The two supplements to the Inventory of Planning Information are meant to be a quick reference guide to help the user locate facts and data published in reports or available within GovGuam. Three standard forms, were used to describe these facts and data:

- a form for tables
  - a form for surveys and questionnaire
  - a form for computer files

The latter two forms are easily understood. The form for tables is less straightforward. Exhibits D and E on pages 15 and 16 are examples of tables and the way they are detailed in this book. The section, How to Use the Supplements, contain a complete description.

# G U A M INVENTORY OF PLANNING INFORMATION

SUPPLEMENT FOR PHYSICAL PLANNING

JUNE, 1976

THE PREPARATION OF THIS REPORT WAS FINANCED IN PART THROUGH A COMPREHENSIVE PLANNING GRANT FROM THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (GRANT NUMBER CPA-GU-09-39-1001).

BUREAU OF PLANNING AGANA, GUAM

#### TABLE OF CONTENTS

		<u>Page</u>
Introduction		1
How to Use the Supplements		3
How to Reference the Supplement from the Inventory of Planning Information		4
The Three Formats Used in the Supplement		5
How to Read the Detail Descriptions for Statistical Tables (Exhibit A)		6
How to Read the Detail Description of Data Collection Forms (Exhibit B)		10
How to Read the Detail Descriptions of Computer File Format Forms (Exhibit C)		11
Listing of Detail by Report Title		19
Environment	, 4	27
Land Use		111
Population		143
Public Utilities		165
Recreation		257
Transportation		293

#### INTRODUCTION

This book is one of a three-volume set. The titles of the books are as follows:

Inventory of Planning Information Inventory of Planning Information Supplement for Social and Economic Planning Inventory of Planning Information Supplement for Physical Planning

The books are meant to be a reference guide for planners working for the Government of Guam. The introduction to the first volume explains the purpose and scope of the project and the methodology used in its compilation. The material described in these books includes master plans, reports, surveys, and data compilation forms of use to planners and other people doing research about Guam. The first book contains a general description of each planning document and gives the agency or library where the document is accessible to users. The latter two books contain a detailed description of the numbers and facts contained in the documents described in the first book.

#### SUBJECT AREAS

The information in all three books is organized by subject category. The subject areas, with their abbreviations which are used in the page numbering, are as follows:

Economics	EÇN	Environment	ENV
Education	EDU	Land Use	LND
Health .	HTH	Population	POP
Housing	HSG	Public Utilities	PUT
Population	POP	Recreation	REC
Safety and Defense	SAF	Transportation	TRN
Social	SOC	i i i i i i i i i i i i i i i i i i i	

The general information for all subject areas is contained in the first book; the detailed information in the latter two volumes is divided into physical planning areas and social and economic areas. In the list of subject areas given above, the ones on the left are in the social and economic planning Supplement, and the ones on the right are in the physical planning Supplement. Population detail is included in both volumes because it is basic to any kind of planning.

#### PAGE NUMBERING

A special system of page numbering was set up to make cross-referencing easier. These page numbers are located in the upper right-hand corner of the pages. Each page of the general description in the first volume is numbered by subject area and a sequence number within that area. Using the abbreviations for subject area given above, the first page of the Economics general descriptions is numbered ECN 1, the next ECN 2, and so on. The numbering within each new subject area starts from 1 again, so the first page of general descriptions for the next subject area, Education, is numbered EDU 1.

The pattern for page numbering in the Supplement is similar. The first report detailed under Economics is numbered ECN Detail 1; the second report is numbered ECN Detail 2, and so on. If the detailed information for a report takes more than one

page, the same number is used for the second and subsequent pages of that piece of detail. Only when the detailing of a new report begins does the number change.

The general description of each report or survey in the first volume ends with a sentence of the form, "For detail, see ECN Detail 3." To find it, the reader turns to the page or pages labeled ECN Detail 3 in the Supplement for Social and Economic Planning. There is a similar cross-referencing system from the detail in the second and third volumes back to the general descriptions in the first volume. At the top of the first page of each piece of detail, there is a phrase of the form, "General Reference ECN 3." The reader will find the general description related to the piece of detail on page ECN 3 of the Inventory of Planning Information.

#### NOTES

The following notes are Standard Notes used throughout the Detail Supplement:

- Note 1: Military data is included in that particular table or document.
- Note 2: The table or document does not specify if military data is included and it could not be determined.
- Note 3: The source of the table or document could not be determined and was not specified in the document.
- Note 4: The date of the table could not be determined and was not specified in the document.
- Note 5: When tables have information presented in percents and the actual numbers are also presented, the percent information is not specified; instead, a "5" is indicated in the "Notes" column.

#### HOW TO USE THIS BOOK

The section that follows gives an explanation and examples of how to use the Supplement The reader is strongly urged to read it before attempting to use the information that follows.

#### HOW TO USE THE SUPPLEMENTS

The purpose of this Supplement is to provide the user with specific information about some of the reports, surveys, and data collection forms described in the Inventory of Planning Information. The Supplement allows the user of this Inventory to have at his fingertips a specific description of the information contained on the document or form in which he is interested. To illustrate, consider a user who needs to know where he can find population data for Guam and more specifically, the ethnic group breakdown of the population. The user would first scan the Population Section of the Inventory of Planning Information to determine what documents are available. Suppose the user found three population documents that could possibly contain an ethnic group breakdown. The description of these three documents would have a reference to their Detail descriptions in the Supplement. The user would then scan the Population Section of the Supplement to see if any of the population documents contained ethnic group information. If the user found that ethnic group information was available, he could then look at the Inventory of Planning Information to find out where the document is located. In summary, the Supplement permits the user to immediately determine the availability of the specific information requirements he has, without having to physically track down to all documents that may possibly contain what he needs to know.

#### HOW TO REFERENCE THE SUPPLEMENT FROM THE INVENTORY OF PLANNING INFORMATION

The Inventory of Planning Information contains General Descriptions of reports, surveys and forms. To reference the specific information found in these documents, the user must look at the Detail reference sentence located at the end of the document's General Description. This reference always says "For Detail, see... (area) Detail...(number)". This area and number corresponds to the reference number found on the upper right-hand corner of the Detail Information in the Supplement. The user simply flips through the appropriate supplement until he comes to the correct area and number. The Detail reference numbers for each area always start with 1 and run consecutively to the end of that area. When the Detail description for a document is more than one page, each page of the description will have the same Detail reference number. It is also possible to reference a document's general description from the Supplement. The first page of each Detail description gives a "general Information Reference Number" which allows the user to refer back to the document's description in the Inventory of Planning Information.

#### THE THREE FORMATS USED 15 THE SUPPLEMENT

There are three different formats used for documenting the specific information found in the reports, surveys, and data collection forms listed in the General Description. Each of these three formats provides certain types of specific information depending upon the nature of the report, survey, or form. The distinction between the formats is this:

- If the document has statistical tables, the table's rows and columns are described (Exhibit A).
- 2. If the document is a questionnaire, application, or other type of data collection form, the information contained on that document is described in narrative (Exhibit B).
- 3. If the report, survey, or form is computerized, the computer file format is described (Exhibit C).

The format used for data collection forms and the computer file format are fairly straightforward; the form used for describing statistical tables will not be familiar to most users. Following is a discussion of each of the forms, what information they contain, and how to use them. If the user does not have the patience to read the following discussion, it is strongly suggested that he glance at Exhibits D and E to understand the method of description used for detailing the statistical tables.

#### HOW TO READ THE DETAIL DESCRIPTIONS FOR STATISTICAL TABLES (EXHIBIT A)

Exhibit A is the form used to describe information that is the form of statistical tables. Normally, these tables appear in the published documents which are listed in the General Descriptions. The content of the documents themselves are explained in the general descriptions in the Inventory of Planning Information; the statistical tables included in the documents are described in the Supplement in the format shown in Exhibit A.

<u>TITLE</u>. This refers to the title of the document itself and is the same as the title specified in the Inventory of Planning Information. If the document is dated, the date will also be specified.

SOURCE AGENCY. This is the agency, department, organization, or person who prepared the document and is the same as the source specified in the Inventory of Planning Information.

COMPUTERIZED. This tells the user if the information in the report, survey or data collection form is available in machine-readable form, i.e. cards, tape or disk.

COMPUTER REFERENCE. If the information is computerized, this will tell the user where to find the computer file format description for that particular document.

DESCRIPTION OF TABLES. When the document contains statistical information in the form of tables, the tables are described in the format shown in Exhibit A. A table is generally a display of statistical information with headings across the top and along the side. Exhibits D and E have examples of the original statistical tables and the format used in describing these tables. It is advised that the user glance at these Exhibits before proceeding to the following narrative discussion.

Title/Date/Source. The title date and source in the Description of Table(s) always

<u>Title/Date/Source</u>. The title, date and source in the Description of Table(s) always refers to information about the table itself, <u>not</u> the document being detailed. If the source and/or date is not specified, that means the table's source and/or date is

the same as the document's. The table's date is the effective date of the information in the table. If the table's source and/or date could not be determined the "NOTES" column will so indicate with a "3" or "4". For further information, refer to the discussion on "NOTES".

Row Labels and Column Headings. Row labels are the labels located on the side of the table (usually the left side). In Exhibit D, the row labels are the Election District on the left side of the table. In Exhibit E, the row labels are the Age Groups on the left side of the table. Column Headings are the headings located on the top of the table. In Exhibit D, the column headings are Land Area, Population and Density. In Exhibit E, the column headings are Ethnicity (Chamorro, Filipino, Caucasian). When describing a statistical table, each label and heading is listed vertically down the form, each label or heading on a separate line. Exhibits D and E illustrate the method used to describe the row labels and column headings of their respective tables. The row labels and column headings of tables usually consist of major categories with subheadings under the major categories. In Exhibit E, Ethnicity is a major category and Chamorro, Filipino, Caucasian are subheadings.

Standard Terminology Adopted. Certain standard terminology was adopted in describing row labels and column headings. This is illustrated in Exhibits D and E and explained below.

19 Election Districts. When labels or headings are the standard 19 election districts, 19 municipalities, 19 villages, or 19 districts, they are not listed separately. Instead, a phrase such as "19 Election Districts" is used and always means that <u>each</u> election district is included separately in the labels or headings of the original table. This is illustrated in Exhibit D where the row labels of the table were described as the "19 Election Districts".

Fiscal Year 1960 thru Fiscal Year 1970. When labels or headings are consecutive calendar or fiscal years, the first year and the last year are

phrase adopted is "FY 1960 thru FY 1970". This means that information is included for all the years between and including 1960 and 1970. If the notation "FY" does not precede the year, the years are Calendar Years and not fiscal Years.

25 thru 54 Years in Increments of 10 Years. When the labels or headings are quantifiable amounts such as years, ages, or monetary amounts, and each quantifiable amount increases or decreases by the same amount, each separate label or heading is not listed. Refer to Exhibit E for illustration. The age groups, starting at 25 years old, increase by 10 years up to 55 years old. In the row labels this is indicated by "25 thru 54 Years in Increments of 10 Years". This means that there are age group breakdowns of 25 thru 34, 35 thru 44, and 45 thru 54. As can be seen, these age groups are listed in the original table in Exhibit E. This standard phrase is used with any quantifiable amount that increases or decreases by a fixed amount.

Above Categories are Each Broken Down Into. When categories have repetitive subheadings, the subheadings are specified only once. In Exhibit D, the years 1960 and 1970 are repeated for both Population and Density. This repetition was indicated by "(Above 2 categories are each broken down into)". This is a standard phrase which tells how many and which categories have the same subheadings.

Abbreviations. As a rule abbreviations were not used in the Inventory. The exception to this are the names of Government of Guam agencies or departments which have historically evolved, generally known abbreviations. For example, DPW, GEPA, PUAG, DPS, etc. For users who are not familiar with these abbreviations, Exhibit F is a list of all Government of Guam agencies and departments and the abbreviations used in this Inventory. If a department or agency is specified in the content of the detail description, it should be assumed that

Notes. The Notes column is used to explain anything relevant to the interpretation of the table. There are 5 Standard Notes (1 thru 5); other notes (6 and all subsequent numbers) are explained at the end of the Detail description for that document. Standard Notes are:

- Note 1: Military data is included in that particular table or document.
- Note 2: The table or document does not specify if military data is included and it could not be determined.
- Note 3: The source of the table could not be determined and was not specified in the document.
- Note 4: The date of the table could not be determined and was not specified in the document.
- Note 5: When tables have information presented in percents and the actual numbers are also presented, the percent information is not specified; instead, a "5" is indicated in the "Notes" column.

#### HOW TO READ THE DETAIL DESCRIPTIONS OF DATA COLLECTION FORMS (EXHIBIT B)

Exhibit B is the form used to describe information that is <u>not</u> in a table format.

This would normally be application forms, questionnaires, and other types of data collection forms. These kinds of documents are described in narrative form specifying each piece of information contained on the document. Exhibit B is an example of an application form used in applying for a Building Permit.

TITLE. This refers to the title of the document itself and is the same as the title specified in the Inventory of Planning Information. If the document is dated, the date will also be specified here.

SOURCE AGENCY. This is the agency, department, organization, or person who prepared the document and is the same as the source specified in the Inventory of Planning Information.

COMPUTERIZED. This tells the user if the information in the report, survey or data collection form is computerized.

COMPUTER REFERENCE. If the information is computerized, this will tell the user where to find, in the Supplement, the Computer File Format description for that particular document.

INFORMATION CONTAINED ON THE DOCUMENT. This is a logical, narrative description of the specific information found on the data collection form, survey, or report.

HOW TO READ THE DETAIL DESCRIPTIONS OF COMPUTER FILE FORMAT FORMS (EXHIBIT C)

Exhibit C is the form used to describe information contained on a computer file associated with a report, survey, or data collection form described in the Inventory of Planning Information.

TYPE OF INFORMATION. This is usually the name of the computer file or a descriptive phrase indicating the kind of information on the file.

CONNECTED WITH: REPORT, SURVEY, FORM. This tells the user what type of document was computerized.

TITLE. This is the title of the document that was computerized.

NUMBER OF RECORDS IN FILE. This gives the user an indication of the number of records available in the computer file.

DATA AVAILABLE. This tells the user how the data is physically stored.

GENERAL INFORMATION. This is the cross-reference to the general description of the document that is computerized and refers the user back to the Inventory of Planning Information.

<u>DETAIL INFORMATION</u>. This is the cross-reference to the Supplement for a description of the reports or statistics produced from the computer file.

<u>FILE FORMAT</u>. This is a detailed description of the contents and the position of each data element in the file.

<u>POSITIONS</u> indicates the card columns or position on disk of each specific data element.

<u>CONTENTS</u> is a phrase describing each data element in the computer file.

NOTES are used to explain anything that is relevant to the explanation and use of the computer file.

REC Detail 8

Title: Boating Activity	In the Territory Of Guam	- 1974		Title: Clinic Visit Record for Family Planning Services
Source Agency: Gillham	Koebig and Koebig, Inc.			Source Agency: Maternal Child Health and Family Planning, Dept. of Public Health & Soc. Ser
Computerized: No	Computer Referen	nce:		Computerized: Yes Computer Reference: Not Available
General Information:	REC 4.			General Information: IITH 13
	Description of Table(s)			Information Contained on the Document
Title/Date/Source	Row Labels	Column Headings	Notes	1. PATIENT'S BACKGROUND: Full Name; Mailing Address; Phone Number; Date of Birth.
Table 1 Boats Per 1,000 Population; USCG Registration Records and Guam Harbor Police Registration Records.	Year - 1970 thru 1974	U.S. Average Hawaii Guam		<ol> <li>CLINIC VISITS: Patient Number; Clinic Number; Date of Visit; Type of Visit - initial visit, revisit (first visit this year), revisit (not first visit this year).</li> <li>SERVICES PROVIDED: Medical Services - pap smear, pelvic exam, breast exam, blood pressure, pregnancy testing, VD testing, urinalysis, blood test, sterilization, infertility treatment, other; Counseling - sterilization, contraception, infertility, other.</li> </ol>
Table 2 Small Boats In the Territory Of Guam; DPS and Marianas Yacht Club.  Table 3 Distribution Of Craft Responding To Questionnaire, By Area  The following 3 tables	Type Total  Area Total	Number Moored Number Dry Stored Total	5 7	<ol> <li>REFERRALS: None; Abortion; Sterilization; Infertility Services; Other Medical Services; Social Services.</li> <li>CONTRACEPTIVE METHOD AT THE END OF THIS VISIT: Method - oral, IUD, diaphragm, foam, rhythm, condom, injection, sterilization, other, none, interim method; If none, give reason - pregnant, other medical reason, seeking pregnancy, other.</li> <li>NEXT APPOINTMENT: Date; Purpose - supply only, annual medical, other medical, other, no next appointment.</li> <li>PREGNANCY HISTORY: Number of Live Births; Number of Fetal Deaths; Number of Children now living.</li> </ol>
show Distribution of Craft:			,	8: WELFARE STATUS: Are you or anyone in your family receiving Public Assistance - Yes or No; Are you or anyone in your family registered for Medicaid - Yes or No.
Table 4By Area; DPS Registration Records	Area Total	Number Of Craft	5 7	<ol> <li>EDUCATION: Give Highest Grade Completed - none, elementary school (1 thru 8), high school (9 thru 12), college (13 thru 17), more than 4 years college.</li> <li>PLACE OF BIRTH AND ORIGIN: City and State; Country if not U.S.; Latin American</li> </ol>
Table 5Responding To Questionnaire, By Storage Method. Table 6	Type Total Type	Number Of Responses In Harbors Along Coast Dry Stored Number Of Craft	5 6	Origin or Descent - yes or no; Race - white, black, American Indian, other; Sex - female or male.  11. SOURCE OF REFERRAL: Outreach Worker; Other Family Planning Clinic; Hospital or Other Health Agency; Private Doctor or Nurse; Welfare Agency; Another Clinic Patient; Family or Friend; TV, Radio, Paper Ad; Other; Unknown.
By Storage Method.	Total	In Harbor Along Coast Dry Stored	6	12. CONTRACEPTIVE HISTORY: Have You Ever Used Any Method to Prevent Pregnancy - yes or no; Are You Currently Using Contraception - yes or no; Last Method Used - oral, IUD, diaphragm, foam, rhythm, condom, injection, other; Person Who Prescribed That Method - clinic, private doctor, drug store, other.

HTH Detail 55

On Disk

5444 5445

2311 3311

D B. St 541 W						
Connected With:		, p			7	
. Published Repo Surv		Title:	Health	Information	System	
For	ı X	Data Avail	lable:	On Cards		
			,	80 Col		1
				v Go Gol		

Number of Records in file: Approx 1,500 HTH 3 General Information:\_\_\_

HTH Detail 2 Petail Information:

#### FILE FORMAT

Positions	Contents	Motes
1 - 9	Patient Number	
10 - 11	Provider Number	9
12 - 17	Date Patient Seen	
18 - 21	Physician Code	1
22	Nurse Code	1
23	Patient Referred To	
24	Sex	1
25 - 30	Date of Birth	-
31 - 32	Payment Plan	
33 - 36	Diagnosis Code (up to 3 separate diagnoses)	
37 - 40		
41 - 44		1
45 - 47	Surgery Code	1
48	Race - Nationality .	1
49	Status (appointment, walk-in, emergency)	1
50 - 51	Residence	1
52	Referred From	
. 53	Activity	
54 - 55	Type of Visit	
56 - 57	Optional Godes	
58 - 59		
60 - 61		
X :		l .
F		1
1.5		
		1
	14	1

TABLE NO. 1X

## GUAM POPULATION, AREA AND DENSITY

Election District	Land Area in Square Miles	Population 1960	Population 1970	Density 1960	Density 1970
Guam	215	67,044	84,9661/	321	407
Agana	1	1,642	2,119	1,642	2,119
Agana Ilts.	1	3,210	3,156	3,210	3,156
Agat	11	3,107	4,308	282	431
Asan	6	3,053	2,629	509	438
Barrigada	9	5,430	6,356	603	706
Chalan Pago & Ordot	6	1,835	2,931	306	489
Dededo	30	5,126	10,780	171	359
Inarajan	19	1,730	1,897	91	100
Mangilao	10	1,965	3,228	197	323
Merizo	6	1,398	1,529	233	255
Mongmong, Toto & Maite	2	3,015	6,057	1,508	3,029
Piri	7	1,467	1,284	210	183
Santa Rita	16	12,126	8,109	758	477
Sinajana	i	3,862	3,506	3,862	3,506
Talofofo	17	1,352	1,935	80	. 114
Tamun Ing	6	5,944	10,218	991	1,703
Umatac	6	744	813	124	136
Yigo	35	7,682	11,542	219	330
Yona	20	2,356	2,599	118	130
Good	14			*,	
•			- <del></del>		
DETAIL DESCRIPTION OF TH	E ADOVE TABLE				

Title: Overall	Economic Developmen	nt Plan - Guam -	- 1975	
Source Agency:	Bureau of Planning			
Computerized: _	Но	Computer Refere	ences:	19
General Informa	tion: POP 2			
	Descrip	tion of Table(s)	) '	

Title/Date/Source	Row Labels	Column Headings	Notes
ble No. IX  Jam Population, Area  d Density by Election  strict, 1960 and 1970;  S. Dept. of Commerce,  preau of the Census  blication PC(1)-A54	19 Election Districts Guam Total	Land Area in Square Miles Population Density (Above 2 Categories are each broken down into:) - 1960 - 1970	

•	ETHNICITY			
Age	Chamorro	Filipino	Caucasian	
All ages	44,300	15,400	7,200	
0-15 yrs	19,700	5,500	2,000	
16-19 yrs	4,300	900	400	
20-24 yrs	3,900	1,000	1,000	
25-34 yrs	4,700	2,600	1,400	
35-44 yrs		1,900	1,100	
5-54 yrs	3,500	2,200	700	
55 yrs. & over	3,800	1,300	600	
-				
Medianageyrs.	18.1	25.8	26.1	

#### DETAILED DESCRIPTION OF ABOVE TABLE

Title: Population Facts of Guam

Source Agency: Bureau of Labor Statistics, Dept. of Labor

Computerized: NO

Computer Reference:

General Information: POP 2

#### Description of Table(s)

		31	
Title/Date/Source	Row Labels	Column Headings	Notes
The Three Major Ethnic Groups on Cuam by Age	Age - All Ages - O thru 15 Years - 16 thru 19 Years - 20 thru 24 Years - 25 thru 54 Years in Increments of 10 Years - 55 Years and Over	Ethnicity - Chamorro - Filipino - Caucasian	
- B	Median Age - Years		

#### GOVERNMENT OF GUAM DEPARTMENT AND AGENCY ABBREVIATIONS

Bureau of Planning = No abbreviation

Guam Energy Office = No abbreviation

Bureau of Budget and Management Research = No abbreviation

Territorial Crime Commission = TerrCrimeComm

Public Health and Social Services = PHSS

Department of Public Works = DPW

Department of Revenue and Taxation = DeptRevTax

Department of Public Safety = DPS

Department of Labor = DeptLabor

Department of Agriculture = DeptAgric

Department of Administration = DeptAdmin

Department of Commerce = DeptCommerce

Attorney General = AG

Guam Environmental Protection Agency = GEPA

Guam Economic Development Authority = GEDA

University of Guam = UOG

Guam Housing and Urban Renewal Authority = GHURA

Department of Education = DOE

Guam Housing Corporation = GHC

Commercial Port = CommPort

Guam Memorial Hospital = GMH

KGTF Public Television = KGTF-TV

Public Utility Agency of Guam = PUAG

Guam Power Authority = GPA

Guam Telephone Authority = GTA

Guam Airport Authority = No abbreviation

Vocational Rehabilitation = VocRehab

Guam Visitors Bureau = GVB

Territorial Planning Commission = TerrPlanComm

Guam Transit Authority = TransitAuth

Micronesian Area Research Center = MARC

LISTING OF DETAIL BY REPORT TITLE

PHYSICAL PLANNING

#### LISTING OF DETAIL BY REPORT TITLE

#### NVIRONMENT

- 1 National Emissions Data System (NEDS) Report Form
- 2 Agana River Interim Report, Harbors and Rivers in the Territory of Guam
- 3 Detailed Project Report for Flood Control of Namo River, Guam
- 4 Irrigation Feasibility Study for the Island of Guam
- 5 Guam Fish and Wildlife Investigations
- 6 Noise Measurement Survey Forms
- 7 Guam Pesticides Profile March 1975
- 8 Application for Importation and Notice of Arrival of Pesticides and Devices
- 9 Apra Harbor Pollution Study
- 10 Historical Review of the Seismology of Guam With References
- 11 Detailed Project Report Shore Protection Talofofo Beach
- 12 Guam Master Plan Study Infrastructure Drain
- 13 Typhoon Pamela: -A-Report on the Business Establishment Damage Survey -June 1976
- 14 Typhoon Karen
- 15 Meteorology of Guam with Particular Reference to the Typhoon of Sept. 1946
- 16 Sewer Connection Survey Inspection
- 17 Territory of Guam Water Quality Inventory Report to Congress 1975
- 18 Water Resources Data for Hawaii and Other Pacific Areas
- 19 Guam Monthly Water Resources Memorandum
- 20 Groundwater Resources of Guam: Occurrence and Development
- 21 Report Covering the Surface Water Survey for Guam
- 22 Water Supply Study for Government of Guam
- 23 Water Resources Supplement to the Military Geology of Guam
- 24 Local Climatological Data

#### LAND USE

- 1 Territory of Guam Master Plan 1966
- 2 Guam Master Plan, Phase 1, Problems, Opportunities and Alternatives -June 1972
- 3 Land Use Inventory Research Forms
- Volume 1 A Study and Review of Laws Pertaining to Alien Investment On Guam
- 5 Land Use Comparison of Zoning Districts and Master Plan
- 6 Public Land Zoned for Commercial and Industrial Uses
- 7 Inventory of Real Property Owned by the United States
- 8 Manual of Surveying Practice
- 9 Forms for Territorial Planning Commission and Subdivision Review Committee
- 10 Improvement District Program Procedure, Process and Flow
- 11 Forms for Seashore Protection Commission
- 12 Files on Seashore Protection Commission
- Commercial Property Record and Appraisal Card; Farm and Residential Property Appraisal Card
- Location Codes Used in Real Estate Tax Division Master Directory and New Assessment Worksheet
- 15 Land Use Inventory

#### POPULATION

- 1 General Population Characteristics Guam
- 2 Number of Inhabitants Guam
- 3 Population Estimates of Guam: September, 1975
- 4 Basic Population Facts Guam 1970
- 5 Statistical Abstract 1974 Volume 5
- 6 Guam Master Plan, Phase I
- 7 Overall Economic Development Plan
- 8 Preliminary Spatial Patterns of Demographic Variables and Socio-Economic Characteristics of Guam

#### PUBLIC UTILITIES

- 1 The 1974 Statistical Abstract
- 2 Bulky Metallic Wastes Management Plan for Guam
- 3 Operational Plan for Solid Waste Management Territory of Guam
- 4 Solid Waste Management in Guam
- GPA, Official Statement Relating to 1972 Issue Revenue Bonds (Series B)
- 6 Computer Printouts and Reports
- 7 Audit Report on Guam Power Authority (Number RG 76-01)
- 8 Audit Report on Guam Telephone Authority
- 9 Guam Master Plan; Infrastructure Telephone
- 10 Brief on Proposed Rate Increase
- 11 Audit Report on Public Utility Agency of Guam
- 12 Master Plan Report Guam Water System Improvements FY1972 to FY1982
- 13 Wastewater Facilities Plan Preliminary Submittal Area I
- 14 Wastewater Facilities Plan Area I Pre-final Submittal
- 15 Wastewater Facilities Plan Preliminary Submittal Area II
- · 16 Wastewater Facilities Plan Goals and Treatment Requirements
- 17 Wastewater Facilities Plan Terrestrial Flora and Terrestrial Fauna
- 18 Umatac Wastewater District Facilities Planning Study
- 19 Agat-Santa Rita Wastewater District Pre-Design Study
- 20 Improvements to the Asan-Piti Sewerage System Pre-Design Study 1973
- 21 Sewerage Study for the Tumon-Tamuning Areas, Guam, M.I.
- 22 Sewage Flow Analysis of the Southern Interceptor Link
- 23 A Plan for an Integrated Wastewater System
- 24 Guam Master Plan Infrastructure Sewer
- 25 Sewerage and Sewage Disposal Facilities Engineering Report

#### PUBLIC UTILITIES (Con't.)

- 30 GPA Billing System Master Record GPA Master Record Layout
- 31 GTA Customer Billing Records Accounts Receivable Master File
- 32 PUAG Customer Billing Records

#### RECREATION

- 1 Outdoor Recreation on Guam
- Volume II Outdoor Recreation on Guam, Preliminary Report C, Demand for Outdoor Recreation
- 3 Outdoor Recreation on Guam October 1, 1971
- 4 Outdoor Recreation on Guam 1973
- 5 A Master Plan for War in the Pacific National Historical Park, Guam
- 6 Master Plan Proposed Guam National Seashore Guam
- 7 Park Inventory
- 8 Boating Activity in the Territory of Guam 1974
- 9 Agana Marina Development Plan, April 1976
- 10 Guam Historic Preservation Plan
- 11 Guam Inventory of Archaeological Sites, Volume 1
- 12 Guam Register of Historic Places Inventory Data Form

#### TRANSPORTATION

- 1 Guam Master Plan, Transportation Factors
- 2 Statistical Abstract, Guam 1974, Volume 5
- 3 Transportation Planning Manual
- 4 Transportation Program Fiscal Year 1975 thru 1979
- 5 Guam Comprehensive Transportation Plan
- 6 Origin Destination Trip Count for Guam
- 7 Proposed Strategy for Mass Transit on Guam

#### TRANSPORTATION (Con't.)

- 8 Application of the Government of Guam for a Mass Transportation Capital Improvement Grant
- g The Agana Traffic Circulation Plan
- 10 Monthly Accident Analysis Report, January, 1975
- 11 Functional Analysis Report
- 12 Comprehensive Highway Safety Plan, 1976-1977
- Reports Submitted to U.S. Department of Transportation, Federal Highway
  Administration on Drivers Licensing, Vehicle Registration and Other Motor
  Vehicle Tax Receipts
- Reports Submitted to U.S. Department of Transportation, FHA on Motor Fuel Consumption
- Reports Submitted to U.S. Department of Transportation Federal Highway Administration on Roadway Expenditure
- Report on Statewide Mileage, Travel, and Non-Fatal and Fatal Injury Accidents
- 16 System Mileage Report
- 16 Report Submitted to U.S. Department of Transportation, Federal Highway Administration on Miles of Roadway by Type
- 17 Territorial Highway Study: Guam, American Samoa, Virgin Islands
- 18 Master Plan for Guam International Air Terminal
- 19 Monthly Passenger and Freight Summary Report
- 20 Monthly Operations of Guam International Air Terminal Summary Report
- 21 Master Plan, Commercial Port of Guam, Phase 1
- 22 Commercial Port of Guam Annual Report
- 23 Monthly Ledger Tallies for Cargo Revenue Tons
- 24 Annual Ledger Tallies for Revenue Tons
- 25 Monthly Report on Ship Arrival and Cargo Revenue and Tonnage
- 26 Container Report

#### TRANSPORTATION (Con't.)

- 27 Highway Accident Statistics: January 1975 to Present Accident Analysis Report
- 28 Street Inventory of Major Island Roadways
- 29 Vehicle Registration

National Emissions l	Data System (NEDS) Report Form	ENV Detail 1
itle:	onmental Protection Agency	
omputerized: Yes	Computer Reference: (File	s on Mainland)
eneral Information: ENV 27		*-
Informati	ion Contained on the Document	4
but is not of use to loc ID Number, SIC Codes.	n the form that is required by USEPA for total planners is not listed below. Example address, contact person, ID number.	heir use s: State
Stack Data: Height (fe feet per s with commo	eet), diameter (feet), temperature, flow resecond), plume height (if no stack), numbe on stack.	ate (cubic r of points
Boiler: Design Capacit	у	
(All of the categories b oxides, hydrocarbons, ca	pelow are for: Particulates, sulfur diox arbon monoxide)	ide, nitrogen
Secondary Estimated Emission E Estimation	Control Equipment (codes) Control Equipment (codes) Control Efficiency (%) Estimates (tons per year) Method (codes) Emissions (tons per year)	
Percent of Annual Thrupu	it for: Dec Feb., Mar May, June -	Aug., Sept Nov
Normal Operating Time:	Hours Per Day Days Per Week Weeks Per Year	
Deate of Compliance Sche	edule (month, year)	
Compliance Status Update	e (month, day, year)	

Emissions Data: Sulfur Content (%)

Ash Content (%) Heat Content

Operating Rate, Maximum Design Rate

771015-020	0.000			
ENV	Da		47	٠,
CIVV	υe	La		4

Title: Agana River - Interim Report	, Harbors and Rivers in the Territory of Guam
Source Agency: U.S. Army Corps of E	ngineers
	Computer Reference:
General Information: ENV 28	

### Information Contained on the Document

#### LIST OF TABLES

Summary of Comparison of Alternative Plans
System of Accounts
Comparison of Alternative Plans
Summary of Rainfall Data at National Weather Service on Guam
Stream Gaging Station on the Island of Guam, Mariana Islands
Unit Hydrographs, Agana River at Saylor Street, Combing and Routing
Computed Frequency Curve - Agana River
Summary of First Costs
Estimated Average Annual Costs
Flood Damages, Existing Conditions
Summary of Economic Analysis

#### LIST OF PLATES

Historic Sites Estimated 1985 Land Use Flood Plain Map Alternative Plan 2 Alternative Plan 3 Alternative Plan 4 Alternative Plan 5 Proposed Plan of Improvement Profiles and typical Sections Pump Station Plan and Section Sub-Drainage Areas Stream Profiles Maximum Flow of Record, 5 or More Years of Record Stream Gaging Station Locations 15 - Minute Unit Hydrograph for Umatac River, Station 8160 Sub-Area Unit Hydrograph Relationship of 2 - Year Peak Flow to Drainage Area Size Inflow and Outflow Frequency Curves at Swamp Boring Locations Boring Logs Boring Logs Test Data Summary Gradation Curves Damage-Frequency Curve

Title: Detai	led Project Report for Flood Control of Namo River Guam
Source Agency:_	U.S. Army Corps of Engineers - February 1973
Computerized:	No Computer Reference:
General Informati	

#### Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Not
Table 1 Population of Guam	Year - 1901 thru 1970 in increments of 10 Yrs.	Total Population Population Less Military	
70.43.		*	
Table 2 Population Projection	Year - 1970 thru 1980 in increments of 5 Yrs 2000 - 2025	Civilian Population Military Population Total Population	
Table 3 Employment by Industries and Percent Distribution		Total Employment Percent Distribution	
N-20	<ul><li>Construction</li><li>Manufacturing</li><li>Transportation,</li></ul>		
Carlos	Communication, Electric, Gas, and Sanitary Services - Wholesale and Retail		
	Trade - Finance, Insurance and Real Estate	(4)	
Activity	- Service - Government - Federal - Local Totals		
Table 4			
Growth Rate of Major Industries on Guam, 1960-1970	Category - Gross Sales - Retail - Wholesale	1960 and 1970 Earnings or Value (\$ Millions) 1960-1970 Average Annual Growth (Percent)	
Tata Since	- Manufacturing - Amusements - Services 29 - Foreign Trade	Available 1971 Data (\$ Millions)	

- Exports

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
	- Imports - Construction - Government - Local - Revenue - Expenditure - Federal		A See Brookly	Table 11 Comparison of Environ- mental Considerations for Channel Lining Alterna- tives	Consideration - Physical - Biological	Grass-Riprap Lining Riprap Lining Concrete Lining	
Table 5 Tourist and Visitor Arrivals and Estimated Expenditures (1964-1970)  Table 6 Total Hotel Rooms	Year - 1964 thru 1970 Year	Tourist Visitor Estimated Expenditure Number of Rooms		Table 12 Lag and Pertinent Data, Namo River, Guam, Mariana Islands	Location - Namo River at Month	Drainage Area Square Miles L Miles LCA Miles Slope Ft/Mi LXLCA 5 1/2 Lag Hours	
Table 7 Projected Visitors and Rooms Required	- 1963 thru 1970  Year - 1972 thru 1975	Projected Visitors Estimated Rooms Required		Table 13 Streamflow Statistics	Station Numbers	Drainage Area (sq. mi.) Period of Record Mean of Lag	
Table 8 Summary of Climatological Data at the Weather Service Agana, Guam; U.S. Weather Bureau Climatological Data for Guam, Pacific	Month - January thru December Period of Record	Temperature (Degree Fahrenheit) - Mean Monthly - Record Highest - Record Lowest Precipitation (Inches) - Mean Monthly - Maximum Monthly - Minimum Monthly	j.	Table 14 Computed Frequency Curve- Namo River Table 15	None	Standard Deviation of Lags Skew Coefficient of Lags Mean Unit Discharge (CFS/sq. mi) Frequency Curve Computations	
Table 9 Stream-Gaging Stations on the Island of Guam, Guam Mariana Island	Stream-Gaging Stations	Location - Latitude (degrees and minutes) - Longitude (degrees and minutes) Period of Record Drainage Area (square	7	Estimate of Project First Cost  Table 16 Annual Costs	Discription - Federal - Non-Federal Federal	Unit Quantity Unit Cost Total Cost	
Table 10 Comparison of Economic Features of Channel	Feature - Total Project First	miles) Peak Discharge of Record (cubic feet per second) - Date - Discharge Authority  Grass-Riprap Lining Alternatives			- Interest - Amortization Total Federal Non-Federal - Interest - Amortization - Annual Maintenace - Total Non-Federal Total Project		(Me)
Lining Alternatives	Cost - Annual Maintenance Cost - Average Annual Charges - Average Annual Benefits - Benefit - Cost Ratio	- Riprap Lining Concrete Lining		Table 17 Estimated Flood Damages		Recurrence Interval (years) Private Property (\$)	1,

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	No
Table 18 Summary of Benefits	Discription Total Average Annual	Commercial (\$) Emergency Costs (\$) Total (\$)  Average Annual Benefits	10	igure 8 tandard Project-Flood mo River at Mouth - taph Showing Precipitati ss, Effective ecipitation	Discharge in Thousand CFS	Time in Hours	
	Benefits	ē					
Figure 1 Location of Guam	Map Showing Location of Guam - 1,499 Miles from Manil - 5,100 Miles from San	1		gure 9 ppleth (Lines of Equal ;andard Deviation)	Map of Guam Showing - Namo River Study Area - USGS Stream Gaging Stations		
Figure 2	Francisco - 3,318 Miles from Honolulu			gure 10 lationship of 2-Year ak Flow to Drainage ea Size - Graph	Discharge in Cubic Feet per Second/Square Mile	Drainage Area in Square Miles	
Map of Guam	Map of Guam Showing - Communities - Military Reservations			gure 11 equency Curves of Annual ak Flows - Graph Showing mo River at Mouth, at		*	
Benefit Cost-Discharge Relationships Graph Showing Annual Benefits, Maximum Net Benefits,	Average Annual Benefits and Costs (\$1,000)	Discharge in CFS		n Vincente Bridge, named Stream			
innual Cost			10	ture 12 b-Drainage Area charges and Disposal	Map Showing - Sub-Drainage Area - Discharges - Disposal Areas		
rainage Area Map	Map Showing - Drainage Area - Sub-Drainage Area			jure 13	Percent Finer by Weight Percent Coarser by	U.S. Standard Sieve in Inches	
igure 5 tandard Project Storm -Hours Duration-Graph	Rainfall in Inches	Time in Hours		iph Showing Sample ber and Classifications re is also a chart wing gradation curves.	Weight	U.S. Standard Sieve Numbers Hydrometer Grain Size Millimeters	
igure 6 -Graph Average-Streams n Oahu	Dischagre in Percent of Ultimate Discharge	Time in Percent of Lag		ture 14	Boring Number - B-1 thru B-6	Sample Number	
igure 7 ag Relationship Streams n Hawaii-Graph Showing lountain Areas, Valley area	Lag	Terrain	8 9	rer Flood Control	- 2 5.12 5 5	Depth of Elevation of Sample Laboratory Classification Mechanical Analysis - Gravel - Sand - Fines	1
			, ,		п.	- D <sub>10</sub> Atterberg Limits - LL - PL	

Title/Date/Source	Row Labels	Column Headings	Note
		Specific Gravity G Natural Water Content (Percent) Natural Dry Density LBS/CU FT Unconfined Compression (TSF)	
Figure 15 Damage-Frequency-Curve Graph Showing Total Damage and Residual Damages	Percent Change of Occurrence S Chart Showing - Real Estate - Plans and Specificatio - Advertising - Contract Award - Construction	Damages (\$100,000)  Months after Funds are Available ns	
Plate 1 General Map	Map Showing - Boundary of Drainage Area - Boundary of Drainage Sub-Area - Exst. Namo River and Tributaries		
Plates 2 thru 5 Show plans and profile			
Plate 6 Channel Sections	Diagram Showing - Typical Sections - Culvert Section - Interior Drainage    Outlet - Transition Section - Typical Concrete    Section - Typical Cutoff Section - Typical Half Section		
Plate 7 Levee. Weir and Miscellaneous Details	Diagrams Showing - Partial Plan-Levee and Easements - Section-Upstream of Weir Looking Downstrea - Longitudinal Section at Weir	a <b>m</b>	
	- Profile Levee - Interior Drainage at SFA44+60 - Typical Levee Section		

Notes

Notes 1 thru 5 are standard notes, refer to Introduction.

- 6 Tourists are travelers arriving for pleasure. Visitors include all travelers to Guam.
- 7 Numbers represent U.S. Geological Survey Station Number.
- 8 Lag Elapsed time from beginning of unit rainfall to instant that summation hydrograph reaches 50% ultimate discharge.
- 9 Terrain Relationship of the length of the watercourse to the slope of the land.

Title:	Irrigation Feasibility Study for the Island of Guam				
	ency: Gillham, Koebig and Koebig, Inc.	Title/Date/Source	Row Labels	Column Headings	Notes
Computeriz		Table 1 Potential Crop Yields - River Bottoms  Table 2 Potential Crop Yields -	List of Crops Average Annual Product Per Acre	Days to Harvest Harvest Period (days) Without Irrigation With Irrigation (Above 2 categories are each broken down into:)	
	STUDY PROCEDURE	Highlands (The above 2 tables have the same row labels and column headings)		- Crops Per Year - Yield Per Acre Per Year	90.
2.	Evaluation of northern Guam as to its agricultural potential Availability of irrigation water, and possible environmental impact of irrigation system development.  Evaluation of southern Guam by districts, in terms of present and possible future land use characteristics, and natural water resources.	Table 3 Zoning in Southern Guam - 1970	8 Municipalities	Number of Acres - Urban/Suburban - Military - Agriculture and Open - Total	1 5 7
3. 4. 5.	Analysis of agricultural situation on southern Guam, including soil types, agricultural practices, crop types, and crop yields.  Analysis of irrigation water requirements, and evaluation of potential sources of supply in southern Guam.  Analysis of reservoir requirements in terms of geology, storage capacity, and yield.	Table 4 Soil Types - Southern Guam	Districts - Yona - Talofofo - Inarajan - Merizo - Umatac	River Bottoms Coastal Uplands (Acres) Inland Plateaus Gross Area	
6. 7.	Evaluation of distribution methods for irrigation systems.  Selection of a model district for analysis and preliminary design for the purposes of evaluating cost/benefit ratios, environmental impact, and operation and management programs.	Figure 1 Typical Well Distribut- tion System, Northern Guam	Diagram Showing Stub-Out From New Well for Distribution Line to Each Lessee	•	, <u>, , , , , , , , , , , , , , , , , , </u>
8. 9.	A comparative analysis of three reservoir sites based on data obtained from step "7" above.  Review of possible methods of financing irrigation projects, including research into qualification for federal programs.	Figure 2 Fertile Land-Yona Dis- trict	LO Lacii Lessee		20
10.	Evaluation of land requirements, water rights, and water resources management.	Figure 3 Fertile Land-Talofofo District  Figure 4 Fertile Land-Inarajan District	₽ -8		*2
		Figure 5 Fertile Land-Merizo District		æ	

Title/Da	te/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Figure 6 Fertile Land District (The above have the same		7:			Table 6 Overall Agricultural Production Analysis	Representative Areas - Highlands - River Bottom - Total Average Annual Production	Average Annual Pro- duction (lbs.) - Without Irrigation - With Irrigation	Notes
Table 5 Arable Land for Agricult Southern Gua	tural Use-	District - Yona - Talofofo - Inarajan - Merizo - Umatac (Above 5 categories are each broken down into:) - Class - River Bottems - Coastal Uplands - Inland Plateaus and Hill	Gross area (Acres) Percent Arable Net Arable (Acres) Percent Avaiable for Agricultural Use Net Available for Agricultural Use (Acres		Table 7 Distribution Discharge Rates  Table 8 Principal Features of Talofofo Reservoir  Potential Yield Table 9 Talofofo Reservoir	Farm Size (Acres)  Principle Features - Stream Flow - Dam and Spillway - Intake Structure - Pump Station  List of Figures Demonstrating Potential	Discharge Rate (GPM) Pipe Size Statistical Remarks	
Talofofo Dam Reservoir	m and	Map of Talofofo District Showing the Location of Dam and Reservoir		á	Table 11 Ugam Reservoir Table 13 Inarajan Reservoir	Yields	·	1
Figure 8 Talofofo Res	servoir	Map of Talofofo Reservoi: Dam and Spillway Plan			Table 15 Umatac.La Sa Fua Reservoir	, i	*	
Figure 9 Talofofo Res	servoir	Map Showing Front Elevation of Spillway	±.		(Above 4 tables each have same row labels)  Figure 12	e e e	•	3
Figure 10 Talofofo Res	servoir	Map Showing Section of Spillway	*)		Ugam Dam and Reservoir Figure 13 Inarajan Dam and Reservoir	Map of Each Area Showing the Location of the Dam and Reservoir		
Figure II Talofofo Irr Distribution		Map of Talofofo District Showing Water Mains - Gate Valve - Point of Distribution	.*		Figure 14 Umatac Dam and Reservoir (Above 3 Figures each have the same row	-X	**************************************	ţ.
					labels)			

Note 1 thru 5 are standard notes refer to introduction.

- 6 List of Crops: Beans and Yard Beans; Cabbage; Cucumber; Eggplants; Onion (green); Tomato; Pepper; Melon; Cantaloupe; Bananas; Corn; Sweet Potato.
- 7 Municipalities: Yona; Talofofo; Inarajan; Merizo; Umatac; Agat; Piti; Asan.

omputerized:	No	Computer Reference:
General Informat		

#### THIS REPORT COVERS TWELVE PROJECT SEGMENTS:

- Survey of Guam's Fish Population and Fishing Methods.
- Compilation of Checklist of the Food and Game Fishes of Guam.
- Habitat Improvement of Inshore Lagoons.
- A Study To Construct Small Boat Launching Facilities On Guam.
- Preparation For a Development Project To Rehabilitate the Masso River Reservoir To a Public Fishing and Recreation Area.
- Liminological Survey of the Major Streams and Rivers in Guam.
- Study Of the Doves Of Guam.
- Study Of the Guam Deer.
- Quail and Rail Life History Study.
- Study Of the Fruit Bat.
- Habitat Appraisal and Study of Exotics For Guam.
- Study Of the Wild Pigs Of Guam.

Summary of Aerial Fisher eries Survey Indicating Monthly Sightings By the Day Of Week  Table F-2 Result of Twelve Aerial Fisheries Survey By Area and Fishing Method  Fishing Mothod  Fishing Method  Fishing Mothod  Fishing Mothod  Fishing Mothod  Fishing Method  Fishing Mothod  Fishing							. 41	
Summary of Aerial Fisheries Survey Indicating Monthly Sightings By the Day Of Week  Table F-2 Result of Twelve Aerial Fishing Method  Fishing Method  Fishing Method  Fishing Method  Fishing Monthly Sightings By the Day Of Week  Fishing Method  Fishing Hours  Fisher Honthly Variations  Fisher  Cartch Pyrominer Fish  Species Observed at Artificial Reefs A and B During Filly70 thru  Fisher Hourly Variations  Fisher Ho	Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Table F-2 Result Of Twelve Aerial Fisheries Survey By Area and Fishing Method  Fish Countrificate Resis A and B.  Data Represents Averages in Percent  Fishing Hours  Fishing H	Summary of Aerial Fish- eries Survey Indicating Monthly Sightings By the	- January thru June - Total	Trolling and Bottom Fishing (Boats) Turtles Sharks Unidentified (Above 5 categories are each broken down into:)		Edu (D	List of 27 Species of	Spinning Trolling Bottom Fishing Others Total Month	6
Table F-2 Result Of Twelve Aerial Fisheries Survey By Area and Fishing Method  - Bottom Fishing (Boats) - Hook and Line - Turtles - Spearing - Gill and Surround Net - Throw Net - Trolling (Boats) - Spinning - Unidentified - Fishermen - Boats Sharks Total  Table F-3 Result of Fishermen Interviews Bases On 24 Interview Days  Table F-4  Fishing Method  Fishing Method - Bottom Fishing (Boats) - Hook and Line - Spearing - Gill and Surround Net - Trolling (Boats) - Spinning - Unidentified - Fishermen - Boats Sharks Total  Fishing Method - Cast Netting - Spear Fishing - Gill-Surround Net - Trolling - Spinning - Gill-Surround Net - Trolling - Spinning - Other Methods  Fishing Method - Bottom Fishing (Boats) - Hook and Line - Comparison of Composition By Number and Weight of Certain Prominent Fish Species Observed at Arti- ficial Reefs A and B. Data Represents Averages in Percent - Table F-8 Annual Mean of Fish Count- ed at Artificial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed at Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed Arti- ficial Reefs A and B During Fil970 thru Fil975  Table F-9 Species Observed Arti- ficial Reefs A and B During Fil970 Fil975  Table F-9 Species Observed Arti- ficial Reefs A and B During Fil970	2				Catch By Species Showing	20 C	- July thru June Total	
Table F-3 Result of Fishermen Interviews Bases On 24 Interview Days  Table F-8 Actual Fishing Hours Percent Fishing Hours Participation Number Species Participation Number Species Number of Individuals Participation Number Species Number of Individuals Total Weight (pounds) Mean Weight Per Fish (pounds)  Mean Weight Per Fish (pounds)  Mean Weight Per Fish (pounds)  Table F-9 Species Observed at Artificial Reefs A and B During Table F-9 Species Observed at Artificial Reefs A and B During Table F-9 Species Observed at Artificial Reefs A and B During Table F-9 Species Observed at Artificial Reefs A and B During FY1974 and	Result Of Twelve Aerial Fisheries Survey By Area and Fishing Method	- Bottom Fishing (Boats) - Hook and Line - Turtles - Spearing - Gill and Surround Net - Throw Net - Trolling (Boats) - Spinning - Unidentified - Fishermen - Boats Sharks			Table F-7 Comparison of Composition By Number and Weight of Certain Prominent Fish Species Observed at Arti- ficial Reefs A and B. Data Represents Averages in Percent	- Damsel Fish - Surgeon Fish - Parrot Fish - Goat Fish - Squirrel Fishes - Cardinal Fishes - Snappers - Wrasse	Site A Site B (Above 2 categories and each broken down into:) - Number (percent) - Weight (percent) (Above 2 categories are each broken down into:) - Year - FY1974 - FY1975	
Fishing Methods  - Spear Fishing - Gill-Surround Net - Trolling - Spinning - Bottom Fishing  - Spear Fishing  Catch Per Unit (pounds per hour)  Estimated Annual Harvest (pounds)	Table F-3 Result of Fishermen Interviews Bases On 24 Interview Days  Table F-4 Catch Estimate By Fishing Methods  Table F-5 Catch By Species and	Fishing Method  -Cast Netting  - Spear Fishing  - Gill-Surround Net  - Trolling  - Spinning  - Bottom Fishing  - Other Methods  Fishing Method  - Cast Netting  - Spear Fishing  - Gill-Surround Net  - Trolling  - Spinning  - Spinning  - Bottom Fishing  - Other Methods  List of 27 Species of	Percent Fishing Hours Participation - Number Pounds of Fish Taken Pounds of Fish Taken Per Hour Estimated Time Spent Per Fishing Trip Hours  Estimated Participation Estimated Time Expended Catch Per Unit (pounds per hour) Estimated Annual Harvest (pounds)  Cast Netting Spear Netting	6	Annual Mean of Fish Counted at Artificial Reefs A and B During FY1970 thru FY1975  Table F-9 Species Observed at Artificial Reefs A and B Dur-	Number of Individuals Total Weight (pounds) Mean Weight Per Fish (pounds)	Artificial Reef - A - Year - FY1970 thru FY1975 Artificial Reef - B - Year - FY1971 thru FY1975  Site A Number of Observations Site B Number of Observations (Above 2 categories are each broken down into:) - Frequency (percent) - Average Number Observed - Maximum and Minimum Number Observed (Above 3 categories are each broken down into:) - Year - 1974 - 1975	d

		terre constructions			- Mariana da Cara da C	•	
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Table W1-1 Roadside Census of Guam Philippine Turtle Doves (Birds Per 100 Miles of Travel) July 1974 to June 1975	Month - January thru December Monthly Average Yearly Combined Average	Routes - North - South Monthly Mean	7	Table 3-2 Guam Rais Per 100 Miles of Travel on North and South Routes 1961-1975	January thru December Average Per 100 Miles Per Year Combined Average Per 100 Miles Per Year Number Counts Per Year	Year -1961 thru 1975 - North - South Averages Per 100 Miles	1000
Table W1-3 A Comparison of Philip- pine Turtle Dove Counts Versus Rainfall (Inches) Taken at Guam National Weather Station	Year - 1961 thru 1974 Monthly Averages	Month - January thru December Annual Rain Totals Doves Per 100 Miles - North - South Doves Combined Route Per 100 Miles		Table W3-3 A Comparison of Guam Rail Roadside Counts Versus Rainfall, 1961-1974, Rainfall (Inches Per Month) Taken at Guam National Weather Station	Monthly Averages	Month - January thru December Annual Rain Totals Guam Rail Censuses - Route Average Per 100 Miles - North - South - Combined Averages Per	
Table W1-4 White Throated Ground Dove (Gallicolumba x. Xanthanura) Roadside Census Data (Doves Per 100 Miles) for the Years November 1962 - June 1975	Months - January thru December Average Combined Average	Year - 1962 thru 1975 - North - South		Table W3-4 Monthly Averages, Rail Broods Per 100 Miles, March 1961 - June 1975, North and South Routes	Month - January thru December - North - South Totals	Broods Trips Miles Broods Per 100 Miles North and South Combined	
Table W2-1 Anderson Deer Herd Composition Counts (FY1974-FY1975)  Table W2-2 Naval Magazine Deer Herd Composition Counts (FY1974-FY1975)  (Above 2 tables have the same row labels and column headings)	Buck - Spike - 2 Point - 3 Point - 4 Point - Unknown Doe Yearling Fawn Unidentified Average Niles Travelled Carabao	Month - July thru June Total Average Number Per Count Yearly Mean Per 100 Mile		Table W-5 Census of Some of Guam's Northern and Southern Sea Coast Habitat (1974 - 1975)	List of 24 Species of Birds	North - Anao Point - Uruno Pt. to Nav. Fac Fadian Pt Janum - Marbo - Nav. Fac. to Pajon Pt NCS to Hilaan Pt Pagat Pt Tarague to Pajon Pt Tarafue to Old Pump House - Tarague to Rifle Range - Tarague Terrace	
Table W3-1 Roadside Census of the Guam Rail (Birds Per 100 Miles of Travel) July 1, 1974-June 30, 1975	Month - July thru June Annual Average Per 100 Miles	Routes - North - South Combined Monthly Mean Rainfull		Table W5-2 Guam Bird Censuses 1973 - 1968	List of 23 Species of Birds	- Tweeds Cave - Mean Number Per Mile South - Asiga Jalaiha - Matala Talofofo - Mean Number Per Mile  NCS Area Fena Tarague (Above 3 categories are each broken down into:)	

