MASTER COPY return to

TOWN OF PARADISE



Sewer Project Feasibility Study

March 1989



TOWN OF PARADISE PLANNING

Kennedy/Jenks/Chilton

K/J/C 882511

TOWN OF PARADISE PLANNING DEPT. 5555 SKYWAY PARADISE, CA 95969

Kennedy/Jenks/Chilton

TOWN OF PARADISE CENTRAL AREA WASTEWATER AND SLUDGE FACILITIES SEWER PROJECT FEASIBILITY STUDY

prepared for

Town of Paradise Department of Public Works Jon Lander. Director of Public Works

prepared by

Kennedy/Jenks/Chilton Consulting Engineers Sacramento, California

March 1989

K/J/C 882511.00

Kennedy/Jenks/Chilton

Consulting Engineers

3336 Bradshaw Road, Suite 140 Sacramento, California 95827 916-362-3251 FAX 916-362-9915

17 March 1989

Town of Paradise Department of Public Works 5555 Skyway Paradise. CA 95969

Attention: Mr. Jon Lander, P. E., Town Engineer

Subject:

Central Area Wastewater and Sludge Facilities

Preliminary Engineer's Report

K/J/C 882511.00

Gentlemen:

In accordance with our Agreement for Engineering Services dated 5 April 1988, we are submitting 20 copies of our Preliminary Engineer's Report on the Town's central area wastewater and sludge facilities.

Kennedy/Jenks/Chilton personnel who participated in the preparation of this report included R. M. Sanchez Adams, Project Manager, D. M. Galway and K. Sullivan, Project Engineers, and R. A. Ryder, J. C. Calmer, and J. H. Jenks, technical reviewers. The engineering office of James C. Hanson performed preliminary geotechnical surveys for alternative wastewater effluent storage reservoirs and treatment plant ponds. James Hatter and Victor Subbotin of M. L. Stern & Co., and Robert Brunsell of Sturgis, Ness, Brunsell & Sperry provided consultation on financing and assessment proceedings. NorthStar Engineering prepared overlay maps of the service area.

We wish to express our sincere appreciation to the staff of the Town of Paradise for their assistance throughout the preparation of this report. We wish to mention in particular Mr. Jon Lander. Town Engineer. Mr. Al McGreehan. Planning Director, and Mr. Michael Hays, Town Manager. In addition, Mr. Henry Martin. Butte County District Sanitarian for Paradise Ridge, provided valuable input regarding existing on-site system sizes and system failures.

SUMMARY OF RECOMMENDATIONS

The central commercial, multi-family residential, and industrial area of the Town of Paradise is currently the largest unsewered urbanized area in the State of California. Past studies have documented the limited capacity of Paradise Ridge soils to accept an increased loading of septic tank effluent from the areas of the Town most likely to experience growth. The Town Council has acted on its concern with this matter by enacting an On-Site Systems Ordinance restricting the density of development to a level commensurate with the assimilative capacity of area soils. In addition, the Town authorized this study to move forward with establishing a properly planned and constructed wastewater system for the central area of the Town.

Mr. Jon Lander Town of Paradise 17 March 1989 Page Two

This report presents analyses supporting a recommendation to proceed with the formation of a Special Assessment District to fund the design and construction of a conventional gravity sewer system for the Clark Road and Skyway corridors of the Town as far north as Wagstaff, an aerated lagoon system for biological treatment of the collected wastewater and also the septage from Paradise Ridge, and an advanced treatment system for further treatment and disinfection of the wastewater effluent prior to discharge onto the former McKnight Ranch property south of Neal Road near Elliot Spring.

We estimate that the proposed wastewater collection service area now contains approximately 2,700 Equivalent Dwelling Units (EDU's); that is, the wastewater flow estimated to be generated from within this area is approximately equal to that generated by 2,700 single-family residences. Only 400 EDU's actually represent single-family homes; the remainder is from mobile home parks, apartments, and other multi-family residential areas; from stores, motels, restaurants and other businesses; from schools, churches and health care centers; and from industries.

The total cost of the proposed wastewater facilities is estimated to be \$14.5 million, or almost \$5,400 per EDU. However, the collection system will be sized to serve all 8,400 EDU's ultimately expected to connect at buildout conditions, and the biological and advanced treatment facilities will be sized to serve the extra 1,700 EDU's expected to connect within the first 10 to 15 years. In order to fund the design and construction, we believe it would be fair to attempt to establish a connection charge structure that encourages early connection and that allocates payment for future-capacity elements of the system to future connectors to a reasonable extent. Such a structure would minimize both the debt service paid by initial connectors and the monthly sewer service charge paid by all connectors.

We are expecting that an additional 300 EDU's will join the 2,700 now existing by the time the initial funding must be obtained. The connection charges from the remaining 1,400 EDU's expected to connect over the following decade are proposed to be allocated partly to debt service and partly to a sinking fund for the treatment plant expansion projected to occur in approximately 10 years. We are projecting at this time, therefore, that the connection charge would be established at \$3,500 per EDU connecting initially. This amount would be financed by an assessment bond and the debt service payments (approximately \$30.50/month) would appear on the property tax bill over a 20-year period. Any connections occurring after the formation of the assessment district would be charged \$4.000 per EDU payable as a lump sum at the time of connection. It is not considered necessary at this time to assess properties on the basis of land area or front footage. Therefore, initially, vacant property would not be assessed, but would be charged \$4.000 per EDU at the time of connection in the future.

All properties connected to the sewer would pay a monthly sewer service charge projected to be \$13.50 per EDU initially. As more properties connect, the revenue from this source could be sufficient to justify a reduction. Over a 10-year period, we project that the monthly charge could be reduced to \$9.25

Mr. Jon Lander Town of Paradise 17 March 1989 Page Three

per EDU in stages, assuming that all 1.400 extra EDU's have connected by that time. We have calculated a proposed septage tipping fee of 3.5 cents per gallon, and a projected annual revenue from this source of \$80.000.

PROGRAM IMPLEMENTATION

The attached report establishes the technical and financial feasibility of proceeding with the central area wastewater and sludge facilities. It will be necessary for the Town Council to authorize certain actions before the assessment district can be formed and design studies, detailed design, and construction can proceed.

First, the Council must authorize preparation of an Engineer's Report for the Central Area Wastewater Assessment District in a form satisfying the requirements of the Improvement Bond Act of 1915. This will involve preparation of an assessment diagram utilizing the overlay maps prepared during this study, generation of the report text utilizing much of the information presented in this report, and developing the detailed assessment spread for each parcel of land to be included in the proposed district. Next, the Council must hold a public hearing to certify the Environmental Impact Report and to consider protests of property owners proposed to be included in the district. Protests must be resolved. Funds for preparation of the Engineer's Report and for protest resolution are not currently appropriated.

Furthermore, the Department of Public Works is not currently staffed to provide the project management and coordination functions necessary to prepare for district formation, nor for right-of-way acquisition, property owner coordination, or engineering review and project management functions during design and construction. We recommend that a project manager be hired to assist the Director of Public Works at the time the Council authorizes preparation of the engineer's report for district formation, and that additional staff be hired as conditions dictate.

Assessment liens will be entered against parcels in an amount sufficient to cover the total obligations estimated at the time of the assessment district formation hearing, but they will be obligated only to the extent necessary to cover actual costs incurred in design and construction. Once the Council acts to form the assessment district, it is recommended that Series A assessment bonds be issued in an amount necessary to fund detailed design and obtaining construction bids. The maximum amount of Series A bonds is estimated at this time to be \$2 million. After bids are received and the cost of construction is known with a high degree of certainty, it is recommended that Series B assessment bonds be issued to cover construction and related costs.

Mr. Jon Lander Town of Paradise 17 March 1989 Page Four

We have enjoyed our work in preparing this report, and we look forward to continuing our work on this project through district formation, design, and construction of these needed facilities.

Very truly yours,

KENNEDY/JENKS/CHILTON

John C. Calmer. P. E. Manager. Sacramento Branch

Russel M. Sanchez Adams, P. E.

Project Manager

enclosure: Assessment District Feasibility Report (20 copies)



TOWN OF PARADISE CENTRAL AREA WASTEWATER AND SLUDGE FACILITIES

ASSESSMENT DISTRICT FEASIBILITY REPORT

TABLE OF CONTENTS

FORWARDING LETTER

CHAPTER 1 - Introduction

CHAPTER 2 - Service Area and Design Criteria

CHAPTER 3 - Collection System Alternative Analysis

CHAPTER 4 - Wastewater and Sludge Treatment and Disposal Alt. Analysis

CHAPTER 5 - Recommended Plan

CHAPTER 6 - Financing and Program Implementation

CHAPTER 7 - Assessment Spread and Monthly User Charges

REFERENCES

APPENDIX A - Geotechnical Survey

APPENDIX B - Questions and Answers about Assessment Districts in California

APPENDIX C - Parcel Census Data Sheets

Kennedy/Jenks/Chilton

LIST OF TABLES

Table Number	Title	Page
2-1	Summary of Parcel Area by Land Use Zone	2-2
2-2	Summary of Parcels by Use	2-3
2-3	Unit Flow Rate Design Values	2-4
2-4	Design Flow Rates	2-5
2-5	California Wastewater Reclamation Criteria	2-7
2-6	Annualized Cost Parameters	2-8
2-7	Effluent Storage Reservoir Site Precipitation/ Evaporation (Inches)	12,652.0
2-8		2-9
2-0	Flow in Butte Creek by Month	2-10
3-1	Golf Course Reclamation Alternative Analysis	3-3
3-2	Conventional Gravity Sewer Coll. System Costs	3-6
3-3	SDG Sewer Collection System Costs	3-7
3-4	Comparison of Collection System Alternatives	3-8
4-1	Comparison of Treatment Alternatives	4-6
4-2	Comparison of Reclamation Alternatives	4-11
5-1	Construction Cost of Recommended Treatment	
2766	Facilities -Initial Increment Construction	5-3
5-2	Construction Cost of Recommended Treatment	
2010	Facilities - Future Increment Construction	5-4
5-3	O&M and Reserve Fund Annual Expenditure	
	Projection	5-6
7-1	Capital Cost of Recommended Project	7-2
7-2	Town of Paradise Revenue Program	7-3
7-3	Calculation of Sewer Service Charge and	
	Connection Fee	7-5

Kennedy/Jenks/Chilton

LIST OF FIGURES

Figure Number	Title	Followin Page	
2-1	Collection System and District Boundaries	[in pouch]	
4-1	Alternative A - Aerated Lagoons	4-2	
4-2	Alt. B - SBR; Alt. C - Oxidation Ditch	4-2	
4-3	Advanced Treatment Process Schematic	4-8	
5-1	Recommended Project Location Plan	5-1	
5-2	Recommended Project Site Plan	5-2	

CHAPTER 1

INTRODUCTION

AUTHORIZATION

The Town of Paradise retained Kennedy/Jenks/Chilton in April 1988 to prepare this feasibility study to support formation of an Assessment District for wastewater collection, treatment and disposal serving the central commercial, industrial and multi-family residential areas of the Town. The study has been directed by the Department of Public Works with supplementary information provided by Planning Department staff.

PRIOR STUDIES

Recognizing the potential for problems arising from inadequately maintained or failing septic systems, the Town of Paradise authorized the preparation of a pollution study in 1981. The Phase I Wastewater Management Study completed in 1983 [1], supplemented in 1984 by a report of measurements of stream pollution made during a period of the year with high groundwater [2], concluded that there was some evidence of stream contamination from septic tank drainfields, but that the pollution problem was not serious at that time. However, it was recommended that wastewater collection, treatment and disposal works be constructed for the Town.

In response to these studies, the Town enacted an On-site Systems Ordinance [3] placing conditions on new construction to help minimize the possibility of future septic system failures. In addition, the Town authorized the preparation of another wastewater management study. The Phase II Wastewater Management Study report completed in 1985 [4] studied the cost-effectiveness of alternatives for a coordinated approach to long-term management of wastewater, septage (solids pumped from septic tanks), and hazardous wastes, considering the current pattern of development within the Town limits and probable future conditions, and taking into account the Septage Management Study already completed by Butte County [5].

The Phase II study concluded that the most cost-effective program for waste-water and septage involved construction of a conventional gravity sewer system serving only the commercial, industrial and multi-family residential areas existing along the Skyway and Clark Road corridors, with treated wastewater effluent, septage and sludge reclaimed on approximately 2.500 acres of pastureland to be purchased by the Town. All other areas of town would continue to be served by on-site septic systems. An On-Site Management District would be formed to systematize the proper maintenance and inspection of these systems. The Phase II study also proposed a program for managing the hazardous wastes generated within the town.

PRESENT CONDITIONS AND NEED FOR DISTRICT FACILITIES

The implementation of the On-Site Systems Ordinance has resulted in de facto limits on density of development, in many cases limiting density to substantially less than the zoning would otherwise permit. Also, according to a State-mandated schedule, Butte County has announced that septage will not be received at the Neal Road landfill after 1991.

The Town has recognized the continuing need for a wastewater collection. treatment, and disposal system for the central areas of the Town and the need to develop an alternative to the Neal Road landfill for septage disposal. Accordingly, the Town directed the preparation of this study to update the recommendations made in the Phase II study so that the Town Council would have current information to base a decision regarding possible formation of a Special Assessment District to fund the necessary construction.

ORGANIZATION OF REPORT

This feasibility study report is presented in chapters addressing pertinent aspects of the proposed project.

Chapter 2, Service Area and Design Criteria, describes the currently proposed District boundaries (the service area) and how this area differs from that recommended in the Phase II Study [4]. Chapter 2 also develops the current and projected wastewater flow estimates, equivalent residential units of capacity, aggregate parcel area, septage quantities, effluent quality requirements, effluent storage reservoir design criteria, and cost-effectiveness analysis parameters used in subsequent chapters.

Chapter 3. Collection System Alternative Analysis, presents a cost-effectiveness analysis leading to confirmation of a conventional gravity sewer system.

Chapter 4. Wastewater and Sludge Treatment and Disposal Alternative Analysis. presents the cost-effectiveness analysis leading to confirmation of the aerated lagoon treatment process for wastewater and septage, and also evaluates four methods for possible ultimate disposal of stabilized sludge. This chapter also contains an economic analysis supporting reclamation of treated wastewater effluent as a cost-effective alternative to other options not involving reclamation.

Chapter 5, Recommended Plan, is a coordinated and more detailed description of the recommended concepts for construction, including estimated costs.

Chapter 6. Financing and Program Implementation, describes the most viable options available to the Town for financing the construction and associated costs, including grants, loans and bonds. Formation of a special assessment district for financing utilizing assessment bonds is recommended. The elements of the design program are described, and a recommended management plan presented for initial organization of the assessment district, administration of design and construction, and management of the system when completed.

Chapter 7, Assessment and Monthly User Charges, describes the suggested capitalization plan, elements of income, and a plan for amortization of financed capital and for funding of operation, maintenance, administration, and system replacement. A generic assessment method is presented in a form enabling a property owner to estimate his initial assessment (or future connection charge if not connected initially) and monthly service charge based on characteristics of a particular parcel.

CHAPTER 2

SERVICE AREA AND DESIGN CRITERIA

The purpose of this Chapter is to establish the design criteria and cost-effectiveness analysis methodology used in this report. In particular, the development of the service area boundary is described, including the existing and projected uses and number of units to be served. Also, an estimate is presented of the number of units outside the district boundaries which can be served, and the phasing of construction of the various elements of the system is described. The present and projected quantity of septage received at the treatment facility is estimated, the effluent quality criteria for the wastewater treatment process are defined, and the design criteria for the treated effluent storage reservoir are presented. Also, the parameters used in subsequent cost-effectiveness analyses are given.

Development of Service Area Boundary

The Phase II Report [4] proposed a wastewater collection district boundary including the commercial, industrial and multi-family residential zoned areas along the Skyway and Clark Road from the south and west Town limits to the north Town limits. As part of the present study, Town Planning Department staff performed a door-to-door survey of existing uses within the sewer service area proposed in the Phase II report. Also, Town staff consulted with the Butte County Health Department Area Sanitarian to identify current problem areas with failing septic systems. As a result of these investigations, the proposed service area was modified to eliminate the area north of Wagstaff from the proposed district, to eliminate certain other areas currently developed in single-family residences, and to include some small areas either needing service because of failing septic systems or because only part of a parcel was included in the formerly-developed boundary. The area north of Wagstaff was eliminated because existing development is primarily single-family in character, and the per-unit cost to serve these residences would be quite high compared with other services in the remainder of the proposed district.

The currently proposed service area boundary is shown on the Town's zoning map, included as Figure 2-1 in a pouch bound with this report.

Census of Existing Uses in Proposed District

The commercial/industrial/multifamily-residential character of the proposed district is revealed by an analysis of the census data gathered by the Planning Department staff. Table 2-1 presents a summary of the properties to be served by the proposed district by land use zone, and Table 2-2 presents a summary of these same properties by current use. These data were abstracted from the detailed census records, and are current as of the summer of 1988. Appendix C is a printout of the census records. It should be noted that the total gross land area in the proposed district is approximately 1,300 acres. The aggregate parcel area totals just over 1,200 acres, over 92 percent of the gross land area. Thus, less than 8 percent of the land area is Town right-of-way (primarily roads). This proportion appears to be appropriate in view of the relatively large parcel sizes prevalent in the District.

TABLE 2-1 SUMMARY OF PARCEL AREA BY LAND USE ZONE

Zone	Number of Census records	Area	(ac.)	Percent of total area
Single-family residential (S-F or RR-3)	29	(77%	107.0 vacant)	9
Multi-family residential (M-F or M-F-P)	290	(17%	294.03 vacant)	25
Commercial (C-C, C-B, N-C or P-D)	863	(30%	464.65 vacant)	39
Community Facilities (C-F)	51	(33%	141.6 vacant)	12
Industrial (I-S)	41	(57%	180.3 vacant)	15
TOTALS	1291	(36%	1207 vacant)	100

Table 2-1 shows that less than 10 percent of the parcel area in the proposed district is zoned exclusively for single-family uses. Indeed, some of the parcel area included in the single-family zone category represents parcels lying partly within a non-residential zone.

Another point of note in Table 2-1 is the large proportion (over one third) of vacant land in the proposed district. A substantial portion of each zone is currently vacant, and much of this land could possibly be developed, according to the General Plan.

Institutional uses include schools, churches, and other community facilities, principally those included in the C-F Zone. Industrial uses include several light manufacturing facilities within the Town.

TABLE 2-2
SUMMARY OF PARCELS BY USE

	Census		No. of		Area.	Percent
Use	Records	*	EDU's	*	acres	of tota
Residential						
Single-family	402	31	402	15	265	22
Multi-family	92	7	973	37	127	11
Subtotal	494	38	1375	52	392	33
Commercial						
Restaurants	39	3	276	11	19	1.5
Motels	10	1	57	2	7	<1
Other	427	33	642	24	213	17.5
Subtotal	476	37	975	37	239	19
Institutional	61	5	293	11	125	10.5
Industrial	13	1	15		18	1.5
Vacant	247	19			432	36
TOTALS	1291	100	2658	100	1207	100

Table 2-2, in comparison with Table 2-1, shows that the existing uses relate well to the zoning. Coincidentally, the land area currently in residential use (single-family and multi-family combined) is almost equal to the land area zoned for residential use (SF, MF, MFP, RR3 combined). However, over 95% of the parcel area in single-family use within the proposed district is located in zones other than land zoned specifically for single-family use.

Calculation of Equivalent Dwelling Units (EDU's)

The same criteria were used to relate Equivalent Dwelling Units (EDU's) to wastewater generation as in the Phase II report, adjusted as necessary for individual parcels to account for probable wastewater contribution. As part of the census data gathering, Town staff examined water consumption records for numerous businesses and institutions. The consumption records for the winter months of 1987-88 were utilized to check the assumptions regarding wastewater generation in the Phase II report [4], and to establish flow rate criteria for identifiable types of businesses. In general, flow rates during the non-irrigation season, representing wastewater contribution, were found to be the same or somewhat lower than what was assumed in the Phase II report. The values for unit flow rates as developed from water consumption data are presented in Table 2-3. Wastewater strength was not included in the EDU formulas because of the small number of connections having higher than residential strength.

TABLE 2-3
UNIT FLOW RATE DESIGN VALUES

Type of use	Unit	Average daily flow (gallons/day)
Single family residence	Residence	175 (= Equiv. Dwelling Unit)
Duplex, mobile home or multi-unit up to 6	Residence	175
Restaurant	Seat	17.5 [also calc. from water use]
Motel	Business	[calc. based on water usage]
Laundromat	Business	[calc. based on water usage]
School School	Student	7.5
Multi-family	Unit	133 for more than 6 units on parcel
All other	Parcel	87.5 min. [calc. based on water usage]

An estimate was made of the number of EDU's applicable to each parcel record in the census database. Table 2-2 presents a summary of the results. The current total average daily flow estimated from the proposed district is 0.465 million gallons per day (mgd). Single-family uses contribute 15 percent of this, while the contribution of multi-family and commercial uses is equal at 37 percent each. The commercial contribution is quite high in relation to land area, amounting to 3.9 EDU's per acre compared with the average for the entire district (based on aggregate parcel area and including vacant property) of 2.1 EDU's per acre.

For the purpose of calculating flows during the rainy season, it was assumed that infiltration/inflow would contribute 100 gallons per day per connected acre initially, and 200 gallons per acre per day counting the gross acreage in the district at buildout condition in the future. Infiltration/inflow accounts for stormwater entering the collection system from illegally connected rainwater leaders, storm drain cross-connections, submerged and leaking manhole covers, and leaking building sewers, collector sewers, and trunk sewers. The initial value of infiltration/inflow assumed for the analysis was 77,500 gpd during the rainy season (170 days per year), and the design value at buildout assumed was 260,000 gpd for 170 days per year.

Projection of Future Equivalent Dwelling Units and Flow

The collection system is designed for the flow expected from the area within the district boundary shown on Figure 2-1, at the level of development expected at buildout conditions. To determine this flow, the same per-acre estimates of flow rate appropriate to the different zones in the district were used as in the Phase II Report [4]. In particular, multi-family residential zones were assumed to generate 1,330 gpd per acre average dry weather flow, and commercial and industrial zones were assumed to generate 2,000 gpd per acre average dry weather flow. Under these assumptions, future flow expected from the district was calculated to be 1.23 mgd. An additional 250,000 gpd

was allowed for future connections from areas outside the district boundary, such as from multi-family developments experiencing failing septic systems. The ultimate total EDUs for which the collection system is to be designed is therefore 8.400.

Septage Quantity and Characteristics

The Neal Road Landfill presently accepts approximately 4 million gallons of septage per year, approximately 2 million gallons per year from Paradise Ridge and the remainder from other areas in northern Butte County. The amount from Paradise Ridge will be reduced somewhat when the proposed collection system is constructed and the septic tanks in the district are abandoned, but increased somewhat when an on-site management district is formed including mandatory pumping frequencies for tanks in the district. On balance, it was assumed that the amount of septage received at the new treatment plant would initially be the same as that now received at the Neal Road Landfill from Paradise Ridge, or 2 million gallons per year, assuming that the remainder of the septage would be discharged to the Chico Wastewater Treatment Plant as is now planned. In the future at buildout conditions, it was assumed that 4.5 million gallons per year would be received at the new treatment plant. As in the Phase II Report, the septage was assumed to have a 5-day Biochemical Oxygen Demand (BOD5 or BOD) of 7,000 milligrams per liter (mg/l) and a Suspended Solids (SS) of 15,000 mg/l.

Table 2-4 presents the current assumed wastewater, infiltration/inflow and septage flows expected, and the allowance for future flows, in the initial increment of construction for the treatment plant and reclamation facilities. It also presents the corresponding flows at buildout conditions.

TABLE 2-4
DESIGN FLOW RATES

	CURRENT	CONDITIONS	BUILDO	UT CONDITIONS
Source	EDUs	Flow mgd	EDUs	Flow mgd
Resid. equiv. in district	2659	0.4654	7000	1.2276
Septage		0.0055		0.0124
Infiltration/inflow		0.0775		0.2600
Future capacity	1723	0.3016	1430	0.2500
TOTALS	4382	0.8500	8430	1.7500

Sewer Design Criteria

Sewers were designed to flow 0.8 full at capacity. Manning's "n" for open-channel hydraulics was taken to be 0.013. Minimum slope was 0.005 ft/ft for 6-inch sewers, 0.004 ft/ft for 8-inch sewers, and 0.0028 for 10-inch sewers.

Influent and Effluent quality criteria

Domestic sewage was assumed to contain 350 mg/l 80D and 400 mg/l SS. Because the ultimate disposal of treated wastewater effluent will be as reclaimed water, the level of treatment is gauged to the type of reclamation use. Table 2-5 presents the level of treatment required under the State Department of Health Services Title 22 wastewater reclamation regulations for the various possible uses of reclaimed water. In order to maximize the options for use of the reclaimed water considering the present uses of the property on which reclamation will be practiced (see Chapter 4), the level of treatment proposed is advanced secondary treatment, with the BOD and SS of the secondary treated effluent less than 10 mg/l, and the secondary effluent coagulated, clarified and filtered to less than 2 turbidity units and disinfected to less than 2.2 Maximum Probable Number (MPN) per 100 ml. At this level of treatment, the reclaimed effluent is suitable for unrestricted irrigation of food crops. unrestricted recreational impoundments, and irrigation of parks and playfields. It may also be suitable for off-site surface discharge if diluted with a sufficient flow of surface water.

TABLE 2-5

CALIFORNIA WASTEWATER RECLAMATION CRITERIA

			RE	CLAIMED W	ATER QUALI	TY
			COL	FCRM		
			(MPN/I		TURBI	OITY
RECU	AIMED WATER USE	TREATMENT REQUIREMENTS	Average	Maximum	Average	Maximum
١.	Irrigation	50				
	Food Crop Irrigation					
	Spray	Oxidized, Coequiated, Clarified, Filtered and Disinfected	2.2	25	-0	-
	Surface	Oxidized and Disinfected (Primary for Orchards and Vineyards. No Fruit Contact.)	2.2	•	- 1	*
	Fodder, Fiber and Seed Crops		6.1			
	Spray or Surface	Primary	*	. +	-	-
	Pasture irrigation for Milking Animals	Oxidized and Disinfected	23.0	÷	***	*
	Landscape irrigation					
	(Golf Courses, Cameterles, Freeways with Limited Public Access)	Oxidized and Oisinfected	23.0	240	-	*
	(Parks, Playgrounds, and General Public Access	Oxidized, Coagulated, Clarified, Filtered, and Disinfected	2.2	23	2	5
١.	Impoundments					
	Recreation (Non-Restricted)	Oxidized, Coagulated, Clarified, Flitered, and Disinfected	2,2	23	2	5
	Recreational (Restricted)	Oxidized and Disinfected	2.2		-	
	Landscape	Oxidized and Disinfected	23.0	-	-	-
11.	Groundwater Recharge					
	Domestic Mater Supply Aquiters by Surface Spreading	Case by Case Recommendations Based on Treatment Provided, Effluent Quality and Quantity, Screeding Area Operations, Soil Characteristics Hydrogeology, Resident Time and Distance to Withdrawai				

NOTES: 1) Definitions Based on Title 22, Div. 4 of California Administrative Code (1977 Revisions).

²⁾ Primary Treatment to Provide an Effluent Settleable Solids of Less Than 0.5/ML/Mour.

Cost-effectiveness Evaluation Criteria

Cost-effectiveness evaluations were made on an annualized cost basis considering capital expenditures and operation/maintenance expenditures. The alternative with the lowest annualized cost was considered cost-effective. Table 2-6 presents the parameters used in the calculations of annualized costs. It should be noted that the analysis period is a value chosen somewhat arbitrarily, and is used only for the purpose of calculating the equivalent annual cost for the cost-effectiveness analysis. It is not necessarily related to other significant time periods regarding the facilities or their financing, such as the economic life of particular facility components or the assessment bond amortization period.

TABLE 2-6

ANNUALIZED COST PARAMETERS

Analysis period

15 years

Discount rate

10%

Cost basis

current (1988) at ENR 4470

Differential power cost

inflation factor

3% in excess of general inflation

Economic life of facilities:

Pipelines, embankments,

major structures

50 years

Other equipment

15 years

Reservoir Design Criteria

Table 2-7 gives the precipitation and evaporation data assumed for reservoir sites under consideration for this study, for the average year, once in 10 year, and once in 100 year cases. According to Central Valley Regional Water Quality Control Board staff, as long as the reclaimed water entering the reservoir has had advanced secondary treatment and disinfection, a discharge from the reservoir on a once in 10 year basis during the non-irrigation season would be acceptable. Otherwise, the reservoir must be designed to hold the reclaimed water and net of runoff and evaporation up to the 100 year season.

For the purpose of determination of runoff quantities, all rainfall except that falling on the reservoir surface was assumed to be discharged to the reservoir with a runoff coefficient of 0.85. This value is on the high end of possible values, and is chosen to be representative of the thin soils prevalent in the catchment area and their saturated condition during periods of prolonged rainfall. Further hydrological analyses would be required to establish this value with greater certainty.

TABLE 2-7

SITE PRECIPITATION/EVAPORATION (INCHES)

HONTH	Jan.	Feo.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Total Nov. thru May
PARADISE MEAN PRECIP. EL. 1780*	9.64	8.09	6.51	4.07	1,55	0.65	0.07	0.16	0.55	2.79	6.13	8.5	48.71	ıru Nay
EST. MEAN PRECIP. W SITE = PARADISE x 40/48.71	7.92	6.64	5.35	3.34	1.28	0.53	0.06	0.13	0.45	2.29	5.03	6.98	40.00	
EST. 10 YR. PRECIP. @ SITE = MEAN × 60/40	11.88	6.67	8.03	5.01	1.88	0.80	0.09	0.20	0.68	3.44	7.55	10.47	90.09	
EST. 100 YR. PHECIP. 0 SITE * MEAN * 72/40	14.25	11.96	9.62	6.02	2,29	96.0	0.10	0.24	0.81	4.12	9.06	12.57	72.00	-
AVE. CLASS A PAN EVAP. 0 GROVILLE DAM*	-3.40	-1.45	-0.76	-0.79	-1.27	-2.29	-3.43	-5.18	-6.60	-7.95	-7.37	-5.43	-45.92	
MEAN PRECIP. 10 YR. LESS EVAP. LESS	4.52	5.24	4.59	2.55	0.01	-1.76	-3.37	-5.05	-6.15	-5.66	-2.34	1.55	-5.92	16.12
10 YR. PRECIP.	8.48	8.52	7.27	4.22	0.61	-1.49	-3.34	-4.98	-5.92	-4.51	0.18	5.04	14.08	14 19
100 YR. PRECIP.	10.85	10.51	8.86	5.23	1.02	-1.33	-3.33	-4.94	-5.79	-3.83	1.69	7.14	26.08	45 30

. Precip. & Evap. data from Ref. (6).

Table 2-8 gives the mean discharge measured for Butte Creek at the gaging station immediately downstream of its confluence with Little Butte Creek. These data were taken from Table III-10 in Reference [4], and are used in the analysis of the non-reclamation alternative for wastewater effluent in Chapter 4.

TABLE 2-8
FLOW IN BUTTE CREEK BY MONTH

Month	Mean Discharge in CFS
*	202
January	262
February	550
March	621
April	545
May	566
June	245
July	152
August	160
September	109
October	115
November	126
December	118

CHAPTER 3

COLLECTION SYSTEM ALTERNATIVE ANALYSIS

BACKGROUND

The 1985 Phase II Wastewater Management Plan report [4] included an alternative analysis comparing a conventional gravity raw sewage collection system with a small-diameter gravity (SDG) septic tank effluent collection system for the central Paradise area. The conventional gravity system was recommended as the more cost-effective.

As part of the feasibility analysis for the proposed Central Area Assessment District, the Town of Paradise has requested that the septic tank effluent collection system be re-evaluated. This chapter presents the requested analysis.

DEVELOPMENT OF ALTERNATIVES

Golf Course Reclamation Preliminary Analysis

The Tall Pines Golf Course and about 40 acres nearby on Clark Road are owned by Paradise West, a joint venture of Sacramento Savings and Community Development Construction, Inc. The joint venture is planning a multi-unit residential development and hotel complex on these sites. In late 1987, a study was conducted to evaluate alternatives for wastewater treatment and disposal. A wastewater reclamation plant with summertime irrigation of the golf course was identified as feasible. At that time, however, the only feasible wet-season alternative was storage of treated effluent in an on-site reservoir. Construction of the reservoir proved to be quite costly.

Another wet-season disposal alternative was subsequently identified. This alternative involved rapid infiltration of filtered wastewater effluent into the soil through a network of buried perforated pipes. This concept met with the tentative approval of the Central Valley Regional Water Quality Control Board staff, and rendered the reclamation alternative feasible from a construction cost standpoint.

The Town of Paradise also expressed interest in evaluating the usefulness of a reclamation plant at the golf course to serve the Easy Street Industrial Park development just south on Clark Road. As part of the general analysis of wastewater collection and treatment alternatives for the proposed Central Area Assessment District, the Town directed the preparation of an analysis of subalternatives involving the possibility of constructing and operating a 250,000 gallon per day satellite reclamation plant at the golf course.

Alternatives developed and evaluated included:

Alternative GC-A - Golf Course Reclamation Plant, year-round operation.

Alternative GC-B - Summer irrigation of golf course with reclaimed water pumped from main plant.

Alternative GC-C - Golf Course Reclamation Plant, summer operation, with winter flows pumped to main plant.

Alternative GC-D - No reclamation. Golf Course irrigated with water purchased from Paradise Irrigation District (PID).

The results are summarized in Table 3-1. Alternative GC-D is favored over Alternatives GC-A and GC-C by a large margin. Alternatives GC-A and GC-C are fairly comparable, and Alternative GC-B is by far the most expensive.

Besides cost-effectiveness, the following factors also bear on the analysis.

Although Alternative GC-D is the lowest in annualized cost, Alternative GC-A could be implemented somewhat sooner. This may be of benefit considering the timing of development plans for both Paradise West and the Industrial Park.

