling across the water to either Whidbey or Camano Island. The final questions addressed the type of ferry required, potential use of service, amount willing to pay for passage, and any final issues or concerns they would like to express regarding the subject of a potential ferry service.

Samples of the telephone interview forms are contained in Appendix A.

### 3.3.3 Results

For presentation and analysis, the data has been arranged to represent South Whidbey Island, North Whidbey Island and Camano Island independently, each island as a whole, and the average of both islands. The results of the raw data from the telephone survey are summarized in Table III-3 below.

	Camano	N. Whidbey	S. Whidbey	All Whidbey	Camano & Whidbey
Need to carry Freight	1	0	2	2	3
Would not use the Service	8	9	26	35	43
Would use Passenger Ferry Only	3	1	4	5	8
Would use Vehicle Ferry Only	9	62	40	102	111
Would use Both POF & Veh. Frrs	6	9	6	15	21
Would use Ferry	18	72	50	122	140

Table III-3  
Raw Data from Telephone Survey of  
Whidbey & Camano Islands

This data presented graphically and split by island and by area of island in Figures III-1 through III-5.

# Island County Ferry Study

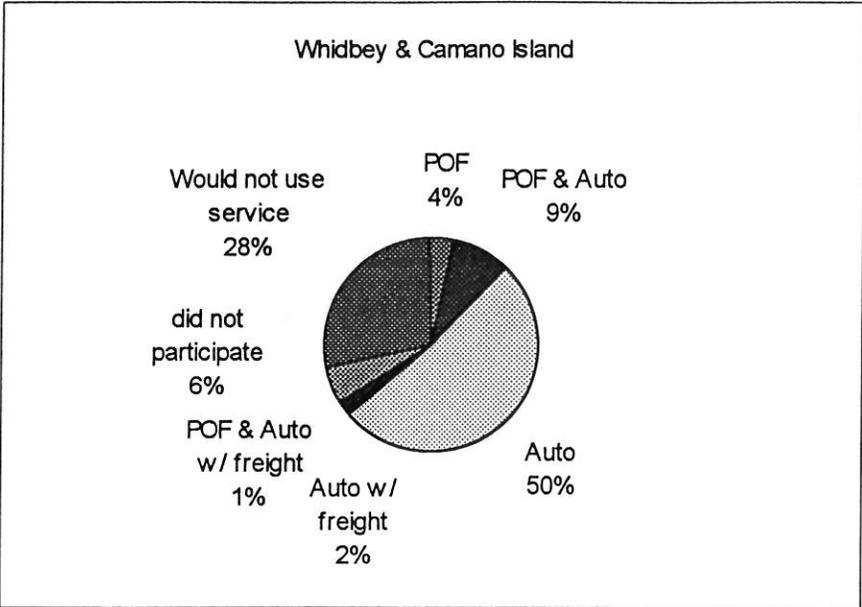


Figure III-1  
Results of Telephone Survey of  
Whidbey & Camano Islands

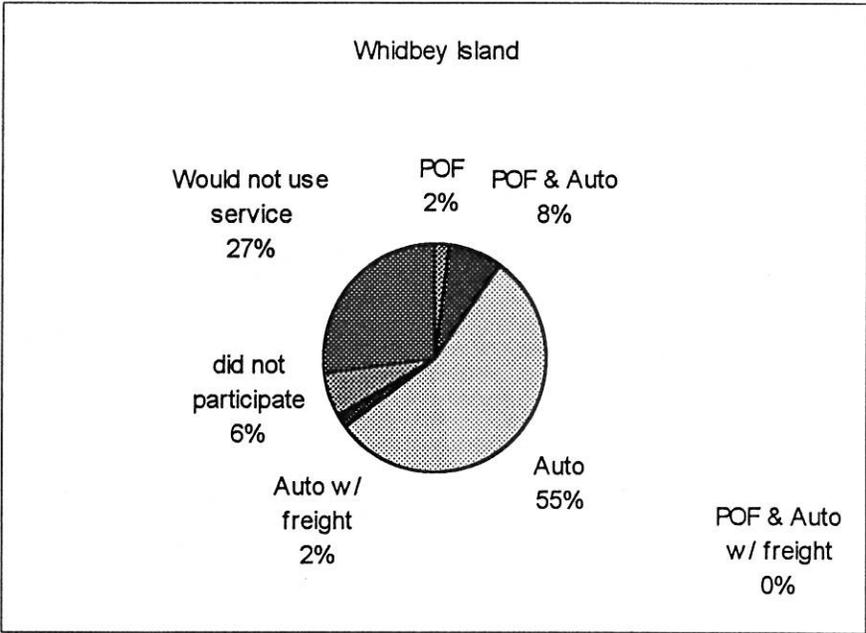
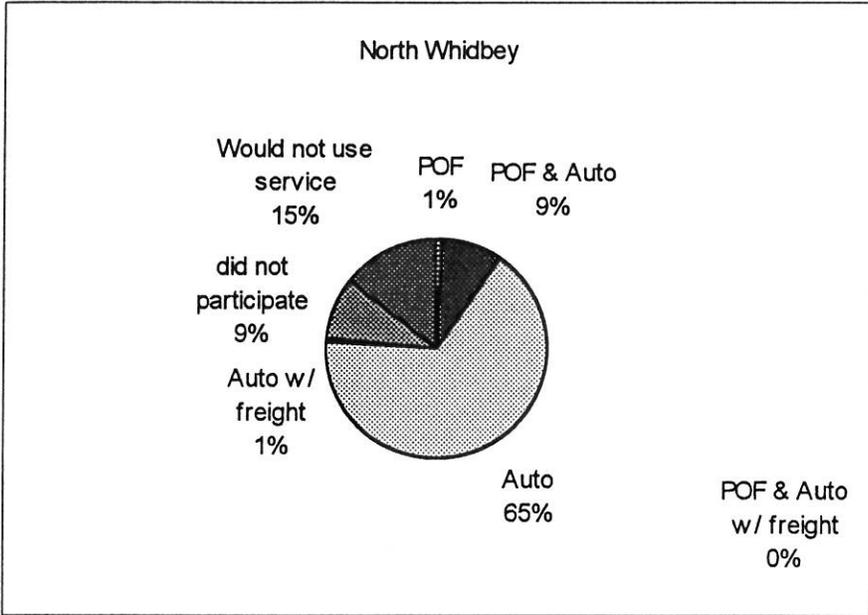
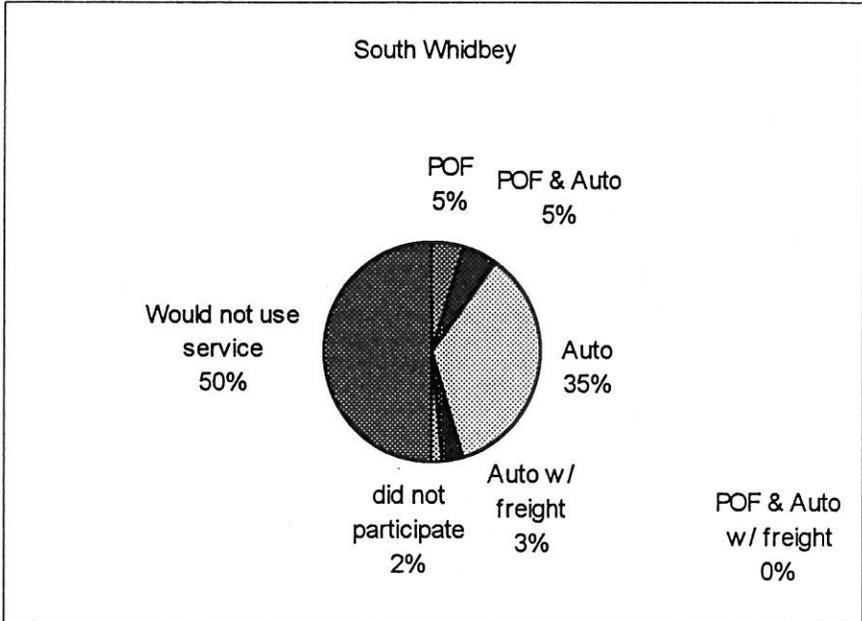