Table W5-4 Roadside Censuses of Guam's Girs Per 100 Miles Per Travel 1973 - 1974 (Yearly Means)  List Of Commission of Guam's Northern Birds Per 100 Miles Per Month (1974 - 1975)  Table W5-6 Roadside Census of Guam's Southern Birds Per 100 Miles Per Month (1974 - 1975)  Table W5-7 Roadside Census of Guam's Southern Birds Per 100 Miles Per Month (1974 - 1975)  List Of Commission of Guam's Southern Birds Per 100 Miles Per Month (1974 - 1975)  Table W5-7 Roadside Census of Guam's Northwest Field Birds Per 100 Miles Per Month  Figure F-1 The Island of Guam Divided  Map Commission of Guam Divided		Column Headings	Notes 🤍	TITLE/UALE/30UCCE	Row Labels	L Column Hondinas	
Table W5-6 Roadside Census of Guam's Southern Birds Per 100 Miles Per Month (1974 - 1975)  Table W5-7 Roadside Census of Guam's Northwest Field Birds Per 100 Miles Per Month  Figure F-1 The Island of Guam Divided  List of Guam's Application of Guam's Per 100 Miles Per Month	Naval Communications Station Fena Lake Reservoir Tarague Area (Above 3 categories are each broken down into:) - 17 Species of Birds  List of 12 Species of Birds  List of Different Species of Guam's Birds	- Year - 1963 thru 1968  Total Counted Number Per Count Number Per Acre  Northwest Field North South North and South Combined  Month - July thru June Yearly Mean		Title/Date/Source  The following 2 figures are graphs showing: Spinning, Gill and Surround netting, Spearing, and Cast Netting  Figure F-3 A Five Year Comparison of Fishermen Participation in the Different Inshore Fishing Methods  Figure F-4 A Five Year Comparison of Catch Per Unit of Effort (CPUE) of the Different Inshore Fishing Methods.  Figure Wl-1 Comparison of Philippine Turtle Dove Roadside Censuses (Annual Average	Percentage  Percentage  Number Doves Per 100  Miles  Annual Rainfall in Inches	Year - 1971 thru 1975  Year - 1971 thru 1975  Year - 1961 thru 1974	Notes
Roadside Census of Guam's of Constitution Northwest Field Birds Per 100 Miles Per Month  Figure F-1 Map of The Island of Guam Divided Fish	List of Different Species of Guam's Birds	- July thru June Yearly Mean	\$#\\ Q	Per 100 Miles Versus Guam Annual Rainful, 1961- 1974 (Graph Showing: Northern Rainfall, North Route, South Route, Com- bined Routes  Figure W1-2	Percentage of Philippine	Month	
into 12 Fishing Areas	List of Different Species of Guam's Birds Map of Guam Showing 12 Fishing Areas	Month - Junly thru June Yearly Mean		Guam Philippine Turtle Dove Banding Summaries (1962-1971) By Ages Versus Nesting Starts (Eggs) at the Apra Harbor Nesting Study Area (Graph Showing Percent Juvenile, Percent Adult, Fledglins Banded, Eggs Found at Apra (1967 - 1971))	Turtle Doves Banded Fledgings and Eggs	- January thru December	
Figure F-2 Five Year Record of Estimated Annual Fish Catch and Estimated Man Days Fished Based on Fishermen Interview Data (Graph)	Man Days or Pounds	Year - 1971 thru 1975		Figure W1-3 Intra-Island Migrational Flyway Patterns of the Philippine Turtle Dove, 1963 - 1975	Map of Guam Showing - Sightings of Dyed Doves - Sightings of Wing Streamered Doved - Hunter Kills - Banding Stations		

<del></del>					(5.1)		
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Figure W1-4 Yearly Roadside Censuses of White-Throated Ground Dove (Average Per 100 Miles) Compared with Guam Rainfall Trends (1963 - 1974) (Graph showing Northern Rainfall, North	Total Rainfall (Inches) Ground Doves, Monthly Average Per 100 Miles	Year - 1973 thru 1974		Figure W2-4 Deer Spotlight Counts at Naval Magazine (FY1964 - FY1975 (Annual Averages) Showing Population Trends	Yearly Averages of Total Deer Counted Per 100 Miles Average Number Deer Counted Per 100 Miles Per Year By Sex and Age Group	Year - FY1964 thru FY1975 Number of Counts	
Route, South Route, and Combined Routes)  Figure W1-5 Monthly Comparisons of Rainfall Versus White- Throated Ground Dove Monthly Roadside Census Averages Per 100 Miles of Travel, for 1963 - 1974 (Graph Showing: Northern Rainfall, North Route, Combined Routes, and South Routes)	Ground Doves Per 100 Miles 1963 - 1964, Monthly Means Mean Rainfall, Inches (1963 - 1974)	Month - January thru December		Figure W3-1 Monthly Guam Rail Brood Censuses (1961 - 1975) Versus Perez Data (1961- 1966) Graph Showing: Fainfall in Inches and Broods Per 100 Miles)  Figure W5-1 Fluctuations in Some Bird Populations, 1963-1968 (8 Graphs Showing Popula-	Mean Rail Broods Per 100 Miles (North and South Combined) Mean Rainfall (Inches)  Number	Month - January thru December  Year - 1963 thru 1968	
Figure W2-1 Actual Hunter Harvest of Legal Game During the Regular Hunting Seasons (Graph showing: Bat, Deer, Pig, and Dove)	Number of Hunter Harvest	Year - 1968 thru 1974 - Number of Licenses Sold		tions at NCS, Tarague, and Fena)  NOTES:  Notes 1 thru 5 are standar	d notes, refer to introduc	tion.	
Figure W2-2 Calculated Harvest of Legal Game During the Regular Hunting Seasons (1968 - 1964) (Graph showing: Bat, Deer Pig, and Dove)	Number of Hunter Harvest	Year - 1968 thru 1974 - Number of Licenses Sold		Neddlefishes; Octopu Silver Perch; Snappe	orted; Barracuda; Butter tfish; Goatfish; Grouper s; Parrotfishes; Rabbitf rs; Squirrelfishes; Surg blue fin, yellowfin; Waho y 25 Miles each.	s; Mackerel; Marlin; Mi ishes; Rudderfish; Shar eonfishes; Triggerfish;	ullets;
The Following 2 Figures are Graphs Showing: Bucks, Does, Fawns, Year-lys, Total Average, and No Counts During This Period)	30 30			beauty.			E SP
Figure W2-3 Deer Spotlight Counts at Anderson Air Force Base FY1964 - FY1975 (Annual Averages), Showing Pop- ulation Trends	Yearly Averages of Total Deer Counted Per 100 Miles Average Number Deer Counted Per 100 Miles Per year by Sex and Age Group	Year - FY 1964 thru FY1975 Number of Counts			40	y	

	DAY DECAIL O				
Title:_	Noise Measurement Survey Forms	Title: Guam Pesticides	Profile - March 1975		
Source A	gency: GEPA Monitoring Division		rironmental Protection Agen		
Computer	Computer Deferences	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	Computer Referen		
General	Information: ENV 33	General Information: EN			
	Information Contained on the Document		Description of Table(s)		
		Title/Date/Source	Row Labels	Column Headings	Notes
Ge	eneral Survey Information			oorami neadings	notes
III	<pre>Survey Requested By (name, address, agency)  Instrumentation and Accessory Equipment - Manufacturer - Sound level meter, octave filter set, microphone, accelerometer, pistonphone (serical number and type) - Cable, wind screen, nose cone, tripod, integrator (used? yes or no)  Environment - Physical (temperature, pressure, db correction factor) - Spatial (describes the room or facility) - Test objects (such as machines, cars, etc) - Secondary noise (list and describe) - Observor position - Microphone location - Personnel exposed (directly, indirectly, name, address, distance to noise source, are ear protectors used, are audiometer tests performed - before employment, routinely)  Damage Risk Levels (reprints Federal Occupational Safety and Health Standards)</pre>	Table 1 Arable Land Available for Agricultural Use in Southern Guam  Table 2 Cultivated Crops Ranked According to their Share in the Total Annual Volume of Production (In Pounds)	District - Yona - Talofofo - Inarajan - Merizo - Umatac (Above 5 Categories are each broken down into:) - Class - I - II - III  Commodity - Bananas, Eating and Cooking - Watermelons - Tomatoes	Gross Area (Acres) Percent Arable Net Arable (Acres) % Available for Agricultural Use Net Available for Agricultural Use (Acres  1969 - 1972 Annual Avera	
Su	rvey Test Results (one form for each microphone location)	In.	- Cucumbers - Tangerines		
V	Noise Test Results - Broad Band (sampling time) - Octave Band (sampling time)  (the results are in table format - see next page)  Noise Evalution	117 21 22 22 23	- Melons (Cantaloupes, etc.) - Beans, Green (All Types - Yams - Taro, Including Tips - Eggplant, Long and Roun - Potatoes, Sweet - Lemons and Limes		
	<ul> <li>Risk levels never exceeded (check if applicable)</li> <li>Risk levels exceeded (show observed level and standards for each octave bar and the sound level)</li> </ul>		<ul> <li>Peppers, Hot and Sweet</li> <li>Corn, Sweet and Local</li> <li>Variety</li> <li>Cabbage, Chinese and</li> </ul>		
VII	- Not required		Hed - Oranges		
	- Acoustic absorption - Decrease exposure - Other (specify)		- Papayas - Okra - Onion, Green - All Other Crops (Pumpk:		
VIII	Inspector (name, and date signed)	2	Radish, Mango, Star Ab Sour Pickle, Breadfriu Total	R 1070	131
			TOTAL		

Title/Date/Source	Row Labels	Column Headings	Notes
Table 3 Lists of Farmers by the Districts and their Domestic Crops-1973	Number of Farmers	District Domestic Crops	

Note 1 thru 5 are standard notes, refer to introduction.

ource Agency: Guam Environmental Pro	tection Agency	
omputerized: No eneral Information: ENV 34		
Information Contai	ined on the Document	

#### ITEMS 1-14 ARE COMPLETED BY THE IMPORTER

- 1. Name, Address, Location of Consignee
- 2. Port of Entry (Airport or Commercial Port)
- 3. Carrier (Specify)
- 4. Carrier's Address and Phone Number
- Brand Name of Product
- 6. USEPA Registration Number and Establishment Number
- 7. Total Net Weight
- 8. Unit Size and Quantity
- 9. Value
- 10. Name and Address of Manufacturer or Establishment
- 11. Customs Entry Number
- 12. Entry Date
- 13. Port of Origin
- 14. Name and Address of Shipper (if other than manufacturer) Signature of Importer

#### ITEMS 15-20 ARE COMPLETED BY GEPA PESTICIDES OFFICER

- 15. Pesticide Dealers License Number
- 16. Pesticide Applicators Certificate Number
- 17. Guam EPA Action on Request (approved, denied, other)
- 18. Remarks
- 19. Signature of GEPA Pesticide Officer
- 20. Date of Signature

#### ITEMS 21-24 ARE COMPLETED BY THE CUSTOMS INSPECTOR

- 21. Customs Action on Shipment (released, refused entry, other)
- 22. Remarks
- 23. Signature of Customs Inspector
- 4. Date of Signature

Title: Apra Harbor Pollution Study	
Source Agency: U.S. Navy Public Work Center Guam, M.T.	1
Computerized: No Computer Reference:	
General Information: ENV 34	

#### Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Appendix A Apra Harbor Pollution Study Vicinity Map	Map Showing — Apra Harbor — Santa Rita	*	
Appendix B Apra Harbor Pollution Study, Pollution Source	Map Showing Pollution Sources in - Military - Government of Guam - Local Industry and Commerce		1
Appendix C Apra Harbor Pollution Study Proposed Corrective Meaures Military Activities	Map Showing  - New Sewer Line and Manholes  - New Sewage Pump Statio  - New Septic Tank and Leaching Field  - Existing Sewer Line and Manholes  - Existing Sewage Pump Station	n.	1,
Appendix D Apra Harbor Study Temperature Readings at the Piti Power Plant and YFP-10 Power Barge	Dates - September 8, 1971 thru September 16, 1971	Location Time Depth Temperature ( <sup>O</sup> F)	

N	0	T	E	S	:	
41	v	-	•	~	•	

Note 1 thru 5 are standard notes, refer to introduction.

As the		ENV Detail 10
Title: Historical Review	of the Seismology of Gun wolling Refere	ences
Source Agency: Pacific Is	lands Engineers for U.S. Navy Bureau of	Yards and Docks
Computerized: No	Computer Reference:	· · · · · · · · · · · · · · · · · · ·
General Information: ENV	A. Carrier and Car	
Informa	ation Contained on the Document	4
	I-FOREL SCALE OF EARTHQUAKE INTENSITIES t only by a few persons on upper floors	

- II Extremely Feeble Shock felt by small number of persons at rest.
- III Very Feeble Shock felt by several persons at rest; strong enough for direction or duration to be appreciable.
- IV Feeble Shock felt by persons in motion; disturbance of movable objects; creaking of building.
- V Shock of Moderate Intensity felt generally by everyone; felt strongly on upper floors of tall buildings; light objects may be slightly disturbed.
- VI Fairly Strong Shock general awakening of those asleep; ringing of swinging bells, oscillation of hanging objects; stopping of pendulum clocks.
- VII Strong Shock overturn of movable objects; ringing of bells; general panic; some damage in poorly built or deteriorated buildings; landslides on steep banks; cracks in road surfaces.
- VIII Very Strong Shock furniture and movable objects overturned, trees strongly agitated; flow of wells may be affected; spouting of sand and water in soft ground; stone and concrete walls cracked; slides in river banks
  - IX Extremely Strong Shock partial or total distruction of buildings

The Modified Mercalli Scale of 1931 was developed by Harry O. Wood and Frank Neumann in the Bulletin of the Seismological Society of America, Standford University, Volume 21, no. 4, December 1931, pg. 277-283.

				\ <u></u>			
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Plate 1 Frequency and Violence of Earthquakes in Relation to Ocean Depths; After Freeman, I.R. Earthquake Damage and Earthquake Insurance, p. 509.	Map Showing the Observed Frequency of Strong Earthquakes		J8	plate 8 Perceptible and Non - Perceptible Earthquakes on Guam, 1924 - 1941 (Bar Graph Showing Total Shocks, Perceptible Shocks); Manila Observatory Bulletin, Phillipine Islands Weather Bureau	./	Year - 1924 thru 1941	
Plate 2 Earthquake Epicenters, Southern Marianas Area; Charles F. Richter, Seis- mological Institute, Cali- fornia Institute of Tech- nology, 1922 - 1948.	Dates - 1909 thru 1945	Shocks of Shallow depth Shocks of Intermediate depth Deep Shocks (Above 3 Categories are each broken down into:) - Time - Latitude (North) - Longitude (East) - Magnitude - Depth (km)	6	Islands weather bureau		• • •	
Plate 3 Southern Marianas Area, Earthquake Epicenters and Ocean Deeps.	Map Showing - Shocks at Shallow Depth - Shocks at Intermediate Depth - Deep Shocks		J.				
Table of Earthquake Frequencies at Agana, Island of Guam (The Number of Days with Earthquakes, by Months and Years)	Month - January thru December Total	Year - 1892 thru 1897 - 1901 thru 1903	. 1		*.		
Conversion From Rossi Forel Scale to Modified Mercalli Scale for Strongest Shocks, 1825 - 1941	Date - April 1825 thru December 1936	Estimated Intensity Rossi - Forel Scale Equivalent Intensity Modified Mercalli Scale	. 15	The Land of the La	*	ý.	
Plate 7 Graph Showing Frequency and Magnitude of Strong Earth- quake on Guam, 1825 - 1941	Intensity Rossi - Forel Scale - I thru X	Year - 1830 thru 1940 in Increments of 10 Years			e in the second		
					4	- v	

				And the latest of the latest o	de same		
Title: Detailed Project	Report Shore Protection-Ta	alofofo Beach		Title/Date/Source	Row Labels	Column Headings	Notes
	computer Referen	ce:	100	Table 12 Estimate of Project First Cost	Items	Unit Arrantity Unit Cost Item Cost Total Cost	
	Description of Table(s)		770.	Table 13 Apportionment of Project	Total First Cost	Federal Share	
Title/Date/Source	Row Labels	Column Headings	Notes	First Cost	iotal First Cost	Non Federal Share	
Table 8 Percent Frequency of Wave Height Vs. Wave Period (Annual) Period: 1963-1970	Wave Period (Seconds) - Less than 8 - 8 thru 9 - 9 thru 13 in - increments of 2 - Over 13 - Total Percentage	Wave Height (Feet) - Less than 3 - 3 thru 11 - 12 and More - Total		Table 14 Annual Use of Talofofo Bay	Activity - Swimming - Surfing - Visiting Scenic Site - Picnicking - Horse Back Riding - Total	Annual Use	
Table 9 Typhoons Affecting Guam (1946 to May 1970)	Date - 11 Apr. 1968 - 13 Nov. 1967 - 5 Sept. 1964 - 25 Dec. 1964 - 11 July 1963 - 29 Apr. 1963 - 11 Nov. 1962 - 10 Sept. 1961 - 15 Nov. 1957 - 10 Aug. 1953 - 17 Nov. 1949 - 21 Sept. L946	Name CPA Wind (Knots) CTR Wind At CPA (Knots)	6 7 8	Table 15 Existing Use of Talofofo Bay  Table 16 Projected Resident and Tourist Use of Talofofo	Activities - Swimming - Visiting Scenic Site - Picnicking - Total  Year - 1972 - 1975 - 1990 - 2020	Resident Tourist Total  Resident Use Tourist Use (Above 2 Categories are each broken down into;) - With Improvement - Without Improvement	
Table 10 Monthly Occurrences of Typhoons Affecting Guam (1900-1970)  Table 11 Effects of Alternative Actions	Month - Jan. thru Dec.  Consideration - Social - Economic - Environmental	Occurrences  No Action Revetment Plan Off Shore Breakwater Plan		Table 17 Average Annual Benefits 1. Residents 2. Tourists	Year - 1975 - 1990 - 2020	Existing Users - No. of Visitors - Benefit at 25 Percent   of \$0.50 Per Visit New Users - No. of Visitors - Benefit at \$0.50 Per   Visit Equivalent Average Annual Benefit	
					· ·	15.	

Title/Date/Source	Row Labels	Column Headings	Notes
Plate 1 Talofofo Bay, Guam Plan of Improvement	Map Showing - Existing Fence - Existing Guard Rail - Existing Sign - Existing Power Pole - Existing Coconut Tree	•	
18	- Existing Kamani Tree		
Plate 2 Falofofo Beach Park Plan	Diagram Showing - Beach Revetment - Family Picnic Area - Group Picnic Area - Children Plan Area		
	- Comfort Station - Play Courts	je in the second	
Figure 3	4		
ocation Map	Map Showing - Talofofo River - Project Site - Gayloup Pt Route 4 - Asalonso River		
n i	- Talofofo Bay - Gayloup Cove	AC	
rigure 4 lave Exposure Chart lalofofo Bay, Guam	Map of Guam Showing - Talofofo Bay		
igure 5 ave Rose; U.S. Naval eather Service Command, 963 to 1970	Chart Showing High, Medium, Low of Wave Rose		
igure 6 horeline Changes alofofo Bay, Guam	Map Showing - Existing Fence	,	
ž E	- Existing Guard Rail - Existing Sign - Existing Power Pole - Existing Coconut Tree	*1	
	- Existing Kamani Tree		

Title/Date/Source	Row Labels	Column Headings	Notes
Figure 7 Benefit Cost Comparison Bar Graph Showing First Cost, Annual Cost, Annual Benefit, Net Benefit	First Cost in Ten Thousands of Dollars	Average Annual Cost and Benefits in Thousands of Dollars	
rigure 8 alofofo Bay, Guam Work chedule (Bar Graph)	Items - Coordination - Plans and Specifications - Advertising - Award of Contract - Construction	Months	

- 6 CPA Closest Points of Approach to Guam.
- 7 Wind Maximum Sustained Wind Speed on Guam.
- 8 CTR Wind at CPA Maximum Sustained Wind near the center of Typhoon.

Title: Gua	ENV Detail 1 am Master Plan Study Infrastructure Drain
Source Agency:	Greenleaf/Telesca - AHN
Computerized:	
General Inform	ation: ENV 36
	Information Contained on the Document
	thru 13: Maps Showing the Drainage Areas
Plate 1:	Index of Drainage Area.
Plate 2:	Drainage Areas 1 to 5 - Fonte, Asan, Matgue, Taguac, Masso.
Plate 3:	Drainage Areas 10 to 17 - Namo, Togcha, Salinas, Finile, Gaan, Anan, Chaligan, Taleyfac.
Plate 4:	Drainage Areas 18 to 24 - Taelayag, Sagua, Madoyan, Agaga, Asmafines, Sella, Cetti.
Plate 5:	Drainage Areas 25 to 29 - La Sa Fua, Umatac, Toguan, Bile, Pigua.
Plate 6:	Drainage Areas 30 to 35 - Geus, Julog, Manell, Syafe, Sumay, Liyog.
Plate 7:	Drainage Areas 36 to 38 - Ahayan, Agfayan, Inarajan.
Plate 8:	Drainage Areas 39 - Pauliluc.
Plate 9:	Drainage Areas 40 to 42 - Asalonso, Ugum, Talofofo.
Plate 10:	Drainage Areas 43 to 44 - Togcha River and Ylig River.
Plate 11:	Drainage Areas 45 - Pago River.
Plate 12:	Drainage Areas 47 - Dededo.
Plate 13	- Drainage Areas 47 to 49 - Harmon Sink, Tamuning, Agana Swamp.

Title/Date/Source	Row Labels	Column Headings	Notes
late 14 ypical Landscaped hannel	Cross Section of Diagram Showing Depth of Flow at Discharge Growth During Low Flows		
2	<ul> <li>Rock Lining</li> <li>Mounds Shield Channel</li> <li>Minimum Height</li> <li>Park/Recreation Uses</li> </ul>		
ble of Drainage Areas	Areas 1 thru 4	Drainage Basin Point of Dishcarge Total Drainage Area (Acre) Length of Maximum	
		Travel (mi.) Average Slope (Percent) Reference Interval (yr. Ultimate Usage - Percent Open - Percent Developed Run Off Coefficient Time of Concentration	
		(mi.) Rainfall Intensity (in/hr.) Design Discharge (cfs)	
ble of Preliminary annels	List of Drainage Areas and Designation	Design Discharge (cfs) Channel Type Length (ft.) Bottom Width (ft.) Side Slope Depth of Flow (ft.) Velocity (ft/sec.) Right-of-Way (ft.)	5

Notes 1 thru 5 are standard notes, refer to Introduction.

6 - There is no map showing the drainage areas 6 thru 9, and 46; Sasa Aguada, Laguas Ahantano, Dededo.

Title:	Typhoon Pamela: A Report On the Business Establishment Damage Survey June 1976	-
Source Agenc	y: Economic Research Center, Dept. Of Commerce	
Computerized	: No Computer Reference:	
General Info	ormation: ENV 37	

#### Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
The following 3 tables have the some row labels:		•	3
Table I Value Of Damage Caused By Typhoon Pamela To Business Establishments	Total - Construction - Manufacturing - Wholesale Trade - Retail Trade	Total Plant Equipment Merchandise (Above 4 categories are	6
On Guam	- Selected Services	each broken down into:) - Inventory or Appraised Value - Damage - Percent Of Value	
Table II Wage and Salary Em- ployment On Guam Before and After Typhoon Pamela		Employment - Pre-Typhoon - Post-Typhoon	5 6
Table III Number Of Business Establishments Damaged By Typhoon Pamela		Number Of Total Damaged	5 6 7
Table IV Number Of Business Es- tablishments Damaged By Typhoon Pamela	Type Of Damage - Plant (Building) - Equipment - Merchandise	Total Establishments Selected Industry - Construction - Manufacturing - Wholesale Trade - Retail Trade - Services	
		2	

NOTES:

Notes 1 thru 5 are standard notes, refer to introduction.

- 6. Total Industries excludes: agriculture, finance, insurance and real estate; and transportation and public utilities operated by private enterprises.
- 7. Damaged business establishments are establishments with damage to either building, equipment or merchandise or a combination of two or all types of damage.

Title: Typhoon Karen				Title/Date/Source	Row Labels	Column Headings	Notes
Source Agency: Frank C. Stone, UOG  Computerized: No Computer Reference:				Table IX  povernment of Guam  meneral Fund Revenue	Year - 1959 thru 1965	Amount	
General Information: ENV	Description of Table(s)			(Amount in Dollars); Iconomic Development of the Territory of Guam, lage 205			
Title/Date/Source	Row Labels	Column Headings	Notes	Table X Tovernment of Guam Tehabilitation Plan	List of Proposed Projects	Funds Requested	
Table 1 Total Gross Business Receipts (In Millions of Dollars); Five Years Plan, Page 97-98	Year - FY1957 to FY1958 thru FY1961 to FY1962	Gross Receipts		(Figures in Thousands f Dollars); "Reconstruction," Page 26		,	
Table II Comparison of Gross Business Receipts of the Retailing and Con- tracting Trades: 1957- 1962 (In Millions of	Year - FY1957 to FY1958 thru FY1961 to FY1962	Retail Trade Contracting		Track Typhoon Karen lovember 1962; FWC/JTWC, Special Report Typhoon laren," Appendix 3	- 6 Hours Best Track Positions - Speed in Knots - Intensity in Knots - Typhoon or Tropical Storm		
Dollars); Focus on Guam: An Economic Study Pre- pared by the Bank of American NT and SA (San Francisco, N.D.), Page 6		•		ppendix B yphoon Karen November 962 Position and Fore- ast Verification Data; NC/JTWC, "Special Report	- Formative Stage	Storm Position - Latitude - Longitude	
Table III Barometric Pressure Logs from Typhoon Karen; "Special Report Typhoon Karen," Page 5	- Anderson Air Force Base - Naval Air Station	Low Pressure Time		<pre>pphoon Karen," Page 14 ppendix (4)</pre>		24 Hour Error Degree Distance 48 Hour Error Degree Distance	
ii e	- U.S. Weather Bureau - FWC/JTWC - Naval Magazine	ŧ		ppendix C phoon Karen, November 962; FWC/JTWC "Special eport Typhoon Karen."	Map of Guam Showing Wind Direction and Speed of Typhoon Karen	•	
Table IV Typhoon Karen's Maximum Wind Belts North and South of Center; "Special Report Typhoon Karen," Page 6	Wind Speed (Knots) South of Wind Eye (Above 2 categories are each broken down into:)	Width of Wind Band (Nau- tical Miles) Distance from Center (Nautical Miles)		ppendix D drograph Trace Typhoon aren, November 1962, dam, M.I.; FWC/JTWC, special Report Typhoon aren."	Barograph Trace Showing Barometric Pressure of Typhoon Karen	ξ ω	
3.	- Sustained - 125 - 150 - 125						

Title/Date/Source	Row Labels	Column Headings	Notes
	- 60 - Gusts - 165 - 180 - 165 - 125 - 100		
Table V Lossess to Private Citizens and Businesses (Figures in Dollars); Guam Department of Land Management, "Losses Bustained in Guam: Cyphoon Karen - November L1-12, 1962," 1963	Category of Loss Total	Value of Losses	
Cable VI Covernment of Guam Losses and Expenses Resulting rom Typhoon Karen; Losses Sustained in Guam	Categories of Losses	Value in Dollars	r agi
able VII Led Cross Aid to Guam Collowing Typhoon Karen Amount in Dollars); Best of Friends That's EP and American Red ross," Pacific Profile November, 1963), Page 16	Villages - 22 Villages - Anderson	Families Assissted Amount	
able VIII econstruction Projects unded Through the Office f Emergency Planning Amounts in Dollars); Best of Friends That's EP and American Red ross," Page 15	List of Various Categories of Projects	Amount	
		Ť j	

Title/Date/Source	Row Labels	Column Headings	Notes
ppendix E est Track Typhoon Olive 7-30 April 1963; C/JTWC, "Special port Typhoon Olive"	Chart Showing - 6 Hours Best Track Positions - Speed in Knots - Intensity in Knots - Typhoon or Tropical Storm - Formative Stage		
opendix F ophoon Olive, FWC/JTWC, Special Report Typhoon live"	Barograph Trace Showing Barometric Pressure of Typhoon Olive		
pendix X thru L; FY1965 thru 70 Rehabilitation ojects (each year has separate table); Office the Coordinator of deral Programs, vernment of Guam	Rehab. Projects - Educational Facilities - Village Development - Public Works - Resources Development - Water System - Power - Telephone System	Amount Loans Grants	
Day 201	Total for each Year		

<sup>6 - 22</sup> Villages - Mongmong, Toto, Maite, Chalan Pago and Ordot are Listed as Separate Villages.

	f Guam with Particular Reference to the Typhoon of Sept. 1946 acific Islands Engineers
Computerized: No	Computer Reference:
General Information:	ENV 38

#### Description of Table(s)

Title/Date/Source  Row labels  Column Headings  No. 1  Island of Guam  Map of Guam Showing - 1st Class Road - 2nd Class Road - 3rd Class Road - 3rd Class Road - Point to Point Mileage - Villages  Wind Pressure Chart, Typhoon of September 21, 1946  Wind Direction Chart, Typhoon of September 21, 1946; Graph Showing Maximum Gust Velocity Average Wind Velocity and Minimum Gust Velocity Average Wind Velocity and Minimum Gust Velocity Typical Quonset Hut Tie Down Method  Diagram Showing the Method of Construction of Quonset Buildings Tied Down by Means of Concrete Pedestal Blocks Cast Against the Side Sheeting		1226		
Wind Pressure Chart, Typhoon of September 21, 1946  Wind Direction Chart, Typhoon of September 21, 1946; Graph Showing Average Wind Direction Wind Velocity Chart, Typhon of September 21, 1946; Graph Showing Maximum Gust Velocity, Average Wind Velocity and Minimum Gust Velocity and Minimum Gust Velocity Average Wind Velocity and Minimum Gust Velocity and Direction  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30	Title/Date/Source	Row Labels	Column Headings	Notes
Typhoon of September 21, 1946  Wind Direction Chart, Typhoon of September 21, 1946; Graph Showing Average Wind Direction  Wind Velocity Chart, Typhoon of September 21, 1946; Graph Showing Maximum Gust Velocity, Average Wind Velocity and Minimum Gust Velocity  Typical Quonset Hut Tie Down Method  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes  Time  - 12:00 a.m. thru 5:30 p.m. in Increments of 30 Minutes	Island of Guam	- 1st Class Road - 2nd Class Road - 3rd Class Road - Point to Point Mileage		
Typhoon of September 21, 1946; Graph Showing Average Wind Direction  Wind Velocity Chart, Typhoon of September 21, 1946; Graph Showing Maximum Gust Velocity, Average Wind Velocity and Minimum Gust Velocity and Minimum Gust Velocity  Typical Quonset Hut Tie Down Method  Diagram Showing the Method of Construction of Quonset Buildings Tied Down by Means of Concrete Pedestal Blocks Cast Against the	Typhoon of September 21,	- 0 thru 50 in Increments	- 12:00 a.m. thru 5:30 p.m. in Increments	
Typhoon of September 21, 1946; Graph Showing Maximum Gust Velocity, Average Wind Velocity and Minimum Gust Velocity Typical Quonset Hut Tie Down Method  Diagram Showing the Method of Construction of Quonset Buildings Tied Down by Means of Concrete Pedestal Blocks Cast Against the	Typhoon of September 21, 1946; Graph Showing	- 0° thru 360° in Incre-	- 12:00 a.m. thru 5:30 p.m. in Increments	
Down Method  Method of Construction of Quonset Buildings Tied Down by Means of Concrete Pedestal Blocks Cast Against the	Typhoon of September 21, 1946; Graph Showing Maximum Gust Velocity, Average Wind Velocity and Minimum Gust Velo-	- 0 thru 80 in Incre-	- 12:00 a.m. thru 5:30 p.m. in Increments	
	75 A T	Method of Construction of Quonset Buildings Tied Down by Means of Concrete Pedestal Blocks Cast Against the	i).	

Title/Date/Source	Row Labels	Column Headings	Notes
Naval Newspaper Printing	Sketches of Cross Sec- tional Elevation and Plan at End of Struc- tures Illustrating the Effect of Typhoon Upon this Plant	**	
Typical Multi-Arch Quon- set Hut Column Failure	Sketch Showing a Typical Frame Distortion of One Multi-Arch Quonset Hut	-	
Plan View of Footing Movement Butler Type Manger #10 - Harmon Army Mir Field	Drawing Showing the Damage to One of the Butler Type Framed Buildings	а.	
Distortion of Side Wall Bracing, Butler Type Hanger No. 10 - Harmon Field	Drawing Illustrating the Damage to the Side Wall Bracing of a Butler Type Framed Building		
Damage to Apra Harbor Breakwater	Drawings Showing Profiles and More Detailed Infor- mation Covering Typhoon Damage to the Breakwater		

The following list of photographs were taken immediately after the typhoon and illustrate some of the types of structural damage.

- 1 Typical plywood construction intact
- 2 Plywood construction, footing collapse distortion
- 3 40' x 100' Quonset junior officers wardroom ComMarianas
- 4 Plywood construction, little flying debris
- 5 Stiff frame plywood construction
- 6 40' x 100' Quonsets Asan
- 7 Flag pole Marine Service Depot
- 8 Typical column distortion multi-arch quonset
- 9 Naval News Building 40' x 100' quonset
- 10 Typical column distortion multi-arch quonset

- 11 Typical hangars collapsed at Harmon Field
- 12 Hangars No. 9 and 10 Harmon Field
- 13 Rear View Hangars No. 7 and 8 Harmon Field
- 14 Hangars No. 5 and 6 Harmon Field
- 15 Hangars No. 7 and 8 Harmon Field
- 16 Rear View Hangar No. 6 Harmon Field
- 17 Multi-Arch Supply Quonset ComMarianas
- 18 Effect of wind at 70 mph
- 19 Hangars No. 9 and 10 Harmon Field
- 20 Typical Butler hangar truss distortion
- 21 Failure of sill and plate anchorage
- 22 Rear of hangars
- 23 Rear of hangar No. 7 Harmon Field
- 24 40' x 100' Quonset Marine Supply Depot Agana
- 25 40' x 100' Quonsets Marine Supply Depot Agana
- 26 Butler type hangar Harmon Field
- 27 Hangar with canvas roof Orete Air Field
- 28 Hangar No. 5 Harmon Field
- 29 Butler type hangar Harmon Field
- 30 Tie rod uprooting due to extreme displacement of footing pads Butler type hanger - Harmon Field
- 31 Footing pad, sliding displacement Butler type hanger Harmon Field
- 32 Typical column collapse multi-arch quonset
- 33 Footing pad uplift Butler type hangar Harmon Field
- 34 Footing pad resettlement Butler type hangar Harmon Field
- 35 Multi-Arch quonset and Supply Building ComMarianas

LA TAN	ENV	Detail 16
Title: Sewer Connection Survey Inspection	I	
Source Agency: Guam Environmental Protection Agency		
Computerized: No Computer Reference:		
General Information: ENV 39		<del></del>
Information Contained on the Document		
Owner's name, mailing address and phone number		
Property address, lot number, block number, tract number	L	
Building use		
GEPA (septic tank and sewer connection) Permit number and date		
Sewer Available: (yes or no), date became available (date), more that (yes or no).	n five y	ears ago
Type of Disposal System (check if applicable)  - Sewer Connection (if so, date of connection and PUAG account num  - Septic Tank, completely adequate  - Septic Tank, inadequate or defective  - Cesspool, completely adequate  - Cesspool, inadequate or defective  - Other (specify)	ber)	.g6.
Observations		
Conclusions	*.	
Inspectors Signature		

Date of Signature

Trete.	am Water Quality Inventory			Title/Date/Source	Row Labels	Column Headings	Notes
Source Agency.	Computer Reference  7 41		18	Coldi Coldi	- Interior Basin and Broken Land - Coastal Lowland and Valley Floors		
Title/Date/Source	Description of Table(s)  Row Labels	Column Headings	Notes	igure 5 ap Showing Groundwater reas in Guam. Figure aken from Ward and	Map of Guam Showing Groundwater Areas in Guam		
Table la Water Consumption: FY 1964-1973 (Millions of Gallons); Public Utilities Agency of Guam  Table lb Water Meters in Use: FY 1964-1973; Public Utilities Agency of Guam  Table lc Revenue from Water Sales: FY 1964-1973 (\$ Thousands) Public Utilities Agency of Guam  (Above 3 tables have the same row labels and column headings)  Table 2 Population of Guam: Earliest Census to 1970; U.S. Census of Population; 1970  Table 3 Population by Election District: 1960 and 1970; U.S. Census of Population, 1970  Figure 4 Physiographic Divisions of Guam. Figure taken from Tracey et al (1959)	Year - FY 1964 thru FY 1973  Census Date - 1970 Apr. 1st thru 1901 in decrements of 10 years  Guam Total - 19 Election Districts	Residential Commercial and Government Total  Population - Number - Increase over Preceding Period - Number  1970 1960	5 6 5 7	rookhart (1962)  able 4  mmarizing Data from he Drinking Water Distri- ntion Systems of Various mmunities from March 374 thru February 1975. ontaminated Samples are hose with Total Coliform ounts Exceeding four ar 100 ml.  able 5  oliform Bacteria Popu- ation of Various roduction Wells  igure 6  p Showing the Locations the Major Point Source Beharges on Guam and PA Monitoring Stations	Communities Sample  List of Various Production Wells  Map of Guam Showing Groundwater Monitoring Station Primary Network Monitoring Station Recreational Waters Station Storm Drains Storm Water Ponding Basin Sanitary Landfill Sewage Treatment Plant with Ground Discharge Sewage Treatment Plant with Surface Water Discharge Untreated Sewage Outfall Thermal Discharge from a Power Generating Plant		

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Not
i i i i i i i i i i i i i i i i i i i	- Industrial Discharge (Oil, Separator, Washwater, etc.)			ble 8 cal Coliform Bacteria Station 9, Surface, RO River	Date	FC/100 m1 Date FC/100 m1	
Figure 7 Chloride Content of Water Pumped from Basal and Para-Basal Lens, Northern	- Spring			ble 9 Issolved Oxygen - Pago	Station - 8	Dissolved Oxygen (mg/l) - Date	
Guam, 1974	rock occur above sea level - Line of equal chloride content of basal and		133	ver	- 9 - 10 (Above 3 categories are each broken down into:)	- Mean	
	para-basal ground- water in milligrams per liter interval variable		#1 n1	The totals	- Surface - Middle - Bottom	E	
Figure 8 Unconfined Basal Water Ghyben-Herzberg Lens Typical of Northern Guam	Schematic showing how excessive withdrawal of fresh water from an unconfined lens may		onis riii like	ble 10 ow - Pago River Measure- nts taken at Station 6 - GS Gage Station	Date	Flow (CFS)	
	produce a high saline water source		. 3	ble 11 trate - Pago River	Station - 8 - 9 - 10	Nitrate (mg/l) - Date - Mean Flow	
Table 6 Monitoring Results of Selected Production Wells, February 1975	List of Wells	Temperature <sup>O</sup> C Condition umho x 10 <sup>2</sup> Phosphorus mg/1 Nitrate mg/1 Chloride mg/1 Sulfate mg/1		ble 13 spended Solids - Pago ver	(Above 3 categories are each broken down into:) - Surface - Middle - Bottom		
4.		Total Hardness mg/1 CaCO3 Ca Hardness mg/1 CaCO3 Total Coliform TC/100	124	bove 3 tables have the column headings and labels)			
Table 7 Rivers Monitored by GEPA	River - Agana - Big Gautali-Atantano - Namo (Ajuga) - Umatac - Geus - Inarajan	Drainage Area Square Miles Flow in M.G.D. (1951-67) - Maximum - Minimum		gure 9 tal Coliform per 100 ml Pago River Outfall rsus Date of Sampling. gure Showing Water Qualit andards.	Fecal Coliform per 100 mi - 2,000,000 - 1,000,000 - 100,000 y- 10,000 - 2,000 - 1,000 - 200	. Date	
	- Talofofo-Ugum - Togcha - Ylig - Pago-Lonfit			sure 10 solved Oxygen (mg/1) d Flow (CFS) Versus Date Monitoring Midstream Station 9 Offshore of Da STP Outfall. Flow	Dissolved Oxygen (mg/l) - 0.0 thru 10.0 Flow (CFS) - 2 thru 20	Date of Monitoring Midstream Surface Middle Bottom Flow	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings
Measured Upstream at Station 6 (USGS Gage Station)					- Geus - Umatac - La Sa Fua - Cetti	<ul> <li>Industrial Water</li> <li>Supply</li> <li>Fish and Aquatic</li> <li>Plant Propagation</li> </ul>
Figure 11 Seans of Dissolved Oxygen (mg/1) Versus Sampling Station, Pago River	Dissolved Oxygen mg/l - 30 thru 60	Station Surface Middle Bottom			- Finile - Asan Spring - Agana Spring - Janum	- Agricultural Water Supply - Water Contact
calculated from 6 monthly amplings)		Flow		table 15	List of Substance	Maximum Reading Obtained on Guam mg/l
igure 12 lean Value of Suspended olids Versus Sampling tations, Pago River	Suspended Solids mg/ 100 ml - 0 thru 10,000 in increments of 1,000	Station Surface Middle Bottom		ampled from 18 Fresh ater Bodies of Guam, 968		USPHS Standards mg/1
		Flow		oint Source Discharges - iver Waters - October	Map Number	Point Source Number Description
Figure 13 Mean Value of NO <sub>3</sub> (mg/l) Mersus Sampling Station, Pago River Calculated from Quarterly Samplings	NO <sub>3</sub> (mg/1) - 0 thru 1.5 in increments of .5	Station Surface Middle Bottom		1974		Source Receiving Water Latitude Longitude (Above 2 categories are each broken down into:)
igure 14 ean Values of Phsophorus mg/1) Versus Sampling tations Calculated from Quarterly Samplings	Phosphorus mg/1 - 0 thru 4	Station Surface Middle Bottom		lgure 16 bint Source Discharges a Civilian Areas	Map of Guam Showing Point Source Discharges in Civilian Areas	- Minutes - Seconds
Igure 15 caph Showing the Monthly ecal Coliform Levels ound in the Rivers of the cimary Monitoring Network com October 1974 thru ebruary 1975		Agana River Gautali-Atantano Namo River Umatac River Geus River Inarajan River Talofofo River		able 16 We Release form for ecreational Water pality Monitoring	List of Recreational Water	FC/100 ml
		Togcha River Ylig River Pago River		ble 18 wage Treatment Plants f Guam - March 1975	Locations	Name Treatment Type Year
able 14 uitability of Source for rinking Water in Existing ondition 1968 (Austin & mith Associates)	- Ylig - Talofofo	Chemical - Domestic Water Supply - Industrial Water Supp - Fish and Aquatic Plan Propagation	1y			Capacity gpd Pop. Served BOD Influent mg/l BOD Effluent mg/l
i	- Lower Ugum - Ugum at Falls - Pauliluc - Inarajan	- Agricultural Water Supply Bacteriological - Domestic Water Supply		tam NPDES Permit Status	List of Permits Issued	Dates Issued

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Table 20 Marine Sites with Check- lists of Organisms	List of Marine Sites	Fishes Coral Marine Plants (Above 3 categories are each broken down into:) - Species - Genera		ble 23 ading Permits Issued tween January 1 and gust 1, 1974 bove 2 tables have the me row labels and column adings)	S#:		
÷	4 4			Patrige?			
Figure 17 Status of Acanthaster Planci and Coral Condition on Guam During Summer, 1969. Figure taken from Tsuda (1971)	Map of Guam Showing - Live Coral Area s - Acanthaster Planci Area - Dead Coral Area - Barrier Reef Area		1 20 20 10	ble 24 oplands and Pasturelands; 70	Farms (Number) Land in Farms (Hectares)	<ul><li>Used for Crops</li><li>Used for Pasture</li><li>Not Used</li><li>Pastureland</li></ul>	
Figure 18 Status of Acanthaster Planci and Coral Condition on Guam During Summer, 1970. Figure taken from Tsuda (1971)	s		9			<ul> <li>Used for Pasture or Grazing</li> <li>Not Used for Pasture or Grazing</li> </ul>	1
Figure 19 Status of Acanthaster Planci and Coral Condition	s			t of Major Piggery and altry Farms of Guam	List of Names of Farms	Owner or Operator Date License or Permit Issued Location of Farm	
on Gaum During April 1971. Figure taken from Tsuda (1971)	*	**		ble 26 vestock and Poultry; 70 April 1	List of Type of Live- stock and Poultry - Farms	Numbers	
(Above 3 figures have the same row labels)					- Number	•	
Figure 20 Guam Environmental Protection Agency Proposed Water Classification Map	Map of Guam Showing - Marine Waters - Estuaries - Fresh Surface Waters - Groundwaters		15 58 73 73	ble 27 alysis of Pesticide sidues in Water Samples llected from Capehart using sump, Andersen AFB, im (Analyses by U.S. blogical Survey)	List of Pesticides	Storm Pipe Drain August 19, 1969 Paved Concrete Drain August 20, 1969	
Table 21 Non-Point Source Pollution Categories and Priorities	List of Non-Point Source	Priority Rating for Government Action	-	tewater, Stormwater and dfills Affecting the thern Groundwater Lens	Partial Map of Guam Showing - Sewered Areas - Leaching Field Areas		
Table 22 Clearing Permits Issued Between January 1 and	Total Permits Issued	Permits for North Permits for South Total Acres		Total Control of the	- Stormwater Ponding Basins - Landfills - Sewage Treatment Plant		
August 1, 1974; Dept. of Public Works		Acres North Acres South Days Permit Issued For Month	16		with Leaching Fields - Large Leaching Fields		

						A W STAN	
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Figure 21 Dump Site Summary	Map of Guam Showing - 1 thru 1,000 cu. yd 1,000 thru 10,000 cu. yd 10,000 and over - Junk cars - Authorized disposal sites - Sanitary Landfills		3	ble B dustrial Discharges	Facilities by Population Served List of Industries	Number of Surface Water Discharges - Major - Minor - Total	
Figure 22 Modified Transfer Station: Guam Environmental Protection Agency  Figure 23 Modified Transfer Station; Guam Environmental Protection Agency  (Above 2 figures have the same row labels)	Station for Solid Waste to be located in Village Remote from Landfills	s		ble C dustrial Discharges	List of Industries	Receiving Water Body Product Flow MGD BOD, 5-Day Nitrogen lbs/day Phosphorus lbs/day Solids 1000 lbs/day Cyanide lbs/day Metals lbs/day Oil and Grease lbs/day Temperature Increase	
Table 23 Status of Municipal Waste- water Facilities Projects	List of Projects	STP April 1975 Status Priority Total Cost Federal Funds (EPA) EPA Code Const. Year		ble D deral Installations of  m  ble E wage Treatment Plants Guam. March 1975	List of Agencies  List of Locations Total	Installation Name City Name  Name Treatment Type Year	5
Table 28 Guam Environmental Protection Agency Population Projection  Table 29	Guam 19 Municipalities  District	1960 1970 1 2 3 4	5 10	ble 6 ter Quality of FENA tervoir Compared to inking Water Criteria	List of Characteristics	Capacity gpd Pop. Served BOD Influent mg/1 BOD Effluent mg/1 Units High Value Low Value Mean Value	
Guam Environmental Protection Agency Sewage Districts  Table A Guam Municipal Discharges	- Agana - Agat - Hilaan - Inarajan - Merizo-Umatac - Talofofo - Ylig - Orote  Municipal Facilities by Treatment Level	Gal./day Prop. MGD  Numbers		ble 6b  A Nutrient Concentations with Trophic rel Comparison	Oligotrophic Mesotrophic Eutrophic Fena Res. Influent Rivers	FWPCA Raw Water Criteria AWWA Potable Water Goals USPHS Potable Water Standard  Nitrate Nitrogen mg/l Nitrite Nitrogen mg/l Ammonia Nitrogen mg/l Organic Nitrogen mg/l Total Phosphate um/l Chlorophyll-a mg/m <sup>3</sup>	

Title/Date/Source	Row Labels	Column Headings	Notes
Table 6c	List of Organisms	Silica (SiO <sub>2</sub> ) mg/l Biol. Oxygen Demand mg/l Total Organic Carbon mg/l	1.
Enumeration of Plankton in FENA Reservoir (A-P) (Collected 12 March 1973)  Table 6d Enumeration of Plankton in FENA Reservoir (A-Z) (Collected 12 March 1973)	List of Urganisms	Chamber Count - I - II - III Total Number Proportion (%)	
(Above 2 tables have the same row labels)	į. 9	Ψ.	
Table 6e Quantitative Results for Plankton Tows in FENA Reservoir (Samples collected 12 March 1973)	Sample	Lake Volume Sampled (liters x 10) Total Plankton Collected (organisms/tow x 10 <sup>3</sup> ) Plankton Concentration (organisms/liter)	
*	et god k		
Table 6f Taxonomic List of Shoreline Aquatic Plants Found at FENA Reservoir (February- March 1973)	Division - Chlorophyta (green algae) - Tracheophyta	Class Order Family Genus	
Table 6g Benthic Macroinvertebrates in FENA Reservoir	Station Organism Identification Average	Concentration - Organism/liter - Organism/m <sup>2</sup> - Species Diversity	
Table 6h List of the Fishes of FENA Reservoir and Influent Rivers	Fish Identification	Common Name Occurrence Found in Feb-March 1973	-
Table 6i Quantitative Results for Fish Captures with Fike and Gill Nets in February and March 1973	Organism Identification	Total Number Captured Relative Proportions (%)	

Title/Date/Source	Row Labels	Column Headings	Notes
ter Supply Analyses parison of Results h USGS Samples	Parameters	Namo River USGS Amagosa River USGS Maulat River USGS (Above 3 are each broken down into:) - K.E 5/25/72 - 8/15/72	
le 6k	List of Pesticides	Fena Lakes USGS - K.E 5/25/72  A-S (ug/1)	
ticides and Herbicides	List of Herbicides	A-E3 (ug/1) A-H3 (ug/1) A-M3 (ug/1)	
ES:	100 2		l.

tes 1 thru 5 are standard notes, refer to Introduction.