The reclaimed water produced under Alternatives GC-A or GC-C has some value as a supplement to the current supply of water available from Paradise Irrigation District (PID). Indications from the District are that additional source development and increased rates would both probably have to occur before additional water could be purchased. The assumption made in this analysis was that 140 acre-feet per year would be applied to the golf course. This is a small portion of the current average 8.000 acre-feet per year sold by PID. Furthermore, it was assumed that the current PID rate of \$100 per acre-foot would double in the future. The total cost to society to provide reclaimed water can be calculated by subtracting the annualized cost of Alternative GC-D. less the amount included for purchase of PID water, from the annualized cost of the next cheapest. Alternative GC-A, and dividing the difference by 140 acre-feet per year. This cost is over \$700 per acre-foot. Looking at the situation another way, reclamation plant construction would have to be between \$500.000 and \$600.000 lower in order for the cost of producing the reclaimed water to be comparable to the purchase price of PID water.

In the absence of compelling reasons to build a reclamation plant, it is apparent that all wastewater should be conveyed to the central treatment plant as in Alternative GC-D. Compelling reasons might include the desirability of early development in the lower Clark Road area requiring wastewater treatment and disposal, whereby Alternative GC-A would be implemented, or the inability to purchase the required golf course irrigation water from PID, whereby either Alternative GC-A or GC-C would be implemented, depending on the timing of availability of the central treatment plant.

TABLE 3-1

GOLF COURSE RECLAMATION ALTERNATIVE ANALYSIS

Alternative item	Cost (\$K) L	ife (Yr)			Ann. Cost(\$K/yr)
Note	5		3	1.2.4	
GC-A - Year-Round O	peration of Golf	f Course			
Equipment	1,351.2	15	10	.1315	177.6
Other Cap.	901.2	50	10	.1009	90.9
Power	31.7/yr		13	1.2719	40.3
Other O&M	89.1/yr			1.0000	89.1
Total (Rounded)					398
GC-B - Pump Reclaime	ed Water from Ma	in Plant			
Equipment	1.351.2	15	10	.1315	177.6
Other Cap.	1.496.4	50	10	.1009	150.9
Power	54.8/yr		13	1.2719	69.7
Other O&M	93.6/yr			1.0000	93.6
Total (Rounded)					492
C-C - Summer Operat	ion of Golf Cou	rse Reclam	ation		
Equipment	1.756.8	15	10	.1315	231.0
Other Cap.	284.4	50	10	.1009	28.7
Power	38.6/yr		13	1.2719	49.1
Other O&M	94.8/yr			1.0000	94.8
Total (Rounded)					404
C-D - No Reclamatio	n				
Equipment	1.021.2	15	10	.1315	134.3
Other Cap.	122.4	50	10	.1009	12.3
Power	38.3/yr		13	1.2719	48.7
Other O&M	93.6/yr			1.0000	93.6
Honor burnstone	28.0/yr			1.0000	28.0
Water purchase	20.0/91			1.0000	20.0

NOTES:

- 0.13147 = Capital Recovery Factor. 10%. 15 yr.
- 0.10086 = Capital Recovery Factor, 10%, 50 yr.
- 3% added to power cost rate due to assumed power cost inflation 3% greater rate than inflation.
- 1.27194 = Compound Amount Factor, 13%, 15 yr. times Sinking Fund Factor, 10%, 15 yr.
- 5. Construction cost with 20% contingency included.

Collection System Alternatives

Using the USGS topographic maps, the Assessor's Parcel Maps, and information from the 1985 plan [4], a gravity collection system was laid out from the northern boundary of the planned Assessment District at Wagstaff to the currently planned location of the wastewater treatment plant on Neal Road at Elliot Spring. The layout is presented on Figure 2-1. When developing profiles of the major trunk lines, it was discovered that wastewater from the Clark Road area north of Buschmann could flow by gravity west along Buschmann into the Skyway trunk via an inverted siphon. This allowed planning a smaller pump station for lower Clark Road than originally shown in the 1985 plan.

Wastewater flows from the currently planned collection area were estimated based on census data provided by the Town of Paradise Planning Department, using the flow rate per acre assumed in the 1985 report for commercial and industrial areas. Unit counts were made for multi-family developments, and small lots currently in single family use were assumed to remain in that use. The ultimate wastewater flow rate is estimated to be 1.5 million gallons per day (mgd) Average Dry Weather Flow (ADWF). See Chapter 2. Applying a standard peaking factor and an allowance for wet season infiltration/inflow, the Peak Wet Weather Flow (PWWF) capacity of the conventional gravity sewer system would be 2.4 mgd, and the PWWF capacity of the small-diameter gravity septic tank effluent collection system would be 1.8 mgd.

The lines were sized for self-cleaning velocities at minimum flow, and the lines were assumed to flow 0.8 full at PWWF. In general, lines needed to be one pipe size smaller for the small-diameter gravity system than for the conventional gravity system.

Due to the generously sloping topography of both the Skyway and Clark Road collection areas, a gravity collection system was considered more appropriate than a system employing individual pumps, either raw sewage grinder pumps or septic tank effluent pumps. During the sewer layout work, it was noted that there were several parcels best served with individual pumps in order to avoid long reaches of gravity sewer placed in easement along back lot lines or across the middle of parcels. Also, several small pump stations were necessary, as well as the larger Lower Clark Road pump station. The system capacity was calculated assuming there would be no reclamation plant at the Tall Pines Golf Course.

Where possible, gravity lines were located in public right of way. Where this was not possible, the lines were routed along a private driveway or street, and when absolutely necessary, lines were routed along property lines. In no case were lines run across the middle of properties.

The existing sewers and laterals installed under Skyway Assessment District No. 1 in 1974 were all incorporated into both gravity systems. The existing construction was accounted for in the quantity takeoffs.

ANALYSIS OF ALTERNATIVES

Tables 3-2 and 3-3 present the estimated construction cost and annual operation and maintenance costs of the conventional gravity sewers and the small-diameter gravity septic tank effluent sewers. including the cost of easements. The unit prices for construction of sewers were estimated from

recent bid prices for projects paying state prevailing wages, and include incidental items such as manholes, air and vacuum release valves, and tees for laterals. Costs are in 1988 dollars, ENR 4470. An allowance was made for repairs and replacements to septic tanks required if the SDG system were constructed, but no allowance was made for installation of new septic tanks that would be required for future service connections to the SDG system, nor for abandoning septic tanks and constructing building sewers to connect to a conventional system.

As shown in Table 3-4, the two gravity collection system alternatives have nearly the same annualized cost, although the construction cost of the SDG system is less.

Referring to Table 3-3, the \$1.000,000 allowed for septic tank repairs and replacement during construction of the SDG system will be paid for by each affected property owner, and will not be part of the costs to be funded by the planned Assessment District. Thus, it could be argued that from the point of view of the planned capital requirement of the district, the SDG system should be built. Opposing this argument, though, is the consideration that the assessment spread will not account for the extra costs to be borne by some properties to obtain the same benefit. Those properties required to repair or replace septic tanks might justifiably protest their assessment as inequitable relative to others in the district. Furthermore, the total construction cost incurred by both present and future ratepayers is likely to be more for the SDG system if the cost of future septic tanks is considered.

The major noneconomic factor affecting the comparison of the two collection system alternatives is the relative ease of maintenance of the systems. To date. SDG systems have all been constructed in predominately residential areas, and no SDG systems to our knowledge have been designed for commercial areas. Commercial septic tanks are on the average much larger and require pumping much more frequently than residential septic tanks. It is harder to place the commercial tanks on a regular pumping schedule because of the varying loads they accept. In the case of food service establishments, the septage collected from the tanks is likely to contain more grease and other difficult to handle solid material than residential septage. Furthermore, pumping septic tanks will require entry onto private property, necessitating maintenance of a Right of Entry agreement for every property. Pumping of some tanks will require excavation and restoration of landscaping. By contrast. maintenance of conventional gravity systems includes regular inspection. and flushing or rodding when necessary, all accomplished on public right of way or permanent easement. In either case, maintenance of a few pump stations will be necessary.

CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented herein, the recommendation of the 1985 plan appears to be still valid, and therefore the conventional gravity system should be constructed. It should be noted that in the future, residential areas can still connect to the gravity system with septic tank effluent pumps and small diameter force mains should connection of these areas prove necessary or desirable.

TABLE 3-2
CONVENTIONAL GRAVITY SEWER COLLECTION SYSTEM COSTS

Item	Quantit	y Unit	Unit \$	Extension, \$K
A. CONSTRUCTION COST				
4" Force Main	5,400	LF	10	54
6" Sewer	61,700	LF	30	1.851
6" Force Main	6,000	LF	15	90
8" Sewer	42.400	LF	35	1.484
10" Sewer	13,600	LF	45	612
12" Sewer	17,500	LF	48	840
Lateral Sewers	17.500	LF	20	350
Indiv. Pumps	57	EA	6.000	342
Small Pump Station	4	EA	40.000	160
Medium Pump Station	1	EA	75.000	75
Inverted Siphon	1	EA	20.000	20
Permanent Easement	272.000	SF	0.25	68
Temporary Easement	470,000	SF	0.05	28
TOTAL CONSTRUCTION				5.974
B. OPERATION AND MAINT	ENANCE CO	ST		
Sewer Maintenance	151.000	LF	0.20/yr	30/yr
Pump Maintenance	57	EA		3/yr
Pump Station Maint.	5	EA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	30/yr
	187,500	Kwh/yr	0.08/Kwh	15/yr
TOTAL 0&M				78/yr

TABLE 3-3
SDG SEWER COLLECTION SYSTEM COSTS

Item	Quantit	y Unit	Unit \$	Extension, \$K
A. CONSTRUCTION COST				
3" Force Main	5,400	LF	8	43
4" Sewer	61,700	LF	20	1.230
4" Force Main	6,000	LF	10	60
6" Sewer	42,400	LF	23	975
8" Sewer	13,600	LF	30	408
10" Sewer	17,500	LF	45	788
Lateral Sewers	17,500	LF	18	315
Septic Tank Replacement	500	EA		1,000
Individual Pumps	57	EA	2,000	114
Small Pump Station	4	EA	35,000	140
Medium Pump Station	1	EA	65,000	65
Inverted Siphon	1	EA	15.000	15
Permanent Easement	272,000	SF	0.25	68
Temporary Easement	470,000	SF	0.05	24
TOTAL CONSTRUCTION				5,245
B. OPERATION AND MAINTE	ENANCE CO	STS		
Sewer Maintenance	151.100	LF	0.10/yr	15/yr
Septic Tank Pumping		EDU/yr		167/yr
Pump Maintenance	57	EA	20/yr	1/yr
ump Station Maint.	5	EA	5000/yr	25/yr
Pump Station Power	162,500		0.08/Kwh	13/yr
TOTAL 0&M				221/yr

TABLE 3-4
COMPARISON OF COLLECTION SYSTEM ALTERNATIVES

Alternative item	Cost (\$K) L	ife (Yr) I	nt. (%)	Factor	Ann. Cost(\$K/yr)
Note (See Table	3-1) 5		3	1,2,4	
COL-A - Conventional	Gravity Sewers				
Equipment	602.4	15	10	.1315	79.2
Other Capital	6.445.9	50	10	.1009	650.1
Power	15.0/yr		13	1.2719	19.1
Other O&M	63.0/yr			1.0000	63.0
Total (Rounded)					810
COL-B - Small Diamet	er Gravity Sept	ic Tank Ef	fluent Se	ewers	
Equipment	382.8	15	10	.1315	50.3
Other Capital	5,834.6	50	10	.1009	588.5
Power	13.0/yr		13	1.2719	16.5
Other O&M	208.0/yr			1.0000	208.0
Total (Rounded)					860

CHAPTER 4

WASTEWATER AND SLUDGE TREATMENT AND DISPOSAL ALTERNATIVE ANALYSIS

INTRODUCTION

The 1985 Phase II Wastewater Management Plan Report [4] included an alternative analysis comparing various wastewater treatment processes. The recommended plan was to utilize aerated lagoons for wastewater treatment, with septage and sludge to be treated at another site.

The purpose of this Chapter is to update the 1985 analysis considering the current options available for treatment plant and reclamation siting, current costs, and adding the Sequencing Batch Reactor and oxidation ditch "boat" clarifier to the analysis. An economic analysis is presented to establish the cost-effectiveness of using reclaimed wastewater effluent for irrigation and other beneficial uses versus a non-reclamation alternative.

Also, this Chapter contains an analysis of the feasibility of including hydroelectric energy recovery in the reclamation program.

BACKGROUND

In the 1985 Plan, it was assumed that the wastewater treatment plant would be constructed on a site just south of the Town limit near Wayland and Foster Roads, and that sludge and septage would be lagooned on land purchased by the Town for reclamation purposes from the McKnight Ranch interests.

The McKnight Ranch is under new ownership, and it has been decided that the Town will not purchase the land to be used for wastewater reclamation. Also, septage and sludge should be stabilized to maintain the widest range of options for beneficial use and ultimate disposal. The preferred site for the wastewater treatment plant has been changed to avoid impending housing development and to provide easier access for septage haulers. The new preferred site is a portion of the McKnight Ranch property on Neal Road near Elliot Spring. See Figures 5-1 and 5-2. Other sites along Neal Road are physically possible, but the preferred site was chosen due to its distance from present and planned housing development and its relative proximity to the collection system, minimizing trunk line costs.

DEVELOPMENT OF WASTEWATER TREATMENT AND SLUDGE STABILIZATION ALTERNATIVES

Wastewater treatment and sludge stabilization alternatives were developed as coordinated processes all occurring on the same site. Wastewater and sludge treatment alternatives developed were as follows:

Alternative A - Aerated Lagoons. Under this alternative, screened (but not degritted) raw wastewater and septage would be co-treated in a lagoon sized to provide sludge and grit storage. Screening would be employed to remove floatable plastics and other matter not readily treatable in the biological treatment processes following. The screenings would be compacted and hauled to a landfill. Each summer, one lagoon would be taken out of service and the accumulated stabilized sludge allowed to dry before being removed for beneficial use or ultimate disposal. Sludge could also be removed in a semi-liquid or semi-solid state, depending on the form required by the ultimate disposal

arrangement. See Figure 4-1.

The aerated lagoon treatment process is a variation on the extended aeration activated sludge biological treatment process. It does not involve the appli-Wastewater and solids to be treated enter the lagoon cation of chemicals. and are thoroghly mixed with aerobic microorganisms (activated sludge) suspended in the lagoon. These microorganisms consume suspended and dissolved organic material, both that in the influent and that remaining from dead activated sludge organisms. Air is dissolved in the water in the lagoon by means of mechanical aerators powered by electricity to supply the microorganisms with the necessary oxygen for their metabolism. Designs normally call for the average hydraulic retention time of liquid in the initial (aerated) lagoon at the design average value of influent flow to be 7 days, followed by another aerated lagoon with an average hydraulic retention time of 7 days, for a total of 14 days. At this value of hydraulic retention time, the wastewater will receive treatment to secondary level (30 milligrams per liter (mg/l) each of BOD and suspended solids), and the nitrogen in the treated effluent will be in the ammonia form.

As wastewater is continuously admitted to the lagoons, a mixture of treated wastewater effluent and activated sludge is pushed into a quiescent area where no mixing occurs. There, the activated sludge organisms settle out and the clarified effluent is decanted and directed to a polishing and flow equalizing pond prior to further treatment or discharge.

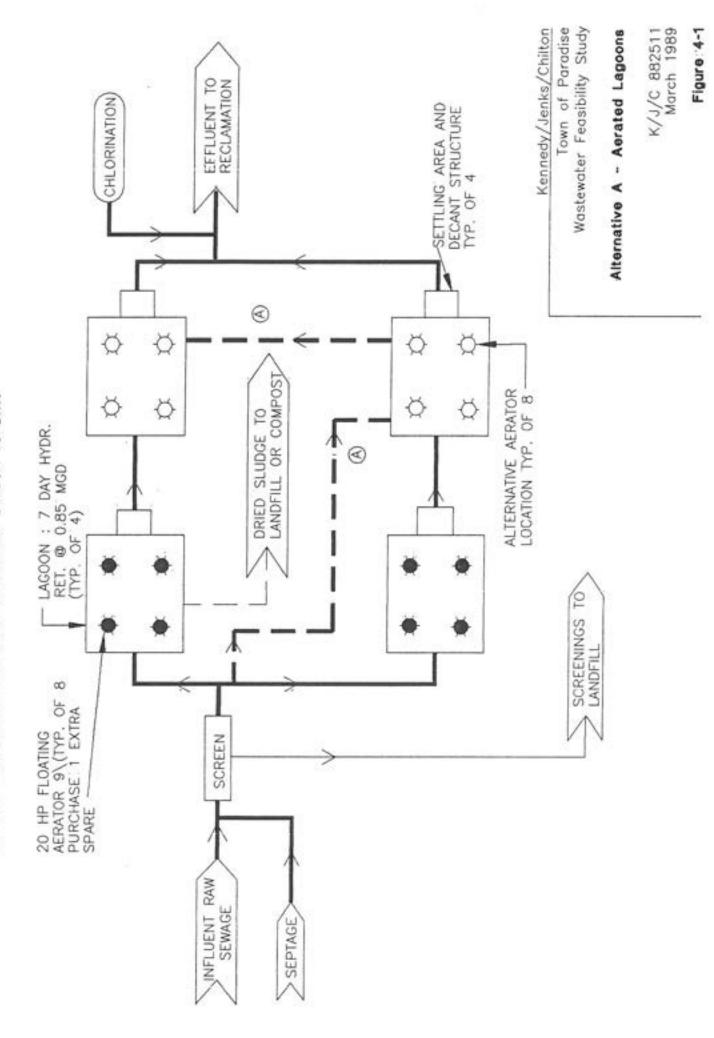
In the aerated lagoon system, it is normal for some portions of the bottom of the lagoon to accumulate solids (sludge) in piles where not enough oxygen is received to sustain activated sludge microorganisms. These piles do. however. support anaerobic microbial life not requiring oxygen for metabolism. The sludge will digest and change in composition over time to a stabilized form that will not putrefy further to a significantly degree.

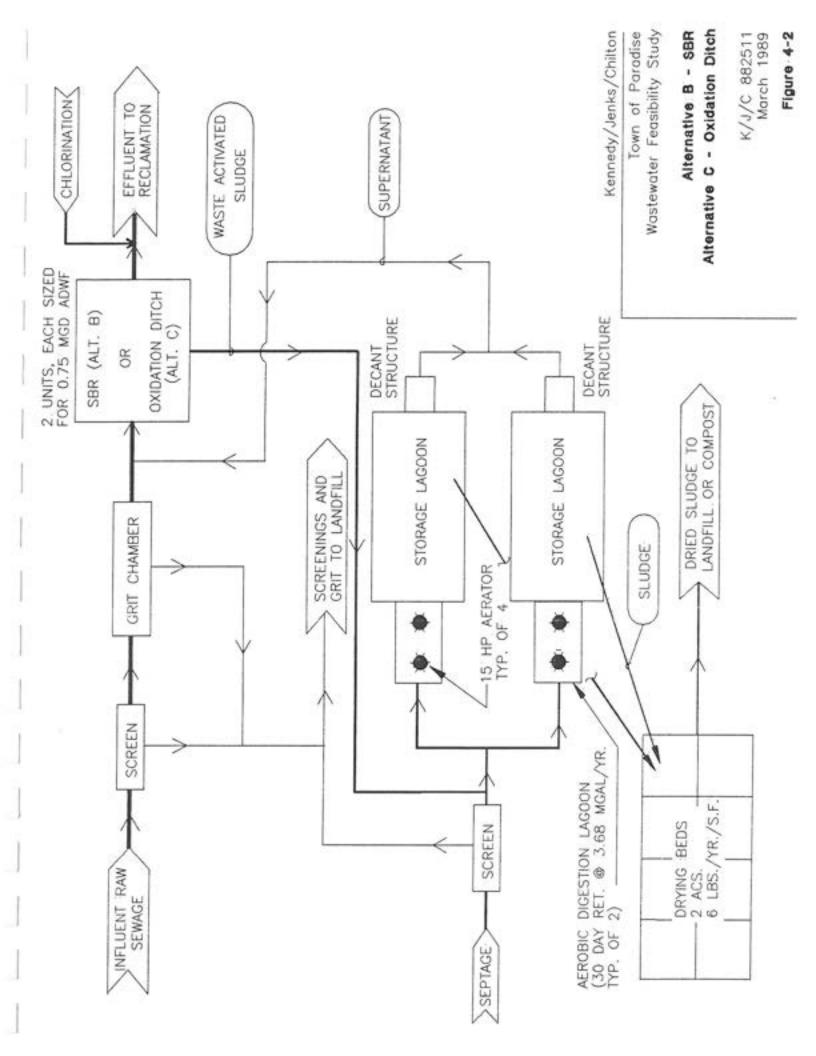
Alternative B - Sequencing Batch Reactor (SBR). A particular variety of SBR. the Intermittent Cycle Extended Aeration System, is evaluated in this alternative, as it was in the Golf Course Reclamation Alternative Analysis in Chapter 3. In this alternative, the raw wastewater would be screened and degritted before biological treatment, and the septage would be screened (but not degritted) at its own headworks before stabilization in an aerobic sludge lagoon. Biological solids wasted from the SBR would be stabilized in the same aerobic lagoon. The stabilized sludge would be stored in another lagoon and either removed in a semi-liquid state or dried in drying beds during the summer season. See Figure 4-2.

Screening of the influent wastewater and septage would be employed for the same purpose and in the same manner as for the Aerated Lagoon. Alternative A. In addition, to prevent buildup of difficult-to-handle solids in the Sequencing Batch Reactor treatment tanks, a small settling chamber would be employed to remove dense granular material (grit). The grit would be dewatered and hauled to landfill along with the compacted screenings.

The Sequencing Batch Reactor is another variation on the extended aeration activated sludge process. The major difference between the SBR process and the aerated lagoon process is that instead of flowing continuously through a sequence of chambers as in the lagoon process, batches of wastewater are treated one by one in a single tank. The various elements of the activated

EXAMPLE OF ALTERNATIVE FLOW PATH UTILIZED DURING SUMMER MONTHS TO ALLW ACCUMULATED SLUDGE IN UNUSED LAGOON TO DRY. 3





sludge process occur in sequence for each batch, as follows: Influent wastewater enters the SBR tank until the tank is full. Aeration and mixing occur, allowing activated sludge left over from the previous batch to consume dissolved and suspended organic material in the wastewater. After a period of several hours, the air and mixing are turned off and the solid material in the tank is allowed to settle. The clarified effluent is then decanted from the surface and more wastewater is admitted, commencing another sequence.

At the same time that clarified effluent is being decanted from the surface of the SBR tank, a portion of the settled solids is withdrawn from the bottom of the tank, representing the portion of the influent wastewater solids not consumed and the portion of the activated sludge microbial mass grown during the preceding period of aeration. These solids are wasted to an aerated lagoon similar in design to that described under Alternative A. but smaller in volume. The aerated sludge lagoon system also receives screened septage. The combined solids are stabilized by means of aerobic activated sludge microorganisms. The stabilized solids are allowed to settle in the lagoon and the clarified liquid redirected to the SBR system for treatment prior to disposal along with the treated wastewater effluent.

Alternative C - Oxidation Ditch with Boat Clarifier. Under this alternative, an oxidation ditch with internal "boat" type clarifier would be employed for wastewater treatment. All other features of this alternative are the same as Alternative B. See Figure 4-2.

The principle of operation of the Oxidation Ditch is the same as the aerated lagoon, except that the volume of wastewater maintained under aeration is much smaller. Aeration and mixing are both accomplished by rotating brushes, jet aerators, or similar devices which direct the liquid around a racetrack-shaped channel. Because the channel volume is much less than that of an aerated lagoon, the electrical power input required to keep the solids in suspension is less, and the concentration of activated sludge solids in the oxidation ditch is much higher. Because of the necessity to separate clarified effluent from the solids and to maintain the concentration of activated sludge microorganisms in the oxidation ditch, a clarification device is employed which continuously returns the settled solids to the oxidation ditch while decanting clarified wastewater effluent. As in the SBR process, a portion of the settled solids is withdrawn to be stabilized by a separate aerated lagoon system along with the screened septage solids.

Facultative Lagoons as developed in the 1985 Report were not included in the analysis because of the extensive sitework required, the potential for seasonal odor problems, and the requirement for separate septage stabilization and drying facilities.

Features Common to All Alternatives

Common to all alternatives, and not part of the cost-effectiveness analysis. are the following features:

4-3

- o Land acquisition.
- o Roads, fencing and sitework.
- Laboratory and office building at site.

- o Three-phase power service to site.
- Emergency generator and automatic transfer switch.
- Telephone service to site.
- Potable water service at site.
- Automatic telephone dialer for alarm transmittal.

Chlorination facilities employing sodium hypochlorite (bleach) are included for all alternatives under the reclamation element of construction. This system would be used for wastewater effluent disinfection, activated sludge maintenance (anticipated to be required only on an intermittent basis), and prechlorination of influent wastewater and septage if necessary for odor suppression.

The treatment processes were selected from those with proven low maintenance, operational simplicity, and ability to handle varying loads. In particular, anaerobic digestion of septage and sludges was not considered appropriate for this project because of the expense and complication of the facilities and difficulty of operation considering the small amount of methane gas expected to be produced.

The potential for odors and nuisance from each of the alternatives investigated should be minimal and nearly equal. The odors could arise mostly from the lagooning and drying of stabilized sludge. Odors that can arise from operations at the headworks can be dealt with by proper handling of screenings and grit, such as by compacting and bagging them prior to hauling, and by prechlorination of the influent when necessary.

Wastewater effluent would be treated to secondary treatment standards, defined as 30 milligrams per liter (mg/l) each of 5-day Biochemical Oxygen Demand (BOD5) and suspended solids. This would render the effluent suitable for pasture and forage crop irrigation and, with further treatment, for golf course irrigation and other uses. Liquid or partially dried stabilized sludge would be suitable for agricultural application, and stabilized sludge dried to greater than 50% solids content could be utilized as daily cover material at a landfill.

Advanced treatment and disinfection were not included in the basic analyses of secondary treatment process. Advanced treatment and disinfection are treated as part of the analysis of cost-effectiveness of various reclamation alternatives in this chapter.

ANALYSIS OF WASTEWATER TREATMENT AND SLUDGE STABILIZATION ALTERNATIVES

Construction, operation and maintenance costs were developed for the three alternatives. A cost-effectiveness comparison was made among the alternatives by computing annualized costs from the capital and annual expenditures assuming facility lives and interest rates as in Chapter 2.

As shown in Table 4-1, the total annualized cost of Alternative A (Aerated Lagoons) is approximately 10% lower than that of the next more costly. Alter-

Kennedy/Jenks/Chilton

native B (SBR). A combination of high capital cost and high power cost tend to eliminate Alternative C (Oxidation Ditch) from consideration. The higher power cost of Alternative A is offset by lower overall capital cost, especially the savings afforded by not having to construct separate sludge stabilization, storage and drying facilities.

The following non-economic factors also favor Aerated Lagoons over the Sequencing Batch Reactor with separate aerobic sludge stabilization.

- o Operation of the Aerated Lagoons would be simpler. There would be a single headworks receiving septage as well as wastewater. The headworks would employ screening only, and not grit removal. The lagoons themselves would not require as much operator attention as the SBR, and the aerators are much less complex than the SBR machinery.
- o The Aerated Lagoons would have greater resistance to biological process upsets from hydraulic or organic shock loading or from light organic loading during the early years of plant operation, due to their long hydraulic residence time and relatively low concentration of biological solids.
- o The lagoons would operate to equalize diurnal influent flow variations. Also, a polishing and equalization pond would follow the treatment ponds, providing further clarification of the effluent. Under these conditions, it would be possible to provide an advanced treatment unit with a constant rate of low-turbidity water.

Based on the alternative analysis presented above, the Aerated Lagoons should be constructed for combined wastewater, septage, and sludge treatment. Staging of construction can occur by providing for construction of three of the four lagoons and installation of eight aerators in the first phase, with the remainder of construction occurring as justified by increased flows.

TABLE 4-1
COMPARISON OF TREATMENT ALTERNATIVES

Alternative	Item	Cost (\$K)	Life (Yr)	Int. (%) Factor	Ann. Cost (\$K/yr)
	Note	5		3	1.2.4	
A - Aerated	Lagoons					
Equip	ment	389	15	10	0.13147	51.1
Other	Cap.	2.066	50	10	0.10086	208.4
Power		74.5/yr		13	1.27194	94.8
Other	0&M	74.0/yr			1.00000	74.0
Total	(Rounde	ed)				430
3 - Sequencin	ng Batch	Reactor				
Equipm	nent	938	15	10	0.13147	123.3
Other	Cap.	2,160	50	10	0.10086	217.9
Power		53.9/yr		13	1.27194	68.5
Other	0&M	87.0/yr	**		1.00000	87.0
Total	(Rounde	ed)				500
- Oxidation	Ditch					
Equipm	ent	1.238	15	10	0.13147	162.8
Other	Cap.	3,030	50	10	0.10086	305.6
Power	1400 (FC22)	91.9/yr		13	1.27194	116.9
Other	0&M	87.0/yr			1.00000	87.0
Total	(Rounde	d)				670

NOTES:

- 0.13147 = Capital Recovery Factor. 10%. 15 yr.
- 0.10086 = Capital Recovery Factor, 10%, 50 yr.
- 3% added to power cost rate due to assumed power cost inflation 3% greater rate than inflation.
- 1.27194 = Compound Amount Factor, 13%, 15 yr. times Sinking Fund Factor, 10%, 15 yr.
- 5. Construction cost with 20% contingency included.

DEVELOPMENT OF ADVANCED TREATMENT AND RECLAMATION ALTERNATIVES

Alternatives were developed for ultimate disposal of secondary treated effluent involving various combinations of reservoir storage during different times of the year, advanced secondary treatment, surface discharge into various watercourses during the non-irrigation season, and beneficial use of reclaimed wastewater effluent. In this section, two of the elements of the alternatives will be described, and then the alternatives themselves will be developed as combinations of these elements and others unique to each alternative. As in the analysis of treatment alternatives above, the costs are based on a project sized for the ultimate wastewater flow, receiving an average of 75% of the ultimate flow rate over the life of the project.

Reservoir Storage Element

Preliminary field work was performed to find feasible reservoir sites on the former McKnight Ranch property in the vicinity of Neal Road. Appendix A describes this field work, and Figure 1 of the report shows three potentially feasible sites. The site with the highest water surface elevation, Neal Road #2, was chosen for further analysis because it offered the widest range of beneficial use locations for reservoir effluent without a pumping requirement.

The embankment for this reservoir would be a maximum of 88 feet in height, and it would be designed and constructed to meet the requirements of the State Division of Safety of Dams (DSOD).

The actual extent of embankment would differ under the various reclamation and ultimate disposal alternatives under consideration. Each alternative description includes the size of any required reservoir and its estimated construction cost.

In the 1985 Phase II Report [4], a hydroelectric generator was planned to recover the head available as the treated effluent was piped down from the treatment plant to the reservoir. A brief check was made in the current study to determine if this concept was still feasible. It was concluded that hydroelectric energy recovery was not feasible for the alternatives now under consideration, for several reasons:

- (1) The buy-back contracts now being offered by Pacific Gas & Electric only pay approximately 2.5 cents per kilowatt-hour for power sold back to the utility, compared with the 8 cents per Kwh assumed in the 1985 report.
- (2) The flow rate of treated effluent now being considered is about half of what was expected in the 1985 report.
- (3) The elevation of the planned Elliot Spring Treatment Plant is at least 300 feet lower than the site proposed in the 1985 report.

Advanced Treatment Element

For some of the alternatives, treatment beyond the secondary level is required. In these cases, further treatment is provided by coagulation, floculation and settling in an adsorption clarifier, filtration of the clarified effluent through dual granular media pressure filters, and disinfection of the filtered effluent by rapid mixing of chlorine (as hypochlorite) followed by a chlorine contact time of two hours.

The State Department of Health Services has approved this process train for production of reclaimed water suitable for unrestricted recreational impoundments, unrestricted food crop irrigation, watering of parks and playgrounds, and other beneficial uses. The treatment process has been shown to produce water with fewer than 2.2 MPN total coliform per 100 ml and near absence of viruses.

The final pond in the treatment pond system is reserved as a polishing and equalization pond. Therefore, the advanced treatment equipment can be sized for average conditions. Any flow which cannot be directed to an out-of-

service unit could be retained in the equalization pond for a period of up to several days if necessary until the unit is put back into service.

Figure 4-3 shows the process flow sheet for the advanced treatment processes. The first unit, the adsorption clarifier, combines the functions of a floc-culation tank and a solids contact clarifier while occupying much less space and being considerably more economical. Coagulant (alum and polymer) is added to the influent secondary treated wastewater to entrap colloidal materials causing turbidity. The adsorption clarifier contains buoyant granular media which adsorb and trap the floc particles. Typically, the rate of flow would be equivalent to 10 gallons per minute per square foot of clarifier area. Periodically, the accumulated solids are flushed out and the slurry directed back to the plant headworks. In the present case, for the ultimate design flow, two units would be required, each occupying a space of about 10 feet square. They would be located inside a building for ease of maintenance during inclement weather.

The pressure filters operate to remove more turbidity from the adsorption clarifier effluent. They operate at 5 gallons per minute per square foot of filter surface. Eight 7-foot diameter filter vessels are required for the ultimate wastewater flow, two of which would be reserved for backflushing or standby service at any time. The filters would be pressurized by two 25-hp feed pumps. Backwash water would be drawn from the product water stream and spent backwash water would be directed to the plant headworks. The filters and controls are supplied as pre-piped, pre-wired skid-mounted units. They would be located inside the same building as the adsorption clarifiers. Gravity filters can also be used for this treatment process.

After filtration, the filtered effluent would be chlorinated while being subjected to intense and thorough mixing. Then the chlorinated effluent flows through a pipe with enough volume so that the contact time in the pipe is at least two hours.

Development of Alternatives

Alternative REC-A - No Reclamation. Under this alternative, all treated water would be discharged indirectly to Butte Creek via subsurface seepage through mine tailings during periods of the year when the discharge would receive greater than 50:1 dilution in Butte Creek at the point of discharge. The dilution of the combined discharge of reservoir contents and treated effluent during the months of January through May would meet this dilution criterion on an average basis. For the months of February through May, average dilution is in excess of 100:1. During the other months of the year when no discharge occurs, the effluent would be stored in a reservoir as described above.