Figure III-2  
Results of Telephone Survey of  
Whidbey Island Only

# Island County Ferry Study



**Figure III-3**  
Results of Telephone Survey of  
North Whidbey Island Only



**Figure III-4**  
Results of Telephone Survey of  
South Whidbey Island Only

# Island County Ferry Study

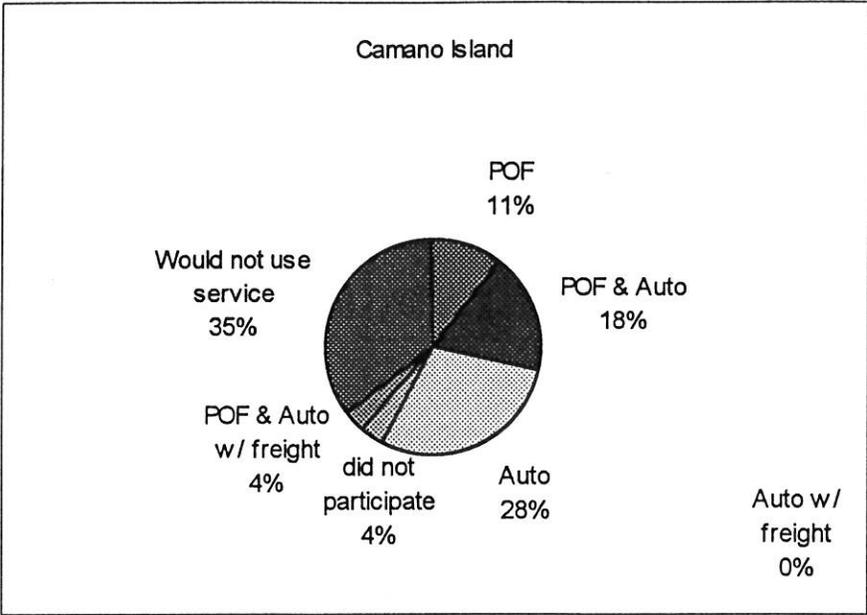


Figure III-5  
Results of Telephone Survey of  
Camano Island Only

### 3.3.4 Analysis

**All Respondents:** This survey is a random sampling of 0.3% of the population. What provides validity, however, is the remarkable consistency with the results of both the write-in and open house comments received later. The survey certainly provides trends and significant indications of public preferences and concerns.

The random telephone survey indicates that overall, more than two thirds of Island County residents want ferry service to the mainland<sup>4</sup> from the middle of Whidbey Island and most of those prefer a vehicle ferry. Camano Island residents lean more toward passenger-only service and South Whidbey Island residents are evenly divided on wanting any additional ferry service.

The design of the questionnaire<sup>5</sup> is such that question 13 regarding the most useful form of ferry (Auto or Passenger) led many people to opt for an auto ferry as the more inclusive type of service. However in response to questions 19 (Section 1) and 2 (Section 2), many people indicated that with good connecting service at both ends, passenger service would be acceptable in order to reduce traffic and environmental impacts. This was particularly true in the responses from Camano Island and North Whidbey Island. This has been interpreted to indicate a much stronger interest in the passenger only service than is reflected in the percentage of people who chose passenger only service as their first preference.

<sup>4</sup> While the question relates to Camano Island, the responses indicate that most respondents see Camano Island as the interim destination, but the I-5 corridor as the main purpose of the ferry.

<sup>5</sup>See Appendix A

# Island County Ferry Study

**Whidbey Island:** As a group South Whidbey Island residents had the highest percentage of respondents that were opposed to a ferry. This is most likely because they are the least likely to benefit considering that they already have convenient access to the Clinton - Mukilteo ferry. North Whidbey Island residents responded most favorably to a vehicle ferry. Seventy-five percent, of North Whidbey Island residents wanted a ferry, sixty-five percent wanted an auto ferry, nine percent wanted a passenger-only ferry or auto ferry and only one percent wanted only a passenger-only ferry.

**Camano Island:** Camano Island residents were evenly divided between those in opposition to any type of ferry service (35% of respondents) and those wanting some form of additional ferry service. A smaller percentage of Camano Island residents wanted a vehicle ferry, than respondents from Whidbey Island.

**Fare Structure:** To provide a frame of reference for economic analysis, respondents were asked if they thought that they should pay more, less, or the same as travelers on Washington State Ferries (WSF) between Mukilteo and Clinton. The results, provided in Table III-4, indicate that WSF fares represent an acceptable average for cost estimating purposes.

Ferry Type	Willingness to pay compared to WSF fares		
	Same	Less	More
Passenger	80.4%	14.0%	5.6%
Auto	76.9%	13.4%	9.7%

Table III-4  
Data from Telephone Survey on  
Fare Structure

## 3.4 NEWSPAPER SURVEY

### 3.4.1 Procedure

The survey forms were published concurrently with the announcement for the open houses in South Whidbey Record, Whidbey News Times and the Stanwood-Camano News.

This newspaper survey was designed to solicit additional public input from Island County residents who were not part of the telephone survey and who were interested in providing information on whether or not they would use a potential ferry system. The type of information gathered was very similar to the telephone survey including whether or not a ferry if implemented would be used, how often residents would use it and acceptable fares (see Appendix 1). In total 175 responses were received of which 102 were from Camano Island and the remainder from Whidbey Island.

# Island County Ferry Study

## 3.4.2 Results

The results of the Newspaper surveys are shown in Figures III-6 through III-8:

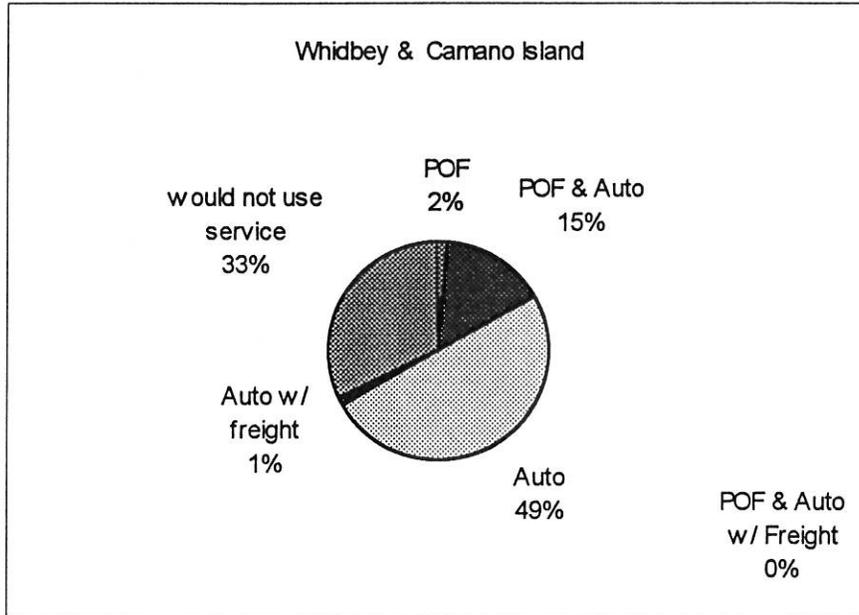


Figure III-6  
Results of Newspaper Survey of  
Whidbey & Camano Islands  
(175 recorded responses)

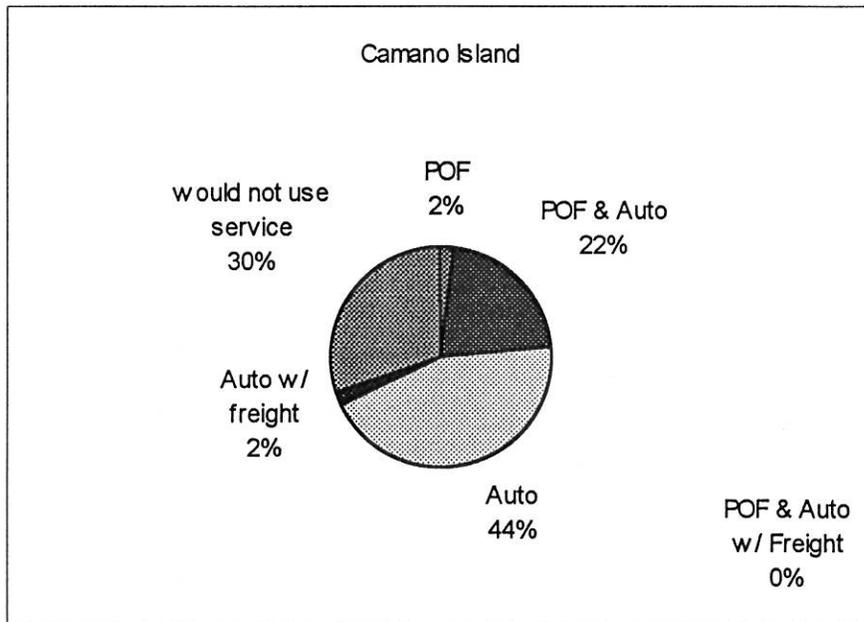
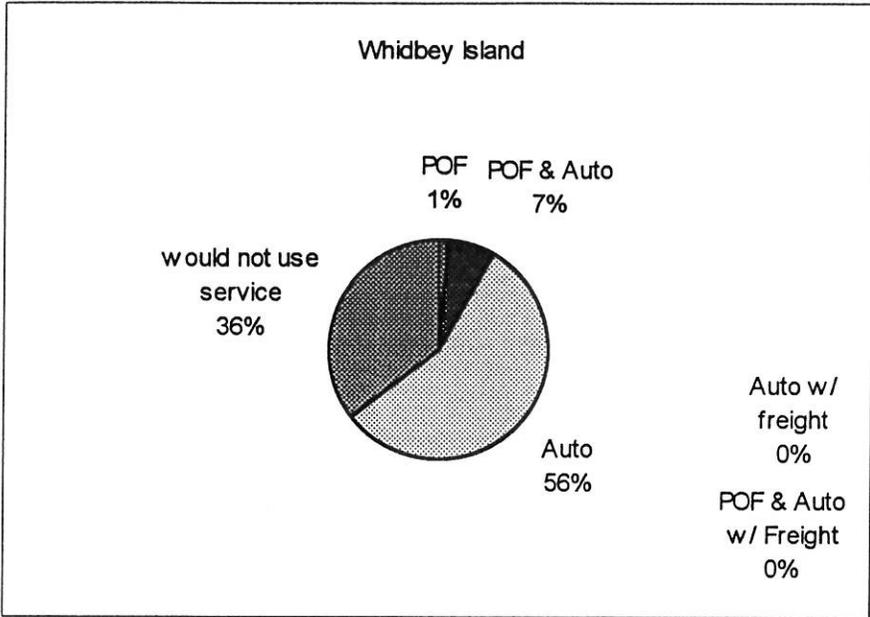