- Includes native men enlisted in U.S. Navy, but excludes United States Naval Station
- Includes Cocos Island.
- All contaminated samples were from Yigo well which was the object of special investigation by Monitoring Division. All three other wells had no contaminated
- Map also shows numbers of starfish killed between 1969 and August 1970 in different
- 1-Distribution projection relative to past growth.
- 2-1990 municipality population based on percentage of 1970 total population and on the premise that 1990 total population will be 272,000.
- 3-Percentage change from 1970 to 1990 based on policy, terrain restrictions and 4-Population - 1990

Source Agency: United States Geological Survey	
0 1 D 0	
Computerized: No Computer Reference:	•
General Information: ENV 42	

## Description of Table(s)

	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
Figure 9 Map of Guam, Mariana Islands, Showing Locations of Gaging and Partial - Record Station	Map of Guam Showing - Gaging Station - Low - Flow Partial ~ Record Stations		
Discharge, in Cubic Feet Per Second, Water Year October 1973 to September 1974 for the Island of Guam by Names of Rivers	Day - 1st thru 31st Total Mean Maximum Minimum Acre Feet	Dates - October 1973 thru September 1974	6
Discharge at Partial - Record Stations and Miscellaneous Sites: Discharge Measurements Made at Low - Flow Partial - Record Stations During Water Year 1974 for the Island of Guam	Station Numbers	Station Name Location Drainage Area in Square Miles Period of Record Measurements - Date - Discharge (feet 3/5)	74 A
Periodic Determination of Water Temperature for the Island of Guam by Names of Rivers	Date	Time (24 Hours) Discharge (Cubic feet per second) Temperature (centigrade	6

#### NOTES:

## 6 - Names of Rivers:

Finile Creek at Agat
Umatac River At Umatac
Geus River Near Merizo
Inarajan River Near Inarajan
Tinaga River Near Inarajan
Imong River Near Agat
Almagosa Spring Near Agat
Almagosa River Near Agat
Maulap River Near Agat
Fena Dam Spillway Near Agat
Ylig River Near Yona
Pago River Near Ordot

itle: Guam Monthly Wate	er Resources Memorandum						
t.	ogical Survey and Guam E.P	.A.	-	Title/Date/Source	Row Labels	Column Headings	Notes
omputerized: No	Computer Reference V 42			Monthly Rainfall Distribution	Map of Guam Showing - Isolhyetal Lines		
	Description of Table(s)			45		•	
Title/Date/Source	Row Labels	Column Headings	Notes	112	-	ÿ.	(-)
Rainfall In Inches	Station Name and Number - Windward Hills - Umatac Village - Weather Service	Month - Median - Year		15 22 25		n	
Monthly Stream Flow in Million Gallons	Station Name and Number - Ylig River - Umatac River	Month - Median - Year - Mean Daily - Maximum Daily - Minimum Daily					
Ground Water Levels Measured in Feet Below Top of Well	Well Numbers	Depth to Water Date Change Since Last Reading	v Ve	92.		* .	
Chloride in Concentration of Ground Water, Milligrams Per Liter (mg/l)	n Well Numbers	Record Low and High Latest Analysis Date				-9	
Water Production in Million Gallons Per Day (mgd)	Guam Area Numbers - 1 thru V - Total	Ground Water Pumpage Spring Flow Diversion Stream Flow Diversion				æ	
Geological Survey Form	Day of the Month - 1 thru 31	Amount of Rainfall in Intervals of 2 Hours Total Rainfall					
Water Resources Index Map	Map of Guam Showing - Well - Spring - Stream Flow Gaging			324	er to		
2	Station - Rainfall Station - Boundary of Water Produ Area - Boundary of Index Drain		2.75				

THY DECOTT TA

Title:	Groundwater Resources of Guam: Occurrence and Development				
Source Agency: John F. Mink for Public Utility Agency of Guam					
Computerized	Computerized: No Computer Reference:				
General Infor	mation: ENV 43				
	Information Contained on the Document				
	TABLE OF CONTENTS				
Page	Text				
1	Introduction				
6	History of Water Development				
16	Environmental Setting				
16	Geography				
18	General Geology				
22	General Hydrology				
25	Groundwater Resources				
29	Hydrogeology				
30	Limestones				
34	Volcanics				
37	Occurrence and Extent of Groundwater				
38	Basal Water in Northern Guam				
43	Brief Description of Basal Water Areas				
47	Brief Description of Para-basal Water				
48	Basal Water in the Limestones of Southern Guam				
50	Groundwater in Buried High Level Limestones of Southern Guam				
51	High Level Perched Water: Springs				
53	Geochemistry of the Water Resources				
57	Aquifer Environment				

Page	Text
59	Discussion of Dissolved Constituents
59	Chloride
63	Silica
65	Calcium, Magnesium, Hardness
68	Nitrate
73	Temperature of the Groundwater
76	Pollution - Waste and Storm Water Disposal
78	Surface Disposal of Urban Storm Runoff
80	Injection Wells and Pits
82	Summary of Water Pollution and Disposal
83	Hydrologic Budget
84	Rainfall
87	Evaporation and Evapotranspiration
89	Hydrologic Budget for Northern Guam
91	Minimum Groundwater Budget
93	Probable Groundwater Budget
96	Groundwater Development
99	Drilled Wells
L <b>0</b> 2	Well Siting, Design and Construction
L <b>0</b> 5	Sustainable Yield of the Basal Lens of Northern Guam
L07	Area 1: Current Development and Recommended Additional Development
112	Area 2: Current Development and Recommended Additional Development
115	Area 3: Current Development and Recommended Additional Development
118	Area 4: Current Development and Recommended Additional Development
124	Summary of Recommendations for Additional Groundwater Development in
	Northern Guam

Page	<u>Text</u>	No.	Text Figures
	Southern Guam: Current Development and Recommended	9	Cross-section HH': Pagat Point - Mataguac
124	Additional Development	10	Cross-section II': Janum Spring - Mataguac
125	Malolo	11	Cross-section AA': Ordot - Agana Swamp
126	Talofofo	12	Background Chloride Content
126	Ylig	13	A Series Wells: Chlorides
126	Togaha and Camp Dealy	14	D, Y Series Wells: Chlorides
127	Volcanic Rocks	15	M Series Wells: Chlorides
128	Surveillance of the Behavior of the Groundwater Resources of Guam Under	16	H-1, F-1, AG-1, T-1, M1-1: Chlorides
£	Development Stress	17	Well D-13: Schematic Diagram
129	Data Collection on the Non-groundwater Phases of the Hydrologic Cycle	18	Background Silica Content
131	Data Collection on the Groundwater Phase of the	19	Chloride in Sea Water Mixtures
Å)	Hydrologic Cycle	20	Background Calcium, Magnesium, Hardness
132	Observation Wells	21	Nitrogen Cycle
133	Monitor Wells	22	Background Nitrate Content
135	Some Remarks on Geophysical Well Logging and Geophysical Surveys	23	Monitor Well Location
	· e	24	Monitor Well Design
No.	Text Figures		
1	Stearns 1937 Isopiestic Map	Analysis No.	Appendix A
2	Piper 1948 Isopiestic Map	A-1	Simple Derivation of the Ghyben-Herzberg Principle
3	Cross-section BB': Famja - Lates Point	A-2	The Shape of the Ghyben-Herzberg Lens
4	Cross-section CC': Agana - Taogam Point	A-3	Use of Tidal Responses to Estimate Hydraulic Conductivity of the
5	Cross-section DD': Agana Swamp		Aquifer of Northern Guam
6	Cross-section EE': Tumon - Huchunao	A-4	Decay of an Unconfined Ghyben-Herzberg Lens Under Conditions of no
7	Cross-section FF': Well D-14 - Well M-1		Recharge
8	Cross-section GG': Hilaan - Mati Point	A-5	Groundwater in the Volcanic Rocks of Southern Guam as Determined
			from Stream Flow Measurements
			The state of the s

Analysis No.	Appendix A	
A-6	Waste Water Disposal by Means of Injection Wells	
A-7	Maximum Rate of Draft for Wells in the Basal Lens as Constrained	d by
Se .	Local Conditions of Head, Aquifer Penetration, and Hydraulic	
	Conductivity	
A-8	Derivation of Sustainable Yields from a Ghyben-Herzberg Lens for	r H
	Selected Equilibrium Heads	
A-9	Evaluation of Flow from Asan Spring	
		841
Table No.	Appendix B	12
1	Rainfall Records	
_		

able No.	Appendix B
1	Rainfall Records
2	Average Rainfall and Evaporation
3	Hydrologic Budget, Northern Guam: Minimum Budget
4	Hydrologic Budget, Northern Guam: Probable Budget
5	Hydrologic Budget Summary
6	Flow Characteristics of Streams Draining Volcanic Rocks
7	Summary of Flow Characteristics of Streams Draining Volcanic Rocks
8	Geochemistry
9	Geochemistry: Typical Analyses
10	Summary of Pumping Data for Active Wells
11	Drillers Logs North Guam Wells
12	Effects of Acidizing on Pump Tests
13	Summary of Pumping Tests at Time of Well Completion
14.	Summary of Pumping Tests Analyses

		3.0
Page	Text Tables	
41	Heads and Chlorides in Northern Guam in 1937	(Stearns)
56	Water Quality Standards	
74	Groundwater Temperatures	
No.	Maps	
1	Geology and Groundwater Sites	

Groundwater Occurrence in Northern Guam

Northern Guam Divisions and Cross-sections

Hydrogeology of the Agana-Barrigada Section

Title: Report Covering	the Surface Water Survey for	or Guam	23	Title/Date/Source	Row Labels	Column Headings	Notes
Computerized: No	Computer Referen	1	Guam	table III rainage Basins of outhern Guam	Name of Basin	Area in Square Miles Receiving Body of Water Exhibit Number	
	Description of Table(s)			robable Water Distribu- ion, by Regions	Region Total Supply	Year - 1995	6
Title/Date/Source	Row Labels	Column Headings	Notes		Requirement	- 2020	
Figure 1 Civilian Population Trends in Island of Guam Based on Years 1950 to 1967; Territory of Guam Master Plan 1966 and U.S. Bureau of the Census	Population in Thousands - 20 thru 140 in increments of 10	Year - 1951 thru 1994	0	able V ater Source evelopment Costs	Project - Ugum River - Agana Spring - Talofofo River - Umatac-La Sa Fua - Inarajan River - Janum Spring - Finile Stream	Construction Cost Cost Per Mg. Design Capacity	
Table 1 Estimated Regional Population Distribution	list of Regions Projected Total Population	Year - 1950 - 1995 - 2020	6	able VI hemical Analysis	Type of Substance Tested	Maximum Reading Obtained on Guam USPHS Standards	
Table II Probable Daily Water Demands and Supply Requirements for Guam shown in Gallons per Day	Year - 1970 thru 2020 in increments of 5 Years	Demand Plus 10 ± % Loss Supply Required		ble VII benol or Phenolic-Like	Sample Number	Location Parts Per Billion	
Figure 2 Accumulative Rainfall at Anderson A.F.B. Guam, Marianas Islands (Bar Graph Showing Monthly Annual and Average Annual Rainfall	Rainfall in inches	Year - 1953 thru 1968	7	ble VIII cterial Readings rresponding with lemical Readings at rrious Sites	Number and Name of Site of Sample	Dates Samples were Taken - January 1968 - April 1968 (Above 2 Categories are each broken down into) - Flow in MGD - MPN	8
Figure 3 Accumulative Rainfall in the Dededo area, Guam, Marianas Islands (Bar Graph Showing Monthly, Annual and Average Annual Rainfall)	Rainfall in inches	Year - 1953 thru 1968	# <u>#</u>	ble IX acteria Readings of alofofo Bay, Talofofo aver and its Tributaries pressed as Most Probable aber	List of Sample Site	Station Number Dates Samples were taken - January 31, 1968 - April 4, 1968 - April 19, 1968 - May 10, 1968 - June 10, 1968	8

		Ex	AA De
Title/Date/Source	Row Labels	Column Headings	Note
Table X Ranges of Standards for Raw Water Sources of Domestic Water Supply	Constituent - Coliform MPN Per 100 ml - Monthly Average - Maximum day or sample - Dissolved Oxygen - Mg/l Average - Percent Saturation - Average PH - Chlorides Mg/l - Fluorides Mg/l - Phenolic Compounds Mg/l - Color, Units - Turbidity, Units	Excellent Source of Water Supply, Requiring Disinfection Only, as	8
Table XI Suitability of Sources in Existing Condition	Source - Pago River - Longfit - Ylig - Talofofo - Lover Ugum - Ugum at Falls - Pauliluc - Inarajan - Geus - Umatac - La Sa Fua - Cetti - Finile - Asan Spring - Agana Spring - Janum	Chemical Bacteriological (Above 2 Categories are each broken down into) - Domestic Water Supply - Industrial Water Supply - Fish and Aquatic Plant Propagation - Agricultural Water Supply - Water Contact	
Exhibits 31 thru 52 Chemical Analysis of Guams Rivers, Reserviors Streams and Springs	Sample Number Sample Source Date Collected Stream Flow PH Phenol-Alk (CaCo <sub>3</sub> ) Methol-Alk (CaCo <sub>3</sub> ) Color Turbidity Calcium Hardness Flouride (F) Total Dissolved Solids	Findings Remarks	
	Chlorides (C1) Total Hardness Iron (Fe) Boron (B)	*	

Title/Date/Source	Row Labels	Column Headings	Notes
hiely	Nitrate (NO <sub>3</sub> )		
	Sulfate (SO4)	* N.	
	Dissolved Oxygen Carbon Dioxide (CO <sub>2</sub> )		
	Conductivity (Micromhos) Silica (Si2)	•	¥.
	Relative Stability		1
	Manganese (Mn)	_	1
	Phosphate (PO <sub>4</sub> ) Ammonia (NH <sub>3</sub> )	, 4	Ì
30,000	Chromate (CrO <sub>4</sub> )		
	Silver (Ag)		
	Copper (Cu) ABS	*	
	Arsenic (As)		
	Cyanide (CN)		i
	Garage Contract Contr		ł
	legal .		l

#### MOTES:

- 7 Average Annual Rainfall based on 12 Complete Years at AAFB and 9 Complete Years in Dededo.
- 6 Regions: Agat to Asan; Central Area North; Yona to Umatac
- 8 MPN is Most Probable Number of Caliform Bacteria Present

Title/Date/Source	Row Labels	Column Headings	Notes
Table X Ranges of Standards for Raw Water Sources of Domestic Water Supply	Constituent - Coliform MPN Per 100 ml - Monthly Average - Maximum day or sample - Dissolved Oxygen - Mg/l Average - Percent Saturation	Excellent Source of Water Supply, Requiring Disinfection Only, as Treatment Good Source of Water Supply, Requiring Usual Treatment such as	
	- Average PH - Chlorides Mg/1 - Fluorides Mg/1 - Phenolic Compounds Mg/1 - Color, Units - Turbidity, Units	filtration and disinfection Poor Source of Water Supply, Requiring Special or Auxiliary Treatment and Disinfection	
Table XI Suitability of Sources	Source		
in Existing Condition	- Pago River - Longfit - Ylig - Talofofo - Lover Ugum - Ugum at Falls - Pauliluc - Inarajan - Geus - Umatac - La Sa Fua - Cetti - Finile - Asan Spring - Agana Spring - Janum	Chemical Bacteriological (Above 2 Categories are each broken down into) - Domestic Water Supply - Industrial Water Supply - Fish and Aquatic Plant Propagation - Agricultural Water Supply - Water Contact	
Exhibits 31 thru 52 Chemical Analysis of Guams Rivers, Reserviors Streams and Springs	Sample Number Sample Source Date Collected Stream Flow PH Phenol-Alk (CaCo <sub>3</sub> ) Methol-Alk (CaCo <sub>3</sub> ) Color Turbidity Calcium Hardness Flouride (F) Total Dissolved Solids	Findings Remarks	
	Chlorides (Cl) Total Hardness Iron (Fe) Boron (B)		

Title/Date/Source	Row Labels	Column Headings	Notes
	Nitrate (NO <sub>3</sub> ) Sulfate (SO <sub>4</sub> ) Dissolved Oxygen Carbon Dioxide (CO <sub>2</sub> )		
	Conductivity (Micromhos) Silica (Si2) Relative Stability Manganese (Mn)	_ *	×
	Phosphate (PO <sub>4</sub> ) Ammonia (NH <sub>3</sub> ) Chromate (CrO <sub>4</sub> ) Silver (Ag)	=;	
	Copper (Cu) ABS Arsenic (As)	4.	
4	Cyanide (CN)	5. F	

- 7 Average Annual Rainfall based on 12 Complete Years at AAFB and 9 Complete Years in Dededo.
- 6 Regions: Agat to Asan; Central Area North; Yona to Umatac
- 8 MPN is Most Probable Number of Caliform Bacteria Present

		for U.S. Navy Bureau of Yards and Docks
omputerized:	No	Computer Reference:
eneral Informatio	on: ENV 43	

#### TABLE OF CONTENTS

INTRODUCTION

WATER SOURCES AVAILABLE

PERCHED AQUIFER SPRINGS

SEA LEVEL LENS DISCHARGE

SPRINGS IN SEA LEVEL LENS

WELLS

FRESH WATER LENS IN LIMESTONE AREA

SURFACE WATER SOURCES

EXISTING MILITARY WATER SYSTEMS

WATER REQUIREMENTS

ALTERNATIVE WATER SOURCES

Dededo-Tumon Area
Agana-Sinajana Area
Barrigada-Chalan Pago-Mangilao Area
Talofofo-Ylig-Inarajan Area
Asan-Piti
Santa Rita-Agat
Merizo
Umatac
Yigo

INTEGRATED WATER SYSTEM

COST ESTIMATE

SUMMARY OF WATER SUPPLY PROJECTS
Dededo Supply from Harmon-NCS Wells
Tamuning-Dededo Supply from Wells
Tamuning Maui Development
Agana Springs Development
Janum Springs Development
Pago River Reservoir and Supply
Ugum River Supply

Merizo Supply from the Ugum Umatac Town Supply Yona-Talofofo-Inarajan Transmission Line

RECOMMENDED WATER SUPPLY MASTER PLAN

PRESENT AND SCHEDULED CON-STRUCTION

SELECTED REFERENCES

- PLATE 1 GEOLOGICAL MAP OF GUAM: Map of Guam Showing Beach Sand, alluvium;
  Mariana Limestone coral sigel constructional, limestone detritel,
  limestone molluscan, limestone detrital partly argillaceous; Limestone,
  sandy bank deposits; Limestone, foraminiferal with streblus; Lava
  flow and dikes; Lapilli Conglonerate with "Maemong" cobbles, Limestone,
  crystalline; pillow basalts, tuffaceous sandstone, shale, basic dikes;
  Sandstone and Shale, tuffaceous, lava flows; fault line.
- PLATE 2 EXISTING ISLAND-WIDE WASTE WATER SYSTEMS: Map of Guam Showing Ground Storage Reservoir; Elevated Storage Tank; Pump Station; Well; Spring; Dam; Pipelines of Navy, Government of Guam, Air-Force; Treatment Plant.
- PLATE 3 VILLAGE SERVICE AREAS: Map of Guam Showing 19 Village Service areas
- PLATE 4 Schematic Diagram of Navy Government of Guam Water System Showing Proposed Extension to Serve Dededo: Diagram Showing Spring, pump station, reservoir, treatment plant, existing pipeline, proposed pipeline.
- PLATE 5 PRESENT DEDEDO WELL WATER CONSTRUCTION: Map of Dededo Showing Well, elevated tank, ground level reservoir, secondary well area.
- PLATE 6 TUMON-DEDEDO WELLS: Map of Tumon-Dededo Area Showing wells, reservior, elevation tank, pump station.
- PLATE 7 DEDEDO WATER SUPPLY FROM HARMON VILLAGE NCS wells map of Tumon-Dededo area showing connection to existing Harmon village system, existing old NCS system, Dededo systems.
- PLATE 8 AGANA SPRINGS WATER SUPPLY: Map of Agana-Sinajana Area Showing Existing Agana Spring, existing pipelines, existing Agana Resevoir, new 16" Pipeline.
- PLATE 9 TAMUNING MAUI WATER SUPPLY: Map of Tamuning Showing Existing Tamuning Maui, proposed transmission main.
- PLATE 10 JANUM SPRINGS SUPPLY: Map Showing Reservoir, shaft and pump station, cave.
- PLATE 11 MASTER PLAN FOR UGUM RIVER DEVELOPMENT: Map of Mangilao to Merizo Showing pipeline existing proposed, proposed for ultimate development.
- PLATE 12 SCHEMATIC DIAGRAM INARAJAN YONA WATER SYSTEM SHOWING ADDITION OF
  -UGUM RIVER SUPPLY: Diagram Showing Pump Stations, reservoir, water
  treatment plant, existing pipeline, proposed pipeline, elevated tank.
- PLATE 13 PROPOSED UGUM DAM AND RESERVOIR: Map Showing Drainage Area Topography of Ugum Dam and Reservoir; Graph Showing Reservoir Storage and area elevation in feet, area in acres, storage in thousands of acre feet.
- PLATE 14 MERIZO WATER SUPPLY FROM UGUM PLANT: Map of Inarajan to Merizo Showing Reservoir, area connection of Merizo system, pump station to be abandoned, connection to Inarajan system.

- PLATE 15 UMATAC WATER SOURCE: Map of Umatac Area Showing Dam Reservoir, pump stations, diversion dam and pump station.
- EXHIBIT 1 ANDERSON AIR FORCE BASE WATER SUPPLY: HEADQUARTERS 863 D MEDICAL GROUP, USAF: SEPTEMBER 12, 1961: An evaluation of the potable water supply system at AAHFB which concludes that water from the system is a health hazard and is unpalatable, and recommends updating the water supply system.
- EXHIBIT 2 A LETTER FROM THE CHIEF OF SANITATION TO KENNEDY ENGINEERS ABOUT WATER-BORNE DISEASES THAT ARE ENDEMIC ON GUAM AND ARE RESISTANT TO DESTRUCTION BY CHLORINATION TO VARYING DEGRESS.
- EXHIBIT 3 INTESTINAL PARASITES REPORT JANUARY TO SEPTEMBER 1960: A chart showing the number of positive and Contact RX intestinal parasites in Dededo, Yigo and Tumon-Tamuning.
- EXHIBIT 4 REPORTS SHOWINGS THE RESULTS OF WATER ANALYSES: Specified Springs and Streams on Guam Analysed by Pacific Engineering Laboratory for the U.S. Navy-Guam Master Plan for water supply system, 1964; Anderson Air Force Base Wells water quality laboratory results 1964; Water Analysis Air Force Wells, Guam, 1962; Well Water Analyses for Naval Communication Station and Formost Wells.
- EXHIBIT 5 BACTERIOLOGIC ANALYSIS OF WATER MEMBRANE FILTER COUNT, E COLIFORM COLONIES: Table Showing Location, date and count of bacteria.
- EXHIBIT 6 GROUND WATER SOURCES NORTHERN GUAM: Map of Northern Guam Showing Identification of well, well-proposed, well-under construction, well-in use, well-stand by status, well-abandoned, maui well-in use, spring in use, spring abandoned or undeveloped, geological zones, principle roads, cliffline, shore line, reef line.
- EXHIBIT 7 EXCEPT FROM "RECONNAISSANCE GEOLOGY OF GUAM AND PROBLEMS OF WATER SUPPLY AND FUEL STORAGE"; PRESTON E. CLOUD JR. APRIL 1951:

  Discussion of the problems of extracting fresh water floating on the top of sea water without disturbing the natural equilibrium.
- EXHIBIT 8 PROJECT COMPUTATIONS AND CRITERIA: Civilian Population, water consumption, Ugum River, Reservoir, dams etc. Are described in detail.
- EXHIBIT 9 WATER RESOURCES: Map of Guam Showing Drilled Well; Drilled Well-plugged or Abandoned; Basal Tunnel; Dry Well; Dry Well-Drilled or Abandoned; Spring; Stream-Gaging Station; Historial Water Sources from USGS Water Resources Supplement, subtile 19-1962; Table Showing Source (well, spring, test spring); Choloride Parts Per Million; Capacity.

itle:	Water Resources Supplement to the Malical, "Geology of Guam
ource Agency:	U.S. Army Corps of Engineers and U.S. Geological Survey
omputerized:_	
eneral Inform	
elici -	
	Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Table 1 Rocks of Guam	Geological Age - Recent and Pleistocene - Pleistocene and Plio- cene - Miocene - Eocene and Oligocene	Formation General Character and Distribution Water-Bearing Character- istics	6
Figure 2 Graph of Monthly Dis- charge in the Pago River, 1952-1957	Mean Discharge in Cubic Feet Per Second - 0 thru 200 in Incre- ments of 50	Year - 1952 thru 1957	
Figure 3 Schematic Section Show- ing Occurrence of Basal Ground Water in Northern Guam	Diagram Showing - Permeable Limestone - Impermeable Volcanic Rock - Brackish Water		7.
Figure 4 Map Showing Ground Water Areas in Guam and the Locations of Geologic Sections	Map of Guam Showing - The Various Ground Water Areas - Locations of Geologic Sections	j t	
Figure 5 Geologic Sections in the Ground Water Areas in Guam	Diagrams of Ground Water Areas Showing - Alluvium - Mariana Limestone - Barrigada Limestone - Volcanic Rocks - Alifan Limestone	# ***	Ť
Table 2 Chemical Analyses of Water, Guam (Results in Parts Per Million)	Date Analyst's Name List of Chemicals	Source - Umatac River - Inarajan River - Pauliluc River	

Row Labels	Column Headings	Note
	- Fena Reservoir - Ugum River - Ylig River - Pago River - Names of 6 Springs - Names of 9 Wells - Tumon Tunnel	
<del>.</del> -	- ACEORP Tunnel	
Year - FY1957 thru FY1958	Maximum Minimum (Above 2 Categories are each broken down into:) - Date - Discharge (cfs) - Gage Height (feet)	8
Day - 1st thru 31st	Month - June thru July	8
	Year - FY1957 thru FY1958	- Fena Reservoir - Ugum River - Ylig River - Pago River - Names of 6 Springs - Names of 9 Wells - Tumon Tunnel - ACEORP Tunnel - Northwest - 4  Year - FY1957 thru FY1958  Maximum Minimum (Above 2 Categories are each broken down into:) - Date - Discharge (cfs) - Gage Height (feet)  Day  Month

#### Appendix B Records of Wells, Tunnels, and Springs

This contains information on the sources of ground water in Guam. The records were obtained from unpublished materials compiled by H.T. Stearn and A.M. Piper, and from files of military and civil agencies in Guam and from field investigations. There are tables showing pumpage for each month of the years 1951 thru 1957 in millions of gallons. There are tables showing the chloride content in the water and driller's logs showing depth in feet and the type of soil in particular depths. Numbers 1 thru 154 are assigned to wells, springs and tunnels, and 201 to 216 are assigned to test holes, and from 154 to 200 is for new installations.

#### NOTES:

Notes 1 thru 5 are standard notes, refer to introduction.

- 6 General character and distribution, and water bearing characteristics are given in small paragraphs.
- 7 Because of the mixing up of fresh water with sea water, most of the water discharging at the shore is brackish.

8 - Names of Rivers: 1, La Sa Fua River; 2, Umatac River at Umatac; 3, Geus River near Merizo; 4, Inarajan River near Inarajan; 5, Pauliluc River near Inarajan; 6, Tolaeyuus River near Agat; 7, Almayosa Springs near Agat; 8, Fena Dam spillway near Agat; 9, Talofofo River near Talofofo; 10, Ugum River; 11, Ylig River near Yona; 12, Lonfit River near Ordot; 13, Pago River near Ordot.

Title: Local Climatologi	ical Data: Monthly Summar	y, Annual Summary	- 3-	Title/Date/Source	Row Labels	Column Headings	Notes
Source Agency: Environme  Computerized: No  General Information: EN	Computer Referen	ation, U.S. Department of				- Air - Wet Bulb - Dew Point - Relative Humidity - Wind Speed	
	Description of Table(s)					- Resultant Wind - Direction - Speed	
Title/Date/Source	Row Labels	Column Headings	Notes	Hourly Precipitation	Day of the Month	24 Hours	
MONTHLY SUMMARY Daily Summary	Day of the Month Total Average	Temperature - Maximum - Minimum - Average - Departure from Normal     Average - Average Dew Point Degree Days - Heating (Begins July     1) - Cooling (Begins January 1) Weather Type Codes Snow on the Ground at     Midnight Precipitation Average Station Pressure Wind - Resultant Direction - Resultant Speed - Average Speed - Fastest Mile - Speed - Direction Sunshine - Minutes - Percent of Possible Sky Cover (Tenths) - Sunrise to Sunset		ANNUAL SUMMARY Heteorological Date for the Current Year	Day of the Month - 0100 hrs to 2200 hrs in increments of 0300 hrs  Month - January through December Year	Sky Cover (Tenths)	
Summary by Hours	Local Time - 0100 hrs to 2200 hrs in increments of 0300 hrs	- Midnight to Midnight  Averages - Sky Cover (Tenths) - Station Pressure - Temperature				Degree Days - Heating - Cooling Precipitation - Total - Greatest in 24 hrs - Date of Greatest	
	100				· · · · · · · · · · · · · · · · · · ·	i	

	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labole		7
	NOW LABETS	Relative Humidity - 0400 hrs - 1000 hrs - 1600 hrs - 2200 hrs Wind - Resultant - Direction - Speed - Average Speed - Fastest Mile - Speed - Direction - Date Sunshine, Percent of Possible Average Sky Cover, Sunrise to Sunset Number of Days - Sunrise to Sunset - Clear - Partly Cloudy - Cloudy - Percipitation of 0.01 inch or more - Thunderstorms	Notes	Title/Date/Source	Row Labels	- Recorded - Year - Minimum Monthly - Recorded - Year Relative Humidity - 0400 - 1000 - 1600 - 2200 Wind - Mean Speed - Prevailing Direction - Fastest Mile - Speed - Direction - Year Sunshine, Percent of Possible Mean Sky Number of Days - Sunrise to Sunset - Near - Partly Cloudy - Cloudy - Percipitation of 0.01	Notes
Normals, Means, and Extremes	Month - January through December Year	- Heavy Fog (Visibilty & mile or less) - Maximum Temperature of 90 Degrees and Above Average Station Pressure  Temperature - Normal - Daily Maximum - Daily Minimum	- Th	(The Following Five Tables Have the Same Row Labels and Column Headings:)		inch or more - Thunderstorms (%) - Heavy Fog, Visibility of Quarter - Mile or Less (%) - Maximum Temperature 90 Deagrees and Above Average Station Pressure	
		- Monthly - Extremes - Highest - Recorded - Year - Lowest - Recorded - Year Normal Degree Days - Heating - Cooling Precipitation - Normal - Maximum Monthly		Average Temperature Precipitation Heating Degree Days Cooling Degree Days Snowfall	1956 to Present (When Data has been Recorded)	Month - January thru December Annual	

יינותי

Territory of Guam	Master Flatt - 1700	
Source Agency: Territoria	1 Planning Comission	
Computerized: No	Computer Reference:	
General Information: LND		<del></del>

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
The Following Two Diagrams Have The Same Row Labels			**
Island Of Guam, Existing Land Use - 1965 (Diagram)  Island of Guam, Future Land Use - 1965 to 1985 (Diagram)	Roads Residential Conservation Commercial Industrial Public and Semi-Public Military Non-Urban		1
Existing Land Use Map - 1965	Map of Guam Showing - Residential (Single-Family) - Residential (Multi-Family) - Commercial - Industrial - Public - Semi-Public - Military		1
NOTES:	- Military - Conservation - Agriculture - Mixed Wood - Open Area - Coconut - Swamp-Marsh - Major Roads and High- ways - Reservoir and Streams		

Notes 1 thru 5 are standard notes, refer to introduction.

itle: Guam Master Plan, I	Phase 1, Problems, Opp	sitios and Alternatives	June 197	7itle/Date/Source	Row Labels	Culumn Headings	Notes
Source Agency: G1 Computerized: No	reenleaf/Telesca - Ahn.  Computer Referen	nce:	9.0	- Carter		Commercial Industrial Public and Semi Public	
General Information: LND	) 2					(Above 3 Categories are each broken down into:) - 1966	
	Description of Table(s)					- No. of Structures - No. of Acres - 1970	
Title/Date/Source	Row Labels	Column Headings	Notes	1		- Estimated Acreage Total Urban Uses - 1966	
Existing Zoning	19 Election Districts Total	One-Family Dwelling Multiple Dwelling Planned Unit Development Commercial	1 5	A 3 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1		- No. of Structures - No. of Acres - 1970 - No. of Structures	
÷	39. T	Limited Industrial Heavy Industry Total Urban Uses - Acreage		on II		- Estimated Acreage Total Acreage Data Validity	
		Agriculture Open - Conservation Military - Acreage Total Acreage	78. 36.	on-Military Land Uses opulation Series A, B and C (Each Population eries Have Separate lables)	Residential - Single Family - Multi-Unit Commercial - Retail - Services	Ratio 1970 thru 1990 in Increments of 5 Years	
Population Capacity of Existing Land Use Zoning	19 Election Districts Total	R1 (5 DU/AC) R2 (12 DU/AC) PUD (12 DU/AC) (Above 3 Categories are each broken down into:)	1 4		- Offices (Banks, Pro- fessional, General) - Wholesale Industrial - Light		
	# 17	- Zoned Acres - DU Capacity Total DU Capacity Total Population Capacity city (5/DU)			- Heavy Institutional - General (Medical Faci- lities, Libraries, Fire, Police, Museums, Theaters) - Educational		
Land Suitability Cri- terion: Slope; Terri- torial Planning Commis- sion	19 Election Districts Total	0 - 15% 16 - 35% 35% and Over (Above 3 Categories are each broken down into:) - Acres	5		- Elementary - Junior High - Senior High - Other (College, Private, etc.) Parks - Neighborhood - Community	 	
Civilian Land Use Analysis (1966-1970); Quinton-Budlong Territorial Planning Commis-	19 Election Destricts Total	Residential - 1966 - No. of Structures - No. of Acres	5 6		- Regional Total Urban Generated Uses	*	
sion t		- 1970 - No. of Structures - Estimated Acreage	150		7	48	

Notes 1 thru 5 are standard notes, refer to introduction.

6 - Number of structure denotes "physically separated structures", not individual dwelling units.

e Agency:	Bureau Of PL
terized: Yes al Information: LND	Computer Reference: LND Detail 15

# Phase I: Land Management Standard Form

A list of property containing the following information:

Land Square

Area

Section Lot Number Document Number Certificate Number

Owner

### Phase II: Revenue and Taxation Standard Form

- IDENTIFICATION: Name Of Owner; Document Number; Commercial Use; Land Use (Check One) - residential, commercial, vacant; Lot Number; Land Area; Land Value.
- 2. BUILDING CLASS: Type Of Building (Check One) 1 family, 2 family, 3 to 6 apartments, motel, Quonset, prefab; Physical Conditions (Check One) good, normal, fair, poor; Stories (Check One) 1, 1½, 2, 2½; Number Of Apartments; Number Of Bedrooms; Building Area; Building Value; Exemption; Date Of Exemption.

Title: Volume 1 - A Study and Rev	iew of Laws Pertaining to	Alien Investment on Guam
Source Agency: Stanford Research	Institute	
Computerized: No	Computer Reference:	
General Information: LND 3		
	Air of Table(s)	

40	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Note
Table 3 U.S. and Guamanian Percentage Distributions of Employment by Economic Sector (1972); ERC, Dept. of Commerce and U.S. Bureau of Labor Statistics	Sector - Agriculture, Fishing,    Mining - Construction - Finance, Insurance,    Real Estate - Other Services - Manufacturing - Transportation,    Utilities - Wholesaling, Retailing - Government (Including    Military) Total	Total Employment (Percent) Private Sector Employment (Percent) (Above 2 Categories are each broken down into:) - U.S Guam	1
Table 4 U.S. Federal Funds Expended on Guam, and Their Economic Impact (Millions of Dollars); Basic Expenditure Data: "Federal Outlays in Trusts and Territories", Office of Economic Opportunity, Washington D.C. (Feb. 1972, Dec. 1972, and Dec. 1973) and SRI and ComNavMar	Spending Agency - Dept. of Defense - Civilian Pay - Active Duty Pay - Prime Supply     Contracts - Prime Service     Contracts - Other Service and     Supply Contracts - Prime Construction     Contracts - Subtotal Amount into     Guam - Other Federal Agencies - Federal Income Tax     Returns - Total - Less Selected Expenditures by Guamanians - Net Economic Impact	į	

		······································	
Title/Date/Source	Row Labels	Column Headings	Notes
Table 9 Guam Private Land Owner- ship Pattern as of April 1974, By Nationality Group (Land Area in Hectares)	Cadastral Village - Umatac - Merizo - Talofofo - Inarajan - Yona - Sinajana - Piti - Asan	Area in Hectares - Off Island United States - Japanese - Other Alien - Subtotal - Guamanian - Total	5 6
T12	- Agat - Yigo - Barrigada - Dededo - Agana - Machanao Total		
Table 10 Land Prices in Guam (Dollars per Square Meter) Dept. of Land Management, Guam	Cadastral Village - Umatac - Merizo - Inarajan - Talofofo - Yona - Sinajana - Piti - Asan	Price Range - 1971 thru 1974 Typical Prices - July thru Oct. 1973	7
	- Agat - Barrigada - Dededo - Agana - Machanao		
Table 11 Guam Land Ownership Patterns According to Different Sources; Dept. of Land Management	GovGuam Records Navy Records Common Assumption	Private Government of Guam U.S. Federal Total (Above 4 Categories are each broken down into:) - Percent - Acres	
	is.	y-	
	t 4.	2.34	
w v	417		

Notes 1 thru 5 are standard notes, refer to introduction.

- 6 Approximately 53,000 acres; according to U.S. Navy sources 51,600 acres are private land in Guam.
- 7 Price range for properties purchased by off island U.S. and alien controlled interests.

ource Agency: Territori	on of Zoning Districts and Ma		
omputerized: No		171	
Jan P			
eneral Information: LND			

Title/Date/Source	Row Labels	Column Headings	Notes
Zoning	17 Villages	Residential - R-1 - R-2 - Total Commercial - Total	5 6
	18	Industrial - M-1 Light - M-2 Heavy - M 1-2 Total Urban Use	
Puture Land Use Master Plan	17 Villages	Residential - Very Low - Low - Medium Low - Medium High - High	5 6
		- Very High - Total Commercial - Neigh General - Resort - Professional	
		- Total Industrial - M-1 (light) - M-2 (heavy) - M1-2 Total Urban Total	

6 - 17 Villages: Agana; Agat/Santa Rita; Asan/Piti; Barrigada; Chalan Pago/Ordot; Dededo; Inarajan; Mangilao; Merizo; Mongmong/Toto/Maite; Sinajana/Agana Heights; Talofofo; Tamuning; Tumon/Harmon; Umatac; Yigo; Yona.

Title: Public Land	Zoned for Commercial and Industrial Uses
Source Agency:	Department of Land Management
Computerized: No	Computer Reference:
General Information:	LND 4

## Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
The Following 2 Reports Each Use the Same Row Labels and Column Head- ings With Slight Varia- tions	*	***	
Land Use by 19 Municipa- lities	Property Identification (Lot and Block Number)	Title Size (Square Miles and Acres) Land Value Zone	6
Land Use by Type		Percent in Use Date of Land Use Survey DWG Number	
		Land Use (Name of Build- ing or Facility) Remarks	

NOTES:

- 6 Type of Land Use
  - 1. Education
    - Kindergartens and Elementary Schools
    - Junior High and Senior High Schools
    - Vocational Technical and Rehabilitation
    - Colleges and Universities
    - Libraries, Museums, Research Centers
  - 2. Health/Social Services
    - Hospital and Health Centers
    - Social Services
    - Cemeteries
  - 3. Safety and Village Administration
    - Police and Fire
    - Commissionership
    - Civil Defense
  - 4. Utility/Public Works
    - Water System
    - Power System

- Sewer System Telephone System Public Works
- 5. Recreation/Conservation
   Parks and Marinas

  - Conservation Areas

  - 6. Agriculture/Fishery
     Agriculture Projects
     Fishery
  - 7. Miscellaneous

    - Housing Tracts Industrial Sites
    - Air-Sea Ports

Title: Invento	ry of Real Proper	ty Owned by t	the United Sta	tes	
course Agency:	United States De	partment of I	Interior Natio	nal Park Service	
computerized:		Computer R			
General Informat			3	n v	
General T					-

	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Note
Table 22 Federally Owned Structures and Facilities by Continent or Country and Predominant Usage	Part I and Part II  - American Samoa  - Canal Zone  - Canton and Enderbury   Islands  - Guam	Cost in Thousand Dollars - Airfield Pavements - Harbor and Port Facilities - Power Development and Distribution - Reclamation and Irrigation - Flood Control and Navigation - Storage (Other than Buildings) - Industrial - Service - Research and Development - Utility Systems - Communication Systems - Navigation and Traffication - Aids - Roads and Bridges - Railroads - Monuments and Memorials - Miscellaneous Military Facilities - Other Structure and Facilities - Total Structure and Facilities	
Table 20 Federally Owned Buildings by Continent or Country and Predominant Usage (Ex- cluding DOD Military Functions)	Part I and II  - American Samoa  - Canal Zone  - Canton and Enderbury  Islands  - Guam	Office Hospital Prison School Other Institutions Housing Storage Industrial	
4	122		

Title/Date/Source	Row Labels	Column Headings	Notes	Title:Ma	nual of Surveying Practice	POWER SE	
		Service	A so	Source Agency:			
		Research and Develop- ment	155	Computerized: No	Computer Referer	nce:	
*		Other Buildings Total Buildings (The Above Categories	Tun	General Information: Li			
		are each broken down into:) - Buildings		TAY C	Description of Table(s)		
		- Floor Area - Cost	111	Title/Date/Source	Row Labels	Column Headings	Notes
Table 18 Federally Owned Land by Continent or Country and Predominant Usage (Ex-	Part I and II - American Samoa - Canal Zone	Agricultural Grazing Forest and Wildlife Parks and Historic Sites	22	Milestones	None	History of Surveying From 1898 to Present	
cluding DOD Military Functions)	- Canton and Enderbury Islands - Guam	Office Building Loca- tions Military - Except Air- fields		Municipality Evolution Prior to July 23, 1913	Map of Guam Showing the Municipalities - Agana		
		Harbor and Port Termi- nals Power Development and Distribution			- Agat - Inarajan - Merizo	A.C.	±
		Reclamation and Irriga- tion Flood Control and Navi- gation		Municipality Evolution July 23, 1913 to November 14, 1928	Map of Guam Showing the Municipalities - Agana - Piti	. 1	
## 20		Vacant Institutional Housing Storage Industrial Research and Development	2 <sup>72</sup>		- Yona - Sumay - Agat - Inarajan - Merizo	-	
		Other Land Total Land (Above Categories are each broken down into:) - Areas - Cost		Municipality Evolution November 14, 1928 to April, 1934	Map of Guam Showing the Municipalities - Dededo - Yigo		
Inventory of Land and Buildings by the Federal Government	None	Dates Owned - From - To			- Barrigada - Agana - Asan - Piti - Yona		
	ž +-	Buildings - Acres to Nearest Tenth - Urban	Line Line Line Line Line		- Sumay - Agat - Inarajan - Merizo		
		- Rural Cost - In Thousand Dollars	100		N 4		
	124	i	1		l 125		1

Title/Date/Source	Row Labels	Column Headings	Notes
Municipality Evolution As of February 1st, 1934	Map of Guam Showing the Municipalities - Machanao - Yigo - Dededo - Agana - Barrigada - Sinajana - Asan		
•	- Piti - Yona - Sumay - Agat - Talofofo - Inarajan - Umatac - Merizo		

## List of Sections of the Report:

Section I: Outline of Surveys on Guam.

Section II: Laws, Regulations, Rules and Specifications pertinent to the practice

of Land Surveying.

Section III: Field Work.

Section IV: Office Work.

Section V: Use of Guam Plane Co-ordinate System (Guam Geodetric Triangulation

Network - GGTN).

Section VI: Private Surveys.

Section VII: Professionalism - Ethics.

#### List of Appendixes of the Report:

- A. Drafting Standards, Symbols and Abbreviations.
- B. Useful Tables and Conversion Factors.
- C. Sketch of Guam Land Square System.
- D. Sample Field Notes.
- E. Territorial Surveyors.
- F. Report on 1945 Land and Claims Commission Triangulation Network.

- Monument Identification.
- Glossary of Guamanian Place Names.
- Definitions.
- , Miscellaneous Reports of the Territorial Surveyors.
- pata on United States Coast and Geodetic Survey of Guam 1963.
- L. History of the Island of Guam Grid Systems and Vertical Control Networks.

Title: Forms For Territorial Planning	ng Commission and Subdivision Review Committee
Source Agency: Computerized:	Computer Reference:
General Information: LND 17	

# Information Contained on the Document

# Final Subdivision Approval

- 1. IDENTIFICATION OF APPLICANT: Check Owner Or Lessor; Name; Mailing Address; Home Phone; Business Phone.
- PROPERTY DESCRIPTION: Subdivision name, new lot numbers, block number, tract numbers, village, municipality, former basic lot number, C.T., document number; Registration Date; Existing Use; Average Lot Size; Area; Number Of Lots; Existing Zoning; Proposed Uses Of Property.
- 3. SIGNATURES: Applicant date; Representative For Applicant date.
- 4. FOR OFFICIAL USE ONLY: Date Of Tentative Map Approval; Date Of Final Map Filing; Accepted By - name; Date Of T.P.C. Action; Date Notice Of Action Sent; Date Submitted To Governor; Approval Date; Date Disapproved; Date Of Recording; Document Number; Date Notice Of Governor's Action Sent To Applicant.

# Application For Variance

- IDENTIFICATION OF APPLICANT: Check Owner Or Lessor; Name; Mailing Address; Phone Number - home, business.
- PROPERTY DESCRIPTION: Subdivision name, village, lot number, block number, tract number, municipality; Existing Uses On Property; Lot Size;
   Present Zoning District.
- 3. NATURE OF VARIANCE: Specify.
- 4. FOR OFFICIAL USE ONLY: Filing date, accepted by (name); Date Of Notice in the newspaper, to adjacent property owners; Public Hearing date, place; Check If Fee Paid; T.P.C. Action date, conditions (check yes or no, if yes specify conditions of approval), T.P.C. resolution number, date notice of action sent; Signature Of Territorial Planner.

# Application For Variance From Subdivision Improvements

- 1. IDENTIFICATION OF APPLICANT: Name; Telephone Number; Mailing Address
- PROPERTY DESCRIPTION: Lot/Tract Number; Municipality Of specify;
   Present Zoning; Name Of Registered Owner Of Basic Property Being Subdivided

- If Different Than Applicant.
- 3. ADDITIONAL INFORMATION: Specific Improvements The Variance Is Requested For specify; Reasons For Variance specify; Discription Of the Physical Characteristics Of the Roads Or Access Easements and Their Condition; Description Of the Previous Subdivisions Of the Basic Lot; Reasons the Property Is Being Subdivided.

### Application For Parcelling and Agricultural Subdivision

- 1. IDENTIFICATION OF APPLICANT: Name; Mailing Address; Business or Home Telephone Number.
- 2. PROPERTY DESCRIPTION: Municipality; Village; Lot Number; Block Number; Tract Number; Location; Certificate Of Title Number; Document Number; Subdivision name, grid coordinates, present zoning, proposed zoning, lot area, square meters.
- 3. SITE FACILITES: Check Yes Or No, Specify Size and Specify Location For the Following Facilities sanitary sewer, storm sewer, PUAG water, electricity, street lighting; Street type (specify), curb (check yes or no), sidewalk (check yes or no).
- 4. SIGNATURES: Applicant date; Representative date, accepted by (name); Date Of SDRC Action; Date Of T.P.C. Action; Date Notice Of Action Mailed; Approval Date; Disapproval Date.

#### Application For Zone Change

- 1. IDENTIFICATION OF APPLICANT: Check Owner or Lessor; Name; Mailing Address; Home Phone; Business Phone.
- 2. PROPERTY DESCRIPTION: Subdivision name, lot number, block number, tract number, village, municipality; Existing Uses On Property specify use, area; Zoning District present, proposed; Proposed Uses On Property specify.
- 3. SIGNATURES: Applicant date; Representative For Applicant date.
- 4. FOR OFFICIAL USE ONLY: Date Filed; Accepted By name; Date Of Notice In the Newspaper; Date Of Notice Of Adjacent Property Owners; Public Hearing date, place; Check If Fee Paid; T.P.C Action date, condition (check yes or no, if yes specify conditions of approval); Date Notice Of Action Sent; Governor date submitted, date approved, date disapproved, date of recording, document number of recordation, date notice of governor's action sent to applicant; Date Transmitted To Legislature and Other Agencies For Information; Date Change Of Official Zoning Map; Signature Of Territorial Planner.

#### Application For Conditional Use

- 1. IDENTIFICATION OF APPLICANT: Check Owner Or Lessor; Name; Mailing Address; Phone Number home, phone.
- PROPERTY DESCRIPTION: Legal Description Of Lot; Block Number; Tract Number; Municipality/Village; Existing Use; Lot Size; Property Presently

Zoned As - specify; Description Of Conditional Use.

- SIGNATURE: Applicant date.
- 4. FOR OFFICIAL USE ONLY: Filing date, accepted by (name); Date Of Notice In the Newspaper; Date Of Notice To Adjacent Property Owners; Public Hearing date, place; Check If Fee Paid; T.P.C. Action date, conditions (check yes or no, if yes specify conditions of approval); T.P.C. Resolution Number; Date Notice Of Action Sent; Signature Of Territorial Planner.

ce Agency: <u>De</u>	epartment of Public Works and Department of Land Management
uterized: No	Computer Reference:
	LND 18

PETITION FOR THE CREATION OF AN IMPROVEMENT IN THE MUNICIPALITY OF ...

- 1. Improvement District Name
- 2. Statement of Need
- 3. Boundries of the Assessment District

  A written description and map of the location of the Improvement.
- 4. Signature of Petitioners

  A list of signatures of the legal lot owners along with the increment, lot
  number and Certificate of Title number. It is verified by the Land Management
  Improvement District Planner.
- This statement is signed by the Deputy Recorder from the Department of Land Management, Office of the Recorder, identifying the information filed by instrument number, date of filing, and the number and page number of the book it is filed in. The recording fee and voucher number is also given.
- 6. Certification of Review

  A letter from Esteban U. Torres, Director of Land Management which accompanies a report approving or disapproving the proposed Improvement District.
- 7. Certification of Approval of Petition

  A statement from the Territorial Planning Commission giving the decision of
  a T.P.C. meeting to approve or disapprove a specified Improvement District.

AFFIDAVIT, AGREEMENT TO PAY IMPROVEMENT DISTRICT MORTGAGE

1. Notice to Revenue and Taxation of Property Assessment Mortgage
This letter is sent to the Real Property Division from the Director of Land
Management to give notice of the Improvement District Assessment Lien against
a specified piece of property. The property is identified by the owner's
name and mailing address; the property's original designation (its estate
number, basis lot number and name of the municipality); and the property's
present designation (its tract number, block number and lot number). The
size of the property is mentioned in square feet - its original size, present
size and the amount of property taken by the government for District Improvements.

Finally, the Improvement District Assessment Lien is specified - the amount in dollars, the executive order number and date, and the Public Works Project name and number.

#### 2. Certification of Filing Action

This statement is signed by the Deputy Recorder from the Department of Land Management, Office of the Recorder, identifying the information filed by instrument number, date of filing and the number of page number of the book it is filed in. The recording fee and voucher number is also given.

#### 3. Affidavit

This document consists of the signatures of persons agreeing to the above mentioned Assessment Mortgage. These persons agree to pay the total sum of the mortgage in either 5 years or 10 years at 6% annual interest.

#### ANNUAL POWER CONSUMPTION WAIVER

- 1. Request for Annual Power Consumption Waiver
  This form is a signed application to Revenue and Taxation, Real Property
  Division by a GPA customer for a waiver of annual payment of power consumption
  at 6% interest due to the customer's entrance into a Streetlight Assessment
  District. The customer identifies himself by name and address, by GPA billing
  numbers (electric meter number and GPA account number), and by residence
  location (lot, block and tract numbers, and name of municipality). The
  Streetlight Assessment District is identified by name and number, and by
  Public Works Project number. If the application is granted, the customer
  agrees to pay a specified monthly fee which will be added to the regular
  monthly GPA charges.
- 2. Granting of Annual Power Consumption Waiver

  A letter to GPA from Roman A. Blas, Chief, Real Property Division granting the requested waiver for payment of annual power consumption.
- A signed agreement to Pay Power Consumption Monthly
  A signed agreement between Customer Accounting and Billing GPA, and a customer of GPA, that the customer will pay a monthly fee specified in the agreement for street light power consumed by the Streetlight Assessment District. The customer identifies himself by name and mailing address, by GPA billing numbers (electric meter number and GPA account number), and by residence location (lot, block and tract numbers, and name of municipality).

#### NOTICES OF APPROVAL OF THE IMPROVEMENT DISTRICT

1. Notice of Landowners of Preliminary Approval

A letter to the landowner from the Chairman of the Territorial Planning
Commission, Department of Land Management giving preliminary approval to the
landowners improvement district petition. The notice specifies the amount of
money the landowner must pay as his share, if the project is approved. The
date and place of public hearing is also given.

2. Notice to Landowners of Public Hearing

A letter to the landowners from the Director of Land Management giving the time and place of the public hearing dealing with the specified proposed Improvement District. A statement on the purpose of the proposed project is given as well as the estimated cost per landowner.

3. Notice to Landowners of Disapproval

A letter to the landowners from the Director of Land Management denying the petition request for an Improvement District on one of the following grounds:

- . . . Petition request was in conflict with the Territorial Master Plan and prohibited by public law
- . . The request was vague and did not define an appropriate boundary for and Improvement District
- . . . Petition request did not define Part II: Statement of needs sufficient for this committee to request construction estimates
- . . . Names appearing on the petition could not be verified as legal owners of 25% of the land in boundary of requested Improvement District
- . . . 60% of the owners of 60% of the land did not agree to the requested Improvement District
- . . . Final review by the Governor of Guam was held and the petition was rejected
- . . . Judicial review of the requested petition rejected same

#### KASEMENTS

1. Right of Way

A permit issued by landowners giving the Government of Guam permission to enter upon specified property in order to construct and maintain a road right of way, or power, water or sewer lines. Landowners identify themselves by name and residence municipality, and specify location of their property by lot number and municipality.

2. Grant of Easement

This document consists of the signatures and addresses of landowners giving the Government of Guam perpetual easement for the construction, operation and maintenance of a specified project, including its access, lines, structures, etc.

Title: Forms for Seashore P	rotection Sumission
Source Agency: Computerized:No	Computer Reference:
General Information: LND 19	
Information Cont	tained on the Document

# Territorial Seashore Protection Act Clearance

- 1. APPLICATION NUMBER AND DATE
- PERSONAL INFORMATION: Name of Applicants; Applicant is (check one most applicable) owner, lessor, other-describe; Mailing Address; Phone Number home, business.
- 3. LOT DESCRIPTION: Village/Municipality; Lots; Block, Tract; Zone; Existing Use.
- 4. TYPE OF APPLICATION: (Check One) Zone Change; Conditional Use; Variance; Subdivision/Parcelling/Agricultural Subdivision; Waiver of Subdivision Improvement; New Construction; Renovation; Demolition; Clearing; Miscellaneous.
- of the Project; Size, Type and Location of Existing Lots and Buildings; Existing Sewer Lines septic tanks, leaching fields, cesspools; Existing Water Courses on Property rivers, streams, marshes, etc.; Existing Highways and Easements Abutting the Lot or Necessary for Providing Access; Existing Coastline Along Project; Line of Seashore Reserve; Existing Storm Drains and Present Direction of Surface Flow and Existing Method of Disposal; Existing Vegetation on Site; Existing Soils and Percolation Rates when Warranted; Areas Vegetation Flooding; Existing Historical Sites or Unique Features of the Site.
- 6. ADDITIONAL INFORMATION: Asks What Will Be the Proposed Method of Solid Waste Storage and Collection; Asks Whether the Proposed Project Provide Additional Public Access to the Coast; If Yes, Indicate on Map; Asks What Land Use Changes Will Result From Your Project; Asks What Changes in Population and Land Coverage by Buildings Will this Cause.
- 7. ACTION TAKEN: (Check One) Approval; Tabled, Disapproval.
- 8. APPROVAL CONDITIONS: Reasons for Denial.

	6 C		
Title:	Files On Seashor	re Protection Commission	
Source Agency:	Land Management	Planning Division	
Computerized: No		Computer Reference:	
General Information:	LND 19		
- Any	Information Contain	ned on the Document	
Between August	1975 and May 1976, 1	the following applications	were considered by SPC
Municipalities Lot	No. Date	Type of Application	Approva1

between we	1643C 17/7 4III	a nay 1770,	the lottowing applications were co	moracica by on
Municipalities	Lot No.	Date	Type of Application	Approva1
Agat	160-2	Aug.14/75	Permit to Construct a Doughnut House	Conditional Approval
Agat	171-3-2	Mar.11/76	Clearing	Conditional Approval
Asan	292-7	Sep.18/75	Permit to Construct Commercial Building	Conditional Approval
Agat	308-R1	Aug.14/75	Parcelling	Tabled
Agat	310-1	Aug. 14/75	Parcelling	Conditional Approval
Dededo	5059-1 New A	Oct.16/75	Tourist Accessory Use in Restaurants	Approved
Rast Agana	2037- New-1 Rem	Sep.18/75	Permit to Construct an Extension of Commercial Building	Conditional Approval
Marizo	39	Aug.14/75	Permit to Build a Residential House	Approved
Marizo	6,8 & 9	Jan.8/76	Seashore Permit	Approved
Merizo	240-New-2 240-New-4 240-New-R6A	Mar.11/76	Clearing	Conditional Approval
Kerizo	256-3	Oct.16/75	Permit to Build a Residential House	Conditional Approval
Tamining	2029New-1 & New-2	Aug.14/75	Permit to Build a Commercial Building	Conditional Approval

		Date	Type of Application	Approval
unicipalities	Lot No.		Permit to Construct Residential	Approved
Tamuning	2129-1 Rem-R1	Aug. 14/75	House	
Tamuning	2130-1W-2	Sep.18/75	Permit to Build a Residential House	Conditional Approval
Tumon	5085	Sep.18/75	Permit to Build a 12-Unit Appartment	Not Approved
			Seashore Permit	Tabled
Tamuning	5174C	Feb.12/76		Tabled
Talofofo	17-1-R1	Sep.18/75	Clearing	4330
Umatac	159-1	Aug.14/75	Permit to Rebuild Old Structure	Tabled
Umatac	159-C-R2	Feb.12/76	Clearing	Tabled

Appraisal C	operty Record and Appraisal Card; Farm and Residential Prope Department of Revenue and Taxation	
Computerized:		
General Informatio	LND 19	
	Information Contained on the Document	

The two Property Record and Appraisal Cards are identical except for the Principal Building Description.

### A. PROPERTY RECORD

- 1. MUNICIPALITY
- 2. NAME AND REAL ESTATE DESCRIPTION
- 3. BUILDING PERMIT NUMBER: New Building; Addition; Alteration and Repair; Relocation; Others.
- 4. SALES RECORDS: Date, Sales Price; Ratio.
- 5. REAL ESTATE ASSESSMENT RECORD: Year; Percent; Land; Building; Total Assessment; 3%; Tax.
- 6. LOT RECORD: Topography level, high, low; Improvements sidewalks curbs, water, sewer, electricity; Zoning or Use residential, apartment, commercial, light indust., heavy indust.; Street asphalt, concrete, coral, macadam, unpaved.
- 7. ACREAGE RECORD: Topography level, rolling, low, rough; Road paved road, all weather road, dirt road, no road outlet, distance to all weather road; Distance to Trading Center; Water P.U., well, spring, stream; Drainage natural, artificial; Hectare cultivatible, pasture, roads, streams, waste, total hectare; Mineral Lands type, total hectares.
- 8. BOARD OF EQUALIZATION: Land; Building; Total.
- 9. ISLAND COURT: Land; Building; Total.
- LAND VALUE CALCULATION: Size of Lot or Number of Hectares; Total Hectares; Soil Class; Base Unit Value; Depth Corner or Other Influence table, factor; Adjusted Unit Value; Total Value total land base value, location adjustment factor, adjusted value, mineral value, total lot or land values; Adjustment for Rural Land type of road, distance to all weather road, distance to local trading center, total.

#### B. APPRAISAL CARD

- PRINCIPAL BUILDING DESCRIPTION ON THE COMMERCIAL PROPERTY CARD: Major Grade; Observed Physical Condition - good, normal, fair, poor; Effective Age - date, years; Type and Use - combination stores (and apartment, hotel, office, theater, gas station, warehouse, loft, store, garage, industrial, storage), story heights: The Following 12 Categories Specify Number Sect. and Unit Cost: Foundation - masonary, conc. block, conc. piers, wood piers, stone, mud sills, other; Frame - concrete rein beams, concrete rein flat slab, iron or steel columns, bearing walls, other; Floor - subflooring (concrete rein, concrete slab, hardwood, softwood). floor cover (vinyl tile, asphalt tile, ceramic tile, quarry tile, terrazzo. other); Ceiling - unfinished, open finish, masonite and ply, plaster, accos. tile, accos. plaster, other; Interior Partitions - plywood, wall board, plaster board, plaster on C.H.B. painted, other; Exterior - wall heights (concrete block, concrete rein., steel prefab, corrugated iron, tongue and groove, wood plain board, other; Plumbing - combined fixture (3 fixture bath, 2 fixture toilets), single fixture (lavatories, urinal, laundry sink, kitchen sink, bathtub stall, shower stall, water heater, other; Roof - structure (concrete slab, steel joist, wood joist, other), cover (concrete, steel or alum, prefab, corrugated iron); Electricity outlets (few, many, average, unfinished), type of wiring (romex, flex, rigid or conduit, power wiring, other); Wall Ornamentation - ornamental, stucco or masonry; Air Conditioning Tonnage; Other Item - conc. driveway, asphalt driveway; Age of Building - date of construction (date, age), major alterations or additions on principle building (date, age, source); Ground Plan Sketch; Building Area Calculation (ground area in square feet) - floor, width, length, area.
- PRINCIPAL BUILDING DESCRIPTION ON THE RESIDENTIAL AND FARM PROPERTY CARD: Building Class; Observed Physical Condition - good, normal, fair, poor; Effective Age - date, years: Type and Use - family dwelling, 3-6 family apartment, motel, quonset, pre-fab; Foundation - masonary, wood or block piers (specify light, medium, heavy); Frame; Exterior Wall Construction stories, wood (plain board, plywood, tongue and grooved) corrugated iron (new, used), CHB, rein concrete, other; Roof - type (flat, hip, gable, mansard, gambrel), roofing (prepared roll, concrete, corrugated iron, other); Interior Finish - walls (unfinished, wallboard or plywood, plaster), doors and trim (softwood, hardwood), tile walls (bath, kitchen); Floors - stories, hardwood, softwood, concrete, terrazzo, tile floors, (bath, kitchen); Plumbing - none, water only, number of bathrooms, number of toilet rooms, number single fixtures, septic tank, sewer, water heater; Electricity - electricity (yes or no), type wiring, 220 service, power wiring, AC units, built-in; Porches (specify 1st, 2nd or 3rd porch for each of the following) - own roof, main roof, open porch, enclosed and finished, area; Stories and Rooms - (specify 1, 12, 2, 24 stories) number of apartments, number of bedrooms, other; Other Items - canopy, terrace (type, area), built in carport (square feet ground area), garage, yard improvements, other; Basement - none, full, part (%), finished (recreation %, apartment %), floor (dirt, wood, cement), tiled, type.

- 3. BUILDING VALUE CALCULATION: Replacement Cost item number, area or quantity, unit cost, total by year, total replacement cost, cost conversion factor, replacement cost; Depreciation and Obsolescence in Percentages depreciation (effective age depreciation, observed physical condition, total other, net condition, obsolescence (overimprovement, underimprovement, obsolescence net condition); Summary of Appraised Value principle building appraisal, other principle building appraisal, total building appraisal, total land appraisal, total appraised value.
- 4. DESCRIPTION, REPLACEMENT COST AND APPRAISAL OR ACCESSORY BUILDINGS: Building Ident; Sect. No.; Dimensions width, depth, height; Foundation; Frame; Floor; Ceiling; Interior; Exterior; Plumbing; Roof; Electricity; Wall Cost; Net Conditioning; Unit Cost; Other Items; Replacement Cost; Net Condition %; Net Appraisal.
- The card also contains the computer-generated Master Directory reference number, which links it to the Government of Guam Real Estate Tax Division Master Directory.