In order to maximize the utility of the reservoir as a recreational asset and minimize potential effects on Butte Creek, the secondary plant effluent would be given advanced treatment as described above. Chlorine contact would occur in a 48-inch diameter pipe 380 feet long located at the Elliott Spring site and further in an 8-inch effluent transport pipeline running down Neal Road to the reservoir site.

The reservoir would be sized to retain the 100-year frequency precipitation during the months of June through December as well as the contribution of advanced secondary treated effluent during that period. The total reservoir

Advanced Treatment Process Schematic

volume required would be 1,000 acre-feet.

From the reservoir, a 15-inch diameter effluent pipeline would be constructed to spreading basins built on placer mining tailings on the west bank of Butte Creek just south of the Highway 99 crossing. At an assumed rate of 10 gallons per day per square foot of spreading basin surface, and allowing for precipitation on the basins, an area of 10 acres would be required. Geotechnical and hydrogeological studies need to be performed to confirm that a rate this high can be sustained for long periods.

Alternative REC-B - 100-Year Reservoir, No Advanced Treatment. Under this alternative, secondary treated effluent from the polishing and equalization pond would be chlorinated and contacted in pipes as described for Alternative REC-A, and directed to a reservoir during the non-irrigation season of the year. The disinfected effluent reaching the reservoir would have a monthly median value of 23 MPN total coliform per 100 ml. At this stage of treatment and disinfection, the reclaimed wastewater is suitable for irrigation of cemeteries, golf courses, freeway landscapes, limited food crops where the water does not come in contact with fruit, and for landscape impoundments (no boating, fishing or swimming). The reclaimed water would receive further dilution from stormwater runoff in the reservoir. During the irrigation season, all reclaimed water would be utilized on the former McKnight Ranch property, with no off-site surface discharge allowed at any time.

The reservoir would be sized to retain the runoff occurring during the once in 100-year high precipitation season along with the accumulated reclaimed water. The required reservoir size in this case is 2.170 acre-feet.

Not included in the cost of this alternative are the capital improvements necessary to make beneficial use of the reservoir contents and the remainder of the year's contribution of reclaimed water during the irrigation season. Under the conditions of the ultimate project, approximately 550 acres would have to be improved for this purpose.

Alternative REC-C - 10-Year Reservoir, Advanced Treatment. This alternative is similar to Alternative REC-B, but is based on allowing a reservoir overflow on the average of once in 10 years during the non-irrigation season, with discharge of the overflow to a streamcourse entering Hamlin Slough and ultimately entering Butte Creek. The feasibility of this alternative is based on a precedent set by the Central Valley Regional Water Quality Control Board in allowing discharges of disinfected secondary treated effluent to watercourses at elevation 1000 ft. or below where the surface water is not used as a source of domestic supply. The feasibility of this approach was confirmed in discussions with RWQCB staff (R. Dykstra telephone conversation with R. Adams, Kennedy/Jenks/Chilton, 26 February 1989).

In order to maximize the utility of the reclaimed water while minimizing potential adverse effects on watercourses or other beneficial uses, advanced treatment was assumed for this alternative, as it was for Alternative REC-A.

The size of reservoir required under this alternative is 1.650 acre-feet.

This alternative is similar to Alternative REC-C, in that no discharge to a surface watercourse is allowed during the irrigation season, and no costs are included for improvement of the approximately 500 acres required for bene-

ficial use of the ultimate wastewater flow.

Alternative REC-D - No Reservoir; Advanced Treatment. The present owners of the McKnight Ranch are not using water in significant amounts on the property at the present time. They have expressed willingness to make beneficial use on a long-term basis of reclaimed water which has received advanced treatment. Furthermore, delivery of reclaimed water at a high elevation maximizes options for the place of use. This alternative was developed in order to minimize the amount of reclaimed water introduced to the McKnight Ranch property considering the present low water use and the expense of facilities required to accomplish beneficial use.

Under this alternative, secondary treated effluent would receive advanced treatment as described above. The filtered water would be chlorinated and the chlorine contact time accomplished in two parallel 72-inch diameter pipes located at the Elliot Spring site. The disinfected reclaimed water would be discharged at the head of Nugen Canyon as a surface flow in the existing stream course. The chlorine residual would dissipate in a short time of travel in the stream course and in high-elevation impoundments through the action of oxygenation. This point of discharge is nearly 5 miles distant from the opposite (west) property line by way of stream courses in Nugen and Hamlin Canyons. During the summer months, beneficial use could be made of the reclaimed water in a series of small impoundments creating a wetland environment. (Note that for the purpose of this analysis, no costs for such impoundments were included.) No reclaimed effluent would be discharged off of the property during the irrigation season.

During the non-irrigation season, the reclaimed water would receive dilution from runoff and surface flows before reaching Hamlin Slough at Highway 99.

The concept of this alternative has the tentative concurrence of Central Valley Regional Water Quality Control Board staff.

Analysis of Alternatives

A cost-effectiveness analysis was prepared on the same basis as used for the collection and treatment alternatives (see Chapter 2). Table 4-2 presents the results. On an annualized cost basis, Alternative REC-D (No Reservoir; Advanced Treatment) is significantly favored over any of the others.

Other factors affecting the choice of alternatives are ease of operation and maintenance, implementability, and flexibility regarding use of treated effluent.

Alternative REC-B has the lowest operation and maintenance cost. However, it is the most restrictive with regard to the potential uses of reclaimed water. It appears to be readily implementable.

TABLE 4-2

COMPARISON OF RECLAMATION ALTERNATIVES

Alternative item	Cost (\$K)	Life (Yr)	Int. (%)		nn. Cost (K/yr)
Note (See Table	4-1) 5		3	1.2.4	
REC-A - No Reclamati	on				
Equipment	792.0	15	10	.1315	104.1
Other Cap.	3.576.0	50	10	.1009	360.7
Power	23.2/yr		13	1.2719	29.5
Other O&M	95.7/yr			1.0000	95.7
Total (Rounded)					590
REC-B - 100 Yr. Rese	rvoir				
Equipment	36.0	15	10	.1315	4.7
Other Cap.	3.697.2	50	10	.1009	372.9
Power	.0/yr		13	1.2719	.0
Other O&M	20.0/yr			1.0000	20.0
Total (Rounded)					398
REC-C - 10-Yr. Reser	voir; Adv. Tre	atment			
Equipment	792.0	15	10	.1315	104.1
Other Cap.	3.432.0	50	10	.1009	346.2
Power	23.2/yr		13	1.2719	29.5
Other O&M	85.7/yr			1.0000	85.7
Total (Rounded)					565
REC-D - No Reservoir	: Adv. Treatme	nt			
Equipment	792.0	15	10	.1315	104.1
Other Cap.	590.4	50	10	.1009	59.5
Power	23.2/yr		13	1.2719	29.5
Other O&M	77.9/yr			1.0000	77.9
Total (Rounded)					271

Kennedy/Jenks/Chilton

Alternative REC-A must be studied more before its implementability as described can be ascertained. Also, the idea of discharge adjacent to Butte Creek may be objectionable to area residents. Variations on this alternative are possible, such as transport of treated effluent to the Chico wastewater treatment plant outfall or the Chico storm sewer system. Construction of a transport pipeline to the proposed site of the spreading basins opens up opportunities for beneficial use of the reclaimed water on land nearby, such as the golf course north of Neal Road and west of Highway 99. Because of its relatively high cost and questions regarding implementability, this alternative is not given further consideration in this report.

Alternative REC-C offers advantages over Alternative REC-B in that less restrictions are put on use of the reclaimed water, but these advantages must be balanced against the higher cost of Alternative REC-C. There is a high probability that Alternative REC-C can be implemented without difficulty.

Alternative REC-D is favored by low cost, acceptability to the landowner, and wide flexibility in present and potential beneficial uses of the reclaimed water. The level of operator attention and monitoring of the treatment process, especially the advanced treatment process train, is significantly higher than required for the basic aerated lagoon type secondary treatment process. However, the process units are provided with microprocessor-based control units, and have alarm and status reporting capabilities. These processes have been demonstrated to operate with a high degree of reliability when treating wastewater effluents.

The probability that Alternative REC-D can be implemented without difficulty is affected by the certainty to which acceptable beneficial use arrangements can be agreed upon among the landowner, the Town of Paradise, and the RWQCB. Because of the precedents set, the high degree of treatment provided, and the distance between the point of introduction of reclaimed water and the property line, it is very likely that this alternative can be implemented.

Because of its low annualized cost and acceptable implementability. Alternative REC-D (No Reservoir; Advanced Treatment) is the recommended reclamation alternative.

4-12

882511

CHAPTER 5

RECOMMENDED PLAN

This Chapter contains a description of the proposed special assessment district and the facilities to be constructed for wastewater collection, treatment, and disposal for beneficial use and/or discharge. Construction costs of the recommended project are presented for both the initial increment of construction and the future increment of construction when the treatment capacity needs to be expanded. Operation and maintenance costs, and allowance for replacement reserves, are also presented. See Figure 5-1 for a location plan of the service area, trunk sewer, treatment plant location, and area planned for reclamation of the treated wastewater effluent.

Proposed Central Area Wastewater Assessment District

The geographical area and number of units to be served (present and projected) are as described in Chapter 2. See Figure 2-1 for a detailed map of the proposed district boundaries. In brief, the district boundaries are proposed to encompass the commercial, industrial and multi-family residential areas now existing along the Skyway and Clark Road corridors as far north as Wagstaff. Presently, there are estimated to be approximately 2,700 Equivalent Dwelling Units (EDU's) within the proposed District; that is, the present wastewater flow projection is what would be expected from that number of single-family homes. The system is designed on the assumption that the number of EDU's would more than triple to 8,400 EDU's in the future at buildout conditions.

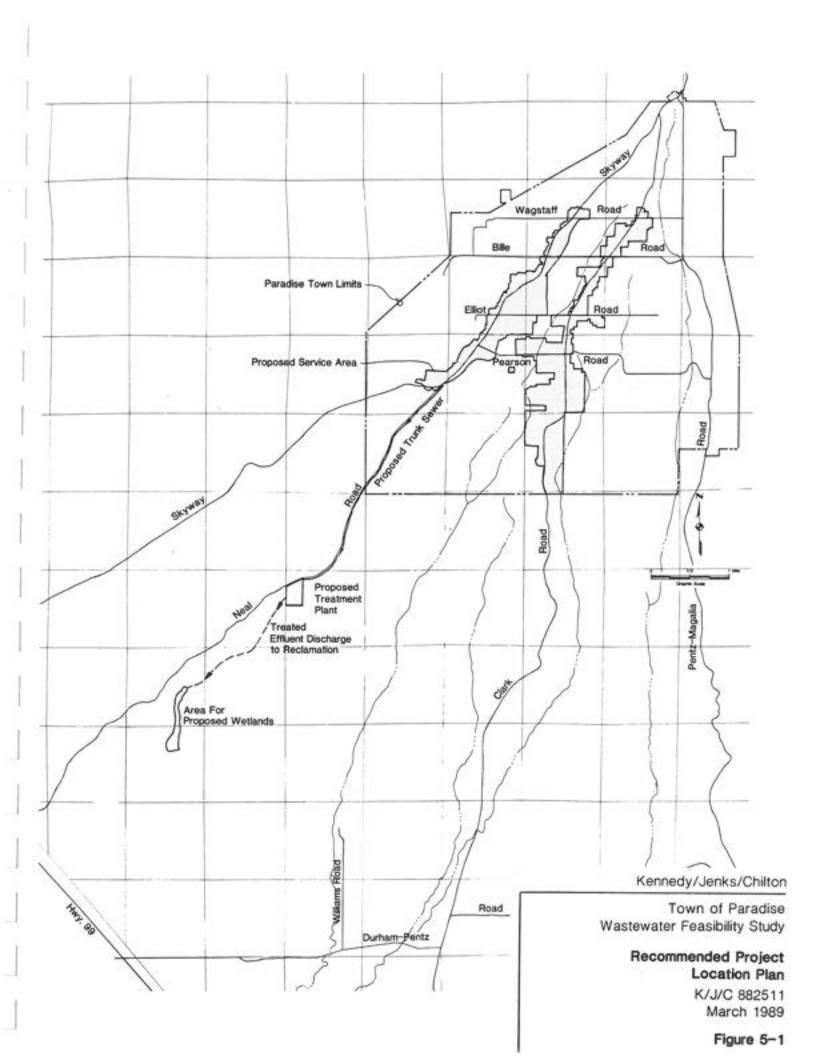
The current average wastewater flow from this area during wet weather conditions is estimated to be 540.000 gallons per day, and the current average wastewater flow during dry weather is estimated to be 460.000 gallons per day.

Wastewater Collection

Collection of wastewater from the Central Area is proposed via a conventional gravity sewer system as described in Chapter 3. See Figure 2-1. Six-inch collector sewers will discharge into 8-inch and 10-inch main sewers. Individual parcels will connect with 4-inch or 6-inch side sewers. The Clark Road system will discharge to a 10-inch diameter trunk sewer near the intersection of The Skyway and Neal Road via a double-barrel 8-inch inverted siphon along the western extension of Buschmann Road. Five small areas not able to be economically served directly by gravity will be provided with package type sewage pump stations. Also, Clark Road south of Buschmann will be served by an 80,000 gallon per day pump station located within the Easy Street Industrial Park. A small number of parcels (estimated at up to 50) will not be able to be served by gravity, and will be provided with individual sewage pumps.

At Skyway and Neal Roads, a 12-inch trunk sewer will collect all wastewater. The trunk will run along Neal Road to the treatment plant site near Elliot Spring. See Figure 5-1.

The cost of the collection and trunk sewer system is presented in Table 3-2. All of this construction is required in the initial phase of work.



Wastewater and Sludge Treatment

Both wastewater from the central area collection system and septage pumped from the remaining septic tanks on Paradise Ridge (including the remainder of the Town of Paradise and other communities north along the ridge) will be received at the treatment plant headworks near Elliot Spring on the south side of Neal Road. See Figure 5-2. After screening, aerated lagoons will treat the combined wastewater and septage utilizing aerobic suspended micro-organisms.

The wastewater will be mixed and aerated for a minimum of 14 days in two stages of aerated lagoons, and then the solid material settled out. Removal of BOD and suspended solids in the lagoons is expected to be 93 to 95 percent, at an organic loading rate of 600 lb BOD per acre per day.

The clarified, stabilized treated effluent will then be given advanced treatment by coagulation with alum and polymer, clarification, filtration through mixed-media filters, and chlorination and chlorine contact prior to being discharged to a streamcourse at the head of Nugen Canyon on the former McKnight Ranch property.

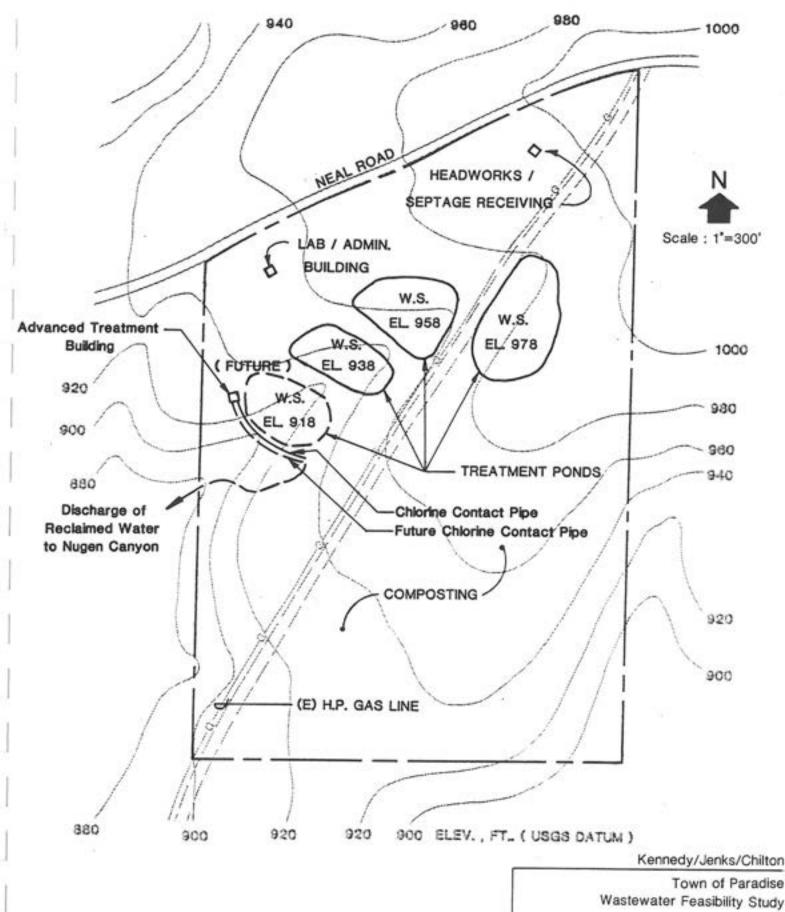
Appendix A presents the results of a preliminary geotechnical survey of the proposed treatment plant site. The survey recommends that the ponds be constructed utilizing the natural depression of the land, as shown on Figure 5-2, due to the shallow soils prevalent on the site.

Three of the four treatment ponds, the headworks, the administration/laboratory building, nine aerators (eight installed and one spare), and half of the advanced treatment facilities will be constructed in the initial increment of construction. See Table 5-1 for the construction cost of the initial increment of these facilities, and Table 5-2 for the construction cost of the future treatment plant capacity expansion. The land acquisition cost is not included at this time, pending the conclusion of negotiations with the property owners.

Effluent and Sludge Disposal

The effluent discharged to Nugen Canyon is currently planned to be used to create wetland habitat on the McKnight Ranch property. Other permitted reclamation uses are also under consideration by the property owners. The cost of the treatment facilities presented in Tables 5-1 and 5-2 does not include the construction of the wetland impoundments or any other improvements related to reclamation use of the effluent. These would be the responsibility of the owners of the McKnight Ranch property. During the summer months, all treated effluent is expected to be consumed at the point of beneficial use on the McKnight Ranch property through percolation, evaporation, and plant evapotranspiration, and no effluent will be discharged directly to local surface watercourses. Depending on precipitation and runoff patterns, some treated effluent, diluted with stream flow, may reach Hamlin Slough during the rainy season and ultimately reach Butte Creek near Durham.

Over a period of a year or so, stabilized solids (sludge) arising from septage, solids in the influent wastewater, sludge from the adsorption clarifier and pressure filter backwashes, and microorganisms grown in the treatment process will build up on the bottom of the aerated lagoon that has been in



Town of Paradise
Wastewater Feasibility Study
Elliot Spring Treatment
Plant Site Plan
K/J/C 882511
March 1989
Figure 5 - 2

CONSTRUCTION COST OF RECOMMENDED TREATMENT FACILITIES
Initial Increment Construction

TABLE 5-1

Item	Quant. U	nit l	Jnit \$ E	xtension (\$
Treatment Ponds and aerators				
Clearing	9	AC	3.500	32
Earthwork	90.750	CY	10	908
Lining	375.705	SF	1	188
Decant Structures	2	EA	10.000	20
Aerators. 20 Hp		EA	20,000	180
Misc. piping and valves	9	EA	4.000	24
Fencing and misc. site work	1	LS	100.000	100
Elec. service and switchgear	1	LS	40,000	40
Headworks with screening	1	LS	180,000	180
Telephone service	1	LS	4.000	4
Alarm dialer	1	LS	10,000	
Elec. service to site	1	LS	25,000	
Laboratory/Office Building	1,500	SF	100	150
Potable water service	1	LS	10.000	10
Emergency generator & ATS	1	LS	120,000	120
Subtotal				1,990
Advanced Treatment and Disinfection				
Adsorption clarifier	1	EA	110.000	110
Filtration system	1	EA	110,000	110
Coagulant feed system	1	LS	10,000	10
Hypochlorite feed w/mixer	1	LS	44,000	44
Mudwell and sludge trans. pump	1	LS	20,000	20
1280 SF bldg w/ HVAC, site work	1	LS	200,000	200
Chlorine contact pipe	335	LF	188	63
Valves at chlorine contact	2	EA	6,250	13
Inlet and outlet concrete	1	LS	20,000	20
Subtotal				589
RAND TOTAL				2.579

5-3

CONSTRUCTION COST OF RECOMMENDED TREATMENT FACILITIES
Future Increment Construction

TABLE 5-2

<u>Item</u>	Quant. U	nit l	Jnit \$ Ex	tension (\$K
Treatment Ponds and aerators				
Clearing	3	AC	3.500	11
Earthwork	30.250	CY	10	303
Lining	125,235	SF	1	63
Aerators. 20 Hp	9	EA	20,000	180
Misc. piping and valves	2	EA	4,000	8
Subtotal				564
Advanced Treatment and Disinfection				
Adsorption clarifier	1	EA	110.000	110
Filtration system	1	EA		110
Coagulant feed system	1	LS		10
Hypochlorite feed w/mixer	1	LS	44.000	44
Mudwell and sludge trans. pump	1	LS	20,000	20
1280 SF bldg w/ HVAC, site work	1	LS	200,000	200
Chlorine contact pipe	335	LF	188	63
Valves at chlorine contact	2	EA	6.250	13
Inlet and outlet concrete	1	LS	20,000	20
Subtotal				589
GRAND TOTAL				1.153

Kennedy/Jenks/Chilton

882511

service. At the beginning of a dry season of the year, the wastewater will be directed to another lagoon and the sludge in the formerly operating lagoon allowed to dry. Depending on availability of disposal sites, the dried, stabilized sludge will be disposed of in one of the following ways:

- O Co-compost with lawn and tree trimmings; haul off-site for agricultural or municipal soil amendment. Figure 5-1 indicates an area of 15 to 20 acres on the Elliot Spring site suitable for a composting operation.
- Haul semi-liquid sludge offsite for agricultural soil amendment.
- o Haul semi-solid sludge offsite for agricultural soil amendment.
- Haul dried sludge to landfill for use as daily cover material.

It is highly probable that the stabilized sludge will be accepted for soil amendment by area farmers or on the McKnight Ranch property. In the event that land application does not develop, the dried sludge can be hauled to an area landfill. The sludge is not expected to be classified as a toxic or hazardous waste because of its origin from domestic wastewater.

Operation and maintenance costs and allowance for replacement and operating reserves are shown in Table 5-3.

The operating costs for sludge hauling and disposal could be as much as \$170 per ton of dried solids, or over \$45,000 per year. The cost could be much lower if the sludge is dried and hauled to a landfill, or if the sludge is co-composted with yard waste and sold as a soil amendment. Pending further study of yard waste management and sludge disposal and marketing options, the cost for sludge disposal is not included in Table 5-3.

Reserves for construction of the future treatment plant capacity expansion are not included in Table 5-3. They are planned to be allocated from a portion of the connection fees collected from properties connecting to the system in the future. See Chapter 7 for a projection of this reserve account.

5-5

TABLE 5-3

0&M AND RESERVE FUND ANNUAL EXPENDITURE PROJECTION Recommended Project

Cost, \$K/year
78
65
100
4
76
105
140
568

CHAPTER 6

FINANCING AND PROGRAM IMPLEMENTATION

INTRODUCTION

This Chapter describes various ways available to the Town to finance and implement the design, construction and long-term operation and maintenance (including ultimate replacement) of the project described in Chapter 5. Several possible sources of funds are described, along with the procedures necessary to follow in order to obtain such funds. The elements of the detailed design process and organizational requirements for system operation and maintenance are described as well.

AVAILABLE FINANCING MECHANISMS

A number of methods of financing sewer system improvements may be adopted to meet the needs of the Town of Paradise. These include special assessment proceedings, as well as sale of connection rights (Escondido Plan), Mello-Roos Community Facilities Act of 1982, Certificates of Participation, reimbursement agreements, the use of accumulated reserves ("pay-as-you-go"), general obligation bonds (Prop. 46 at 3 June 1986 election reinstated G.O. bonds), Water Reclamation Loan, or some combination of these mechanisms. Some of these methods will prove more adaptable to the Town's needs than others, but all are described in this section.

Special Assessment Proceedings

The basic premise of the special assessment is that properties should be assessed for the costs of public improvements in proportion to the specific benefit which each property receives from the improvements. Historically, benefit for wastewater improvements has been allocated to any one or a combination of several attributes of a parcel and its improvements, including parcel area, front footage, and the amount and strength of wastewater discharged to the system. The allocation is usually made by assigning the cost of a major element of the system in a rational manner to a parcel attribute.

The following is an example of an allocation method currently in use for a large special assessment district funding a complete wastewater system. In this district, parcels are assessed for service sewer stubs, front footage, parcel area, and wastewater quantity. The <u>stub charge</u> is assessed for each service sewer stubbed out to a parcel. Normally a parcel requires only one stub, but for some large parcels containing several businesses, several stubs may be necessary. The assessments collected from this source pay for the service sewers up to the property line. The <u>front footage charge</u> is assessed at a rate per lineal foot of frontage on a street where a small-diameter (6" or 8") collector sewer is laid. The assessments collected from this source are allocated to the cost of the collector sewers, on the basis that the length of

collector sewer is roughly proportional to the front footage of parcels to be served. The area charge is assessed at a rate per unit of parcel area. The assessments collected from this source are allocated to the cost of larger-diameter (10" and greater) trunk and interceptor sewers, on the basis that the interceptors are designed for the ultimate development population of the area served, and vacant property which could be developed should pay some of the cost of these oversized sewers. Finally, the capacity charge is assessed at a rate per Equivalent Dwelling Unit of wastewater flow and strength. The assessments collected from this source pay for the treatment and disposal facilities including sludge disposal, on the basis that the size of these facilities is proportional to the amount of wastewater and sludge treated.

Special assessment proceedings are utilized for facilities which are clearly of local benefit, not of general benefit to the entire Town. As a part of a project, the "buy-in" costs for sewer service or fees can be assessed and financed. The sewer connection fees are transmitted and accumulated by the operating public agency.

Unless the assessments are quite small, provision is usually made in the assessment proceedings for bonds issued to represent the assessments. This gives the property owners the opportunity to pay the assessments in installments, rather than in a lump sum, with interest at a tax-exempt rate. Although the Town conducting the assessment proceedings issues the bonds on behalf of the assessed properties, the bonds are not a debt of the Town.

Accordingly, there are laws both for setting forth procedures for levying assessments and constructing the improvements and laws providing for the issuance of bonds. A brief description of the procedural acts follows. Appendix B presents answers to common questions raised regarding special assessment districts.

Municipal Improvement Act of 1913. This Act provides for the formation of an assessment district, the levy of an assessment and the creation of a lien against property. The proceedings under the 1913 Act are initiated by a resolution of intention. The resolution may be initiated either by petition of affected property owners or by the Town Council. No election is required. The resolution calls for the preparation of an engineer's report which contains plans and specifications, a cost estimate, a diagram showing the properties to be assessed and the proposed improvements, and a list of proposed assessments. If the engineer's report is acceptable, the Town Council adopts a resolution approving the report and setting the time and place for a public hearing.

Notice of the hearing must be published, posted, and mailed to all owners of property to be assessed. The notice shows the amount proposed to be assessed against the individual property. Usually construction bids are received prior to the time of the hearing. If the bids are below the estimates contained in the engineer's report, the assessment may be reduced at the time of the hearing. If there is no majority protest or if the protest is overruled, the assessments may be confirmed

6-2 882511

and recorded. Property owners then have 30 days to pay their assessments, following which bonds may be issued under provisions of the Improvement Bond Act of 1915 to represent the unpaid assessments. Other than the provision for assessment protests, there is no requirement for an election to form the district and confirm the assessments.

Improvement Bond Act of 1915. Under the 1915 Act, all of the assessments are pooled and an issue of bonds representing all of the assessments is sold. Funds to pay bond interest and principal are derived by adding an amount equal to the pro-rata share of annual bond service requirements to the property tax bill for each property against which there is an unpaid assessment. The unpaid assessments, together with interest due, are collected in annual installments in the same manner as general real property taxes are collected. Assessments also receive the same treatment as general taxes with regard to the time allotted before payments due become delinquent and the penalties which are imposed. The properties upon which the assessments were levied are subject to the same provisions for sale and redemption as are properties for nonpayment of general taxes.

In the event of a delinquency in the payment of any installment of the assessments, there is a mandatory duty on the part of the Town to be the purchaser of property upon which the installment of the assessment is delinquent. There exists a contingent liability to pay and transfer from Town's surplus funds, if available, into the Redemption Fund the amount of the delinquent assessment installment. The Town is also obligated to pay and transfer from surplus funds, if available, into the Redemption Fund, the amount of any future delinquent assessment and interest installments on the property, pending redemptions.

To further secure the bonds, the issuing agency creates from bond proceeds a Special Reserve Fund to provide available funds from which the Town can make payments of the amount of delinquent assessments. The Reserve Fund is held by the issuer as a separate trust account, and an amount equal to 10 percent of the bonds issued is typically deposited into the fund. A program funded by \$10 million of State general obligation bonds is planned for implementation in 1989 to assist local governments in satisfying the bond reserve requirements. The Town may be able to arrange for this, eliminating the requirement for the Special Reserve Fund.

In the event of delinquency in the payment of any installment of an unpaid assessment, the Town adopts an ordinance to commence institution of a court action to foreclose the lien of such unpaid assessment. In such action, the real property subject to the unpaid assessment may be sold at judicial foreclosure sale. Upon such sale, the right of redemption is limited to one year from the date of sale, as distinguised from the five-year redemption period in the event of a tax sale.

Bond principal is payable each year, commencing not less than ten months after the date of the bonds. The principal may be repaid in up to 25 annual installments. The current market has accepted 1915 Act bonds

payable over 20 years, although a shorter maturity schedule may result in lower interest rates. There are no provisions in the 1915 Act regarding the amount of bond principal which must be repaid each year. Accordingly, it is possible to provide a maturity schedule which results in equal annual debt service (principal and interest). Bond interest is payable semi-annually, commencing on the date which falls six months before the first principal payment date. The maximum interest is 12 percent; however, there is no limitation on the amount of discount.

Escondido Plan

The Escondido Plan is based upon a program which offers for sale for a limited period (two months) new sewer connection rights to a proposed expanded system capable of serving the "subscribed to" additional developments. The City would legally notify by mail, advertise in local newspapers, and alert through utility billings all property owners "of record" located within the sewer service area. During a specific period (two months), sewer connection rights will be for sale at a specific price. Consequences of not participating during this subscription period will be explained, including the possible inability to obtain building permits for a five-to-ten year period until a subsequent sale of sewer rights is conducted. Sewer connection rights would be sold under various programs, all resulting in a guarantee to the Town of immediately available funds to undertake the projects.

Mello-Roos Community Facilities Act of 1982

The Town can consider conducting proceedings under provisions of the Mello-Roos Community Facilities Act of 1982. Mello-Roos proceedings can be used to provide any kind of facilities with a useful life of five years or longer which the Town is authorized by law to construct, own, or operate and which are made necessary by development. They cannot replace, (although they could upgrade) existing facilities. Services which may be supplied through the Act are more narrowly defined, but include sewer services, including operation and maintenance of systems. If the Town wishes to proceed with Mello-Roos, and wishes to sell bonds in the proceedings, it begins by passing two resolutions.

The Resolution of Intention must include the following items:

- Statement that a community facilities district is proposed and describe its boundaries.
- o Statement of the name proposed as "Community Facilities District No. ".
- o Description of the proposed facilities and services.
- Statement that a special tax is to be levied and description of the method of apportionment;

6-4 882511

- Conclusion that the proposed facilities and services are necessary;
- o A public hearing scheduled 30 to 60 days hence.

The Council also passes a Resolution to Incur Bonded Indebtedness which indicates:

- Necessity for the bonded indebtedness.
- o Purpose of the debt.
- o Amount of the debt.
- o Time and place for hearing on the question of incurring bonded indebtedness.

Notice of both hearings is published. At the hearings, interested persons may appear and protest any aspect of the Resolution of Intention. Written protests by the owners of fifty percent or more of the land area require abandonment of the proceedings as do protests by fifty percent of the registered voters in the district.

If, at the close of the hearing, the legislative body decides to go forward, it will pass a Resolution of Formation which will be, in essence, the charter of the Community Facilities District. It would also pass a Resolution of Necessity to Incur Bonded Indebtedness. Both resolutions must be submitted to the voters, and both must receive a two-thirds positive vote to be approved.

The law permits the two issues to be combined in a single ballot measure, and also permits the establishment of the appropriations limit (although it requires only a majority vote) to be combined in the same ballot measure.

Following a favorable vote, the legislative body could levy the special tax, to the extent authorized by the Resolution of Formation, by ordinance. The legislative body may also then provide for the form, execution, and issuance of bonds. The special tax is enforced in the same way that property taxes are enforced, although the legislative body will also have the remedy of foreclosure and can covenant with the bondholders to pursue that remedy upon reasonable terms.

This mechanism has been primarily used in support of new large developments (subdivisions) with limited (few) ownerships. The special tax and basis of levy (dwelling units - area) can be developed, which is acceptable to the limited landowners. This can result in favorable special tax and bond measure votes.

Certificates of Participation

Certificates of Participation, or COP's, are presently being used to finance a variety of projects. With a certificate of participation, the public entity is not the immediate owner of the facility, but rather becomes the lessee. Another public or private entity may be identified to function as the lessor. The lessor will arrange the financing and construction of the project and then lease it to the Town. The governmental unit (such as the Town) which proposes to occupy or to use the facility initiates the process by agreeing in principle to enter into a contract to lease certain specified property (either real or personal) from the lessor. The contract provides the terms and circumstances under which the purchase is divided into periodic installment payments. The payments will include an interest component which may be made annually, semi-annually, or more frequently. To finance the lease, the lessor may then assign to a third party (trustee) its right to receive the installment payments, and the trustee, in turn, provides the financing. The trustee then cares the lease into smaller interests (represented by the certificates) which are underwritten by investment bankers and sold to investors. The certificates of participation represent (or certify) each investor's percentage ownership in the lease and the entitlement to receive his/her respective portion of principal and interest payments. Most frequently, certificates are issued in \$5,000 denominations. The public agency (lessee) is obligated under the agreement to make lease payments from lawfully available annual appropriations. Neither the full faith and credit nor taxing power of the lessee is pledged; however, the lease agreement provides in its annual budget. If the Town is to consider and become a lessee under this type of financing, it must address the source and flow of annual revenues to make rental payments.