Figure III-7  
Results of Newspaper Survey of  
Camano Island Only  
(102 recorded responses)

# Island County Ferry Study



**Figure III-8**  
**Results of Newspaper Survey of**  
**Whidbey Island Only**  
**(73 recorded responses)**

**3.4.3 Analysis**

The overall newspaper survey results (Fig. III- 6) are remarkably similar to the random telephone survey, particularly when it is considered that write in surveys generally come from those with strong feelings on the subject whereas the random survey is more likely to catch the average. Table III-5 compares Figure III-1, Results of Telephone Survey of Whidbey & Camano Islands, with Figure III-6, Results of Newspaper Survey of Whidbey & Camano Islands.

	Telephone	Newspaper
Need to carry Freight	2	1
Would not use the Service	28	30
Would use Passenger Ferry Only	4	1
Would use Vehicle Ferry Only	50	53
Would use Both POF & Veh. Frrs	9	15
Would use Ferry	65	70
Did not Participate	6	

**Table III-5**  
**Telephone and Newspaper Survey Comparison**

It will be noted that the other charts are also remarkable close, indicating a strong degree of correlation between the random telephone survey and the responses to the newspaper survey.

# Island County Ferry Study

## 3.5 OPEN HOUSE FORUMS

Three Open Houses were held in the localities indicated:

May 2, 1995	Langley Intermediate School	Whidbey Island
May 3, 1995	Skagit Valley College, Oak Harbor	Whidbey Island
May 4, 1995	Fire Station #3 Terry's Corner	Camano Island

Each Open House was hosted by a representative from The Island County Public Works Department, one or more representatives from Art Anderson Associates, and a representative from Island Transit. Attendance at the Open Houses was Langley, 5, Oak Harbor, 18, and Camano Island, 50.

At each Open House the results of the random telephone survey were displayed and informal discussion held on the impact, the advantages and the disadvantages of various ferry system routes and alternatives.

Many of the attendees at the Open Houses were residents who lived in areas that were perceived to be possible sites for ferry termini and they appeared to represent their understandable opposition to a ferry terminal which would disrupt the surroundings in their vicinity.

Some specific significant observations that came out of the Open House forums:

- There was opposition to interference with beach property at all three Open House forums. A petition was presented from the Mariner's Beach area in opposition to Mr. Bacon's plan and residents of Onamac Point and Madrona Beach on Camano Island expressed concern about unauthorized parking and traffic congestion in their areas.
- Reaction at the North Whidbey (Oak Harbor) forum expressed general concern about traffic problems and did not want a vehicle ferry unless there was also improvement in roads leading to and from the ferry landings.
- The Camano Island forum was by far the heaviest attended and the most positive about passenger only service, although there was also some strong opposition to any ferry. Many people expressed concern about connecting bus service and landing within walking distance of downtown Coupeville. There was consistent opposition from Camano residents to a vehicle ferry because of the congestion that would result on access roads and the State highway.
- Island Transit representatives attended all three meetings and expressed continued support for passenger-only service including their willingness to provide connecting bus service.

## 3.6 CONCLUSIONS FROM THE NEEDS SURVEY

- Of the 200 people responding to the random telephone survey, sixty-five percent stated that they would use the ferry. Seventy percent of the 175 people responding to the newspaper survey said the same. There is clearly enough consistent support for ferry service from the middle of Whidbey Island to the mainland (either to Camano Island or to a mainland port north of Camano) to warrant further investigation of possible routes and potential costs to be incurred.

## Island County Ferry Study

- There may be justification for a passenger ferry service between Coupeville (and possibly Oak Harbor) and Camano Island, providing that it can be shown to be cost effective and provided that the supporting infrastructure (terminal facilities, access roads, parking areas, connecting intermodal transportation, on site vehicles on Camano island) can be put in place without undue stress on the community.
- A ferry system should only be studied as one element in an intermodal transportation system. In this case, the impact on local access roads on Camano Island, and particularly on the SR532 connection through Stanwood and on to I-5, must be part of the study.
- The most consistent use of a ferry system would come from the Island County government offices in Coupeville.
- Camano Island residents would most likely strongly oppose a car ferry landing anywhere on Camano Island.
- Island Transit could shuttle passengers to park and ride lots from the ferry landing.

# Island County Ferry Study

## IV FERRY OPERATION

### 4.1 ALTERNATIVES

Based on the results of the Need Survey and interviews with potential ferry operators, this section will develop the possibilities, including rough cost estimates, for the implementation of passenger-only ferry service between Whidbey Island and Camano Island.

Should the decision be made to start inter-island ferry service, there are certain things that the County must do, and others for which there are options, both organizational and financial. The County must first make the following decisions:

- What sort of service is to be provided, vehicle or passenger-only?
- Between what terminal locations is the ferry system to operate?
- Will the service be run by the County, subcontracted to private operators, or owned by the County and contracted for operation?
- What organization will administer and supervise the operation?

### 4.2 VEHICLE VERSUS PASSENGER-ONLY SERVICE

While the surveys indicate a strong interest in vehicle ferry service, they also indicate an interest in this service as a means of access to I-5, *not* as access to Camano Island as a destination. The Island County Comprehensive Transportation Plan has noted that the road access to I-5 from Camano Island (SR532) is currently at the lowest classification of level of service for traffic congestion, getting worse, and will not improve until major road improvements are made. Therefore, this study will not develop the vehicle ferry concept any further, as the cost of the ferry itself is but a small part of the cost of opening up this intermodal transportation system from Whidbey Island. What appears to be needed is a long term development of transportation needs relative to anticipated growth, one element of which will be transportation to the mainland from central Whidbey Island.

However, there is support for passenger-only ferry service on both islands and the surveys indicate enough ridership to make passenger-only ferry service worth investigating.

### 4.3 TERMINAL SITES

Figure IV-1 is a chart of the area between Camano Island and Whidbey Island. The area is reasonably well protected from ocean swells but experiences heavy wind blown seas. These, coupled with tidal currents, will require sturdy vessels to maintain reliable service.

Perhaps the most controversial part of the implementation plan would be the location of operating sites. Therefore, early in this study, possible sites for ferry terminals were visited on both Whidbey and Camano Islands in order to focus the study on realistic possible locations for ferry service. With the pristine residentially zoned beaches of both islands there are no obvious sites which would be both available and suitable. Since site location is beyond the scope of this study, assumptions will be made based on previous investigations by potential ferry operators.