LIND DECELL I
Title: Location Codes Used in Real Estate Tax Division Master Directory and New
Appendict normalization
Source Agency: Revenue and Taxation
Computerized: No Computer Reference:
General Information: LND 19
General Information.
Information Contained on the Document
The Physical Location Codes Used are as Follows:
Agana Urban Agana Suburban Agat Urban Agat Suburban

Santa Rita Asan Urban Asan Suburban Barrigada Urban Barrigada Suburban Dededo Urban Dededo Suburban Inarajan Machanao Merizo Piti Urban Piti Suburban Sinajana Urban Sinajana Suburban Sumay Talofofo Urban Talofofo Suburban Umatac Yigo Yona Urban Yona Suburban

\* Information contained in these reports is given in the general information.

onnected With: Published Report Survey Title: Land Use Inventory	
Form X Data Available: On Cards	On Disk
x 80 Col	5444
96 Co1	5445
lumber of Records in File: 30,000	2311
eneral Information: LND 3	3311
petail Information: LND Detail 3	

# FILE FORMAT

Positions	Contents	Notes
1 - 2	Municipality	į.
3	Owner Code	ł
4 - 23	Lot Number or Designation	į.
24 - 32	Land Area in Hundredths of Square Meters	
33 - 36	Building Area in Square Feet	
37 - 43	Land Value	
44 - 50	Building Value	
51	Zone	
52 - 54	Number of Stories	
55 - 60	Primary Use	
61 - 65	Accessory Use	
66 - 67	Building Class	
68	Building Condition	
69 - 75	Document or Certificate of Title Number	
76 - 79	Space for Grid Identifier; Not Currently Used	
80	Home Owner Tax Exemption	in I

Title: Ge	neral Population Character	istics - Guam	
	the Census, U.S. Departmen	t of Commerce	
Computerized: Yes	Computer Referen	ce: Not Available	
	2	4	
	Description of Table(s)		(4) (8)
Title/Date/Source	Row Labels	Column Headings	Notes
Table 5 General Characteristics: 1970	Age and Sex  - Both Sexes, All Ages  - Male, All Ages  - Female, All Ages (Above 3 Categories are each broken down into:)  - Under 1 Year  - 1 Year thru 20 Years  - 21 Years and Over  - Under 5 Years  - 5 thru 84 in Increments of 5 Years  - 85 Years and Over  - Under 18 Years  - 65 Years and Over  - Median Age Relationship to Head of Household	The Area, Districts, Places of 1,000 or More Guam Total Urban Rural Districts 19 Districts Places Agana City Agana Heights Village Marigada Village Dededo Village Mongmong Village Santa Rita Village	
	- Total Population - In Households - Head of Household - Family Head - Primary Indivi- dual	- Tamuning Village - Toto Village - Yona Village	
	(Above 2 Categories are each broken down into:) - Male - Female	iz	
	- Wife of Head - Child of Head - Other Relative of Head - Not Related to Head		
	- In Group Quarters - Inmate of Institu- tion - Other - Persons Per House-		* 5 •
	- Persons Per House- hold		

Title/Date/Source	Row Labels	Column Headings	Notes				POP Detail
		oordiin redurings	Motes	Title/Date/Source	Row Labels	Column Headings	Notes :
	Familias Bu Brasanas of		10.3			- Jordan nearings	notes
*	Families By Presence of Own Children Under 18				- Western Samoa	- Tomuning Village	
•	Years Old	• "	2.20		- Republic of the	- Tamuning Village - Toto Village	
	- Total Families	1 at			Philippines	- Yona Village	
	- Husband-Wife Families		V 41	11 11 11	- Southwest Asia	· · · · · · · · · · · · · · · · · · ·	
	- Families with Female	*			- China		
	Head .	· · · · · · · · · · · · · · · · · · ·			- Japan		1 4
	(Above 3 Categories are	-1		-	- Other Asia		1 .
	each broken down into:)	*	10		- Canada		
	- With Own Children				- Mexico - Cuba		
* *	Under 18 Years - With Own Children		- 10		- Dominican Republic		
*	Under 6 Years		1		- Republic of Panama		1
e	onder o rears	•	9.5		- British West Indies		
	n 1		. 1		- Other West Indies		
Table 6	Marital Status	The Area, Districts,	* 9		- South America		- 4
Marital Status: 1970	- Total, 14 Years Old	Places of 1,000 or More			- Other America		
* 1	and Over	- Guam			- Africa		
	- Male, 14 Years Old	- Total			- All Other		
	and Over	- Urban	V				
* *	- Female, 14 Years Old and Over	- Rural - Districts		Table 8	Citizenship	mi i	
Y	(Above 3 Categories are	- 19 Districts		irizenship Status and	- All Ages	The Area, Districts,	
* *	each broken down into:)	- Places	- 1	ear of Immigration of	- Under 18 Years Old	Places of 1,000 or More	
	- Single	- Agana City	9	the Foreign Born: 1970	- 18 Years Old	- Total	
	- Married	- Agana Heights Village	4		- 19 Years Old	- Urban	
	- Legally Married	- Agat City	1		- 20 Years Old	- Rural	
Te.	- Consensually	- Barrigada Village			- 21 Years Old and Over.	- Districts	
*	Married	- Dededo Village	in a		(Above 6 Categories are	- 19 Districts	
	- Separated	- Mongmong Village	4		each broken down into:)	- Places	A
2	- Widowed - Divorced	- Santa Rita Village - Sinajana Village			- Naturalized - Permanent Alien	- Agana City	
2	- DIVORCEG	- Tamuning Village	2.		- Temporary Alien	Agana Heights Vil-	
	(E)	- Toto Village		- a	- Born Abroad of	lage - Agat City	
	•	- Yona Village			American Parents	- Barrigada Village	*
					Year of Immigration	- Dededo Village	
* * * * * * * * * * * * * * * * * * *			1 2		- Total Foreign Born	- Mongmong Village	
Table 7	Place of Birth	The Area, Districts,			- 1969 to 1970	- Santa Rita Village	
Ethnic Characteristics:	- Total Population	Places of 1,000 or More			- 1967 to 1968	- Sinajana Village	
1970	- Native - Born in a U.S.	- Guam		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 1965 to 1966 - 1960 to 1964	- Tamuning Village	
*	Territory	- Total - Urban	1		- 1955 to 1959	- Toto Village	
	- Born in United	- Rural	1		- 1950 to 1954	- Yona Village	
1	States	- Districts	*		- 1940 to 1949		c.e
	Born in Puerto Rico	- 19 Districts			- 1930 to 1939		
w *	Foreign Born	- Places	1 1311		- Before 1930		
M	Country of Origin	- Agana City					
	- Total Foreign Born	- Agana Heights Village		lable 9	Perdia 2 cons		
<u>.</u>	- England	- Agat City		bildty and Veteran	Residence in 1965	The Area, Districts,	S
	- Denmark	- Barrigada Village		tatus: 1970	- Total Population, 5 Years Old and Over	Places of 1,000 or More	
F	- France	- Dededo Village		1 1 1	- Same House	- Guam	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- Germany - Spain	- Mongmong Village - Santa Rita Village	10		- Different House	- Total	
	- Other Europe	- Sinajana Village		(a) (b)	- In United States	- Urban	
er a l		Armajana taatage			- In U.S. Territory	- Rural	
	144		•	in to the second	145		- L
				,	110	13	

Title/Date/Source	Row Labels	Column Headings	Notes	-				POP Detai
•	- In Puerto Rico	- Districts		Tit	e/Date/Source	Row Labels	Column Headings	Notes
	- In Foreign Country		7.6					110003
4. 1.	- Moved, Residence	- Places				- 3 and 4 Years Old		
	Not Reported	- Agana City		1		- 5 and 6 Years Old		
	- Persons in Armed	- Agana Heights Vil-				- 7 to 13 Years Old		
	Forces in 1970,	lage				- 14 thru 21 Years in		1
	Different House in	- Agat City				Increments of 1	,	1
	1965	- Barrigada Village				Year	4 4	1
*	- In United States	- Dededo Village	4.5	1	4.5	- 22 to 24 Years Old		
**	- In U. S. Territory	- Mongmong Village				- 25 to 34 Years Old		1 .
	- In Puerto Rico	- Santa Rita Village	2.5			Males 16 to 21 Years		
	- In Foreign Country	- Sinajana Village		10		Old Not Attending		1 .
	Veteran Status	- Tamuning Village		1		School - Total		
4/1	- Civilian Male, 16	- Toto Village	4 1			The state of the s		1
	Years Old and Over	- Yona Village		1		- Not High School		
	- Veteran		7.7			, Graduate	* *	
	- Percent of Total					- Percent of All	7	
	- Vietnam Conflict	, i i i i i i i i i i i i i i i i i i i				Males 16 to 21		
17.	- Korean Conflict					Years		1
N <sub>p</sub>	- Korean Conflict			1		- Employed or in		1
	and World War II			100		Armed Forces	5.2	1.04
•	- World War II					- Unemployed or Not		
*	- World War I	224	110000			in Labor Force		
*	- Other Service	141		E. E.	19.	- High School Graduate		
4	- Nonveteran		P. Paulon	1		- Employed or in		,
	1 1					Armed Forces		
a Programme		• •		100		- Unemployed or Not in Labor Force		
Table 10	School Enrollment	The Area, Districts,	20 1	10		Years of School Co1		
Educational Characteris-	- Total Enrolled, 3	Places of 1,000 or More	9.0			Years of School Completed - Male, 25 Years Old and		
tics: 1970	Years Old and Over	- Guam	(d) *			Over		
	- 3 to 34 Years Old	- Total			*	- Female, 25 Years Old		
	- Nursery School	- Urban				and Over		
•	- Kindergarten	- Rural		100	2 141	(Above 2 Categories are		
	- Elementary (1 to	- Districts				each broken down into:)		
	8 Years)	- 19 Districts			: 1	- No School Years	· 1	
	- High School (1 to	- Places		- 1	* 7	Completed	2	
	4 Years)	- Agana City		100	* 1	- Elementary:		
4	(Above 4 Categories are	- Agana Heights		4.7		- 1 to 4 Years	y	
**	each broken down into:)	Village			1	- 5 and 6 Years		
	- Public	- Agat City		2		- 7 Years		
	- Percent	- Barrigada Village			- "	- 8 Years	2.0	24c) 1565
	- Parochial	- Dededo Village			0 .1 5	- High School:		
4	- Other Private	- Mongmong Village	2			- 1 to 3 Years		
	- College	- Santa Rita Village			100	- 4 Years		
	- Public - Percent	- Sinajana Village				- College:		
	- Private	- Tamuning Village				- 1 to 3 Years		
	- 35 Years Old and	- Toto Village	189		* *	~ 4 Years		
	1.	- Yona Village		154		- 5 Years or More		
	Over - Total Enrolled, 3 to	D*			= -	- Median School Years		
	A STATE OF THE PARTY OF THE PAR		12 (			Completed		
**	34 Years Old - Percent Enrolled, 3 to					Percent By Level or		
	34 Years Old					School Completed	- P. J. W. M.	•
** ·					the state of the	- Total Persons, 25		
*.	(Ahove 2 Categories are	4				Years Old and Over		
	each broken down into:)					- Less than 5 Years of		
	11/16	A CONTRACTOR OF THE CONTRACTOR	The second secon			- Louis D Louis UI		

Title/Date/Source	Row Labels	Column Headings	Notes				
				Title/Date/Source	Row Labels	Column Headings	Notes
• ;	- Less than 1 Year of			The state of the s			1110000
•	High School				- Number of Own Chil-		
	- 4 Years of High	4			dren Under 5 Years		
*	School or More				- Number of Children	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	- 4 Years of College				Ever Born		
	or More - Median School Years			1	(Above 2 Categories are	0.5	I
	Completed .				each broken down into:)		
	- Total Persons, 18 to	* * *			- Per 1,000 Women		1
*	24 Years Old	, , , , , , , , , , , , , , , , , , ,		The state of the s	- Per 1,000 Women		
	- 4 Years Of High				Ever Married		
	School or More		1.70	1	Family Composition	* 1	2.4
	- 4 Years of College			No.	- Families - With Own Children		
	or More	* 4 * 2		1	Under 3 Years		.
	Vocational Training of				- With Own Children	•	
	Persons 16 to 64 Years				Under 6 Years	. 14	1 .
	Old mbas		· 100		- With Own Children	1	
. i+	- Male, With Less Than		. 10		Under 12 Years		1
	15 Years of School - Female, With Less	,	250	1	With Own Children		
	Than 15 Years of		E		Under 18 Years	200	
	School			The state of the s	- With Sons/Daughters		1
	(Above 2 Categories are				Under 25 Years		1
5.0	each broken down into:)				- With Sons/Daughters		
	- Percent With Voca-		1		13 to 19 Years	1.7 a = "	
	tional Training			The state of the s	- With Sons/Daughters 18 to 24 Years		1.
				The state of the s	- Subfamilies		
		The 'Area, Districts,	18 7	W03	- Husband-Wife Subfami-		
Table 11	Years of School Com-	Places of 1,000 or More	2	## ## ## ## ## ## ## ## ## ## ## ## ##	lies		
Education, Fertility,	pleted for Selected	- Guam			- Subfamilies With		1 1
and Family Composition:	Age Groups - Male, 20 to 49 Years	- Total	F		Female Head		
1970	01d	- Urban			(Above 3 Categories are		
	- Female, 15 to 44 Year	s - Rural		1 E	each broken down into:)	=	
	01d	- Districts			- Number of Own		1
	(Above 2 Categories are	- 19 Districts		I Taller	Children Under		
	each broken down into:)	- Places - Agana City	7	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	18 Years		
	- No High School	- Agana Heights		Belste.	- Married Couples - Percent in Subfami-		
	- High School, 1 to	Village			lies		1
	3. Years		à la		- With Own Children		
	- High School, 4 Year	- Barrigada Village	*	The state of the s	Under 6 Years		
	- College, 1 Year or More	- Dededo Village		1000	- With Own Children		
	Fertility	<ul> <li>Mongmong Village</li> </ul>			Under 18 Years		1
	- Women, 15 to 24 Years	- Santa Rita Village			- With Husband Under		
	Old	= 31114 4114 +====		1 av 74	45 Years		
	- Women, 25 to 34 Years	- Tamuning Village	*		- Persons, Under 18		
	, 01d	7 10to VIII 10go		100	Years Old	W V #4	
	- Women, 35 to 44 Years	s - Yona VIIIage			- Living With Both		
	01d	72			Parents - Percent of Total		
\$6 . W. C.	(Above 3 Categories ar				- Living With One	5 5 55° 5	
A. A.	each broken down into:	,			Parent		
	- Ever Married - Percent Ever			All and a second	- Living With Neither	* * * · ·	
	Married	I are a second	1		Parent		
	Hailten		A 1		300		

Type of Group Quarters - Fersons, in Group Quarters - Innate of Mental Rospital - The Aged - Innate of Other Institution - In Roseing Bours - In Rilitary Bertacks - In Rilitary Bertacks - Other - Ot	T441-/D-4-/C			T				POP Detail
Type of Group Quarters - Persons, in Group Quarters - Persons, in Group Quarters - Inmate of Hental - Inmate of Mome for the Aged - Inmate of Other Institution - In Rounding House - In College Bermitory - Other  Title/Date/Source  Total  Associated the Title Date  Total	Title/Date/Source	Row Labels	Column Headings	Notes	ntle: "		or of the contract	
- Imate of Mental Hospital - Imate of Mone for the Aged - Imatitution - In Rooming House - In Hiltery Barracks - In College Dermitory - Other  - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - Image of Agen the Aged - Image of Agen the Aged - Image of Mone for the Aged - Image of Mone for the Aged - Image of Agen the Aged - Image of Mone for the Aged - Image of Agen the Agen and Heights village - Agen a Reights village				(3)		per of Inhabitants - Guam		(a.
- Imate of Mental Hospital - Imate of Mone for the Aged - Imatitution - In Rooming House - In Hiltery Barracks - In College Dermitory - Other  - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - In College Dermitory - Other  - Table 1 - Top Image of Mone for the Aged - Image of Agen the Aged - Image of Agen the Aged - Image of Mone for the Aged - Image of Mone for the Aged - Image of Agen the Aged - Image of Mone for the Aged - Image of Agen the Agen and Heights village - Agen a Reights village					Source Agency: Bureau c	of the Census, U.S. Departm	ent of Commerce	4
- Innexic of Rome for the Aged - Inmate of Other - In Roceating House - In Rolling Bornicory - Other  - To Roceating House - In Rolling Bornicory - Other  - Total - Total - 1970 April 1st thru 1930 April 1s		- Inmate of Mental			Computerized: Yes			
Institution In Robaling Interacts In College Dermitory Other    Description of Table(s)   Description of Table(s)	4	- Inmate of Home for			General Information:			
Institution			* + * *					
Title/Date/Source		Institution			1	Description		
- Other    Table 1			ų t	- 1		bescription of lable(s	) ••	•
Table 1   Papellation of Guam:   Papellation of Election   Papellation of Election   Papellation of Election   Papellation of Places:   170 and 1960   Pages		- In College Dormitory		*	. Title/Date/Source	Row Labels	Column Headings	T
Repulation of Guam: Barliest Census to 1970  B	1		x ***		Table 1	Nat.	oordan neadings	Notes
1930 April 1 lst in   Decrements of 10   Years   1920 January 1st   1910   April 1 lst in   Decrements of 10   Years   1920 January 1st   1910   The pollation   1920   Amount of Change From Preceding Census      1930 April 1 lst in   Decrements of 10   Years   1920 January 1st   1920   The pollation   1920   The polla	•				Population of Guam:	- 1970 April 1st thru		7
Table 2 Population and Land Area of Election Districts:  1970  Table 3 Population of Election Districts:  1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  The population of Places on Whore (Urban Only)  Places on Place	7				Larilest Census to 1970	1930 April 1st in	Rural	4
Table 2   Population and Land Area of Election Districts:   1970   Population of Election Districts:   1970   Population of Election Districts:   1970   Population of Election Districts:   Population of Elect					(All )	Years	(Above 3 Categories are	
Table 2 Population and Land Area at Election Districts: 1970  Table 3 Population of Election Mistricts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Total  Again Aleights Village Agan City Agar Again Aleights Village Again City Barriaged Village Again City Barriaged Village Again City Barriaged Village Again City Barriaged Village Barriaged Village Again City Barriaged Village						( - 1910	1 - Population	
Table 2  Population and Land Area of Election Districts: 1970  Table 3  Population of Election Districts: 1970 and 1960  Table 4  Population of Places: 1970 and 1960  Table 4  Population of Places: 1970 and 1960  Table 4  Population of Places: 1970 and 1960  Pagna Heights Village - Agan Village - Agan Village - Agar City - Barrigady Village - Agar City - Barrigady Village - Agar Village		4. 14.	1			- 1901	More (Urban Only)	
Table 2 Population and Land Area of Election Districts:  1970  Table 3 Population of Election Districts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 3 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 3 Population of Places: 1970 and 1960  Table 4 Places - Agana City - Agana Heights Village - Agat City - Agana Willage - Agat City - Barricada Willage - Agat City - Barricada Willage - Barricada Willage - Barricada Willage - Barricada Willage				•	17.00	. 7 .	- Amount of Change From	
Population and Land Area of Election Districts:  1970  Table 3 Population of Election Plastricts: 1970 and 1960  Population of Places: 1970 and 1960  Plastrict Subdivisions - 19 Districts - 1970 - 1960  Plastrict Subdivisions - 19 Districts - 1970 - 1960  Plastrict Subdivisions - 1970 - 1960  Places - Agana City - 1960 - 1960  Places - Agana City - 1970 - 1960  Agana Heights Village - Agana City - 1970 - 1960  Agana Heights Village - Agana City - 1970 - 1960  Agana Heights Village - Agana City - 1970 - 1960  Agana Heights Village - Agana City - 1970 - 1960  Places - Agana City - 1970 - 1960  Agana Heights Village - Agana City - 1970 - 1960  Places - Agana City - 1970 - 1960  Places - Agana City - 1970 - 1960  Agana Heights Village - Agana City - 1970 - 1960					Table 2		census	
Table 3 Population of Election Districts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Election 2 Places - Agana City - 1970 - 1960  Table 4 Population of Places: 1970 and 1960  Table 3 Population of Election 2 Population of Election 3 Population of Election 4 Population of Election 5 Places - Agana City - 1970 - 1960  Table 4 Population of Election 2 Population - Total - Number 2 Population of Election 2 Population of Election 3 Population of Election 2 Population of Election 3 Population of Election 3 Population of Election 4 Population of Election 2 Population of Election 3 Population of Election 4 Population of Election 5 Population of Election 5 Population of Election 5 Population of Election 6 Population of Election 7 Population 7				4 5	Population and Land Area	Urban and Rural	Land Area in Square	5
Table 3 Population of Election Mistricts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Places Agana City Agana City Agana Heights Village Asan Village Agat City Barriagad Village			a de la company		of Election Districts:		Miles, 1970 1970 Population	7
Table 3 Population of Election Mistricts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Places - Agana City - Agana Heights Village - Agan Village - Agan Village - Agan City - Barrigada Village - Agarrigada Village - Barrigada Village							- Total	*
Table 3 Population of Election Districts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Places - Agana City - Agana Heights Village - Agant City - Barrigada Village - Agat City - Barrigada Village							- Per Square Mile	4
Table 3 Population of Election Districts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Places - Agana City - Agana Heights Village - Asan Village - Asan Village - Agan City - Barrigada Village - Agan Village				* E			- Urban - Total	
Population of Election Districts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Places - Agana City - Agana Heights Village - Asan Village - Agat City - Barrigada Village - Barrigada Village - Asan Village						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- Rural	*
Matricts: 1970 and 1960  Table 4 Population of Places: 1970 and 1960  Places - Agana City - Agana Heights Village - Agat City - Barrigada Village - Barrigada Village					Table 3	District Subdivisions	Van	
Table 4 Population of Places: 1970 and 1960  Places  - Agana City - Agana Heights Village - Asan Village - Agat City - Barrigada Village			1.00	13	Matricts: 1970 and 1960	- Guam	- 1970	5
Places: 1970 and 1960  Places:  Agana City  Agana Heights Village  Agat City  Barrigada Village  Barrigada Village	* *				OT .	1) Districts	- 1960	•
1970 and 1960  - Agana City - Agana Heights Village - Agat City - Barrigada Village - Barrigada Village				*	Population	Places	Y	
- Asan Village - Agat City - Barrigada Village	. 2 %				1970 and 1960	- Agana City	- 1970	5
- Agat City - Barrigada Village	ē					- Asan Village	- 1960	0.0
				4 7	19.00 A	- Agat City - Barrigada Village		
Dededo Village	•			10/1		- Dededo Village		
- Inarajan Village - Merizo Village						- Merizo Village		
- Mongmong Village - Santa Rita Village					(P)	- Mongmong Village - Santa Rita Village	(-5)	
- Sinajana Village - Talofofo Village		V 13 V TV				- Sinajana Villaga		•
Tamuning Village		150				- Tamuning Village	**	*
151			•			U		*

Title/Date/Source	Row Labels	Column Headings	Notes
	- Toto Village - Umatac Village - Yona Village		79

Notes 1 thru 5 are standard notes, refer to introduction.

- 6 Includes native men enlisted in U.S. Navy, but excludes United States Naval Station personnel.
- 7 Includes Cocos Island.

Title: Population E	stimates of Guam: Septembe	r, 1975	
-	rtment of Labor, Bureau of		
	Computer Referen		<del></del>
General Information:	POP 2		<del></del>
	Description of Table(s)		·
Title/Date/Source	Row Labels	Column Headings	Notes
195			
The Sex Ratios of the	Age	Females Per 100 Males	İ
Population by Age Groups;	- All Ages		
1975	- Under 15 Years	S.	
	- 16 thru 19 Years	4.6	
The second second	- 20 thru 24 Years		
The second secon	- 25 thru 64 Years in		*:
	Increments of 10 Years		
	- 65 Years and Over	• *	
•			
	and the second of		
Number and Percent	Ethnicity	Number	5
Distribution of the	- All Groups	3	6
Ethnic Group	- Chamorro (Guamanian)	all X.	
	- Filipino		
	- Caucasian	n and an area	
	- Chamorro-Filipino - Chamorro-Caucasian		ŀ
A SECTION ASSESSMENT OF THE PROPERTY OF THE PR	- Chamorro-Other		
	- Other Mixture		}
	- Micronesian		
100	- Japanese		
¥ *	- Chinese and Korean		1
	- Other		ł
		•.	19
The Three Major Ethnic	Age	Ethnicity	
Groups on Guam by Age	- All Ages	Chamorro	
	- 0 thru 15 Years	- Filipino	
	- 16 thru 19 Years.	- Caucasian	
	- 20 thru 24 Years		(*)
N	- 25 thru 54 Years in		-
	Increments of 10	1	
	Years - 55 Years and Over		(4:
E 3	Median Age Years		
30			
			1
	. 1		Í
	450	• Control of the cont	1

Title/Date/Source	, Row Labels	Column Headings	Notes	
Table 1 Civilian Population of Guam by Age, Sex and Citizenship - September 1975	Age - All Ages - Under 5 Years - 5 thru 64 Years in Increments of 5 Years - 65 Years and Over	Total Sex - Male - Female Citizenship - U.S Permanent Resident	7	
Figure 1 Ethnic Composition of the Civilian Population of Guam - September 1975	Chamorro Filipino Caucasian Chamorro-Filipino Chamorro-Caucasian Japanese, Chinese and Korean Other	Percentage	7	

Notes 1 thru 5 are standard Notes, refer to introduction.

- 6 Chamorro-Other means a mixture of Chamorro and another group other than Filipino or Caucasian.
- 7 Excludes Non-immigrant aliens and military dependents staying on military bases.

tle: Bas	ic Population Facts - Gua	1111 1770	
1118,	1.0		
ource Agency: Roy Chung	, Research Demographer, Ur	iversity of Guam	
terized: Yes	Computer Refere	ence: Not Available	
		- JIVE-MANAPOIE	
meral Information:	POP 2		
32.0	Description of Table(s		-
Title/Date/Source	Row Labels	Column Headings	Notes
		-	
ome Population Facts -	Guam 1970		
mensity; Crude Birth Ra mcrease; Length of Time cross Reproduction Rate;	te; Crude Death Rate; Av e for Population to Doublo Net Reproduction Rate;	Population; Area in Squarerage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth;	al Kate; Mean
ensity; Crude Birth Ra increase; Length of Time cross Reproduction Rate; ength of Generation; L	te; Crude Death Rate; Av e for Population to Doublo Net Reproduction Rate;	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male;	al Kate; Mean
ensity; Crude Birth Ra increase; Length of Time cross Reproduction Rate; ength of Generation; L The Population Explosion	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male;	al Kate; Mean
ensity; Crude Birth Ra increase; Length of Time ross Reproduction Rate; ength of Generation; L The Population Explosion	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph Age (In Percentage)	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year	al Kate; Mean
ensity; Crude Birth Ra ncrease; Length of Time ross Reproduction Rate; ength of Generation; L The Population Explosion	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph Age (In Percentage) - Under 15	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in	al Kate; Mean
ensity; Crude Birth Rancrease; Length of Timeross Reproduction Rate; ength of Generation; Length of Control Explosion and School Explos	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph Age (In Percentage) - Under 15 - Over 65	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10	al Kate; Mean
ensity; Crude Birth Rancrease; Length of Timeross Reproduction Rate; ength of Generation; Length of Control Explosion and School Explos	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph Age (In Percentage) - Under 15	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in	al Kate; Mean
ensity; Crude Birth Ra ncrease; Length of Time ross Reproduction Rate; ength of Generation; L The Population Explosion um's Changing Age	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph Age (In Percentage) - Under 15 - Over 65 - 15 thru 64	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10	al Kate; Mean
ensity; Crude Birth Ra ncrease; Length of Time ross Reproduction Rate; ength of Generation; L The Population Explosion um's Changing Age	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10	al Kate; Mean
ensity; Crude Birth Rancrease; Length of Timeross Reproduction Rate; ength of Generation; L. The Population Explosion was Changing Age atterns: 1930-1970	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio - Index of Aging	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10 Years	al Kate; Mean
ensity; Crude Birth Rancrease; Length of Timeross Reproduction Rate; ength of Generation; Length of Generation; Length of Canada Explosion  The Population Explosion  The Popu	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio - Index of Aging  Age (In Percentage)	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10 Years  Guam	al Kate; Mean
ensity; Crude Birth Ra ncrease; Length of Tim- ross Reproduction Rate; ength of Generation; L The Population Explosion wam's Changing Age atterns: 1930-1970	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio - Index of Aging	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10 Years	al Kate; Mean
ensity; Crude Birth Ra ncrease; Length of Tim- ross Reproduction Rate; ength of Generation; L The Population Explosion wam's Changing Age atterns: 1930-1970	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio - Index of Aging  Age (In Percentage) - O thru 14	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10 Years  Guam Mainland East Asia	al Kate; Mean
ensity; Crude Birth Ra increase; Length of Time cross Reproduction Rate; ength of Generation; L The Population Explosion	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio - Index of Aging  Age (In Percentage) - 0 thru 14 - 15 thru 64	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10 Years  Guam Mainland East Asia Middle South Asia	al Kate; Mean
ensity; Crude Birth Ra increase; Length of Tim- iross Reproduction Rate; ength of Generation; L The Population Explosion cum's Changing Age atterns: 1930-1970	te; Crude Death Rate; Ave for Population to Double Net Reproduction Rate; ife Expectation - female; n"; Per Cent of Demograph  Age (In Percentage) - Under 15 - Over 65 - 15 thru 64 - DEP Ratio - Index of Aging  Age (In Percentage) - 0 thru 14 - 15 thru 64	erage Annual Rate of Nature (Years); Total Fertility Mean Age at Child Birth; Life Expectation - male; ic Transition Completed.  Year - 1930 thru 1970 in Increments of 10 Years  Guam Mainland East Asia Middle South Asia	al Kate; Mean

Title:	Stat	istical Abstract - 197	<u>4 – Volu</u>	me_5_		03
Source Agency:	Departme	nt of Commerce			 	1
Computerized:	_No	Computer Reference:_				
General Information:	POP 2					
	*	1			 -	
	Doggo	intion of Table(s)				

#### Description of Table(s) Column Headings Title/Date/Source Row Labels Notes No. 1 Year (April 1) Population 5 Population of Guam: - 1970 thru 1901 in - Number Earliest Census to 1970 Increments of 10 - Increase Over Preced-Years ing Period No. 2 Year 5 Population By Election 19 Election Districts - 1970 District: 1960 and 1970 - 1960 No: 3 Land Area in Square 5. Guam Population and Land Area 19 Election Districts Miles, 1970 of Election Districts: 1970 Population 1970 - Total - Number - Per Square Mile - Urban - Rural Age Group in Years 19 Election Districts Total Population, By Age -0-5Total and Election Districts: - 6 - 17 1970 -18-24

Title/Date/Source	Row Labels	Column Headings	Notes
, 6 nic Characteristics: 70	Place of Birth - Total Population - Native - Born in a U.S.	Guam - Total - Urban - Rural	
	Territory - Born in United States - Born in Puerto Rico		, .
	- Foreign Born Country of Origin - Total Foreign Born		*1
	- England - Denmark		
	- France - Germany - Spain		
	- Other Europe - Western Samoa - Republic of the Philippines		
	- Southwest Asia - China - Japan		*.
	- Other Asia - Canada - Mexico		
Tarion .	- Cuba - Dominican Republic - Republic of Panama - British West Indies		
	- Other West Indies - South America		
and a	- Other America - Africa - All Other		

OTES:

19 Election Districts

(Above 2 Categories are

each broken down into:)

Total '

- Male

- Female

otes 1 thru 5 are standard notes, refer to introduction.

- 25 - 39 - 40 - 64 - 65 and Over

Age Group in Years

Total

- 0 - 5

- 6 - 17

- 18 - 24

-25 - 39

- 40 - 64

Total

- 65 and Over

Population, By Age, Sex,

and Election Districts:

1970

Title: (	Guam Master Plan Phase T	- * · · ·	110			Po	P Detai
	•			Title/Date/Source	Row Labels	Column Headings	Notes
1 <del></del>	enleaf/Telesca - Ahn. Computer Referen	ce: Not Available	2010	(Total Population) 1970; U.S. Bureau of		Families Number Unrelated Individual's Number Total Number	5 6
	Description of Table(s)				- \$1,000 thru \$1,499 - \$1,500 thru \$1,999 - \$2,000 thru \$5,999 in		× .
Title/Date/Source	Row Labels	Column Headings	Notes	2120	Increments of \$999 - \$6,000 thru \$7,999		
Census; 1970; U.S. Bureau of Census  Other Civilian Population Estimates - 1970; ERC and Chief Commissioner's Office		1970 - Civilian - Military - Total 1960 - Total Percent Change  ERC, Dept. of Commerce (5-13-70) - Number - Percent Variance From Census Chief Commissioner's Office - Number - Percent Variance From Census Chief Commissioner's Office	6 1	rvival Method - 1972;	- \$8,000 thru \$9,999 - \$10,000 thru \$14,999 - \$15,000 thru \$24,999 - \$25,000 and Over - Total Median Mean Mean Per Capita Families with Female Head Mean Female Unrelated Individual Mean Age Groups - 0 thru 4 - 5 thru 84 in Increments of 5 Years	Years - 1960 thru 1990 in Increments of 5 Years	6
Age - Sex Characteristics	Age Group	Male Number	5		- 85 and Over		- J
of the Total Population - 1970; U.S. Bureau of Census	- Under 5 - 5 thru 84 in Increments of 5 Years - 85 and Over Total Under 18 65 and Over Median Age	Female Number Total	6	the 24 Iterations - 172; Quinton-Budlong	24 Alternative Popula- tion Projections	Census Base Birth Rates Migration Rates Parametric Selections	6
Scale of Foreign Born Immigration Characteric- tics - 1970; U.S. Bureau of Census	Year of Immigration - Before 1930 - 1930 thru 1939 - 1940 thru 1949 - 1950 thru 1954 - 1955 thru 1959 - 1960 thru 1964	Number of Immigrants	5	These two tables give or	notes, refer to introduct pecific information on the s on alternative criteria.		ulation
	- 1965 thru 1966 - 1967 thru 1970					• 40	98

Title:	Overal1	Economic De	evelopment Plan		
Source Agency:		O.E.D.P.	Committee		-
Computerized:	No		_ Computer Reference:_		 
General Informa	ation:	POP 2	· · · · · · · · · · · · · · · · · · ·		
		Descri	ption of Table(s)	ř	

Table No. II  Population  Table No. III  Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population  Age Group in Years  - Under 5  - 5 thru 84 in Increments of 5 Years  - 85 and Over  - Total  - Median Age  - Male  - Female  Total Population  Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States  Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign  Countries	Notes
Table No. III  Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born  Guam  Other Outlying Areas of the U.S.  United States Foreign Born  Republic of the Philippines  Japan  Other Asia  Europe  Other Aliens  Total Aliens  Total No. IV  Population  1950  1970  Year  1950  1970  Year  1950  1970  1970  Total Population  Native Born  Republic of the Philippines  Japan  Other Asia  Europe  Other Foreign	
Population  - 1950 - 1951-1959 - 1960 thru 1978  - 1960 thru 1970  - 1960 thru 1978  - 1970 thru 1970  - 1970 thru 1970	1 6
Table No. III Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - Guam - Male - Female  Total Population Native Born - Guam of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	0
Table No. III Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Aliens Total Aliens U.S. Military and Dependents Total Population - 1950 - 1960 - 1970  Year - 1950 - 1960 - 1970  Year - 1950 - 1960 - 1970  Total Population Native Born - Guam Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	1
Table No. III Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Table No. III  Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - 1950 - 1960 - 1970  Total Population of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Table No. III  Age Group in Years  - Under 5  - 5 thru 84 in Increments of 5 Years  - 1955, 1960 and 1970; U.S.  Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication of the Census Publication PC(1)-B54  Total Aliens U.S. Military and Dependents Total  Population - 1950 - 1960 - 1970  - 1970  Total Population Native Born - Guam - Other Outlying Areas of the U.S.  - United States  Foreign Born - Republic of the Philippines  - Japan - Other Asia - Europe - Other Foreign	
Table No. III Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan Other Asia - Europe - Other Foreign	1
Table No. III  Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - Guam - Dother Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	3
Table No. III  Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population On Native Born Other Outlying Areas of the U.S. United States Foreign Born Republic of the Philippines Japan Other Asia Europe Other Foreign	
Table No. III  Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States  Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	
Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States  Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	1 _
Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States  Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	5
Age Distribution of the Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born - 1950 - 1960 - 1970  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Population of Guam for 1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born - 1950 - 1960 - 1960 - 1970  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	100
1955, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born - 1950 - 1960 - 1960 - 1970  Total Population Native Born - Guam - Other Outlying Areas of the U.S.  - United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	1 70
Dept. of Commerce, Bureau of the Census Publication PC(1)-B54  Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Total Population Native Born - 1950 - 1960 - 1960 - 1970  Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	1 1
Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Table No. IV Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  Total Population Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	
Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	110
Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Native Born  - Guam  - Other Outlying Areas of the U.S.  - United States Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	-
Place of Birth of the Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  Native Born - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	7
Population of Guam for 1950, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publications PC(1)-B54.  - Guam - Other Outlying Areas of the U.S United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	1 1
1950, 1960 and 1970; U.S.  Dept. of Commerce, Bureau of the Census Publications PC(1)-B54  - Other Outlying Areas of the U.S.  - United States  Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	
1950, 1960 and 1970; U.S.  Dept. of Commerce, Bureau of the U.S.  - United States  Foreign Born  - Republic of the Philippines  - Japan  - Other Asia  - Europe  - Other Foreign	
of the Census Publications PC(1)-B54  - United States Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
of the Census Publications PC(1)-B54.  Foreign Born - Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	- 1
- Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	
- Republic of the Philippines - Japan - Other Asia - Europe - Other Foreign	- 1
- Japan - Other Asia - Europe - Other Foreign	
- Other Asia - Europe - Other Foreign	
- Europe - Other Foreign	
- Europe - Other Foreign	
- Other Foreign	
Countries	

Title/Date/Source	Row Labels	Column Headings	Notes
No V	Citizenship Status	Age Group in Years	
le No. V izenship Status and	- Naturalized	- Under 18	1
izenship status and	- Permanent Alien	- 18 and Over	1 0
of Immigration of	The state of the s		1
eign Born on Guam:	- Temporary Alien	- All Ages	
y.S. Dept. of	- Born Abroad of Ameri-		
merce, Bureau of the	can Parents	-x	1
Publication	- Total Foreign Born		1
1)-B54			
	19.		1
	87		1
	Year of Immigration	Number .	
10 P	- 1969 to 1970	ti.	1 .
	- 1967 to 1968		1
Pa Day	- 1965 to 1966		
No.	1960 thru 1954 in		1
. 000	Docrements of 5 Years		1
	- 1940 to 1949	, - N	
	·	4	1
	- 1930 to 1939	(4)	
and the same of th		) 41 W	
le No. VI	Number of Children Ever	Year	
ber of Children Ever	Born Per 1,000 Women	- 1960	
Per 1,000 Women for	Ever Married	- 1970	
: 1960 and 1970; U.S.	Number of Children Ever	1	1 . 1
t. of Commerce, Bureau	Born Per 1,000 Women		
the Census Publication	(Above 2 Categories are		ĺ
1)-B54	each broken down into:)		1
1	- 15 thru 44 Years Old		1
100	in Increments of 10	0 0	-
4	Years	-	
	, .		1
The state of the s		4 / n	
le No. VII	Posidones 1965	Population	5
	Residence 1965	robaracton	1 ,
Mation Mobility for	- Total Population 5		1
Population 5 Years	Years Old and Older	-2-	1
and Older: 1970; U.S.	Same House	* *	
t. of Commerce, Bureau	Different House		
the Census Publication	- In United States .	· ·	
1)-B54 and Statistical	- In U.S. Territory		
ract of the United	- In Puerto Rico		1
tes, 1971	- In Foreign Country	*	9
1000	Moved, Residence Not		
The state of the s	Reported	<u> </u>	
	* *		
No. VIII	Age Group in Years .	Guam Distribution	100
ardson of Guam and	- Under 5	U.S. Distribution	
Population Distribu-	- 5 thru 20	J.J. DISCLIDE TON	1
by Ages 1070. U.S.	- 3 thru 20 - 21 thru 24		
by Age: 1970; U.S.	The state of the s	£ _	
t. of Commerce, Bureau	- 25 thru 74 in Incre-	A	1
the Census Publication	ments of 10 Years		
17034 and Statistical	- 75 and Over		
of the United		15	1
tes, 1971	•	*	1
	161	A. Commercial and the commercial	

Title/Date/Source	Row Labels	Column Headings	Notes
Table No. IX Guam Population, Area and Density by Election District, 1960 and 1970; U.S. Dept. of Commerce, Bureau of the Census Publication PC(1)-A54	19 Election Districts Guam Total	Land Area in Square Miles Population Density (Above 2 Categories are each broken down into:) - 1960 - 1970	

Notes 1 thru 5 are standard notes, refer to introduction.

- 6 Source for 1970 Guamanians is both the U.S. Census and Local Census, Guam Commissioner's Office. The count for Guamanians is also based on recorded births, DPHSS, Vital Statistics Division. Figures can only be regarded as estimates.
- 7 In 1970 the categories "Guam" and "Other outlying areas of the U.S." were replaced by "Born in a U.S. Territory" and "Born in Puerto Rico".

Preliminar Tible: <u>Economic C</u>	y Spatial Patter <u>haracteristics c</u>		mograph	ic Variables	and Socio-	•	
Source Agency:	Roy Chung	· <u>}-</u>					
Computerized:	Yes	C	omputer	Reference:	Not Ava	ilable	
General Information:	POP 3						
	Information Co	ntained (	on the l	Document			
The state of the s				<del></del>			

FOLLOWING IS A LIST OF DATA WHICH IS PRESENTED GRAPHICALLY ON A MAP BY ELECTION DISTRICT:

- 1. Median Age, 1970.
- 2. Total Population, 1970.
- 3. Density Per Square Mile, 1970.
- 4. Percent of Persons 25 Years and Over With Less Than 1 Year of High School, 1970.
- 5. Median School Years Completed 1970, Females 25 Years and Over.
- 6. Percent of Persons, 18 To 24 Years, With 4 Years of High School or More, 1970.
- 7. Percent of Persons, 25 Years and Over, With 4 Years of High School or More, 1970.
- 8. Percent of Persons With Less Than 5 Years Elementary School Total Persons 25 Years and Over, 1970
- Percent of Persons, 25 Years and Over, With Less Than 5 Years of Elementary School, 1970.
- 10. Number of Own Children Under 5 Years Per 1,000 Women, 35 to 44 Years Old, 1970.
- 11. Percent of Women Ever Married, 15 to 24 Years Old, 1970.
- 12. Percent of Women ever Married, 25 to 34 Years Old, 1970.
- 13. Percent of Women Ever Married, 35 to 44 Years Old, 1970.
- 14. Number of Children Ever Born Per 1,000 Women, 25 to 34 Years Old, 1970.
- 15. Number of Children Ever Born Per 1,000 Women, 35 to 44 Years Old, 1970.
- 16. Persons Per Household, 1970.
- 1. Percent of Females in Labor Force 1970 (Females, 16 Years and Over).
- 18. Index of Income Concentration, 1970.

- 19. Birth Rate By Village, 1970.
- 20. Death Rate By Village, 1970.
- 21. Per Capita Income of Persons, 1970.
- 22. Alphabetic Ordering of 19 Districts of Guam After U.S. Census of Population, 1970.
- 23. Ratio of Illegitimacy to Total Births, 1971.
- 24. Death Rate By Village, 1971.
- 25. Ratio of Illegitimacy to Total Births, 1971.
- 26. Birth Rate By Village, 1971.

The 1974 Statist	<del> </del>		
Source Agency: Economic	Research Center, Departme	nt of Commerce	<del></del>
Computerized: No	Computer Referen	ce:	<del></del>
General Information: PUT		· · · · · · · · · · · · · · · · · · ·	
1000	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
(Tables 54-56 and 60-61 have Identical Row Labels and Column Headings)	FY1965 to FY1974 for each year	Residential Commercial and Government Total	
Table 54: Water Con- sumption; PUAG	¥*		
Table 55: Water Meters in Use; PUAG	-		
Table 56: Revenue From Water Sales; PUAG	-	a	
Table 60: Telephones in Use; GTA	* 16 *		
Table 61: Telephone Revenue; GTA	kg.		
(Tables 57-59 have Identical Row Labels and Column Headings) Table 57: Power	FY1965 to FY1974, for each Year	Residential Commercial and Govern- ment Street and Outdoor Lighting	
Consumption; GPA Table 58: Power		Total	
Customers; GPA		,	Ę
Table 59: Revenue from Power Sales; GPA	*,	3€ 2 •	80,000
	· .	40	
		1 k	
	è	ý.	
	D 51		

Source Agency:	Department of Public Works	4
Computerized: No	Computer Reference:	<u>1</u>
General Information:_	PUT 4	-

	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Not
Table 1 Abandoned Vehicle Accumulation; 1972; DPHSS	List of Areas	Estimated Number of Vehicles - Location Total - Area Total Status as of June, 1973	6
Table 2 Future Bulky Metallic Wastes Tonnage	Year - Existing Inventory - 1973 - 1975 thru 1990 in Increments of 5 Years - 1993	Car Hulks White Goods Total	7
Table 3 Population Projections; U.S. Census Data	Year - 1970 - 1973 - 1975 thru 1990 in Increments of 5 Years - 1993	Department of Commerce Territorial Planners	
Table 4 Future Car Hulk Volume	Year - 1970 - 1973 - 1975 thru 1990 in     Increments of 5 Years - 1993	Total Population Estimated Number of Car Hulks Generated - Rate of Car Registra- tion - 1970 - 1972 - Projection	8 9 10
Plate 1 Map of Guam with Appro- ximate Number and Distribution of Car Hulks of June, 1973	Map of Guam Showing:  - Municipality and Number of Car Hulks Contained Within it  - Locations at Which 25 or More Car Hulks Have Accumulated  - Minor Accumulations Totalling About 400		

Title/Date/Source	Kow Labels	Column Headings	Notes
yearly Total of Regis- tered Vehicles and Esti- mated Retirement (1963- 1972); ERC, Dept. of Commerce; Graph	Number of Registered Vehicles Based on 7% of Total Vehicle Regis- tration	Year - FY1963 thru FY1972	
Plate 4 Projected Vehicle Retire- ment for Guam 1970 to 993; Graph Showing Upper mend, Lower Bound and stimated Actual Retire- ment Rate	Number of Vehicles Retired	Year - FY1970 thru FY1993	8 11
late 5 rojected Vehicle Retire- ent Based Upon New shicle Imports and an verage Serviceable Life 6 Years; ERC, Dept. of	Year - FY1965 thru FY1972	Imported New Vehicles Fiscal Year of Retire- ment	
TES:	Ę:		E In

- 6 Visual Survey by Guam Department of Public Health and Social Services, completed December, 1972. Survey supplemented by Dames and Moore field checks.
- 7 White goods are all bulky metallic wastes other than car hulks.
- 8-1970 rate of car registration per capita for total population (lower bound)
- 9-1972 rate of car registration per capita for total population (upper bound)
- 10 Projection is the estimated future projected number of car hulks entering solid
- 11 Upper Bound determined on the basis of the existing rate of vehicles per capita applied to future populations assuming vehicle retirement rate of 7% of vehicle registrations.

Notes

1

		manufacture of Guam				
Title: Operational Plan	for Solid Waste Management	Territory of Guam		Title/Date/Source	Row Labels	Column Headings
Source Agency: Greenleaf, Computerized: No General Information: PUT	Computer Reference	2:		Figure VI-2 Disposal Site Number 1 Proposed Future Land Use	Map of Disposal Site Number 1 Showing Proposed Future Land Use	
	Description of Table(s)	1		Table V-2 Projected Quantity	Year	Population
Title/Date/Source	Row Labels	Column Headings	Notes	of Refuse Generated Territory of Guam	- 1970 - 1975 - 1980	Quantity Per Year - Residential - Commercial
Figure II-2 Territory of Guam  Figure II-3 Territory of Guam Sources of Water	Map of Guam Showing Districts and Major Highways  Map of Guam Showing Ground Water Sources Spring or River Water Sources				- 1990	(Above 2 categories are each broken down into:) - Tons - Cubic Yards Total Civilian Production Per Year Total Including Military Waste (Above 2 categories are each broken down into: - Tons - Cubic Yards
Figure III-3 Island of Guam Refuse Collection Districts	Map of Guam Showing 10 Refuse Collection Districts		July	Table VI-1 Route Requirements - Residential Curbside Pick-Up	Definition of Variables - 3 Man Crew (Driver and 2 Collectors) - Using Disposable Plastic Bags	Formulas and Computa- tions - The Number of Dwelling Units Served Per Day - Accounts Served Per
Figure III-4 Island of Guam Solid Waste Disposal Sites	Map of Guam Showing - Closed Dump Site - Proposed Landfill Site	•	7647 - TA15 76.00		- Collection Equipment - Number or Dwelling Units - Number of Persons Per Dwelling Unit - Refuse Per Capita in Cubic Feet	Crew Per Day and Week - Refuse Per Truck Per Day - Number of Routes Required
Figure IV-1, IV-2, IV-3 Disposal Site No. 1, 2, 3	Map of Each Disposal Site Showing its Location and Elevation		- topi - topi - topi - topi - topi		- Refuse Per Dwelling Unit in Cubic Feet - Average Volume Per Truck Per Day in Cubic Yards - Average Number of Dwelling Units, Served	
Figure VI-1 Island of Guam Recommended Redistributing of Refuse Collection Districts	Map of Guam Showing Districts Which Represent Areas Covered by One Collection Crew in One Week	**************************************			. Per Day	
	W					

Title/Date/Source	Row Labels	Column Headings	Notes	T143 10 1 15	الروس المراج والأ	· Strate dial supra	
	a tree de s			Title/Date/Source	Row Labels	Column Headings	Notes
Table VI-2 Residential Collection Cost Analysis with Polyvinyl Disposable Bag	Daily Costs Per Route - Total Collection Crew Weekly Costs Per Residential Account/ Route Plastic Bags	Dollar Amounts	one one	A Steller		Site Life Alternatives - Without Shredding - Civilian Waste - Civilian Military Wastes	
×	- Total Collection Cost - Per Week		21031	1 - 11		- With Shredding - Civilian, Military	
; 1€	- Per Month Total Annual Collection		1133	Table VI-6 Estimate of Cost and	Item	and Oversize Waste	\$
Recommended Rerouting of Refuse Collection Districts	List of Route - Day Trip	Route Location Miles Traveled Time Distribution in Minutes		Estimated Useful Life	Total	Number of Units Cost Total Depreciation Years	
Cable VI-3a Monday thru Thursday	3	- From or to Garage - Haul and Dump - Collection time		Table IV-7 Summary of Operating Costs	Operation, Reduction	Dollar Amounts	1
able VI-3b uesday thru Friday	×	Number of Dwellings Volume Cubic Yards Minutes Per Cubic Yard		Tarks	Plant, and Landfill Depreciation on Allow- ance at 6% Annually Total Annual Cost Cost Per Ton		
Table VI-4		7, 4	o Telial	A	Cost Per Cubic Yard		
Collection Equipment Projection (1970-1990)	Year -1970 thru 1990	Quantities of Waste (Thousand of Tons) - Residential - Commercial - Total Civilian Number of Routes Equipment Required Including Stand by Available Collection Vehicles - Number Retired on 5-Year Basic - Additional Purchase - Total		Table VI-8 Projected Annual Cost for Various Methods of Disposal	Waste Source - Government of Guam - Include Military	Solid Waste - Tons in Thousands - Cu. Yards in Thousands Cuantity of Cover Required for Sanitary Landfill (cu. yds.) Annual Cost of Sanitary Landfill with Cover Cost Per cu. Yd. Annual Cost for Shredding Operation no Cover Cost Per cu. yd. Quantity of Cover	1,
Cable VI-5 Projected 20-Year Sanitary Landfill Disposal Program	Year - 1 thru 20	Quantities of Waste (Million of Loose cu. Yards) - Residential - Commercial and Industrial - Total Civilian - Military	1		E	Required with Shredding Operation Annual Cost Shredding with Cover Cost Per cu. yd.	
	**************************************	- Military - Subtotal - Oversize Non-Comb.					

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Figure 1 Disposal Site Number 1- Log Boring Location	Map of Ordot Disposal Site Number 1 Showing Log Boring Location			Figure 10 Agana Swamp-Disposal Site Number 3-Log of Boring Number 10			
(The Following 9 Diagrams have the same row labels and colume headings)  Figure 2 Ordot Disposal Site	Shear Strength (pounds	Moisture Content (per-	Idea   1341   1342	Figure 11 Soil Classification Chart, Agana Swamp Disposal Site (There is also a chart showing key to test data)	Major Division of Soils - Fine Grained Soils - Silts and Clays - Coarse Grained Soils - Gravels - Sands - Highly Organic Soils	Typical Names	,
Number 1-Log of Boring Number 1 Figure 3	per square foot) - 0 thru 5,000 in increments of 1,000	cent) Dry Density (pcf) Depth (ft) Sample Type	4407 12008 13008	Daily Collection Re- cords Form; Solid Waste Management, Department of Public	Load I Load II Load III (Above 3 categories are	Time Mileage Number of Stops Number of Bags	
Ordot Disposal Site Number 1-Log of Boring Figure 4 Ordot Disposal Site				Works, Guam	each broken down into:) - Left Yard - First Stop - Last Stop - Arrival Landfill - Left Landfill	Others Weight	
Number 1-Log of Boring Number 4  Figure 5 Ordot Disposal Site Number 1-Log of Boring Number 5			of to the state of	Plate 1 Site Plan Ordot Dis- posal Site, Ordot Guam; Harding Miller, Lawson and Associates	Map of Ordot Disposal Site Showing Test Boring Location Recommended Observation Well Location (Depth in Feet) Recommended Surface		
Figure 6 Ordot-Disposal Site Number 1-Log of Number 6				Plate 2	Water Monitoring Location	,	
Figure 7 Ordot-Disposal Site Number 1-Log Boring Number 7				Protective Dike Details, Ordot Disposal Site; Harding, Miller, Lawson and Associates	Diagram Showing a Protective Dike Compaction to 90%		
Figure 8 Ordot Disposal Site Number 1-Log of Boring Number8	÷			Rlate 3 Existing Refuse Fill Cover Details, Ordot Disposal Site Ordot, Guam; Harding, Miller,	Diagram Showing the Three Phases of Compacting Refuse	¥-	
Figure 9 Agana Swamp-Disposal Site Number 3-Log of Boring Number 9			3	Lawson and Associates	173		

Title/Date/Source	Row Labels	Column Headings	Notes
Plate 4 Fill Sequence Details, Ordot Disposal Site, Ordot Guam; Harding, Miller, Lawson and Associates	Diagram Showing Which Portions of the Land Fill are Filled First	*	
Plate 5 Tiki-Type Gas Burner, Ordot Disposal Site, Ordot, Guam; Harding, Miller, Lawson and Associates	Detail Diagram Showing the Location of a Tiki-Type Gas Burner	, 	
Plate 6 Subdrain Details, Ordot Disposal Site, Ordot, Guam; Harding, Miller, Lawson and Associates	Diagrams of a Typical Subdrain and a Typical Ravine Drain Showing Compacted Refuse Fill	*	
Plate 7 Subdrain Details for Ordot Disposal Site, Ordot Guam; Harding, Miller, Lawson and Associates	Diagrams of a Subdrain Showing Cross Sectional and Plan View Details	(2). Y	7 1
Plate 8 Observation Well Details, Ordot Disposal Site, Ordot Guam; Harding, Miller, Lawson and Associates	Detail Program Showing the Location on an Observation Well		

Notes 1 thru 5 are standard notes, refer to introduction.

irce Agency: H	arry R. Little, Bu	reau of Solid Waste Management, U.S. Dept. HEW
puterized:	No	Computer Reference:
eral Informati	on: PUT 4	
		ntained on the Document

### CONTENTS OF THE APPENDICES

- A. Report of Observations on Solid Waste Management Practices, Guam;
  Donald M. Keagy and Jack DeMarco, U.S. Dept. HEW: November 1968. Findings on Government of Guam Storage, Collection, Disposal, Management also Naval Air Station and Andersen AFB. Discussion of findings both general and specific
- B. Computations of minimum sample size (109) used to determine solid waste densities.
- C. Solid waste separations to determine composition (results in Table 8).
- D. Moisture content determination (computations with results in Table D-1)
- E. Effect of rainfall on moisture content of solid waste (formulaes and results). Figure E-1 graphs the relationships between an amount of weekly rainfall and both moisture content and weight per cubic foot.
- F. Results of multiple regression relating productive time to miles covered, number of items and number of services for packer trucks and dump trucks.
- •G. Computation of the number of trucks necessary to provide service (based in part on Appendix F).
- H. Reprints part of Section 9660 of Subchapter Q, Government Code of Guam.

