

ASSESSMENT OF DEMAND FOR PUBLIC TRANSPORTATION

Diamondhead, Mississippi

November 2007



Gulf Regional
Planning Commission

Submitted to;

**Coast Transit Authority
And the**

**Mississippi Department of Transportation,
Division of Public Transportation**

Submitted by Gulf Regional Planning Commission

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Introduction

The purpose of this study was to assess the demand for transit services for Diamondhead, Mississippi. In addition to the data on the demographics, community data, traffic patterns, and transportation issues, a community survey was conducted to determine the support and need for public transportation. This report documents the survey process, data analysis, study results, and final recommendations for implementing demand response service in Diamondhead, Mississippi.

Background

In 2004 a study was initiated to determine the feasibility of bringing public demand response transportation to the Diamondhead community. A transportation survey process was initially started in 2004. Members of the Gulf Regional Planning Commission (GRPC) gave a brief presentation to the Diamondhead AARP on May 4, 2005, regarding the status of the project and to inform residents of the objectives of the feasibility study.

The original project scope of work called for GRPC to evaluate the potential for new or expanded transit service into new areas in Hancock County, including the assessment of fixed route or demand response service in Diamondhead.

Following a delay due to project funding; GRPC resumed work on the rural transit development study in Hancock County on July 20, 2005. Community meetings were held, and a survey process was approved. 25 completed surveys were returned to GRPC to analyze.

A transit planning study project meeting was scheduled for August 24, 2005, but was rescheduled for September 13, 2005. This meeting did not occur due to Hurricane Katrina hitting the Gulf Coast in late August of 2005. Due to post-hurricane conditions and other project priorities, the study was put on hold.

The process of studying the feasibility for providing demand response transportation in Diamondhead was resumed in the summer of 2007.

Diamondhead Community Characteristics

Population

At the time of the 2000 Census, Diamondhead had a population of 5,912. Currently, the 2005 Census population estimates are not available for Diamondhead. Diamondhead general manager John Bannen reports that there are approximately 6,500 - 6,800

Residents (November 2007, John Bannen, Manager). According to 2000 Census data, 24.9 % of the population are 65 years or older. By comparison, 2005 Census population estimates reveal that 14.9% of the residents of Hancock County (as a whole) are 65 years old or older. About 30.3 % of Diamondhead’s population over 65 are disabled (2000 Census). In summary, Diamondhead has a higher percentage of senior citizens than Hancock County as a whole. Many seniors are no longer able to drive, and depend on friends and relatives to get around.

According to the 2000 Census, 51.5 % of Diamondhead’s population are employed. Of those employed, about 83.3 % of commuters in the area drive alone to work. About 10.6 % of residents reported that they carpool, and only 1.1 % reported using a taxi service of one kind or another.

Traffic count data collected by GRPC in 2006 reveals a high level of congestion and traffic at the main Diamondhead entrance. Furthermore, the intersection at this location has only stop signs and no stop lights. An annual daily average of 5,800 cars travel Diamondhead Dr. just north of Aloha Dr., and an annual daily average of 13,000 cars were counted at the Diamondhead Drive intersection north of I-10. The daily average of 13,000 vehicles is the 13th highest number of all traffic counts taken on the Mississippi Gulf Coast.

Because of its location and demographic characteristics, the Diamondhead community might warrant special consideration as an area in need of transportation for its elderly and disabled residents. This is due in part to the physical distance between the community and many of the commercial, medical, and recreational facilities in other parts of Hancock and Harrison counties. The closest city centers to Diamondhead are Bay St. Louis, Waveland, Pass Christian, and Long Beach. The closest large employment center is Stennis Space Center. Many of Diamondhead’s retired senior citizens are on fixed incomes, and are impacted by fluctuating gas prices.

The following chart shows the distance in miles between Diamondhead other Gulf Coast Communities.