# Island County Ferry Study

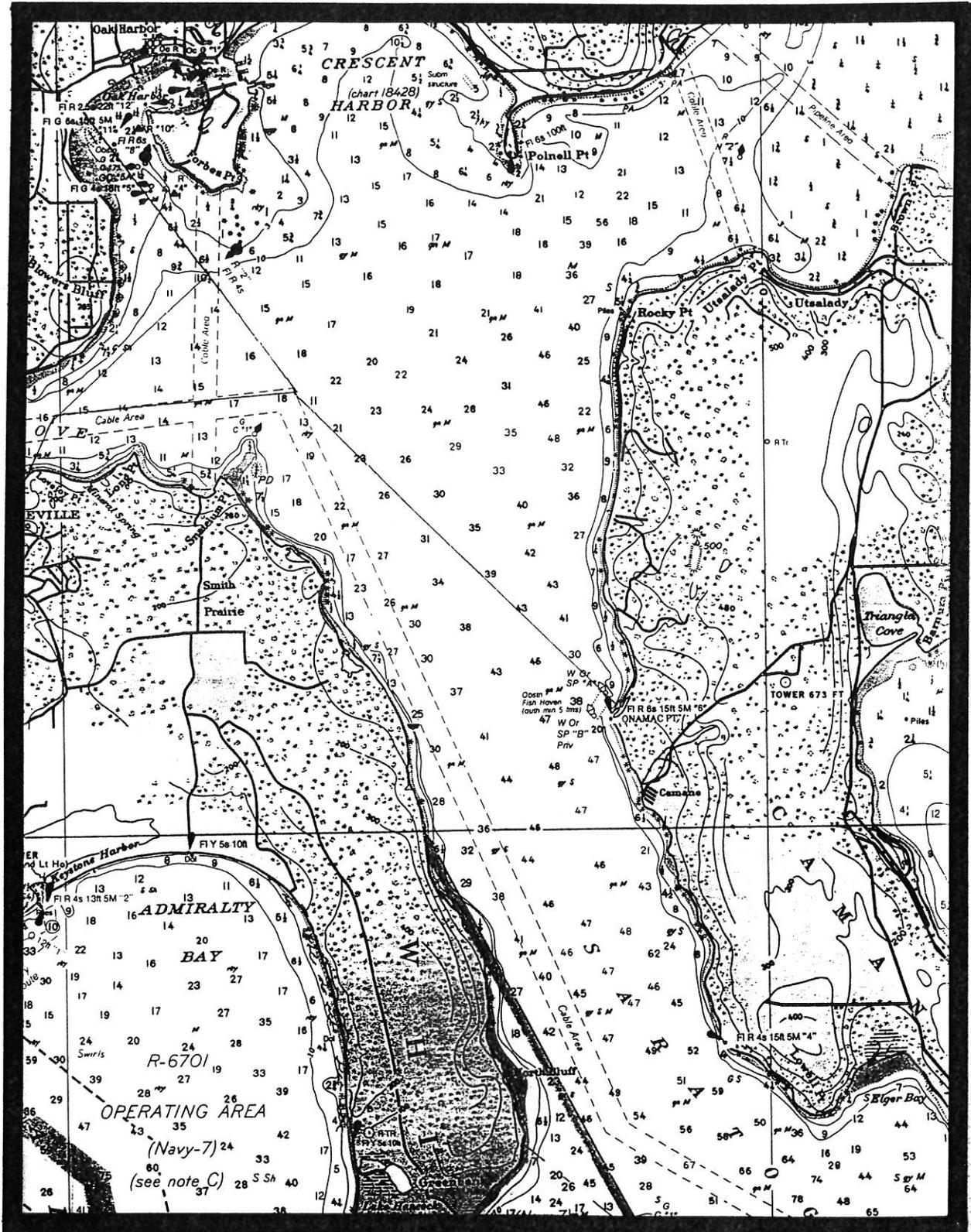


Figure IV-1  
Whidbey Island/Camano Island  
Saratoga Passage

# Island County Ferry Study

The sites visited in this initial survey, those that have been previously identified as possible ferry sites, are as follows<sup>6</sup>:

## Whidbey Island:

- **Coupeville:** The existing public pier (the Coupeville Wharf) is a logical place for a passenger-only ferry pier in Coupeville. It would require modification to meet current legal requirements, including the Americans with Disabilities Act (ADA) but these are expected to be much less expensive than the construction of a new facility. These are addressed in Appendix B. The Coupeville Wharf is shown in Fig. IV-2.



Figure IV-2  
The Coupeville Wharf

- **Mariner's Beach:** A previous study submitted several years ago by Mr. George Bacon and discussed by him at the Open House forums, offered to provide tug and barge vehicle service from the Mariner's Beach area south of Coupeville, directly to a similar beach at Onamac Point on Camano Island. Absent wetlands, or other environmental restraints, this beach area would be suitable for shallow draft ramp type vessel landing (see Figure IV-3). However, the environmental problems associated with Mr. Bacon's proposal appear to be significant and not thoroughly addressed. Moreover there is no area available for vehicle staging unless several acres of residential property were appropriated for that purpose. Mariner's Beach faces an exceptionally high bank in a residentially zoned area which

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<sup>6</sup> While these sites have been previously identified, there is no indication that County shoreline permits, Fish & Wildlife hydraulic permits, or U.S. Army Corps of Engineer water permits have been applied for or obtained for any required work.

# Island County Ferry Study

would require a considerable amount of excavation and grading, making this an unacceptable site for a ferry landing. A more detailed discussion is contained in Appendix B.



Figure IV-3  
Beaching Vehicle Ferry

- **The Seaplane Base:** In Oak Harbor represents a protected harbor that would make a good all weather terminal for either passenger-only or vehicle ferry operation. The harbor is quite shallow and dredging would probably be required for any ferry operation. An alternate site for passenger-only service is the Oak Harbor Marina.

**Camano Island:** The west side of Camano Island is largely composed of gently sloping beaches rising to high bank bluffs which have been crisscrossed with narrow residential roads. Much of this beach would be suitable for passenger-only ferry landings if suitable piers were constructed and if they extended far enough out to provide a minimum of five feet of water depth at mean low water. Although the survey was cursory at this stage, no sites suitable for vehicle ferry landing were found other than those requiring a considerable amount of land use for vehicle holding, terminals and suitable access roads. Dredging for even small vehicle ferries would have to be deeper unless the grounding type vessels (see Fig. IV-3) were used. Of the areas examined:

- **Madrona Beach (The foot of Olympic Street):** The Stanwood Camano Yacht Club (SCYC) is on private land. There is a mid sized parking lot behind the club on the water side but it is privately owned. The boat ramp is fitted with a small marine railway and a "travel-lift" for boat haul-out. Beach is rocky not sandy. There is no pier although the Yacht club intends to install a small fair-weather pier for boaters use in the near future. This pier would not be suitable for ferry use. Parking is extremely limited and only smaller busses could turn around at the pier area. This location would be suitable for a passenger

## Island County Ferry Study

ferry if the Yacht Club can be used for a bus pick-up spot and if a P&R can be found somewhere on the bus route or nearby. Residents of the Madrona Beach area are understandably concerned about the prospect of their narrow streets being used for parking if this service were implemented.

- Figure IV-6 provides a proposed Passenger Ferry Facility design for the Madrona Beach area as a basis for the estimates in Section 4.8.
- **Onamac Point:** The proposal discussed by Mr. Bacon (see the Mariner's Beach discussion above) offered an area slightly north of Onamac Point as a possible beach landing point. While the beach slope appears to be suitable for a beach landing ferry, there does not appear to be any area for vehicle staging and the access road is narrow, steep, and winding. This would not be a suitable terminal area for a vehicle ferry.
- **Maple Grove Beach:** This is a public boat launch which is adjacent to a gravel lot approximately 50 x 50 yds. and a concrete boat ramp. The beach is similar to Madrona Beach. This location could be improved and road access is better from the North. The area would be suitable for construction of a passenger ferry pier, although a remote parking site would be required to minimize congestion and parking overload on the beach.
- **Utsalady boat launch (N. Camano):** There is County land at Utsalady Point including a beach area which is reportedly unusable for building because of insufficient drainage. Water depth in this area is shallow. Utsalady is a residential area and, as is the case with all Camano Beach locations, there would be considerable resistance from residents to the commercialization of a portion of the beach.

Should vehicle ferry service be considered at a later date, as discussed in section 4.2, Utsalady should be considered as a candidate for terminal location because of the factors mentioned above, its proximity to SR532, and the possibility of using beaching ferries such as shown in Figure IV-3, for service to this shallow water area.