Title/Date/Source	Row Labels	Column Headings	Notes
Table 1 Summary of Estimated Amount of Solid Waste Generated in Civilian Areas of Guam, by Sector	Sector - Residential - Commercial - Government - Hotel and Motel - Industrial - Agricultural	Tons Per Day Tons Per Year	
Table 3 Summary of Rainfall at Agana Naval Air Station, Guam, 1952-62 (inches); Ward, P.E., S.H. Hottard, and D.A. Davis, Hydrology of Guam; Geological Survey Professional Paper 403-H Washington, U.S. Gov't. Printing Office, 1965	- Hospital - School - Labor Camps - Total	Average Maximum Minimum Median	1
Table 5 Distribution of Re- sidential dwelling Units on Guam, March 1, 1969; Dept. of Public Works, Guam	19 Villages Total	Single - Family Units Multiple - Family Units Total	
Cable 6 Collected Residential Colid Waste (Weekly Collection)	Route and Date, Collected Average	Items Per Dwelling Volume Per Dwelling (cu ft) Volume Per Item (cu ft) (Above 3 categories are each broken down into:) - Mean - Standard Deviation of the Population	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	*		

Title/Date/Source	Paul 1	PUT	Detail 4
11000,000	Row Labels	Column Headings	Notes
Table 7 Datimated Volume and Weight of Residential Solid Waste Collected	19 Villages Total	Total Dwelling Units Cubic Yards Per Year Tons Per Year	
Table 8 Composition of Re- sidential solid waste i Onam, Feb. 26, 1969, to March 5, 1969	Village and Date of Collection Average	Component (Percent by Weight) - Food Waste - Garden Waste - Paper Products - Plastics, Rubber, Leather - Textiles	
ible 9		- Wood - Metals - Glass and Ceramics - Rocks Dirt Ashes etc. Sample Weight (1b.) Moisture Content (%)	
idential Solid Waste in immand the Continental idea States	Component - Food Waste - Garden Waste - Paper Products - Plastic, Rubber, Leather - Textiles - Wood - Metals - Glass and Ceramics - Rocks, Dirt, Ashes, etc. Total	Average Percent of Com- ponent by weight Estimated Pounds of Con- ponent Per Capita Per Day (Above categories are each broken down into:) - Guam - Continental United States	5
tribution of Com- cial and Government dvities in Guam by lage; March 1, 1969; t. of Public Works		Number of Commercial Establishments Number of Gov't Buildings	
le 11 imated Amounts of Id Waste Generated Fally by Hotels and Is on Guam	19 Villages Total To	umber of Rooms ons of Waste Per Year	6
		.*	

Title/Date/Source	Row Labels	Column Headings	Notes
Table 12 Number and Volume of Solid Waste Samples from Selected Schools on Guam, Feb. 25 to March 7, 1969	Name of School Total	Number of Items Collected Daily Volume (cu ft) Number of Students	7
Table 13 Estimated Weight of Solid Waste Generated by all Schools on Guam	19 Villages Total	Total Number of Students Estimated Tons of Waste Per Day Estimated Tons of Waste Per Year	7
Table 14 Amount of Solid Waste Generated by Labor Camps on Guam	22 Labor Camps	Number of Workers Estimated Tons of Waste Per Year	8
Table 15 Productivity of Col- lection Vehicle by Type of Truck and Route	Type of Truck and Route	Services Per Mile Services Per Productive Minute Miles Per Productive Minute Items Per Service Items Per Productive Minu	te
Table D-1 Solid Waste Moisture - Content Determination, Territory of Guam, Feb. 26, 1969 to Mar. 5, 1969	Type of Sample and Date Collected	Sample Dish Tare Weight (gm) Wet Weight of Sample and Dish Dry weight of Sample and Dish Wet Weight of Sample Dry Weight of Sample Weight Loss Percent Moisture in Sample (Wet Weight)	121
-			100

Migure 6 Mistribution of Re- Midences on Guam Using Migure 7 Mistribution of Re- Midences on Guam Using Migure 7 Mistribution of Re- Midences on Guam Using Migure 7 Mistribution of Re- Mistribution of Waste- Migure 8  Mistribution of Waste- Mist	Column Headings No
Mistribution of Re- sidences on Guam Using 35-Gallon Waste-Storage Prums, by Number of Prums (Bar Graph)  Migure 7 Instribution of Re- didences on Guam Using 25-Gallon Waste-Storage musiners, by Number of Containers (Bar  The property of Containers of Waste-  Number of Residences	
Number of Residences	ber of Drums Used One Drum Two Drums Three Drums More than Three Drums
stribution of Waste- Number of Cont.	er of Containers Used one Container wo Container hree Container ore than Three
Guam, by Container - 55 Lume (Bar Graph) - 32	of Container Used Gallon Containers Gallon Containers Cher Containers
Map of Guam Showing the Disposal Sites	

- 6 Number of rooms data from Department of Public Works, March 1969.
- 7 Number of Students data from Department Public Works, March 1, 1969.
- 8 Number of workers data from Department of Public Works, March 1, 1969.

Title: GPA, Official Statement Relating to 1972 Issue Revenue Bonds (Series 2)	
Source Agency: Guam Power Authority	
Computerized: No Computer Reference:	
General Information: PUT 5	
Description of Table(s)	

Descri	ntion	οf	Tabl	el	S
Descri	P C . O			100.00	

	beset ips to		
Title/Date/Source	Row Labels	Column Headings	Note
GPA; Historical Growth of Electric Sales	Total Customers (Average) Kilowatt Sales Total (Above 2 categories are each broken down into:)  Residential  Large General Service  Small General Service  Government Installations, Small  Government Installations, Large  Street and Outdoor  Lighting	1969 thru 1973 (For 12 Months Ending June 30)	100
Bar Graph of Island - Wide Power System Power Supply and Demand	Megawatts Military and Civilian Demand and System Capacity	1955 1960 1965 1970 1975 1980	
GPA Estimated Disposition of \$52 Million	Dollars	Production Facilities Transmission, Dis- tribution, and General Plant (Miscellaneous) Gross Capital Requirements Less Funds From GPA Operations Equals \$52 Million	
	•		
	เ 180	÷.	

Title/Date/Source	Row Labels	Column Headings	Notes
1969 - 1973 Revenue Statement with Pro- jections for 1973-1977	Dollars	Estimated Revenue Expenses Fund Allocations	
GPA Estimated Net Revenues of the System, Projected Debt Service Requirements	FY1973 thru FY2009	Estimated Net Revenues of the System Total Debt Service - 1969 \$11 Million Bond Issue - 1972 \$25 Million Series "A" - Total Outstanding 1972 \$17.5 Million Series "B" - Sinking Fund Requirements	
	* .	- Interest (Estimated at 7 Percent) - Total Debt Service Estimated Total Debt Service \$9.5 Million Series "C" (1972) Estimated Total Debt	-
	- · · · ·	Service for \$52 Million Bond Issue (1972) and \$11 Million Bond Issue (1969) Coverage of Current Annual Debt Service (The Ratio of Revenue	Į
		to Debt Service)	
100 100			
3		#* <sub>2</sub>	

Source Agency:	Guam Powe	er Authority
Computerized:	Yes	Computer Reference: PUT Detail
General Information:	PUT 5	

The Data Processing Division of GPA produces many computer printouts and reports with information of use to planners. The following are descriptions of GPA's billing system, the terms used in the reports and thirteen selected reports.

Much of GPA's billing information is reported by totals for all accounts covered by a meter book. Since the books cover small geographic areas they provide a geographic profile of power use and consumption.

The analysis of GovGuam power usage is used by the Guam Energy Office in conservation planning.

### GPA BILLING SYSTEM:

For billing purposes, all Guam is divided into four <u>divisions</u>. Reading all the meters in a division is a billing <u>cycle</u>. Each division is divided into <u>routes</u> and each route is divided into <u>books</u>. On average, a division has five routes and a route has six books. The books have a meter-reading sheet for each meter in a given area.

The meter reading for the previous month is subtracted from the meter reading for the current (or present) month. This amount is multiplied by a multiplier to arrive at KWH (kilowatt-hours) as the meters run at different ratios to actual usage.

GPA also measures the highest demand for electricity for the month for larger customers. If usage is high enough to warrant the action, a residential customer will be re-classified as "small general". The meter installed, called a "three-phase meter", measures kilowatt demand once every 15 minutes and records the highest demand reached that month.

#### BILLING DEFINITIONS:

KWH Usage - actual kilowatt-hours consumed by the customer (or estimated if meter is not read)

KWH Amount - charge for KWH Usage

KW Usage - highest demand registered that month (not applicable to Residential-Class customers)

KW Amount - charge for KW Usage

Surcharge - 10% of KWH Amount plus 10% KW Amount

Fuel Charge - the total cost of fuel consumed generating electricity expressed as a rate per KWH. There is a two-month "lag time", that is, the fuel charge rate for March is based on January's costs. Also called Fuel Adjustment.

Billing Amount - the total bill; also called total amount.

Billing Computations for Residential Accounts is produced each month (as the fuel charge varies each month) and shows the bill component amounts for any given number of KWH (kilowatt-hours) up to 5000 KWH. The column headings are: Number of KWH (usage), KWH amount, surcharge amount, fuel charge amount, total billing amount.

Billing Register lists the bill for each customer for the month by account numbers. The column headings are:

Account Number
Customer Name
Present Reading
Previous Reading
Service Code
KWH Usage
KWH Amount
KW Usage (Maximum Demand)

KW Amount
Surcharge
Fuel Charge
Total Billing for Month
Arrears/Debits
Credits
Total Billing to Customer

Readings Proof Sheet contains the meter readings and other information used in checking the reasonableness of recorded meter readings for the month. Each account is reviewed. The column headings are:

Account Number
Customer Name
Meter Number
Number of Dials on the Meter
Present Reading
Previous Reading
Consumption (Difference in Readings)
Multiplier

KW Usage (Demand)
KWH Usage
Service Code
(Historical Information Follows)
Highest Consumption
Lowest Consumption
Previous Consumptions (Three)

Government of Guam Departmental Billing Recap shows the current billing totals for each department and totals for the government and is produced each month. The column headings are: electric consumption (KWH usage), total billing amount, arrears, total amount due.

Monthly Billing Summary for each department shows billing information by account number and departmental totals. This report has the same information as the above but is broken down by account number and also shows present and previous meter readings, allotment number, location (for instance: village or billing address or building number).

Government Billing Analysis Summary is provided to the Guam Energy Office to show trends in power usage by departments. The column headings are: previous consumption (KWH usage), present consumption, accumulated consumption, increase or decrease (as KWH and %).

Government Billing Analysis is also provided to the Guam Energy Office and shows the same information as the summary report but broken down by account number with totals for each department. Meter number and location are also shown.

Cycle Billing Data is used to break out the fuel charges collected by type of service. The types of service are:

Residential Large Government

Small General Street Lights - Residential

Large General Street Lights - Business

Small Government Street Lights - Government

For each type of service, the column headings are: number of accounts, number of streetlights, KWH usage, fuel billing amount, regular billing amount (all charges except fuel charge) and total billing amount. Totals are shown for each.

<u>Daily Billing Recap</u> has the same information as Cycle Billing Data but is broken down for each book. There is also a billing summary for each meter book showing totals for: utility billing amount (all charges except fuel charge), fuel charge, accounts receivable, accounts in arrears, grand total due.

<u>Billing Control Sheet</u> shows the power usage and billing data totalled by meter books. The entries are identical to those in the Billing Register but, since they are totals for the meter book, account numbers, customer names and KW usage (maximum demand) are excluded. The report is used internally by GPA to balance accounts.

Demand Consumption for Eleven Consecutive Months shows the highest demand reading for each month for each account with a meter measuring demand (KW usage). Used by GPA accounting to set KW amount as per tariff rules (minimum rate is dependent on highest demand for previous year). Lists demand figures by account number.

Accrued Billing Cycle Summary allocates the consumption data and billing amounts for the current billing period to the two calendar months which contribute to the billing period. The column headings are:

Meter Book Number
Location (Area Covered by Books)
Service Date From
Service Date To
Number of Days in Billing Period
(for the first calendar month and the second calendar month)
Number of Days That Month in Billing Period
\* KWH Usage That Month
\* Billing Amount (Total) That Month
Total KWH Usage (for period)
Total Billing Amount (for period)

\* these are computed by dividing the "number of days that month in billing period" by the "number of days in billing period" and multiplying this ratio by "Total KWH Usage" and "Total Billing Amount".

<u>Kilowatt (KW Usage) Demand Report</u> is used by GPA engineering to check customer load versus transformer capacity to allow time to change line equipment and avoid equipment failure due to overloading. The column headings are:

Account Number Service Code Customer Name Meter Number KWH Usage

KW Usage (Maximum Demand) Multiplier (For Meter) Load Factor Kilo-Volt-Amperes

The last two items listed are measures of demand used by engineers.

# TITLES OF THE STATEMENTS OF CONDITION AND RECOMMENDATIONS (SOCARS)

- Action Taken on Prior Audit Report RG 72-9
- GPA Financial Stability
- Management of Meter Readings and Customer Billings 3.
- Fuel Purchases 4.
- GPA Fuel Oil Requirements
- Procurement Policies and Practices 6.
- Capital Improvement Programs 7.
- GPA Personnel Reclassification
- Hiring and Retention Practies 9.
- Certain Management Practices 10.
- Aquisition of a new Computer 11.
- FY1974 Annual Report 12.
- GPA Per Diem Travel Expenses 13.
- Vehicle Operations 14.
- Plant Maintenance 15.

ce Agency:_	Government Comptrol	ler for Guam, U.S. Department of the Interior
puterized:	No	Computer Reference:
eral Intollia	tion: <u>PUT 7</u>	

- Action Taken on Prior Audit Recommendations: Audit Report RG 73-9. 1.
- Certified Public Accountants Audit Statements 2.
- GTA Mission (legal organization and ownership) 3.
- Control Over Telephone Billings 4.
- 5. One-Way Service
- Long Distance Toll Revenue 6.
- Businesses Billed at Residential Rates 7.
- Collection Procedures for Delinquent Accounts 8.
- 9. Telephone Instruments
- 10. Maintenance Expenses
- 11. GTA Labor Force
- 12. Telephone Deposits
- 13. Billing Credit Procedures and Policies
- 14. Accounting Procedures and Practices
- 15. Use of Navy Billing Rates
- 16. GTA Travel Policies

Title: Guam Master Plan Study:	Infrastructure - Tolophone
Source Agency: Greenleaf/Telesc	ea-Ahn
Computerized: No	Computer Reference:
General Information: PUT 8	
Dogue	sintion of Table(s)

Title/Date/Source	Row Labels	Column Headings No	te
Table I Telephones in Use; "Statistical Abstract- Guam, 1970", Economics Research Center; Dept. of Commerce	FY 1961 thru FY 1970 (on June 30)	Residential Commercial and Government Total	
Table II  Monthly Telephone Service Charge; "Facts about doing Business on Guam". Economic Research Center, Dept. of Commerce, Nov. 1969	- Individual Line - Two-Party Line	Residential Business	
Table III Telephone Revenue (\$ Thousands); "Statistical Abstract Guam, 1970", Economic Research Center, Dept. of Commerce	FÝ 1961 thru FY 1970	Residential Commercial and Government Total	
Table IV Existing Telephone Exchanges; IHCO/PAGE Development Plan, Gov't of Guam - PUAG	Exchange - Agana - Agat - Mangilao - Merizo - Tumon Total	Lines Terminals Primary Stations	
Table V	M. d.d. 1144	Year	
Civilian Population Projection, 1970-1990	Municipality - 19 Municipalities - Total	- 1970 thru 1990 in increments of 5 years	

Title/Date/Source	Row Labels	्रे विचित्रायामा Headings	Notes
ble VI deral Housing ministration, Planned d/or Committed FHA plications	List of Federal Housing Administration Applications	Dwelling Units	
Housing and Urban  Wewal Authority, GHURA  Year Public HsgRental	Identification No Sinajana 1 and 2 - Agana Hts Mongmong - Toto - Yona (Non-Funded) - Inarajan, Talofofo, Merizo	Units	
ble VIII  Housing Corp.  Year Housing Plan	1972 Apartments SW of Hawaii Kai 1972 thru 1981 Locations not Identified Total	Units	
ble IX relation and Dwelling nt Distribution; U.S. pt. of Commerce, Bureau i the Census, Preliminary port, Sept. 1970	Communities - 19 Districts Total	Population Dwelling Units Average People/D.U.	1
white X mustic Telephone quirements (Primary lation); Years 1972-1976 mu IHCO/PAGE Development		Domestic Subscribers	
ble XI Percial and Industrial ctor, Developments and miects	List of 17 Developments and Projects		
the XII  Therefore Telephone Require—  The Years 1971-1976  THE INCO/PAGE Development	- 1980 thru 1990 in	Primary Stations PBX Trunks Total	

				The state of the s	
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels
Table XIII Hotel Room Inventory Projection Table XIV	Year - 1971 thru 1975 - 1980 thru 1990 in increments of 5 years	Room Inventory Projection Tourist and "Other" Visitors	E - III FEB	pble XVIII reposed Telephone Monthly utes; IHCO/PAGE 5-Year velopment Plan	Type - Individual - Two-Party Line - Rural - Extension - PBX Trunk
Summary of Telephone Requirements; Years 1971- 1976 from IHCO/PAGE Development Program	Year - 1971 thru 1979 - 1980 thru 1990 in increments of 5 years	Domestic Commercial/Industrial Total Primary Station Extensions Total	4-1	Mate I - Year Telephone zwelopment Plan	- PBX Extension  Map of Guam Showing - Exchange Boundaries (Exist and Proposed
Table XV 5-Year Subscriber Forecast (Primary Stations); Years 1971-1976 from IHCO/PAGE Development Program	Merizo Agat Mangilao Agana Tumon Talofofo Dededo Yigo	Exchange Area Year - 1971 thru 1976 - 1980 thru 1990 in increments of 5 years	1V 201		- PUAG Telephone (Exist and Proposed) - Military Telephone Exchange - Housing Development FHA (Exist and Proposed FHOUSING Developments GHURA (Exist and Proposed FHOUSING CORP Held Orders
Table XVI 5-Year Capital Development Program	List of 55 Development Programs	Cost Total	XI 30 10 10 10 10 10 10 10 10 10 10 10 10 10		- Commercial Developmen
Table XVII Budget Projection with No Rate Increase in Million Dollars; IHCO/PAGE 5-Year Development Plan	Local Business Local Residential Toll (RCA) Operating Expense Financing Expenses Total Net Income (Loss)	FY1971 thru FY1976 - Revenue - Expense	A 420	10 11 22 11	
Table XIX Budget Projection with Rate Increase in Million Dollars; IHCO/PAGE 5-Year Development Plan	-			15	i w
Tables XVII and XIX have the same Row Labels and Columm Headings			111		å e <sub>e</sub>
***	~		1000		

Title/Date/Source	Row Labels	Column Headings	Notes
whie XVIII  reposed Telephone Monthly  utes; IHCO/PAGE 5-Year  velopment Plan	Type - Individual - Two-Party Line - Rural - Extension - PBX Trunk - PBX Extension	Residential Business	
late I			
- Year Telephone	Map of Guam Showing		1
velopment Plan	- Exchange Boundaries	(*) d (	
	(Exist and Proposed) - PUAG Telephone (Exist	14 . 4	
40	and Proposed) - Military Telephone	, #1 	
	Exchange		1
	- Housing Development FHA (Exist and Proposed		
	- Housing Developments		i
	GHURA (Exist and Propos - Guam Housing Corp	ed)	1
	- Held Orders		
	- Commercial Development		4.
		*	
		**	
9	1	_ XT &	
10	-	•	
Vi	1		
	- 1		1
	1		
24	į		
A to		_4	
	1		
*			
		ž.	

Title:	Brief on Proposed Rate	e Increase	(3)
Source Agency:_	Public Uti	lity Agency of Guam	
Computerized:	No C	omputer Reference:	5%
General Informa	tion: PUT 9		12.1

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Water Production, Sales and Losses; FY1970- FY1976	Year - FY1970 thru FY1976	Water Production Million Gallons Water Sales Million Gallons Water Losses Million Gallons Percent Water Losses	
Active Meters and Sewer Connection, FY1971- FY1980	Year - FY1971 thru FY1980	Water Active Meters Sewer Connection	5
Operating Revenue and Maintenance Expense for Water and Sewer; FY1970- FY1981	Year - FY1970 thru FY1981	Operating Revenue Operation and Mainte- nance Expense (Above 2 Categories are each broken down into:) - Water - Sewer - Total	5

### NOTES:

Notes 1 thru 5 are standard notes, refer to introduction.

Computerized: No Computer Reference:	_	ce Agency: Government Comptroller for Guam, U.S. Department of t
		 uterized: No Computer Reference:
Information Contained on the Document		Information Contained on the Document

- Actions Taken on Prior Audit Reports Numbers RG 70-4 and RG 73-9
- Budgeting Practices and Procedures
- The PUAG Water and Sewer Rate Structures
- Accounting for Administrative Costs
- Delinquent Accounts Receivable
- Inventory Management
- In-House Project Job Orders .
- Revenue Accounting System
- Terminated Customer Receivables
- Manual Duplication of Computer Effort
- Water Supply and Water Sources Development Contract 11.
- Engineering Reports on the Utility Plant Valuation and Record System 12.
- Accounting for Fixed Assets 13.
- 14. Construction in Progress
- Service Connection Fee Subsidiary Ledger

Title:	Master	Plan	Repo	rt Gua	m Wate	r Syste	m I	rt ( Latinita	FY1972 to	1982	
Source	Agency:_	Aust	in,	Smith	& Asso	ciates,	Inc.	Consulting	Engineers	Agana,	
Compute	erized:	i .	No	·		Compute	r Ref	erence:			nawall
Genera1	i Informa	tion:		PUT	10				•		
				De	script	ion of	Table	(s)			

Title/Date/Source	Row Labels	Column Headings	Notes
Exhibit No. 5 Population/Consumption Tables	-9		
5.1 Total Island Population	Year - 1972 thru 1982	Civilian Total - Northern (30%) - Central (51%) - Southern (19%)	
5.2 Northern District	Report Year - 1972 thru 1982	Civilian Population Demand Rate gpcd Total Demand MGD GPM Average GPM Peak (x2.25)	
5.3 Central District			
(Above 2 tables have the same row labels and column headings)	9		
5.4 Southern District	Report Year - 1972 thru 1982	Civilian Population Demand Rate gpcd Demand MGD - Domestic - Agriculture GPM Average Domestic GPM Peak Domestic Total MGD Average, Domestic and Agricultural	
Exhibit No. 1 Map of Guam	Map of Guam Showing - Central District		į
mp va vuun	- Southern District - Northern District	,	

Title/Date/Source	Row Labels	Column Headings	Notes
phibit No. 2 orthern District	Map Showing - Spring - Well - Water Line - Report Item No Dam - Treatment Plant		
mibit No. 3 entral District		-	
whibit No. 4 Southern District (Above 3 Exhibits have the same Row Labels			
whibit No. 6 urtical Sections of orthern District, outhern District and untral District	Diagram Showing - Government of Guam System - Navy System - Air Force System - Booster Pump		
	•		
	ii		

itle: Waste Water F	acilities Plan - Preliminary	Submittal Area I		Title/Date/Source	Row Labels	Column Headings	Notes
M	m, Koebig and Koebig, Inc.  Computer Reference:		A Toll	Figure II-4 Soils (Area 1)	Partial Map of Guam Showing: - Agat-Asan-Atate Clay (Hilly) - Agat-Asan Clay and Rock (Steep)		
	Description of Table(s)			1100	- Limestone Rock Land (Steep) - Pago Clay	÷	
Title/Date/Source Figure I-1 Area Index Map	Row Labels  Map of Guam Showing 5  Geographic Areas of the Wastewater Facilities	Column Headings	Notes		- Inarajan Clay - Yona-Chacha Clay - Atate-Agat Clay (Rolling) - Guam Clay - Shioya Soils		
Figure II-1 Mean Annual Rainfall on Guam	Plan  Map of Guam Showing  Distribution of the  Mean Annual Rainfall on  Guam		S area C area constant	Figure II-5 Fringing Reefs and Vegetation (Area 1)	Partial Map of Guam Showing: - Mixed Forecast on Volcanic Soil in Ravines and on Lime- stone Outcrops in Valleys	<b>₹</b>	
Figure II-2 Physiographic Divisions (Area 1)	Partial Map of Guam Showing: - Mountainous Land - Coastal Lowland and Valley Floors - Rough Summit Land - Interior Basin and Broken Land		orest		- Savanna - Fringing Reefs - Mixed Forest on Lime- stone Plateaus and Cliffs - Predominantly Open Ground and Pasture - Coconut Plantation - Swamp Forest		
Figure II-3 Geology Map (Area 1)	- Dissected Sloping and Rolling Land - Plateau Land  Partial Map of Guam Showing: - Dandan Basalt Member - Maemong Limestone Member			Mgure II-6 Archaeology and Historic Sites (Area 1)	Partial Map of Guam Showing: - Marianas - Guam - Umatac - Merizo - Park - Proposed Park		
	- Alifan Limestone - Bolanos Conglomerate Member - Bonga Limestone - Faepi Basalt Member - Alluvium - Reef Facies - Beach Deposits - Agana Argillaceous Member		J	Table II-2 Historical and Archeolo- tical Sites	- Historical Site - Archeological Site  Name of 13 Sites	Location Size National Register of Historic Places	
	1		1				

Title/Date/Source	Row Labels	Column Headings	Notes
Table II-3 Classification of Other Areas into Categories: Conservation of Natural Preserves, Recreation Areas or Park Facilities	Names of 13 Sites	Location Size Category	
Table II-4 Frequency of Occurrence of Deep Water Waves	Days Per Year	Wave Height Category (Feet) - 1 - 1 thru 3 - 3 thru 5 - 5 thru 8 - 8 thru 12 - 12 thru 16 - 16 thru 24 - 24 and more	
Table II-5 Number of Typhoons Crossing or Passing Within 30 Miles of Guam Figure II-7	Month - January thru April - May thru December - Total  Map of Guam Showing Tradewind Current	Crossing Guam Passing Within 30 Miles of Guam	
Typical Tradewind Current Pattern (Values in Knots)  Table III-1  Treatment Requirements and Disposal Modes	111 / 201 100 100 100 100 100 100 100 100 100	Process Description Disposal Mode Suspended Solids Mg1/1 Biological Oxygen Deman Mg1/1 Effluent Quality - Total Coliform M PN/100 ml - Fecal Coliform No/100 ml - Toxicants - Ammonia Mg1/1 - Toxicity Concentration t.u Biostimulants - Total Nitrogen Mg1 - Total Phosphorus Mg1	-
Figure IV-1 Population Map (Area 1)	Partial Map of Guam Showing Population of Specified Areas		

Title/Date/Source	Row Labels	Column Headings	Notes
able IV-1 lost Per Linear foot for ICP Sewer Including Excavation, Backfill Sand Insion and Manholes	Size - Length in Feet	Size - Diameter in Inches	
igure IV-2 thru IV-4 re Charts Showing onstruction and Mainte- ance Costs		*	
		*	
	¥		Ž.
	••,		
	4		
THE STATE OF THE S	*	3	

					Course the	41 75 150 150 150 150 150 150 150 150 150 15	
	Area T P	re-tinal Submittal		Title/Date/Source	Row Labels	Column Headings	Notes
Title: Wastewater   Source Agency: Gillha Computerized: No General Information:	am, Koebig and Koebig, Inc	e:	l and	Table III-4 River and Wastewater Plows	River - La Sa Fua - Umatac - Geus - Inarajan - Tolaeyuus - Talofofo	Average Flow (cfs) Minimum Flow (cfs)	
	Description of Table(s)		57g		Community - 1,000 Population - 5,000 Population		d .
Title/Date/Source	Row Labels	Column Headings	Notes		- 10,000 Population - 25,000 Population	4	
Figure II-1 Area Index Map	Map of Guam Showing 5 Geographic Areas of the Wastewater Facilities Plan	¥		Table III-5 Suggested Guidelines for Salinity in Irrigation Water	Crop Responses	Total Dissolved Solids mg/l Trace Element Concentra- tion mmhos/cm	
Table III-1 Federal Secondary Treat- ment Effluent Require- ments	Parameter	Unit Value - Monthly Average - Weekly Average		Table III-6 Selected Recommended Limits for Trace Elements in Irrigation Waters	List of 18 Elements	For Waters Used Continuously on all Soil For Use up to 20 Years on Fine Textured Soils of ph6.0 to 8.5	
Figure III-1 Water Categories Map	Map Showing: - Estuaries - Marine Waters - Fresh Surface Waters - Ground Water			Table III-7		(Only) For Short-Term Use on Fine Textured Soil	
Figure III-2 Segment Classification Nap	Area Map of Guam Showing - Effluent Limitation Segment - Water Quality Segment			Treatment Requirements and Disposal Modes	Treatment Levels	Process Description Disposal Mode Suspended Solids mg/l Biological Oxygen Demand mg/l Effluent Quality - Total Coliform MPN/100	
Table III-2 Water Quality Standards and Dilutions for Ocean Disposal to Category A Waters	Parameter	Unit Receiving Water Standa Concentration in Secon dary Effluent Required Dilution	rd 6		· ·	ml - Fecal Coliform No/100 ml - Toxicants - Ammonia mg/1 - Toxicity Concentration T.U.	
Table III-3 Water Quality Standards and Dilutions for Strea Disposal to Category 2a-II Waters	Parameter	Unit Receiving Water Stands Concentration in Secondary Effluent - Required Dilution Concentration in	ard	Pigure IV-1 Dint Source Discharge Tesh Surface Water	Map of Guam Showing Places Where Pollution	- Biostimulants - Total Nitrogen mg/l - Total Phosphorus mg/	1
		Nutrient Reduced Effluent - Required Dilution		adriace Mater	is Discharged into Fresh Surface Waters	~	

		PUT	Detail 14
Title/Date/Source	Row Labels	Column Headings	Notes
Table IV-1 Point Source Discharges - Fresh Surface Waters; Area 1	Point Source Numbers	Description Source Receiving Water	
Figure IV-2 Point Source Discharges - Coastal Sea Water	Map of Guam Showing Places Where Pollution is Discharged into Coastal Sea Waters		
Table IV-2 Point Source Discharges - Coastal Sea Water Area 1	Point Source Numbers	Description Source Receiving Water	
Figure VI-1 Mean Annual Rainfall on Guam	Map of Guam Showing Distribution of the Mean Annual Rainfall on Guam		
Figure VI-2 Physiographic Divisions (Area 1)	Partial Map of Guam Showing: - Mountainous Land - Coastal Lowland and Valley Floors - Rough Summit Land - Interior Basin and Broken Land - Plateau Land - Dissected Sloping and Rolling Land		
Figure VI-3 Geology Map (Area 1)	Partial Map of Guam Showing: - Dandan Basalt Member - Maemong Limestone Member - Alifan Limestone - Bolanos Conglomerate Member - Bonya Limestone - Facpi Basalt Member - Alluvium - Reef Facies - Beach Deposits - Agana Argillaceous		
	Member		

Title/Date/Source	Row Labels	Column Headings	Notes
Figure VI-4 Soils (Area 1)	Partial Map of Guam Showing: - Agat-Asan-Atate Clay (Hilly) - Agat-Asan Clay and Rock (Steep) - Limestone Rock Land (Steep) - Pago Clay - Inarajan Clay - Yona-Chacha Clay - Atate-Agat Clay (Rolling) - Guam Clay - Shioya Soils		
Figure VI-5 Fringing Reefs of Vegetation (Area 1)	Partial Map of Guam Showing: - Mixed Forest on Volcanic Soil in Ravines and on Limestone Outcrops in Valleys - Savanna - Fringing Reefs - Mixed Forest on Limestone Plateaus and Cliffs - Predominantly Open Ground and Pasture - Coconut Plantation - Swamp Forest		
Figure VI-6 Archaeology and Historic Sites (Area 1)	Partial Map of Guam Showing: - Park - Proposed Park - Historical Site - Archaeological Site		
Table VI-2 Mistorical and Archaeo- logical Sites	Names of 13 Sites	Location Size National Register of Historic Places	
Nable VI-3 Classification of Other Areas into Categories: Conservation of Natural Preserves, Recreation Areas or Park Facilities	Names of 13 Sites	Location Size Category	

Title/Date/Source	Row Labels	Column Headings	Note
Table VI-4 Frequency of Occurrence of Deep Water Waves	Days Per Year	Wave Height Category (Feet) - 1 - 1 thru 3 - 3 thru 5	
	- <del>-</del>	- 5 thru 8 - 8 thru 12 - 12 thru 16 - 16 thru 24 - More than 24	
Table VI-5 Number of Typhoons Crossing or Passing Within 30 Miles of Guam 1950-1963	Month - January thru April - May thru December in Increments of 1 Month - Total	Crossing Guam Passing Within 30 Miles of Guam	
Figure VI-7 Typical Tradewind Current Pattern (Values in Knots)	Map of Guam Showing Trade Tradewind Current Pattern		
Table VII-1 Population Projections, Island of Guam	Method - Diminishing Birth Rate - Series B - Constant Birth Rate	Year - 1975 thru 2000 in Increments of 5 Years	1
Figure VII-l Population Map (Area l)	Partial Map of Guam Showing: - Rural Areas - Urban Areas		i.
(The Following 2 Figures have the same Row Labels)	Æ		
Analysis of Alternates Figure VIII-1 Umatac Area	Diagram Showing the Rationale Underlying the Screening Process: - First Screen - Disposal		
Figure VIII-2 Merizo Area	Modes - Second Screen - Facili- ty Siting - Third Screen - Treat- ment Processes		
Table VIII-1 Present Worth Cost Comparison of Combined and Separate Systems Values in Million Dollars	Disposal Mode - Ocean - Land	Umatac Alone Merizo Alone Present Worth in Millions - Total - Combined System	S

1			Detail 1
Title/Date/Source	Row Labels	Column Headings	Notes
pigure VIII-3 Alternate I-5A	Partial Map of Guam Showing: - Gravity Line	incut rings	Notes
Figure VIII-4 Alternate I-9A	- Force Main - Existing Main Road (Route 4)	· ·	
pigure VIII-5 Alternate I-12A	40	4	
Figure VIII-6			
(Above 4 Figures Each Have the Same Row Labels)			
Figure VIII-7 Ocean Outfall Depths Lequired to Meet Existing Water Quality Standards (Graph Showing Nutrient	Discharge Depth - Feet	Dilution Factor	
Concentration and Flow Lates)			
Table VIII-2 Projected Population 20 Year Planning Period	Village - Umatac - Merizo Total	Urban Rural Total	,°
hible VIII-3 Repulation Served Upon Completion of Construction	Village - Umatac - Merizo Total	Phase I Phase II (Above 2 Categories are each broken down into:) - Urban - Rural - Total	şî.
Table VIII-4 Cost Per Linear Foot - Gravity Sewer and Force	Depth in Feet	Size in Inches	
Mgure VIII-8 Toposed Ocean Outfall Dostruction	Plan and Elevation of Ocean Outfall Construc- tion		×

				And the Property of the Proper			
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	. Column Headings	Notes
	Thousands of Dollars	Flow (mgd)	TO ANY TO	Table IX-1 Evaluation of Alternates	Unweighted Parameters - Economic Factors Weighted Parameters - Environmental Factors - Feasibility Factors - Performance Factors	Alternates - Relative Weight	
Figure VIII-10 Aerated Lagoons - Toguan Bay Figure VIII-11 Aerated Lagoons - Geus River	Map Showing: - Location of the Aerated Lagoons Section of the Aerated Lagoon	5	Total	Table IX-2 Environmental Factors Evaluation Scale	Scale of 10 to 1	Fresh Surface and Ocean Water Quality Wildlife Ground Water Quality Air Quality Growth Inducement Recreation and Aesthetics	
(The Above 2 Figures Each Have the Same Row Labels)  Figure VIII-12 Land Disposal Construction, Operation and Maintenance Costs (Graph)	Construction Cost Operation and Mainte- nance - Annual Cost	Area in Acres	Transit Same Same Same Same Same Same Same Same	Table IX-3 Fasibility Factors Waluation Scale  Table IX-4 Parformance Factors Waluation Scale	Scale of 10 to 1 Scale of 10 to 1	Land Use Compatibility Ease of Implementation Public Acceptability  System Reliability System Flexibility Permanence	
Table VIII-5 Operation and Maintenance Costs	- Land Disposal	Cost  Value Per Square Meter	12 12	hble IX-5 lvaluation of Alternatives area 1	Unweighted Parameters - Economic Factors Weighted Parameters - Environmental Factors - Feasibility Factors	5 Alternatives No Action (Above 2 Categories are each broken down into:) - Relative Weight	
Table VIII-6 Estimated Land Costs	Category - Pumping Stations - Treatment Plant - Land Disposal - Pipeline Right of Way		6.14	Tüble IX-6 Total Weighted Ratings	- Performance Factors  Factor - Economic - Environmental - Feasibility	5 Alternates No Action	4
Table VIII-7 Capital Cost - Area 1, Values in \$1,000 Phase 1 and Phase II	List of Items	· ·	7 - 10 and 10 an	Hgure IX-1 Sheet 1	- Performance Total Partial Map of Guam		
Table VIII-8 Annual Cost - Area 1 Values in \$1,000, Phase 1 and Phase II	List of Items	6 Alternates - Power - Operation and Mainte	01/3 04/30 UT33	Selected Plan Alternate	Showing Alternate 1-5A - Gravity Line - Force Main - Existing Main Road (Route 4)		
Table VIII-9 Present Worth - Phases 1 Plus II Area 1 - Value i \$1,000	List of Items	6 Alternates			207		

Title/Date/Source	Row Labels	Column Headings	Note
Figure IX-1 Sheet 2 thru Sheet 10 Wastewater Facilities Plan Alternate 1-5A	9 Plan and Profiles Showing: - Ocean Outfall - Gravity Lines - Forced Main - Existing Main Route (Route 4) - Pump Stations		2
NOTES:			

Notes 1 thru 5 are standards notes, refer to introduction.

6 - Parameters: Fecal Coliform; Total Nitrogen; Total Phosphorus; Dissolved Oxygen; Turbidity.

tle: <u>Wastewater Fa</u>	cilities Plan - Praisminul	; wbmittal Area II	
urce Agency: Gill	ham, Koebig and Koebig, In	с.	
nputerized:No	Computer Referen	ce:	
neral Information:	PUT 11		
	Description of Table(s)	*1 8	
Title/Date/Source	Row Labels	Column Headings	Notes
able A-1 ster Quality Standards and Dilutions for Ocean disposal to Category A sters	Parameter	Unit Receiving Water Standard Concentration in Secon- dary Effluent Required Dilution	6
cean Outfall Depths Lequired to Meet Existing Later Quality Standards For Category "A" Waters Livea II	Discharge Depth-Feet - 1 thru 10 - 10 thru 100 in Incre- ments of 10 Feet	Dilution Factor - 1 thru 10 - 20 thru 100 in Increments of 10 - 100 thru 500 in Increments of 100	
).		ments of 100	
Ngure A-1 Discharge Ports	4		
Ngure A-2 Discharge Ports	ž.	,	
Graph Showing Fecal Coliform, Dissolved Oxygen; Turbidity; Total Mitrogen; Total Phospho- Tous)			
Mere are 13 pages of sam Une II A, Line A 2, Line Magoons, and annual cost	ple calculations. They sh A 5, Ocean Outfall, Raw P for power	ow Design Analysis for Mai ump Station, Effluent Pump	n Lines Statio
DTES:	4) :•		
otes 1 thru 5 are standa	rd notes, refer to introdu	ction.	
	liform; Total Nitrogen;		ed

Notes

6

Title: Wastewater Facilities Plan-Goals and Coalments Plan-Goals	
Title: Wastewater Source Agency: Gillham, Koebig and Koebig, Inc.	100
Computerized: No Computer Reference:	- 101
General Information: PUT 11	

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings N	ote
11tle/bate/source	n n		
Table III-1 Federal Secondary Treatment Effluent Requirements	Parameter	Unit Value - Monthly Average - Weekly Average	6
Figure III -1 Water Categories	Map of Guam Showing - Estuaries - Marine Waters - Fresh Surface Waters - Ground Water		
Figure III-2 Segment Classification Map	Map of Guam Showing - Effluent Limitation Segment - Water Quality Segment		A A
Tab e III-2 Water quality Standards and Pilutions for Ocean Disposal to Category A Waters	Parameter	Unit Receiving Water Standard Concentration in Secondary Effluent Required Dilution	en ,h
Table III-3 Water Quality Standards and Dilutions for St-eam Disposal to Category 2a-II Waters	Parameter	Unit Receiving Water Standard Concentration in Secondary Effluent Required Dilution Concentration in	da
	4	Nutrient Reduced Effluent Required Dilution	

Title/Date/Source	Row Labels	Column Headings	Notes
Table III-4 Ever and Wastewater Flows	River - La Sa Fua - Umatac - Geus - Inarajan - Tolaeyuus - Talofofo Community - 1,000 Population - 5,000 Population - 10,000 Population	Average Flow (etc.) Minimum Flow (etc.)	ž.
The same	- 25,000 Population		
Nable III-5 Suggested Guidelines for Salinity in Irrigation Water	Crop Responses	Total Dissolved Solids mg/l Trace Element Concen- tration mmhos/em	
631- TTT 6		£., p	- *
Market III-6 Selected Recommended Limits for Trace Elements in Irrigation Waters	List of Elements	For Waters Used Continuosly on All Soil For Use Up to 20 Years on Five Textured Soils of PH 6.0 to 8.5 (Only) for Short - Term Use on Five Textured Soil	
	* ×		
Mather III-7 Treatment Requirements and Maposal Modes	Treatment Levels	Process Description Disposal Mode Suspended Solids Biological Oxygen Demand mg/l Effluent Quality - Total Coliform MPH/100 ml - Fecal Coliform no/100 ml - Toxicants - Ammonia mg/l - Toxicity Concentration t.u Biostimulants - Total Nitrogen mg/l - Total Phosphorus mg/l	4

6 - Parameter: Biochemical Oxygen Demand (time day), Suspended Solids, Ultimate Biochemical Oxygen Demand, Ultimate Oxygen Demand, Fecal Coliform, PH, Total Nitrogen, Total Phosphorus, Dissolved Oxygen, Turbidity.

fitle: Wastewate	r Facilities Plan - Terres	trial Flora and Terrestria	1 Fauna
source Agency:	Gillham, Koebig and Koebi	g. Inc.	
Computerized: No	Computer Referen	ce:	
General Information: PUT	11		<u> </u>
	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
Figure I-1	Map of Guam Showing the 5 Geographic Areas of the Wastewater Facili- ties Plan		
Figure II-5 Pringing Reefs and Vagetation (Separate Haps for Area I, II, III, IV and V)	Partial Maps of Guam Showing:  - Mixed Forest on Volcanic Soil in Ravines and on Limestone Outcrops in Valleys  - Savanna  - Fringing Reefs  - Mixed Forest on Limestone Plateaus and Cliffs  - Predominantly Open Ground and Pasture  - Coconut Plantation  - Swamp Forest  - Secondary Thicket and Cultivated Ground  - Bare Ground and Herbaceous to Shrubby Vegetation at Military Installations  - Reed Marsh		
Table 1 Checklist of Guam Birds	None	Scientific Names Common Names	
	÷,	×	

	District - Facilities Plant	ing Study		Title/Date/Source	Row Labels	Column Headings	Notes
Source Agency: Juan C. 7	Cenorio and Associates Inc.	· · · · · · · · · · · · · · · · · · ·	-				
Computerized: <u>No</u> General Information: <u>PUT</u>	Computer Reference	:		Number 7  Sparate Systems Umatac  Herizo	Map of Umatac Sewer System Showing - Sewage Treatment Plant - Force Main and Outfull		
	Description of Table(s)			nate Number 8	*		
Title/Date/Source	Row Labels	Column Headings	Notes	bined System Umatac Herizo	Map Showing - Lift Station - Sewage Treatment Plant - Force Main and Outfull	*	
Plate Number 1 General Location Map	Map of Guam Showing - Umatac Sewer System Project Location		T tags	Tate Number 9 Sewer Allection System Master	- Gravity Line  Areal Photo Map of Umatac Showing		
Plate Number 2 Umatac Waste Water District	Map Showing - Proposed Site of Umatac Subdivision - Umatac Sewer System		- 12 mg/s		- Existing Sewer Line Under Construction - Proposed Sewer Inter- ceptor, Phase I - Proposed Sewer Col- lector, Phase I - Proposed Sewer Inter-		
Plate Number 3 Aerial Photo Umatac Waste Water District	Aerial Photo Showing - Umatac Sewer System				ceptor, Phase II - Proposed Sewer Collection, Phase III	* * *	
Plate Number 4 Slope Analysis of Waste Water District	Map Showing - 0% to 15% Slopes - 15% to 30% Slopes - More than 30% Slopes - Drainage Patterns			Market Number 10 Market Number Number 10 Market Number Nu	Map of Proposed Umatac Sewage Treatment Plant Showing - Location - Outfall		
Plate Number 5 Cadastral Map of Basic Lots, Umatac	Map Showing Land Sub- divisions in Umatac - Madog River - Laelae River - Umatac River - Umatac Village			hte Number 11 heatic-Umatac Sewage matment Plant	Diagram Showing - Raw Sewage - Grit Removal and/or Grinding - Aeration Tank - Final Clarifier - Effluent		
Plate Number 6 Existing Land Use Map Umatac Village and Vicinity	Map of Umatac Showing Zoning Commercial R-1 R-2 Rural						,

Source Agency:	Austin, Smith and Associates, Inc. Engineers Surveyors
Computerized:	0 0 0 0 0 0
General Informat	ion: PUT 16

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Table 1 Populations for Guam- Agat-Santa Rita with military and civilian contributions; U.S. Census of Population - 1960, 1970	Guam Agat Santa Rita Agat - Santa Rita	Year - 1960 - 1970 (Above 2 Categories are each broken down into:) - Total - Civilian - Military	1
Table 2 Population Projections for Territory of Guam and Agat - Santa Rita Study area military and Civilian Areas, 1960- 2020, ERC, Department of Commerce, U.S. Census of Populations-1960, 197	Year - 1960 thru 1980 - 1980 thru 2020 in increments of 10 years	Guam Total Military Total Guam Less Military Agat - Santa Rita (Civilian)	1 6
Table 3 Zoning, Public Reservation, and Densities	Zoning - R-1-Residential - R-2-Multiple Family - PUD-Planned Unit - A-Agricultural - C-Commercial - M-Industrial	Public Reservation Required % Allowable Density Persons/Acre Project Density Persons	7 /Acre
Table 4 Existing Zoning of the Agat-Santa Rita Study Area	Zoning - R-1 - R-2 - C - PUD	Density Area Population	
	- M - A Total		

Title/Date/Source	Row Labels	Column Headings	Notes
Note 5 Proposed Zoning and Development Agat — Senta Rita	Zoning - R-1 - R-2 - C - PUD - M - A	Proposed Density Total Area Net Area Population	
Mable 6	- Limited Access - Areas - Total		
igat - Santa Rita Study Projected Zoning, Pensities and Population by sub - Areas	- A thru D	Projected Zoning Area, (Acres) Public Reservation - Area, (Acres) Net Area (Acres) Maximum Density, Persons/ Per Acre Maximum Population Projected Density, Person Per Acre Projected Population	
Noble 7 Leonomic Growth Leonom	- Buildings	Thousands of Dollars - 1963 - 1973 (Above 2 categories are each broken down into:) - Guam - Agat	5
while 8  April Treatment Plant  Assign and Operating  Ata	Type of Operations	Design Present	
while 9  At Treatment Plant  Merating Characteris-  Mics Jan. 1, 1974 thru  Mine 30, 1974	Parameter	No. of Tests Influent Effluent (Above 2 categories are each broken down into:) - High - Low - Average	

Row Labels	Column Headings	Notes	Title/Date/Source	Row Labola		1
	oo tumii nead mys	notes	110100000000000000000000000000000000000	NOW Labels	Column Headings	Notes
Wetwell Elev 4.5 thru 8.0 in incre- ments of .5	Flow GPM Lead Pump Follow Pump (Above 2 Categories are each broken down into:) - Rising Sewage - Falling Sewage	nte for	table 17		Location Fecal Coliform/100 ml.	
Agat-As Designed Ten States Standards Agat-As Constructed  Design Data	Retention Lbs. BOD Day Lbs. BOD 1,000 CF MLSS/Lbs. BOD  Phase I Phase II	2 - 3 m s	Maximum Design Flow rejections for the Agat Naval Station Treatmat Plants. (All Flows in MGD)	- At 100 GPCD	Agat - ADF - Peak Military ADF - Civilian Naval Station - Total - Military Peak - Civilian - Total	8 1
BOD SS Dissolved Oxygen Hydrogen Sulfide Nitrogen (Nitrates) Phospherous Chlorides Temperature PH	Measurements		tible 18 hture Peak Flows for the twal Station Treatment	20 Years Maximum Design at 100 GPCD (Navy and Civilian) Maximum Design at 100 GPCD (Navy) and 120 GPCD (Civilian) Summary of Peak Flows	Measurement of Peak Flows in MGD	
Month - December thru May Average	Flow MG Average Daily Flow MGD Per Capita GPD	i di	ble 19 commended Sewerage provements by Sub-Area	Sub-Area-A,B,C,D - Gravity Sewers - Force Mains - Pump Station - Sewage Treatment Plant Agat, Naval Station	Measurement of Flows	
Naval Station - Resident Population - Apra Heights - Shift Workers, Visitors, etc Masdeleo Labor Camp - Seabee Camp - Polaris Point Area - Nav-Mag-Area Total Domestic Sewage Flow Total Industrial	Peak Flow Calculations Future Design	) 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	ble 20	Item - Alternate 1 - Alternate 2 (Above 2 Categories are each broken down into:) - Gravity Sewers-8", 12", 21" - Manholes - Pump Station	Quantity Unit Unit Pr. Item Cost Total	1
	Wetwell Elev 4.5 thru 8.0 in increments of .5  Agat-As Designed Ten States Standards Agat-As Constructed  BOD SS Dissolved Oxygen Hydrogen Sulfide Nitrogen (Nitrates) Phospherous Chlorides Temperature PH  Month - December thru May Average  Naval Station - Resident Population - Apra Heights - Shift Workers, Visitors, etc Masdeleo Labor Camp - Seabee Camp - Polaris Point Area - Nav-Mag-Area Total Domestic Sewage Flow	Wetwell Elev 4.5 thru 8.0 in increments of .5  Agat-As Designed Ten States Standards Agat-As Constructed  Design Data  BOD SS Dissolved Oxygen Hydrogen Sulfide Nitrogen (Nitrates) Phospherous Chlorides Temperature PH  Month - December thru May Average  Naval Station - Resident Population - Apra Heights - Shift Workers, Visitors, etc Masdeleo Labor Camp - Seabee Camp - Polaris Point Area - Nav-Mag-Area Total Domestic Sewage  Flow  Flow GPM Lead Pump Follow Pump (Above 2 Categories are each broken down into:) - Rising Sewage - Falling Sewag	Wetwell Elev 4.5 thru 8.0 in increments of .5  Agat—As Designed Ten States Standards Agat—As Constructed  Design Data  BOD SS Dissolved Oxygen Hydrogen Sulfide Nitrogen (Nitrates) Phospherous Chlorides Temperature PH  Month - December thru May Average  New MG Average  Measurements  Flow GPM Lead Pump Follow Pump (Above 2 Categories are each broken down into:) - Rising Sewage - Falling Sewage  Retention Lbs. BOD Day Lbs. BOD Day Lbs. BOD 1,000 CF MLSS/Lbs. BOD  Measurements  Measurements  Measurements  Flow MG Average Daily Flow MGD Per Capita GPD  Domestic Sewage - Persons - Contribution - Sewage Flow Industrial Sewage (NAVSTA) Peak Flow Calculations Future Design For Future Expansion Use	Wetwell Elev.  - 4.5 thru 8.0 in increments of .5  Flow GPM Lead Pump Follow Pump (Above 2 Categories are each broken down into:)  - Rising Sewage - Falling Sewage - Falling Sewage  - Falling Sewage  - Falling Sewage  - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - Falling Sewage - F	Wetwell Elev.  - 4.5 thru 8.0 in increments of .5  Retention (Above 2 Categories are each broken down into:)  - Haing Sewage  - Falling Sewage  - Falling Sewage  - Falling Sewage  Retention (Bs. RDD Day Lbs. RDD D	Wetwell Elev.  - 4.5 thru 8.0 in increments of .5  Retail Categories are each broken down into:)  - Haling Sewage  Agat-As Designed Ten States Standards Bagat-As Constructed  Agat-As Constructed  BOD SS  Besign Data  Bod Flow Bod Flow CFM  Measurements  Bod Flow CFM  Retaction This. 800 Day  Besign Data  Bod Flow CFM  Measurements  Bod Flow CFM  Average Daily Maximum Design at 100  GCD (Wavy) and 120  GCD (Categories are each broken down into:)  Maximum Design at 100  GCD (Wavy) and 120  GCD (Wavy) and 120  GCD (Wavy) and 120  GCD (Wavy) and 120  GCD (Categories are each broken down into:)  Flow Mo  Average Daily Flow MCD  Per Capita GCD  Maximum Design at 100  GCD (Wavy) and 120  GCD (Wavy) and 120  GCD (Categories are each broken down into:)  Flow Mo  Average Daily Flow MCD  Per Capita GCD  Apas Heights  - At 120 GCD  Hilitary  - At 120 GCD  - At 120 GCD  Hilitary  - Civilian  Naval Station  Flows in MCD  GCD (Wavy) and 120  GCD (Categories are  - All maximum Design at 100  GCD (Wavy) and 120  GCD (Categories are  - All maximum Design at 100  GCD (Wavy) and 120  GCD (Categories are  - All maximum Design at 100  GCD (Wavy) and 120  GCD

72.13 . 10		I			,	FOI	Detail
Title/Date/Source	Row Labels	JAN Headings	Notes	Title/Date/Source	Row Labels %	Colomn Headings	Note
Table 21	- Force Main-16", 12" - Miscellaneous - Contingency-10% - Admm. and Engr15%	·		mibit 4 deting Sewerage System	ms Map Showing - Treatment Plan - Sewerline - Project Limit - Force Main		
Agat Sewage Treatment	Average Daily Flow	20-Year at 100 GPCD		62			1
Plant Flow Summary  Table 22 Cost Summary by Sub-Area	Peak Sub Area A thru D	Maximum Design - At 100 GPCD - At 120 CPCD  Collection Treatment		hibit 5 ture Sewerage Needs	Map Showing - Treatment Plant - Pump Station - Force Main - Sewer Line - Project Limit	****	
Exhibit 1 Study Area	Total  Map Showing Project Limi	Total t		dating and Proposed Gerage Facilities	8 Segment Maps Showing - Existing Sewerline and Manhole - Existing Force Main - Sub-Area Boundaries		
Exhibit 2 Sub Areas with Proposed Zoning	Map Showing - Limited Access Areas - Military Areas - Sub-Area Boundary	i i	1		- Project Limit - Proposed Sewerline - Proposed Force Main - Limited Access Areas		
	- Project Limit - Agricultural Zone - Commercial Zone - Industrial Zone - Planned Unit Developme - Residential Zone Singl Family and Multiple Family		0 <u>1</u>	mpre 1 mulation Projections; mph Showing Guam Less litary, Guam Military, m Total, Agat-Santa la Civilian	Population in Thousands - 0 thru 50 in increments of 10 - 100 thru 300 in in- crements of 50	Year - 1960 thru 2020 in increments of 10 Year	5
Exhibit 3 Existing Zoning	Map Showing - Cross Slopes 30% or			tre 2 Lite Water Flow Pro- Lition Graph Showing Linge Daily Flow Livilian) For Study Area	Projected Sewage Flow- M.G.D. - 0 thru 7	Year - 1970 thru 2020 in increments of 10 Years	3
	Greater - Project Limit - Agricultural Zone - Commercial Zone - Industrial Zone - Planned Unit Developme - Residential Zone Single Family and Multiple Family	nt.	78 3 3 mil	mal Precipitation and Perature; Graph Show- Annual Average	Temperature -°F - 78 thru 81 Precipation - INS - 0 thru 15	Month - Jan. thru Dec.	
	- Drainage Basin Boundary - Sub Area Boundary			ter Flore	Daily Rainfall-INS Q-M.G.D. - 0 thru 20 in in- crements of 5	January, 1974 - 1 thru 31st February, 1974	
	220			I or	221	- 1 thru 28 March, 1974 - 1 thru 31st	

Title/Date/Source	Row Labels	Column Headings	Notes
Figure 5 Agat Plant Site	Property Map Showing Lot Reserved - For Parking - Police and Fire Station - 443 Part 1-2, 1-3 Area	s	
Figure 6 Agat Sewage Treatment Plant Subsurface Soil Conditions	Figure Showing - Boring No-AG-1 thru AG-4 - Sludge Drying Beds - Treatment Tank - Future Tank - Pumping Station		
Figure 7 Agat Sewage Treatment Plant Hydraulic Profile and Flow Diagram	Elevation 10.00 thru 20.00 in increments of 5.00	Design Informations	
Figure 8 Naval Station Sewage Treatment Plan Hydraulic Profile; Figure Showing 2 Phases	Water Surface Elevations 22 thru 15.00 in Decre- ments of 5	Design Flows	2
Figure 9 Naval Station - Diurnal Flow (Graph Showing Apra Harbor Flows)	Flow Ratio	Time, Hours	43
Figure 10 D,-Initial Dilution Factor. Figure Showing Curves of So <sub>2</sub> Solution	Dilution Factor	Depth above Outlet Diam. of Jet Outlet	
Figure 11 D2 - Transport Dilution Factor	Distance From Diffuser, X, Feet Velocity, VX, F p.m.	Dilution Factor, D <sub>2</sub> Diffuser Length	7,5 UG 800
			40.5 14.1

Title/Date/Source	Row Labels	Column Headings	Notes
figure 12 j-Die-off Dilution fictor	Distance From Diffuser, X, Feet Velocity, VX, F p.m.	Dilution Factor, D Tgo-Time, Hrs. 3	
Ngure 13 b-Area Population mjections, Figure wing the Population f Each Sub-Areas	Population X1Q <sup>3</sup>	Year - 1970 thru 2020 in increments of 10 Years	

- 6 Populations for 1980 were obtained as follows: Civilian Populations projected at the rate of 4.41 percent per year. Military populations projected at the rate of 500 persons per year.
- 7 Planned Unit developments have no set densities.
- 8 ADF = Average Daily Flow.