Diamondhead Mileage Chart

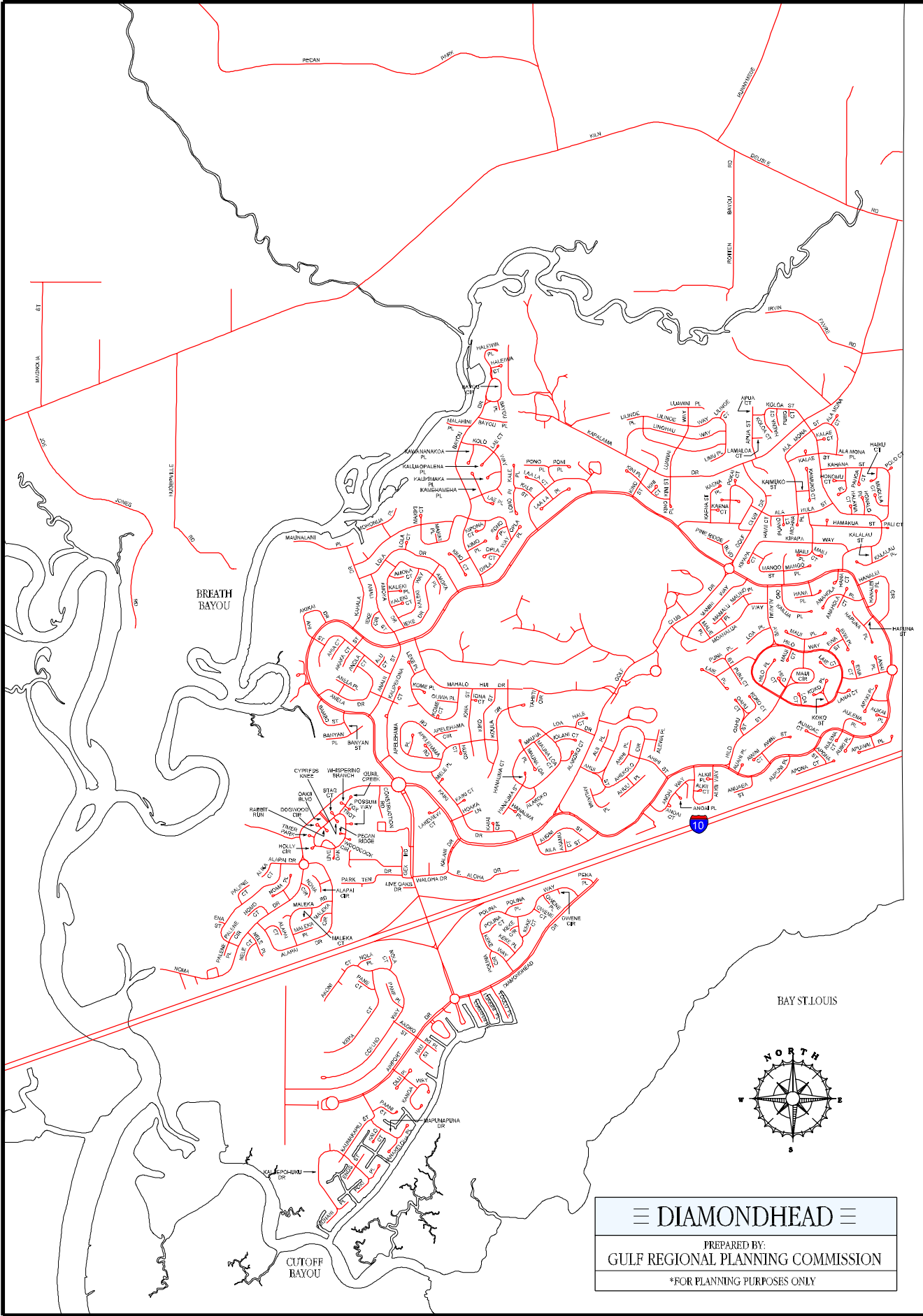
Location	Travel Time	Mileage
Diamondhead to Bay St. Louis:	27 minutes	13.76 miles
Diamondhead to Waveland:	24 minutes	11.98 miles
Diamondhead to Long Beach:	32 minutes	20.65 miles
Diamondhead to Gulfport:	31 minutes	24.40 miles
Diamondhead to Biloxi:	43 minutes	37.50 miles

Spatially, Diamondhead was not designed for efficient fixed-route transit services. The streets are spread out in circular, curved and looping patterns, instead of a traditional grid pattern. Most of the traffic enters at the main entrance at Interstate 10, leading to high volumes of traffic in this area. Some elderly residents have reported not feeling comfortable driving on the interstate even if they are willing to drive around Diamondhead itself.

Diamondhead has a small commercial area near the main I-10 intersection. A grocery, banks, gas stations, fast food restaurants, and other shops occupy this area. None of these businesses are linked together with sidewalks and are not in easy walking distance for most of Diamondhead's residents. Most residents are forced to use automobiles in order to reach this shopping area.