Installments due under a lease for sewer system improvements might be payable solely from connection charges. Investors are reluctant to participate in financings secured solely by projected future growth and collection of connection fees.

Reimbursement Agreements

Reimbursement agreements are similar to purchase contracts and have been extensively utilized by public agencies and by privately-owned utilities under Rule 15 of the State of California Public Utilities Commission.

The landowner requiring service agrees to advance costs toward and to assist in the construction (to acceptable standards) of projects which are completed, conveyed or dedicated to the operating public entity. The dedicator (developer) is reimbursed through a surcharge on the basic sewer fees levied, by the owner/operator of the utility, against initial and future customers as they obtain benefit from the constructed elements. Agreements include provisions that a percent of fees from future consumers is reimbursed over a maximum period, or a credit can be given to future sewer changes.

Use of Accumulated Revenues

The Town can consider following the practice of financing sewer improvements from accumulated surplus revenues as well as from developer advances.

1933 Act and 1941 Act Revenue Bonds

Revenue bonds, issued under the Revenue Acts of 1933 or 1941, are designated to finance facilities which provide benefits to a group of readily identifiable users. Debt service payments are met from charges placed exclusively on the users of the public enterprise. User charges may include service charges, tolls, connection fees, stand-by charges, admission fees, leases, and rents.

The Sewer Revenue Bond Act of 1933 contained in Chapter 5, commencing with Section 4950 of Part 3 of Division 5 of the Health and Safety Code, allows for financing of sewerage projects. These issues do not need voter approval unless 15% of the property owners or registered voters petition an election.

The Revenue Act of 1941 found in Chapter 6, commencing with Section 54300, of Part 1, Division 2, Title 5 of the Government Code, may also be used to finance sewerage systems, but needs a simple majority vote in favor of a bond measure to authorize issuance of securities.

Security on revenue bonds is provided in four ways:

- (1) The coverage ratio of pledged net revenues to annual debt service requirements. An acceptable coverage ratio is usually 1.25 to 1.50 times the annual debt service; however, this may vary by type of issue and historical record of the issuer.
- (2) Establishment and maintenance of a reserve fund equal to average or maximum annual debt service, but not to exceed 15% of the bond proceeds.
- (3) Additional covenants required of the issuer as listed below:
 - Acquisition, construction, and completion of the project in a timely manner.
 - Efficient operation of the project and prescription and collection of adequate service charges.
 - o Proper maintenance of the project.
 - Collection and holding of project revenues in trust as trust funds.
 - o Prompt payment of bonds and interest.

- o Prompt payment of all claims and encumbrances.
- o No provision of free public service.
- Deny permission of competing projects.
- o Customary insurance must be current.
- o Securance of suitable fidelity bonds.
- o Employment of a reputable consulting engineer.
- Employment of a certified public accountant to make annual audits and reports.
- Permission granted to bondholders to inspect accounts and records and be provided with reports.
- (4) The revenue bonds may be guaranteed by the State government. A program funded by \$10 million of State general obligation bonds is planned for implementation in 1989 for guarantee of local revenue bond issues for wastewater system construction and improvement.

Additional revenue bonds may be issued provided an earnings test is met, i.e., pledged net revenues shall be sufficient to provide coverage of debt service on all outstanding revenue bonds plus the additional revenue bonds to be issued. The existing sewer bond indenture must be reviewed by counsel to identify issuance of additional Sewer Revenue Bonds.

State Loan Programs

Loan funds are available at one half the current State General Obligation Bond interest rate, or about 4% currently, to finance wastewater systems and reclamation facilities. The State Water Resources Control Board, Division of Loans and Grants, administers these loans. The wastewater system loans are made to public agencies with a demonstrated pollution problem and who are on the state priority list. The Town of Paradise is not now on this priority list, and is not currently eligible to receive a wastewater system loan. Loans for water reclamation facilities up to \$5 million are available from a \$30 million bond issue passed at the 1988 general election. The loans are available to public utilities for construction of reclamation facilities which can be shown to be cost-effective relative to other disposal options not involving reclamation. A cost-effectiveness analysis must be presented with the loan application, along with letters of intent from reclaimed water users showing that the reclaimed water will be put to beneficial use on a long-term basis. It will be possible for the Town to apply for a water reclamation loan for the advanced treatment facilities at the proposed Elliot Spring treatment plant site.

RECOMMENDED FINANCING MECHANISM

Because of the unavailability of significant amounts of grants and loans at the present time, and the lack of any accumulated revenues designated for wastewater, it will be necessary to consider other financing methods. It is the recommendation of the financial consultant that issuance of 1915 Act assessment bonds under the procedures of the 1913 Municipal Improvement Act is the most straightforward method of financing the proposed improvements. Although a Water Reclamation Loan may be available for the proposed advanced treatment facility, its cost is a small percentage of the total. In order to simplify and expedite the funding arrangements, it is not expected that the Town will apply for a Water Reclamation Loan at this time.

In calculating assessments, allocation of the capital costs of the recommended project to parcel attributes must be done considering the relative costs of the various capital elements, the relative aggregate amounts of the various parcel attributes, and the potential effects on parcel owners, especially the effect on the rate of development of vacant parcels. A trial method involving assessments on front footage, parcel area, and EDU's was rejected because of the relatively large assessment calculated for larger parcels and vacant parcels. It was considered that owners of such parcels would feel pressure to develop in order to realize enough income to pay the sewer assessments, and that such development may not be consistent with the Town's development planning. Rather, it was considered that an assessment based solely on EDU's, unless the amount calculated was inordinately large, would be most equitable. Therefore, initial assessments on the property in the District are planned to be made on a per-EDU basis, with the total assessment lien large enough to cover all anticipated costs of the first increment. Cost estimates at this stage are not based on any detailed design, and are inflated to cover possible construction cost increases between the time of the estimate and the receipt of construction bids.

The need for funds occurs in three stages: (1) Design of the initial increment of facility construction, (2) actual construction of the first increment, and (3) future design and construction of the second increment when the capacity of the first-increment treatment facilities is reached.

To fund the first two stages, two series of assessment bonds are recommended to be issued. Series A bonds will fund pre-design, detailed design, and right-of-way acquisition activities up to receipt of construction bids. Series B bonds will be issued in an amount necessary only to cover the construction bid amount, construction management services, and Town staff project management functions through the construction period.

It is recommended that the bond debt service be collected partly as an assessment on the property tax roll, and partly from an allocation of future connection charge receipts. This will have the effect of shifting some of the burden of payment for currently oversized facilities to

future users. The amount required for operation and maintenance will be collected from those parcels connected to the sewer as a monthly sewer service charge. See Chapter 7 for projections of the amount of assessment and sewer service charge per EDU.

Design and construction of the future treatment plant expansion is planned to be funded from revenue accumulated from future connection fees. See Chapter 7.

PROPOSED STAFFING PLAN

Operation and maintenance costs for the collection system and treatment plant are presented in Chapters 3, 4, and 5.

The collection system will require 1.5 full-time equivalent personnel for sewer cleaning, pump station preventive and corrective maintenance, and individual sewage pump maintenance.

The treatment and sludge stabilization facilities operation and maintenance will require a half time laboratory technician, a chief operator and an assistant operator, for a staffing level of 2.5 full time equivalents.

Administration of the sewer utility (including an on-site maintenance district if implemented) is estimated to require a superintendent and a clerical assistant for a total of two full-time equivalents.

The sewer utility will also require accounting for the recovery of bonded indebtedness on the tax roll, and customer recordkeeping including billing and accounting for septage tipping fees and monthly sewer service charges. These functions could either be performed by the Town's financial services department with appropriate addition of staff, or contracted out.

Total staffing for the sewer utility is estimated at 6 full-time equivalent personnel. Part-time assignments of several persons will be required to fill these positions in a manner providing the required on-call availability to meet emergency needs.

It is proposed that the sewer utility be run as a component of the Department of Public Works because of the relatively small number of personnel required, the ease of coordination with other functions of the Department, and efficiency in personnel administration and coordination of assignments. In addition, it will be possible to utilize the sewer utility personnel to help staff the On-Site Systems Management District planned for the remainder of the area in the Town outside the proposed Special Assessment District.

CHAPTER 7

ASSESSMENT SPREAD AND MONTHLY USER CHARGES

In this Chapter, the capital elements of the proposed construction, and operation and maintenance projections, are presented to form the basis for: (1) initial assessments to fund design and construction of the initial increment of construction by means of an assessment bond. (2) connection charges for future connections to the facilities to fund the future increment of construction and assist in meeting the bond debt service, and (3) the charge to be made for septage accepted at the proposed Elliot Spring Wastewater Treatment Plant.

Table 7-1 presents the initial increment and future increment capital expenditures estimated at this time for the project.

To the estimated construction costs presented in Chapters 3 and 5 for the collection and treatment elements of the project are added 20 percent each for construction contingency and engineering through completion of construction, and 5 percent for administrative and project management effort by Town staff. The expenses and reserves associated with issuance of the assessment bonds are estimated at 15.6 percent of the construction cost with contingency, engineering, and administration included.

Table 7-2 presents an analysis of charges to be made to various classes of users, including septage discharges, assuming the wastewater flow and strength values presented in Chapter 2 for the existing uses in the proposed district. Unit rates for recovery of debt service and operation and maintenance expenses were developed using the procedures established by the federal Environmental Protection Agency for wastewater system revenue programs. It was assumed that the treatment plant debt and O&M (except for advanced treatment) are allocable equally to flow, BOD loading rate, and suspended solids (SS) loading rate, and that all other cost elements are allocable only to flow. The flow values listed for all user groups except Septage and Future Capacity include an allowance for infiltration/inflow.

With the projected annual septage revenue of approximately \$80,000 as indicated in Table 7-2, and assuming 2 million gallons per year of septage received, the septage tipping fee calculates to a little over 3.5 cents per gallon. For comparison, 3.5 cents per gallon is the rate planned to be charged by the City of Chico when septage is received at their wastewater treatment plant in the future.

The total for operation and maintenance is estimated at \$568,000 per year. See Table 5-3. Of this amount, \$80,000 is expected to be collected as tipping fees from septage haulers, leaving \$488,000 to be collected from connected services via a monthly sewer service charge. Based on an initial number of 3,000 EDU's as estimated in Chapter 2, the initial sewer service charge is expected to be set at approximately \$13.50 per month per EDU. If all 1,400 additional EDU's connect in a ten to twelve year period as expected, the sewer service charge may be able to be reduced to a little as \$9.25 per month per EDU with 4,400 EDU's connected. See Table 7-3.

TABLE 7-1

CAPITAL COST OF RECOMMENDED PROJECT

Initial Increment Construction - Capital cost in \$million

Item	Construc- Right of Engin- tion way eering	Right of Way	Engin-	Admin- istra- tion	Con- tingency	Sub	Bond	,
Collection system	6.9	7.	1.2	.3	1.2	8.7	1.3	10.0
Treatment plant	2.5		9.	.2	9.	3.9	9.	4.5
TOTALS	8.4	.1	1.8	.5	1.8	12.6	1.9	14.5
Future Increment Construction - Capital cost in \$million Ac Construc- Right of Engin- is tion way eering ti	tion - Capital cost in \$mill Construc- Right of Engin- tion way eering	al cost i Right of way	finilii Engin-	on Admin- istra- rion		Sub	Bond	
Collection system (including trunk sewer) Treatment plant	- 11		.2		2.	1.6	Cost	.0 1.6
TOTALS	1.1	0.	• 5	7.	.2	1.6	0.	1.6

TABLE 7-2

STEAMEN UTILITY REVENUE PROGRE

i users user group	F. S.	Thow Debt 5 mpd @ unit rate \$1,473,765	06K \$ umit rate \$499.478	BOD 1b/dy #	Deht S umit rate	OGEN S Until rate S78.00	15/42 S	Debt 5	OGE S	Tot. Debts	Tot. Oaks	Total S
									364.30			
61 Institutional	3650.	\$88,194	\$29,890	150	137, 751	200	17	200	1			
13 Light Nanufacturing	.0031	54,642	57.5	00	6414	2000	7.7	016,06	2.3		\$37,874	\$140,800
10 Notel	6110	C01 C13	00, 000	9 6	5750	6770	D)	2367	5139		\$1,996	57.41
92 Milti-framily manigamental		1	190,00	9	21,500	SELIS	33	51,346	\$729		\$7,369	527 407
4.0	90	9535,111	233,200	497	\$25,735	513,931	262	\$23,169	512 553		2012	4400 440
	.0563	523,036	\$28,142	141	57,785	53 052	151	67 569	000		Sold Corne	015,1080
427 Misc. Comercial	1311	\$193,236	865.490	328	6	66 104	200	100'00	92,238		535,652	\$132,551
402 Single-family res.	0621	6121 030	641 610	200	200,000	20,000	n n	37,78	\$8,288		\$82,972	\$308,474
	1	000	20,100	600	210,607	25,746	ii)	\$9,586	\$5,194		\$51,958	\$193,181
		8	3		200	8		S	8		uo uo	6
adendae	6600.	28,106	52,767	Z	\$16,609	806	689	630 NEA	2002 2000		00	2
Puture capacity	3006	S444 ARE	CHES 6472	Cen	PAR 254	-	2000	BOOK 1000	000,000		056,950	579,727
		200 1000	and and	8	10,00	200,000	1006	\$41,035	\$22,233	\$531,053	\$197,542	\$728,595
TOTALS	.8500	\$1,252,700	\$424,556	2559	\$132,403	571.729	35.05	ADA 6512	5		40.00	

Kennedy/Jenks/Chilton

Debt service on the bonds is estimated at \$1.517.500 per year. Over two thirds of this will be collected on the tax roll from parcel owners included in the initial assessment spread at an estimated rate of \$30.50 per month per EDU payable over a 20 year period, and the remainder is expected to be allocated from future connection charge receipts as indicated in Table 7-3.

Calculation of Debt Service and Sewer Service Charges

Table 7-3 shows the sewer service charge necessary to satisfy debt service and 0&M obligations assuming the values shown for the number of initial connections, the rate of future connections, and the reserve account for the future treatment plant capacity expansion funded from a portion of the future connection charge receipts. Also indicated is a trial value of assessment to be actually placed initially on the assumed 3.000 EDU's connecting at the beginning of the project, and the estimated connection charge for future connectors.

The initial assessment is expected to be levied in two phases, the first levy made to satisfy debt service on approximately \$2 million of Series A assessment bonds to pay for engineering design and right-of-way acquisition activities up until receipt of construction bids, and the second levy made to satisfy debt service on approximately \$12.5 million of Series B assessment bonds to pay for construction and construction management activities. See Chapter 6. Assuming that the bonds are amortized over a 20 year period as currently expected, the charges to initially-connecting properties would be reduced at the end of 20 years to a monthly amount necessary to fund the O&M and system replacement reserve requirements existing at that time.

To the initial assessment or connection charge must be added the out-of-pocket costs necessary to abandon any existing septic tank and connect to the service sewer (usually terminated at the property line). It should be pointed out, as well, that the future connection charge is due as a lump sum at the time of connection, and cannot be financed through the initial series of assessment bonds.

Grant or loan programs, such as federal Economic Development Administration grants, federal Community Development Block Grants, and state Rural Renaissance grants, may be available to help certain individual parcel owners with connection charges, out-of-pocket expenses, and a portion of the monthly sewer service charge.

7-4

TABLE 7-3

CALCULATION OF SEWER SERVICE CHARGE AND CONNECTION FEE

Initial increment capital cost; \$14.5 million (financed with assessment bond amortized over 20 years at 8% interest)

Assumptions:

140 additional connections per year 3000 initial connections

Parameters:

Annual bond debt service	1,518 \$K/yr		
Debt svc. req. from future conn.	419 \$K/yr		
Debt svc. avail. from init. conn.	1,099 \$K/yr, o	r \$30.52/mo/EDU, payable for 2	0 years
Trial initial conn. charge	3.500 \$/EDU	3,500 \$/EDU	
interest rate on reserve account	7.00 %		
Annual O&M	488 \$K/yr	= \$568K - \$80K septage inc	ome

Schedule of future charges & revenue:

				\$K/yr for	\$K/yr for \$K/yr for \$/mo./EDU	mo./EDU	Total	\$K Expansion
Year	Added connections	\$/conn.	Tot. \$K/yr	Debt syc,	Reserve Sew.	Sew.svc.chg	conn.	Reserve @ 10 yr.
0						13.56	3000	
1	140	4000	999	419		12.96	3140	
2	140	4000	099	419		12.41	3280	
e	140	4000	560	419	141	11.90	3420	227
47	140	4000	099	419	141	11.43	3560	
9	140	4000	999	419	141	11.00	3700	
9	140	4000	999	419	141	10.60	3840	
1	140	4000	999	419	141	10.22	3980	
00	140	4000	999	419	141	9.88	4120	
05	140	4000	999	419	141	9.55	4260	
10	140	4000	999	419	14)	9.25	4400	
10-year total								1,953
				E CO	uiremer	r Reserve	Account	1,957
				006,17	W. CSCAL. at J	at salyt for 3 yr.	1.14	

REFERENCES

- Town of Paradies Wastewater Management Study. Phase I Report, J. M. Montgomery Engineers, May 1983.
- Town of Paradise Wastewater Management Study Supplementary Phase I Report, George Tchobanoglous, 1984.
- 3. Town of Paradise Ordinance No. 103, January 17, 1984.
- Town of Paradise Wastewater Management Plan, Phase II Report, R. A. Ryder & Associates, September 1985.
- Butte County Countywide Septage Study and Draft Environmental Impact Report. Brown & Caldwell. October 1981.
- Butte County Design Rainfall, James Goodridge, January 1988.

APPENDIX A

GEOTECHNICAL SURVEY

JAMES C. HANSON

JAMES C. HANSON, C.E.

NICHOLAS F. BONSIGNORE, C.E. HENRY S. MATSUNAGA CONSULTING CIVIL ENGINEER
A CORPORATION

444 NORTH THIRD STREET, SUITE 400 SACRAMENTO, CALIFORNIA 95814 .- AREA CODE 916 TELEPHONE 448-2821 FACSIMILE 448-4736

(1) P PM (1) (3) (4) (5) (6)

November 28, 1988

Mr. Russel Sanchez Adams Kennedy/Jenks/Chilton Consulting Engineers 3336 Bradshaw Road, Suite 320 Sacramento, CA 95827

Re: Town of Paradise Wastewater Effluent Storage Reservoir and Treatment Pond Site - Reconnaissance Evaluation

Dear Mr. Adams:

Pursuant to our letter of agreement dated April 25, 1988 we have completed a reconnaissance level evaluation and construction cost estimate for the referenced project. Included herein is a discussion of site selection, preliminary site exploration and design considerations, and construction cost estimates pertaining to the effluent storage reservoir. In addition, a brief discussion of the suitability of the proposed treatment pond site near Elliot Spring is provided. The information and conclusions contained herein should be considered as very preliminary and adequate for general planning purposes only. Should the Town of Paradise elect to proceed with the proposed project, a more detailed evaluation of the effluent storage dam and reservoir site and treatment pond feasibility should be initiated at the earliest possible stage in the process.

WASTEWATER EFFLUENT STORAGE RESERVOIR

Initially it was our understanding that the Town was negotiating with property owners along Pentz Road east of Highway 99 for possible wastewater effluent storage and disposal facility sites. Early in the site selection stage, several sites in the vicinity of Cory Canyon were under consideration, however, as other elements of the project became better defined, we were directed by Kennedy/Jenks/Chilton (KJC) to evaluate potential reservoir sites on the Horning Property (formerly the McKnight Ranch) near the intersection of Neal Road and Highway 99. KJC

To: Mr. Russel Sanchez Adams November 28, 1988 Page 2

further indicated that the ultimate design wastewater storage requirement would be approximately 1050 acre-feet for the period of November through May. To this value was to be added sufficient storage volume to impound rainfall and runoff from the 100-year annual precipitation for the same period. It is our understanding that the peak storage volume would be required in the month of May, since subsequent effluent inflow and runoff would be directed to disposal by irrigation on the Horning property. Further, the contemplated irrigation requirement would utilize the entire reservoir volume during the irrigation season. Accordingly, we assumed that the reservoir would be empty at the end of each irrigation season and, therefore, we included no provisions for carryover storage.

The precipitation characteristics of the area were based on climatological information analyzed and provided by KJC. The storage volume required to accommodate the runoff from rainfall on the reservoir and tributary drainage area was based on the 100-year precipitation for the period November thru May, estimated at about 66 inches. It was assumed that the resulting runoff was 100% on the reservoir area and 85% on the tributary drainage above reservoir high water. An allowance of about 21 inches was made for evaporation from the maximum reservoir surface for the same period of November through May.

Inspection of United States Geological Survey 7-1/2' quadrangle maps indicated three possible sites for the effluent storage reservoir in the Neal Road vicinity (see Figure 1). Of these, the Neal Road #2 site was selected for further evaluation based on its proximity to Neal Road and the fact that it is higher in elevation than the other two, thus making it more desirable for gravity irrigation deliveries. It is suggested, however, that consideration be given to the Neal Road #1 and #3 sites in future studies as both of these sites require less earthwork for embankment construction. The Neal Road #2 site has a tributary drainage area of about 250 acres (including the reservoir area). Based on the rainfall and runoff characteristics previously discussed, it was determined that the total storage requirement at this site would be about 2170 acre-feet. The rainfall runoff contribution to the total storage requirement could be significantly reduced by the construction of ditches to intercept and convey tributary runoff around the reservoir. For purposes of this study, however, it was assumed that the reservoir would store the entire runoff.

The maximum storage volume of 2170 acre-feet at the Neal Road #2 location requires a dam about 88' in height having a crest length of about 1300'. Based on this height and storage volume, the dam would fall under jurisdiction of the State Department of Water Resources, Division

To: Mr. Russel Sanchez Adams November 28, 1988 Page 3

of Safety of Dams (DSOD). The State requires submission and approval of construction plans and specifications supported by detailed site-specific geotechnical information prior to issuance of approvals to proceed with construction. During construction the dam would be further subject to periodic inspections by DSOD engineers.

On November 9, 1988, Nick Bonsignore of my staff and Charles Van Alstine, Registered Engineering Geologist, conducted a preliminary field investigation of the Neal Road #2 site. This investigation included use of a D-8 bulldozer equipped with 2' rippers for exploration purposes. The details of this preliminary field investigation are provided in Mr. Van Alstine's memorandum dated November 9, 1988 and appended hereto as Attachment #1. Generally speaking, the site is characterized by a rather thin soil layer overlying relatively hard sandstone that appears to be rippable to a depth of several feet and possibly deeper. Very hard volcanic "cap rock" layers are exposed at upper elevations within the proposed reservoir area.

Due to the limited availability of fine-grained soils in the general area, we anticipate that a zoned embankment design with a central core will be required (see Figure 2). The primary elements of the design include a core zone comprised of low permeability fine-grained materials, upstream and downstream shell zones comprised of random rockier materials, and an internal chimney/foundation drain zone composed of imported processed sands and gravels. The preliminary design shown should be considered as conceptual and to be used for estimating purposes only. Although we believe the final design would include at least the three zones indicated, their configuration could be considerably different based on the final evaluation of material availability, strength parameters, internal hydraulic characteristics of the proposed zonal materials, and the possible phasing of the embankment construction. Materials for the embankment construction would come primarily from within the reservoir area, however, preliminary calculations indicate that much of the core zone material would have to be obtained from sources outside the reservoir area. Assuming a 1 foot depth of available topsoil, the affected area could be as much as 70 or 80 acres. It is believed that most, if not all, of the random zone materials can be obtained from within the reservoir area, however, deeper excavations (3' to 5') outside of the reservoir encompassing perhaps 5 to 10 acres may be required. Select drain materials would necessarily be obtained from commercial suppliers in the general area. Preliminary observations indicate that suitable embankment foundation can be obtained on hard volcanic rock at very shallow depths. We therefore do not anticipate any unusual or extraordinary foundation treatment measures. A nominal core trench is shown which would provide positive underseepage control.

To: Mr. Russel Sanchez Adams November 28, 1988 Page 4

The outlet conduit diameter has been sized at 30" in accordance with DSOD requirements that it be capable of draining at lease one-half the storage volume in 7 days. The outlet has been located very near the bottom of the reservoir to allow full utilization of the reservoir volume. We anticipate that the outlet would be a cast-in-place reinforced concrete conduit with a heavy-duty hydraulically controlled slide gate at the upstream end.

Cost estimates based on this preliminary design are shown on Table 1 and are predicated on prices considered to be applicable during 1988. Such costs include allowances for contingencies, engineering, design, supervision, inspection, and administration of contracts. Cost data used were obtained from product manufacturers and installers, construction firms, standard cost estimating guide publications, and from comparison with similar projects.

Based on some very general assumptions, we have estimated the amount of water necessary for embankment construction to be about 80 acre-feet. The owner of the property, Mr. Chuck Horning, has indicated that three large production wells exist on the ranch, one of which was recently tested at 1830 gpm. This production rate would be adequate for construction water requirements. The estimated cost of pumping the required volume of construction water has been included in Table 1.

TREATMENT PONDS SITE

Our field exploration of November 9, 1988 included site evaluation and backhoe test pits at the proposed treatment pond site near Elliot Spring (see Figure 1). Observations are summarized in Mr. Van Alstine's memorandum dated November 9, 1988 (Attachment 2). Very generally, this site is characterized by very hard volcanic agglomerate cap rock overlain by a thin layer of fine-grain soils. It is our opinion that the construction of cut-and-fill ponds as presently anticipated would be very difficult and relatively expensive. Such construction would require judicious excavation, stockpiling and placement of locally available fine-grained materials, and further would probably require use of very heavy-duty earthwork equipment for ripping and excavating the harder rock.

It is suggested that further study of this site include consideration of constructing a series of small non-jurisdictional dams across the existing draws which would create the necessary pond volume. This would probably require less earthwork than the presently contemplated design. Further subsurface exploration of this site is necessary and will require the use of a large bulldozer with a ripper. You should also be aware

To: Mr. Russel Sanchez Adams November 28, 1988 Page 5

that a buried gas line traverses the site adjacent to the existing northeast-to-southwest trending dirt road (see Figure 1).

We trust that the foregoing discussion satisfies your requirements at this time. We would be pleased to continue our services on this project as the need arises. Please call if you have questions or require additional information.

Very truly yours,

James C. Hanson Consulting Civil Engineer

1c

Enclosures

cc: Charles Van Alstine

TOWN OF PARADISE

728/

WASTEWATER EFFLUENT STORAGE RESERVOIR ESTIMATED CONSTRUCTION COSTS

- 1	Item	Quantity	Unit	Unit Price (dollars)	Cost (dollars)	Total Cost (dollars)
ũ	KARTHWORK					
≼ ရုပ်ရမ		60 77 27,200 7,400	Acres C.Y.	1,000.00 370.00 2.10 5.00	60,000 28,500 57,100 37,000	
A C II	GRAVEL SAND & GRAVEL CHINNEY DRAIN (SAND & GRAVEL) <1 ZONE 1 IMPERVIOUS FILL <2 ZONE 2 RANDOM FILL <2	3,900 3,900 6,400 146,400 335,000	*****	16.00 16.00 16.00 3.70	62,400 62,400 102,400 922,300 1,239,500	
8 ×	OUTLET CONDUIT A. 30" DIA CAST-IN-PLACE					2,571,600
ရုံ ပ	CONCRETE 30" HEAVY TRASH RAC	470 1	L.F. EACH EACH	7,350.00 6,300.00	54,100 7,400 6,300	
III. HI	HISCELLANEOUS					67,800
ė ii	A. PERFORATED FOUNDATION DRAIN PIPE B. CONSTRUCTION WATER <3	1,500	A. F.	8.40	12,600	
						21,300
Su	SUBTOTAL					2.660.700
8	CONTINGENCIES @ 25%					200
10	TOTAL DIRECT CONSTRUCTION COST					002,000
1	TOO NOT TOUT TOUT					3,325,900
M	ENGINEERING & ADMINISTRATION @ 15%					498,900
80	SUBTOTAL					3.824.800
DI	DIVISION OF SAFETY OF DAMS FEE					25,300
2	TOTAL					3,850,100

DRAIN MATERIALS ASSUMED TO BE PROCESSED SAND AND GRAVEL OBTAINED FROM OFF-SITE COMMERCIAL SOURCES.

ZONE 1 AND ZONE 2 MATERIALS ASSUMED AVAILABLE FROM ON-SITE SOURCES.

ESTIMATED COST OF PUMPING FROM EXISTING WELLS LOCATED ON THE HORNING RANCH.

2170 ACRE-FOOT WASTEWATER EFFLUENT STORAGE RESERVOIR 2-STAGE CONSTRUCTION, ESTIMATED CONSTRUCTION COSTS

STAGE 1 - 1650 ACRE-FOOT CAPACITY

I. EARTHWORK A. CLEAR & GRUB DAM & RESERVOIR SITE 50 Acres 1,000.00 50,000 B. CLEAR SUPPLEMENTAL BORROW AREA 58 Acres 370.00 21,500 C. EMBANKINCHI FOLNOATION STRIPPING 22,270 C.Y. 2.10 46,800 D. CLIDFOF FIRENLE BECKLYATION & CLEANUP 7,000 C.Y. 5.00 35,000 E. FOUNDATION ORAIN <1 3,105 C.Y. 16.00 49,700 SAND & GRAVEL 3,105 C.Y. 16.00 49,700 F. CHIMMEY DRAIN (SAND & GRAVEL) <1 5,860 C.Y. 16.00 93,800 G. ZODE 1 IMPERVIOUS FILL <2 123,550 C.Y. 6.30 777,700 H. ZONE 2 RANDOM FILL <2 124,680 C.Y. 3.70 890,500 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 470 L.F. 115.00 54,100 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,660 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,660 CONTINGENCIES 9 25% TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION 9 15% SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100		Item	Quantity	Unit	Unit Price (dollars)	Cost (dollars)	Total Cost (dollars)
DAM & RESERVOIR SITE 50 Acres 1,000.00 50,000 8. CLEAR SUPPLEMENTAL BORROW AREA 58 Acres 370.00 21,500 C. EMBANKENET FOUNDATION STRIPPING 22,270 C.Y. 2.10 46,800 O. CUTOFF TRENCE EXCAVATION & CLEANUP 7,000 C.Y. 5.00 35,000 E. FOUNDATION DRAIN <1 GRAVEL 3,105 C.Y. 16.00 49,700 SAND & GRAVEL 3,105 C.Y. 16.00 49,700 SAND & GRAVEL 3,105 C.Y. 16.00 49,700 G. ZOME 1 IMPERVIOUS FILL <2 123,450 C.Y. 6.30 777,700 G. G. ZOME 1 IMPERVIOUS FILL <2 123,450 C.Y. 6.30 777,700 C.Y. 3.70 890,500 C.Y. 6.30 F.Y. 6.30	1.	EARTHWORK					
B. CLEAR SUPPLEMENTAL BORROW AREA C. EMBANDMENT FOUNDATION STRIPPING C. EMBANDMENT FOUNDATION STRIPPING C. CHOOF TRENCH EXCAVATION & CLEANUP C. OLITOFF TRENCH EXCAVATION & CLEANUP F. COUNDATION DRAIN <1 GRAVEL SAND & GRAVEL		A. CLEAR & GRUB					
B. CLEAR SUPPLEMENTAL BORROW AREA C. EMBANKWENT FOUNDATION STRIPPING C. CY. 2,10 C. CY. 2,10 C.Y. 2,10 C.Y. 2,10 C.Y. 3,000 E. FOUNDATION DRAIN <1 GRAVEL SAND & GRAVEL SA		DAM & RESERVOIR SITE	50	Acres	1 000 00	50,000	
C. EMBANKMENT FOUNDATION STRIPPING 22,270 C.Y. 2.10 46,800 D. CUTOFT FRENCH EXCAVATION & CLEANUP 7,000 C.Y. 5.00 35,000 E. FOUNDATION DRAIN <1 GRAVEL 3,105 C.Y. 16.00 49,700 SAND & GRAVEL 3,105 C.Y. 16.00 49,700 G.Y. 5.800 C.Y. 16.00 73,800 G.Y. 16.00 73,800 G.Y. 16.00 777,700 G.Y. 200 C.Y. 16.00 777,700 G.Y. 200 C.Y. 2		시장	9735114				
D. CUTOFF TRENCH EXCAVATION & CLEANUP 7,000 C.Y. 5.00 35,000 E. FOUNDATION ORAIN <1 GRAVEL 3,105 C.Y. 16.00 49,700 SAND & GRAVEL 3,105 C.Y. 16.00 49,700 F. CHIMNEY DRAIN (SAND & GRAVEL) <1 5,860 C.Y. 16.00 93,800 G. ZONE 1 IMPERVIOUS FILL <2 123,450 C.Y. 6.30 777,700 H. ZONE 2 RANDOM FILL <2 240,680 C.Y. 3.70 890,500 11. OUTLET CONDUIT A. 30 10 DIA. CAST-IN-PLACE CONCRETE PIPE 470 L.F. 115.00 54,100 B. 30 11 MEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES 9 25% TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION 9 15X SUBTOTAL 3,037,900 TOTAL TOTAL 3,037,900						1000 1000 11000	
E. FOUNDATION DRAIN <1 GRAVEL							
GRAVEL SAMD & SA					5.00	35,000	
SAND & GRAVEL F. CHIMNEY DRAIN (SAND & GRAVEL) <1			3.105	C.Y.	16.00	49 700	
F. CRIMMEY DRAIN (SAND & GRAVEL) <1 5,860 C.Y. 16.00 93,800 G. ZONE 1 IMPERVIOUS FILL <2 123,450 C.Y. 6.30 777,700 H. ZONE 2 RANDOM FILL <2 240,680 C.Y. 3.70 890,500 2,014,700 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 470 L.F. 115.00 54,100 6.30" HEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 66,500 III. MISCELLAMEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 8. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 CONTINGENCIES & 25X 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION & 15X 393,400 DIVISION OF SAFETY OF DAMS FEE 22,100		SAND & GRAVEL	the second secon	1077707.73		0.0000000000000000000000000000000000000	
G. ZONE 1 IMPERVIOUS FILL <2 123,450 C.Y. 6.30 777,700 H. ZONE 2 RANDOM FILL <2 240,680 C.Y. 3.70 890,500 2,014,700 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 470 L.F. 115.00 54,100 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 III. MISCELLAMEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 8. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 SUBTOTAL CONTINGENCIES @ 25% 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15% 393,400 DIVISION OF SAFETY OF DAMS FEE 22,100		F. CHIMNEY DRAIN (SAND & GRAVEL) <1		200 000 00000		0.0000000000000000000000000000000000000	
H. ZONE 2 RANDOM FILL <2 240,680 C.Y. 3.70 890,500 2,014,700 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 470 L.F. 115.00 54,100 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES @ 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL J. 2400 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100							
2,014,700 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE B. 30" HEAVY DUTY SLIDE GATE C. TRASH RACK & GATE CONTROLS C. TRASH RACK & GATE CONT						3400 C 500 C 500 C 500 C	
11. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 470 L.F. 115.00 54,100 8. 30" NEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000			2.0,000		3.70		
III. OUTLET CONDUIT A. 30™ DIA. CAST-IN-PLACE CONCRETE PIPE CONCRETE PIPE CONCRETE PIPE A70 L.F. 115.00 54,100 B. 30™ HEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES ⊋ 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION ⊋ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL TOTAL TOTAL							2 01/ 700
A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE B. 30" HEAVY DUTY SLIDE GATE C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES @ 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL TOTAL 3,037,900							2,014,700
A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE B. 30" HEAVY DUTY SLIDE GATE C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES @ 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL TOTAL 3,037,900	11.	OUTLET CONDUIT					
CONCRETE PIPE 470 L.F. 115.00 54,100 B. 30" HEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 1111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES @ 25% TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL TOTAL TOTAL 3,037,900		A. 30" DIA. CAST-IN-PLACE					
B. 30" HEAVY DUTY SLIDE GATE C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 5,000 66,500 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES ⊋ 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION ⊋ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900			470	1 5	115 00	54 100	
C. TRASH RACK & GATE CONTROLS 1 EACH 5,000.00 5,000 66,500 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION MATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL CONTINGENCIES & 25X TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION & 15X SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL TOTAL 3,037,900			7.5				
111. MISCELLANEOUS 66,500 66,500		일반이 되지 않고 있다면 하면					
111. MISCELLAMEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 8. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700		The state of the s		EAGE	3,000.00		
III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 8. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700 16,700 16,700							
A. PERFORATED FOUNDATION DRAIN PIPE 1,200 L.F. 8.40 10,100 B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL 2,097,900 CONTINGENCIES @ 25% 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15% 393,400 SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100	ш.	MISCELLANEOUS					66,500
B. CONSTRUCTION WATER <3 62.5 A.F. 105.00 6,600 16,700 SUBTOTAL 2,097,900 CONTINGENCIES ⊋ 25% 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION ⊋ 15% 393,400 SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900			1 200		9.40	10 100	
16,700 SUBTOTAL 2,097,900 CONTINGENCIES @ 25X 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15X 393,400 SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900		지수의 전문 경기 회장 시간 하고 있는데 작가지 않는데 이번 경기 있다면 하지 않는데 하게 되었다.	100 mg			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
SUBTOTAL 2,097,900 CONTINGENCIES © 25% 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION © 15% 393,400 SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900		or construction which G	02.3	A.F.	105.00		
SUBTOTAL 2,097,900 CONTINGENCIES @ 25% 524,500 TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15% 393,400 SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900							
CONTINGENCIES @ 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE TOTAL 3,037,900							16,700
TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900		SUBTOTAL					2,097,900
TOTAL DIRECT CONSTRUCTION COST 2,622,400 ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900		CONTINGENCIES @ 25%					524.500
ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900							
SUBTOTAL 3,015,800 DIVISION OF SAFETY OF DAMS FEE 22,100 TOTAL 3,037,900		TOTAL DIRECT CONSTRUCTION COST					2,622,400
TOTAL 22,100		ENGINEERING & ADMINISTRATION @ 15%					393,400
DIVISION OF SAFETY OF DAMS FEE 22,100		CIRTOTAL					*******
TOTAL 3,037,900		SUBTOTAL					3,015,800
TOTAL 3,037,900		DIVISION OF SAFETY OF DAMS FEE					22.100
3,037,900							
		TOTAL					3,037,900

<1 DRAIN MATERIALS ASSUMED TO BE PROCESSED SAND AND GRAVEL OBTAINED FROM OFF-SITE COMMERCIAL SOURCES.