Title: Improvements to the	he Asan-Piti Sewerage Systo	em Pre-Design Study - 1973			1	St. Office.	Detail
ricie.	and Eddy, Inc.			Title/Date/Source	Row Labels	Column Headings	Notes
Computerized: No	Computer Referen			Piti Sewage Design  Nova Based on:  ble 9 - 80 Gallons per  pita per Day (GCD)  ble 10 - 100 Gallons  Capita per Day (GCD)	Location of Sewer - Village - Piti - Asan - Station or Limits - from	Population Area (Acres) Average Domestic Flow, Gallons per Day (GPD) Average Commercial or Industrial Flow, GPD	
	Description of Table(s)		22.50	hove 2 tables have	- to	(Above 4 categories are each broken down	
Title/Date/Source  Population Totals Table 1 - Piti	Row Labels Source of Information	Column Headings  Actual Count Estimated	Notes 6	row labels and loan headings)	*	into:) - Change - Total Peak Factor	
Table 2 - Asan (Above 2 tables have the same row labels and column headings)		Projected (Above 3 categories are each broken down into:) - Population - Year	25 Tot			Peak Dry Weather Flow, GPD Infiltration GPD Design Flow - Million Gallons per Day (MGD) - Cubic Feet per Second (CFS)	
Population Densities Table 3 - Piti Table 4 - Asan (Above 2 tables have the same row labels and column headings)	Source of Information	Actual Count Estimated Projected (Above 3 categories are each broken down into:) - Density - Year	6	le 11 -Piti Design Flows 1980; Based on Mande - Jutations, Nov. 1966	Location of Sewer - Street - Station or Limits - from	Sewer Size in Inches Slope, Minimum Capacity (CFS) Velocity Full, Feet per Second  Dwelling Number Population Area (Acres)	
Estimated Ultimate Population of: Table 5 - Piti Drainage Area Table 6 - Asan Drainage Ar (Above 2 tables have the same row labels and column headings)	Parcel Number	Present Zoning Area in Acres Population Density (estimated) Estimated Total Populati	ion		- to	Average Domestic Flow, GPD Average Commercial or Industrial Flow, GPD (Above 4 categories are each broken down into:) - Change - Total Peak Factor Peak Dry Weather Flow	
Estimated Population by Year 1975: Table 7 - Piti Drainage Area Table 8 - Asan Drainage Area (Above 2 tables have the same row labels and column headings)	Parcel Number	Present Zoning Area in Acres Population Density (estimated) Estimated Total Populati	lon			Infiltration Peak GPD Design Flow - GPD - CFS Sewer Size Inches Slope, Minimum Capacity, CFS Velocity Full Feet per Second	
	i é				*		

Title/Date/Source	Row Labels	Column Headings	Note
Table 12 Estimated 1975 Design Flows Asan-Piti Inter- ceptor Sewer	Location of Sewer - Village - Station or Limits - from - to	Population Area (Acres) Average Flow (GPD) (Above 3 categories are each broken down into:) - Change	
		- Total Peak Factor Peak Dry Weather Flow, GPD Infiltration Peak GPD Metcalf and Eddy Design Flow - 1975 - 1980 (Above 2 categories are each broken down into:) - MGD - CFS	
Table 20 Asan-Piti Population Projection	Area (Square Feet)	Public Reservation Area (Square Feet) Area (Square Feet) Acres Persons per Acre Population	7
Figure 1 Sewerage Districts	Map of Guam Showing - Project Study Area	·	
Figures 2, 3, 4 and 5 Plan of Proposed Asan- Piti Sewer Interceptor System	4 Maps of the Asan-Piti Sewer Showing - Existing Sewer - Existing Force Main - Proposed Sewer - Proposed Force Main		
Figure 6 Zoning Map of Asan-Piti Project Study Area Showing Acreages; Population; Population Densities	Map of Asan-Piti Project Study Area Showing - Zones - Agricultural Zone - One Family Dwelling Zone - Multi Family Dwelling		
	Zone - Commercial Zone - Heavy Industrial Zone - Number of Acres - Capita Per Acre		

			Detail 2
Title/Date/Source	Row Labels	Column Headings	Notes
gure 7 mposed Rezoning Map Asan-Piti Area	Rezoning Map of Asan- Piti Area Showing: - Civilian Area - Naval Reservation - Proposed National Park - Major Road - River		Notes
TES:			ř.
tes 1 thru 5 are standa	ard notes, refer to Introduc	t-lan	
Source of Information	<u> </u>		
Health Integrated Wa	u.S. Census; Metcalf and stewater System; Metcalf and	Eddy Report; Dept. of P	ublic
	1	Jire besign Study	Agana
vivilian land service	able by the proposed sewer	link.	!
			1
	:		4.
	•	Y*	
		•	
	i.	•	,
			,
		•	,
		•	•
			•
			*
			*

Title: Sewerage Study for	r the Tumon-Tamuning Areas	Guam, M.I.			1		
	oith & Associates, Inc.			Title/Date/Source	Row Labels \$	Column Headings	Notes
Computerized: No			50% 50%		Discharge in feet per second		
General Information: <u>PUT</u>	. 17			mit 1A	Map Showing the hotels		
	Description of Table(s)			Location	and apartments in Tumon area		
Title/Date/Source	Row Labels	Column Headings	Notes	mbit 1B perim Development	Tumon West Tumon North	Status	
4.1.3. Ultimate Development Forecast	Development - Hotels - Apartments - Restaurants - Shops - Beach	Number of Units Persons/Unit or Other Units Population Total Average Flow MGD	L ear	cast	Tumon East (above 3 categories are each broken down into:) - Names of Hotels - Totals Grant Totals	Number of Units Population Approximate Area Units/Acre Pop./Acre Peak Flow Rate	
5. Construction Cost Estimate 5.1 Tumon (Interim) 5.2 Tamuning 5.3 Harmon Field-Socio 5.4 Dededo-Agana Trunk	Description - Total Construction Cost Estimate - Eng., Admin., Contingency (30%) - Total Budget Cost	Unit Price Estimated Cost	ira ira	mbit 1C provement Plan	Map Showing - Extension of Tumon Pumping Station - New 10" F.M New 15" ACP - New 18" ACP		
Sewer (Above 4 tables have the row labels and column head Exhibit A General Project	lings)  Map of Guam Showing  - U.S. Air Force Property  - U.S. Navy Property	· ·		mbit 1D ntor Information Graphs	Graph Showing - Visitor Arrivals - 200,000 thru 1,000,000 in increments of	Actual Projected G.V.B. Projected at Highest Rate	
Exhibit B	- FAA Property - Gov't. of Guam  Map Showing	•		whit 1E	- Continental & Dai-Ichi	No. of Rms/Units Peak Discharge GPM	
Project Areas	- Tumon Area - Tamuning Area - Dededo-Agana Trunk Sewer - Dededo - Harmon Field-Socio Area				- Fujita Tumon Beach (flow measurement) - Estimated Flow (Hotel) - Estimated Flow (Apts) WPCF Manual No. 9 - Houston/Texas - Grand Rapids/Mich.	Ratio GPM/RM or Unit	
Exhibit C There is a list of Design Criteria.	i.				- Hagerstown/Md Las Vegas/Nev Santa Monica/Calif Fixture Unit Method		
Exhibit D Diagram for Solution of Kutter's Formula for Vitrified Clay Pipe Flowin	Discharge in million gallons per day Discharge in cu. ft. g per second	Fall in Feet per Foot of Trench		mit 2A	Detail Map Showing Tamuning and Tumon Areas		
	200	,				1	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Exhibit 2B Tamuning Ultimate Development Forecast	Areas Totals	Acres Percent Tot. Area Zoning Population Sewage Contribution MGD (Average)	rice Street	ibit 3D  er Design Information ntimate) Line: Harmon ld-Socio Sewer (Ultimate above 2 tables have same row labels and numn headings)	e)		
Exhibit 2C Sewer Line Design Information (1975). Line: Ypao-Fahrenholt-Camp Watkins Road (Ultimate)	From - Ypao - Fahrenholt Ave Fa./C.W. Rd. Inters Ypao Hosp. Rd. Sewer To - Fahrenholt Ave Camp Watkins Rd Ypao Hosp. Rd. Sewer - Marine Drive  Map Showing the Sewerage	Contr. Area Population Ave. Flow MGD Cumul. Ave. MGD Peak Flow MGD Exist. Capacity Approx. Slope Minimum Line Size Velocity Ave. Remarks	114 014	mon-Socio Sewer minate Improvements  Mhit 4A Mido-Agana Trunk Sewer Areas	Map Showing - New Harmon Field-Socio Relief Sewer - Existing Dededo-Agana Trunk Sewer  Map Showing - Existing Dededo-Agana Trunk Sewer - Mamajano Pumping Statio - Existing Force Main	n.	
Exhibit 2D Tamuning Sewerage Improvements Plan					- Tumon Pumping Station - Agana Main Pumping Stat	Lon	
Exhibit 3A Harmon-Socio Location  Exhibit 3B Harmon Field-Socio,	Map Showing the proposed Harmon Field-Socio Relief Sewer  Areas Totals	Acres Percent Tot. Area		Mbit 4B Mdo-Agana Trunk Sewer Mmate Development Mcast	Areas Totals	Acres Percent Tot. Area Zoning Population Sewage Contribution MGD (Average) Remarks	
Ultimate Development Forecast		Zoning Population Sewage Contribution MGD (Average) Remarks	1.6	Trunk Sewer (Ultimate	1	Contr. Area Population Ave. Flow MGD Cumul. Ave. MGD Peak Flow MGD	
Exhibit 3C Sewer Line Design Information. Line: Harmon Field-Socio Sewer (1975)	From - A thru F To - B thru G	Contr. Area Population Ave. Flow MGD Cumul. Ave. MGD Peak Flow MGD Exist. Capacity Approx. Slope Minimum Line Size		above 2 tabels have column headings	Peak Flow MGD	Exist Capacity Approximate Slope Minimum Line Size Velocity Ave. Remarks	
		Velocity Ave. Remarks	2	bit 4E ical Analysis	List of Chemicals	1. 2nd Manual Camp Watkins 2. 90 feet from Bayshore Marine Drive	1
	230				231	3. Intersection at Rt. 8 4. Between Rt. 4 and Pumping Station Marin Drive	

Title: Sewage Flow Analysis of the Southern Interceptor 22.	
Title August, 1972	- 61
Source Agency: Arizala Costiniano Torress - August, 1972	
Computerized: No Computer Reference:	
General Information: PUT 17	14

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Exhibits D, E, F Population Estimates	Area - A - B - East - West - C thru F  Total Estimated Population	Zoning Acreage Population Per Acre Population	
Exhibits D, E, F Sewage Flow Estimates	Average Sewage Flow Peak Flow Peak Flow at Marbo Base Command Peak Flow at Point of Connection at Dededo (excluding, infiltratio	Million Gallons Per Day	
at the state of th	232		*

fitle: A Plan for an Integrate	ed Wastewater Specific Property
Source Agency: Department of	Public Health and Social Services
Computerized: No	Computer Reference:
General Information: PUT 17	
	crintion of Table(s)

	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
Table 4 Northern District Sewage Flows	Government of Guam Navy Federal Aviation Administration Air Force (Andersen Air Force Base, Marbo) Northwest Field	Measurement of Sewage Flows in MGD	
Appendix D Sawage Treatment Works Construction per Capita Cost (Total Plant, Interceptors and Outfalls) (1968 Dollars); Based Upon the Design and Actual Cost Information of Sewage Treatment Projects Constructed Under Public Law 84-660	Design Population - 1 thru 999 - 1,000 thru 9,999 in increments of 4,999 - 10,000 thru 24,999 - 25,000 thru 49,999 - 50,000 thru 99,999 - 100,000 and up	Size of Plant MGD Primary Types of Treat- ment	6
Appendix F Low and Capacities of Various Points in the Central System on June 10, 1969	Location - Outfall in Agana - Marine Drive Trunk in front of Town House - Tamuning Trunk - Dededo Trunk - Sinajana Trunk - NAS Line	Capacity MGD Present Flow MGD	5
pendix G wage Flows from the wal Facilities Flow in (Average)	Naval Station Naval Magazine Nimitz Hill Naval Hospital (Adelup) Naval Hospital (Asan Annex) Naval Hospital (Agana) Naval Station Agana Naval Communications		
	Stations Finegayan Naval Communications Station Barrigada Polaris Point 233	•	1

Title/Date/Source	Row Labels	Column Headings	Notes
Appendix H Estimated Capacity of Contribution to, and Cost of Integrated System in Northern District	Item - Phase I - Outfall - Treatment Plant - Force Main - Pumping - Interceptors	Contribution (MGD) - From - Government of Guam - Navy - FAA - Air Force - N.W. Field	1
	- Phase II - Treatment Plant - Pumping - Interceptors - Phase III - Interceptors - Phase IV - Treatment Plant - Pumping - Interceptors Total Phases	Total Capacity (MGD) Total Cost (Million \$)	The second secon

Notes 1 thru 5 are standard notes, refer to Introduction.

6 - Construction per capita cost does not include land costs.

tle: Guam Master Plan	Study: Infrastructure - S	ewer	
ource Agency: Greenleaf	/Telesca - Ahn		
omputerized: No	Computer Referen	ce:	
eneral Information: PUT	17		
	Description of Table(s)	- 9 23.400 320	2)
Title/Date/Source	Row Labels	Column Headings	Notes
Civilian Population Projection 1970-1990	Municipalities - 19 Municipalities Total	Years - 1970 thru 1990 in increments of 5 Years	
Central Waste Water System Stage I - Construction Cost Estimate  Central Waste Water System Stage II - Construction Cost Estimate	List of Items Total	Construction Cost Contingencies and Admin. 17% Budget Cost	54
Central Waste Water System Stage III - Construction Cost Estimate	,		li- ,i
Outlying Districts Waste Water Systems Stage III - Constructio Cost Estimate	n.		
(Above 4 tables have the same row labels and column headings)	<b>e</b>		
Central Waste Water System Annual Operating and Maintenance Costs	List of Items Total	Labor Power Maintenance and Supplies Chlorine Total	
The second second		)	

	Row Labels	Column Headings	Notes
Outlying Districts Annual Operating and Maintenance Costs	District - Agat-Santa Rita - Inarajan - Mangilao - Merizo - Talofofo - Umatac - Yigo	Labor Power Maintenance and Supplie Chlorine Administration Sewers Total	ø
	- Yona Total		
*			
		· · · · · · · · · · · · · · · · · · ·	
2.			
	_		
			(d)
			- 1
	, 4 *		
			2

rce Agency: Metcalf an	d Eddy for Bureau of Yards	and Docks, U.S. Navy - Vo	lumes I &
puterized: No	Computer Referen	ce:	
	2 17		
101	1		
	D	a d a d anno suda e estre la	<del></del>
	Description of Table(s)	To the	
Title/Date/Source	Row Labels	Column Headings	Notes
lume I			
ble 1 infall and Tide Data ring Sewage Flow Tests	Date - Aug. 12 '64 thru Aug. 21 '64	Inches of Rainfall Tide (MLLW Datum) - Time/height (ft.) of high tide - Time/height (ft.) of low tide	1 0
ble 2 pulation Projections	Election District - 19 Election Districts	1965 Population 1980 Population	5
Election District 55 and 1980	Totals	Population Rank	1
ble 3 mputed Population msities in Proposed wered Areas	Area - Central District - Agana - Agana Heights - Asan - Barrigada - Chalan Pago/Ordot - Mongmong/Toto - Piti - Sinajana - Tamuning Outside Areas - Agat - Inarajan - Mangilao - Merizo - Santa Rita - Talofofo - Umatac	Present Variation Density - Persons per Ac - Predicted Average 1965 - Predicted Average 1980	re
ble 4	- Yona - Yigo	Water Consumption	1
erage Residential ter Consumption	Civilian Areas  - Agana  - Agana Heights  - Agat-Piti-Santa Rita  237	Gallons per Capita Per Day	•

Title/Date/Source	Row Labels	Column Headings	Notes
	- Asan-Maina - Barrigada - Dededo - Maite-Mongmong - Sinajana - Talofofo-Yona - Tamuning Military Areas	•	urgh is
	- Apra Heights - Tipalao - Capehart		-1111
Table 5 Unit Rates of Average Domestic Sewage Flow	Location - All Military Areas - All Civilian Communit	Gallons per Capita per Day ies	1 11 56
Table 6 Unit Rates of Average Sewage Flow from Commercial and Light Industrial Areas	Source - Commercial Areas - Light Industrial Areas	Gallons per Acre per Day	halm
Table 7 Minimum Sewer Invert Slopes	Pipe Diameter (inches) - 6 thru 12 in incremen of 2 inches - 15 thru 24 in increme of 3 inches - 24 and over		
Table 8 Normal Efficiency of Sewage Treatment Processes and Dilution Requirements (Coliform Bacteria)	List of Treatment and Removal	Coliform - No./ml - No. of disinfection - Chlorine disinfecti Required Dilution for Outfall to provide 10 Col/Ml No. Cl <sub>2</sub> - Cl <sub>2</sub>	
Table 9 Sewage Characteristics	Item - Temperature - pH - Total Suspended Solid - Volatile Suspended     Solids - Fixed Suspended Solid - Settleable Solids		1 2
	- 5-day 20°C BOD - Chlorides - Grease	### ### ### ### ### #### #############	.ano

Title/Date/Source	Row Labels	Column Headings	Notes
ble 10 ceiving Water Quality	Location - List of Areas tested by Government of Guar - List of Areas tested by Metcalf and Eddy tests	Total Number of Test Samples - Total indicating pollution - Total with MPN in excess of 1000/100 m1	
timated Annual prating and Maintenance sts-Recommended Plan	List of Items	Type Labor Power Maintenance and Supplies Chlorine Total	
the 12 st Summary of Agana p Station No. 2 lternates	Plan - Report plan (includes Adelup Station flows, Asan and Piti) - Agana and Adelup station flows only (assumes separate treatment for Asan- Piti) - Agana area only	Estimated Capital Cost - Modify existing system - Replace with Gravity Interceptors	
ble 13 atral District Outfall lution Factors	Distance from shore (ft 2,400 - 2,500 - 2,700 - 3,000 - 3,100 - 3,200	) Total dilution factor	
parative Cost with clous Degrees of eatment	Degree of Treatment - Secondary Treatment - Primary Treatment - Comminution or Coarse Screens	Add. Increment of Treatment Cost (2) Add. Increment of Outfal Cost (3) (2)+(3) converted to Annual Cost (4) Estimated Annual Chlorin Cost (5) Comparative Annual Costs (4)+(5)	<b>e</b>
le 15 Parison of Asan-Piti Tem Alternates	Plan - Proposed Connection to Central District - Separate Treatment Plant near Asan Point	Pump Stations Capital Costs - Treatment works and outfall - Interceptor and Force Main	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
	- Joint Treatment Plant with Nav. Hosp. and ComMar at Adelup	Total	Ti alla		- Military - Naval Hospital - Naval Hospital	0.	
	Point				Housing - Naval Air Station - ComMar	¥.	l
Table 16 Joint Use of Sewerage	Item - Stage 1	Cost with Joint Use Gov't. of Guam Cost with Separate Facilities	8		Total		
Facilities in Agana Area Cost Comparison	- Total - Stage 2 - Total Combined Total Stage 1 and 2	Navy cost with equal separate Facilities	11 11- +3 mls nl is- 32-em	mitial Turbulent Jet Miffusion	Graph Showing - Y/D	1 thru 100	
Table 17	Items	Est. Const. Costs Contr. and Admin. 17%	9	Hgure 1 Mfinition Sketch - Lean Outfall	Profile Diagram showing ocean outfall		
Summary of Cost Estimates and Order of Construction Central Sewage District Stage 1	with the second	Est. Budget Costs Cumulative Budget Costs	21 210	ble Bl bults of Oceanographic avey for Agana Outfall	Distance from Center Line Marine Drive, ft Time Duration of Observation,	Along line of existing Apana Outfall, October 3, 1964 Along line of proposed	
Table 18 Summary of Cost Estimates and Order of Construction Central Sewerage District Stage II	1	, * *			Minutes Drift, ft./min. Temperature-OF Bottom	Outfall off Marine Drive at 5th Street, October 4, 1964 Alcag line of existing Outfall at Adelup Point, October 10, 1964	
Table 19 Summary of Cost Estimates and Order of Construction Central Sewerage District Stage III	ւլ				· —	Above 3 are each broken down into - Depth ft 50 thru 200 in increments of 50 ft.	
(The above 3 tables have the same row labels and column headings)			22 mi	posed Construction, use I and Stage II	Map Showing - Stage 1 Construction - Stage 2 Construction - Military Areas tributary to Gov't.		1
Table 19A Estimated Population Served by Stage I and	Election District - Civilian - Agana - Agana Heights	Present (1965) Populat Served - Stage I - Stage II	ion	ture 2	of Guam System	*	
Stage II Construction	- Asan - Barrigada - Dededo - Mongmong - Piti - Sinajana	Total	22.0	Central and North	- Reef Line - Normal Direction of Surface Current - Gov't. of Guam Lands - Other Military Areas - Numbered Highway Routes - Other Roads or Streets	a	1
	- Tamuning - Tumon - Yona		214		- Other Roads or Streets - Natural Channels - Election District Boundary - Gravity Sewer		

			Detail 25
Title/Date/Source	Row Labels	Column Headings	Notes
	- Force Main - Existing Gravity Sewer to be Utilized - Limits of 1980 Sewer Service Area - Military Areas Tributary to Central Sewage System		*
Figure 3 Plan, Southern Areas (The above 2 tables have the same row labels)			
Figure 4 Areas of High Water Table and Limestone Formation	Map of Guam Showing  - Areas of Groundwater Infiltration and Water Handling During Construction  - Areas where rock (limestone) lies just below ground surface		
Figure 5 Sewage Flow Measurement; Agana Pump Station No. 1 (Graph showing Aug. 12, 1964 (Wed.); Aug. 19-20, 1964 (WedThurs.), Aug. 20-21, 1964 (ThursFri.)	Rate of Flow in MGD - 0 thru 1:1	Hours of the Day - 17 thru 24 - 1 thru 9	10
Figure 6 Sewage Flow Measurement; Agana Pump Station No. 2 (Graph showing Aug. 13-14, 1964 (ThursFri.)	Rate of Flow in MGD - 0.0 thru 0.2	Hours of the Day - 8 thru 24	10
Figure 7 Sewage Flow Measurement; Agat Pump Station (Graph showing Sept. 22, 1964 (Tues.) and Sept. 23, 1964 (Wed.)	Rate of Flow in MGD - 0.0 thru 0.3	Hours of the Day - 12 thru 22	
Figure 8	Population in Thousands	Year	
Guam Population (Graph showing U.S. Census - includes Military and Dependents; Population	- 0 thru 100 in incremen of 20	ts - 1900 thru 2000 in increments of 20 years	
	242		

Title/Date/Source	Row Labels	Column Headings	Notes
recast Predicted by t. of Land Management rch 27, 1962; Municipal missioners Census of tive Population, April 44 and Estimated Total tive Population, cluding Miliatary and pendents.			
pure 9 mage Flow Factor, minum and Minimum Flows Residential Areas	Ratio - Min. or Max. to Average Daily Sewage Flow	Population in Thousands	10
dicted 1980 Population utribution Connected to stral Sewage Treatment int	Figure Showing Population Percent in Different Districts - Agana 5.9% - Asan 4.7% - Piti 3.9% - Military - NAS 7.3% - ComMar 3.2% - Navy Hosp. 2.9% - Navy Hosp. Housing     0.6% - Toto 2% - Mongmong 5.7% - Barrigada 9.9% - Agana Hts. 8.0% - Sinajana 11.2% - Tamuning 22.1% - Tumon 1.6% - Dededo 11.0%		1
pre 11 mk Sewer Profiles Plan	Map Showing - Marine Drive Trunk - Tamuning Trunk - Tumon-Dededo Extension - NAS-Barrigada Trunk - Route 4 Trunk - Circuit Trunk - Yona Trunk	±4.	
ure 12 and for Drawings	Figure Showing Plans and Profiles		
re 13 Agana-Barrigada	Map Showing the Different Districts and Sewerage Systems		

Title/Date/Source	Pour Labala	C-1		6		PUT	Detail 25
ricie/bate/source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Figure 14 Plan, Tamuning-Tumon- Dededo		#9	27,	ngure 24 wage Treatment Plant yout - Flow Diagram	Chart Showing - Treatment Plant Layou - Flow Diagram		Hotes
Figure 15 Plan, Piti-Asan		*	,01 mg	dium Pumping Station	Section		
Figure 16 Plan, Yona	`				Plot Plan		
(The above 4 tables have the same row labels)	¥.	*		gure 26 tfall Sewer Details	Diffuser Section Typical Trench Section Section A-A	e E	
Figure 17 Trunk Sewer Profile, Marine Drive - Piti to Tumon Loop Road	Elevation in Feet Above MLLW - 10 thru 80 in incre- ments of 10	Stations	D1 10 10 10 10 10 10 10 10 10 10 10 10 10	ure 27 ma Outfall Profile raph Showing Outfall	Elevation in ft.	Distance in ft.	
Figure 18 Frunk Sewer Profile, Route 4		A A		gure 28 wer Details - 1	Diagrams Showing - Sectional Plan A-A - Typical Manhole Construction		
Figure 19 Trunk Sewer Profile, Agana Heights-Sinajana	is and		-0		- Typical Drop Inlet - Shallow Drop Inlet - Precast Concrete Manhole		
Figure 20 Trunk Sewer Profile, Barrigada-NAS		•		25	- Concrete Masonry Manhole - Shallow Manhole - Sewer Chimney		A.
Figure 21 Trunk Sewer Profile, Tamuning Area			J.E. St.	wr Details - 2	Diagrams Showing - Sewer Pipe Section in Earth - Sewer and Force Main in Earth		
Figure 22 Trunk Sewer Profile, Tumon-Dededo Extension		*			- Sewer Pipe Section in Rock - Sewer and Force Main in Rock		
Figure 23 Trunk Sewer Profile, Yona		*	SI at	er of Construction,	Maps Showing the Order of Construction		
(The above 7 Figures have the same row labels)			risa .	Ma-Barrigada	- First Stage - First Stage Design - Second Stage - Third Stage		
· .	244					1	

Title/Date/Source	Row Labels	Column Headings	Notes
Figure 31 Order of Construction, Tamuning-Tumon-Dededo		1	. 747
(Above 2 tables have the same row labels)		e. *	a
		€ <u>↓</u>	3,
Figure 32 Order of Construction, Piti-Asan	Map Showing - Second Stage - Third Stage		61
Figure 33 Order of Construction, Yona	Map Showing - Second Stage	p. F.	, E )
Appendix D Boring Data		4.55	11.26 5/8
Appendix D <sub>1</sub> USW Sew. Report Guam Proposed Treatment Plant	Chart of Proposed Treatment Plant Locatio Showing	n	23.
	- Number and Location of Test Boring (#1 thru #9)		
Appendix D <sub>2</sub> -D <sub>9</sub> Field Boring Data for the Agana Sewage Treatmen Plant. Boring Log l thru	Each Boring Chart Explains the Following - Description of Materia at 0 to 64 feet - Bar Graph Showing		
·	Blows per foot: - 0 to 200+ blows - 0 to 64 foot depth	Pk	Skared
olume II			
Cable II-1 Outside Areas Proposed Sewage Treatment Plants Summary Description	District - Agat - Santa Rita - Inarajan	Design Population 1980 Design Average Flow 1980, MGD Sewage Treatment	
190	- Mangilao - Merizo - Talofofo	- Preliminary - Primary - Secondary	CE T
	- Umatac - Yigo	Effluent Disposal	Alma
į			
	i	•	

Title/Date/Source	Row Labels	Column Headings	Notes
ple II-2 plying Villages pimated Capital Costs	District Total	Estimated Construction Cost (\$1,000) Contingencies and Administration 17% (\$1,000) Total Capital Costs (\$1,000)	6
le II-3 lying Villages finated Annual Operating Maintenance Costs	District Total	Labor Power Maintenance and Supplies Chlorine Administration Sewers Total	6
le II-4 thru Table  II  illed Estimates of Cost  Bach District -  -Santa Rita; Ordot;  ajan; Mangilao; Merizo;  fofo; Umatac; Yigo	Description	Unit Estimated Quantity Engineering Unit Cost Estimate Cost Contingencies 10% Administration 7% Budget Estimate Cost	6 7
,,10,	dap Showing the Location of the Sewers of each District		6
e II-2, II-4, II-6, II-10, II-12, II-14, Rge Study Trunk Les for each District	levation in feet above MLLW	Stations	6
	i	i	

1 thru 5 are standard notes, refer to Introduction.

Mstricts Agat-Santa Rita; Ordot; Inarajan; Mangilao; Merizo, Talofofo; Umatac; Yigo.

Estimates based on ENR Index of 1200. Budget estimate costs do not include engineerin

includes 17% for contingencies and administration.

- 9 Costs are based on the use of materials manufactured in the U.S.
- 10 Graph shows maximum, minimum and average flows.

Type of Informatio	on: GPA Billing System Master Record	
Connected Mith: Published Report Survey Form	Title: GPA Master Record Layout	0.01.1
	Data Available: On Cards	On Disk
	in File: 25,000 (varies) 80 Col 96 Col 96 Col	5444 5445 2311 3311
Bellera i i i i i i i i i i i i i i i i i i i	··· <u>·······</u>	
petail Information	n: PUT 6	
	FILE FORMAT	
Positions	Contents	Notes
1 - 9 11 12 - 38 39 - 56 57 - 74 75 - 77 78 - 81 82 - 85 86 - 89 90 - 93 94 95 96 97 - 101 102 103 - 105 107 - 109 111 - 113 115 - 117 118 - 121 122 - 125 126 - 128 129 - 131 132 133 - 136 137 - 140 141 - 144	For Information and Explanation of Items, See PUT Detail  Account Number Service Code (Residential, General Service, Government) Customer Name First Line Address Second Line Address Zip Code Deposit Reference Number (receipt number of general ledger) Deposit Date Deposit Date Deposit Amount Change Out Consumption (if meter changed, consumption on old meter) Division Code (for government accounts) Special Instruction Code Meter Location Code (on property) Meter Number Number of Dials on Meter Reading Sequence (within meter book) lst Previous Consumption 2nd Previous Consumption 3rd Previous Consumption Highest Consumption Lowest Consumption Previous Reading Present Reading Estimation Code (yes or no) Service Period Ending Date KW Demand Reading	

Type of	Informatio	on: GTA C	ustomer Billing Records	637
	d Witn: hed Report Survey Form		Title: Accounts Receivable Master File	е
100			Data Available: On Cards	On Disk
			80 Co1 X	5444
			96 Col X	5445
Number o	f Records	in File:	22,000 (varies)	2311
				<u>a marka ni ni di</u>
enera l	Informatio	on: <u>PUT 7</u>		3311
motail I	nformation	1:		9
The state of the s				
	4		FILE FORMAT	
Posi	tions		Contents	Notes
Field	Field	Field		
No.	Name	Length		ĺ
no.	Hane	Deligen		
1	ACC	8	Account Number	
2	CLS	2	Class Code (Residential, Commercial)	
3	NAME	27	Subscriber (Customer) Name First Line Address	}
4 5	AD1 AD2	18 18	Second Line Address	1 =0
6	CYC	1	Billing Cycle (Determined by Exchange	
14/8	0.0	<del></del>	Number)	
7	CRMO	7	Credit Memo (\$)	}
8	TRF	7	Transfer Adjustment (To Another Active Account)	}
9	TERM	7	Termination Transfer Amount (To Inactive	
7	2 200 11 2	•	Accounts Ledger if Terminated)	
10	NEW	1	New Account Code (Flag for Special	
100			Handling)	
11 12	STAT	1	Status Code (Active, Terminated, etc.)	
13	OPN	1 7	(Blank/Open)	
14	REG VOUCH	6	Regular Monthly Bill Voucher Number (Bill Number)	
15	OPN	1	(Blank/Open)	
16	CUR	7	Current Monthly Bill	
17	D3	7	30-Day Arrears	
18	D6	7	90-Day Arrears	
19	D9	7	90-Day Arrears	
20	TAR	7	Total Arrears	
21	DUE	6	Date Due	
22	OPN	1	(Blank/Open)	
23 24	OPN	6	(Blank/Open)	
72	TOLL	7	Current Toll Charge (Total)	

Total Cash Payments (Since Last Bill)

CASH

Field	Field	Field	
No.	No	Length	
No.  26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	DLT PROR PAMT MISC CRED BAL SVCF SVCT DLB AMTLB PTD OPEN CLOSE ISO DSO OPN PUB	Length  6 1 7 7 9 9 6 6 6 6 6 6 27 1	Date Last Transaction (See Also Field 36) Proration Code (Flay for Partial Service Period) Proration Amount Miscellaneous Amount (Installation, Equipment, etc.) Outstanding Credits Outstanding Balance Service From Date Service to Date Date of Last Bill Amount of Last Bill Date Last Transaction (See Also Field 26) Date Account Opened Date Account Closed Installation Service Order Disconnection Service Order (Blank/Open) Public Code (Listed/Unlisted)
	LINK	_ 17	Inactive Linkage (Account Number where Transferred
43	LINK		see also field 9)
44	PBA	8	Previous Billing Account Number
45	OPN	1	(Blank/Open)
10 to	(F)		

۰			Document 52
-	Type of Information	on: PUAG Customer Billing Records	
	Connected With: Published Report Survey Form	Title: Accounts Receivable and Billing F	Disk
1			
		80 Co1	5444
١		96 Col	5445
	lumber of Records	in File: 19,200 (varies	2311
-	l Informatio	DIVIN O	3311
1	eneral Information	on: PUT 9	3311
-	etail Information	1:	
		·	
		FILE FORMAT	
	Parities	Contracts	N-4
	Positions	Contents	Notes
		v v.*	1
		Logical Record Size: 350 Bytes	
		Hogical Accord 5126. 550 Sycos	
	1 - 9	Account Number	
	1 ~ 10	Class Code (i.e., R= residential, C = Commercial	
		G = Government)	
	1 - 11	Customer Name First Line Address	
	38 - 55 56 - 73	Second Line Address	
	(74 - 87)	(Master Codes)	+1
	74	Account Status Code (A = active, I = inactive,	
		T = termination, blank = new)	
	75	Meter Size Code (based or diameter of pipe)	
	76 77	Sewer Billing Code (S = standard rate, F = flat rate) Water Billing Code (S - standard rate, F.= flat rate)	
	78	Automatic Credit Code (N = no bill, credit due)	
	79	Reading Exceptions Code (see list, below)	
	80	Billing Code (internal PUAG use)	e e e e e e e e e e e e e e e e e e e
	81	Estimation/Average Code (1 = estimation, 9 = average	
	82	or mean) Posting Code (internal PUAG use)	i
	83	Termination Code (T = termination)	
	84	Disconnection Code (D = disconnection)	
	85	Cuarantee Deposit Code (internal PUAG use)	
	86	(Blank)	
	87	(Blank)	
	88 - 89 90 - 91	Area Code (for a group of books) Number of Meter Dials	
	92 - 100	Meter Number	
	(101 - 152)	(Water Billing Amounts)	
	101 - 104	Other Miscellaneous Charges	
	105 - 108	Water Charge	· · · · · · · · · · · · · · · · · · ·
	109 - 112	Total Current Charge	
	113 - 116	30-Day Arrears	
	117 - 120	60-Day Arrears	

POSITION	CONTENTS
294 - 299 300 301 - 305 306 - 311 312 - 315 316 - 319 320 - 350	Installation Service Order Number (Blank) Termination Service Order Number Disconnection Service Order Number \$ Flat Water Charge \$ Flat Sewer Charge (Blank)

# READING EXCEPTIONS CODES

A -	Buri	.ed	Me	ter
-----	------	-----	----	-----

- B Debris on Meter
- C Foggy Meter
- D Reversing Meter
- E Vacant
- F Cannot Locate Meter
- G Direct Service Illegal
- H Idamaged Meter
- I Error in Reading
- J Flooded Cannot Read
- K Inlet Leak
- L Outlet Leak
- M Meter Leak
- N Non Registering
- 0 Possible Non-Registering
- P Valve Leak
- Q Damaged Valve
- R Dirty Dials
- S Capless Meter
- T Dangulo Doggy
- U Gate Locked
- V Flooded by Mother Nature
- W Possible Tampering
- X Corr-RDN. Dial Turning
- Y Obstruction
- Z Illegal Connection Dig
- 0 Special Handling
- 1 Should be Transfered
- 2 Terminated Account
- 3 Removed Meter
- 4 Relocate Meter
- 5 Advise Consumer
- 6 Option Two
- 7 Option Three
- 8 Option Four

POSITION	CONTENTS	NOTES
121 - 124	90-Day Arrears	
125 - 128	Total Arrears	
129 - 132	Amount Last Billing	
133 - 136	Refund	
137 - 140	Transfer Adjustment (amount	to new Account)
141 - 144	Credit Memo (correction for	erroneous reading
	or over-estimation)	
145 - 148	Payments Received	
149 - 152	Balance Due - Water	
(153 - 201)	(Sewer Billing Amounts)	
153 - 156	Other Miscellaneous Charges	
157 - 160	Sewer Charge	
161 - 164	Total Current Charge	
165 - 168	30-Day Arrears	
169 - 172	60-Day Arrears	
173 - 176	90-Day Arrears (and older)	18.
177 - 180	Total Arrears	
181 - 184	Amount Last Billing	
185 - 188	Refund	
189 - 192 193 - 196	Transfer Adjustment (amount	
193 - 196	Credit Memo (correction for over-estimation)	erroneous reding or
197 - 200	Payments Received	
201 - 204	Balance Due - Sewer	
(205 - 219)	(Current Month's Reading Date	ra)
205 - 209	Present Reading	La)
210 - 214	Previous Reading	
215 - 219	Consumption	
(220 - 234)	(Previous Month's Reading D	ata)
220 - 224	Present Reading	
225 - 229	Previous Reading	
230 - 234	Consumption	
235 - 239	Mean (average) Consumption	(used for estimating bill)
240 - 242	\$ Credit Water	-
243 - 245	<pre>\$ Credit Sewer</pre>	•
246 - 249	\$ Credits Total	
250 - 253	\$ Reserve Guarantee Deposit	
(254 - 293)	Master Recording Dates (for	<u>last</u> time occured)
254 - 255	Service Period "From" Date	
258 - 259	Service Period "To" Date	(3)
262 - 263	Date	
266 - 269	Due Date	
270 - 273 274 - 277	Meter - Reading Date	2
278 - 281	Payment Date	
282 - 285	Transaction Date Installation Date	**
286 - 289	Termination Date	
290 - 293	Disconnection Date	
233	Date Date	

ource Agency: Lawren	nce C. Johnsrud and Associa	tes	
mputerized: No	Computer Referen	ce:	
eneral Information:	REC 2		
	Description of Table(s)	ě	
Title/Date/Source	Row Labels	Column Headings	Note
Summary of Recreation Facility Needs		Additional 1985 Need Total 1966 thru 1985 Need	
Plate 2 Outdoor Recreation Plan	Map of Guam Showing - Village Recreation Centers - Swimming Beach	;	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	TNatas
	- Surfing Beach - Small Boat Harbor - Campsites - Conservation - Scenic-History Feature - Scenic Highway - Trail - National Seashore Park - National Historic Park		3200 72001	le 10 ricipation by Type of ing	Type of Fishing - Deep Sea - Reef-off-shore - Shoreline - Freshwater	1966 1971 1985 (Above 3 Categories are each broken down into:) - Activity Rate - Sunday Participation	Notes
Plate 7 Population Projection 1966-1985	Graph Showing Population Growth Rate - 10,000 thru 70,000 in Increments of 10,000 - Chamorro - Military - Other	Year - 1965 thru 1985	1	le 11 tribution of Boating dvity	Boating Activity - Deep Sea Fishing - Reef/Off-Shore Fishing - Water Skiing - Skin Diving - General Boating	Persons Per Boat Activity Days Per Boat Typical Sunday Activity Days/Typical Sunday 1966 Number of Boats Required 1966	4
Table 3 Interest in Outdoor Recreation Activities	Visiting Historic Sites Visiting Scenic Sites Swimming and Going to Beach Camping Picnics and Outings Hiking Participation in Competitive Sports Fishing Attending Outdoor Sports Horseback Riding Hunting Shelling Boating Skin Diving Surfing Water Skiing	Indigenous Residents Percent of Total Non-Indigenous Residents Percent of Total Military Percent of Total Weighted Guam Average Percent of Total U.S. Average Percent of Total			Facility - Beaches - Urban (In Acres and Linear Feet) - Remote (In Acres and Linear Feet) - Picnic Facilities (In Units and Acres) - Campsites (In Sites and Acres) - Hiking Trails (In Miles and Acres) - Horse Trails (In Miles and Acres) - Hunting Areas (In Acres) - Shoreline (In Miles) - Boating Facilities (In Slips, Ramps and Acres) - Surfing (In Linear	1966 Requirements 1971 Requirements 1985 Requirements	
Table 4 Interest in Selected Special Activities	Attending Cockfights - Male - Female Beach Preference - River-lake Beach - Salt Water Beach Fishing Preference - Shoreline - Reef - Deep Sea - Fresh Water Golf	Indigenous Residents Percent of Interest Non-Indigenous Residents Percent of Interest Military Percent of Total			Feet and Acres) - Protected Water Areas (In Acres) - Water Skiing - Skin Diving - Competitive Sports (In Acres) - Basketball (In Courts) - Volleyball (In Courts) - Baseball (In Fields) - Softball (In Fields) - Football (In Fields) - Tennis (In Courts) - Handball (In Courts)		

WHO DEFORT T

Title/Date/Source	Row Labels	Column Headings	Notes
Table 14 Existing Government of Guam Recreation Facili- ties, 1966  Table 15 Existing Military Recrea- tion Facilities, 1966	Type of Recreation Facilities	Name and Location B.O.R. Class Primary Responsibility (Ownership) Facilities and Size Condition of Facilities and Remarks	1
(The Above 3 Tables Have the Same Row Labels and Column Headings)			ol ros
Plate 8 Existing Recreation Facilities Government of Guam  Plat 9 Existing Recreation Facilities Private and Church	Map of Guam Showing Existing Recreation Facilities - Basketball - Softball - Little League - Tennis - Football - Volleyball - Handball - Playground		1
Existing Recreation Facilities - Military (Above 3 Plates Have the Same Row Labels)	- Swimming Pool - Developed Beaches - Small Boat Harbor - Picnic Areas - Cock Pit - Outdoor Theatres - Golf Course		
Table 20 Potential Recreation Sites	Name and Location  - Beaches and Marinas  - Inland Water Areas  - Scenic Overlooks  - Scenic Highways  - Scenic Trails  - Cave Sites  - Wilderness Areas  - Historic Sites -	Ownership B.O.R. Class Natural Beauty Potential Uses - Historic Site - Scenic Area - Swimming - Picnicking - Camping - Hiking or Riding - Native Study - Marina - Competitive Sports Over all Evaluation Remarks	6
-			

Title/Date/Source	Row Labels	Column Headings	Notes
ie 22 edule of Site Acquisi- m and Development	- Inland Water Area - Natural Areas - Scenic Areas - Scenic Highways - Village Recreation Centers	Responsible Agency Priority Land Acquisition - Immediate Program Cost Long Range Program Priority Site Development	
	- Historic Sites	- Immediate Program Cost Long Range Program	

tes 1 thru 5 are standard notes, refer to introduction.

Potential recreation sites are rated 1, 2 or 3 in relation to their natural beauty and most favorable potential uses, with 1 being the most outstanding. Overall Evaluation is rated A, B or C.

Source Agency: Lawrence C. Johnsrud and Associates John Carl Warneckle and  Computerized: No Computer Reference:  REC 2    Fitnic Street   Row Labels   Column Headings   Parchase Food   Visit Historic Sites	Title: Volume II - Outdoor	Recreation On Guam, Preli	minary Report C, Demand f	or Outdoor				
General Information: REC 2    Recreation Streep Data   Status		***	s, John Carl Warneckle and	Recreati		Row Labels	Column Headings	Notes
Description of Table(s)   Column Headings   Notes	Computerized: No	Computer Referer	nce:Associates	- Oct. 1966				
Title/Date/Source  Recreation Survey Data Tabulation (3 Tables - Single - Non Indiginous Residents, Indignous Residents, - Ages 0-20 - Ages 21-40 - Ages 0-20 - Ages 0-20 - Ages 21-40 - Ages 0-20 - Ages 21-40 - Ages 0-20 - Ages 0-20 - Ages 21-40 - Ages 0-20 - Ages 0-20 - Ages 21-40 - Ages 0-20	General Information:	REC 2		1 10	15		- Picnics-Outings - Bring Own Food	
Recreation Survey Data Tabulation (3 Tables - Non Indiginous Residents, Indiginous Residents, Military Residents)  - Male - Ages 0-20 - Ages 21-40 - Ages 0ver 40 - Married - Male - Ages 0-20 - Ages		Description of Table(s)	*		-		- Visit Historic Sites	
Tabulation (3 Tables - Non Indiginous Residents, Indiginous Residents, Indiginous Residents)	Title/Date/Source	Row Labels	Column Headings	Notes				
- Possibly Buy or Rent Boat - Skindiving - Water Skiing - River-Lake Beach - Salt Water Beach - Both Types Beach Nature Activities - Shelling - Interest in Camping - Participation Hiking-Walking - Interest Hiking-Walk- ing	Tabulation (3 Tables - Non Indiginous Residents, Indiginous Residents,	- Single - Male - Ages 0-20 - Ages 21-40 - Ages Over 40 - Female - Ages 0-20 - Ages 21-40 - Ages Over 40 - Married - Male - Ages 0-20 - Ages 21-40 - Ages Over 40 - Female - Ages 0-20 - Ages 0-20 - Ages 21-40 - Ages Over 40	- Participation All Sports - Baseball - Softball - Basketball - Volleyball - Football - Handball - Golf - Tennis - Attendance at Ball- games - Attendance at Cock- fights Fishing-Hunting - Interest in Fishing - Shoreline - Offshore - Deep Sea - Fresh Water - All Types - Interest in Hunting Water Sports - Surfing - Owns Boat - Wants to Buy Boat - Possibly Buy or Rent Boat - Skindiving - Water Skiing - River-Lake Beach - Salt Water Beach - Salt Water Beach - South Types Beach Nature Activities - Shelling - Interest in Camping - Participation - Hiking-Walking - Interest Hiking-Walk-					

Recreation	outdoor Recreation on Guam, Preliminary Report C, Demand for Outdoor
Computerized:	Computer Reference:
	Information Contained on the Document
RECREATION QUEST	TONNAIRE

Specify Answers to the Following Questions:

- la. Name
- ь. Age
- Sex (Male, Female)
- Marital Status (Single, Married)
- How Many Children Do You Have on Guam?
- Age of Each Child.
- Where Do You Live?
- What is Your Occupation.
- Does Your Spouse Work?
- If Spouse is Working, What is His/Her Occupation?
- How Long Have You Lived on Guam?
- Do You Participate in Any Sports?
- Name of Sport.
- c. Where Do You Play?
- d. How Often Do You Plan?
- How Are the Facilities? (Excellent, Fair, Poor)
- How Could They be Improved?
- What Sports Would You Enjoy if the Facilities Were Available?
- 10a. Do You Like to Fish?
- b. If Yes, Which Do You Prefer? (Shoreline Fishing, Offshore Fishing, Deep Sea Fishing)
- 11a. Do You Go Skindiving?
  - b. If Yes, Where?
- 12a. Do You Go Shelling?
  - b. If So, Where?

Do You Own a Boat?

MU POLULE &

- If There Were Adequate Marina Facilities Available, Would You Purchase a Boat?
- Would You be Interested in Going on Overnight Camping Trips if Adequate Facilities Were Provided?
- Do You Go on Long Hikes or Walks?
- Would You be Interested in Hiking if Trails were Provided for this Purpose in Wild, Natural Areas?
- Are You Interested in Horseback Riding?
- Do You like to go Hunting? (For Deer; Wild Pig; Fowl)
- 20a. Do You go on Picnics and Outings with Your Family and Friends?
- b. If Yes, Where Do You Usually Go?
- Do You Prefer to Buy Foods if they are Available at Picnic Sites or Bring Your Own Food?
- 22a. Do You Think the Beach and Park Sites Could be Improved?
- b. If Yes, How?
- If they Were Available, Which Would You Prefer, a River/Lake, Beach, a Salt Water Beach or an Island Park?
- 24a. Do You Attend Ball Games?
- b. If So, Where?
- 25a. Do You Attend Cockfights?
- b. If So, How Often?
- 26a. Do You Enjoy Visiting Historical Sites?
- b. Scenic Sites?
- Additional Information, Recommendations or Comments.

Outland Postantion	n on Guam - October 1, 197	<b>71</b>		Title/Date/Source	Row Labels	Column Headings	Notes
	c of Commerce and Land Mana  Computer Reference  REC 2	agement		Figure VI Project Analysis	Priority - Year - FY1972 thru FY1976 List of Projects	Action Plan Acreage Access Type Anticipated Funding	
	Description of Table(s)	LE .	45			- Local - Federal - Total	
Figure IV Annual Demand by 1,000 Activity Days	Acres List of Activities	Regional Utilization - Beach Frontage Feet - Shoreline Feet - Pavilion - Picnic Units - Bar-B-Q Pits - Water Points - Rest Rooms - Showers - Boat Ramps - Boat Slips Community Serving Facil - Courts - Basketball - Volleyball - Tennis - Fields - Baseball - Softball - Football - Play Ground - Pools  Year - 1971 - 1975 thru 1990 in increments of 5	Notes	Figure VIII Recreation Areas Improvement Proposed for Fiscal Year 1973	Map of Guam Showing  - Avenue of State Flags  - Agana Beach Park  - Saluglulla Swimming     Pool-Inarajan  - Tepungan Beach  - Ypao Beach Park  - Nimitz Beach  - Inarajan Bay  - Talai Acho-Agana  - Plaza de Espana  - Agana Marina  - Talofofo Falls  - Latte-Park-Agana  - Merizo Pier Park  - Umatac Bay		
Figure V Summary of Facility Requirements	List of Facilities	Year - 1971 - 1975 thru 1990 in increments of 5					
					267	*** * **	

Source Agency:_	Department o	f Commerce, De	partment of La	nd Management
Computerized:	No	Computer	Reference:	
General Informat	tion:	REC 2	¥.	

	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
Map of Guam Showing Location of Hotel and Tourist Facilities	Operational Under Construction Planned-Site Acquired		30
Bar Chart Comparing Visitors and Tourists to Guam	Thousands of People	Year - 1967 thru 1972	
Bar Chart Showing Num- ber of Hotel and Motel Rooms	Hundreds of Rooms Available	Year - 1963 thru 1972	
Table VII Tourism Outdoor Recreation Demand	Year - 1973 - 1978 Activity - Swimming - Fishing - Boating - Golf - Water Skiing - Tennis - Riding - Hunting - Hiking	Number of Tourists Activity Days - 1973 - 1978	
Outdoor Recreation on Guam 1971 Revision (October 1, 1971) Pro- ject Status	None	Type of Action Funding	
,			

Mtle/Date/Source	Row Labels	Column Headings	Notes
ject Proposals for 74 thru FY'79	None	Item Number Names of 42 Projects Type Action (Plan, Deve- lopment, In House, Restoration/Development)	6
Acquisition Require-	None	Site Ownership	
endix B or In-House Projects: 974-FY1979; Parks and reation Resources ision, Dept. of	None	Project Site Action	

tes 1 thru 5 are standard notes, refer to introduction.

- A detailed description of each of the 42 items in also included in the report.

Title: A Master Plan f	or War in the Pacific Nati	onal Historical Park, Gu	am
Source Agency: <u>United Sta</u>	tes Department of the Inte	rior National Park Servi	ce
Computerized: No	Computer Referen	ce:	11.5
General Information:	REC 2		
ý.	Description of Table(s)		v 190
Title/Date/Source	Row Labels	Column Headings	Notes
Regional Map War in the Pacific Proposed Nation- al Historic Park, Guam	Map of Guam Showing - Territorial Parks - Marina - Hotel - International Airport - Primary Roads - U.S. Military Reserva- tion	•	1
Historical Base Map	Map of Guam Showing - Japanese Guam Emplacement - Japanese Bomb Shelter - Japanese Caves - Japanese Fortifications - Japanese Coastal Battery - Japanese Command Post - Japanese Mass Burial - American Marine Command Post Site - American War Memorial		-101
Land Status	Recapitulation By Units - Asan - Piti Unit - Federal (Military) - Government of Guam - Private - Total Land - Total Water - Exterior Lands Recommended for Zoning Control By Government of Guam - Agat Unit	Acres - Proposed Boundary - Alternate Boundary	1
	- Federal (Military) - Government of Guam - Private	3-	

Title/Date/Source	Row Labels	Column Headings	Notes
	- Exterior Lands Recommended for Zoning Control By Government of Guam - Mount Tenjo Unit - Government of Guam Total Federal (Military) Total Government of Guam Total Private Total Land Total Water Grand Total		
d Use and Ownership	Map of Guam Showing the Ownership of Land - Government of Guam - Private - Federal (Military) - Government of Guam Zoning (Proposed)		1

## MOTES:

btes 1 thru 5 are standard notes, refer to introduction.