# Island County Ferry Study

## 4.4 TRAFFIC AND SCHEDULES

The 1994 Traffic Statistics for Washington State Ferries are as shown below:

<b>Mukilteo/Clinton</b>	<b>Total</b>
Ridership	4,118,764
Total Vehicles	2,203,536
Total Passengers	1,915,228
Avg. Daily Passengers	5,238
Avg. Daily Vehicles	6,033
<b>Port Townsend/Keystone</b>	<b>Total</b>
Ridership	844,932
Total Vehicles	383,021
Total Passengers	461,911
Avg. Daily Passengers	1,257
Avg. Daily Vehicles	1,101

Table IV-1  
Washington State Ferries Traffic to Whidbey Island  
1994

It is difficult to predict ridership on a startup service because much depends on the development of reliable and comfortable service. If we use the results of the telephone survey and extrapolate the interest shown in passenger-only service, we arrive at traffic figures that would justify vessels of a size that would not be cost effective to operate in the first few years. A better plan would be to base the start-up service on a vessel that could predictably operate with minimal operational funding from the County but with piers that can accommodate larger vessels if and when the traffic develops. For the purpose of this development, the following assumptions are made:

- Service will be provided between Coupeville, Oak Harbor, and the Madrona Beach area during County working hours (between 8 AM and 4:30 PM on weekdays) as the majority of travelers will be people conducting County business on both sides. Island Transit would provide bus service at each terminal to transport riders to regular bus routes, Park & Ride lots, or to County offices. There will be morning and late afternoon trips. A sample Route Simulation Plan, based on a single forty-nine passenger ferry, is presented in Figure IV-4.

# Island County Ferry Study

ROUTE SIMULATION MODEL - Coupeville/ Camano/Oak Harbor									
One 25 knot Ferry									
								5/10/95	
VESSEL DESCRIPTION		Passenger Capacity			Load/Unload Time				
		49			5-10 minutes				
ROUTE DESCRIPTION				Distances					
Coupeville to Camano				7.0 nautical miles					
Camano to Oak Harbor				7.6 nautical miles					
Oak Harbor to Coupeville				4.0 nautical miles					
SCHEDULE		DEPART	ARRIVE	DEPART	ARRIVE	DEPART	ARRIVE	DEPART	ARRIVE
No. of Days Per Week	5	Coupeville	Camano	Camano	Oak Harbor	Oak Harbor	Camano	Camano	Coupeville
Vessel #1	1	8:30 AM	8:50 AM	9:00 AM	9:43 AM	10:00 AM	10:21 AM	10:30 AM	9:20 AM
		9:30 AM			12:13 PM	12:20 PM	12:41 PM		10:50 AM
		12:00 PM						4:00 PM	4:20 PM
		4:30 PM			4:43 PM	5:00 PM	5:21 PM		
TOTAL DAILY CAPACITY		Coupeville		Oak Harbor					
vs.		Camano		Camano		Coupeville			
ESTD. DAILY DEMAND									
(IN EACH DIRECTION)									
Total Daily Capacity		196		147		147		98	

Figure IV-4  
Route Simulation  
Passenger-Only Ferry Service Schedule  
Coupeville-Oak Harbor-Camano Island

- The initial vessel will be a forty-nine passenger ferry certified to 49CFR subchapter T by the U.S.C.G., with a crew of two. The vessel could be owned by the County and leased to an operator, who would be responsible for maintenance as well as operation, and who would be required to provide a back-up vessel for service when The County's boat is out of service. Alternatively it could be owned by the operator. This decision should be made on the basis of the availability of federal funds to augment purchase of the vessel.

A typical vessel of this type is illustrated in Figure IV-5.

## 4.5 ADMINISTRATION

There are many possible means of implementing a ferry system through County government. The choice will probably be made on the basis of the availability of federal matching funds through the Intermodal Surface Transportation Efficiency Act (ISTEA) or other Department of Transportation sources which will pay up to eighty percent of the capital costs of system implementation. Some of the alternatives are these:

1. **Contracted Service:** The County can provide the terminal facilities and accept proposals from ferry operators to provide service to a given schedule at a prescribed fare structure. The operators would provide their own vessels. Operators may require an operating subsidy until such time as ridership provides a sufficient level of return.
2. **Contracted Operation:** The County could provide the terminal facilities and purchase one vessel, and then contract for operation of the vessel to a given schedule at a prescribed fare structure. The operators would provide their own vessel for back up when the County vessel is out of service for maintenance. Operators may require an operating subsidy in this scenario until such time as ridership provides a sufficient level of return.

# Island County Ferry Study

3. **County Operation:** The County can run the entire system using County employees similar to the Island Transit bus system, except that fares may be charged for riders other than County employees.

## 4.6 VESSELS

The vessel to be used as a model for this initial service is a forty-nine passenger ferry. This size is chosen as a minimum size vessel that can be safely operated within USCG requirements with a crew of two. For purposes of analysis, an existing design of an 18 meter (60 foot) Australian designed WATERBUS, equipped with two Volvo Penta TAMD 71A engines and waterjet propulsion, making a service speed of 25 knots, is used in both route simulation and cost analysis. While the existing vessel has an enclosed capacity of sixty-six seats, forty-nine passengers are used for this analysis. This vessel is shown in Figure IV-5. The construction cost of this vessel is estimated at \$800,000. Simpler, slower, less equipped and less expensive vessels can be purchased for this service and the International Catamaran WATERBUS may be considered as representing the middle to upper range in comfort and internal appointments. Beverage and snack service can be and usually is provided in vessels of this type.



Figure IV-5  
International Catamaran 18M. WATERBUS

# Island County Ferry Study

## 4.7 FACILITIES

### 4.7.1 Passenger Ferry Terminals

#### 4.7.1.1 Whidbey Island

**The Coupeville Wharf:** The likely location for the Whidbey Island ferry terminal is in Coupeville at the Coupeville Wharf. A timber pier that can accommodate pedestrians and service vehicles already exists at the site. The Coupeville Harbor Store and Cafe is located at the north end of the pier. A fueling float is on the north side of the store and a moorage float is on the east side. The moorage float is adequate for mooring a passenger ferry with two modifications. The float freeboard is approximately 1.5 feet less than the freeboard of the probable passenger ferry vessel. To provide for wheelchair access, a platform will need to be added to raise the deck level to the level of the vessel deck. The second modification is to provide a wider, stronger gangway with an incline wheelchair platform lift. The lift combined with the float platform will make the facility handicap accessible at all tide ranges. The Coupeville Wharf is shown in Figure IV-2.

The cost of providing a platform on the float, including railings and ramp to the float deck is approximately \$20,300. The heavy duty gangway with lift will add \$103,000 to the cost for a total of \$123,300. Additional costs will be the lease cost for boat moorage and the off-site parking lots, if required.

There is a Coupeville City parking lot behind the Post Office convenient to the Coupeville Wharf. The west end of the pier has a good bus stop area; so a remote park and ride lot with shuttle bus connection could work well to provide parking. The parking lot for the County offices could be used for weekends and holidays when County offices are closed. Local church parking lots could be used for weekday park and ride lots. The Transit District can form lease agreements with churches for that purpose.

#### 4.7.1.2 Camano Island

**Madrona Beach:** A convenient location for the Camano Island ferry terminal is Madrona Beach off the end of Olympic Street. The Olympic Street right-of-way is 40 feet wide and extends to the water. The beach is low bank. The area is not well protected, with a 4 mile fetch from the north and a 13 mile fetch from the south (including Holmes Harbor). The only improvement on the right-of-way is the asphalt paved road to the top of the beach. Required improvements would include a 260(±) feet long pier, a gangway with wheelchair lift like the one described above for Coupeville, a float for boarding the vessel and power and lighting. Figure IV-6 shows a possible arrangement. The proposed pier would be steel two pile bents with precast, prestressed deck beams connecting the bents. The fairly flat beach causes the pier to be long, in order to reach deep water. A beach survey will be required to determine the length of pier required to achieve a bottom elevation of - 12 feet. mllw. Railings would be side mounted galvanized steel.

The boarding float at the end of the pier would be either foam filled concrete or lighter weight wood supported by foam billets. The float deck freeboard would be 3 feet to match that of the boat and railings would keep passengers away from the edge. The float would be moored with steel pipe piles with high capacity pile hoops.

## Island County Ferry Study

The pier cost is approximately \$135,000. The gangway cost with lift is approximately \$103,000. The floats with moorage piles will cost approximately \$46,000. Adding in \$37,000 for electrical work and lighting brings the total to \$321,000.

There are possible opportunities for parking at this site with the yacht club and the vacant lot on the northwest corner of Olympic Street and Sunset Drive. But sites further from the beach might be more appropriate, and have less impact on the waterfront. Access to the site is readily available by bus.

The terminal development costs do not include contingencies and sales tax. For this stage of development a 20% design contingency should be used. Also a construction contingency of 10% needs to be budgeted as well as sales tax of 7.9% and design-permitting-project administration costs of 20%. The total terminal development becomes approximately \$750,000.

The concept of the Madrona Beach pier is shown in Figure IV-5.