<2 ZONE 1 AND ZONE 2 MATERIALS ASSUMED AVAILABLE FROM ON-SITE SOURCES.</p>

<3 ESTIMATED COST OF PUMPING FROM EXISTING WELLS LOCATED ON THE HORNING RANCH.</p>

3/9/89 TP-21708.WK1

2170 ACRE-FOOT WASTEWATER EFFLUENT STORAGE RESERVOIR 2-STAGE CONSTRUCTION, ESTIMATED CONSTRUCTION COSTS

STAGE 2 - 2170 ACRE-FOOT CAPACITY

				Unit		Total
				Price	Cost	Cost
5.2	Item	Quantity	Unit	(dollars)	(dollars)	(dollars)
1.	EARTHWORK					
	A. CLEAR & GRUB					
	DAM & RESERVOIR SITE	10	Acres	1,000.00	10,000	
	B. CLEAR SUPPLEMENTAL BORROW AREA	19	Acres	370.00	7,000	
	C. EMBANKMENT FOUNDATION STRIPPING	4,260	C.Y.	2.10	8,900	
	D. CUTOFF TRENCH EXCAVATION & CLEANUP	400	C.Y.	5.00	2,000	
	E. FOUNDATION DRAIN <1				A-18-0000	
	GRAVEL	2,130	C.Y.	16.00	34,100	
	SAND & GRAVEL	2,130	C.Y.	16.00	34,100	
	F. CHIMNEY DRAIN (SAND & GRAVEL) <1	1,860	C.Y.	16.00	29,800	
	G. ZONE 1 IMPERVIOUS FILL <2	20,120	C.Y.	6.30	126,800	
	H. ZONE 2 RANDOM FILL <2	95,700	C.Y.	3.70	354,100	
						606,800
11.	OUTLET CONDUIT					
	A. EXTEND GATE CONTROLS	1	EACH	1,300.00	1,300	
		,	EACH	1,300.00	1,300	
111.	MISCELLANEOUS					1,300
	A. PERFORATED FOUNDATION DRAIN PIPE	300	L.F.	8.40	2,500	
	B. CONSTRUCTION WATER <3	20.0	A.F.	105.00	2,100	
		*****		102100		
						4,600
	SUBTOTAL					612 700
						612,700
	CONTINGENCIES & 25%					153,200
	TOTAL DIRECT CONSTRUCTION COST					765,900
	ENGINEERING & ADMINISTRATION @ 15%					114,900
	Manager P. Co.					
	SUBTOTAL					880,800
	DIVISION OF SAFETY OF DAMS FEE					12,800

	TOTAL					907 /44
						893,600

<1 DRAIN MATERIALS ASSUMED TO BE PROCESSED SAND AND GRAVEL OBTAINED FROM OFF-SITE COMMERCIAL SOURCES.

<2 ZONE 1 AND ZONE 2 MATERIALS ASSUMED AVAILABLE FROM ON-SITE SOURCES.</p>

<3 ESTIMATED COST OF PUMPING FROM EXISTING WELLS LOCATED ON THE HORNING RANCH.</p>

1650 ACRE-FOOT WASTEWATER EFFLUENT STORAGE RESERVOIR 2-STAGE CONSTRUCTION, ESTIMATED CONSTRUCTION COSTS

STAGE 1 - 1100 ACRE-FOOT CAPACITY

I. EARTHWORK A. CLEAR & GRUB DAN & RESERVOIR SITE B. CLEAR SUPPLEMENTAL BORRON AREA 39 Acres 370.00 14,400 C. EMBANICMENT FOUNDATION STRIPPING D. CUTOFF TRENCH EXCAVATION & CLEANUP E. FOUNDATION RAIN <1 GRAVEL GRAVEL 2,375 C.Y. 16.00 38,000 F. CHIMNEY DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZONE 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,300 H. ZONE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 B. 30" HEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 SUBTOTAL CONTINGENCIES © 25X TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION © 15X SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL		Item	Quant i ty	Unit	Unit Price (dollars)	Cost (dollars)	Total Cost (dollars)
A. CLEAR & GRUB DAM & RESERVOIR SITE B. CLEAR SUPPLEMENTAL BORROM AREA 39 ACRES 370.00 14,400 C. EMBANCHENT FOUNDATION STRIPPING 17,270 C.Y. 2.10 36,300 D. CUTOFF TRENCH EXCAVATION & CLEANUP 6,150 C.Y. 5.00 30,800 E. FOUNDATION DRAIN <1 GRAVEL GRAVEL SAND & GRAVEL SAND & GRAVEL SAND & GRAVEL 4,2375 C.Y. 16.00 38,000 F. CHIMNET DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZOME 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,300 H. ZONE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 11. OUTLET COMDUIT A. 30° DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 133,200 SUBTOTAL CONTINGENCIES 9 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION 9 15X 276,700 TOTAL DIVISION OF SAFETY OF DAMS FEE 18,500				• • • • • • • • • • • • • • • • • • • •			
DAM & RESERVOIR SITE B. CLEAR SUPPLEMENTAL BORROW AREA 39 Acres 370.00 14,400 C. EMBANKWENT FOUNDATION STRIPPING 17,270 C.Y. 2.10 36,300 D. CUTOFF TRENCH EXCAVATION & CLEANUP 6,150 C.Y. 5.00 30,800 E. FOUNDATION DRAIN <1 GRAVEL 2,375 C.Y. 16.00 38,000 SAND & GRAVEL 2,375 C.Y. 16.00 38,000 F. CHIMNEY DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZOME 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,300 H. ZOME 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 III. OUTLET CONDUIT A. 30° DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 III. MISCELLAMEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 SUBTOTAL CONTINGENCIES 9 25X TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION 9 15X SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL TOTAL TOTAL 2,139,700	1.	EARTHWORK					
B. CLEAR SUPPLEMENTAL BORROW AREA C. EMBANIMENT FOUNDATION STRIPPING 17,270 C.Y. 2.10 36,300 D. CUTOFF TRENCH EXCAVATION & CLEANUP 6,150 C.Y. 5.00 30,800 E. FOUNDATION DRAIN <1 GRAVEL 2,375 C.Y. 16.00 38,000 SAND & GRAVEL 2,375 C.Y. 16.00 38,000 F. CHINNEY DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZONE 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,500 H. ZONE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 II. OUTLET CONDUIT A. 30 th DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8,40 8,900 B. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 SUBTOTAL CONTINGENCIES 9 25% TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION 9 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL TOTAL 2,139,700		A. CLEAR & GRUB					
B. CLEAR SUPPLEMENTAL BORROW AREA C. EMBANKMENT FOUNDATION STRIPPING C. C.Y. 2.10 C.Y. 2.00 C.Y. 2.00 C.Y. 2.00 C.Y. 2.00 C.Y. 3.0800 C.Y. 16.00 C.Y. 38,000 F. CHIMNEY DRAIN (SAND & GRAVEL) <1 C.Y. 16.00 C.Y. 16.00 C.Y. 16.00 C.Y. 6.30 C.Y. 3.70 C.Y. 4.80		DAM & RESERVOIR SITE	41	Acres	1,000.00	41,000	
C. EMBANCHENT FOUNDATION STRIPPING 17,270 C.Y. 2.10 36,300 D. CUTOFF TRENCH EXCAVATION & CLEANUP 6,150 C.Y. 5.00 30,800 E. FOUNDATION DRAIN <1 GRAVEL 2,375 C.Y. 16.00 38,000 SAND & GRAVEL 2,375 C.Y. 16.00 38,000 F. CHIMNEY DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZONE 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,300 H. ZONE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 11. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 11I. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 SUBTOTAL CONTINGENCIES 9 25% TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION 9 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL TOTAL 2,139,700		B. CLEAR SUPPLEMENTAL BORROW AREA	39				
D. CUTOFF TRENCH EXCAVATION & CLEANUP 6,150 C.Y. 5.00 30,800 E. FOUNDATION DRAIN <1 GRAVEL 2,375 C.Y. 16.00 38,000 SAMD & GRAVEL 2,375 C.Y. 16.00 38,000 F. CHIMNEY DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZONE 1 IMPERVICUS FILL <2 91,800 C.Y. 6.30 578,300 H. ZONE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 II. OUTLET CONDUIT A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 B. 30" HEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION WATER <3 40.5 A.F. 105.00 4,300 III. SUBTOTAL CONTINGENCIES @ 25X TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15X SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL TOTAL 2,139,700		C. EMBANKMENT FOUNDATION STRIPPING	17,270	C.Y.			
GRAVEL SAMD & SAMD & GRAVEL) <1 4,290 C.Y. 16.00 88,600 C.Y. 6.30 578,300 N. ZONE 2 RANDOM FILL <2 91,800 C.Y. 3.70 556,700 1,402,100 11. OUTLET CONDUIT A. 30 TO DIA. CAST-IN-PLACE CONCRETE PIPE SAMD & SAMD BAND SAMD SAMD SAMD SAMD SAMD SAMD SAMD SAM			6,150	C.Y.	5.00		
SAND & GRAVEL F. CHINNEY DRAIN (SAND & GRAVEL) <1 4,290		E. FOUNDATION DRAIN <1				100000000000000000000000000000000000000	
F. CHIMNEY DRAIN (SAND & GRAVEL) <1 4,290 C.Y. 16.00 68,600 G. ZONE 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,300 H. ZONE 2 RANDOM FILL <2 91,800 C.Y. 3.70 556,700 1,402,100 1. II. OUTLET CONDUIT A. 30 ^m DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 60,300 1. III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 8. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 13,200 13		GRAVEL	2,375	C.Y.	16.00	38,000	
G. ZONE 1 IMPERVIOUS FILL <2 91,800 C.Y. 6.30 578,300 1,20NE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 1,402,100 II. OUTLET CONDUIT A. 30° DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 60,300 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 8. CONSTRUCTION WATER <3 40.5 A.F. 105.00 4,300 13,200 SUBTOTAL 1,475,600 CONTINGENCIES @ 25X 368,900 TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION @ 15X 276,700 SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500			2,375	C.Y.	16.00	38,000	
H. ZONE 2 RANDOM FILL <2 150,470 C.Y. 3.70 556,700 1,402,100 11. OUTLET CONDUIT A. 30™ DIA. CAST-IN-PLACE CONCRETE PIPE 425 L.F. 115.00 48,900 C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 111. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION WATER <3 40.5 A.F. 105.00 4,300 13,200 SUBTOTAL CONTINGENCIES ⊕ 25% TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION ⊕ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL TOTAL TOTAL				C.Y.	16.00	68,600	
1,402,100				C.Y.	6.30	578,300	
1,402,100		H. ZONE 2 RANDOM FILL <2	150,470	C.Y.	3.70	556,700	
11. OUTLET CONDUIT						******	*********
A. 30" DIA. CAST-IN-PLACE CONCRETE PIPE B. 30" HEAVY DUTY SLIDE GATE C. TRASH RACK & GATE CONTROLS CONTROLS C. TR							1,402,100
CONCRETE PIPE	11.	OUTLET CONDUIT					
B. 30" HEAVY DUTY SLIDE GATE 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 60,300 [60,300] III. MISCELLANEOUS 60,300 EACH FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 8. CONSTRUCTION MATER <3 40.5 A.F. 105.00 4,300 [13,200] SUBTOTAL 1,475,600 [14,475,600] CONTINGENCIES @ 25X 368,900 [14,475,600] ENGINEERING & ADMINISTRATION @ 15X 276,700 [14,475,600] SUBTOTAL 2,121,200 [14,500] DIVISION OF SAFETY OF DAMS FEE 18,500 [14,500]		A. 30M DIA. CAST-IN-PLACE					
B. 30" HEAVY DUTY SLIDE GATE C. TRASH RACK & GATE CONTROLS 1 EACH 7,350.00 7,400 C. TRASH RACK & GATE CONTROLS 1 EACH 4,000.00 4,000 60,300 III. MISCELLANEOUS A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION WATER <3 40.5 A.F. 105.00 4,300 13,200 SUBTOTAL CONTINGENCIES @ 25X 368,900 TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15X 276,700 SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL TOTAL		CONCRETE PIPE	425	L.F.	115.00	48.900	
C. TRASH RACK & GATE CONTROLS 1		B. 30" HEAVY DUTY SLIDE GATE	1	EACH			
111. MISCELLANEOUS		C. TRASH RACK & GATE CONTROLS	1	EACH			
MISCELLANEOUS							
A. PERFORATED FOUNDATION DRAIN PIPE 1,060 L.F. 8.40 8,900 B. CONSTRUCTION WATER <3 40.5 A.F. 105.00 4,300 13,200 SUBTOTAL 1,475,600 CONTINGENCIES @ 25% 368,900 TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION @ 15% 276,700 SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500							60,300
B. CONSTRUCTION WATER <3 40.5 A.F. 105.00 4,300 13,200 SUBTOTAL 1,475,600 CONTINGENCIES & 25X 368,900 TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION & 15X 276,700 SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500	1111.						
13,200 SUBTOTAL 1,475,600 CONTINGENCIES @ 25X 368,900 TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION @ 15X 276,700 SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700					8.40	10 mm	
SUBTOTAL 13,200 CONTINGENCIES @ 25X 368,900 TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION @ 15X 276,700 SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700		B. CONSTRUCTION WATER <3	40.5	A.F.	105.00		
SUBTOTAL 1,475,600 CONTINGENCIES @ 25X 368,900 TOTAL DIRECT CONSTRUCTION COST 1,844,500 ENGINEERING & ADMINISTRATION @ 15X 276,700 SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700						*****	
### CONTINGENCIES & 25% ### CONTINGENCIES & 25% ### TOTAL DIRECT CONSTRUCTION COST ### ENGINEERING & ADMINISTRATION & 15% ### SUBTOTAL ### DIVISION OF SAFETY OF DAMS FEE ### TOTAL							13,200
TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700		SUBTOTAL					1,475,600
TOTAL DIRECT CONSTRUCTION COST ENGINEERING & ADMINISTRATION @ 15X 276,700 SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700		CONTINGENCIES @ 25%					368.900
ENGINEERING & ADMINISTRATION @ 15% SUBTOTAL DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700							
SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700		TOTAL DIRECT CONSTRUCTION COST					1,844,500
SUBTOTAL 2,121,200 DIVISION OF SAFETY OF DAMS FEE 18,500 TOTAL 2,139,700		ENGINEERING & ADMINISTRATION @ 15%					
TOTAL 2,139,700		SUBTOTAL					
TOTAL 2,139,700		DIVISION OF SAFETY OF DAMS FEE					18,500
2,137,100							*********
2,137,100		TOTAL					2 130 700
		1986(5)					

<1 DRAIN MATERIALS ASSUMED TO BE PROCESSED SAND AND GRAVEL OBTAINED FROM OFF-SITE COMMERCIAL SOURCES.

<2 ZONE 1 AND ZONE 2 MATERIALS ASSUMED AVAILABLE FROM ON-SITE SOURCES.</p>

<3 ESTIMATED COST OF PUMPING FROM EXISTING WELLS LOCATED ON THE HORNING RANCH.</p>

1650 ACRE-FOOT WASTEWATER EFFLUENT STORAGE RESERVOIR 2-STAGE CONSTRUCTION, ESTIMATED CONSTRUCTION COSTS

STAGE 2 - 1650 ACRE-FOOT CAPACITY

				Unit Price	Cost	Total
3033	Item	Quantity	Unit	(dollars)	(dollars)	(dollars)
1.	EARTHWORK					
	A. CLEAR & GRUB					
	DAM & RESERVOIR SITE	9	Acres	1,000.00	9,000	
	B. CLEAR SUPPLEMENTAL BORROW AREA	19	Acres	370.00	7,000	
	C. EMBANKMENT FOUNDATION STRIPPING	4,950	C.Y.	2.10	10,400	
	D. CUTOFF TRENCH EXCAVATION & CLEANUP	850	C.Y.	5.00	4,300	
	E. FOUNDATION DRAIN <1		110000	200.20	102394000	
	GRAVEL	2,475	C.Y.	16.00	39,600	
	SAND & GRAVEL	2,475	C.Y.	16.00	39,600	
	F. CHIMNEY DRAIN (SAND & GRAVEL) <1	2,360	C.Y.	16.00	37,800	
	G. ZONE 1 IMPERVIOUS FILL <2 N. ZONE 2 RANDOM FILL <2	28,100	C.Y.	6.30	177,000	
	H. ZUNE Z KAMBUH FILL 42	104,470	C.Y.	3.70	386,500	
					*******	744 200
						711,200
11.	OUTLET CONDUIT					
2000	A. EXTEND GATE CONTROLS	1	EACH	1,000.00	1,000	
			251011	1,000.00	.,,,,,,	
						1,000
111.	MISCELLANEOUS					.,
	A. PERFORATED FOUNDATION DRAIN PIPE	140	L.F.	8.40	1,200	
	B. CONSTRUCTION WATER <3	22.0	A.F.	105.00	2,300	

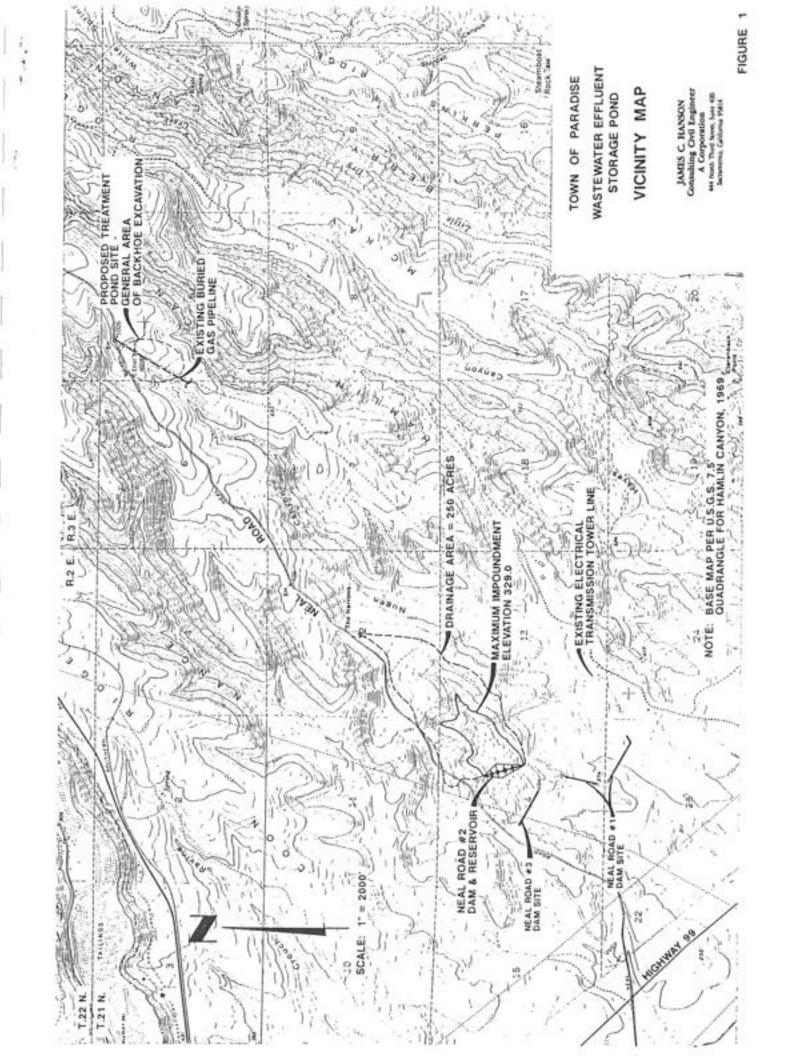
						3,500
						.5.45.5-7
	SUBTOTAL					715,700
	500000000000000000000000000000000000000					
	CONTINGENCIES @ 25%					178,900
	2227					******
	TOTAL DIRECT CONSTRUCTION COST					894,600
	FUGIUSTRATUS & 1801011878177180 & 150					2000
	ENGINEERING & ADMINISTRATION @ 15%					134,200
	SUBTOTAL					
	SUBTUTAL					1,028,800
	DIVISION OF SAFETY OF DAMS FEE					1/ 100
	STITUTE OF SWIETE OF SWAS FEE					14,100

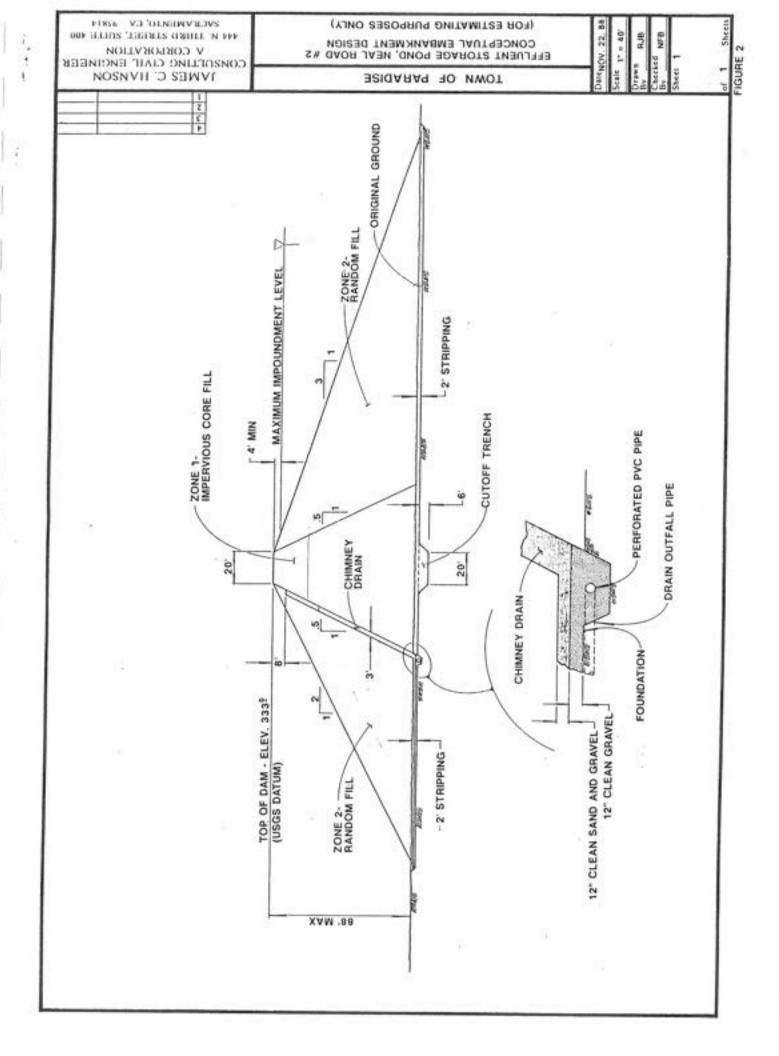
	TOTAL					1,042,900
	83000					1,042,900

<1 DRAIN MATERIALS ASSUMED TO BE PROCESSED SAND AND GRAVEL OBTAINED FROM OFF-SITE COMMERCIAL SOURCES.

<2 ZONE 1 AND ZONE 2 MATERIALS ASSUMED AVAILABLE FROM ON-SITE SOURCES.</p>

<3 ESTIMATED COST OF PUMPING FROM EXISTING WELLS LOCATED ON THE HORNING RANCH.</p>





RECEIVED NOV 15 1988 JAMES C. HANSON

CHARLES VAN ALSTINE Geological/Geotechnical Engineer

PRELIMINARY FIELD OBSERVATIONS

Memorandum to File

JOB: Paradise Wastewater System

Job No.108

LOCATION: Neal Road Dam Site Day: Wednesday, Nov. 9, 1988

PERSON: Van Alstine

Present at Site: Van Alstine and Nick Bonsignore

OBSERVATIONS:

- 1. Nick and I reviewed two dam sites in the canyon south of the Neal Road sanitary landfill. We excavated four test trenches with a D-8 Cat in the area of Neal Road Site No. 2; we took bulk samples of typical materials for laboratory testing and reference.
- 2. The sites are in a broad canyon with steep irregular slopes near the top; moderate slopes below; and gentle slopes adjacent to the nominal intermittent stream channel. There is approximately 150 feet of relief.

The area supports a scattered oak trees and moderate grass cover.

3. The geologic sequence in the area is well exposed and consists of a very uniform sequence of mid-Tertiary volcanic agglomerate and sandstone layers. The layers dip very gently to the west. Individual layers can be traced for thousands of feet.

The very hard volcanic agglomerate layers are conspicuous because they cap the ridges and are exposed as cliffs in the upper part of the slope. However, the sandstone layers comprise the major portion of the sequence. The sandstone is well exposed along the stream channel and in the lower slopes. Conglomerate—which is often a major portion of this unit—is a minor portion here. The sandstone is well indurated, but generally not as hard as the volcanic conglomerate. In both of these layers, fractures are very wide spaced. Layering is locally a plane of weakness in the sandstone where it has been appreciably weathered.

There were no substantial springs observed in the slopes nor was there evidence of persistent shallow groundwater.

- 4. Weathering has been slight and is limited to near-surface materials. The topsoil layer is very thin and discontinuous. A 1/2 to 1 foot layer of clayey silt is widely but irregularly exposed on lower slopes. Alluvium along the channel is limited to thin (1/2 to 1-1/2 foot) sparsely distributed layers of silty gravel.
 - 5. A. The bedrock in the area can provide adequate and uniform support for a dam embankment. Stripping to achieve general support on bedrock would be minimal and the materials could be used in embankment. The cut-off under the impervious section would be relatively shallow.
 - B. Both the sandstone and the volcanic agglomerate are estimated to have low permeability. Both lateral and vertical water movement would be limited to the widely scattered fractures and perhaps, some layering planes.
 - C. It likely is feasible to "bench" diversion ditches into the sandstone above reservoir level. This would be moderately difficult to very difficult excavation (see below).
 - D. The only apparent source for major quantities of random embankment materials is the sandstone within the reservoir. These materials are estimated to be moderately difficult to difficult excavation; heavyduty equipment (D-9 or D-10) would be required. With careful excavating techniques, the amount of "oversize" can be minimized. The near-surface sandstone will break down readily to provide a "fines bound" material; deeper materials may provide fewer fines and more hard fragments. Heavy-duty compaction equipment will be required (say, Caterpillar 835 or equivalent). Grid rollers might be effective in breaking down sandstone materials in borrow areas. With careful management of

borrow areas, it likely is feasible to place the coarser/ harder materials in the downstream section and the materials with more fines in the central section of the dam.

Considering the available materials, we suggest that an impervious section near the upstream face be utilized in design. The section should be the minimum thickness which is compatible with acceptable internal hydraulic gradient. The quantity of impervious material within the reservois area is very limited. The surficial soil layer could be excavated over this entire site and stockpiled. It likely would be feasible (but difficult) to blend these materials with 1 to 2 parts of processed weathered sandstone.

It may be necessary to consider importing fine-grained soil or adding clay to processed weathered sandstone in order to obtain adequate quantities of impervious material.

E. It might be feasible to make free-draining rock fill materials on the site. However, it would be necessary to selectively excavate and process the harder bedrock materials (e.g., the cap rock) for such purpose. The nominal amounts of gravel along the stream channel at the site are not a significant materials source. Similar materials from the general area would be worth investigating.

Charles Van Alstine

Information copy: Nick Bonsignore

RECEIVED NOV 15 1988 JAMES C. HANSON

CHARLES VAN ALSTINE Geological/Geotechnical Engineer

PRELIMINARY FIELD OBSERVATIONS

Memorandum to File

JOB: Paradise Wastewater System

Job No. 108

LOCATION: Elliot Springs Treatment Pond Site Day: Wed. 11-09

Neal Road, west of Paradise

Present at Site: Van Alstine and Nick Bonsignore (visit by Paradise City Engineer).

OBSERVATIONS:

- 1. Planned construction consists of four treatment ponds with a total of about 9 surface acres to be located south and east of Elliot Springs. Tentative pond configuration consists of four square ponds within an overall area about 600 feet by 600 feet. The ponds would be about 15 feet deep (12 foot water depth).
- 2. The surface on the parcel slopes gently to the west. The head of a drainageway extends into the westerly portion of the parcel. A gas line extends diagonally across the parcel. The area supports sparse to moderate oak and grass cover.
- 3. Bedrock in the area is a mid-Tertiary sequence consisting of volcanic agglomerate, sandstone, and conglomerate. Only the volcanic agglomerate cap rock is exposed in the area of this site. Exposures to the west suggest the cap rock is in excess of 50 feet thick at this location.

The cap rock is very hard bedrock with few "defects". It is exposed in local outcrops, along the slopes of the drainageway, and in numerous shallow man-related excavations.

4. We excavated 9 backhoe test pits to the top of the hard rock. The area is mantled by an irregular layer of very rocky silt soil. The thickness of the soil over most of the site is 1 foot or less. Locally on the west it is 2 to 2-1/2 feet thick.

The upper surface of the volcanic agglomerate is weathered, especially where the bedrock is mantled by topsoil. The thickness of weathering is variable. Typically, moderate weathering extends to depths of 1/2 to 1 foot below the soil; locally on the west, to depths of 3 or 4 feet. The thickness of slightly weathered material (very difficult excavation for backhoe) likely extends another 2 to 5 feet. The slightly weathered bedrock will be moderate excavation for heavy-duty equipment (D-9, D-10). The underlying "fresh" metavolcanic rock is difficult excavation even for heavy-duty equipment.