Notes

Title: Masterplan	n Proposed Guam National Se	ashore - Guam	ind/stre	Title/Date/Source	Row Labels	Tel∷Column Headings
	Department of the Interior  Computer Referen			d Acquisition Zones	Partial Map of Guam Showing Key to Land Management Zones	
General Information:	REC 2  Description of Table(s)		=		- Public Use and Develop- ment - Preservation - Private Use and Deve- lopment	
Title/Date/Source	Row Labels	Column Headings	Notes	meral Development Pro-	Partial Map of Guam	,
Regional Map Proposed Guam National Seashore	Map of Guam Showing - Territorial Parks - Marina - Hotel - International Airport - Primary Roads - U.S. Military Reservation	, n	1	Sed Guam National	Showing - Development Site - Roads - Trails (Above 3 Categories are each broken down into:) - Existing - Proposed - Obliterate	
Natural History Basemap Proposed Guam National Seashore	Map Showing Guam's Natural History Features		ingli	mdary Map Proposed Mational Seashore	Partial Map of Guam Showing the Boundaries of National Seashore	
Archeological History Basemap Proposed Guam National Seashore	Map Showing Guam's Historical, Archeo- logical Factors			od Classification roposed Guam National	Partial Map of Guam Showing Classification of Land	
Land Use and Ownership Proposed Guam National Seashore	Partial Map of Guam Showing Land Ownership Government of Guam Private Federal (Military)		1	tes 1 thru 5 are standa	ard notes, refer to introdu	ection.
Factors Affecting Resources and Their Use	Land Status (Acres) - Federally Owned Land - Federally Owned Water Front and Reef Areas (Submerged) - Government of Guam - Private Total	Public Use and Develop- ment Management Zones - Preservation - Private Use and Development - Subtotal		The state of the s		
					*	

Department	of Commerce	Parks and	Recreation	Regnurce Division
Department	OI COMMETCE	10110 011	NCC1 CHC1	Resource Division
No		Computer	Reference:_	
tion:	REC 4			
		770	200	770 /

# THERE IS A PAGE FOR EACH PARK ON GUAM CONTAINING:

Name of Park
Location (village)
Legal Lot Obscription
Size
Owenership
Parks and Recreation Responsibility
Park Designation
BOR Classification
Activities and Facilities
Comments
Map Information

fitle: Boating	Activity In	the Territory Of Guam - 1974
ource Agency:	Gillham, Ko	ebig and Koebig, Inc.
computerized:	No	Computer Reference:
eneral Informati	on:	REC 4
	D	escription of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Table 1 Noats Per 1,000 Population; USCG Registration Lecords and Guam Harbor Police Registration Lecords.	Year - 1970 thru 1974	U.S. Average Hawaii Guam	
Table 2 Small Boats In the Ter- ritory Of Guam; DPS and Marianas Yacht Club.	Type Total	Number	6
Mable 3 Mistribution Of Craft Mesponding To Question— Maire, By Area	Area Total	Number Moored Number Dry Stored Total	5 7
The following 3 tables show Distribution of Graft:	*		
Table 4 By Area; DPS Regis- tration Records	Area Total	Number Of Craft	5 7
Lable 5Responding To Questionnaire, By Storage Lethod.	Type Total	Number Of Responses In Harbors Along Coast Dry Stored	5 6
Table 6 By Storage Method.	Type Total	Number Of Craft In Harbor Along Coast Dry Stored	5 6
	*		

able 7 se Of Craft  Cable 8 Value Of Boats (Replace-	Type Totals Type and Size	Pleasure Fishing Rental/Charter Total Number	13
se Of Craft Cable 8	Totals	Fishing Rental/Charter Total Number	i i
se Of Craft Cable 8	Totals	Rental/Charter Total Number	
Cable 8		Total	Ī
Cable 8 Value Of Boats (Replace-	Type and Size	Number	
Table 8 Value Of Boats (Replace-	Type and Size		-
Cable 8 Value Of Boats (Replace-	Type and Size		ł
Table 8 Value Of Boats (Replace-	Type and 5256		1
lalue Of Boats (Replace-		High Value (In Dollars)	1
		Low Value (In Dollars)	1
ent Value).		Average Value (In Dol-	
		lars)	
	,	Total Value	1
		10000	1
¥ 1		= 4	
Table 9	Type	Number Of Responses	
Annual Operating Costs	Total	Use	
Annual Operating coses		Operating Cost In Dol-	1
· ·	*.	lars	1
	S2 96	- Minimum	1
		- Maximum	
		- Average	Ì
		- Total	1
X-17		*	1
	i i	Donarding	
Table 10	Туре	Percentage Responding	1
Boat Damage		Who Suffered Some Dam-	1
DOSC Demose	1 .	age	1
*		Number Of Boats Damaged	
	,	Total Damage In Dollars	1
		Average Cost Of Repair	1
	1	Annual Total Cost Of	1
v .		Repair	
		Place of Origin	
Table 11	Destination (Oroto	Percent From Each Point	
Origin/Destination	- Southern Coast (Orote	Of Origin	-
a the resident of the Control	Point To Merizo)	OI OLIBIN	
	- Northwest Coast		
	- Northern Fishing	2	
	Grounds		1
•	- East Coast		
	- Southern Fishing		-
	Grounds		-

Notes 1 thru 5 are standard notes, refer to introduction.

- 6. Type of Craft: Sailboats; Outboards; Inboards; Sail with Auxiliary Power.
- 7. Area: Northern; Central; Southern.
- 8. Fishing includes sport fishing, pleasure fishing, and subsistence fishing.

neral Information:

## ASSESSMENT OF BOATING IN THE TERRITORY OF GUAM

- Description of Boat: Name of Boat (specify); Type (check one) sail, outboard, cruiser, sail with auxilliary power, other; Length,
  beam, draft (indicate feet); Engine (indicate hp); Year Built; Present
  Market Value and Replacement Cost (indicate in dollars).
- Use of Boat: Primary use of your boat is (check one) Pleasure, rental/ charter, fishing.
- 3. Harbor Facilities: How Boat is Stored (check one) moored (specify place), on trailer, other (specify); If Moored give an unimproved location which could be developed, you would where prefer to moor your boat; If Dry Stored specify place you usually launch your boat, give an unimproved location which could be developed where you would prefer to launch your boat, specify how much more time you would use your boat if present facilities were improved, specify if you would buy or build a larger boat if adequate facilities were available.
- Destination: Specify where you most often go in your boat; How far do you normally travel away from your launching site (check one) less than 2 miles, 2 to 5 miles, 5 to 10 miles, over 10 miles; Does the lack of adequate harbors of refuge prevent you from traveling further; If yes specify the place where harbors are needed.
- 5. Fishing: What percent of your boating time is spent in fishing (check one) none, 0 25%, 25 50%, 50 75%, Over 75%; What Type of Fishing do you do (check one) trolling, bottom fishing, other; Specify where you most often do your fishing.
- 6. Operating Costs: Specify the Estimated Annual Operating Cost for your Boat Maintenance; Specify Damage to your Boat Resulting from Inadequate Harbor/Launching Facilities; Specify the Cost of Repairing the Damage.
- 7. Remarks: Date and Signature of the Boat Owner.

	Roebig and Koebig, Inc.	
	Computer Reference:	
General Information:	REC 5	

### Description of Table(s) Notes Column Headings Row Labels Title/Date/Source Duration, Hours per Wave Height Feet Table IV-1 Year, for the Various Estimated Duration and Wave Periods (Sec.) Magnitude of Deep Water Waves Approaching Agana Small Boat Harbor, Guam from the Various Directions (Northwest to North-Northeast) Existing Conditions Figure IV-1 Map of Agana Small Boat - Coast Line - Coral Reef Harbor Showing Planned - Depth Contours Improvements - Roads and Structures - Trees and Shrubs - Boring Location Recommended - Harbor Structures (Federal) - Toe of Structures - Dredging Project Limit - Depth Transition - Navigation Aids - Lighted Day Beacon - Unlighted Day Beacon

Title/Date/Source	Row Labels	Column Headings	Notes
Table V-2 Small Craft Distribution (In Percent of Total); "Boating Activity in the Territory of Guam, 1974"	Region - Northern - Central - Southern - Total	Sail Boats Outboards Inboards Sail with Power Total	
Table V-3 Small Craft Requiring Wet Storage (In Percent of Total)	Region - Northern - Central - Southern - Total	Sail Boats Outboards Inboards Sail with Power Total	
Table V-4 Population Projection; "Detailed Project Report, Agana Harbor for Light- Draft Vessels, February 1973; By the U.S. Army Engineer Division, Pacific Ocean, Corps of Engineers	Years - 1970 - 1995 - 1980 - 2000 - 2025	Civilian Military Total	1
Table V-5 Boat Ownership Per 1,000 Total Population	Year - 1970 - 1972 - 1974	Mainland Hawaii	
Table V-6 Projected Boat Ownership Per 1,000 Total Population	Year - 1970 - 1975 - 1980 - 2000 - 2025	Hawaii Guam	
Table V-7 Projected Number of Boats and Wet Storage Require- ments	Region - Northern - Central - Southern (Above 3 Categories are each broken down into:) - Sail Boats - Outboards - Inboards - Inboards - Sail with Power - Sub Total Total Boats Requiring	Years - 1975 - 1980 - 2000 - 2025	
	Wet Storage Total Boats on Guam	90	

Type

Total

- Sail Boats

- Outboards - Inboards

- Sail with Power

Table V-1

Small Craft on Guam

Number

Percentage by Category

Percentage Wet Stored

	Day Jaha3s	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Title/Date/Source  Table V-8  Launching Requirements	Row Labels  Year - 1975 - 1980 - 2000 - 2025	Number of Trailered Boats Total Annual Ramp Launchings Peak Day Required Lanes		Table VII-2 Estimate of Local Project Cost Heavy Construction	Description - North Berthing Area - Dredging - Revetment - Imported Fill - Contingencies at 12% - Construction Cost - Engineering and	Unit Quantity Unit Cost Total Cost	
Figure VI-2 Agana Marina Ultimate Development Plan  Table VI-1 Size Distribution of Berths  Table VI-2 Slip Dimensions in Feet	Map of the Agana Boat Basin Showing Planned Improvements  Length of Side Ties - 20' thru 40' in Increments of 5' - 50' - Over 50' - Total  Length - 25 thru 50 in Increments of 5 - Over 50	Desired Percent of Total Actual Number of Berths Clear Width Finger Width	5	*	Admin.  - Total North Berthing Areas  - South Berthing Area  - Dredging  - Revetment  - Compaction  - Contingencies at 12%  - Construction Cost  - Engineering and Admin. at 10%  - Total South Berthing Area  Total Local Heavy  Construction		
Table VII-1 Estimate of Federal Project Cost Heavy Construction	Description - Mobilization and Demobilization - Dredging - Revetted Mole - East Break Water - West Break Water - Wave Absorber - Circulation Channel - Sub Total - Contingency, 12% - Construction Cost - Engineering and Design - Supervision and Admin Total Corps of Engineers First Cost - Aids to Navigation - Total Federal Project First Cos	1	6	Table VII-3 Estimated Project Cost Support Facilities	Description - Harbormaster Building - Marine Sales - Comfort Station - Recreation Area - Water Line - Sewer Line - Sewer Lift Station - Electrical Conduit - Transformer Pad - Area Lighting - Parking - Access Road - Storm Drain Relocation - Pedestrian Bridge - Contingencies at 12% - Construction Cost - Engineering and Adminat 15% Total	Unit Cost Total Cost	
	ē.				501		

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Table VII-4 Estimated Project Cost Revenue Producing Facilities	Description - Slips (South Berthing Area) - Slips (North Berthing Area) - Westerly Berthing Dock	Unit Cost		Table VII-6 Annual Revenue Projections Ultimate Development	Source - Speciality leases - Restaurant (5% of Gross Income) - Shops (4% of Gross Income) - Berths - Slips	Maximum Minimum Assumed	
	- Slips (Existing West Basin) - Berthing Dock (Exist- ing East Basin) - Fuel Dock - Chandlery - Launching Ramp - Boat Repair Yard - Parking - South Berthing Area - North Berthing Area	•			- Sides Ties - Launching Ramp - Miscellaneous     Purchases - Fuel - Repairs - Chandlery - Total - Gross Receipts Tax at 4%		
	- Contingencies at 20% - Construction Cost - Engineering and Admin. at 15% Total		£ 5	Table VII-7 Estimated Annual Expense Maintenance and Repair Ultimate Development	Item - Heavy Construction - Buildings - Slips Total	Construction Cost Annual Expense - Government Operation - Private Operation	
Table VII-5 Estimated Project Cost Ultimate Development	Item - Heavy Construction (Federal) - Heavy Construction (Local) - North Berthing Are - South Berthing Are - Support Facilities - Revenue Producing Facilities Total - Federal Share	Cost		Table VII-8 Estimated Annual Expense Admin. Personnel Ultimate Development	Position - Harbormaster - Assistant Harbor- master - Clerical - Chandlery and Fuel Dock - Boat Repair - Miscellaneous at 25% Total	Government Operation Private Operation - Government - Lessee	
	- Local Share	•	25	Table VII-9 Estimated Cost of Goods Sold Ultimate Development	Source - Fuel - Repairs - Chandlery Total	Revenue Annual Expense	
			7.				
9	1	*				•	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	
Table VII-10 Annual Depreciation Allowance	Item - Slips - Floating Docks - Buildings - Paving - Launching Ramp	Project Cost Depreciation	relation of the second	Table VII-13 Financial Analysis Government of Guam	Project Cost (Table VII-5) Gross Income (Table VII-6) Gross Receipts Tax at 4% (Table VII-6) Benefit from Federal	Dollar Amounts	Notes
Table VII-11 Financial Analysis Bare Land Leasing Private Investor	Project Cost (Table VII-4) Gross Income (Table VII-6) Rental Payment (Table VII-6) - Berths at 20% of Gross - Launching Ramp at 20% of Gross - Miscellaneous Purchases at 4% of Gross Operation and Maintenance (Table VII-7, 8, 9) - Maintenance and Repair - Administrative Personnel - Cost of Goods Sold Net Income Capital Recovery (30 Years at 6%) Net Depreciation (50% x \$101,100)	Dollar Amounts		Table A-1 Theoretical Wave Heights in Berthing Basin (Based on 17.6 Foot Wave)	Project Operation and Maintenance (Table VII-7, 8, 9)  - Maintenance and Repair  - Administrative Personnel  - Cost of Goods Sold Net Income Capital Recovery (50 years at 5.5%)  Station and Location  - 1. Entrance to Berthing Area  - 2. Center of Access Channel  - 3. Northwest Corner of Basin  - 4. Northeast Corner of Basin  - 5. Southeast Corner of Basin  - 6. Southwest Corner of Basin	Wave Height (Feet) Adjusted Wave Height (Feet)	7
Table VII-12 Financial Analysis Bare Land Leasing, Government of Guam	Project Cost (Table VII-5) Gross Income (Rental Payments) - Restaurants and Shops (Table VII-6) - Marina (Table VII-11) Gross Receipt Tax at 4% (Table VII-6) Benefit from Federal Project Operation and Maintenance - Maintenance and Repairs (Table VII-7) - Admin. Personnel (Table VII-8) Net Income Capital Recovery (50	•		Table A-2  Ratimated Duration and Magnitude of Shallow Mater (-60 Feet), Waves Approaching Agana Small Roat Harbor, Guam, from the Various Directions (Northwest to North-Mortheast)  Table A-3  Selected Test Wave Characteristics and Directions	Wave Height Feet  Deep Water Wave Direction	Duration, Hours/Years for Various Wave Periods (Sec.)  Selected Shallow Water Wave Test Direction Selected Test Wave - Period (Sec.) - Height (Feet)	

# REC Detail 9

Title/Date/Source	Row Labels	Column Headings	Notes
Table A-4 Wave Height Measurements for the Existing Harbor	Deep Water Test Direction - North-Northeast - North - North-Northwest - Northwest	Test Wave - Period (Sec.) - Height (Feet) Wave Heights at the Various Gage Locations (Phototype Feet) - Gage 1 thru 7	12

#### NOTES:

- 6 Cost of bridges assumed borne by sewage treatment plant project.
- 7 Adjusted wave height was obtained by taking into account the reduction due to the wave absorber. Based on model tests of wave absorbers and wave reducing characteristics of rubblemound revetments, it is estimated that a reduction of about 15 percent would occur.

itle: Guam Historic Preservation Plan						
ource Agency: Departmen	nt of Parks and Recreation					
omputerized: No	Computer Referen	ce:				
eneral Information:	REC 7					
	Description of Table(s)	,				
Title/Date/Source	Row Labels	Column Headings	Notes			
Table 1 Summary of Archaeol- ogical Site Classifi- cations	Site Classifications - High Value - Valuable - Reserve - Marginal - Destroyed - Totals	Number of Site Changes Since 1965 thru 1966 - Number Destroyed - Number Deteriorated	5			
Table 3 Summary of Historical Site Classifications	Site Classification - High Value - Valuable - Reserve - Marginal - Destroyed - Totals	Age Ranking - Spanish - First American - Japanese/WWII - Second American Total	5			
Table 4 Summary of Sites by Thematic Aspects in each Historic Period	Theme - Political and Military - Economic - Social - World View - Science - Art - Architecture Total Number of Sites	Historic Periods (Number of Sites) - Chamorro Period, Prehistoric to 1521 - Spanis Period, 1521 to 1898 - First American Period, 1898 to 1941 - Second American Period, 1944 to Present	1			
	*					

# INVENTORY BY THEME CATEGORY

Theme Categories are Listed with 5 Development Periods:

## Chamorro

Economics: Land Exploitation

Social: Settlement Patterns, Habitation

Art: Pictographs

# Spainish Period

Potitical and Military: Spainish Rule

Economic: Agriculture

Economic: Transportation and Communication

World View: Religion - Foreign

Science: Exploration Architecture: Structure

# First American Period

Political and Military: U.S. Pre-World War II

Economic: Transportation and Communication

World View: Religion - Foreign

World View: Disposition of the Dead

Architecture: Structure

# Japanese Period

Political and Military: Territory (Japan)

# Second American Period

World War II Political and Military:

Individual Site Information is Given in the Following Format:

Site Name (Site Number) Site Address Ownship Status Significant Dates Site Value Status Rigistration Status

The Theme Category List Contains all Sites that are Ranked as High Value, Valuable, Reserve, and Marginal and are Reported in that Order in each Theme.

computerized:	Hawaii No	Computer Reference:	
	mation:		

## Archeological Site Survey Record

- MAP NUMBER
- 2. INFORMATION ABOUT SITE: Site; Grids Coordinates; Location; Contour Elevation; Previous Site Designation.
- 3. SITE OWNER'S INFORMATION: Owner's Name; Address; Present Tenant; Attitude Toward Excavation.
- 4. DETAILS ABOUT SITE: Site Description; Area; Depth of Deposit; Soil of Site; Vegetation; Previous Excavation; Surface Features, Roads, Buildings, etc.; Artifacts; Burials.
- GENERAL INFORMATION ABOUT THE SURVEY: Date of Survey; Recorded By; Photos; Sketch of Site Map; Public Reference.

Camputaniand, W. Camputan Dafanana	
Computerized: No Computer Reference	ce:
General Information: REC 7	164

### Inventory Data Form

- 1. NAME: Common; And/Or Historic; Type of Site (Specify).
- LOCATION: (Specify the Following) Street/Number; Lot or Estate Number; Municipality; Land Square and Section; GSA Code Number; Local Place Name; Site Identification Number.
- 3. CLASSIFICATION: Category (Check One) district, site, building, structure, object; Ownership (Check One or More As Appropriate) Government of Guam, private, federal; Status (Check One or More As Appropriate) occupied, unoccupied, preservation work in progress; Accessible to Public (Check One) no, yes (restricted), yes (unrestricted); Present Use (Check One or More As Appropriate) agriculture, commercial, conservation, education, entertainment, government, industrial, military, museum, park, residence, ranch, religious, science, transportation, unused, other.
- 4. OWNER PROPERTY: Name; Street/Number; Mailing Address; Municipality;
  Leasee's Name(s); Leasee's Address; Owner Attitude (Check One) unrestricted research allowed, no research allowed.
- LOCATION OF LEGAL DESCRIPTION: Name of Government Agency; Street/Number; Mailing Address.
- 6. REPRESENTATION IN EXISTING SURVEYS: Title of Survey; Author/Participant; Date of Survey; Type of Survey (Check One) - GovGuam, private, federal; Survey Records Located At: Artifacts Located At.
- 7. DESCRIPTION: Known Pressure on Site (Check One) yes, no; Destruction (Check One) - no known future danger, possible future danger, future danger certain, present danger, presently being destroyed, condition (check one) excellent, good, fair, deteriorated, ruins, unexposed; Integrity (Check One) altered/original location, altered/moved, unaltered/original location unaltered/ moved.
- SIGNIFICANCE: Period (Check One or More As Appropriate) Pre-Magellan, 16th Century, 17th Century, 18th Century, 19th Century, 20th Century; Specific Dates, Areas of Significance (Check One or More as Appropriate) aboriginal/prehistoric, aboriginal/historic, agriculture, architecture, art, commerce, communications, conservation, education, engineering, industry, invention,

landscape architecture, literature, military, music, political, religion/
philosophy, science, sculpture, social/humanitarian, theatre, transportation,
urban planning, other; Importance as Example of Type Site (Check One) good, moderate, poor; Susceptability to Interpretation (Check One) - good,
moderate, poor; Research Potential (Check One) - good, moderate, poor; Local
Attitude About Site (Check One) - valuable, moderate value, low value,
ambivalent, unknown; Staff Evaluation (Check One) - high value, valuable,
research, marginal; Recommended Disposition (Check One) - nominate national
register, Guam register, staff files.

- 9. MAJOR BIBLIOGRAPHICAL REFERENCES: Legendary Materials Known check yes or no; Written Historical Materials check yes or no; List Any References.
- 10. GEOGRAPHIC DATA: Number of Acres; If More than 10 Acres latitude and longitude coordinates defining a rectangle; If Less than 10 Acres latitude and longitude coordinates defining the central point.
- 11. FORM PREPARED BY: Name and Title; Organization; Street/Number; City/Municipality.
- 12. GOVERNMENT OF GUAM REVIEW RECORD AND EVALUATION: Name of Reviewers; Title; Category (Check One) high value, valuable, low value, marginal; Significance (Check One) national, local; Recommended Disposition (Check One) nominate national register, Guam register, staff file.
- 13. REVIEW BOARD EVALUATION RECORD: Date Reviewed; Official Category (Check One) high value, valuable, reserve, marginal; Official Significance (Check One) national, local; Official Disposition (Check One) nominate national register, Guam register, staff file.

#### Site Description Form

- 1. VERBAL DESCRIPTION: Bearings and Sources Used to Locate Feature; Terrain and Vegetation; Size; Shape; Construction Techniques; Materials Used; Condition; Surface Artifacts or Midden Visable.
- SIGNIFICANCE STATEMENT: Unusual or Important Characteristics; Accessibility; Interpretive and Research Potential; Evaluation of the Site's Importance as a Representative of its Class.
- RECOMMENDATIONS FOR REGISTER CATEGORY
- 4. PICTURE OF THE SITE

#### Site Map Form

- 1. GRID MAPS SHOWING DETAIL OF THE LOCATION AND LAYOUT OF THE SITE TO SCALE.
- 2. SMALL MAP OF GUAM SHOWING THE AREA DETAILED.

116	Guam Master Plan, Transpor	tation Factors	
Gource Agency: Gre	enleaf/Telesca - Ahn.	,	
Computerized: No	Computer Referen	ce:	·····
eneral Information:	TRN 2	t e	
	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
Table TC-1 Motor Vehicle Registra- tion	Year - FY1963 thru FY1970	Private Taxicab Cargo Trailer Motorcycle Dealer Bus Special Equipment Military Total Vehicle	1
Table TC-2 Motor Vehicle Registra- tion and Population	Year - FY1963 thru FY1970	Total Vehicle Total Population Persons Per Vehicle	
Table TC-3 Parking Inventory (Date of Survey - May 1971)	Shopping Centers Recreation Centers Government Offices Finance Centers - Office Buildings	Number of Spaces	
Table TC-4 Revenue Cargo Handled; Manager, Commercial Port of Guam	Year - FY1963 thru FY1969	Unloaded (Thousand Tons) Loaded (Thousand Tons) Trans-Shipped Total	
Table TC-5 Surface Landings	Year - FY1963 thru FY1969	United States Japanese Inter-Island Other Countries Military Total	1
Table TC-6 Tourist and Visitors Arrivals; ERC, Dept. of Commerce	Year - 1967 thru 1969	Tourists Visitors Total	

# TRN Detail 1

Title/Date/Source	Row Labels	Column Headings	Notes
Table TC-7 Projections - Tourist and Visitor Arrivals, ERC, Dept. of Commerce	Year - 1970 thru 1975	Tourists Visitors Total	
Table TC-8 Air Freight (Thousand Lbs.)	Year - 1967 thru 1969	Unloaded Loaded Total	

NOTES.

Notes 1 thru 5 are standard notes, refer to introduction.

	[itle: Statis	ical Abstract. 1974.	Verlaging 3	
		ERC, Department of Comme		
	Computerized: No	Computer Referen	ce:	
	General Information: TRN	N 2		
		Description of Table(s)		
-	Title/Date/Source	Row Labels	Column Headings	Notes
	Table No. 75 Motor Vehicles Licensed on Guam: FY1965-FY1974; Dept. of Revenue and Taxation	Year - FY1965 thru FY1974	Private Taxicab Cargo Trailer Motorcycle Dealer Bus Special Equipment Military Total	1
	Table No. 76 Commercial Aircraft Landings, Guam International Air Terminal: FY1965-FY1974; Customs and Quarantine Division, Dept. of Commerce	Year - FY1965 thru FY1974	Number of Commercial Aircraft Landings	
	Table No. 77 Surface Craft Arrivals, By Origin, Commercial Port of Guam: FY1965- FY1974; Customs and Quarantine Division, Dept of Commerce	Year - FY1965 thru FY1974	Inter-Island Japan United States Other Total	
	Table No. 78 Total Revenue Cargo: TY1965-FY1974; Surface- Commercial Port of Guam, and Air-Guam Internation- al Air Terminal	Year - FY1965 thru FY1974	Surface (Thousand Revenue Tons) Air (Thousand Lbs.) (Above 2 Categories are each broken down into:) - Unloaded - Loaded - Total - Transshipped (Surface Only)	
	DTES:			

	,			
Title	: Trans	ortation Planning Manual	FF. park	50(4)
		partment of Public Works		
		Computer Referenc		
	al Information: TF			
Gener	at Intermetion.			
		Description of Table(s)		0
	Title/Date/Source	Row Labels	Column Headings	Notes
Guam Surv Plan	Figure 8 Origin - Destination ey November, 1973; ning Division, Dept. and Management	Map of Guam Showing the Location of Roadside Interview Stations and the Survey Cordon Line		tan s
1-21	Figure 9 Roadside In	terview		
1.		Vehicles are Interviewed of the Week, Hour (a.m.,		
. <b>2.</b>	TYPE OF VEHICLE: Pa Combination Truck;	essenger Auto; Pickup or P Faxi; Motorcycle.	anel; Single Unit Truc	k;
3.	NUMBER OF PERSONS IN	VEHICLE		
4.	Station; Agat; Nava Station; Chalan Page Station; Inarajan; Port; Santa Rita;	PLACES OF DESTINATION: A al Station; Asan; Nimitz D-Ordot; Dededo; Liguan T Mangilao; University of G Naval Magazine; Sinajana; Memorial Hospital; Harmotac.	Hill; Barrigada; Nava errace; Naval Communic uam; Merizo; Piti; C Talofofo; Tamuning;	l Air ation ommercial Interna-
5.	PURPOSE OF TRIP AT OF Social-Recreational; Hotel; Home.	RIGIN AND DESTINATION: Wo Pickup Mail; School/Bus	rk; Shopping; Medical Stop; Other Personnal	-Dental; Business;
6.	Business Vehicle; R	Y: U.S. Government Vehiclesident - Chamorro, Filipinsident/Contract/Alien; Vis	o, Oriental; Resident	- State-
1973 nati 0-D	Figure 11 Guam Origin - Desti- on Study Summary of Trips by User Categor Trip Purpose	- Chamorro, Filipino,	Trip Purpose Summary - Home/Work - Home/Shop - Home/Other - Non Home Based	5 1
allu	rrth rathose	- Temporary Residents	- Total	137

0			
Title/Date/Source	Row Labels	Solumn Headings	Notes
	- Military Personnel and Dependents - Commercial Business - Gov Guam - U.S. Government Vehi- cles - Subtotal - Visitors - Total		
-27 Figure 12 373 Guam Origin - Desti- ation Study Average whicle Occupancy by ser Category and Trip arpose	Vehicle User Category - Civilian Residents - Chamorro, Filipino, Oriental - Statesiders - Temporary Residents - Military Personnel and Dependents - Visitors - Commercial Business - Gov Guam - U.S. Government - Total	Trip Purpose Group - Home/Work - Home/Shop - Home/Other - Non Home Based All Other Trips	1
-31 Figure 15 stimated Average Day raffic Interchange stween Municipalities ovember, 1973 Origin - estination Survey	Observed Trips Between - 19 Municipalities Total Observed Trip Ends (Origins and Destina- tions)	Observed Trips Between - 19 Municipalities Observed Trip Ends (Total Origin and Destinations	
-36 Figure 17 um Population and ployment 1970 Census d Estimated 1973 lstribution	Municipality - 19 Municipalities	1970 Census  - Resident Population  - Civilian  - Military  - Total	1 6
-41 Figure 20  am Socio/Economic  ta - 1970  -54 Figure 26  am Socio/Economic  ta - Forecast Level 1  above 2 Tables  the Same Row Labels  d Column Headings)	Items - 1970 Population - Guam Born Civilian - U.S. Born Civilian - Foreign Born Civilian - Military - Total - Census District Total - 1970 Housing (Number of Dwelling Units) - Single Family Dwel-ling Units	- Agat - Asan	1 7

Title/Date/Source	Row Labels	Column Headings	Notes
(, e	- Multi Family Dwel- ling Units (Above 2 Categories are each broken down into:) - Civilian - Military - Total - Total Dwelling Units - Census District Total - 1970 Employment - Retail Wholesale Employment - Non Retail (Including Gov. Guam) - Federal Government (Civilian) - Military Jobs (Total) - Total Jobs - Census District Job Total - 1970 Income - Civilian Family Income - Percent Over \$5,000 - Percent Over \$10,000 - Percent Over \$10,000 - Percent Over \$15,000 - 1970 Education (Number of Schools) - Elementary and Junior High - High School - University - Miscellaneous - Hotel Motel Rooms - P.O. Boxes (1972)  Map of Guam Showing - Control Section - Subsection - Control Section - Terminator - Subsection Terminator - Route Number	- Piti - Apra Harbor - Civilian - Santa Rita - Naval Station - Naval Station Housing - Naval Magazine - N.E. Civilian - S.W. Civilian - Sinajana - Talofofo - Tamuning - Harmon Village - Civilian - Yona - Yigo - Marbo - AAFB - Civilian - Umatac - Totals	
	i e		

Title/Date/Source	Row Labels	Column Headings	Notes
23 <sub>im</sub> Bridge Inventory Jex as of 12-31-73	None	Map Reference Number Route Number Control Section Mile Post Type of Structure Feature Crossed	
44 Exhibit XVIII sting of Control ctions by Route	None	Control Section List by Route - Control Section - Sub - Route - Highway Class - Federal Aid - Municipal Jurisdiction - Registered Mile Post - Section Length Control Section Description	
Figure 1 quid Fuel Tax and hicle Registration	Graph Showing Revenue in Millions of Dollars - Total Revenue - Liquid Fuel Tax - Motor Vehicle Registra- tion	Historical Data - FY1962 thru FY1973 Projected Data - FY1973 thru FY1978	
tor Vehicle Registra- m: FY1962-FY1973 eparate Tables for Each ar); Dept. of Public rks, Highway Division Cooperation with the pt. of Revenue and tation	Private (By Revenue and Taxation) - Taxicab - Cargo - Trailer - Motorcycle - Dealer - Bus - Special Equipment - Soldier/Sailors - Total Exempt (By Highway Division) - Sedan - Pickup/Van - Cargo - Trailer - Bus - Total	Quarter - 1st thru 4th - Number of Vehicles - Amount Revenue Total GovGuam U.S.	8 9 10 11
	-	di di	

	2					TRN	Detai
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Mata
4-18 Liquid Fuel Tax Statis- tics: FY1962-FY1973 (Separate Tables for Each Year); Dept. of Public Works, Highway Division In Cooporation with the Dept. of Revenue and Taxation	Revenue - Gasoline - Diesel Fuel - Aircraft Fuel (Above 3 Categories are each broken down into:) - Gallons - Collections - Tax Rebate - Disbursements Total - Gallons - Net Revenue Exempt - Export Fuel (Gallons)	Quarter - 1st thru 4th Total	12 13 1	6-24 Exhibit VII Summary Form For Vehi- cular Volumes	Time Of Day In Increments Of 1 Hour Daily Total	Direction Direction Hourly Total Percent Of Grand Total Percent Of Hourly Peak Direction - List Of: - Daily Count Grand Total - Related Key Station - Additional Adjustment Factor - Average Daily Traffic - Percent A.M. Peak Hour	Notes
n V 200	- Military Fuel (Gallons) Total	,	7			- A.M. Dir. Split - Percent P.M. Peak Hour - P.M. Dir. Split	
6-14 Exhibit I Traffic Count Stations (1969 and 1972)  6-19 Exhibit IV 1974 Machine Count Program  6-22 Exhibit 5	Map of Guam Showing Traffic Count Stations - Station Number  None  Map of Guam Showing	Route Number Functional Classification Control Section Number Count Location Number Count Type - Continuous Key - Key - Major - Minor - Coverage Date of Count Manual Classification Count Year		6-26 Exhibit VIII Vegicle Classification Count  6-27 Exhibit IX Traffic Classification Count Summary  6-28 Exhibit X Vehicle Volume Count  6-29 Exhibit XI Vehicle Volume Graphic Summary Sheet  (The above 4 exhibits have the same row labels and column headings.)	Hour Period - 6:00 A.M. to 10:00 P.M. in increments of 1 hour	Date and Day Of Week Passenger Automobiles Pickup or Panel Large Commercial Vehicles - Single Unit - 2 Axle - 3 Axle - Combination - 3 Axle - 4 Axle - 5 Axle - Total Large Trucks Taxi Motorcycle Buses - School - Military - Other - Total Buses	
Station Locations for Traffic Counting Program  6-23 Exhibit VI Summary Form for Vehicular Volumes 7-Day Key/Major	Count Station Locations - Continuous - Key - Major - Minor - Coverage - Station Number	Days of the Week and Date - Monday thru Sunday					
Count Station (Daily Factor)	200	5 Day Average			301		

- 6 For study purposes, N.A.S. is considered entirely within Barrigada.
- 7 Table 26 also shows projected civilian population increase, projected housing density and projected percent of employment in each place. There are no figures for education.
- 8 FY1973 table includes Private Motor Vehicle Registration data for 1st thru 4th Quarters with the total number and revenue; and Exemption data for GovGuam, U.S. Navy and U.S. Air Force with the total number.
- 9 FY1972 and FY1971 tables include Private Motor Vehicle Registration data for 1st thru 4th Quarters with the total number and revenue; and Exemption data for U.S. Navy and U.S. Air Force.
- 10 FY1970 and FY1969 tables include Private Motor Vehicle Registration data for 1st thru 4th Quarters with the total number and revenue.
- 11 FY1968, FY1967, FY1966, FY1965, FY1964, FY1963 and FY1962 include Private Motor Vehicle Registration data for the total number and revenue only.
- 12 FY1973, FY1972, FY1971, FY1970 and FY1969 tables include total revenue and total exempt data for the year only.
- 13 FY1968, FY1967, FY1966, FY1965, FY1964, FY1963 and FY1962 tables include revenue data for 1st thru 4th quarters with the total net revenue only, and the total gallons of fuel for the year.

i	tle: Transpor	ctation Program - Fiscal Yo	ear 1975 Thru 1979	
	urce Agency:	Department of Public Works	3 Division	
0	mputerized: No	Computer Reference	ce:	
E	neral Information:	TRN 3		
		Description of Table(s)		
	Title/Date/Source	Row Labels	Column Headings	Notes
	Table I.1 Guam Transportation Program, Total Cost of Recognized Needs	Trunk Highways Major Highways Minor Highways Collector Roads Local Roads Bridges Urban Mass Parking Pedestrian and Bicycles Highway Safety New Construction - Trunk - Major - Minor - Collector - Local Project Total Highway Operations Grand Total of Dollar Needs Local Funds Unmet Dollar Needs	Year - 1975 thru 1979 - 1980 and Beyond	
	Table II.1 Trunk Highways Listing (Location of the Trunk Highways are also Shown on a Map of Guam (Figure II.1) Volume/ Capacity Ratios are Color Coded on the Map)  Table II.2 Trunk Highways Reconstruction (Locations of Trunk Highway Reconstructions are also Shown on a Map of Guam (Figure II.2) Volume/	Project - Route 10, from Route 15 to Route 8 - Route 1 from Route 14 to Route 4 - Route 10 from Route 4 to Route 15	Route Number Control Section Number of Lanes Length  Rank/Rating Year - FY1975 thru FY1979 - FY1980 and Beyond (Above 2 Categories are each broken down into:)	
	Capacity Ratio are Color Coded on the Map)	- Route 4, Part 3 Route 10 to Chaot	- Federal - Local	

Title/Date/Source	Row Labels	Column Headings	Notes
	- Route 2 from Route 1 to Namo River - Route 4, Reconstruction Part 2 Bottom Hill to Chaot - Progressive Signalization of Marine		in the second
	Drive, from Route 10A to Y-Sengsong - Route 1 from Route 4 to Naval Station - Route 8, Reconstruc-		
#2 30	- Route 27, Harmon Loop - Route 1, Route 16 to Route 28 (Y-Sengsong Road)		
Table II.3	- Route 1, Route 28 to Yigo None	Route	
Major Highways Listing (Location of the Major Highway are also Shown on a Map of Guam (Figure II.3))		Control Section Number of Lanes Length Total Miles for 2 Lanes	
Table II.4 Major Highways Reconstruction (Locations of Major Highway Reconstruction are also Shown on a Map of Guam (Figure II.4) Volume/Capacity Ratios are Color Coded on the Map)	Project - Route 15, Route 10 to Route 29 - Route 7, Reconstruction - Route 1, Yigo to AAFB - Route 4, Route 10 to Route 17	Rank/Rating Year - FY1975 thru FY1980 - FY1980 and Beyond (Above 2 Categories are each broken down into:) - Federal - Local	
Table II.5 Minor Highways Listing (Locations of the Minor Highways are also Shown on a Map of Guam (Figure II.5))	None	Route Control Section Number of Lanes Length	

Title/Date/Source	Row Labels	Column Headings	Notes
Table II.6 Minor Highways Reconstruction (Locations of the Minor Highway Reconstructions are also Shown on a Map of Guam (Volume/Capacity Ratios are Color Coded on the Map))	Shoulders and Surface - Route 2, Taleyfac	Rank/Rating Year - FY1975 thru FY1979 - FY1980 and Beyond (Above 2 Categories are each broken down into:) - Federal - Local	
Table II.7 Collector Road Listing (Locations of Collector Roads are also shown on a Map of Guam (Figure II.7))	None	Route Control Section Number of Lanes Length	
Table II.8 Collector Roads Reconstruction	Project - Route 11, Overlay - Route 14, Hospital Road - Ypao Road - Route 33, MongMong- Toto - Route 32, U.O.G Route 29 - Tumon Road-J.F.K Harmon Village Road - Route 6 Total	Rank/Rating Year - FY1975 thru FY1979 - FY1980 and Beyond (Above 2 Categories are each broken down into:) - Federal - Local	
Table II.9 Village Street Improve- ment	None	Villages Miles of All Local Streets Schedule for Repair or Finished Cost of Program	
Table II.10  Guam Bridge Inventory Index as of 12/31/73  (Location of Bridges is also shown on a map of Guam (Figure II.8))	None	Map Reference Number Route Number Control Section Milepost Type of Structure Feature Crossed	

Title/Date/Source	Row Labels	Column Headings	Notes
Table II.12 Accidents at Bridges	None	Rank Bridge Name 1973 Total Accidents	111
Table II.11 Bridge Projects	Project - Talofofo Reconstruction - Alonso - Inarajan Bridge Reconstruction - Chaote Bridge - Sumay and Lygog - Pago Bridge Reconstruction - Umatac Bridge - As Lingit Bridge - Minondo Bridge - Agana Bridge - Agfayan Bridge - Agfayan Bridge - Aguada Bridge - Aplacho Bridge - Total	Rank/Rating Year - FY1975 thru FY1979 - FY1980 and Beyond (Above 2 Categories are each broken down into:) - Federal - Local	
Table II.13 New Construction (Locations of New Construction are also Shown on 5 Maps of Guam (Figure II.9.A thru II.9.E))	Project - Highway Planning and Research - Collectors - North-South Alternate to Marine Drive - Trunk Highways - Cross N.A.S. Artery - Central Artery - 1 - Central Artery - 2 - Central Artery - 3 - Minor Highways - Realignment of Route 4 from Umatac to Inarajan (7 Miles)	Year - FY1975 thru FY1979 - FY1980 and Beyond (Above 2 Categories are each broken down into:) - Federal - Local	
Table I.2 Schedule of Local Revenues	Local Registration Liquid Fuel Tax Total Local	Year - FY1975 thru FY1979	

Table I.7 Status of Obligation  None  Project Name Project Number Planning and Engineering Federal Share Utility Work Construction Total Local Appropriated Total Cost	Title/Date/Source	Row Labels	Column Headings	Notes
		None	Project Number Planning and Engineerin Federal Share Utility Work Construction Total Local Appropriated	
				*
		•		

Title: Guam Comprehensive	Transportation Plan			Title/Date/Source	Row Labels	Column Headings	Notes
Computerized: No	c of Public Works - Plannin  Computer Reference  RN 3				expected to take place; - Residential - Commercial - Industrial		
·	Description of Table(s)	9		Igure 2-d #80 Projected Civilian and Use; D.P.W.	Map of Guam Showing the Generalized Land Use		
Title/Date/Source	Row Labels	Column Headings	Notes		- Residential - Commercial - Industrial		
Table 1-1 Goals, Objectives and Policies of the Comprehensive Transportation Plan 1970-1975; Dept. of Public Works	Goals - Transportation Performance - Transportation Balance - Support National and Local Interests - Environmental Preser-	Objectives . Policies		lgure 2-e llitary Lands; D.P.W.	Map of Guam Showing the Locations of the Various Military Installations on Guam		1
Table 2-a Population Projection	vation  Numbers in Thousands	Years		igure 3-a verage Daily Traffic; 373; D.P.W.	Map of Guam Showing the Average Daily Traffic on the Present Primary Highway Network		7
Range 1950 thru 1990; Bureau of Census  Table 2-1 Population 1960-1970; Bureau of Census	Year - 1960 - 1965 - 1970	Military Guamanians Statesiders Filipinos	1	gure 3-b verage Daily Traffic recast Level; D.P.W.	Map of Guam Showing the Average Daily Traffic Forecast in 1988 assuming no significant highway additions are constructed		
Table 2-2 Motor Vehicle Regis- tration 1964-1974; Plan- ning Division of D.P.W.	Year - 1964 - 1969 - 1974	Others Total  Private Military Commercial Other Total	1	gure 3-c recast Volume to esent Roadway Capacity; P.W.	Map of Guam Showing the Volume to Present Road- way Capacity; - Ratio greater than 1.5 - Greater than 1.1 but less than 1.5 - Greater than 1.0 but less than 1.1		
Figure 2-b Guam Land Ownership Pattern; 1975; D.P.W.	Map of Guam Showing the Ownership of Land - Federal - Government - Private	*	2	Sure 3-d ips within the Agana- uning Area; 1973	Map of Guam Depicting Graphically the trip travel patterns observed in the Agana-Tamuning Area		
Figure 2-c Development Areas; 1975; D.P.W.	Map of Guam Showing the General Locations where development is			Nure 3-e Wel Demand to Agana;	Map of Guam Showing the existing and forecast traffic destined for Agana, Tamuning and Mangila	•	6

						T	RN Detail 5
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Figure 3-f Travel Demand to Tamuning D.P.W.	;;	+			- Finance, Insurance & Real Estate - Service		notes
Figure 3-g Travel Demand to Mangilad	r.°	ar d			- Government - Federal - Local		
(Above 3 figures have similar row labels)	a				- Total		
Figure 4-a Reconstructed Network; D.P.W.	Map of Guam Showing the Reconstructed Segments - 2 lanes - 4 lanes			ble 2-6 tomobile Operation sts; 1975; D.P.W.	Four Year Straight Line Depreciation of \$400 Car. Insurance, Licensing and Registration	Yearly Costs	
T	- 6 lanes	e.	: :: : : : : : : : : : : : : : : : : :		Maintenance Costs Fuel Costs Total Yearly Costs		
Figure 4-b New Highway Alternatives; D.P.W.	Map of Guam Showing Major Highway Recom- mendations	l a	7	ble 3-1 ction of Highways on mm by Level of Service	Level C Level D Level E	Road Segments	9
Figure 5-a C.T.P. Recommended Nighway Plan; D.P.W.	Mar of Guam Showing the Location of the Recom- mended New Segments of the Primary Highway	8 :w	8	wen to Users; 1975;	Level F	ž.	
Land Ownership; 1975;	Network Federal	Acres	5	ble 3-2 les of Road by Classi- cation; 1974; Planning wision of D.P.W.	Lanes - 2 lanes - 3 lanes - 4 lanes	Trunk Major Minor Collector	
Land Management	Gov't. of Guam Private Lands	,	3		- over 4 lanes - Total - Local	Local Total Paved Unpaved	
Table 2-3 Population Projection by District; 1970 thru 1990; D.P.W.	19 Districts Military Total	1970 Census 1980 1988-1990	1	ble 3-3 ips between Central im Traffic Districts; 73; origin-destination	Origins - forecast level-1 - forecast level 1 - subtotal	Destinations - 1973 Subtotal	10
Table 2-4 Gross National Report; FY 1967-FY 1973; Stanford	Year - FY 1967 thru FY 1973	Guam's GNP (millions of dollars)	64	Tvey	- total - 1973	*	
Research Institute	*	=	7.14	ble 4-1 thway Alternatives st; 1975; D.P.W.	Alternative I - Base Program - New Highway Projects	Cost	11
Table 2-5 Employment Third Quarter; 1973; Bureau of Labor Statistics	Industry Division - Agriculture - Construction - Manufacturing	Total Employment	5		- New Highway Projects - Marbo Connector - Airport Road Extension - 4 lanes to Rt. 16		
	- Transportation, Communication, Electri Gas & Sanitary Service				- Marine Drive widening to 6 lanes Rt. 6 to Rt. 4 - Total Cost		
,	- Wholesale & Retail Trad	е	,		TOTAL COSE		1

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
1						obtain neadings	Notes
35	Alternative III				- spare parts and engin		
	- Base Program				- 130 system two-way	1"	
	- New Highway Projects				radios	!	1
	- Marbo Connector	4			- 400 bus shelters	i	1
	- Airport Road Extensi	on	1	N.	- 3 passenger staging		- 1
	- Jalaguac Road Connec	or			areas		
	- Marine Drive widening	•		B 5		1	
	to 6 lanes Rt. 6				- 6 parking areas	1	4.4
	to Rt. 4		1		- Bus Compound and Repair	r	
	- Rt. 15 to Rt. 4				Facilities and Office		1
	Connector				- Total	ĺ	
	- Total Cost						- 1
	Alternative II			able 5-1			
	- Base Program		1		Group A - First Five Yea	r Lanes	
	The state of the s		1	bad Reconstruction	Program	Miles	. 4
	- New Highway Projects			rogram; D.P.W.	- Project	Cost	
	- Marbo Connector			I K	- Bridges		
w.	- Airport Road Extension	n		12.	- Road Reconstruction		
	- 4 lanes to Rt. 16	W	1		Group B - Second Five		1
	- Jalaguac Rd. Connecto				Year Program		
	- Marine Drive widening		317		- Project		
*	to 6 lanes Rt. 6	(86	1029		- Bridges		1
	to Rt. 4		100		- Bridges		
	- Total Cost				- Road Reconstruction		
	Alternative IV	<b>X</b>			Group C - Third Five	Æ	
	- Base Program				Year Program		1
	- New Highway Projects				- Project		1
	- Marbo Connector	the state of the s			- Road Reconstruction		1
					5-539		1
	- Airport Road Extension			41. 5.0	i i		
	- Jalaguac Rd. Extension			ble 5-2	Group A - First Five		
	- Rt. 15 to Rt. 4 Conne	ctor		Highway Construction	Year Program		
	- Nimitz Hill by pass		=11	rogram; 1974; D.P.W.	- Project		-
ū.	- Total Cost	1.0			- Total Cost		1
*					Group B - Second Five		
	1	Į.			Year Program		1
Various Transportation	Automobile	Vehicles per lane per ho	our	II.	- Project	• •	1
Modes; D.P.W.	Bus Transit	Vehicle capacity	1	4	- Total Cost		1
	Dual Mode	Passengers per hour per			Group C - Third Five		1
	Fixed Rail	lane		P	Your Process		
4			4	III.	Year Program	•	
	1 5			12	- Project		
Capital Facilities and	60 Bus System	Cost	-	The state of the s	- Total Cost		
Equipment; 1974; D.P.W.	- 40-50 passenger buses						1
Equipment, 1974, Bilini	- 20-30 passenger buses			vilian Una Para	1		1
	- spare parts and engines	ļ		Wilian Home Based Work	Arrivals at Agana from	Number of People	1
				ips per Day; 1973;	- Yigo		1
	- 65 system two-way radio	Γ		P.W.	- Dededo		
	- 200 bus shelters				- Santa Rita/Agat		1
	- staging area in Agana			II.	- Chalan Pago/Ordot		1
	- Commuter parking area			Dr.	- Umatac		
	- Bus Compound and Repair				- Merizo		
	Facilities and Office	1		100	- Inarajan		1
	- Total				- Talofofo	0	A
	120 Bus System				- Yona		1
	- 80-50 passenger buses			1	Tona		
	- 40-30 passenger buses						1
	L	1	1				1

							INN DECAT
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
	Arrivals at Naval Station from - Dededo - Barrigada - Sinajana - Chalan Pago/Ordot			ble 6-3 T.P. Estimated Yearly ficits: Full Plan plementation; 1976 thro 90; D.P.W.	Year - 1976 thru 1990	Total Program Funds Available Deficit	12
	Arrivals at Tamuning from - Dededo - Santa Rita - Agat - Chalan Pago/Ordot			le 6-4 C.P. Estimated Yearly icits: Partial gram Implementation; 6 thru 1990; D.P.W.	Year - 1976 thru 1990	Partial CTP Program Funds Available Deficit	12
Table 5-3 Comprehensive Transportation Plan: Recorded Programming; 1975-1990; D.P.W.	First Five Year Program 1975-1980 - Group A Reconstruction Projects - New Highway			istration Fees; 1974; t. of Revenue and ation; D.P.W.	Motorcycle Taxi Special Equipment Bus	Fees	
	Construction Second Five Year Program 1980-1985 - Group B Reconstruction Projects - New Highway Construction			e 6-5 Capita Personal me Comparisons Guam Other States; 1970	Trailer Private Year - 1970 thru 1972	Guam Mississippi Connecticut	
	- Transit Third Five Year Program 1985-1990 - Group C Reconstruction Projects - New Highway Construction - Transit			1972; D.P.W.  e 6-6 ncing: Increasing ral Aid: Total C.T.P. ram; 1976 thru 1990;	Year - 1976 thru 1990	Hawaii U.S.A.  Total CTP Program Funds Available Required Federal Aid	13
Table 6-1 Territorial Highway Fund: Projected Revenues; 1976 to 1990; D.P.W.	Year 1976 thru 1990	Vehicle Registration Retail Fuel Diesel Fuel Aircraft Fuels Federal Aid Total	12		Year - 1976 thru 1990	Partial CTP Program Funds Available Required Federal Aid	13
Table 6-a Motor Vehicle Registration 1975 to 1990; D.P.W.	Number of Vehicles Registered in Thousands	Year - 1975 thru 1990 in increments of five years	1 4	vehicle trips per day			
Table 6-2 Estimated Funds Available: 1976-1990; D.P.W.	Year - FY 1976 thru FY 1990	THF Revenues Operation Expenditure Funds Available	12	ghway Recommendations: oute 16; Jalaguac Road unction to Route 6; Ma	: Marbo Connector; Airpord I Connector; Route 15 to Ro arine Drive Widening; Route	t Road Reconstruction; 4- oute 4 Connector; Commiss e 6 to Route 4; Nimitz Hi	lane ary ll By Pass

- 8 Recommended New Segments: Marbo Connector; Airport Road Extension; Jalaguac Road Extension; Route 15 to Route 14 Connector; Nimitz Hill By Pass.
- 9 Levels of Service: Level C - Accepted by traffic engineers as a desirable standard for construction
  - of urban streets and highways. Level D - Approaches unstable flow
  - Level E Represents operation at even lower operating speeds than in Level D.
  - Level F Describes forced flow operation at low speeds where volumes are below capacity.
- 10 Origins and Destinations: Agana; Tamuning; NAS; Barrigada Hill; Barrigada; Mangilao; Chalan Pago/Ordot; Sinajana; Agana Heights.
- 11 Base program is complete 15 year reconstruction program.
- 12 Assumes continuation of current tax rates for the T.H.F.
- 13 Difference between expenditure from T.H.F. and local revenues.

Title: Origin Des	tination Trip Count for Gu	20 <b>3</b> 48	
Source Agency: Dep	artment of Public Works		
Computerized: Yes, but not a	available Computer Referen	ce:	
General Information:			
	Description of Table(s)	ř.	
Title/Date/Source	Row Labels	Column Headings	Notes
Highway Network 1973 Forecast Level 1-Net 2	Row Labels and Column He They are the Following 3 No. 1 Naval Station No. 2 Naval Station Housing No. 3 Naval Magazine		
(Above 2 Tables Have the Same Row Labels and Column Headings)	No. 4 Apra Harbor No. 5 Nimitz Hill No. 6 Naval Hospital No. 7 Naval Air Station No. 8 Naval Radio Station No. 9 NCS Housing	Nimitz Hill) - Civil No. 28 Piti (North of Naval Reservation) - Civil No. 29 Yona No. 30 Santa Rita (N.E. of Naval Reservation)	
	No. 10 Naval Communications Station No. 11 AFB Housing (Marbo) No. 12 Anderson Air Force Base No. 13 AAFB - Northwest Field No. 14 AAFR - Harmon Village No. 15 Tamuning - Civil No. 16 Dededo - Civil No. 17 Yigo - Civil No. 18 Mangilao (North East Portion) - Civil No. 19 Barrigada (North East Portion) - Civil No. 20 Mangilao (South West Portion) - Civil No. 21 Barrigada (South West Portion) - Civil No. 22 Mongmong-Toto-	- Civil No. 31 Santa Rita (S.W. of Naval Reservation) - Civil No. 32 Agat - Civil No. 33 Talofofo - Civil No. 34 Inarajan No. 35 Umatac No. 36.Merizo	
	Maite No. 23 Agana No. 24 Agana Heights - Civil		

Title: Proposed Strat	egy for Mass Transit on G	uam	
Source Agency: Departme			
Computerized: No		ce:	
General Information:	TRN 4		
	Description of Table(s)	W KI	
Title/Date/Source	Row Labels	Column Headings	Notes

Title/Date/Source	Row Labels	Column Headings	Notes
Home to Work Trips in Major Travel Areas on	Arrivals at Agana from - Yigo - Dededo	Person Trips Per Day	6
Guam	- Santa Rita/Agat - Chalan Pago/Ordot	TAX	
, ,	Arrivals at Agana from - Merizo - Inarajan - Talofofo		
	- Yona Arrivals at Naval Station	,	
•	- Dededo - Barrigada - Sinajana - Chalan Pago/Ordot		
	Arrivals at Tamuning from - Dededo - Santa Rita - Agat		
	- Chalan Pago/Ordot	1	

6 - This table is untitled in the report. According to the text, the numbers are based on an origin - destination roadside interview conducted "last November".

<pre>fitle: Application of the Govern Grant Source Agency: Department o</pre>	ment of Gas. The Mass Transportation Capital Improvemen
Computerized: No	Computer Reference:
General Information: TRN 4	
Information	n Contained on the Document

EXHIBITS CONTAINED: Project Description; Public Transportation System; Project Justification; Financing From Transportation System Revenues; Net Project Cost and Grant Funds; Planning; Public Transportation Program; Use of Project Facilities, Labor; Public Hearing; Relocation; Environmental Impact Statement; Elderly and Handicapped Applicants; Map of the Applicants Jurisdiction on Non-Descrimination in the System.