Diamondhead is not a pedestrian-friendly neighborhood due to the lack of sidewalks. Although some streets have a pedestrian lane delineated by a paint strip; this is not a sufficient substitute for a sidewalk or bike path. Overall, the entire community does not provide a safe and comfortable walking environment.

The following map shows the street names and patterns for the Diamondhead community.



≡ **DIAMONDHEAD** ≡

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Public Plans that address Transportation in Diamondhead

The need for public transportation by the Diamondhead community has been addressed in several planning documents and at community forums, which are summarized below.

Transit Development Plan, 2007

The April 2007, *Gulf Coast Transit Development Plan* identifies general and specific goals for improving and increasing transit in the various areas of the Gulf Coast. One of these goal calls for “the implementation of a Diamondhead/Bay St. Louis/Waveland General Public Demand Response Service in the “Year One Implementation Time-Frame” (*Gulf Coast Transit Development Plan, Appendix B: X-31*)

Hancock County Comprehensive Plan, June 2007

The following excerpt from the *Hancock County Comprehensive Plan* references the existing condition of transit services in Hancock County and what activities are underway to make improvements in the area:

Feasible transit opportunities are limited for Hancock County due to current transit operation costs and the county’s low population density. Existing transit service is provided for the county to serve those seniors that participate or who want to participate in Hancock County Senior Citizens Program. The Coast Transit Authority (CTA) is in the process of developing a plan to improve transit service to Hancock County and the other coastal counties. (*Hancock County Comprehensive Plan, June 26, 2007 Committee Draft P. 84*)

The following excerpt from the plan addresses part of this report’s processes, goals, efforts, and also identifies some of the concerns and needs that seniors have in the Diamondhead community:

The primary needs during a January 2007 public hearing were the lack of service to public housing and service for seniors in the Diamondhead community. CTA is working with the county to address special need populations such as seniors and residents with disabilities. As the county grows and as fuel prices continue to rise transit will become a more attractive mode of transportation for County residents.

With proper funding and planning, the Coast Commuter Service and Public Demand Response Service could take place during the first year of implementation, and the ADA service in the second year. (*Hancock County Comprehensive Plan, June 26, 2007 Committee Draft P. 84*)

2007 Study Process

As mentioned, the feasibility of providing demand response transportation resumed again in the summer of 2007. The goals of proposed survey process were:

- Who would use the service;
- What would be popular destination points;
- Would there be a sufficient level of support from residents; and ,
- How would the service be funded?

Diamondhead Community Public Transportation Meetings

Several meeting were held to discuss demand response transportation for Diamondhead. An initial exploratory meeting was held on June 12, 2007. Kevin Coggin, Executive Director, Coast Transit Authority, discussed ways to bring affordable transportation for medical purposes to senior citizens and handicapped people in Diamondhead.

On July 10, 2007, a second meeting was held to discuss the survey format and content. A final version was approved by the Diamondhead AARP committee members (See Survey, Appendix A).

On September 12, 2007 a follow up meeting was held to discuss the survey process. The Diamondhead AARP delivered the completed surveys to GRPC to analyze and compile into a report.

A GRPC staff member gave a PowerPoint presentation at the November 7, 2007 meeting; reporting on the survey results and the feasibility of implementing transit service (See Survey Summary of Results, Appendix B).

The Survey Process: Methodology

Input was gathered from the planning staff at GRPC, CTA management, and members of the Diamondhead AARP in constructing the survey form. The final version of the survey form was approved by the Diamondhead Community Public Transportation Advisory Committee (Appendix A).

The surveys were sent out in mid-July of 2007 with the Diamondhead newsletter, Diamondhead AARP meeting notices, and the Hancock County Historical Society newsletter. It is estimated that over 4,000 surveys were sent out between the newsletters and notices. A final deadline for turning in the surveys was approved by the Diamondhead AARP Transportation committee. Residents were given until August 31, 2007 to turn in completed surveys.

Completed Surveys were returned at the following locations: The POA box at the Diamondhead Community Center, the Diamondhead Supermarket drop box, and some were mailed directly to Diamondhead POA. Members of the Diamondhead AARP collected the surveys and brought them to the September 12 meeting. They were then handed over to the Gulf Regional Planning Commission staff to analyze and compile into a presentation and a final report.

The Survey Process: The Findings

Surveys were collected until August 31, 2007. Of the thousands of surveys that went out, only 24 surveys were returned. The survey was designed to capture a variety of transportation requests and data.