- 5. In order to construct the ponds as tentatively shown, the following steps are implied:
 - A. Strip and stockpile all soil and moderately weathered volcanic agglomerate from the area of the proposed ponds;
 - B. Excavate the hard volcanic agglomerate to achieve the desired depth and materials. This would require very heavy-duty equipment and operators experienced in excavating such materials so as to provide sizes suitable for construction of dikes.
 - C. Construct the main dike sections using the excavated volcanic agglomerate.
 - D. Process the stripped material to remove rocks and provide suitably impervious materials. Place this impervious material as a 2 to 4 foot thick layer on the inside of the ponds. If interior slopes are 3:1 or flatter, it would be feasible to compact the impervious materials against the slope. If slopes are steeper than 3:1, it would be necessary to place this layer in horizontal lifts with small equipment.
- 6. It appears that there may be an option in the same general area for constructing a series of ponds along the upper reaches of the drainageway. It likely would be necessary to excavate the materials in the reservoir (per above) and dikes would be constructed in a similar fashion. However, only one dike per pond would be required. If the total volume of the four ponds exceeds 58 acre-feet, it would be essential to construct all of the dikes to high standards in order to keep the facility out of Division of Safety of Dams jurisdiction.

7. Although construction conditions at this site would be difficult, the conditions here are similar to those in essentially all of the area west of the town of Paradise and substantially better sites might not be available.

Charles Van Alstine

Information copy: Bonsignore

APPENDIX B

QUESTIONS AND ANSWERS
ABOUT ASSESSMENT DISTRICTS
IN CALIFORNIA

QUESTIONS AND ANSWERS ABOUT ASSESSMENT DISTRICTS IN CALIFORNIA

Prepared by

Sturgis, Ness, Brunsell & Sperry a professional corporation Attorneys at Law Emeryville, California

October, 1988

INTRODUCTION

This brochure contains brief answers to commonly-asked questions about special assessment districts in California.

Although a number of special assessment procedures are contained in state law as well as in the ordinances of charter cities and counties, the great majority of assessment proceedings for capital improvements are conducted under the Municipal Improvement Act of 1913 (Section 10000 et seq., California Streets and Highways Code). The 1913 Act is usually used in combination with the Improvement Bond Act of 1915 (Section 8500 et seq., Streets and Highways Code). The 1913 Act contains the procedures for levying assessments; the 1915 Act permits the issuance of improvement bonds and the repayment of assessments over a period of years.

In this brochure the answers are based on the 1913 and 1915 Acts, but many of the answers also apply to other assessment procedures. Note that the popular Mello-Roos Community Facilities District Act is not a special assessment statute and is not covered in this brochure.

For convenience, references in the brochure are to cities and city officials, but counties and independent special districts may also conduct assessment proceedings.

The answers given here are brief, but assessment law is complex. Further information about any question can be obtained from the public agency conducting the assessment proceedings or from its municipal bond counsel.

STURGIS, NESS, BRUNSELL & SPERRY October, 1988

QUESTIONS AND ANSWERS ABOUT ASSESSMENT DISTRICTS IN CALIFORNIA

CONTENTS

Part 1.	In General1
Part 2.	Starting the Project5
Part 3.	Costs of the Project; the Engineer's Report7
Part 4.	The Protest Hearing10
Part 5.	Doing the Work: The Improvement Fund13
Part 6.	Paying the Assessment15
Part 7.	Improvement Bonds

Permission is granted to reproduce this brochure in whole or in part, with attribution.

Part 1 IN GENERAL

What kinds of improvements are financed by special assessments?

The list is long. Among the most common are streets, sidewalks, landscaping, lighting, sewer and water lines, storm drains and other improvements associated with public streets.

Assessments may also be used to finance public parks, wharves, parking lots or structures, sea walls, reservoirs and many other types of public improvement.

In general the improvement must meet two standards:

 It must be a public improvement -- that is, it must be owned and managed either by a public agency or a publicly-regulated utility company.

* It mus be a local type of improvement that has a special benefit to land in the assessment district, over and above the benefit to the community as a whole.

What is an assessment district?

An assessment district is an area of land specially benefitted by a public improvement. The assessment district is formed by a city (or a county or independent special district, such as a county water district, sanitary district or community services district) which is responsible for the improvement.

The city levies an assessment against each parcel of land benefitted by the improvement, in proportion to benefit. All of the assessed land, taken together, constitutes the assessment district. The city then sells improvement bonds to raise the money to build or buy the improvement. The owners of the assessed land repay the bonds over a period of years.

An "assessment district" is not a separate legal entity like a water district or sanitary district. The term is simply used to describe the area of land that the city has assessed for the improvement. An assessment district is also sometimes called a special assessment district, an improvement district or a local improvement district (LID).

Is the assessment a tax?

No. Special assessments are not considered to be taxes, because they represent the cost of a particular improvement that benefits the assessed land rather than the cost of government in general. The assessment may be payable along with general property taxes but is always shown as a separate item on the tax bill.

Can an assessment district be formed to improve a private street?

No. With minor exceptions, the improvements financed by assessments must be owned by a public agency or a regulated public utility.

If the city approves, a private street can be dedicated to the city by the owners, and assessments can be used to bring the street up to public standards. The street is then maintained by the city at city expense.

Can any private improvements be included in an assessment district?

In a few cases. For example, if the grade of a street or utility is to be changed, the cost of rebuilding a driveway or raising or lowering a house sewer may be included in the owner's assessment, with the owner's consent.

Can assessments be used to acquire land for an improvement?

Yes. The city is required to pay fair market value for any land acquired for public purposes. The cost of these acquisitions is included as a part of the project cost and is assessed to the benefitted land.

In certain cases the owners find it more economical to dedicate the needed land to the city without cost, in order to save the cost of appraisals and right-of-way agents' fees.

Can assessments be used for anything but new construction?

Yes. The city can levy assessments to finance the purchase of existing improvements. For example, assessments can be used to purchase a private water company in order to place the water system under public ownership.

How is an assessment district formed?

The city must follow a procedure established by state law (or in some cases by city ordinance). The procedure usually starts with a petition to the city, signed by the owners who will be assessed and who want the improvement. If the city council accepts the petition, a complete engineering report is prepared, including a proposed assessment on each parcel of benefitted land.

When the report is filed with the city council, the owners are notified and a public hearing is held. Dissatisfied owners may protest at the hearing.

After the hearing the city council may levy the assessment, with or without changes, or may abandon the improvement project.

How long does it take to form an assessment district?

It depends on the size and complexity of the project. For new construction the engineering report must include plans and specifications. Additional time may be required to comply with environmental laws. In general the time required may range from a few months to more than a year.

How much does it cost to form an assessment district?

In addition to the cost of designing and building the improvement, assessments include the cost of preparing the engineering report, resolutions, notices and other documents; the cost of publishing, mailing, posting and recording notices; and the cost of printing, selling and servicing improvement bonds. In large projects (\$5 million or more) these costs should amount to less than five percent of the assessment; the smaller the project, the larger the percentage.

Where improvement bonds are issued, the assessments may also include a set-aside for reserves (which eventually is credited to the assessments) and a discount on the sale of the bonds (which is effectively a form of prepaid interest).

The amount of these "incidental expenses" for a particular improvement project can be estimated in advance with reasonable accuracy.

How are the improvement costs shared?

The improvement cost is divided among the parcels of benefitted land in proportion to benefit. There is no fixed formula in the law for determining benefit. Every project must be evaluated individually according to the type of improvement and the nature of the land assessed. Factors like parcel area, frontage on the improvement, topography and exist-

ing or potential uses of the land may be taken into account.

What is meant by "special benefit"?

"Special benefit" is the benefit to a parcel of land from a public improvement, over and above the benefit enjoyed by the public or the community as a whole. For example, a street improvement benefits anyone who uses the street but has special benefit to property located on the street. A sanitary sewer has special benefit to property connected to the sewer even though the whole community benefits from the existence of the sewer system.

Are all costs of the improvement assessed?

Not necessarily. In some cases the city may make a contribution to the project from other funds, especially if the improvement has a strong community-wide benefit. For certain types of projects state or federal grants may also be available.

Is there a limit on the amount of the assessment?

As a rule of thumb the assessment should not exceed 30-40% of the value of the assessed land with the improvement complete. Higher assessments make the sale of improvement bonds difficult or impossible. In a few unusual cases a legal limitation may be imposed on the assessments.

Can land be assessed over the owner's objection?

Yes. The city council has the duty to divide the cost of the improvement fairly among the benefitted parcels of land, even if some owners object. Every owner has the right to protest at the public hearing on the assessment.

How does Proposition 13 affect assessments?

Proposition 13 (Article XIIIA of the California Constitution), which limits taxes, does not limit benefit assessments for capital improvements.

Can publicly-owned land be assessed?

There are legal problems (too complex to describe briefly) in assessing land owned by a public agency. If the public land is benefitted by the improvement, the public agency can make a cash contribution to the project.

Part 2 STARTING THE PROJECT

How is the assessment process started?

The usual first step is that owners of land to be benefitted by the proposed improvement sign a petition, asking the city council to build (or buy) the improvement and form the assessment district. The form of petition should be obtained from the city or its counsel.

Before circulating the petition the owners may want to hold one or more meetings with city staff and consultants to get questions answered.

Who signs the assessment petition?

The petition must be signed by those who hold legal title to the land in the proposed assessment district, as shown on the records of the county assessor.

If the land is held in joint tenancy or tenancyin-common, any one of the owners may sign for all. If the land is owned as husband and wife, either may sign for both. If the land is in trust, the trustee must sign.

Renters and lessees should not sign the legal petition, but their support of the project by separate letter may influence the decision of the city council.

Signatures on the petition are not required to be notarized.

How many signatures are needed on the petition?

The petition should be signed by owners representing at least 60% of the net land area (not counting public streets) to be included in the assessment district. The 60% requirement is measured only by land area — not by number of parcels, value of property, frontage on the improvement or amount of proposed assessments.

The 60% requirement is set by state law, but the city may make additional requirements before accepting a petition.

Can an owner who signs the petition object later?

Yes, unless the petition contains a specific waiver of the owner's right to protest. For example, a petitioning owner might still want to protest at the public hearing if the cost of the improvement turns out to be much higher than expected.

Assessment petitions typically include a waiver of proceedings under the Special Assessment Investigation, Limitation and Majority Protest Act of 1931, also referred to as Division 4 of the Streets and Highways Code. This waiver is not a waiver of the owner's right to protest at the hearing.

Why does the petition contain a waiver of Division 4 of the Streets and Highways Code?

Division 4, unless waived, requires the city to prepare a special report in addition to the regular engineer's report on the improvement project. The special report contains the assessed valuation of each land parcel and the amount of existing assessments, if any, against the land. The waiver saves the time and cost of preparing the special report.

Division 4 also contains a legal limit on the amount of the assessments, but the city council can exceed the limit anyway on a finding that the project is economically feasible.

Can assessments be levied without a petition?

Yes, but cities often are not willing to pay engineering expenses for the project unless the owners show their support by signing the petition.

In some cases the city may start the assessment process without a petition if obtaining signatures is difficult because of a very large number of owners or a large number of nonresident owners. In a few cases cities have levied assessments for sanitary sewers against the wishes of a majority of owners, in order to abate a health hazard.

What happens when the petition is presented to the city?

If the city council decides to move ahead with the assessment process, it appoints an 'engineer of work', either the city engineer or an outside consultant, to prepare the engineer's report on the project. The city council also appoints a

municipal bond counsel to supervise the legal proceedings.

What does the engineer of work do?

The engineer of work is a civil engineer or other person qualified to prepare the report on the improvement project. This work includes designing the improvement (if new construction), estimating its cost and proposing an assessment on each benefitted parcel of land. The engineer of work may also be employed to supervise construction of the improvement and to inspect the work.

What does the municipal bond counsel do?

The bond counsel is a law firm specializing in the legal work required to levy assessments and issue improvement bonds. The bond counsel typically prepares all of the documents needed to form the assessment district - resolutions, affidavits, notices and the like - and supervises the assessment procedures to be sure that all legal requirements are met. When the improvement bonds are issued, the bond counsel renders a legal opinion as to the validity, enforceability and tax-exempt status of the bonds.

Part 3 COSTS OF THE PROJECT; THE ENGINEER'S REPORT

What does the engineer's report contain?

The project report (usually called the engineer's report) contains at least the following:

- a) Plans and specifications for new construction, if any.
- b) A description of existing improvements to be acquired, if any.
- c) A description of land, easements and rightsof-way, if any, to be acquired for the project.
- d) A complete project cost estimate, including incidental expenses.
- e) An assessment roll, showing the amount that the engineer of work proposes to assess against each parcel of benefitted land.
- f) An assessment diagram, showing all the parcels of land in the assessment district.

The report may also include the engineer's worksheets, showing a breakdown of the component costs in each assessment. It may describe in words the method or formula used by the engineer to calculate each assessment.

What costs are included in the cost estimate?

The engineer's report includes a complete listing of all the expected costs of the project. These include the direct costs of constructing and/or acquiring the improvement, as well as an allowance for construction contingencies.

The estimate also lists indirect costs ("incidental expenses") such as engineering, legal and administrative costs. The estimate normally includes an allowance for establishing a reserve fund, to protect the purchasers of improvement bonds against delinquencies in assessment payments, and an allowance for selling improvement bonds at less than their face value (the "bond discount").

If funds are being contributed to the project from sources other than assessments, these contributions will be shown in the estimate as a deduction from the amount to be assessed.

What are "incidental expenses"?

The term "incidental expenses" covers a wide variety of indirect costs that may occur in one or another assessment project. Most common are the cost of preparing plans and specifications and other costs of preparing the engineer's report; inspection fees; the fee of bond counsel; the fee of right-of-way agents and appraisers and other costs of acquiring land; the cost of printing, selling and servicing improvement bonds; and administrative costs of the city in publishing, posting and mailing notices and in processing documents.

What is a "bond discount"?

For technical reasons improvement bonds are almost always sold by the city for less than the face value ("par value") of the bonds. The difference between the face value of the bonds and their selling price is called the bond discount; it is usually expressed as a percentage of the face value, and is usually in the range of 1.5% to 3%.

An allowance for bond discount must be made in the project cost estimate, so that the sale of the bonds will raise enough money to complete the project. The bond discount can be thought of as a form of prepaid interest; it is taken into account in calculating the net interest rate on the bonds.

What is the purpose of a reserve fund?

When improvement bonds are sold by the city, a part of the proceeds are set aside in a special reserve fund. If any assessed owner fails to pay an assessment installment on time, the reserve fund is drawn down to make up the difference, so that the bond principal and interest can be paid on time. When the owner pays the delinquent assessment, the money is restored to the reserve fund.

An allowance for the reserve fund is made in the project cost estimate. The amount of the reserve varies with each project, depending on project size, number of parcels, parcel values compared to assessment amounts, and other such factors.

The reserve fund may be reduced annually or may be held and used to pay the final bond principal and interest. In either case the reserve fund is credited on the assessment installments. An owner who pays the assessment in full at any time receives a credit for the owner's prorata share of the reserve fund.

What is an assessment diagram?

The assessment diagram is simply a map showing each parcel of land within the boundaries of the assessment district. The diagram is prepared by the engineer of work as a part of his report.

If the assessment district is formed, the diagram is filed in the county recorder's office in the Book of Maps of Assessment and Community Facilities Districts.

What is an assessment roll?

The assessment roll is a list of each parcel of land in the assessment district, together with the amount of the assessment assigned to each parcel. Each parcel is given a distinctive assessment number, which matches the number shown on the assessment diagram. The assessment roll is a part of the engineer's report.

Don't confuse the assessment roll in assessment districts with the county assessor's roll, which is a listing of assessed valuations of all land in the county for property tax purposes.

What is an "assessment spread"?

"Assessment spread" is another term for the assessment roll. When the engineer of work calculates the amount of the assessment against each benefitted parcel of land, he is said to be "spreading the assessment". His worksheets are referred to as "spread sheets".

Is there a formula for determining benefit?

There is no formula in the law for determining benefit. It is up to the engineer of work to recommend a division of the project cost among the benefitted parcels of land on any basis that seems to treat all owners fairly. In spreading the assessment the engineer of work usually develops an objective formula for the particular project, using factors like parcel acreage, frontage on the improvement, land use, and the like.

Does the engineer make the final decision on assessments?

No. The assessment roll contained in the engineer's report is the engineer's recommendation to the city council. The city council must notify all owners and hold a public hearing on the report. After the

hearing the city council makes the final decision, which may include changes in the assessments or even an abandonment of the project.

Part 4 THE PROTEST HEARING

How are owners notified of the public hearing?

In 1913 Act assessment proceedings, notice of the protest hearing is given in three ways:

* By first class mail to owners of land in the assessment district, as their names and addresses appear on the county tax rolls, or as known to the city clerk. The notice by mail shows the amount of the proposed assessment against the owner's parcel.

. By publication of a general notice twice in

a local newspaper.

 By posting a general notice along open streets in the assessment district.

What should an owner do to protest the assessment?

First, the owner should talk to the engineer of work well before the hearing. If the engineer agrees with the owner's objection, the engineer's report can be corrected before the hearing is held. Otherwise, the owner may file a written protest with the city clerk before the time set for the hearing.

There is no standard form for the written protest. A letter addressed to the city council will do. The letter should contain:

- a) A statement that the owner is protesting the assessment, and a statement of the reasons for the protest.
- b) An identification of the owner's parcel of land by its assessment number as shown on the notice, or by some other description sufficient to identify the assessment being protested.
 - c) The signature of the owner.

What happens at the hearing?

Typically the engineer of work gives an oral summary of the written report that he has filed with the city council. Then the floor is open for any interested person to speak for or against the project, the boundaries of the district or the amounts of the assessments. An owner or his representative may speak at the hearing, whether or not the owner has filed a written protest.

Are landowners the only ones who can protest at the hearing?

No. Any interested person may appear at the hearing and address the city council. However, only the written protests of assessed owners are counted in determining whether a majority protest exists.

Can protests be withdrawn at the hearing?

Yes. At any time before the conclusion of the hearing, a written protest may be withdrawn in writing.

What is a 'majority protest'?

A majority protest exists if, at the end of the hearing, the written protests of assessed owners represent more than one-half of the area of land to be assessed. The calculation of majority protest is based on land area only - not on number of protests, amounts of proposed assessments, or value of land in the protest.

What happens if there is a majority protest?

Ordinarily the city council has the authority to overrule a majority protest by a four-fifths vote, but in practice it is very unusual for a majority protest to be overruled. Unless overruled, a majority protest requires abandonment of the project for at least one year.

Can the city council increase assessments at the hearing, or add new land to the assessment district?

No, unless the affected owners consent in writing. Otherwise the city council must call an additional hearing and give notice to the affected owners.

Can the city council exclude land from the assessment district at the hearing?

Yes. The city council must exclude land if it finds that the land will not benefit from the improvement, but the remaining assessments cannot be increased without written consent or a new hearing.

Can the city council make changes in the improvements at the hearing?

Yes. If the change alters the benefit to any parcel of land, the council must modify the assessment and must call a new hearing or obtain written consent if any assessments are increased.

Can the hearing be continued to a later date?

Yes, in the discretion of the city council.

What choices does the city council have after the hearing?

The city council has several options:

- * It may abandon the project.
- It may approve the engineer's report as submitted and levy the assessments.
- It may modify the report, and then approve the report as modified unless a new hearing is required because of increased assessments.
- It may delay any action for further consideration or further information.

Can changes be made in the assessments after they are levied?

Yes. If assessments are increased or new assessments are added, the city council must obtain written consent of the affected owners or call a new hearing.

What is an "assessment lien"?

The assessment lien is an encumbrance on the assessed land, similar to the lien for property taxes. The lien remains on the assessed land, and will be shown on any complete title report, until the assessment is paid in full.

Part 5 DOING THE WORK: THE IMPROVEMENT FUND

When can construction of the improvements begin?

Bids for construction are often received before the hearing on the engineer's report, so that the contract can be awarded as soon as the assessments are levied. Contract formalities may take another two weeks or so; then work can begin.

The city council may choose to delay award of the contract until improvement bonds are sold and funds for the project are received.

Does the construction work go to public bid?

Yes, with a few exceptions. The city may make a contract with another public agency or a regulated public utility to do the work, without competitive bidding; or the city may do the work with its own forces. Otherwise the construction contract is awarded after open, competitive bidding.

Does the city have to accept the lowest construction bid?

The contract, if awarded, must go to the lowest responsible bidder. The city always reserves the right to reject all bids; this is necessarily so if bids are received before the hearing, since the city council may decide to abandon the project.

What happens if the construction cost exceeds the estimate?

The city council may make up the difference out of other city funds or may levy a supplemental assessment. The procedure for a supplemental assessment is the same as for the original assessment.

The allowance for contingencies in the original project budget is usually sufficient to cover any cost overruns.

What is the "improvement fund"?

This is a separate fund (sometimes called the "construction fund") which is set up to pay for all costs of the improvement project, including incidental expenses. Money in the fund comes from the payment of assessments in cash, if any, and from the proceeds of the sale of improvement bonds.

Is the improvement fund invested at interest before it is spent?

Yes, in the same manner as other city funds. Investment earnings are held in the fund and used to help pay for the project.

If money is left in the improvement fund after completion of the project, what happens to the surplus?

At the option of the city council, the surplus may be used to maintain the improvement until it is used up, or the surplus may be credited on each assessment. Assessment credits result in either a cash refund to the owner or a reduction in future installment payments of the assessment.

Part 6 PAYING THE ASSESSMENT

Can the assessment be paid in cash without interest?

Yes. After the assessment is levied, the city mails an assessment notice to each owner. The owner has 30 days after the date of the notice to pay all or a part of the assessment in cash without interest. After that improvement bonds are issued in the amount of the unpaid assessments.

Can the assessment be paid in installments?

Yes. The number of annual installments depends on the term of the improvement bonds that the city issues. Owners who pay in installments also must pay interest, at the same rate or rates that the city must pay on the improvement bonds.

How many years may the assessment installments be spread over?

The law allows up to 40 years, but improvement bonds with such a long term do not have a ready market and would bear punishing interest rates. A term of 15 or 20 years is typical. In general, the shorter the term, the lower the interest rate.

How are assessment installments collected?

The installments appear as a separate item on the county property tax bill. The tax bill may be paid in full each tax year by December 10, or in semiannual installments by December 10 and April 10.

What is the interest rate on installment payments?

The same as the interest rate on the improvement bonds; that depends on prevailing rates in the financial markets at the time the bonds are sold. If the improvement bonds are tax-exempt (as they almost always are), the bond rates will be lower than comparable mortgage interest rates.

Are installment payments the same each year?

Usually about the same, although there may be a small variation from year to year as a result of the improvement bonds being issued in rounded denominations. In exceptional cases the city may set up a repayment schedule for the bonds such that the annual installments will vary in amount.

The first annual installment may include more than one year's interest, depending on the time of year when the bonds are issued. This will cause the first installment to be higher than the rest.

Can the assessment be paid off at any time after bonds are issued?

Yes, but with some additional cost. The owner must pay a premium, usually amounting to 3% of the unpaid balance of the assessment. This premium is passed along to the owners of the bonds that are retired ahead of schedule.

The owner must also pay interest to the next date on which improvement bonds can be retired; this can be from three to nine months of interest, depending on when the payment is made.

In addition the city may make a small administrative charge for retiring bonds ahead of schedule.

If assessed land is sold, does the assessment have to be paid off?

No, unless the buyer of the land insists on it. The assessment follows the land regardless of changes of ownership. The contract for the sale of the land should be clear as to whether the assessment is to be paid off or assumed by the buyer. No notice to the city or consent of the city is required.

If an owner pays the assessment in full, is credit given for a share of the reserve fund?

Yes. 'The owner's prorata share of the reserve fund is subtracted from the amount the owner must pay.

What happens if the owner does not pay an assessment installment?

The city usually has the obligation of foreclosing on the land in a court action, as a part of its contract with the holders of the improvement bonds. If a court action is not brought, the land will be sold by the county in the same manner as a sale for delinquent property taxes.

What are the penalties for not paying the assessment installments on time?

The penalties are the same as for delinquency in the payment of property taxes. Currently these penaltics amount to 10% of the amount of the delinquent installment, plus an additional 2% per month beginning July 1 following the date of delinquency.

The city can elect to replace the 10% lump

sum penalty with a 2% per month penalty.

If the city brings a court foreclosure action, the owner is also liable for the city's attorneys' fees.

If some owners do not pay their installments, are the other assessments increased to make up the difference?

No.

Part 7 IMPROVEMENT BONDS

What are improvement bonds?

Improvement bonds are certificates showing that the assessment district is indebted to the holders of the bonds. The bonds are usually issued in even amounts of \$1,000 or \$5,000.

The city issues the bonds for the amount of assessments to be paid in installments.

Who buys the bonds?

The bonds are sold to a securities firm (called a "bond underwriter") that buys and sells municipal bonds. The underwriter then resells the bonds to corporations, funds and individuals as an investment.

When are the bonds sold?

Soon after the assessed owners have had a 30-day period to pay their assessments in cash without interest.

How are the bonds sold?

At the option of the city council, the bonds may be sold by competitive bid or to a selected underwriter without bidding.

Are the bonds tax-exempt?

Interest earned by the holders of the bonds is exempt from California personal income tax, and with few exceptions is excluded from gross income for federal income tax purposes. As a result the bonds bear a lower interest rate than comparable taxable securities.

Do all bonds bear the same interest rate?

Not usually. These are "serial" bonds -- that is, some bonds come due each year over the term of the entire bond issue. Bonds that mature earlier tend to bear a lower interest rate than bonds that mature later. This means that the rate of interest paid by the owners may rise slightly over the years, as earlier bonds are retired, but the amount of interest declines because fewer bonds are outstanding.

How are the interest rates set?

In competitive bidding the bidders set the rates; the winner is the bidder that states the lowest net interest rate, taking into account both the bond rates and the bond discount.

In non-competitive sales the city and the selected bond underwriter negotiate and agree on a schedule of rates.

If interest rates come down, can bonds with high rates be replaced by lower-rate bonds?

Yes. This procedure is called a "refunding".

The city's contract with the bondholders may prevent a refunding for a period of years after the bonds are issued.

Are improvement bonds "rated"?

To receive a quality rating on the bonds, the city must apply to a national rating agency and pay a fee. The rating agency may or may not be willing to provide a rating for bonds of this type. Most improvement bonds in California are non-rated.

Can payment of the improvement bonds be insured?

In some cases. Each bond issue is evaluated on its own merits. If the bond issue is insured, the insurance premium is included as an incidental expense of the project. The insurance tends to lower the interest rate on the bonds.

APPENDIX C

PARCEL CENSUS DATA SHEETS

Town of Paradise Wastewater Feasibility Study Parcel Information

Explanation of Column Headings

Record # - Accession Number of item entered into database.

Parcel No. - Asssessor's Parcel Number (APN).

Situs Address - Address of parcel corresponding to APN.

Owner, Owner's Street Address, City, State - Owner of parcel.

Zone - Land Use Zone from Paradise Zoning Map (see Figure 2-1).

Front Footage - Lineal feet of frontage on street. The notation "frontage" or "frontage land use" followed by two numbers separated by a slash mark (/) entered in the "Other information" column indicates frontage on two streets (i.e., corner lot).

Area, acres - Parcel area.

Building area, sq. ft. - Area of building on parcel (where available).

Current use - Use classified according to the following table:

I	Institutional (school, church, government, etc.)
LM	Light Manufacturing
M	Motel
MF	Multi-family residential
0	Office-type business
R	Restaurant
RS	Retail Sales business
S	Service business (including medical & dental)
SF	Single-family residential
٧	Vacant parcel

EDU's - Preliminary calculation of Equivalent Dwelling Units assigned to a parcel. See Chapter 2. Vacant parcels are assigned 0.5 EDU per parcel in this listing, but it is not currently planned to assign any EDU's to vacant parcels when developing the detailed assessment spread.

Business name - Name of business currently occupying parcel, where available.

Other information - Additional descriptive information about the parcel.

Pace In. 1 82/86/89 Jan of Paralise Bastewise Feesbillity Stark Percel Information 8/3/C 88551

and I ferrel	Record I Percel No. Situs Aderess	brer	Owner's Street Address City, State	City, State	Joe	Term Services	£ 5	killding Current pres, use No. ft.	Arre. Building Corrent EM's Business nese Notes arres, use No. 11.	Other Information
新安大大		64% Clerk Fine Gross Sub Destay/Surery Alline Derch 6469 Clerk Book ID VILIE	1 6491 Clark Road		2 3	2 1	17.23	1996 1	28.68 CM Durch	1,800 person especity
年 2 2 2		Aper. Seet. Durch/No. Cu.	P.O. See 456		37	275		107	6.88 Post Office	povernaent
2748		Paradise Plaza		Beverly Hills	200	3			2.00 FIRST BOOTST DATOT THRODOG	
MA 51-12-24	570	Lestife Stanton	8272 Struet		3	38	3	2200 1	2.86 Commercial Votes Secure Co.	SUB
MA-21-12 PM		Norsen Bright	9		Z	151	8	1286 1	1.30 Neeting Place (group and	
72.5		Profe Co. of Jehovah's Litt		Populie	3	185	1.87	. 1	1.78 Jehovsh's Sitness Rell	28 person nesective
第十二十二年		Willies Neelliton	P.O. See 681		Ì	15	6.62	1096 1	1.88 Nesoice	Citingen and the same
第441-17 時	100	Jess Orist Letter Day	St f. North Teaple	Salt Lake City	4 I I	300	6.18		III.39 Norson Charch	SW casacity
8-77-16 7971		Lonal Grider of Moose	P.O. Box 1176		3	3	7.7		2.28 None Lodge	
200 21-01-80 200 21-01-80	All Circinated	First Curch of Negarene	7.0. Ser 426		ž	187	8.80		1.28 Charch of the Necerons	258 person capacity
NA STATES	NOT REPORT	Sont Servetin Foundation	635 Street	To 02	Z	8	2	3800 1	2.88 "1 As Temple (Saint Gernain)	
10 C-88-4	The all Labor Delay	Rose busch	July Towarton Ave	Secremento	2 2	25	7		8.58 Fart of Lutheran Church	
	THE PER PERSON NAMED IN THE	THE BUTTER TREVEIGN AND AND AND AND AND AND AND AND AND AN	AND TREATMENT DATAGE		3	287	E P		4.68 Lutheren Church	200 person casedity
李華以 教	771 Ellists	Rosen Cath Bishop of Sec	P.O. Box 1580		73	121	8.63	-	12 St St. Boast Nove Check Coloni	F-2 d.u.
記録を	NS fillsoft	from Ceth Bishop of Sec	P.O. Son 1688		7	188	8		8 80 Ct Thoses Note Church	CAR SAMORILE
Q 20 40 40 40 40 40 40 40 40 40 40 40 40 40	705 CLISATS	Rosen Cath Bishop of Sac	P.O. Box 1688		I	10	25.50	-	6.86 St. Dones fore Cards	AND DOLLARS COMMITTEE
7 3 C C C C C C C C C C C C C C C C C C	6558 Strutty	T.L. Fierro	6187 Greenwood Drive		7	2	8.78	1 9999	5.60 hearing hell	
事の方	MAIN Streets	T.L. fierro	6187 Greenwood Onlive		3	•	8.8	1200.1	1.80 Paradise Rec & Park Offices	frontage land use CB/1986
N-8-4 ST	MATE Street	1.L. Flemo	6187 Greenwood Drive		3	•	2	7,000.1	2 10 lacrastics 11de	
N-8-05 80	AU Elliott Road	T.L. Flerro	6187 Greenwood Brine		3	•	2	1 9857	N M Butte County Offices	
82-0-ds 03-		Lucille Northern	P.O. See 1878		I	118	8	1 9079	8.36 Committy Action Approx	
128 10-10-2		Butte County			Z	31	5.50	# 1	1.88 Butte Courty Public Borts Gred frontsoe land use 198/198	frontace land use 158/158
316 52-15-2	772 Cilliott	Pacific Aeleghone			2	28	6.13		1.80 Pacific Bell	
241-12 87	788 Elliott	遊			3	180	3	1588 1	1.80 POR	
20.00-00-00	- Cillet	Pacific Telephone			3		E.19	5000 1	8.50 Pacific Sell	
200 ar-17-42		Pacific Telephone			3	•	1.8	9.1	8.50 Pecific Bell	
60 10 10 10 10 10 10 10 10 10 10 10 10 10		Cyrichia Williams	2452 Paddock Drive	Sen Reson	2	186	2	2580 1	2.88 Pine Ridge Deathre	
48 45 9 4 W	A AN DATED STREET	lown of Paradise			I	27	4.13		2.88 Fire Department	
M-1-2-04		Tons of Paradian			3	24	2	0.1	1.N Fire Desertaent	
MA 50-30-5 M		Town of Benedian			3	96	6.17		8.88 Fire Department	
我小夫公 送		four of Becading			3	St 1			8.86 Fire Inportant	
大小村 年 日		Tour of Bernelias			3	3 :	3		3.00 Police Station	
1-7-80-05-06		Paratice Ireinstice Dist			5 :	4 5	6.10		6.88 Police Station	frontage land use 84/189
78 50-20-21		Herry Concon	the late lase			* :	8 :	-	6.89 FID Carp Yand	* * *
1245 SP-27-24		Oralo Resortal Corp Oveth			2 2	3 3	1	1 0007	1.88 Feether River Rehabilitation	
747.0 87						•	8		A SE PROPERTY AND ADDRESS OF THE PARTY AND ADD	
1229 55-24-45-45	69							::	S S STATE AND S S S S S S S S S S S S S S S S S S S	Area Incil. In 49
部分など		£	SIZS Black Dilve		1	3	×	: :	6.88 FID Parties	
Na 52-25-77	5355 Scyolar	TOWN SALL					82	=	2.88 Town Hell	
60-1-15-00 000 00 00 00 00	A POST CIBER	NO VACIA			t	•	27.22	:•	5.00 Elks	ES concity
-0-10-00 Les	MAY 20-50-2-10 NASH CLBFR, NOBEL	Oristo fishery Alliance Ch 6493 Clark Road	MVI Clark Road		3	23	×		1.00 Church of God	200 capacity