## APPENDICES:

General Fund: Statement of Revenue
Public Law 12-101
Public Law 12-110
Territory of Guam Master Plan
1970 Highway Master Plan
Public Law 11-82
Proposed Strategy for Mass Transit on Guam
Transcript of Public Hearing
Submitted Testimonys
Responses to Environmental Impact Statement and Public Hearing Questions
Environmental Impact Statement
Major Traffic Generators on Guam

Title:The	Agana Traffic Circulation	Plan		Title/Date/Source	Row Labels	Column Headings	Notes
Source Agency:	onathan Michael		7 790		7-1		1
*	Computer Reference	ra.			- Industrial - Roads	-	
computerized: No	Comparer Kereren			-	- Subtotals		
General Information: The	RN 4			II.	- Totals		
			·····			,	
				Pedestrian Crossing at	None	Intersection	
	Description of Table(s)	*	4	Selected Intersections; DPW, Planning Division,		Miles Per Hour 8 Hour Period	
	1	0.3		Field Survey, Spring 1975		o nour reriod	
Title/Date/Source	Row Labels	Column Headings	Notes		•	¥.,	1
		Ci-la Family Horac		Table 3-1	None	Curbside Parking	
Tabla 2-2	Area - East Agana	Single Family Homes Multiple Family Building		Curbside Parking/Interior	none.	- Block Numbers	
Building Types and Dwelling Units by Area;	- Central Agana	Total Family Dwelling	100	Block Parking; DPW, Plan-		- Total Spaces Available	
Field Survey, DPW,	- West Agana	Units	4	ning Division, Field		- Daily Average Legally	
Planning Division, Feb.	- Totals			Survey, Spring 1975	8 6	Parked Cars	1
1975	à		-0.7			- Daily Average Illegally Parked Cars	}
	, "	0.0		1	4-	Interior Block Parking	
Table 2-3	Business Activity	Business by Area		1	*	- Lot Spaces Available	1
Business Activity and	- Type	Employment by Area	350		5	- Daily Average Legally	
Employment in Agana;	- Subtotals by Area	(Above 2 Categories are				Parked Cars	1
DPW, Planning Division,	- Total in Agana	each broken down into:)	75.0			- Daily Average Illegally Parked Cars	)
Field Survey, Feb. 1975		- East - Central		<u> </u>  -		- Non-Lot Illegally	
		- West	-	1		Parked Cars	
	^			1			
-4	<u>a</u>			NOTES:	ed.		1
Table 2-4	Present Zoning	Number of Acres	5	NOIES:		*	+
Zoning and Land Use in	- Classification			Notes 1 thru 5 are standa	rd notes. refer to intro	duction.	
Agana; DPW, Planning	- East Agana - Central Agana						
Division, Field Survey, Feb. 1975	- West Agana		150	1			
reb. 1975	(Above 3 Categories are	1	100		=	*	1
	each broken down into:)	÷.				1	1
*	- Agriculture				9 5 5	1	
*	- Residential - Commercial		100	1 4		1	
	- Industrial			1	8	i .	ŧ
	- Subtotals		1	1	**	i	
	- Totals			. 1		1	
	Existing Land Use		* 5				
	- Classification					**	
	- East Agana - Central Agana		- 10	li.	æ⁻	197	1
	- West Agana	1	1			- 4.	
	(Above 3 Categories are						
	each broken down into:)	48	- 1		*	<u> </u>	
	- Public Institution	4			-	-	
	- Open Spaces - Residential	=		-			1
	- Commercial	19		lk.	as d		1
							1
al a	<i>5</i> ₹	, I					•

4 1/4	I DE	Lus	4 4

Computerized: Yes		Computer Reference:	TRN Detail 27
General Information:	TRN 4		

## Description of Table(s)

		Calina Handings	Natas
Title/Date/Source	Row Labels	Column Headings	Notes
I Accident Summary - January, 1975 (Consists of 10 Different Tables)		*	
I-1 Accident Totals	Accidents Injury Accidents Injuries Fatality Accidents Fatalities Total Dollar-Damages as Estimated on Accident Reports	Numbers	
I-2 Serious Accident Types	Accidents Involving Pedestrians Vehicles Running Off Roads Head on Collisions Overturned Vehicles	Numbers	
I-3 Age, Sex, and Ethnic Origin of Drivers	Age - Unknown - Less than 20 - 20 thru 74 in Increments of 5 Years  Sex - Female - Male Ethnic Origin - Unknown - Guamanian - Statesider - Filipino	Numbers	
	- Korean - Japanese - Other Oriental - Micronesian - Other		

Title/Date/Source	Row Labe	≖ ⊶∴olumn Headings	Notes
I-4 Collision Accidents	Collision Type - Rear End - Head On - Sideswipe - Other - Non Traffic	Number	
-	W		
I-5 Selected Accident Types	Accident Type - Two Motor Vehicles, Both Driven - Accidents Involving Fixed Object - Accidents Involving More than two Motor Vehicles - Accidents in which a Vehicle ran off Road - Accidents in which Vehicle Overturned - Accidents Involving Motor Vehicles, at Least one Vehicle Not Driven	Number	
I-6	Day of Week	Number	
Day of the Week and Time of Day of Accidents	- Monday thru Sunday Time of Day - 11:00 a.m. thru 3:00 p.m 3:00 p.m. thru 7:00 a.m 7:00 a.m. thru 11:00 a.m 11:00 a.m. thru 3:00 p.m 3:00 p.m 3:00 p.m. thru 7:00 p.m 7:00 p.m.		
I-7 Type of Vehicles Involved in Accidents	Type - Unknown - Small Car - Big Car - Pick-Up - Motorcycle - Truck - Bus - Construction Vehicle - Bicycle	Number	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
Title/bate/source	VOM EGDE12	oordin neadings	110003				+
I-8 Property Damage in Motor Vehicle Accidents	Extent of Property Damage - Unknown - 0 thru \$900 in Incre-	Number of Accidents	log	II-2 Citations	Selected Citation Type - Speeding - Improper Backing - Improper Change of	Number Issued (Includes Warnings)	
e e	ments of \$300 - \$900 thru \$1,500 - \$1,500 thru \$2,000	<u>.</u>			Lanes - Right of Way Violation - Drunk Driving	₹ (*)	
	- Over \$2,000		4	it.	- Fail to Yield		
7	#£	•	193	k	- Following Too Close		
I-9 Accident Locations by	Land Use - Unknown	Number of Accidents		11-3	Waldala mana		
Land Use	- Open Country			Vehicle Type Driven by	Vehicle Type - Small Car	Number	
	- Industrial - Business			Driver at Fault	- Big Car		
	- Residential		1	-	- Pick Up		
	- School	lu lu			- Motorcycle - Truck	į	All.
					- Bus		}
I-10	Light Condition	Number of Accidents		5	- Construction Vehicle	*	
Light Conditions	- Unknown - Daylight	•					
	- Dawn			III	Paral Care		
	- Dusk			High Accident Locations	Road Segments - Marine Drive, from	Accident Number	1
	- Dark	×1		g Docuezons	Rt. 8 to Agana-	-	
			1-1		Tamuning Boundary	1	
**					- Marine Drive, from		
II Driver at Fault		-			Agana-Tamuning	200	-
Information (Consists of		,			Boundary to Camp	. 0	
3 Separate Tables)	·		1	4	Watkins - Marine Drive, from		
*_	1	1			Hospital Road to		
		Number			Airport Road		ļ
II-1	Age - Unknown	Number		9	- Marine Drive from	•	
Age, Sex and Ethnic Origin of Driver at	- Less than 20	1			Camp Watkins to		
Fault	- 20 thru 74 in Incre-	1			Hospital Road	3	
19	ments of 5 Years	1	4	9 4	(Above 4 Categories are each broken down		
	Sex_				into:)	59	
	- Female	0.46			- Total Accidents	1	
	- Male Ethnic Origin - Unknown	п	la l		- Average Dollar Damage	(9 C)	
	- Guamanian				- Injuries	i	
	- Statesider			I.	- Pedestrian Acci-		
	- Filipino				dents - Wet Road Accidents	an	
	- Korean		100		- Accidents Occurring		
	- Japanese	Į.		l.	at Night		
	- Other Residential				- Injury Accidents		
	- Micronesian - Other	147	-	li .	- Rear End Collisions		
	- other		Tel		- Head On Collisions		
	20	1		l.	- Side Swipe Colli- sions	I.	
	1	1	140		970119	:	1

Title/Date/Source	Row Labels	Column	Headings	Notes
	- Other High Accident Location - Marine Drive from JFK Road to San Victores Road - Rt. 4 from Pago Bridge to Rt. 17 - Marine Drive, from Fonte Bridge to Agana Loop - Marine Drive from Atantano Bridge to Rt. 6		•	
	- Marine Drive from Airport Road to JFK - Marine Drive from Rt. 3 to Harmon Loop Road - Rt. 8 from Rt. 1 to East O'Brien - Rt. 14 from JFK Road to Rt.1 Accidents on Local Streets - Agana Local Streets - Tamuning Local Streets - Dededo Local Streets - Mangilao Local Streets			
	(Above 4 Categories are each broken down into:) - Total Accidents - Average Dollar Damage - Injuries - Accident Involving Pedestrian Injury - Collision with Fixed Object	•	v m	
	- Wet Road Accidents - Accidents Occuring at Night - Accidents in Business Area - Accidents in Residential Area - Accidents on Sharp Curves - Accidents with Injury - Rear End Collisions - Side Swipe Colli-			

			*
Title:	Functional Analysis Report	and the second	
Source A	gency: DPS Record Section		
Computer	ized: See Below	Computer Reference:_	
General	Information: TRN 5		
		tained on the Document	
to traff record i	s report contains a detailed ic records carried out by v nformation system is implime ill change. The eight relev	various GovGuam Agencies. ented, some of the procedur	As the proposed traffic ces documented in this
Section	Contents	GovGuam Agency	Currently Computerized
3	Drivers	Revenue and Taxation Driver Licensing Branch	No
4	Vehicles	Revenue and Taxation Vehicle Registration Branch	Yes. For detail, see TRN Detail 29
5	Law Enforcement and Adjudication	DPS Traffic Court	No
6	Traffic Accidents	DPS Records Section DPW Planning Division	Yes. For detail, see TRN Detail 27
7	Roadway Characteristics	DPW Planning Division Highway Engineering Division Highway Maintenance Division	Partially. Street inven- tory of major island roadways. For detail, see TRN Detail 28
8	Emergency Medical Services	DPS	No
9	Educational Services	DOE	No
10	Safety Program Management	DPW Office of Highway Safety	No

Source Agency:	Office	of High	hway Safety-Public Works	
Computerized:	Yes		_ Computer Reference:	TRN Detail 27
General Information	on:T	RN 5		

	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
Table 2.3 Marginal Per <u>Vehicle</u> Highway Safety Indices of Guam and the Mainland U.S.	Index Per One Thousand Registered Vehicles - Fatalities - Injuries - Accidents	Guam Average 1964 thru 1973 Mainland U.S. 1973	
Table 2.4 Marginal Per Mile Highway Safety Indices of Guam and the Mainland, U.S.	Index Per 10 <sup>8</sup> Miles - Fatalities - Injuries - Accidents	Guam Average 1964 thru 1973 Mainland, U.S. 1973	
Figures 2-3, 2-4 and 2-5 are Graphs Showing Annual Injury, Fatality and Accident Rates on Guam Versus Numbers of Registered Motor Vehicles (1964-1974). Row Labels and Column Headings are the same for each.	Number of Injuries Per Year	Thousand of Vehicles Registered	
Table 2.5 Comparison of Safety Indices for Guam with the U.S.	Index - Fatalities/Injuries - Fatalities + Injuries Per Accident - Accidents with Fata- lity or Injury Per Accident - Fatalities + Injuries Per Injury Accident .	Guam Average 1963 thru 1973 U.S. 1973	
	328		

Title/Date/Source	Row Labels	Column Headings	Notes
Table 2.6 Percentage Distribution of Accident Types (Based on Stratified Sample)	Type of Accident - Collision with: - Pedestrian - Other Motor Vehicle - Fixed Object - Animal - Bicycle - Non Collision - Ran Off Road - Overturned - Other - Total Total Number of Accidents	Accidents with Fatalitie - Guam - U.S. Accidents with Non-Fatal Injuries - Guam All Accidents - Guam - U.S.	
Table 2.7 Sample Distribution of All Accidents By Reported Light Condition (Guam) (Percentage Distribution)	Index - Daylight - Dawn - Dusk - Darkness Total Number of Accidents	Accidents with Fatalities - 1972 thru 1974 Accidents with Non-Fatal Injuries - 1974 All Accidents - 1974	
Table 2.8 Sample Distribution of All Accidents By Time of Day (Guam) (Percentage Distribution)	Index - Time of Day in 4 Hour Increments Beginning at 11:00 p.m. Total Number of Accidents	Injuries	7
Figure 2-7 and 2-8 Graphs Showing a Sample Percentage Distribution of Injury Accidents by Time of Day. Non-Fatal 1974 and Fatal 1972-1974	Percentage	Time of Day in 4 Hour Increments Beginning at 11:00 p.m.	
Table 2.9 Distribution of Accidents by Road Conditions	Index - Fatal Accidents Guam (1972 thru 1974) - Fatal Accidents U.S. (1973) - Injury Accidents Guam (1974) - Injury Accidents U.S. (1973) - All Accidents Guam (1974) - All Accidents U.S. (1973)	Percent Dry Percent Wet Number of Accidents	

Title/Date/Source	Row Labels	Column Headings	Notes
Table 2.10 Age Distribution of Drivers Involved in Accidents (Guam). (Percentage Distribution)	Age Group - Under 20 - 20 thru 74 in Increments of 5 Years - 75 and Over Total Number of Drivers in Sample	Fatal Accidents 1972 thru 1974 Non-Fatal Injury Acci- dents 1974 All Accidents 1974	1
Figures 2-9 and 2-10 Graphs Showing Age of Driver in All Accidents and in Fatal Accidents, Guam Versus U.S. (Percent Distribution)	Percent of Drivers	Age of Driver in Increments of 5 Years	6
Table 2.11 Distribution of Guam Adult Population Versus U.S. Driver Population (Percent Distribution)	Age Group - 16 thru 74 in Increments of 5 Years - Over 74	1970 Guam Adult Popula- tion 1973 U.S. Adult Popula- tion	8
Table 2.12 Distribution of Accidents by Ethnic Origin of Driver (Percent Distri- bution)	Ethnic Origin - Guamanian - Caucasian - Filipino - Oriental - Micronesian - Other Number of Drivers in Sample	Fatal Accidents 1972 thru 1974 Injury Accidents 1974 All Accidents 1974 Population Distribution 1970 Census	
Table 2.13 Reported Drinking Condition for Pedestrians and Drivers in Pedestrian Accidents 1974 (Percent Distribution)	Condition - Had Not Been Drinking - Drunk - Drinking but Ability Not Impaired - Drinking But Impair- ment Not Known Total Number of Reports	Pedestrian Driver	
Figure 2-11 Graph Showing Pedestrian Fatality Rates by Age Group, Guam and U.S.	Rate Per 100,000 Population in Each Age Group	Age Group	
	,		

п			···	
1	Title/Date/Source	Row Labels	Column Headings	Notes
	Table 2.14 Pedestrian Fatalities By Age Group and Time of Day 1971-1974	Age Group - 0 thru 4 - 5 thru 64 in Increments of 10 Years Total Number	Day Night Total Number	
4	Table 2.15 Motorcycle Accidents By Type of Accident	Type of Accident - Collision with Motor Vehicle - Other Collision - Ran Off Roadway - Overturned Total Number	Number of Accidents Number of Injuries	
	Table 2.16 Road Character and Type of Accident for Motorcycle Accidents	Road Character - Straight - Sharp Curves - Other Curves - Level Road - Hill Total Accidents	Type of Accident - Collision - Ran Off Roadway - Overturned Total Accidents	
	Figure 2-12 The Ten Control Sections with the Highest Accident Rates Per Mile in 1974	Map of Guam Showing Control Segments with Accident Rate Per Mile	*	
	Figure 2-13 The Ten Intersections and Bridges with the Most Accidents in 1974	Map of Guam Showing the Projected Number of Accidents		
The second secon	Table 2.17 Directional Distribution of Sampled Accidents 1974 (Percentage Distribution)	Type - Rear End Collision - Run Off Road without Second Vehicle Involvement - Collision at Intersection (Not Rear End) - Disobeying Stop Sign or Traffic Signal - Other Right of Way Problem - Passing in Intersection - Improper Lane Usage During Turn - Other Right of Way,		9

Title/Date/Source	Row Labels	Column Headings	Notes
	- One Vehicle Entering Highway - One Way Vehicle Turning Left into Private Area - Lane Related, Non- Intersection - Improper Lane Usage, with Head On Collision - Side Swipe while Changing Lanes, Same Direction of Travel - Improper Backing or Starting - Miscellaneous - Equipment Failure - Drunk Driving, No Other Vehicle Involved - Hit Run, with Parked Vehicle - Reckless Driving, No Other Vehicle - Unattended Vehicle Rolling - Other - Insufficient Data		
Table 2.18 Directional Distribution of Sampled Accidents Wet Versus Dry Roads (1974) (Percent Distribution)	Accident Type - Rear End Collision - Run Off Road, No Second Vehicle - Collision at Inter- section - Other Right of Way - Lane Related, Non- Intersection - Head On Collision - Side Swipe, Same Direction - Improper Backing or Starting - Miscellaneous	Wet	
£ 3, 4			

Title/Date/Source	Row Labels	. Column Headings	Notes
2.19 Directional Component Distribution of Fatal Accidents (1972-1974)	Type - Rear End Collision - Run Off Road and/or Fixed Object - Intersection Collision, Not Rear End - Other Right of Way, Non-Intersection - Lane-Related Non- Intersection - Head On - Side Swipe - Pedestrian - Bicycle - Other - Total	Number of Fatal Accidents Per 10 <sup>8</sup> Vehicle Mile Guam U.S. (1973) Ratio (Guam/U.S.)	

- 6 Guam 1972-1974 U.S. - 1973
- 7 Totals do not agree because light condition was not always reported on the Accident Report forms.
- 8 Driver Age Distribution was not available. The number of people in the adult population of Guam was taken from the 1970 Census of population and put on a comparable basis with the U.S. Driver population taken from Accident Facts (1974 edition).
- 9 Parking Lot Accidents not included.

Title: Reports Submitted t	o U.S. Department of Trans	portation, Federal Highway	Administra	Title/Date/Source	Row Labels	Column Headings	Notes
Computerized: No	ng, Vehicle Registration and Department of Transportat:  Computer Referen	ion, Bureau of Public Road	Reccipts	ceipts From State Taxa- on of Motor Vehicles erated for Hire and her Motor Carriers	Type of Vehicle and Class of Service - Passenger Cars for Hire - Taxicabs	State Registration Class Number of Carriers Registered	
Title /Date /Serves	Description of Table(s)	Column Handings	Natas		<ul> <li>Livery Cars,</li> <li>U-Drive-It Cars,</li> <li>etc.</li> <li>Total Cars for Hire</li> <li>Motor Buses</li> </ul>		
Title/Date/Source  State Drivers Licenses and Fees  Section I Kinds of Permits and/or Licenses	Kinds of Permits and/or Licenses - Learners' Licenses - Drivers' Licenses - Original - Renewal - Duplicates (All Kinds) - Miscellaneous - Examination Fees - Delinquent Fees - Penalty Fees - Service Charges - Total	Term for Which Issued Renewal Date Number of Licenses Issued in Calendar Year Fees Per Issue Total Collections	Notes		- Common Carriers, Rural Or Inter- urban - Common Carriers, Urban Service (Above 2 Categories are each broken down into:) - Intrastate - Interstate - Total - Total Common Carriers - Other Motor-Carrier Buses - Sightseeing - Contract Carriers - Other Classes (Specify) - Total - Total Motor-Carrier		
Section II Net Numbers of Licenses in Force	Age Groups - Junior Licenses - Regular Licenses - 16 Years thru 24     Years - 25 thru 69 in Increments of 5 Years - 70 and Over - Total - Total Junior Licenses     Plus Regular Licenses	License Class Total All Classes (Above 2 Categories are each broken down into:) - Male - Female - Total			Buses - Total Passenger Motor Carriers (Passenger Cars for Hire Plus Motor Buses) - Motor Trucks - Tractor Trucks, Road Tractors, etc Trailers and Semi- Trailers (Above 3 Categories are each broken down into:) - Common Carriers		
Section III Worksheets	Licenses By Age Groups - Junior Licenses - Regular Licenses - 16 Years thru 24     Years - 25 Years thru 69     Years in Increments     of 5 Years - Total - Total Junior Licenses     Plus Regular Licenses	License Class - Male - Female (Above 2 Categories are each broken down into:) - Total Issued During Year Term - Deductions - Net Licenses in Force - Total Licenses in			- Intrastate - Interstate - Interstate - Total - Other For Hire Carriers - Contract Carriers - Other Classes (Specify) - Total - Private Motor Carriers		
		Force (Specify Type of Class)			335	'	1

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Note
	- Total Motor-Carriers Truck or Tractors - Total Freight Motor Carriers (Motor Trucks	,	A constant		- Total Passenger and Freight Motor Vehi- cles (Passenger Motor Vehicles Plus Buses	,	
	Plus Tractor Trucks, Road Trucks Plus Trailers and Semi- Trailers)	49			Plus Freight Motor Vehicles) - Other Vehicles - Trailers and Semi-		
ia <sub>e</sub> ,	- Total Carriers Total Freight Carriers Plus Total Passenger Motor Carriers				Trailers - Commercial Trail- ers - Commercial Semi-		
tate Motor Vehicle			ja		Trailers - House Trailers - Farm Trailers and Camp Trailers		
Registrations, Registra- tion Fees, and Miscella- neous Receipts	*				- Total - Motorcycles (Do Not Include Side Cars) - Motor Bicycles and		
Registration of Motor Vehicles, Trailers, etc.	Type of Vehicle - Passenger Motor Vehicle - Passenger Automobiles - Station Wagons	Section I Total License Tags Sold or Issued Deductions			Scooters - Miscellaneous Motorized Equipment - Total Other Vehicles		
lassified by Type of ehicle	- Taxicabs - Rentals, Liveries, etc.	- Transfer Tags or Registrations - Non Resident Tags - Official Vehicles			- Grand Total (Total Passenger and Freight Motor Vehicles Plus		
	- Ambulances and Hearses - Total - Buses	- State County, and Municipal - Federal			Other Vehicles)	••	
	- Commercial Buses - Gasoline - Commercial Buses - Diesel and Other	Net Licenses Sold for Private and Commercial Vehicles		ection III eceipts Other Than egular Registration Fees	Dealers' Licenses or Permits - New and Used Motor Vehicles	Number Issued Collections (Dollar Amount)	
Section II Registration Fees Paid Be Motor Vehicles,	- School and Other - Total	Section II Gross Collections Including Transfer or Regis-			- Dealers' Business Licenses or Permits - Original Sets of Plates		
Trailers, Etc. Classified By Type Of Vehicle.	- Trucks (Other Than "Farm" Registration) - Tractor Trucks, Road Tractors, etc)	tration Fees Deductions - Transfer or Registra- tion Fees			- Additional or Extra Sets of Plates - Motorcycle Plates - Total	•	
	(Above 2 Categories are each broken down into:) - Gasoline - Diesel and Other	- Non Resident Tag Fees - Fees for Official Vehicles, State, County, and Municipal			Certificates of Title (New and Transfer) Fines and Penalties Transfer or Reregistra-		
*	- Total - Total Freight Motor Vehicles (Farm Trucks, Trucks and	Net Regular Registration Fees Collected	V		tion Fee Estimated Service Charges, Local Collections	61 2.	
	Tractor Trucks)	j.			Caravan Fees Miscellaneous Receipts - Non Resident Tag Fee		

Title/Date/Source	Row Labels	Column Headings	Notes
	- Other Temporary Entry Permits - Fees for Official Cars - Duplicates of all Kinds - Vehicle Inspection Fees - Total Total All Receipts		
Section IV Grand Total	All Receipts	Number Issued Collections (In Dollar Amounts)	
*			4
	,		
ă i			-
	AV	_ =	

ource Agency:	to U.S. Department of Tran	Cons	umption
	22 27 21		
omputerized: No eneral Information: T	•	ce:	
	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
otor - Fuel Consumption	Month of Consumption - January thru December - Total	Gross Gallons Reported Allowances for Shrink- age and Other Losses Gallons Exempted from Taxation Gross Gallons Taxed Gallons Subject to Re- fund Net Gallons Taxed	
tate Motor - Fuel Tax deceipts	Receipts for Calendar Year  - Gallonage Tax Collections - Gross Collections by Distributors - Less Refunds - Gross Receipts by State - Less Refunds Paid  - All Other Receipts Under Motor - Fuel Tax Laws - Distributors and Dealers Licenses - Motor - Fuel Inspection Fees - Fines and Penal- ties - Total - Net Total Receipts	Receipts by Fuel Type Gallonage Taxes - Gasoline - Special Fuels Other Receipts Total	

	stration on Roadway Expen	nditure
Source Agency:	Department of Public Wo	orks
Computerized:	No	Computer Reference:
General Informati	ion: TRN 5	
	Information Containe	ed on the Document

#### LOCAL ROAD AND STREET FINANCE REPORT

#### A. Amounts of Receipts for Road and Street Purposes.

- Receipts From Local Sources: Property Taxes and Special Assessments; General Fund Appropriations; Local Road-User Taxes - motor fuel taxes, registration fees, etc, parking funds, road and crossing tolls; Other Local Receipts - income or investments of debt reserves, from indirect street funds, traffic fines, sales tax, other (specify); Receipts From Other Local Governments - from counties, from townships, from muncipalities, other (specify); Total.
- Receipts From State Government: Motor Fuel Taxes; Registration and Operators Fees, Carrier Taxes, Etc.; Unclassified Payments From State Highway Funds; State General Funds; Other (specify); Total
- 3. Receipts From Federal Government: Specify (does not include Federal-Aid highway funds); Total.
- Proceeds of Sale of Bonds and Notes: Bonds and Notes par value, premium (+) or discount (-), subtotal; Total.
- 5. Total Receipts: 1 thru 4.
- Balances at Beginning of Year: Capital and Operating Funds; Debt and Sinking Funds; Total.
- 7. Total Funds Available: 5 plus 6.

#### B. Disbursements for Road and Street Purposes:

- Direct Highway Disbursements: Capital Outlay on state highways, on county or township roads, on municipal streets (specify amounts for the previous three categories - right of way, engineering, construction, subtotal), total; Maintenance - on state highways, on county or township roads, on municipal streets (specify amounts for the previous three categories - maintenance of condition, snow and ice removal, traffic services, subtotal), total; Highway Equipment (undistributed); General Administration and Engineering; Highway and Traffic Police; Other - specify; Total.
- Payments to Other Governments: To State For Matching Federal-Aid and Other Purposes - for state highways, for local roads and streets, subtotal; To Counties; To Townships; To Municipalities; To Other (specify); Total.

- 3. Debt Service on Local Obligations: "Bonds and Notes interest (including paying fees, redemption at par, redemption premium (+) or discount (-) subtotal): Total.
- 4. Disbursements and Transfers for: Non Highway Purposes; Parking and Indirect Street Functions.
- 5. Total Disburesments During Year.
- 6. Balances at End of Year: Capital and Operating Funds; Department and Sinking Funds; Total.
- 7. Total Funds Accounted for (5+6).
- C. Change on Local Highway Debt Status During Year (Specify Bonds and Notes)
  - 1. Opening Debt.
  - 2. Issues: Original; Refunding; Total.
  - 3. Redemptions: Current Funds; Refunding; Total.
  - 4. Closing Debt.
- D. Local Parking And Indirect Street Functions (specify):

Parking Facilities; Indirect Street Function - street cleaning, street lighting, side walks, storm sewer and drainage, total.

- Receipts: Property Taxes and Special Assessments; General Fund; Parking Meter and Permit Fees; Borrowing - bonds, notes, transfers from (state highway user funds, parking funds, federal funds, other specify); Other - specify; Total Receipts.
- Balances, beginning of Year (all funds).
- 3. Total funds Available.
- 4. Disbursements: Capital Outlay; Maintenance and Operation; Administration; Bond Interest and Financing Costs; Note Interest and Financing Costs; Bond Redemption - note redemption; Transfers To - road and street funds, indirect street funds, general fund, other (specify); Other; Total Disbursements.
- 5. Balances, End of Year.
- Total Funds Accounted For.
- 7. Change in Indebtedness Parking Facilities: Outstanding Beginning Of Year; Issued During Year original issues, funding or refunding issues; Redeemed During Year from revenues or reserves, from funding or refunding issues; Outstanding End Of Year): Bonds; Notes.

Highway Departments  - On State Systems - Right Of Way - Engineering - Construction - Total - On Local Roads and	Interstate System - Rural - Urban Other Federal-Aid Rural System - Rural System Primary	
- On County and Town- ship Roads - On Local City Streets - On Other Roads - Total Capital Outlay	- Rural Secondary Other Federal-Aid Urban System - Urban Extension - Urban Roads and Streets Not On Federal Systems Total	

# State Highway Expenditures

- CAPITAL OUTLAY ON STATE SYSTEMS On Rural State Highways (state primary, state secondary), On Municipal Extensions Of State Systems, Total: Cost Of Acquiring Right-Of-Way; Preliminary and Construction Engineering; Construction Of Roads; Construction Of Major Structures; Installation Of Traffic Service Facilities; Total.
- 2. MAINTENANCE OF STATE SYSTEMS On Rural State Highways (state primary, state secondary), On Municipal Extensions Of State Systems, Total: Maintenance Of Condition roads; Maintenance Of Condition structures; Snow Removal, Sanding, Etc.; Traffic Control and Service Facilities; Operation Of Toll Roads Or Crossings; Unusual Or Disaster Maintenance; Total.
- 3. GENERAL ADMINISTRATION FOR STATE HIGHWAYS: General Administration and Engineering; Highway Planning and Research; Highway Beautification; Miscellaneous.
- 4. LAW ENFORCEMENT AND SAFETY: Traffic Supervision; Highway and Traffic Safety; Driver Education; Vehicle Inspection; Vehicle Size and Weight Enforcement; Other; Total.
- 5. EXPENDITURES ON LOCAL ROADS AND STREETS On County and Township Roads, On Local Municipal Streets: Capital Outlay; Maintenance; Administration; Total.
- EXPENDITURES ON OTHER STATE ROADS (Specify Roads): Capital Outlay; Maintenance;
   Total.

ource Agency:	Department of Public Worl	(S					
eneral Information: TRN 5  Description of Table(s)							
				Title/Date/Source	Row Labels	Column Headings	Notes
				Table TA-1 Statewide Mileage, Tra- rel, and Non Fatal and Satal Injury Accidents	High System - Interstate Final - Traveled Way Interstate - Subtotal Final and Traveled Way Interstate - Other FAP - Subtotal Other FAP and Traveled Interstate - Subtotal All FAP - FAS State - FAS Local - FA - Other State - Subtotal All State - Local - Subtotal Non-State - Subtotal Non-FA - Total (Above 15 Categories are each broken down into:) - Urban - Rural - Subtotal	- Daily Vehicle-Miles Per Mile  Fatal Accidents - Accidents - Fatalities (Above 2 Categories are each broken down into:) - Number - Per 10 <sup>8</sup> V-M Non Fatal Injury	
	Related Data - Vehicles Registered (Thousands) - Annual Miles Per Vehicle - Motor Fuel (Million Gallons) - Gallons Per Vehicle - Miles Traveled Per Vehicle	Annual Vehicle-Miles (Millions)					

Title/Date/Source	Row Labels	Column Headings	Notes
	- Population (Thousands) - Licensed Drivers		
	Rates - Per 100 Million     Vehicle-Miles - Per Thousand Vehicles - Per Thousand Popula-     tion - Per Thousand Licensed     Drivers	Fatal Accidents - Number of Accidents - Number of Fatalities Number of Non Fatal Injury Accidents Number of All Non Fatal Injuries and Fatal and Non Fatal Accidents	
			ĺ
	<b>.</b>		
		2	
	244	1	1

		1KN	netarr
Fitle: Report Submitted to on Miles of Roadway Source Agency:	U.S. Dept. of Training by Type  Department of		nistrai
Computerized: No	Computer Referen	ce:	
	rrn 5		
	Description of Table(s)	*	
Title/Date/Source	Row Labels	Column Headings	Note
Existing Surfaced Mileage by Type, Width and Ave- rage Daily Traffic	Surface Type - Low Type - D, E - Intermediate Type - F, G-1, H-1 - High Type - G-2, H-2, I, J, K, L (Above 3 Categories are each broken down into:) - Surface Width (Feet) - 19 and Under - 20 thru 21 - 22 thru 23 - 24 thru 26 - 27 thru 35	- 1,000 thru 4,999 in Increments of 1,000 - 5,000 thru 19,999 in Increments of 5,000 - 20,000 thru 39,999 in	

- 36 thru 43 - 44 thru 47 - 48 and Over

Average Daily Traffic

- 1,000 thru 4,999 in

- 5,000 thru 14,999 in

- 20,000 thru 39,999 in

- 40,000 and Over

- Total

Increments of 1,000

Increments of 5,000

Increments of 10,000

- Under 400

- 400 thru 999

- Total - Total Miles

Traffic Lanes

- 3 Traffic Lanes

- Total Miles

- One-Way Streets

- 27 thru 35

- 36 and Over

- 31 and Over

- 32 thru 37

- 38 thru 43

- 44 thru 47
- 48 and Over
- Total Miles
- Undivided-4 or More
Traffic Lanes
- Divided 4 or More
Traffic Lanes with
No Control of Access

- Surface Width (Feet)

- Surface Width (Feet)

Existing Mileage of

Surfaced Highways by

Control

Traffic Lanes and Access

Title/Date/Source	Row Labels	Column Headings	Notes
	- Divided 4 or More Traffic Lanes with Partial Control of Access - Divided 4 or More Traffic Lanes with Full Control of Access (Above 4 Categories are each broken down into:) - Surface Width (Feet) - 43 and Over - 44 thru 47 - 48 and Over - Total Miles - Total Miles		
Summary of Existing State and Local Roads and Streets (Segregated According to Federal Aid and Non Federal Aid System Mileage)	- Local Roads Under State Control (Above 3 Categories are each broken down into:) - Rural - Municipal - 5,000 and Over - Municipal - Under 5,000 - Country Roads - Rural - Town and Township		
	Roads - Rural  - Local City Streets  - Mileage Not Included with the Road and Street Systems Class fied Above  - State Park, Forest and Reservation Roads  - National Park, Forest, and Reservation Roads  - Toll Roads, Bridge and Tunnels  - Other Roads Under State Control  - Other Roads Under	t,	
	Local Control - Total Existing Miles	age	

Title: System Mileage Re	eport		
Source Agency: Manuel for	r the Compilation and Repor	rting of Highway Mileage	
Computerized: No No	Computer Referen	ce:	
General Information:	TRN 5		
Sec.	Description of Table(s)		
Title/Date/Source	Row Labels	Column Headings	Notes
System Mileage Report	Road - Type	Mileage Existing at Beginning of Year Number of Changes Due to Revisions or Transfers Mileage Abandoned Changes Resulting from Construction - Total Mileage Built - Mileage of Surface Types Replaced or Preferred - Net Change - Total Net Change in Mileage - Mileage Existing at End of Year	6
NOTES:			
<ol> <li>For definition of roa Reporting of Highway</li> </ol>		nuel for the Compilation a	nd
Reporting or mighway	i		į.

Computerized: No		
our parter ricear		Computer Reference:
General Information:	TRN 6	
The state of the s		

Title/Date/Source	Row Labels	Column Headings	Notes
Figure 1 Roads of Guam - Width of Roadways	Map of Guam Showing - 4 Travel Lanes - 3 Travel Lanes - 2 Travel Lanes		1
Figure 4 Population Distribution- Civilian and Military	Map of Guam Showing Population Distribution One Dot Represents 50 Persons		1
Figure 5 Roads of Guam - Traffic Flow; 1968	Map of Guam Showing Average Hourly Traffic Flow 6-9 A.M. and 4-6 P.M 1,600 to 2,000 Cars - 1,200 to 1,600 Cars - 800 to 1,200 Cars - 400 to 800 Cars - 200 to 400 Cars		1
Figure 6 Roads of Guam - Mainte- nance Responsibility	Map of Guam Showing Gov/Guam Maintenance Air Force Maintenance Navy Maintenance		1
Figure 7 Roads of Guam - Right of Way Ownership	Map of Guam Showing - Federal Ownership - Federal Ownership   (Military Reservation) - Gov/Guam Ownership - Private Ownership or Undetermined		1

Title/Date/Source	Row Labels	Column Headings	Notes
figure 8 Roads of Guam - Highway Network	Map of Guam Showing All Publicly Traveled Ways - 19 Districts - Naval Station - N.A.S N.C.S Andersen Air Force		1
igure 9 loads of Guam - Transfer of Ownership	Map of Guam Showing Acceptability of Roads for Transfer of Owner- ship From U.S. Navy to Gov/Guam - Acceptable as is (Included in 1959 List) - Acceptable as is (Not Included in 1959 List) - Acceptable When Repaired - Not Necessary for Public Use - Portions of Network Involved		1
rigure 11 Roads of Guam - Lane Pidths Planned for Year 1980	Map of Guam Showing Extensions of Lane Widths - 4 Lanes Divided - 4 Lanes - 2 Lanes - New Routes		1
igure 12 overnment of Guam's Projection of Civilian Opulation	Graph Showing Population (Thousands) - Total Population - Civilian Population - Stateside Military or Civilian Personnel Employed at Military Base and Their Dependents	Year - 1960 thru 1980 in Increments of 5 Years	1
igure 13 lotor Vehicle Registra- ion Projection	Graph Showing Motor Vehicle Registration (Thousands) - Federal or Territorial Vehicles	Year - 1960 thru 1980 in Increments of 5 Years	1

3.00
Title: Master Plan for Guam International Air Ten 19-1-19:
Source Agency: Mackinlay/Winnacker, A.I.A. & Associates; The Richardson Associates:
Austin, Smith & Associates; Harding, Miller, Lawson & Associates Computerized: No Computer Reference:
General Information: TRN 7
Description of Table(s)

	bescription of labre(s)	(*)	
Title/Date/Source	Row Labels	Column Headings	Notes
Appendix B, No. 1 Annual Revenue Cargo Volumes Guam International Airport; Jan. 1971; ERC, Dept. of Commerce	Year - 1963 thru 1969	Total Air Cargo (Freight and Mail) in pounds - Onloaded - Off Loaded - Total	
Appendix B, No. 2 Annual Passenger Volumes Guam International Airport; Jan. 1971; ERC, Dept. of Commerce	Year - 1962 thru 1969	Enplaning Passengers Deplaning Passengers Total Passengers	
Appendix B, No. 3 Aircraft Types, Jan. 1971; ERC, Dept. of Commerce	Commercial Aircraft Presently Flying Into and Out of Guam Inter- national Airport - Pan American World Airways - TransWorld Airlines - Air Micronesia - Japan Airlines	Type - 13-707-320 - 13-707-320 - DC-6 and B-727 - DC-8-61, 62 and 63	
Appendix B, No. 4 Hotel Accommodation; (Number of Hotel Rooms Existing, Under Con- struction and Planned on the Island of Guam; 1971; Dept. of Commerce ERC	Hotel - Fujita - Tokyu - Continental - Hilton - Dai-Ichi - Okura - Cliff - Guamerica - Casa De Flores - Earl's Hut - Micronesian	Existing Under Construction Planned	
	- Micronesian - Sunset - Others Totals Sum Total	,	

Title/Date/Source	Row Labels	Column Headings	Notes
Section IV A Annual Passenger Volume Forecasts (Graph); 1970; ERC, Dept. of Commerce	Number of Passenger Per Year - 0 thru 3,000,000 in Increments of 500,000	Year - 1965 thru 1985 in Increments of 5 Years	
Section IV B Arriving Passengers - Trip Purpose (Graph); 1970; ERC, Dept. of Commerce	Number of Arriving Passengers Per Year - 0 thru 800,000 in Increments of 100,000	Year - 1965 thru 1985 in Increments of 5 Years	
Section IV D Annual Air Cargo Volume Forecasts (Graph); 1970; ERC, Dept. of Commerce	Revenue Cargo in Mil- lions of Pounds Onloaded and Offloaded - O thru 22 in Incre- ments of 2	Year - 1965 thru 1985 in Increments of 5 Years	
Section IV E Parking Space Forecasts (Graph); 1970; ERC, Dept. of Commerce	Number of Parking Spaces - 0 thru 1,300 in Incre- ments of 100		
		*	
		**	
	· :		
· ·	ng.		
	4 P	· ·	
• •	ž-	3	11
	*		
¥1		÷	-0
			\$.
		L.	

Title: Monthly Pass	enger and Freight Summary R	eport		Title: Monthly Opera	ations of Guam International	Air Terminal Summary Rep	ort
Source Agency: De	partment of Commerce			Source Agency: I	Department of Commerce		
Computerized: No	Computer Reference		11		Computer Reference		
	Description of Table(s)		P A	6	Description of Table(s)		4
Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Note
Arrivals  Departures	Tenant - Pan American Airways - Aviation Service - Japan Airlines - Continental Airlines - Air Pacific International - Island Aviation, Inc Non-Tenant Airlines - Totals - Total this Period - Previous Total - Total to Date  Tenant - Pan American Airways - Aviation Service - Japan Airlines - Continental Airlines - Air Pacific International - Island Aviation, Inc Totals - Total this Period - Previous Total - Total to Date	Passengers On		Monthly Operations of Guam International Air Terminal	Passengers - Scheduled Airlines - Charter and Non- Scheduled Flights (Above 2 Categories are each broken down into:) - Departing - Arriving - Transit Number of Departures and Take Off Weights - Scheduled Airlines - Charter and Non- Scheduled Flights (Above 2 Categories are each broken down into:) - Passenger Carriers - Cargo Carriers - Cargo Carriers - Take Off Weights (In 1,000 lbs.) Concession Operations - Food and Beverage - Gross Receipts of Concessionaire - Food - Beverage - Total Gross Receipts - Gross Receipts Per Departing Passenger - Revenue to the Terminal - Revenue Per Depart- ing Passenger		5
4	*	*				3 4 -	
				1			1

Title/Date/Source	Row Labels	Column Headings	Notes
	- General Merchandise		
	- Gross Receipts of	<u> </u>	
	Concessionaire	*	
	- Taxable		1
	Merchandise		1
	- Non Taxable		1
	Merchandise		
	- Total Gross		1
	Receipts		
	- Gross Receipts Per		
	Departing Pas-	4	
	senger		
	- Revenue to the		
	Terminal		
	- Taxable		
	Merchandise		
	- Non Taxable	-	
	Merchandise		1
	- Total Revenue to		
	the Terminal		
	- Revenue Per	all to	
	Departing Pas-	345	
	senger		
	- Car Rental		
	- Gross Receipts of		4
	Concessionaire		i
	- Gross Receipts		
	Per Departing		
	Passenger		
	- Revenue to the	18	
	Terminal	**	
	- Revenue Per Depart-		1
* 0	ing Passenger		
*	Operating Summary	5	
	- Revenue		
	- Facilities and		
	System Usage	40	1
	Charges		
	- Concession Fees		1
	- Rentals		
	- Space Rentals		
	- Building Rentals		
	- Ground Rentals		1
	- Total Rentals		
	- Miscellaneous		
	Operating Rentals		2
4.1	- Total Revenue		
	5		
			1
			1

Title/Date/Source	Row Labels	Column Headings	Note
	- Expense - Personal Services - Salaries and Wages - Employee Fringe Benefits - Total Personal Services - Contractual Services - Materials and Supplies - Total Expense - Net Operating Revenue		

Title:	Master Plan, Commercial Port of Guam, Phase 1	
Source Agency:	Prepared by Greenleaf/Telesca-Ahn	
Computerized: No	Computer Reference:	
General Information:	TRN 8	
	Description of Table(s)	

## Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Table A Civilian Population and Estimated Population Growth; Statistical Abstract Guam 1970, ERC, Dept. of Commerce	Year - 1961 thru 1990	Population	
Table B Civilian Population on Guam By Sex; Statistical Abstract Guam 1970, ERC, Dept. of Commerce	Year - FY1961 thru FY1969	Male Female Total	
Table C Revenue Cargo Handled; Manager, Commercial Port of Guam	Year - FY1963 thru FY1970	Thousand Tons Loaded Thousand Tons Unloaded Tons Per Person Unloaded Thousand Tons Trans- shipped Thousand Tons Total	1
Table D Surface Landings; Port Security Disivion, Dept. of Commerce	Year - FY1963 thru FY1970	United States Japan Inter-Island Other Countries Military Total	1
×			
	1.	*	140

Title/Date/Source	Row Labels	Column Headings	Notes
Fable E Shipping Statistics Maintained by Shipping Lines	Agent Lines - PFEL/PFEL - PFEL/Saipan Shipping - PFEL/Nauru - PFEL/GTPC - Seatrain/Seatrain - Atkins Kroll - Atkins Kroll/Mili - Hyundai/Korea Atlas - Pacific Navigation - Pacific Navigation/ Marco Polo	Number of Ships Frequency Types of Cargo Tonnage on Guam/Mo. Tons to Trust Territory Number of Passengers	
Cable F Surface Landings	Year - FY1963 thru FY1970	Surface Landings Total Population	
Table G Commercial Port Rates and Charges (Cost Per Revenue Ton)	Type - Basic - Inbound - Outbound - U.S. Mail - Copra/Trochus - Containerized Cargo - Empty Vans - Empty Drums - Vehicles to 3/4 Tons Capacity - Household Goods	Stevedoring Handling Trans-Shipment	
Fable H Annual Gross Receipts By Business Sector Fiscal Years 1958-1969 (In Dollars); ERC, Dept. of Commerce, from Data Supplied by the Business Privilege Division, Dept. of Revenue and Taxation	Year - FY1958 thru FY1969	Amusement Service Manufacturing Wholesale Retail Total All Sectors	
Table J General Economy of Guam; Guam, 1970 - An Economy in Transition, Dept. of Commerce, Feb. 1971	Foreign Trade - Exports - Imports Construction - Residential - Commercial Utilities - Average Annual Consumption of Electricity Per Guam Household	Year - FY1960 - FY1968 thru FY1970	

Title/Date/Source	Row Labels	Column Headings	Notes	Title/Date/Source	Row Labels	Column Headings	Notes
je n	- Total Volume of Electricity Sold on Guam - Water Consumption Government	YC *		Gross Business Receipts - Percentage Distribution Fiscal Years 1961-1970 (Graph); Dept. of Com- merce, ERC	Percentage of Gross Business Receipts - Retail - Contracting - Wholesale	Year - FY1961 thru FY1970	
s s	- Local - Revenue - Expenditure - Federal				- Service and Amusement - Manufacturing	*	
	<ul> <li>Wages and Salaries</li> <li>Disbursed on Guam</li> <li>Construction</li> <li>Locally Purchased</li> </ul>			Foreign Trade - Imports and Exports, Fiscal Years 1961-1970 (Graph)	Millions of Dollars - From 10 to 60 in Increments of 10	Year - FY1961 thru FY1970	
	Supplies and Services Employment Communications - Telephone In Use	Year - 1960 - 1967 thru 1969		Total Federal Disburse- ments on Guam, Fiscal Years - (Millions of Dollars)	Wages and Salaries Construction Locally Purchased Supplies	Year - FY1967 thru FY1970	
	- Transpacific Calls - Incoming - Outgoing Finance (As of Dec. 31) - Bank Deposits		1	Territory of Guam Employ- ment by Industry Division Sept. 30, 1970; Dept. of	Industry Division - Agriculture - Mining	Total Employment Male Female	
,*	- Bank Loans - Deposits of All Financial Institutions			Labor, FY1971, Govt. of Guam	- Construction - Manufacturing - Transportation, Electric, Communi-	1.0	
	- Loans of All Financial Institutions Life Insurance in Force (Ordinary as of Dec. 31) Assessed Value of Real	,			cations, Gas, and Sanitary - Wholesale, Retail - Finance, Insurance, Real Estate	; *	_ 0
	Property Transportation - Guam/Trust Territory - Air Passengers				- Service - Government - Federal - Local	•s	
	- Air Cargo - Transpacific - Air Passengers - Air Cargo	· ·		Table K Guam Weather Facts; Fleet Weather Central, U.S. Naval Forces Marianas	Month - January thru December	Average Temperature - Maximum - Minimum - Monthly	
Total Business Gross Receipts (Graph)	Millions of Dollars - 60 to 300 in Incre- ments of 20	Year - FY1961 thru FY1970	2.		<u>e</u> -	Precipitation - Maximum - Minimum - Average	
• .				Table L Arrivals, Dept. of Commerce, ERC, 1970	Year - 1964 thru 1975	Tourists Visitors Estimated Expenditure	
	4.0				¥		

	Row Labels	Column Headings	Notes
Hotel-Motel Inventory; Dept. of Commerce	Hotel-Motel - Dai-Ichi - Continental Travel	Number of Persons	
*1	Lodge - Cliff Hotel - Fujita Hotel - Guam Tokyu Hotel - Hotel Micronesia		
	- Guamerica - Sunset Motel - Sakura Motel - Casa de Flores		
	- Airtel - Hotel Polynesia - Earl's Hut - Tony's Travel Lodge - Hotel HongKong		
	- Guam Travel Service Hotels Proposed or Under Construction - Hilton - Okura	*	
	- Kukuei - Village of Tropic Winds		
able M otor Vehicle Registra- ion and Civilian Popula- ion; Licensing Division, ept. of Revenue and axation - (Private ehicles and Taxis Only),	Year - FY1963 thru FY1990	Private Vehicle Total Population Persons Per Vehicle	
nd Chief Commissioner's ffice			
able N otor Vehicle Registra- ion; ERC, Dept. of ommerce	Year - FY1963 thru FY1970	Private Taxi Cab Cargo Trailer Motorcycle Dealer Bus Special Equipment	1
	•	Military Total Vehicles	

Title/Date/Source	Row Labels	Column Headings	Notes
Table O Motor Vegicle Gasoline Consumption; Statisti- cal Abstract, Guam 1970; ERC, Dept. of Commerce	Year - 1961 thru 1969	Gallons	

Title: Commercial Port of Guam - Annual	Report
Source Agency: Commercial Port of Guam	
Computerized: No	Computer Reference:
General Information: TRN 8	
Information Contained	i on the Document

These tables are untitled:

- List of shipping lines organized by agent.
- Cargo total by year: FY1957 thru FY1974
- Number of ships calling the Commercial Port of Guam: FY1958 thru FY1974

Source Agency:_	Port	Authority o	f Guam		
Computerized:	No		Computer	Reference:	
General Informati	tion:	TRN 8		ia_	

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Cargo Revenue Tons	Name of Agent - Vessel Name and Voyage Date - Total - Fiscal Year to Date - Total All Agents - Total - Fiscal Year to Date - Total - Fiscal Year to Date - Total	Cargo Revenue Tons - Total - Imports - Exports - Transhipment - Breakbulk Cargo - Containerized Cargo (Above 2 categories are each broken down into: - Domestic - Foreign (Above 2 categories are each broken down into: - Imports - Imports - Exports - Transhipment	)

NOTES:

6 - Cargo Revenue Tons is a Measure Used for Computing Cost, Which Uses Either Cargo Weight or Volume, Whichever is Greater.

Title: Annual	Ledger Tallies for	r Revenue Tons
Source Agency:	Port Authority of	f Guam
Computerized:	No	Computer Reference:
General Informati	on: TRN 8	,

# Description of Table(s)

Title/Date/Source	Row Labels	Column Headings	Notes
Annual Revenue Tons by Ship	Name of Agent - Number of Voyages - Name of Ship - Total for Agent Grand Total	Cargo Revenue Tons - Total - Imports - Exports - Transhipment - Break Bulk Cargo - Containerized Cargo (Above 2 categories are each broken down into: - Domestic - Foreign (Above 2 categories are each broken down into: - Imports - Imports - Exports - Transhipment	
* *	¥ F	1.	

#### NOTES:

- 6 Cargo Revenue Tons is a measure used for computing cost, which uses either cargo weight or volume, whichever is greater.
- 7 Domestic means to and from Hawaii and the Continental U.S..
- 8 Foreign includes the Trust Territory and all points outside Hawaii and the Continental U.S..

Title: Monthly Report or	n Ship Arrival and Cargo Re	evenue and Tonnage	
Source Agency: Port Auti	hority of Guam		
Computerized: No	Computer Referen	ce:	
General Information: TRI	N 8		
	Description of Table(s)		0
Title/Date/Source	Row Labels	Column Headings	Notes
Monthly Report	Ship Arrivals - Containerized - Freighter - Cruiser (passenger) - Others (non-cargo)	Current Month Fiscal Year-To-Date	
	- Total Cargo Revenue Tonnage - Loaded - Unloaded - Transhipped - Total		
•			

Computerized: No	Computer Referen	ce:	
General Information: TRN	1 8		
	D		100
	Description of Table(s)		, , , , , , , , , , , , , , , , , , , ,
Title/Date/Source	Row Labels	Column Headings	Notes
Container Report	Container Vessels - Number of Containers     Handled by: - Gantry Crane - Manitowac Crane - P and H Crane - Subtotal - Ships Gear - Grand Total (Above 6 Categories are each broken down into:) - Size of Container     in Feet - 20 - 27 - 40 Non - Container Vessels - Number of Containers     Handled by: - Gantry Crane - Manitowac Crane - P and H Crane - Grand Total (Above 4 Categories are each broken down into:) - Size of Container     in Feet - 20 - 27 - 40	Current Month Fiscal Year to Date (Above 2 Categories are each broken down into:)  - In  - Out  - Total	
,			
		3	

Type of Information	On: Highway Accident Statistics; Jenuary 1975 to Present	
onnected With: Published Report Survey Form		*
V	Data Available: On Cards On	n Disk
	x 80 Col	5444
lumber of Records	in File: 6,000 Y	5445
General Informatio		2311 3311
	TRN Detail 10	
	FILE FORMAT	
Positions	Contents	Notes
1 - 5	Control Section Number (physical location of accident)	i
6 - 11	Case Number	* 
12 - 17	Date (month, day, year - MMDDYY)	NG N
18	Day of week	ur.
19 - 22	Time of day	
23	At intersection (yes, no)	, le
24	Type of accident	6
25 - 26	Collided with	PAR (COUNTY)
27	Ran off Roadway	ķ-
28	Overturned	
29 37	Type of vehicle	Position num-
30 - 31 38 - 39	Age of vehicle	bers refer to vehicle
32 - 33 40 - 41	Year of birth of driver	no. 1, then vehicle no.
34 42	Sex	2.
35 43	Race	ir.
36 44	Military (yes, no)	
45	Type of vehicle, for vehicle no. 3	¥
	NOTE: 6 For explanation categories, see the Detail reference	e page.
		A 100 St G

	3			P.,
P	sitions_		Contents	Notes
	46 - 47	23	Age of vehicle, for vehicle no. 3	
	48 - 51	Ì	Dollars worth of property damage	
	52	1	Arrest made (yes, no)	
53		55	Driver had been drinking	Position num- bers refer
54		56	Driver's physical condition	to vehicle
	57		Type of road surface	no. 1, then vehicle no. 2.
	58		Road condition	2.
	59		Weather	
	60	ĺ	Light	
	61	ļ	Locality	
	62	l	Road defects	
	63	Ì	Road character	ο.
	64		Number of people injured	*
	65	ļ	Number of people killed	37 3 9 <sub>7,4</sub>
	66		Type of collision	/
	67		Driver at fault	
	68 - 71		Citation code .	9 +
	72		GovGuam vehicle (yes, no)	
	,			

Type of Information	on: Street Inventory of Major Association & Street Inventory of Major Association & Street Inventory of Major Association & Street Inventory of Major & Street & St	
Connected With: Published Report Survey Form	Title:	Disk
	x 80 Col 96 Col	5444 5445
Number of Records	in File: 170	2311
General Informatio	on: TRN 5	3311
Detail Information	n: TRN Detail 27	
	FILE FORMAT	
<u> </u>		
Positions	<u>Contents</u>	Notes
	CARD TYPE 1	
1 - 5	Control Segment Number	e
6	"1"	
7	Federal Highway Classification: 1 = primary, 2 = secondary, 3 = local	
9	Municipal class: 1 = urban, 2 = rural	
.11	Highway Classification: Trunk = 1, Major = 2, Minor = 3, Collector = 4, Local = 5	
13 - 14	Route Number	
15	Sub-class code: A =1, B = 2, C = 3,	
17 - 18	Municipality code - not standard	
20 - 24	Segment length in miles	
25 - 26	Width per lane (in feet)	
28	Number of lanes	
29	Lane control: Codes 1 - 6 on standard DOT codes, 7 = local 2 - lane road	
30	Surface type: Codes 1 - 3	
31 - 36	Average daily traffic	

Positions	Contents	Notes
	CARD TYPE 2	
1 - 5	Control Segment Number	
6	"2"	
51 - 55	Number of accidents with a fatality	
56 - 60	Number of fatalities	
61 - 65	Number of accidents with an injury	
66 - 70	Number of people injured	
71 - 75	Number of accidents in total	
*		ı

Type of Information: Vehicle Registration					
Connected With: Published Report Survey Form	Title:	Disk			
	x 80 Col	5444			
	96 Col	5445			
Number of Records	in File: 60,000 X	2311			
General Informatio	on: TRN 5	3311			
Detail Information	n: TRN Detail 27				
	FILE FORMAT	÷			
Positions	Contents	Notes			
4 - 8	License Number	4			
9 - 38	Registered Owner				
. 39	Year	***			
40 - 70	Legal Owner:				
71 - 103	Owner Address				
104 - 105	Vehicle Code				
106 - 112	Vehicle Make	5			
113 - 114	Year				
115 - 116	Color	al.			
117 - 118	Cylinders	W			
119 - 134	Vehicle Type				
135 - 149	Vehicle Engine Number				
150 - 153	Capacity				
154 - 156	Vehicle Weight				
157 - 159	Regular Amount	A.			
160 - 161	AVF				
172 - 176	Registration Number				