# Island County Ferry Study

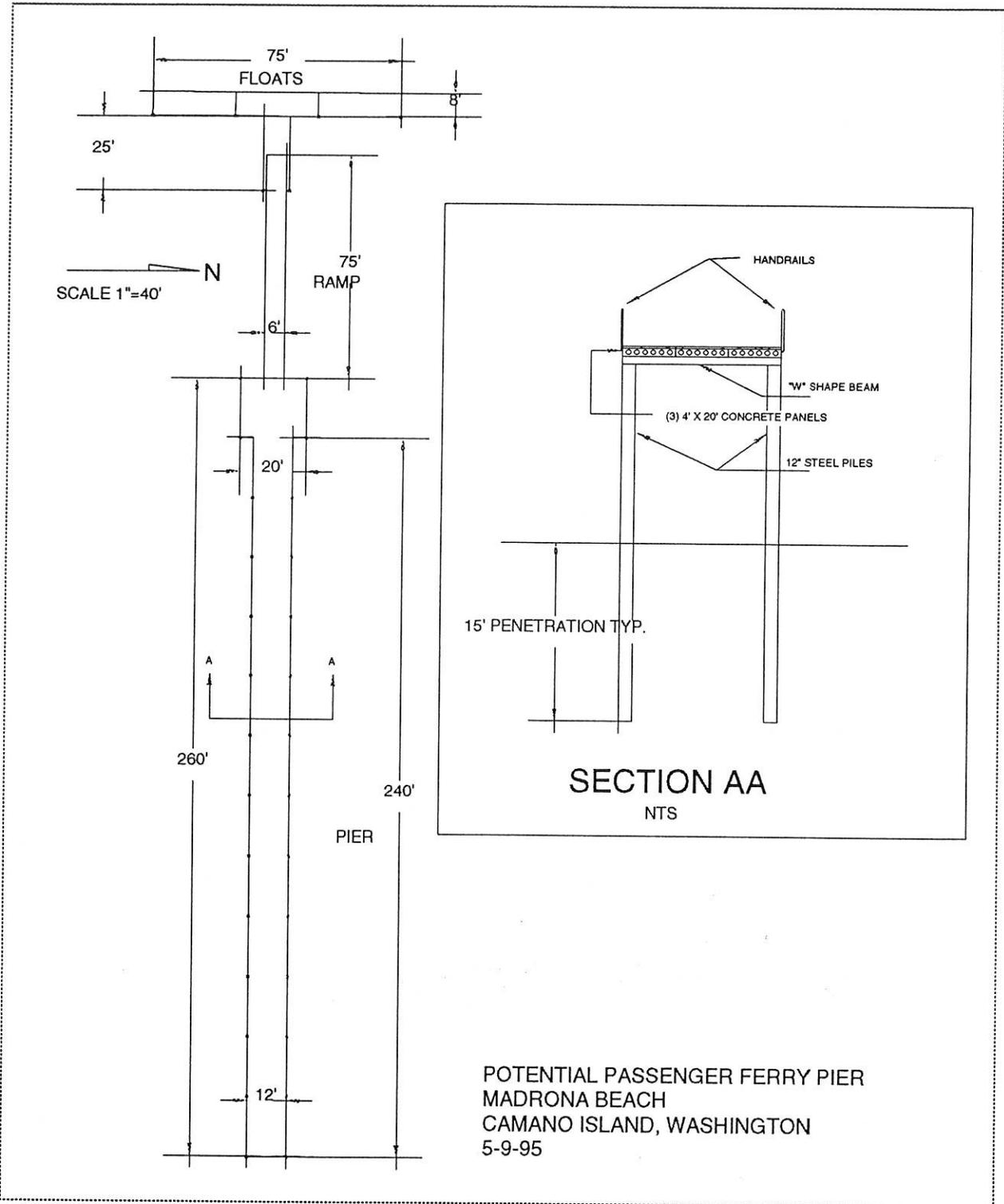


Figure IV-6  
 Potential Passenger Ferry Pier  
 Madrona Beach  
 Camano Island

# Island County Ferry Study

## 4.8 COSTS

The estimated costs associated with passenger-only service, assuming conservative passenger loading (33% on a 49 passenger ferry) are the following:

Vessel Capital Cost	\$800,000
Terminal Capital Cost	\$750,000
Construction Management, Admin, etc.	\$140,000
<b>TOTAL ESTIMATED CAPITAL COST:</b>	<b>\$1,690,000</b>

<b>Vessel-Operating Costs (Daily):</b>	
Fuel: 6 hrs./day @ 24 gal./hr. (average) @ \$1.00/gal.	\$144
Crew	\$544
Prorated Maintenance @ 30% of fuel cost	\$43
Administrative and Insurance Costs	\$40
Contingency	\$50
<b>TOTAL ESTIMATED DAILY OPERATIONAL COST:</b>	<b>\$821</b>

<b>Assumptions:</b>	
Round trip fare	\$5.00
Average ridership on Coupeville/Camano/ & Oak Harbor/Camano trips	33% (16 passengers)
<b>ESTIMATED REVENUE</b>	<b>\$566</b>

<b>POTENTIAL SAVING TO ISLAND COUNTY GOVERNMENT:</b>	
Assumed travel time from work place to work place by ferry, and home	<b>2 hours<sup>7</sup></b>
The current cost to the County for travel (Table III-2)	<b>\$1350/day</b>
The cost, including ferry fare and 2 hours per day in travel <sup>8</sup>	<b>\$634/day</b>
The potential saving	<b>\$716/day</b>
Shortfall in ferry operation: (\$821-\$566)	<b>\$255/day</b>
Net monetary gain	<b>\$461/day</b>

<sup>7</sup>Conservatively, 15 minutes to Coupeville Dock, 20 minutes by ferry, and 20 minutes to work site on Camano Island, or ~ 1 hour each way.

<sup>8</sup> 13.5 employees/day x (2 hours @ \$21/hr. + Ferry fare \$5) = \$634/day

# Island County Ferry Study

## V CONCLUSIONS AND RECOMMENDATIONS

**Concerning a Vehicle Ferry:** The surveys indicated a strong interest in vehicle ferry service to Camano Island, but this interest is interpreted to mean a connection to I-5, *not* a link to Camano Island. Since the State Road and the local access road system to potential ferry sites on Camano Island does not support any increase in commuter traffic and since there are no readily accessible terminal sites for a vehicle ferry system, it is recommended that no further study be made on a vehicle ferry link to Camano at this time. What appears to be needed is a long term development plan for the transportation needs for central Island County related to anticipated growth. While one element of the plan for meeting those needs may be a ferry system connecting Whidbey Island to Camano Island, the ferry system should only be planned as a connecting link, not as a stand-alone system.

**Concerning a Passenger-Only Ferry:** There is justification for passenger-only ferry service between Whidbey Island (Coupeville and possibly Oak Harbor as well) and Camano Island for the primary purpose of inter-island business and governance. The cost of implementing such service appears to be reasonable compared to the benefits to be achieved. The required subsidies, even in the first stages of operation, will be less than the cost of travel and lost labor currently being incurred.

If passenger-only ferry service is implemented, it is important that it be closely coordinated with Island Transit bus service and that parking areas be established away from prime beach areas to minimize incursion on residential real estate and to minimize land acquisition costs.

There are several options for administering a ferry system. The recommended option, if passenger-only service is implemented, is one where the facilities are provided by the County and the service is provided under contract. Ownership of the vessel by County or private operator should depend on the availability of Federal funds to support the system and this avenue (FTA funds) should be pursued.

# Island County Ferry Study

## **APPENDIX A. SURVEY FORMS AND NEWSPAPER ADVERTISEMENTS**

1. Telephone Survey
2. Newspaper Announcement & Survey
3. Open House Questionnaire

*Whidbey Island Questionnaire*

Hello, My name is \_\_\_\_\_ and I am calling on behalf of Island County. We are collecting data from residents of Whidbey Island in this telephone survey in regards to transportation problems to and from Whidbey And Camano Islands. This interview will take a few minutes and I will appreciate it if you can participate. Is this a convenient time? (If not, may me call back at a more convenient time?

Telephone number dialed: \_\_\_\_\_

Male: \_\_\_\_\_

Female: \_\_\_\_\_

Age: \_\_\_\_\_

Section 1

1. How frequently do you leave the island?  
\_\_\_\_\_  
\_\_\_\_\_

2. Which part of the island do you live on?  
\_\_\_\_\_  
\_\_\_\_\_

3. What mode of transportation do you most often use to leave the island?  
\_\_\_\_\_  
\_\_\_\_\_

4. What are the primary reasons you leave the island?

- Regular travel to/from work or school
- Leisure, recreation, shopping or social
- Business or commerce other than regular travel to/from work
- Connecting to/from airport, train or bus for out of town travel
- Personal business or appointment
- other: \_\_\_\_\_

5. Which route do you take to leave the island?  
\_\_\_\_\_  
\_\_\_\_\_

6. Do you ever travel specifically to Camano Island?

Yes  No, If No, skip to section 2.  
Other \_\_\_\_\_

7. How frequently do your needs take you there?  
\_\_\_\_\_  
\_\_\_\_\_

8. Which path do you take to get there?  
\_\_\_\_\_  
\_\_\_\_\_

9. How long does the trip take you?  
\_\_\_\_\_  
\_\_\_\_\_

*Whidbey Island Questionnaire*

10. What do you estimate is your relative cost for the trip?

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11. What are your purposes for travel to Camano Island?