Town of Persits Study Study Fercel Information K/J/C 882511										Kennedy/Jenks/C
Record & Parcel Ro. 18tus Address	Situs Adress	brer	Dener's Street Address	City, Saste	Jone	front factope	ž ž	Free, Milding Carrest North Free, use No. 71.	EDV's Business maer	Other Information
822 53-45-1-75 558 Billie 528 53-45-1-45 My Saver 1222 53-11-41-41 5911 Namell	952 Bille 2019 Savan 9911 Passell	Rereid Risewood Glades Jernings Peradise Unified School	958 Billie 375 Cotesset Road	Dia	333	2 4 8	338		1.18 Unity Peeting Yell 25.80 Peradise Convaluent Hospital 62.80 Peradise High School	1 99 bed 1448 students # 7.5 god/student design
225 S-11-1-29 1216 S-11-1-11 70 S-12-26 70 S-12-36	SSS Elliott Road SSS Elliott 1808, NEW Elliott SWD Clark	Permittee Assembly of God 165 Elliott Road Permittee Assembly of God 165 Elliott Road Cherokee Oof Fellow 81 As P.O. Box 128 Sefe-Arr Development Ent. 153 Walter Ridge Price	455 Elliott Road 955 Elliott Road 5 P.G. Ben 128 135 Valler Ridge Drive		2222	BEBB	2223	2008 1 708 1 158 1	1.00 Assembly of God Youth House 1.00 Assembly of God Church 1.00 God Fellows 1.50 Calvery Descel	alies
# 10 m m m m m m m m m m m m m m m m m m	953 Clerk 85 Fearum 578 Austeur Lare 574 Dasel 88 Fearum	Table fit. Manufic Loope May Conter No. Cal Cont. Assn SM. Paradise Green NO WLE SCHOL	F.0. Ser 212 F.0. Ser 2346 F.0. Ser 547	Pleasart Hill	11111	858873	121111	- 88 - 88 -	1.80 Library 1.60 Resents 6.50 Church of the Negi 6.20 Seventh Day Advents Durch 6.70 Peredias Greece 36.60 Einemetary School	68 coecity 98 students
976-38 976-38 976-38	1945 Buscheern 1988 Evelid 2634 Clerk	Jean Crist Letter Sey Sori Trainin Cester Calvery SetList Durch	St E. North Teagle 2003 Fall-Street SSS Clark Road	Salt Lake City Drice	1111	2 2 2 3	E E E E	====	25.78 Interia School 668 students 8.28 LIS Durch 688 capacity 6.58 Mork Trainfing Center 3.58 Calvary Bast DrotylDraf School 368 capacity	000 students 400 concity 1 300 concity
1151 SC-18-76 6 55 SC-18-2-77 6 177 SC-18-2-82 7 185 SC-18-4-52 7 177 SC-18-4-52 7 177 SC-18-62 8	551 Aserican Mar 5578 Street 7575 Street 19544 Lits Lore 561, 865 Elliett	Calif. Cities foracing Willies Nacian Eugen Triner R. Toule Walter Beck	Tour of Pensitive 342 Silvers Court 622 Feary Lave F.G. Set 1284 188 Serden Street #7	Serte Bersera	22222	麗麗市日。	55555	288 U 288 U 288 U 88 U 88 U	99 casecity 1.88 loan of Paradise Asiasi Seltr Tous Asiasi Selter 1.80 Croan Cabbets 2.30 Cabinet Cautry (Wields elec) 1.80 Cabinet Soo frontage land use 11	99 casedity 7 love Arisal Steller) frontage land use 188/34
867 53-44-48 6 861 53-13-134 6 1147 34-11-70 5	GOP Clark GOR Clark SAS Clark	L.A. Sordon William Noble Helmar's	GWP Clars Read GWB Clars Read SMS Clars		XXX	電 密 選	333	8 88 a 5 5 5	1.W Luston Capinet Stop 1.W Bill's Cabinet Stop 1.W	Mis. 1 house on - 25; all pert of Nelnac's Fruit Juices
1148 S4-11-28 21	2865 Clark S865 Clark	Neiner's Neiner's	SMS Clark		I I	- *	3 3	5 5	1.88 1.88 1315	(nuerosa belidinas) ets 1 house on - 35; all pert of heine's Fruit Juices (nuerosa buildings) efs. 1 house on - 25; pert of heine's Fruit Juices
	SM Clark 50 Mote Lave 50 Mote Lave 50 Mote Lave 50 Ear Street 100, 100 Street 700 Street 700 Street	Hebiter's Cabrin Messay Cabrin Messay 3.1. Beller & Son's Anole Hill Guest Youse Salven Northington Johann Kines	SSS Cleri food 771 bustnern 50 bustnern 50 bus Street 500 Street 700 Street		zzzz F 2 g	28-883-	788883	229882	1.86 Pit. Pleation 2.86 Fabilian Delical 1.89 unknown furniture fabrication 2.89 5.80 Notel	
# \$505 B	5799 Wildwood 5799 Wildwood		IZIS Eve Avenue IZIS Eve Avenue	Los Albas Los Albas	55	* * #	133		5.00 Pink Lantern Note1 8.00 Pink Lantern Note1	35 units 36 units 36 units

Page No. 3 82/86/19 Non of Pendise Sected Pendistry South Parcel Information K/J/C 80531

Second										
100 Store	Roord & Parcel No. Situs Address	Daner	Duner's Street Address		Zone	Front	Ares, B	diding Garrent	Dit's Business nese	Other information
500 Stores						footage	Ē	8750, USP		INTERNAL PROPERTY.
1500 Street										
2006 1906	-	Year Non	60% Sysey		3	180	9		Total Section of the Control of the	
NA SAL State (life server hances) SAL		Jaseth Schnelder	5987 Sayeny		3	3			and the property of the	o utility
All Scores and the fille score masses says state of the score masses says state says says says says says says says say					3	5		1000	6.08 Geloriasi Jim	
March Marc					3	1 3		Tital a	2.80 limber hountein Health Center	
1982 Format		Winfred Etchison	SC23 Street		. 2	2	9 8	1 and 1	2.40 Under Sien Suest Hope	
19.00 Stores Millian fraction Gent finished Gent finis		John Berullick	M Participe		5 1	1 :	2		12.80 Palos Vendes Note1	34 units
1982 Secret Willian Witchest 1985 Gradier Prive C-C 1988 LAS 8 F 2.00 1982 Secret Worner Willian Witchest 1985 Gradier Prive C-C 1988 LAS 8 F 2.00 1982 Secret Worner Worner This Secret	1 St-18-4-123 6578 Firstend	Edith Bred	6538 Firland		* :	2 :	18.30	2	76.88 Pine Grove hobile hope Park	76 antilles
200 Storest	9 50-43-2-119 8386 Struey	Billing Northwest	1640 Confees Selve		3	181	DE .	-	2.80	2 d.s.
700 Strong 100	9 51-14-7-1 8332 Savies	Billert Curtantan	This fractions failt		3	×	9.63	**	2.88	2 du.
1879, 1808 tills West here are also been been been been been been been bee	9 St-15-3-13 7634 Swarp	Moreon to the poster	ASIS UTBOADDO UTBE	spekilin.	3	180	2.5	2 0	2.80	2 du.
1871, 1875 tillite Vert forcines 186 miller fishop driver Vert forcines 187 miller fishop driver Vert forcines V	DRIVE SILL ST. A. C. C.	Norther Publication	757 SCHOOL		Z	31	7	in a	29.00 Notile Nose Park	28 units
1875 Street State Stat		Arch Perisse			١	1				15 cabins/5 mobiles
1809 Ellite hade Doness shallon 200 covers Prive Doness shallon 200 covers 200 c		Budsit Schott	5080 Alacad				100	40	2.00	2 6.0.
180 180		Thomas (Baller)	The Assert		3	122	e e	k.	2.80	2 6.0.
1807, 1806 Liss Line		Cololes Sadies	ANTAL ADMAN CITY	Deville	* 5	911	8.42	2	1.88	4 6.11
770 Stores		Direct Address	Table preset court	Pepalis	2	118	8.48		98"7	164
1770 Street Arbar		Ages, Meliz	COMP CLEY ROOD		I	5	3.	ie o	2.00	2 d.s.
Mark John Robal South Mark Street Mark Mar	St-16-4-48 7726 Street	Arthur Steward	7726 Skywer		Z	218	8	*	St. St. Syvan Ville Rebile lines Desi	
March Street Predict Hints MS S. Barwook herase San Jane CA he G4 2.78 0 H 2.88 MS Street James Fallbeck S. Miller Hond Drive	# 52-45-42-32 birt Lucky John	Rudolf Schott	5952 Alaced Street		Z	77	8	2	4.80	
State Collect Street Collect Street Street Collect Street Collec										County Saw, Stav, Stalla, Stalls, Stav, St.
Market M			367 S. Berwood Avenue	San Jose	25	3	8	20	9 2	Lack year
See Little		white will	ACS Elliste food		I	31	1.25	ik e	2	3 4 ::
250 Ulford 1884 Fallbeck 534 Circitatood Drive 1831 133 1,25 1875 1,28		James Fallbeck	634 Circlescod Drive		1	189	28	**	38.	
## Millott Law Pryal GN Lilistt C-6 128 R-11 B F 2.00 ## Millott Doans Grace G. Scot Manufact C-12 128 R-12 B F 2.00 ## Millott Doans Grace G. Scot Manufact C-12 128 R-12 B F 2.00 ## Millott Doans Grace G. Stot Manufact G. Scot G. Sco		Janes Fallbeck	624 Circlewood Drive		7	1111	5		1 3	/ 6.0.
Mail blood lave E. Cite Boardform P. O. Box 144 Measily C.C6 156 E.S. 175 E.M.		Ease Prys.	67k Ellisett		6-9	85			2 2	, c.u.
Marcol December Color December Color		E. Clay Sopperdrer	P. C. See 148	Notalia	50.00	3	19	: 1	8 1	26.0.
ACT Allowed Violat Allowed ACT Allowed C-2 121 C-3 C		Dogs brake	673; Woodland Onlive		3				2 1	86.0.
NA-TAI For Street John Balle 1500 Balle		Violet Ringar	6828 Alsond		3	8 5		e 1	2.00	2 6.10
721 Fig. Street Joseph Numer P. O. ber 136 C-9 6 2.14 or 2.00 525 Stown Numeric Olives Investors 449 Locataler Carri C-9 125 Lat 6 or 2.00 724, 714 Millan Street Densition Valler Blocks Carri C-9 125 Lat 6 or 2.00 725 - 578 Block Clive Investor Carri C-9 125 Lat 6 or 2.00 725 - 578 Block Clive Investor Carri C-9 125 Lat 6 or 2.00 725 - 578 Block Clive Investor Carri Carri C-9 125 Lat 6 or 2.00 725 - 578 Block Clive Investor Carri Carri Carri C-9 125 Lat 6 or 2.00 725 - 578 Block Clive Investor Carri		John Jalle	1502 Eichell Annue	Chica	200		9 8		1.00	(actile) plust SF
Objective Number of the State of Location Valley Investors 419 Location Court Col. Sec. 30	3.5	Joseph Nuperi	P.O. See 136		2 2		9 :	E 1	200	2 d.u.
Thi, Thi Willing Street Beneficial Olibons F.O. Box 331 C.O. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co	-	Northin Willer Investor	25 479 Lookuley Court		2.2				27.00	2 d.u.
MACK - STALL Black Olive Project Form 14772 Northwood Crive Mopalie CA C-6 135 L.3 F. A. Box STA - STALL Black Olive Drive Project Form P. O. Box 443 C-6 135 L.3 FFF L.0 MACK Black Olive Drive Project Form MACK Black Olive Drive Project Form C-6 115 R.3 FFF L.0 MACK Black Olive Drive Black Olive Drive Black Olive Black Bla			P.O. Box 331		2 3	8 8	4.1	E 1	87	3 d.u.
STA - 578 llact tile Pr.0. Bos eld P			34727 Northwood frilise	Bacalla	2	9 5		# Y	200	frostage 125/148; 5 units
ST77 - ST78 block Older Drier bookers SAM Cherry Drive C-6 115 L.78 S. 20 SMS block Older Downers Drive C-6 115 L.78 8.78 L.88 SMS blocks Downers Drive Downers Drive Prf 128 8.44 8.78 3.88 SMS blocks Downers Drive Prf 128 8.44 8.75 3.88 SMS blocks Downers Drive Prf 128 8.42 8.75 3.88 SMS blocks Lee Gramm 1807 block Drive Prf 238 8.75 3.88 SMS blocks Lee Gramm 1807 block Drive Prf 238 8.75 3.88 SMS block Lee Gramm 1807 block Drive Prf 238 8.75 3.88 SMS block Lee Gramm 1807 block Drive Prf 238 1.75 8.77 3.88 SMS block Brock SMS block Prf 238 1.75 8.77 3.88 SMS block Brock <t< td=""><td></td><td>97</td><td>P.O. Sor 643</td><td></td><td>5</td><td>2 7</td><td>2 :</td><td></td><td>4.8</td><td>4 units</td></t<>		97	P.O. Sor 643		5	2 7	2 :		4.8	4 units
MSS latest Drive Devices lates 193 Valley Ridge Drive FF 198 6.5 FF 2.88 MSS lates Devices lates 193 Valley Ridge Drive FF 198 6.2 FF 2.88 MSS lates Devices lates 193 Valley Ridge Drive FF 128 6.2 FF 2.88 MSS lates Devices lates 195 Valley Ridge Drive FF 128 6.2 FF 2.88 MSS lates Let Gornen 1807 Paule Part Drive FF 2.98 6.2 FF 2.88 MSS lates Let Gornen 1807 Paule Part Drive FF 2.98 1.75 FF 2.88 MSS lates Rodolf Schott 5952 Alaxed FF 2.98 1.75 FF 2.88 MSS lates Rodolf Schott 5952 Alaxed FF 2.98 1.75 FF 2.38 MSS lates Found Found FS 5.88 FF 2.38 MSS lates Found FS FS 1.87<			Will Charm Selve		3	2	7		3.86	3 units
SMS lates Ownies lates 193 Walley Slope Drive Pri 258 B.44 8 PF 3.88 SMS lates Ownies lates 193 Walley Slope Drive Pri 128 B.42 8 PF 3.88 SMS lates Ownies lates 193 Walley Rlope Drive Pri 248 B.42 8 PF 3.88 SMS lates Lee Gorson 180 Paule Part Drive Pri 248 B.42 8 PF 3.88 SMS lates Lee Gorson 1807 Paule Part Drive Pri 248 B.42 8 PF 3.88 SMS lates Rodolf Schott 5952 Alaxed Pri 248 B.42 8 PF 3.88 SMS lates Rodolf Schott 5952 Alaxed Pri 3.88 8 PF 3.88 SMS lates Rodolf Schott 5952 Alaxed Pri 3.88 8 PF 2.38 SMS lates Rodolf Schott 5952 Alaxed 5.08 Point Rodolf Schott 5.58 Red 5.58 Red 5.58 Red 5.58 Red SMS lates None Part 5.08 Red 5.58 Red 5.58 Red 5.58 Red 5.			191 Jalley Bides Drive		9 1	9 :	5	k:	207	f units
SACT Sees: Charles See		Operior June	161 Uniter Stdee Pales		I i	2	×	è.	3.8	3 6.4.
566 James Charles James 158 B.M.S. 8.33 8.74 2.88 566 James Lee Gornen 1807 Rable Privator Privator Privator 187 1.88 1.88 1.89		Ourles Junes	101 Uniter State Paris		I	8	17.	± •	3.88	344
SMA James Lee Gramm 1887 Paule Party Drive N°F 208 8.53 8 FF 2.88 SMA James Lee Gramm 1887 Paule Party Drive N°F 208 1.25 8 FF 3.88 SMA James Lee Gramm 1887 Paule Party Drive N°F 120 8 FF 3.88 SMA James Rodolf South 5962 Alamond N°F 120 8 FF 2.88 N°F 3.88 SMA, SMI Foster Rodolf South P.O. Bon 22035 Soormetto CA C-6 95 8.63 8 FF 2.88 Pine Ridon Apartiments SMA, SMA AMI Foster Toward Irrise P.O. Bon 22035 Soormetto CA C-6 45 1.89 8 FF 2.88 Pine Ridon Apartiments		Charles Janes	100 telling friday from		Į.	200	200	ž.	2.8	2 d.u.
5643 James Lee Gornan 1867 Fault Park Drive N°F 208 1.25 0 FF 3.88 5524 James Rodolf South 5952 Alamed N°F 208 1.25 0 FF 3.88 Note Investment 5441, 5444, 5451 Fouter South And Fouter N°G		The Course	THE PRINCE ALONE UNIVE		I	2	3.5	*	2.80	2 d.u.
353 Black Olive Redolf South 5952 Alamed NH 288 1.22 8 W 3.88 Redolf Home Park 548 Black Olive Redolf South 5952 Alamed NH 545, 5951 Fouter South Newarlt P.O. Box 22035 Secremento CA C-8 95 8.43 8 W 5.88 Plac Bloom Apartments CA C-8 95 8.43 8 W 5.88 Plac Bloom Apartments CA C-8 95 8.43 8 W 5.88 Plac Bloom Apartments CA C-8 95 8.43 8 W 5.88 Plac Bloom Apartments		100 May 100 Ma	1607 Tople Park Drive		I	8	2.50	**	3.8	3 4 11
SALE Elect Olive Redolf Sonot 5952 Alamod 877 25,00 Redolf- Name Park 544, 544, 544 545 Foster Name Project 5952 Alamod 877 2,00 Sonotesto CA C-8 95 8.43 8.67 5.00 Plue Rilope Apertments 544, 544 445 Foster Name Project 50 73 5.00 Plue Rilope Apertments CA C-8 95 8.43 8.67 5.00 Plue Rilope Apertments CA C-8 95 8.43 8.67 5.00 Plue Rilope Apertments		Let bornell	1837 Naple Park Drive		I	280	13	¥ .	3.8	100
541, 549, 561 Fotor Same Nouchl P.O. Son 2203 Secremento CA C-6 45 8.43 8 FF 2.88 Pine Ribor Apertments CA C-6 45 1.89 8 FF 2.88 Pine Ribor Apertments CA C-6 45 1.89 8 FF 2.88		RAMOUT SOURCE	SYSS Almond		I	×	3.8	# =	5.M hobile hase Park	21 units olas 4 W
5844, 5844 AM Foster Thomas Ersie P.O. Son 733 Secremento CA C-6 45 8.63 8 NF 9.88 Pline Ribon Apartments C-6 45 1.89 8 NF 2.88		Court Board	DANE ALBORD		I	118	2.3	**	2.00	W-2 d m
T.0. 801 730 C-6 45 1.P9 8 PF 2.N8		TOTAL MODELL	7.0. Sor 22835	Secretario	9-3-5	\$	8.63	ir a	Pine Ridge Apartments	12.65
		252 t 1801	F.O. BOR 753		6-8	2	2	ž.		19 64

John Print 1145 Newcool 15 total Address City State City	Matewater Feesibility Study Percel Information (CIVE MASS)	8 III s									Kennedy
Newtow lar from Land 1970 felicity 1970	Parcel In	. Sibus Address	Done	Camer's Street Address	City, State	Jone	Frost fotage	Arts Miles	liding Correct arms, use	EW's business name	Other Information
Perch Account 1250 mission 125	8-1-12-65 8-1-12-65		John Fritz er Stern Rasell	11445 Norwood 628 Circlewood Drive	Eiverside	3 2	2 5	8 :	10 M	2.8	2 units
The part of the part of the control of the contro	55-21-5-18		Serth Solutt	3225 Middleffield Road	Renjo Park	200	2 2	33	e le	3.80	2 4.0.
New Carrier 150, 1 110 50 110	2-2-12-20		Dreft Joses	15 Encento Orive	Rolling Hills Sates	A CL PI	182	H.	k.	3.86	3 4.0
Higher Main Mills Respond here Cal Cel St. Lis FF Mills Mills Respond here Cal Cel Mills Lis FF Mills Mills Respond here Cal Cel Mills Lis FF Mills Mill	10-12-cs		Roward Carter	1834 N. Lido Street	Richwale	11	10 K	n o	\t \(\)	3.5	3 d.u.
Activate holes	20 20 - 10 a		Tiactro Atin	3865 Telephon Averue	Dekland	G C-8	8	4.16	k:	3.00	3 4.0.
Line John Potos Syst State Board Dec	25-22-48	SAM Almond	Author Usapion	6792 Lancaster Onlive		I	2	8.43		3.86	3 d.u.
Sheet Boilet Start	25-25-25	500 Disturbed Lane	John Noticel	59% Kibler Road		2 2	2 2	8 0		2,00	3 d.u.
Sheet Sheet Sheet Sheet Sheet Sheet	だれた	5571 Severy	Robert Bailes	4382 Alta Camino Drive	Pedding	8-3-55	1 15	×		18.00	J. C. E.
Emercial Regions 1150 Soprate 2006 Soprate 20	20.00		Garlon Gathrie	Skill Street		85	171	1.39	2	17.80	14 d.u. single units.
Table Several Institute Authorised Several Authorised Several Authorised Several Authorised Several Authorised Several Authorised Several Authorised Authorised Several Authorised Authorised Several Authorised Authorised Several Aut	S. L. Janes		James Nerpood	2193 Edpressed Road	Redwood Clity	25	138	2	¥	Evergreen Mobile House	19 units
March Northologous March N	S-42-1-8		Reynord Sales	7289 Scyway		3	38	8	No.	2 M function built has been	-
	20-20-20	68t2 Lucky John	Paris Northoote	MBS Lucky John			211	1.0		2.80	2 Studies
June Architecture Lab Accorded Architecture	2000	Market Market	Tasse & fire tanding	P.O. Box 3780	Walnut Oresi	I	•	8.8	¥: •	2.80	2 units
111- Arch Parjane 126 Valler Rioge Orles 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 151 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 15.0 174 175	SP-00-CS	6855 Penell	John Criminibertrane Lee			ž,	3	8.8	*	2.80	? units
1150ff Arch Marines 156 Waller Sides Drive Cot 200 2.75 8 m 6.88 20	23-42-46	6855 Novell	AND ADDITIONAL OF TARREST OF	ź		I	3	6.43		3.86	# undts
24,611 Clark Shelter Core Investment 248 Riverdell Lare	5-18-53		Arch Terjass	185 Valley Bidge Delus		E	2 1	3 1	k !	2.5	incl. in 45
Mail of Clark Shelter Core Installation 200 Niveracial Lane CC 200 2.78 8 m 4.00	S-18-53		A Switter Cove Investment	28 Rivendell Lane		5 2	8 8	0 9		8 2	7
With # Claim far-jace With Major Drive With # 1988	SUPPE	6100, 6695, 5862, 6403 Cla	rk Steller Cost Instalant	200 Rivendell Lane		Z	36	8	: k	87	7 1
March Regimes 18th Wolfers Broker 18th Wolfers Broker Broker 18th Wolfers Broker	M-11-60-2	S 915 Elitore				ı	3	8.8	le se	80.7	, y
March Marc	20-03-03	SWI Casino		18h Veilley Ridge Driver 5581 Brossofes, Toronto		Ž:	188	17.	k.	987	4-plex
Oc. May Principle Funds 1977 Seatostrock Method of Found 1978 Seatostrock 1978 Seatostroc	\$5-12-55	1877 33-42 Stadoutrook	de Cary Norths	4301 3344 Ct Ct 8101	Second late Years		R :	3.1	k:	13.80	28-units
Act Page Act Act Page Act	8-11-8	1877 1-32 Sedoveros: la	ay Triedrich Fuchs	1877 Statistarios	manager iorner		3 4	2 5	E V	12.88	200
March Della 13145 Contolence Prive Papella CA NF 159 6.54 8 FF 2.48 James Narding 5581 Noverview Free 1.20 8 FF 1.20 James Narding 5581 Noverview Free 1.20 8 FF 1.20 James Narding 5581 Noverview Free 1.20 8 FF 1.20 Michigan 166 Valler Ridge Drive Free 131 1.20 8 FF 1.20 Arch Parisas 166 Valler Ridge Drive Free 131 8.27 8 FF 1.20 Arch Parisas 166 Valler Ridge Drive Free 131 1.20 8 FF 1.20 Arch Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arch Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arch Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 1.70 8 FF 1.20 Arth Parisas 166 Valler Ridge Drive Free 131 131 131 131 Arth Parisas 166 Valler Ridge Drive Free 131 131 131 131 131 Arth Parisas 166 Valler Ridge Drive 131 131 131 131 131 131 131 Arth Parisas 131	8-13-23	1816 1-48 Shadoutrook lik	THE NOT FILM.			2	1 1	2 73		M 77	G 1
Junes learling SSM learning SS	3-0-6	55G Caudino	Angelo Dalla	13145 Coutsience Drive	Papelie		25	3	¥ 0	2 2	7
Junes furting SSM feverates ferrace Principle SSM feverates ferrace Principle SSM feverates ferrace Principle SSM feverates ferrace Principle SSM feverates filed principle filed filed principle SSM feverates filed filed filed principle SSM feverates filed filed filed filed principle SSM feverates filed fi	Frida.	5921 Cascino	Joses Nording	SSSI Soverview			987	1.30	it.	8 00	o water
	24.00	(25 Maneley	Jases Narding	SSSI Noverview Terrace		14	N	28	*	2.8	Marin Marin
### ### ### ### ### ### ### ### ### ##	24142	WM Clibatt	Senson Jones	SALS RABBELL Drive		Ž	-	81	±	2.00	SAM Green Thumb
# Work fulses 166 Valler Eige Drive	\$3-13-4	1808 Elliott	STORITIE INC.	Mill Bosonias Tamasa			1				Frontage Jand use 488
Auch Fuzzione 156 Valler Blode Drive Freque 154 8.22 8.75 4.88 Auch Fuzione 156 Valler Blode Drive Freque 156 8.22 8.75 4.88 Lilly Own Safe Copeland Freque 156 Nation See 1 Drive Freque 156 8.80 8.75 8.80 8	8-1-11-65		Archy Relass	16 belley fide briss		1	1	8 1	± 1	12.80	W-16 ,
Arth Parison 18 Valley Stdor Drive Ref-P 67 8.27 8 F 4.88 1.78 8 F 4.88 1.88 Valley Stdor Drive Ref-P 67 8.27 8 F 4.88 1.89	S-13-1-41		Arth Parisas	186 Valley Pides Drive			3 5	2.20	in i	87	7
Lilly Own SEAT Concluse No. 7 in the seat of	414143		Arch Pariose	186 Valley Sides Drive			2 5	7		2.8	
Arth Parjone	P-1-1-6		Arch Perjose	186 Valley Ride Drive			3 :	2.5	k !	87	7 1
Lilly Dem SATA Copeland 8-7 100 8-2 8 M 1.59 Wills hoverer Investors 1500 hashold Apad, Ste 1 Onlos Ca 8-7 150 8 M 2.50	7-1-1-3		Arth Nerjees	1M Valley Ridge Drive			3 5		b 1		(-mits
Ullif Own SAP Concland 8-42 8-17 3.59 Wille Proverty Investors 1368 Resolutions See 1 Onlos CA N-F 428 3.58 8-19 32.88		200000000000000000000000000000000000000					207	8		2.W	74
Ville Noverer Investors 1946 Numbelic Road, Str I Drice CAR4 43, 5, 69 6 FF 30, 80	2000	MA Copeland	Lilly Own	SR76 Copeland		ī	381	8.62	k.	1.50	SF-SH & house
	# J. C. C.	1206, 1236 1111011	Ville Boserey Investors	1568 Numbel C. Road, 52y 1	Chica	4 4 74	400	-	!		the case of the case

	Kennedy/Je	ther inforation	44 Candos	C ples & 7 units	2 1	7 7	李施	Mr - 37 units	M-2	100 units	180 units	186 units	11-12	7 Louisi								8/3	10								`		safety and best and tables	State and and address	frontage land use 123/125/341/388	Viscorit	10 TOW GREET STATE	plus drive thru	
		Area, building Current ENU's basiness nose scres, one ss. ft.	44.86 Central Park Condo Subdiv. 44		6.00 Groys hose				Part of the same o	01516	78.86 Paradise Gardens III 186		10.00	Pinecrest Notile Nose Park		8.50 Peradise Board of Realtors	6.3	* 5	6.50 PGM OFFICE	E.S. 7D		2.36 Flamed Perenthood RS	11.56 Ntn files's Pitza/Orbry Acombs R/NS	5.86 Deproces/Sestin Robins	S. 60 Del Taco	1 to half factors	4.00 herry's Ordin (stel Soul	12.86 Seror Graps's	4.58 Actions's Restaured	9.88 Sacile Nuntain Restaurant	12.58 Pirrochio*s	4.38 Rethos herbran Restaurant	5.00 April Cafe	4		-	9.78 Pepode Restaurant		Ter Cafe
		killeling Currer area, use ss. ft.	Vi.	le i		k	je:	k i	E 1	i k			k 1		0 886	2588.0	0 0	9 6	3660	0 8	1888 0	0 86 0	ě	12648 R	7888 8	2 000	1286 R	2000 R	1286 R	1520 R	3996 E	1188	4 007	1288 8	2350 R		3000	2980 E	3 86 E
		Area, Bull sorres	8:	97.	9 9	193	8.3	9 1	2 5	2	6.00	2	1.11	3.5	12.2	55	51.5	200	12	3.	2 :	8 3	2 2		17.0	2 2	8.8	6.45	8.81	173	27	2	2 2		2		# TR	1.3	8.8
		front Societies	-	8	2 2		ş	E.		×	ST	Si	8 5	2	3	R	- :	1 8	NI S	ß	•	6 8	ě	•	5 :	1 5	200	87	1 N	H	e i	2	2 3	7	11		6	2	23
		Jone .	1	3 :	1 2	1	Z	1:	3 2	E E	C Pr	7 7	2 2	E E	z	Y.	33	2	3	3		3 3	20.00	200	2 2	3	Z	855	z	250	¥ :	2 :	3 3	I	T		200	3	T
		City, State								Chico	Chico	Ohico	Mary Cress	Les Gatos					Droville			Oxice	Beverir Hills	Severly Hills	Beverir Bills			Caracheel		Nersons Seech	153 Seattle	-	85				Sen Netro		
		Over's Street Address	9975 Namell 822	S778 Clark	5567 Linnich Lane	59% Limits Lave	5575 Linnish Lane	SOUR CLIEFE Road Sp. 13	SSG Clark float	28 Williassbury Lave	28 Williamsbury Lane	28 Williambury Lane	Su27 Clark Road	14530 Didoce May	59850 Clark Red \$125	6178 Center Street	0211 in-1500 brive P. 6. for 1770	P. D. Sor 1958	S380 ft. Antobel Court		P. S. See Life?	SAS Percentite Suite 3	984 Missire Blvd.	984 Wilshire Blvd.	New Atlantic Sive	P.O. Say 985	69t Surset	5925 Assort Drive \$113	SNk brensent	1717 Pertetten Avenue 112 hersons beach	3	City Select Character	295 Rose Lave	Mich Carrie Circle	Wild Street		219 38th Avenue	98 Central Park Oriver	6129 Skydey
		Ocean Company	1900	3.Y. Nendricks Serve Pinter		6		VINCENT SUBMITTO					Alicia Dealte			card of Shaltar	Nervin Sethertson			£	Day Mall				Thosas Venecles		2		E		The Firmonia	-		Janice Lightfoot	LNA Interprises		180	8	Jahn Netzel
i		Silva Adress	SITS Report	S78 Clark	SWD Linnion	5970 Librich	SSS Livrich	SOR CLAYS	- Clan	2888 Buschairn	2868 Buschann	DMS Suschaern	May Cher	SUM Clark	4141 Center Street	ALTE Center	SAL Street	5778 Alsond	202 Pearson	SU25 Black Olive	3000 Styleny SGD Clerk	Melle Clark Road	6624 Clark Road	Milh Clark Road	Elik Sover	767 Street	7639 Scriver	SZS Syner	7899 Skywey	ALIS SCHOOL	MARK SEVARY	6689 System	All5 Sover	6333 Styney	6371 Seyvery		748 Elisatt	675 - 679 Sovery	6297 Skywdy
Pace No. 5 83/83/89 Tour of Paradise	Study Study Percel Internation KUN: 82511	Record I Parcel No. Situs Address	1348 53-38-999	25-P-3 CM	24-5-12 SMI	1165 51-65-11	2-4-15 CMC	1170 St. 48-45	1125 54-49-45	1135 52-49-52	C-68-25	111 X-9-48	1138 54-11-23	1169 \$4-13-21	和·事·35 555	NA SCHOOL ST	S-4-35 5M	-		24-22-25 SM	20年末 191	1.84-17-2-12	247.8 E	G 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0		=		等事 经		0-8-5 FM			#-T-17-5	CHARLES CO		15-13-55 PM		

KennedyJer	Area, Building Current EM's Business news Other information earns area, use so, it,	18.00 in Conido Anstaurest 4.00 foot Levi Larre (ber) 3.00 for Levi Larre (ber) 3.00 Colonial Anstaurest 5.00 formy Cone Restaurest 5.00 formy Cone Restaurest 5.00 Sound in the Conido Restaurest 5.00 Sound in the Conido Restaurest 6.10 Contains Fried Fortage Telegraphy 6.11 Contains Fried Fortage	8.08 Country French Cafe 5 - Chico Acadesr of Dence R5 - Prosectors Furniture 5 - Emersti Neelty	12.88 Rins City 11.88 Revorm King 5.48 Molecules 5.88 Berner O'Rearters Fub 1880 1880 Clark	m riss's fifts	13.80 El Notalista 7.20 Foster"s Freeze 1.80 ER Flants & Woods 8.50 Freezint Les 1.80 Salvetian Aver 1.80 Salvetian Aver 1.80 Villace Lisaurs 1.80 Periods 8.80 Albertian*	1.88 Clather boor/floor's Jevelers 1.88 Paries Social/Rev's Social 1.88 Paries Social/R & 118 Story 1.88 Allison's Place 1.88 C-Paris/Cont. Soc. 1.88 C-Paris/Cont. Soc. 1.88 Social/Cont. Soc. 1.89 Social/Cont. Soc.	8.30 Fundish Nov and Sov. 15.95 1.00 Sovery Seneral Stare frontage land use 45/132 2.00 Rinde Stop Food Namet frontage land use 43/138	1.88 furts blass Co. RS/5 8.58 Streen Feed
1	mt Bu's	2 2 2 2 2 2 2 2	3	25.25 25 25 25 25 25 25 25 25 25 25 25 25 2	88888	7.20 Fotber" 7.20 Fotber" 1.20 OF Flant 6.50 Contill 1.20 Salvetta 1.20 Village 1.20 Payless 5.30 Alberta	1.00 Clether Rediction of the Paristra	28 8	8 3
	Milding Curr ares, use se. ft.	2 2 2 2 2 2 2 2	=	* * * * * *	3 3 8	238 7 238 7 118 15 138 15 15 15 15 15 15 15 15 15 15 15 15 15 1	2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1 N N N N N N N N N N N N N N N N N N N	1888 FS 3888 FS
	£ £	2522222	5	5557	12253	99999999	2333433	E 251	1.8
	Front feetings	密型化型器多层 层	£2	2 8 2 2	E 3 - 8 s		88	gs s	6 2
	Joe	22222333	2 5	X	333333 866	8	2222222	22 2	22
}	City, State	S	Castro Valley	Chicago Tube City	Witnessille Secreento Fullerton Contri de Tono	Drice Bever's Mills Bever's Mills	Beerly Kills Beerly Kills Beerly Kills Beerly Kills Beerly Kills Beerly Kills		Rediends
	Ower's Street Aggress	16 El Cerreto Drive 155 Valler Elde Crive 15.0 Sou M 1980 Sever 1578 Christes Prive 1552 Sever 15.0 Ses 1498	1978 Crest Aenae	353 Apple View item P. D. Son 46207 3535 Name Stod, 83	7265 Separation Communication	Milk Featur Song Orive Milk Featur Song Orive Milk Mayorer Bad F.O. Box 899 1349 Bills Boad 884 Wilster Blot. 884 Wilster Blot.	984 Wilster Bre. 984 Wilster Bre. 984 Wilster Bre. 984 Wilster Bre. 984 Wilster Bre. 984 Wilster Bre.	2042 Silvers Coart 2041 Strvey 2070 Meal Road	1281 Clifton Street Sub Clark Seaze SS
	Dater	Michel Pwis Safear Devisored Est Rerech Rebrum Joseh Schreider Rin Au Joel Redes Gell Tomond Dare Jehnen	Stary 1 Puth Ter	Great Landren	ferrand bater ferrins frue stores as Jac Arrery Inc. Gaser fruer Gerlicht Richerts Overlicht Richerts	A.C. San Lorine Ferris Relative Committy Bevel. Solvetion Any Mart Author Frendise Flass Frendise Flass	Profix Flass Fredix Flass Fredix Flass Fredix Flass Fredix Flass Fredix Flass Fredix Flass		Bord Johnson Bornie Neusa
, te	Situs Address	613 Street 661 Street 660 Street 198 Street 510 Street MZ-533 Street 6MI Clerk Red	720 Street	Table Servace GW Clerk Road SWG Clerk	MESS Clark MARK Clark 3% Sidner 577 Clark	MAR Person OWN Clerk Red MAT Clerk Red MAR Clerk Red MAK Clerk Red MAK Clerk Red MAK Clerk Red	600 Clark had 600 Clark had 600 Clark had 600 Clark had 600 Clark had 600 Clark had 600 Clark had	868 Street 868 Street 500 Street	% 51-13-1-2 1127 Resen Lave 189 51-13-2-25 1145-1149 Megateff
Nec No. 6 EUNALIS Tom of Persons Tom of Persons State Percel Information (17)E (823)	Ancard I Percel No. Situs Address	* # # # # #	N-99-0 (NI	11/2 St-62-62 81-34-62-63 81-64-63-83	90 S-18-51 90 S-18-51 30 S-18-51 30 S-4-18 180 S-4-69	28 × 4 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2		64	86 St-15-12 186 St-15-23

Ton of Paradise Mastewater Fessibility

83/99/58 Page No.