The first question on the survey asked: Would you use public transportation if it were available in your community? Seventeen of the twenty four respondents (70.83 %) gave no response to this question. Six respondents (25%) said they would use public transportation if it was available. One respondent specifically said they would use senior/handicapped transportation. Many respondents did not specifically answer this question, but did list destinations that they would like to travel to. It seems that many respondents overlooked this question even though they filled out many other sections of the survey.

When asked how many persons are in their household, ten of the twenty four survey respondents (41.70 %) reported living in one person households. Eight respondents (33.33 %) live in two- person households, four respondents (16.67 %) live in three-person households, and two (8.33 %) live in four- person or more households.

When asked how many cars are in their household, seventeen of those surveyed (70.83 %) reported having only one car. Five respondents (20.83 %) reported having two cars per household. One respondent (4.17 %) lives in a household with three cars, and one respondent (4.17 %) lives in a household without a car.

Respondents were asked to identify specific destinations to which they would like transportation to and from. The main categories are listed below:

- Shopping
- Employment
- Medical
- Recreation
- Other

The following locations were requested as shopping destinations:

- Gulfport
- Bay St. Louis
- Waveland
- Wal-Mart in Bay area
- Edgewater Mall
- Diamondhead Shopping Center
- Crossroads Shopping Center
- Biloxi
- Slidell

The following locations were requested as employment destinations:

- 1 request for Stennis Space Center
- 1 request for the Diamondhead Shopping Center

The following locations were requested as medical destinations:

- Gulfport as a general destination
- Bay St. Louis as a general destination
- Gulfport Memorial Hospital
- Waveland
- Keesler Air Force Base
- Slidell

The following locations were requested as recreation and other destinations:

- Casinos
- Hollywood Casinos
- Bay St. Louis
- Nautilus Country Club
- Movie Theater
- East Recreation Pool
- Airport

The survey asked community members to list the nearest intersection to their home. The following locations were listed:

- Diamondhead Dr. North & Bayou Dr.
- Diamondhead Dr. East
- Gulf Club Drive
- Water Tower
- Golf Club Drive and Ana Hula and Alaa Moana
- Kaplama and Luawai Way

- Gulf Club Drive and Diamondhead Dr, East
- Alakoko Mauna Loa
- Laa La and Diamondhead East
- Diamondhead Dr. West
- Lenoir Condos on Golf Club Dr.
- Diamondhead Dr. North & Bayou Dr
- Kiko St and Mahalo Heli Dr
- Fairway Dr. and Golf Club Dr
- Lanai Street

In the survey, community members were asked if they had any special medical needs. Nineteen respondents (79.17 %) said they had no special needs. Three respondents (12.5 %) said they had special needs. Two respondents (8.33 %) did not answer this question.

Residents were also asked if they would like to be notified of any public meetings regarding transportation. Eleven respondents (45.83%) said they would like to be notified of public meeting regarding transportation. Thirteen respondents (54.17%) did not answer this question.

Summary of Survey Findings

Overall, less than 1 % of the surveys that were sent out were completed and returned. Overall, the twenty-four completed surveys were statistically marginal, making it difficult to draw significant conclusions. The following generalized trends can be summarized from the survey results. A majority of the respondents requested transportation to medical, shopping or recreation destinations. Very few requested transportation to a place of employment. A majority of the residents who filled out the surveys did not have any special needs. A large percentage of them reported living in one-person households, and a majority of the residents who responded had at least one car in their household.

Coast Transit Authority (CTA) requires a study to be conducted before initiating any new route service. The rate of response to a survey is one of the main factors that CTA management uses to determine whether there is enough interest to start up a new route, and to incur the additional expenses of providing buses, drivers, fuel, and administrative overhead. Given the statistically insufficient number of respondents, CTA could not justify the allocation of resources to initiate their standard demand response service in Diamondhead.

Although the number of surveys returned did not justify starting a new demand response service in Diamondhead, there are other factors that might warrant providing transportation services to senior and handicapped citizens. One contributing factor is the physical distance between the community and the commercial, medical, and recreational facilities in other parts of Hancock and Harrison counties. Also, the high percentage of

senior citizens, the unfriendly pedestrian environment, and the reluctance of many senior citizens to drive on I-10 are all factors that can be considered.

Recommended Course of Action

It is the recommendation at this time that the Diamondhead AARP work with the Hancock County Senior Citizens program to acquire funding for a transportation program. It is also recommended that the Hancock County Senior Citizens program apply for a grant that will help fund a demand response service.

If a grant is awarded, CTA may be able to participate in the operation of the service. The Hancock County Senior Citizens program could handle the daily coordination, dispatch, and other administrative functions.