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12. What other transportation modes do you see as being available to you to complete this trip?

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13. If ferry service was available which of the following would be most useful to you:

- a. passenger only
- b. auto
- c. freight and goods
- d. I would not use any of these services.

14. If there were a ferry to Camano Island what method would you use to get to the terminal?

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15. Once on Camano Island how would you get to your destination?

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16. Passage on the Clinton/Mukilteo Ferry costs \$2.30 per passenger round trip. How much would you be willing to pay for a ferry service to Camano Island?

\$  passenger

16. If there was a ferry, how often would you use it?

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17. If there were a car ferry between the Islands directly connecting you to the I-5 corridor, would you use this as a way to get off the island?

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18. If there were a car ferry between the islands do you think it would alleviate or increase congestion on 525 and 20?

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19. Can you think of any other ways to alleviate congestion on the State Highways?

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20. Passage on the Clinton/Mukilteo Ferry costs \$4.00 (\$4.80 during peak season) per vehicle each way. How much would you be willing to pay for a ferry service to Camano Island?

\$  vehicle under 20'  
(over 7'6" height surcharge is \$2.55)

*Whidbey Island Questionnaire*

21. If the trip across the water took less than 1/2 an hour, would your travel frequency increase?

Yes  No  
Other \_\_\_\_\_

22. Is there anyone else in your household who travels to Camano Island?

\_\_\_\_\_  
\_\_\_\_\_

Section 2

1. Do know of any friends or businesses who travel to Camano Island?

If Yes, could I have their names and phone numbers, I would like to talk with them.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Is there any other issue or concern you would like to express?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Camano Island Questionnaire*

Hello, My name is \_\_\_\_\_ and I am calling on behalf of Island County. We are collecting data from residents of Camano Island in this telephone survey in regards to transportation problems to and from Whidbey And Camano Islands. This interview will take a few minutes and I will appreciate it if you can participate. Is this a convenient time? (If not, may me call back at a more convenient time?

Telephone number dialed: \_\_\_\_\_

Male: \_\_\_\_\_

Female: \_\_\_\_\_

Age: \_\_\_\_\_

Section 1

1. How frequently do you leave the island?  
\_\_\_\_\_  
\_\_\_\_\_

2. Which part of the island do you live on?  
\_\_\_\_\_  
\_\_\_\_\_

3. What mode of transportation do you most often use to leave the island?  
\_\_\_\_\_  
\_\_\_\_\_

4. What are the primary reasons you leave the island?

- Regular travel to/from work or school
- Leisure, recreation, shopping or social
- Business or commerce other than regular travel to/from work
- Connecting to/from airport, train or bus for out of town travel
- Personal business or appointment
- other: \_\_\_\_\_

5. Do you ever travel specifically to Whidbey Island?

Yes  No, If No, skip to section 2.  
Other \_\_\_\_\_

6. How frequently do your needs take you there?  
\_\_\_\_\_  
\_\_\_\_\_

7. Which path do you take to get there?  
\_\_\_\_\_  
\_\_\_\_\_

8. How long does the trip take you?  
\_\_\_\_\_  
\_\_\_\_\_

9. What do you estimate is your relative cost for the trip?  
\_\_\_\_\_  
\_\_\_\_\_

Camano Island Questionnaire

10. What are your purposes for travel to Whidbey Island?

\_\_\_\_\_

\_\_\_\_\_

11. What other transportation modes do you see as being available to you to complete this trip?

\_\_\_\_\_

\_\_\_\_\_

12. If ferry service was available which of the following would be most useful to you:

- a. passenger only
- b. auto
- c. freight and goods
- d. I would not use any of these services.

13. If there were a ferry to Whidbey Island what method would you use to get to the terminal?

\_\_\_\_\_

\_\_\_\_\_

14. Once on Whidbey Island how would you get to your destination?

\_\_\_\_\_

\_\_\_\_\_

15. Passage on the Clinton/Mukilteo Ferry costs \$2.30 per passenger round trip. How much would you be willing to pay for a ferry service to Whidbey Island?

\$ \_\_\_\_\_ passenger

16. If there was a ferry, how often would you use it?

\_\_\_\_\_

\_\_\_\_\_

17. If there were a car ferry between the Islands making Whidbey a stepping stone to the Olympic Peninsula and ocean beaches, would you use this route?

\_\_\_\_\_

\_\_\_\_\_

18. If there were a car ferry between the islands do you think it would alleviate or increase congestion on 532?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

19. Can you think of any other ways to alleviate congestion on the State Highways?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. Passage on the Clinton/Mukilteo Ferry costs \$4.00 (\$4.80 during peak season) per vehicle each way. How much would you be willing to pay for a ferry service to Whidbey Island?

\$ \_\_\_\_\_ vehicle under 20'  
(over 7'6" height surcharge is \$2.55)

21. If the trip across the water took less than 1/2 an hour, would your travel frequency increase?

Yes  No

Other \_\_\_\_\_

22. Is there anyone else in your household who travels to Whidbey Island?

*Camano Island Questionnaire*

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Section 2

1. Do know of any friends or businesses who travel to Whidbey Island?

If Yes, could I have their names or phone numbers, I would like to talk with them.

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2. Is there any other issue or concern you would like to express?

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# Island County Ferry Study

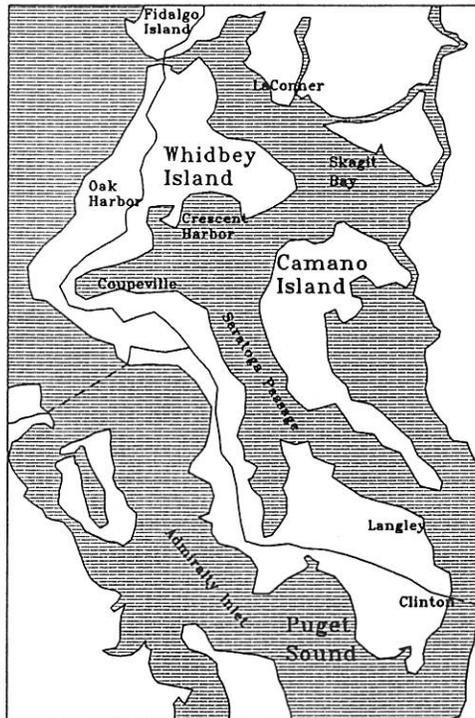
There will be an Open House/Public Forum to present and discuss the results of a survey determining the interest in and need for a ferry service between the middle of Whidbey Island (Coupeville - Oak Harbor area) and Camano Island. An Island Transit representative will be present.

## WHIDBEY ISLAND OPEN HOUSE

Tuesday, May 2  
4pm - 7pm  
Langley Intermediate  
School  
in the  
Community Meeting Rm.

&

Wednesday, May 3  
4pm - 7pm  
Skagit Valley College  
(Oak Harbor Branch)  
in the  
Old Main Building  
Rm. 124



We are looking to collect opinions, interest, and criticisms from residents of Whidbey Island in this newspaper survey pertaining to a potential ferry service between Whidbey and Camano Islands. This survey will take a few minutes to fill out and we will appreciate your participation.

Please cut out the survey and mail to:

Camano/Whidbey Survey  
Island County  
Public Works Department  
P.O. Box 5000  
Coupeville WA 98239

# Whidbey Island Questionnaire

## Section 1

<p>How frequently do you leave the island?</p> <hr/> <p>2. Which part of the island do you live on?</p> <p><input type="checkbox"/> North    <input type="checkbox"/> Middle    <input type="checkbox"/> South</p> <p>3. What mode of transportation do you most often use to leave the island?</p> <hr/> <p>4. What are your primary reasons for leaving the island?</p> <p><input type="checkbox"/> Regular travel to/from work  <input type="checkbox"/> Recreation, shopping or social  <input type="checkbox"/> Special trips for business or commerce  <input type="checkbox"/> Personal business, doctors appointment  <input type="checkbox"/> Other: _____</p> <p>5. Which route do you take to leave the island?</p> <hr/> <p>6. Do you ever travel specifically to Camano Island?</p> <p><input type="checkbox"/> Yes    <input type="checkbox"/> No, (If No, skip to #13)  Other _____</p> <p>7. How frequently do your needs take you there?</p> <hr/> <p>8. Which route do you take to get there?</p> <p><input type="checkbox"/> Deception Pass    <input type="checkbox"/> Mukilteo Ferry  Other: _____</p> <p>9. How long does the trip take you?</p> <p><input type="text"/> hours</p> <p>10. What do you estimate is your relative cost for the trip?</p> <hr/> <p>11. What are your purposes for travel to Camano Island?</p> <hr/> <p>12. What other transportation modes do you see as being available to you to complete this trip?</p> <hr/> <p>13. If ferry service was available between Whidbey and Camano which of the following types of ferries would be most useful to you?</p> <p>a. passenger only  b. auto/passenger  c. freight and goods  d. I would not use any of these services.</p>	<p>14. If there were a ferry to Camano Island how would you get to the terminal?</p> <hr/> <p>15. Once on Camano Island how would you get to your destination?</p> <hr/> <p>16. Passage on the Clinton/Mukilteo Ferry costs \$2.30 per passenger round trip. How much would you be willing to pay for a ferry service to Camano Island?</p> <p>\$ <input type="text"/> passenger fare</p> <p>17. If ferry service was available, how often would you use it?</p> <hr/> <p>18. If there were a car ferry between the Islands creating another connection to the I-5 corridor, would you use this as an alternate way to get off the island?</p> <hr/> <p>19. If there were a car ferry between the islands do you think it would alleviate or increase congestion on 525 and 20?</p> <hr/> <p>20. Can you think of any other ways to alleviate congestion on the 525 and 20?</p> <hr/> <p>21. Passage on the Clinton/Mukilteo Ferry costs \$4.00 (\$4.80 during peak season) per vehicle each way. How much would you be willing to pay for car ferry service to Camano Island?</p> <p>\$ <input type="text"/> vehicle (under 20') &amp; driver  (over 7'6" height surcharge is \$2.55)</p> <p>22. If the trip across the water took less than 1/2 an hour, would your travel frequency increase? How much?</p> <p><input type="checkbox"/> Yes    <input type="checkbox"/> No    Other _____</p> <p>23. Is there anyone else in your household who would be interested in ferry service to or through Camano Island? Please specify.</p> <hr/>
<hr/> <h3 style="margin: 0;">Section 2</h3> <hr/>	
<p>1. Please list friends and businesses you think would be interested in study.</p> <hr/> <hr/>	
<p>2. Is there any other issue or concern you would like to express regarding a potential ferry service between Whidbey and Camano?</p> <hr/> <hr/>	

# *Island County Ferry Study*

There will be an Open House/Public Forum to present and discuss the results of a survey determining the interest in and need for a ferry service between the middle of Whidbey Island (Coupeville - Oak Harbor area) and Camano Island. An Island Transit representative will be present.

## **CAMANO ISLAND OPEN HOUSE**

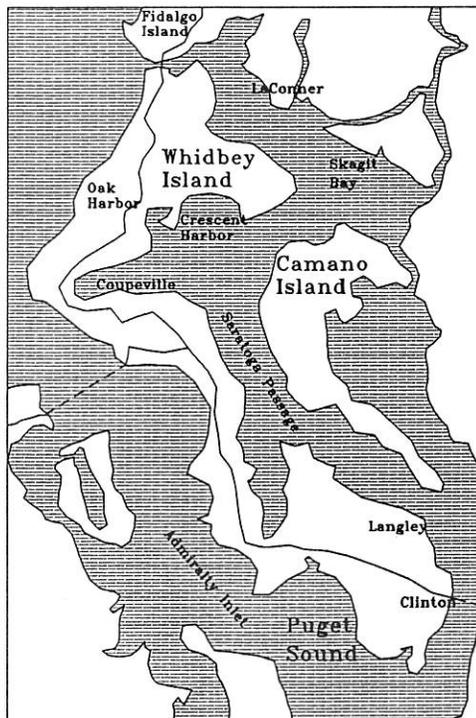
Thursday, May 4

4pm - 7pm

Terry's Corner Firestation, Firestation #3

in the

Community Meeting Room



We are looking to collect opinions, interest, and criticisms from residents of Camano Island in this newspaper survey pertaining to a potential ferry service between Whidbey and Camano Islands. This survey will take a few minutes to fill out and we will appreciate your participation.

Please cut out the survey and mail to:

Camano/Whidbey Survey  
Island County  
Public Works Department  
P.O. Box 5000  
Coupeville WA 98239

# Camano Island Questionnaire

## Section 1

How frequently do you leave the island?

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2. Which part of the island do you live on?

North       Middle       South

3. What mode of transportation do you most often use to leave the island?

---

4. What are the primary reasons you leave the island?

- Regular travel to/from work
- Recreation, shopping or social
- Special trips for business or commerce
- Personal business, doctors appointment
- Other: \_\_\_\_\_

5. Do you ever travel specifically to Whidbey Island?

Yes     No, (If No, skip to #12)

Other \_\_\_\_\_

6. How frequently do your needs take you there?

---

7. Which route do you take to get there?

Deception Pass     Mukilteo Ferry

Other: \_\_\_\_\_

8. How long does the trip take you?

hours

9. What do you estimate was your cost for the trip?

---

10. What are your purposes for travel to Whidbey Island?

---

11. What other transportation modes do you see as being available to you to complete this trip?

---

12. If ferry service was available between Whidbey and Camano which of the following types of ferries would be most useful to you?

- a. passenger only
- b. auto
- c. freight and goods
- d. I would not use any of these services.

If there were a ferry to Whidbey Island how would you get to the terminal?

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14. Once on Whidbey Island how would you get to your destination?

---

15. Passage on the Clinton/Mukilteo Ferry costs \$2.30 per passenger round trip. How much would you be willing to pay for a ferry service to Whidbey Island?

\$  passenger fare

16. If ferry service was available, how often would you use it?

---

17. If there were a car ferry between the Islands making Whidbey a stepping stone to the Olympic Peninsula and ocean beaches, would you use this route?

---

18. If there were a car ferry between the islands do you think it would alleviate or increase congestion on 532?

---

19. Can you think of any other ways to alleviate congestion 532?

---

20. Passage on the Clinton/Mukilteo Ferry costs \$4.00 (\$4.80 during peak season) per vehicle each way. How much would you be willing to pay for a ferry service to Camano Island?

\$  vehicle (under 20') & driver  
(over 7'6" height surcharge is \$2.55)

21. If the trip across the water took less than 1/2 an hour, would your travel frequency increase? How much?

Yes     No    Other: \_\_\_\_\_

22. Is there anyone else in your household who would be interested in ferry service between Camano and Whidbey? Please specify.

---

## Section 2

1. Please list friends and businesses you think would be interested in study.

---

2. Is there any other issue or concern you would like to express regarding a potential ferry service between Whidbey and Camano?

---





# Island County Ferry Study

## APPENDIX B. TERMINAL FACILITIES

### **Discussion of Mr. Bacon's Plan for siting a ferry terminal in the Mariner's Beach area:**

A proposal has been made for a tug-barge vehicle ferry service. On the Whidbey Island side the landing is proposed for the 600 block of Race Street. A road would be built down to the beach and a boat launch ramp type of loading facility would be constructed. The ground slope going to the beach averages approximately 4(H):1(V) from elevation 100. The road is approximately 1000 feet from the beach. The maximum cut required to achieve a 12% roadway slope is approximately 50 feet. With a 50 feet wide roadway section including ditches and 2(H):1(V) side slopes, the required width at the deepest cut would be 250 feet. The lots are approximately 75 feet wide in that area so at least three would be required. Approximately 240,000 cubic yards of cut and export would also be required. Because the beach is parallel to the direction of prevailing winds and tidal currents, several dolphins may be needed for stabilizing the barge during loading and unloading operations. On the Camano Island side an existing boat launch ramp is proposed to be used in the vicinity of Camano City. This beach is also exposed to waves and winds and will probably require mooring dolphins.

### **Permits**

The work along the shoreline will require a number of permits. The local jurisdiction (City or County) will have to issue environmental determinations and shoreline permits as well as building permits. Also the State Fish and Wildlife Department will have to issue a Hydraulic Project Approval and the US Army corps of Engineer will need to approve the work.

# Island County Ferry Study

## APPENDIX C. REFERENCES

- 1) Island County Transportation Plan, Adopted December 5, 1994
- 2) Harbor Watch, Oak Harbor Redevelopment plan, June, 1990
- 3) Nonmotorized Trails Plan, Island County, (DRAFT) February 21, 1995