As of this writing CTA management and the Hancock County Senior Citizens program are exploring grant options to fund demand response service for Senior Citizens in Diamondhead. As public agencies, GRPC and CTA will continue to work with Hancock County and senior citizen organizations in support of public transportation.

Appendix A

Diamondhead Community Public Transportation Survey

1. Would you use public transportation if it were available in your community?
2. What destinations would you like to travel to?

	Location	Time of Day	Day of Week
Shopping			
Employment			
Medical			
Recreation			
Other			

3. Please fill out the information below:

Community Name	Diamondhead
Your Name (Optional)	
Your Street Address	
City, State, and Zip code:	
Nearest Intersection to your home:	
Number of People in Your Household:	
Number of Cars in Your Household:	
Do you have special needs?	

4. Would you be interested in being notified of public meetings regarding transportation?
 Phone:
 Email:

Where to return your survey:

1. Drop in POA box at the Community Center
2. Drop in Diamondhead Super Market drop box
3. Mail to : Diamondhead POA, 5300 Diamondhead Circle, Diamondhead, MS 39525
 (ATTNL Survey)

Send email to dhnews@cablone.net. For additional information about survey, call Mary Munt at 586-0658 or Doris Muniz at 255-3345.

Appendix B

Summary of Survey Results

Activity	Destination	Number of Requests per Location	Percent
Would you use public transportation?			
Shopping	Gulfport	5	
Shopping	BSL	3	
Shopping	Waveland	2	
Shopping	Wal-Mart in the Bay area	6	
Shopping	Edgewater Mall	4	
Shopping	Diamondhead shopping Center	4	
Shopping	Crossroads Shopping Ctr	2	
Shopping	Biloxi	3	
Shopping	Slidell	2	
Employment	Stennis Space Center	1	
Employment	Diamondhead Shopping Center	1	
Medical	Gulfport as a general location	10	
Medical	Bay St. Louis as a general location	9	
Medical	Gulfport Memorial	3	
Medical	Waveland	2	
Medical	Keesler AFB	1	
Medical	Slidell	1	
Recreation and other	Casinos	1	
Recreation and other	Plays, Field trips to neighboring towns		
Recreation and other	Bay St. Louis	1	
Recreation and other	Nautilus Country Club	1	
Recreation and other	Movie theater	2	
Recreation and other	East Rec Pool	1	
Recreation and other	Hollywood Casino	1	
Recreation and other	Airport	2	
Intersection nearest home	Diamondhead Dr. East		
Intersection nearest home	Kimo		
Intersection nearest home	Diamondhead Shopping Center		
Intersection nearest home	Mauna Lea & Nanauma St		
Intersection nearest home	Diamondhead East Dr. & Loa La Way Twin Lakes Pavilion		
Intersection nearest home	Gulf Club Drive		
Intersection nearest home	Water Tower		
Intersection nearest home	Golf Club Drive and Ana Hula and Alaa Moana		
Intersection nearest home	Kaplama and Luawai Way		
Intersection nearest home	Gulf Club Drive and Diamondhead Dr, East		
Intersection nearest home	Alakoko Mauna Loa		
Intersection nearest home	Laa La and Diamondhead East		

Intersection nearest home	Diamondhead Dr. West		
Intersection nearest home	Lenoi Condos on Golf Club Dr.		
Intersection nearest home	Diamondhead Dr. North& Bayou Dr.		
Intersection nearest home	Kiko St and Mahalo Heli Dr		
Intersection nearest home	Fairway Dr. and Golf Club Dr.		
Intersection nearest home	Lanai Street		
Number of persons with 1 person in household		10	41.70%
Number of persons with 2 persons in household		8	33.33%
Number of persons with 3 persons in household		4	16.67%
Number of persons with 4 or more persons in household		2	8.33%
Number of households with 1 car		17	70.83%
Number of households with 2 cars		5	20.83%
Number of households without a car		1	4.17%
Do you have any special needs?	Yes	3	12.50%
Do you have any special needs?	No	19	79.12%
Do you have any special needs?	No Response	2	8.33%
Would you use public transportation if it were available?	Yes	6	25%
Would you use public transportation if it were available?	No Response	17	70.83%
Would you use public transportation if it were available?	If it was senior/handicapped	1	4.17%
Would you be interested in being notified of public meetings regarding transportation?	Yes	11	45.83%
Would you be interested in being notified of public meetings regarding transportation?	No Response	13	54.17%