Study Percel Information K/3/C ACISE

8.5. ft. 8.6. 11. 2.6. 188	04 No.	Broard II Parcel No. Situs Adaress	Cheer	Orier's Street Adress	City, State	Jose	Front feethers		Milding Current	Area, Building Current EDU's Business nese	Other Information
252 Sover Corris britton 120 Rev Band 120 Res Band 120 R							No.	6	7. T. 15.		
Mail Storen Conf. in Strong Mail Storen Conf. in Mail Storen	7	8239 Sever	Cleries follown	367 Roe Road		20	2	20	1		
12.53 Sever Several Interface 12.53 Several 1.54 Call 1.	17		Charles Stroup	14819 Nesterson lav	Secrits	2 2	9 11	2 6	9 10 10 10 10 10 10 10 10 10 10 10 10 10	1.28 habil less station	frontage land use 128/218
WAY Storer Storen Inventor 1995 T.O. Bart May Storer C.C. 178 L.M. MAY STORER	200		Nowerd Rent Incom	PTM Conser	0111000		2 !	27	2000	1.88 Prestige Noter Sales	frontage land use 145/223
Mail Source Scores Investors State Sta	7	7967 Street	Aprileo Deloto	P.O. Lay 100		3	128	7	2000 52	1.50 Exon Ges Station/Mini Mart	128/188
10.00 Severe Seve	27	7641 Struey	Course Incorpore	600 Carrest Paris		3	17	8	286 25	2.86 Paul's Dorafts	
77.75 Street 5.1. Feater 7.0. Box 201 C-C 100 8.8 1.8 Box 100 Box 100 Box 201 C-C 100 8.8 1.8 Box 100 Box 100 Box 201 C-C 100 8.8 1.8 Box 201 2.8 Box 201 8.8 Box 20<	7	M.H. Grane	Carried States	THE STREET PLANE		3	280	8.8	を記	R.St Twior as Nice Clathing	
2005 Street Street Factor Facto	17	7701 Springs	SATHER INVESTORS	ONE Surset		I	8	E. 30	1000 PS	£.50 Nos Office Video	
200 Street 2.1. February 2.1. February	2 5	THE GOVERN	Oddy uson	ZAS SENATE		3	×	3	500 ES	1.00 Peradise Surolus	
Mail Street S.L. Botton Table		Value Schall	S.E. Faster	P. D. Bon 2811		ž	IN	18:1	588 PS	2.88 Pet Village	200
Molt Screen Glora lates Table Screen C4 188 188 1.88 Table Screen Table Screen C4 188 188 1.88 Table Screen C4 188 188 1.88 Table Screen C4 188 1.88 Table Screen C4 188 C4 188 C4 188 C4 188 C4 C4 C4 C4 C4 C4 C4	1	781 SCINES	S.E. Foster	P. C. Box 281		Z	MI	8	200 00	B G basedo's franciscosts	2
155 151	7		John Rop	7787 Skywey		3	180	2		7 M Dennelle Control	factor a
125 Billit	ST.		Gilbertson Faulty Inust		Serberdille	200	*	8	2 98	S Co Lante A Pares	(Modelle)
March Cotton Register Co	35.7	1355 Bills	William Namilton	P.O. Sor 641		27.7	5		3 8	5 CO	603
Still Street	2	SUIS Seyvery	Peter Houtagn	SUB Syser		2	1 5		2 3	f. 36 300p	
State Sympt William Gennalves P.O. Box Mah Denction C.C. 146 R.O. 1200 E.O. 100 E.O.	7	Still Sover	Catherine Burgess	P. 0. Rev 98			20 :	7	2 100	1.86 Pr. Fluffy Foot	
447 Real Road Links Midder 1122 Arrayment Origina C. C. 148 R. M. 128 C. M. 128	7	S289 Stylen	William formations	P.O. Box 186	Bearing	2	2 :	3	128 83	1.00 Leisure line Sotellite Sales	
5.000 Clerk Septicities Theoretical State Dates Color Colo	4	484.7 Seel Bred	Carlo Milder	SECTION AND ADDRESS OF THE PARTY AND ADDRESS O	8753000	5	7	6.67	20 30	2.00 Cathr's Seving Nathine Sales	
March	17.5	Child Floor	CANADA MANAGA	SALTA CHARACTER STATE	0.00	3	Ħ	2	22 MB	1.86 Larry's Antonno's (setellite)	
March Marc		Mary State	A STATE OF THE STA	Prince 2020	898	3	产	6.27	1888 PS	8.58 Oristian & Johnson's	
Mail Street Collint Pine Conserve P.O. Box 79s Constant Conserve Constant Mail Street Conserve Cons		/Will Dayway	Robert Jahrson	7867 Struety		I	20	8.8	1786 85	8.58 Perfect Fit Clothes	
Mark Street	7 ;	ALLS SEPARE	Collins Fine Coapeny	P. O. Box 746	Chester	2/42	365	2.86	7000 PS	1 80 Brilliam's Sector Lucian	
March Marticle Willer Investors P.O. Box 739 C-C 111 P.M. 800 NS L.M. Telestore Storm L.M. Marticle Willer Investors P.O. Box 739 C-C 112 P.M. 800 NS L.M. Boxette's Beauty Storm L.M. Box Marticle Willer Investors P.O. Box 739 C-C 113 P.M. 800 NS L.M. Boxette's Beauty Storm L.M. Box MS	ę.	Wilk Styley	Rid Valley Title	185 L. 6th Street	Chico	200	235	1.63	20 00	# 56 for the By Cales	
6803 Street Desired Number Investors P.O. But 779 C-C 118 0.06 RM But Reserve P.O. But 779 C-C 118 0.06 RM But Reserve P.O. But 779 C-C 118 0.06 RM But Reserve P.O. But 779 But Reserve P.O. But Reser	7	6681 Street	Mountain Valley Investor	rs f.0. Bos 719		Y	111		Age as	4 90 Talandona Green	
6462 Street Board of Notice French Willey Investors P.C. Bet 773 CC C.C. 118 E.M. R. 230 E.M. R. 200 E.M. E.M. 200	Ħ.	6883 Strutt	Nourtain Valley Investor	rs P.D. Bee 779		X	118		20 000	6 80 Beauty's Beauty	
643 Servery Charles PM. Der M2 Durtes CA C-C 75 1.4M 21MM IS BSS Eider Kids Clething 775 Eilligtt Randy Roser SMIL Counter Clab Drive C-C 75 8.22 27M IS 1.7M ISM IS 1.7M ISM IS 1.7M ISM ISM ISM ISM ISM ISM ISM ISM ISM IS	₽	66875 Strutty	Northin Valley Investor	rs P.O. See 779		Z	Ħ	8.	2 22	8.59	Some sacind business recises.
75 Elliett Servin Scate 3811 Counter Clab Prive CA CA CA TA LAN 2188 S 8.58 Edge Kide Clathing TA Land Street CA CA CA TA LAN 2188 S 8.58 Edge Kide Clathing TA Land Street CA CA CA TA CA CA CA TA CA	7	66Cl Strute	Parcial Refree	A 4-1 to							but no sign - preferred not to inadire
No. Section No. Sectio	13	No. milant	Section of the last	7-W. DOI -047	Arries	3	2	8	2280 55	8.59 Kidge Kids Cluthing	
March Marc	1	W 111/11	NAPOLY ROSES	Settl Country Club Drive		Z	2	6.52	2286 85	1,00 GW Paints	
960, 800 Elliott beiter Beck 1600 Earden Street 97 Sonta barbara C.A.C.C. 180 B.75 1800 ES 1.30 hedicine Snooe 883, 885 Elliott balter Beck 1600 Earden Street 97 Sonta barbara C.A.C.C. 8 B.80 900 ES B.80 Norman Printing 883, 885 Elliott salter Beck 1600 Street 97 Sonta barbara C.A.C.C. 8 B.80 900 ES B.80 Norman Printing 883, 885 Elliott salter Beck 1600 Street 97 Sonta barbara C.A.C.C. 8 B.80 900 ES B.80 Norman Printing 884, 885 Street 885, 885 Elliott salter Beck 1600 Street 97 Sonta barbara C.A.C.C. 250 1.41 11800 ES 1.88 Thrifty Drug Store 884, 884 Street 885, 885 Elliott salter Beck 1600 Street 97 Sonta barbara C.A.C.C. 250 1.41 11800 ES 1.88 Thrifty Drug Store 884, 884 Street 885, 885 Elliott salter Beck 1600 Street 97 Sonta barbara C.A.C.C. 250 1.41 11800 ES 1.88 Thrifty Drug Store 884, 884 Street	2 1	77 (1130)	Agroly Kasze	Still Country Club Online		Z	E	8.56	NAME ES	8.36 Mg 'A' Auto Parts	
883, 885 Elliott kelter besk 1989 Samben Street 87 Sonta berbers CA C-C 8 8.00 900 RS 8.00 Nonething 883, 885 Elliott Walter Besk 1980 Sampen Street 87 Sonta Berbers CA C-C 8 8.00 900 RS 8.00 Nonething Art 6580 Street Actions Fernandial P.O. Box 90333 Las Aspales CA C-C 250 3.41 11800 RS 1.80 Thrifty Drug Store 6580 Street Fred Highell 1350 Numbolist Rand Str 1 Drico CA C-C 250 3.41 11800 RS 1.80 Nolidor Comercial Center	3:	865, 865 ELLISH	Walter Seck	168 Garden Street 17	Senta Berbera	2	188	2.3	28 88 ES	1.59 Redicine Stone	frontage Jand use 185/384
MSD, MSD Elliott Walter Beck JAMP Serben Street EP Sente Berbers CA C-C 8 B.MP 998 RS B.MR Nentucket Art 5500 Street Art Les Angeles CA C-C 250 3.41 11809 RS 1.88 Thrifty Drus Store Adda, SAMB Street Free Higher I 1300 Namiolat Band Ste 1 Drice CA CA C-C 450 4.58 B RS 50.00 Nolider Commercial Center	St.	883, 885 Elliott	letter beck	1148 Sarden Street 17	Senta Berbera	25	-	8	36 25	6.00 Norsen Printing	use type RS/0 frontese land use 188/784
5000 Struer Actione Fernandial P.O. Box 92333 Las Angeles CA C-C 252 3.41 11800 PS 1.88 Thrifty Drug Store 6004, 6048 Struey free Higher I had 5te 1 Drice CA CC C 450 4.50 8 PS 50.80 Nolider Conserval Center	्य	M3, 885 Elliott	latter leek	Mill Corner Street #1	Seeks Broken				0.000		use type 85/5
6886 Street Actions Fernandial P.O. Box 92333 Los Apacies CA.C.C. 252 3.41 11880 RS 1.88 Thrifty Drus Stare 6886, 6848 Street fred Highell 1548 Numbolist Rand Str I Drice CA.C.C. 438 4.38 8 RS 39.68 Nulliday Conservals) Center				/4 table 100 to acc	9010 20100	3		2	3F 3G	8.80 Nortucket Art	fruntage land use 188/384
AMM, GALS Street fred Highell 1500 hamboldt Raad Ste I Drice CA C-C 459 4.59 8 RS 59.00 hollow Conservial Center	ış :	6000 Struth	Antione Terrandini	P. D. Son 92333	Los Angeles	200	R	1.41	11000 85	1 80 Theirity from those	
	3	6042, 6043 Suyany	fred Hignell	1500 Numbolst Ased Ste 1	Orice	2	87	3		St.M Noliday Conservial Center	Security uses

Landry - 1,000 as th Crystal Clemers - 1,000 as th Fuller Flowers - 1,600 as th Standard Beauty Supply - 600 as th E.J. Cardin - 2,400 as ft V-810p - 2,600 as ft Sears - 1,200 as ft Flabdon Crossroods - 1,500 as ft Relider Barket - 7,000 as ft

K/1/C #82511									Kennedy/Jenks/C
Record & Farcel No. Situs Address	ž.	Ower's Street Address	City, State	Zone	Front Front	Are. 30	Adiding Current area, use so, ft.	Arte. Building Current EDO's Business name sores arte, use so, ft.	Other information
									Notation Thrift Sop - 2,386 so ft Sorous Maitz - 4,886 so ft First Interstate Bons - 4,886 so ft Phato Pince - 158 so ft Paradise Chinocratic - 1,286 so ft Paradise Coin - 386 so ft California Properties Real Estate - 380
35. 52-48-40 825, 815 Elliott	Albert Perre	815 E115ett		3	181	8	2080 80	1 M Sunstin females feet	
	Carl Youngday.	6633 Skywery		3	27	23	2 22	1.80 PEC No Sales it Sever Barrenses	
200 St. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co	Carl Youngoshi	6633 Stynety		I	æ	25.50	158 ES	8.58 PTC Nobile Nose Sales	
THE STATE OF	Lynn Tilden fronte Betroluk	6219 Streente	4	3	53	9	588 ES	8.59 Earthdance Indian Store	
8	Janice Lightroot	3685-0 Lornile Circle	8	3 3	4 5	2 2	2 2	E.M. Strvey Tooks	
	Narold Pareer	Zero and Harrington St.	Ainsworth	3	2		No.	Left 16K Constar	200
3 5	Narald Paren		Alreadth	23	27	8.8	53.05	1.80 Danue Nue	
AND SOUTH AND SERVICE OF THE SERVICE	Noreld Sincleir	SAGE CATTO Lane		I	H	27	1286 85	3.88 Shell Service Station	
	Lindo Antibatement	209 Milh Avenue	Sen Miles	3 :	2 :	5	15.00 PS	1.00 linged Gestline	
22	Lucille Noffian	P.O. for 1878	49100100	2 2	3 :	2 1	2 8	1.80 Repail Gas Stration	Perking Duly
1.70	C.E.R. Investment Coppery			3	181	3 3	2388 75	6.30 All 5 hardware 8.50 handles field at pro-thouses	
0.00	Militon Nenderson	757 Fir Street		T	10	0.0	1588 85	1.88 IQM Auth Parts	
	Jorn Talle	1542 Bidsell Averue	Chico	85 15	3	8	28 55	6.50 Paradise Lock	50 mm 20 mm
CM 53-14-1-16 6236 303489	Halland Precaust	P.0. for 1175		9	13	6.12	1588 RS	2.00 Noy Taylor Neets	frontage land use \$5/%
023	Notined freezen	F.U. 500 NU		3	R:		2	2.8	frontage land use 78/75
	Alain Toestis	132% Olivet Drive	Pagelie	9 3 3	2 5	2:	2 20	8.58 Bobcat Clothes	
-	Mountain Valley Investors 419 Locksley Court	419 Locksley Court		3		. 2	188 83	1.00 Custom Indexist Protography	28
	Dissert Roldings Inc.	1555 Velvend Pty	Cerrollton	11 0-0	E E	2.0	288	1.00 Disnord Lunder	con 1994 Pays
50 50-10-41 410 4111001	Remark Wilson	SARO Slack Olive Drive		¥	Ħ	9.85	388 ES	1.88 1 Nour Photo	use type RS/S
20	Royald Sevi	We untitted then brive		2 :	3 ;	27	128 25	1.58 Apple Ridge Flourist	
250	Roland Sdovicts	1651 Costs Origon	Side City	2 2	2 5	9 5	2 2 2	8.36 Artiques	
553 SP-19-1-34 6361 Street	Glero havell	P.0. See 457	1000	2 3	2 2		C 807	Lie Paradise Book	
557 52-19-1-36 6139 Severy	Bank of Paradise	P.0. Ser 259		2 3	2 2		2000	6. X books of Paraclus	
	John National	6389 Street		3	. 8		180 25	8 St Nother! Courties Court	
_	Kerneth Purray	1578 Torrey Pines	Pepelie	200	. 19	12	388.83	8-56 Investellar IV	*
	Rorald Cook	11488 Northviny Drive	Nevada City	20	12	57.5		6.56 Sirkerstool's footsciets	
6543 Syvery	AUXID Proenties	12938 C. Mittler flad	Wittler	\$-3 to	R	6.17		8.50 Nobel Oil Ses Station	rloand
Mi 12-17-7-17 Kill, 6122, 6138 Syner	Nike Berijay	till Syuty		T	22	=		8.88 GAN Furniture Sales	ACADA I S
ACT OF TAXABLE AND TOTAL OF TAXABLE AND TA	James Vollbery	625 No. Nain Street	Porterville	2	141	1.75	2900 ES	8.58 Miller Gless Co.	
573 Shift-Life 6805 Ships	Fate Serilor	6118 Saver		I	23	8		5.88 Off furniture Sales	
1	Street lists	53 Fire Ivene	Sen Certon	33	g :		1888 15	8.58 All. Discount (clothes, ters)	
366 52-19-3-2 6807 Sayuan	Loreta Garrough	1418 ledte Oak Drive	Senta Rosa	3 3			2 8 22	1.W Denty's Garage/Tal Time	use type RS/5
曼	Stanley Cleant	P.O. Box 6	ferre near	3	8	12	288.52	8.50 lesters Auto	

	1.88 Car Seles Cospery	258 155	6.78	2.	3	Pegalia	P. C. Box 547	Adolph Prerson	M.72 Stylety	331
	1.58 MJ Seed Barine	2000 53	2	1 11			1822 Massaff	Lavrence Fuller	SIN, SIN Sever	74.52.57
seles	2.00 filte ferguson increation Sales	3888 25	3	8	3 :		SOAR Vista May	Entraction	Skill Savier	
	8.58 Tire Store (alte sales)	2280 85	2.53	18	ĭ		5522 Skywer	Deal Townerd	SSB Soney	20000000000000000000000000000000000000
	8.9 Paradise Issorted	JAN ES	2	8	I		P.D. Box 6%	Jan Cernerius	SRI Foster Boad	
		2 2	× ×	128	3		438 Pearson Road	Nellan Trust	456 Pearson	_
10.7	8.50 Ace handware	20 20	2 2	2 2	3 3	Proville Proville	SUR N. Nothel Cort	Nertin Couley	MSS, Skil Black Giller	
ů.	1.89 Star's Consignant	180	# I	9	I :		V29 Promisson Lave	Rectin Colon	M Person	
,	8.58 Plant Nursery		8.63	10	2		M2 Francon	Bob Aberoroable	- Person	10 Sept. 10
	8.56 Anitax Sales	1280 85	6.15	28	3		348 Premson	Velan Nassie	148 Pearson	
[10mc1]	8.36 Barner's Peredition	22 000	2 2	* *	2 2		652 Perers Lave	Walter Newson	228 Pearson	
4	E.M. Sprins S. Artigues	2000 20		2 5	5 3		P.O. Box 797	Velas Jefferds	SLSs Ellack Olive	
	B.W Don's Stock	2 2 2	33	2 2	3 3	arrig	225 Sterms Rod	Notest Estres	163, 1697 Pearson	
	8.50 hert's fabric larid	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		8 5	23	Dies o	1925 Nove Per Boat	Serland Nert	17 Pearlon	
	1.80 Persolise Sousson	200	1	2 :	2	1	F ft Los 1998	Serland Nart	SAD files diffue	
	8.58 Norton's Stoes	2788 85	2	# :	3		7.0, 501 21	Any filling	Jill Rinch	
ment	8.39 No and Nearly New Consignant	1880 PS	8.8	9	735	Dis	SM2 Nackasore Lane	tois teen	78 78 EUCH	Me to mark the
	8.38 Carpet Store	1888 ES	#.TS	186	200	Drice	3342 Nackasore Lare	lots lash	Ag airch	State of the
	8.50 Elegant Nose (clothes)	1880 RS	8.17	3	3		P.O. Box 931	Joan Meriotti	SSS3, SSS1 Allsand	
	8.50 fer's Linux	2000 ES	13	2	33	Chico	Rt. 2 See 156A	Berrard Richter	SM4 Street	20-0-19
	2.88 EM Auto Sales	880 PS	8.	18	3		SAST Seyver	Craig Broackel	SBD Street	
	E.S. Peres Acts Actions	2 82	1	1 22	1		S.77 Barbarre May	floredd West	577 Serbors Ney	20-23-0-44
	6.54 Blok's Floor Covering	2 8 8	6 5	2 2	2 3		SECS Street	foreid Southerth	SES START	B-12-0
	1.80 Old Time Dells	200	23	9 8	3 3	regelis	SSE Const Original	Richard Butz	Skill Street	S-21-1-21
8	6.59 Community House Thrift Stop	25 P.S.	17	2	3		P.O. See 1884	Paradise Com. Council	S726 Alsond	CC-85-58-55
frontiae land use 28/388	8.50 Paradise Natural Foods	8	2.3	8	3		3657 Debbie Lane	Mick Maryline	5725 Alaced Street	50 St 20-12-13
Numb's Auto Service 1,888 sq ft.	1.00 Carolin's Interiors	282	-	8	5		100 (1) 00 (12)			
AND CONTRACTOR OF THE CONTRACT	2.80 Paradise Auto Parts	200	5:	28 1	3 3	Sen Ream	2450 Paddock Drive 254 File Great	Centrus Atlians	No. Fir Street	590 50-08-1-3
use type RS/S	1.89 Chessic Neils	20.00	2	23	200	Or Jand	ft. 3 for 3M1	Agres fumen	GALM Street	
	8.58 lits Salon	20 88	97.90	2	5	Orland	Rt. 3 See 1361	Agens Ruhnen	SIS SOME	_
	8.58 Triangle Appliance	20 00	2	210	3		6689 Sher Lane	Seleva Nakfret	68% Poster	出一時の
	8.59 Wood Neet; and San Stare	2000 ES	6.34	119	3		6689 Shar Lane	Serieva Molfer	AES Foster	11.
	8.50 House of Color - Paints	1888 85	2	2	3 3	codeo	\$51 Kares Drive	Eastry Wanes	698, 788 Fir Street	
	8.56 Permittee Freed Store	288 85	6.0	E	9575	Surervale	368 E. Eselyn Safte 321	Diarre Sentill	25 Peerson	
	1.66 hose and Crefts.	2 8	6.12	3	8-3		SUS Clark had 854	Ribert Sanders	45 Peerson	-
STREET STORAGE	8.50 Peredite Page	8	15.0	9	3		6868 Sayety	Robert Larson	6852 Scruer	
ales lided stooms	8.58 broucing har (art)	1806 85	8.63	173	5 5	Redding	4388 Alba Casino Brive	Robert Bailes	9925 Featur	
	# 56 Memo-th (Chathan)	1888 85	2	F	83		P.O. Box 26	Normer Feetlly Trust	684 Syney	-
	1.88 Barbara's Lagos & Artigues	9	8	*	8		6M1 Syver	Glern Rusell	68ki Seyvey	
		ii ii								
		8775, 458	100	footage						
Other Information	Area, Building Current EDU's Business news	Milding Current	i i	Front	Zone	fity, Sabe	Ower's Street Address City, State	Over.	Situs Aderess	Roord I Percel IIs. Situs Address
										K/1/C 80513
KennedyJen										Parcel Information
										Mastewater Fessibility
										Tour of Paradise
										Tage No. 9
										-
			,	1	1		1	I]	1.

S/R Discount Stookbrokers Durleen's Jor Dress ES/S v ES/S ES/S ES/S ES/S	S/R 1.20 Julick Printing, house 8.30 Antique Lighting 8.30 Coln Store 1.00 Helingers becausing/las Srv 85/S 2.00 Undelsters by Data 8.20 Allan's Screen and Sodes 1.00 Jerry's Olscout Tire 8.30 Meeting Neuring Alia 1.30 1-5ton 1.50 Pir Printing 1.50	** ** * * * * * * * * * * * * * * * *	252553525	333338888	*****	Shine Chine	1132 Cillott 4155 Berkulin ker 6159 Berkulin ker 6159 Berkulin ker 708 Draw Lane 639 Clark Rod 639 Clark Rod 639 Clark Rod 7-8, Sec 235 7-8, Sec 235 7-8, Sec 235 7-8, Sec 235 7-9, Sec 235	Borner Cordell Betty Healmann Betty Healmann Betty Healmann Francis Blasert Willias Noble Willias No	UIR Olifett 396 Cars 392 Cars 392 Cars 392 Cars 538 Cars 638 Cars 538 Cars 538 Cars 539 Cars	90 5-15-1-3 90 5-15-1-4 90 5-1-4 90 5-1-4
1.00 hoses landware 3.00 Setwar 18.00 CSM, batown vides, Flower Mil Ornistopher 3s, Clarice Dates, Jeans N Stuff, Servare Reitz 3.00 Carrisse Swiers/V REIV	1.80 house herovers 5.80 Selevery 18.80 CSA, beton video, Flover Mil 3.80 Cerrings Designs/V	8 8 5 5 5	5 5 5 5	383 -	222 Z	Misowille Misowille Sorteerto	998 Clerk 2015 to Person Lave Missovilla 925 to Person Lave Missovilla 555 Central Pull, Ste 106 Secreento	Number Country 5998 Clark C. Pole Easies Street Se 2003 indisert Orlor, Stel Surmenta Pestess Organ Stores MJ 9275 in Perton Lave Missorialia Jano Mariety Line, 555 Capital Pall, Ste 108 Secreenta	999 SS-184-325 S998 Clark 984 SS-184-326 6826 Clark 982 SS-184-327 6826 Clark 988 SS-184-3-44 6834 Clark 4,8,5,5,0	99 55-18-2-35 90 55-18-2-35 90 55-18-2-35
6807, 5943 Clark 1807, 1885 Elliott 6807, 5993 Clark 1807, 1885 Elliott	L.M. Wilter's foot	. 60 1 85 1 75 85	2 3	E 2	3 3	Tube City Tube City	1328 Norn Bad, 43 1328 Norn Bad, 43	Roper Landeren	SWS Clark SWS Clark	865 SE-TR-P-14 9993 Clark
	1.88 Parellae Auto Center 6.59 A. Parter Bents (sec. supply) 6.59 Daris Sav B Servic 6.59 K.V. Fence 8.54 Kr. Servic	* * * * * * * * * * * * * * * * * * *	2222	22222	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Shine Chine	MAYS heliwood brive P.O.Box M7 427 E. Parl Avenue 5729 Crestview	Edward Protectional Consults Service March Valley Ferce Br-bern Inc.		80. 53-84-48 83. 53-84-48 84. 53-84-48 84. 53-141-52
	Live Lee 5 7000 & Libbor E.S. Video Boo E.S. Finedisch dullet L.S. Finedisch dullet L.S. Finedisch Lee Concery E.S. Merdischt's Used Liothing E.S. Merdischt's Used Liothing E.S. Merdisch Reio E.S. Apole Preto E.S. Apole Preto E.S. Fannisch Antiques E.S. Fannisch Antiques E.S. Fannisch Reion Sports L.S. Brankles Notor Sports L.S. Brankles Notor Sports	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			3222222222	Chien	1625 fengroet Aus 1625 fengroet Aus 1626 Street 1686 S	Nortion Notions Nortion Notions Lited Cornellius Southland Corn Pine Corn Place Pine Pine Pine Pine Pine Pine Pine Pine	71234 Streets 7124 Streets 7124 Streets 7125 Streets 7126 Streets 7148 Streets 7148 Streets 7148 Streets 7148 Streets 7148 Streets 7148 Streets 7146 Streets 714 Streets 715 Streets	65 5-61-62 60 5-61-62 60 5-61-62 60 5-61-63 60 5-61-63
Other information	Arts, Building Correct EDU's Business name scres, use sq. ft.	Milding Durent erts, ste 50, ft.		Freet feedage	Page 1	City, State	Gamer's Street Address.	Gener	Sibus Address	Anord I Partel No. 31bus Address
Kennedy/Jenks				*					x ## 8	EXAMPLES Then of ferralize Then of ferralize Study Percel Information (CITE SECSII

Note No. 11 MANNON of Persities Note of Persities Study Percel Information (VJ/C 882511

Recard I Percel No. Situs Address	Situs Address	Ower	Orner's Street Address City, State	City, State	lore	front	in in	Gldino Current	Arts, building Carrent EM's Business neer	Other information
						footage	BOTES	arts, use		SOTTON ALL STATE
								zi g		
181 54-44-21	511 Pearson	Cila Invers	F.D. Box 293		33	35	57.0	200	100	
22-F-X 261	491 Pearson	C.N. Lanser	P.D. Box 748		1.0	9	17.0	2 00 1	1 80 today Tables	
100 2-4-5	655 Premium	Carlisle Richards	191 Valley Ridge Drive		3	113	8	20 90	A 45 hours, a faculty	
1000 34-44-59	651 Premson	Carlisle Richards	191 Valley Ridge Drive		3	1 2		2 3	a to benefit formity	
1811 St-84-69	427 Feerson	Carlisle Richerds	191 Valley Ridge Drive		3	10.0		1865 94	The Prince of Lines	4 - 4
元中元 286	SAS7 Clark	Oscar Smoter	P.D. Bor 14583	South Lake Tabos	200	1 2	1 3	200	1.45 tracount Lidure, page 1008	11 12 12 12
元年本 金門	SAS7 Clark	Oucer Smoker	P.D. Box 14583	South I Also Tabos	200	114	8	2000	1.00 Mtd 5	500
1866 St. etc.	454 Premson	Rellan Inter Vivos Trust	UB Prenum		2	94.9	1	2 907	THE CENTER OF MELLIN	9/9
ST-ST-15 CME	USe Premion	Mallan later Vivos Trust			\$ 2	2	2 2	0 10	1.36 Audion s Apollience	
27-SP-75 2781	438 Pearson	Belles letter Plant Ireat			5 3	9 :	8 1	2 10 10 10 10 10 10 10 10 10 10 10 10 10	6.38 Certalic heaven	
1942 54-85-43	168 Paseron	Mallion September 15 cars	100 100 201		ž.	25	8	200	8.59 Linde Nose Care	
1070 52.05.13	AND Beauties	SEAT THE VIEW PARTY INTER	100 700 100		Z	200	8	250 250	1.80 Paradise Beking Company	
2000	402 regradn	Relian inter Vivos Irust	480 Peerson		Z	20	9.8	580 75	8.50 Button Enterprises	
POP N LINE	454 Pearlion	Relian Inter Vivos Inst	480 Pearson		3	36	8.8	25 987	8.50 Report Store	
27-9-X 231	456 Premion	Mellian Inter Vivos Inust	48 Prenson		Z	200	8.8	58 987	8.50 Sture's Lock	
27 S-16 T	466 Peerson	Mallan Inter Vivos Inust	488 Premium		3	360	8.0	58 007	6 St Optistion Science Bearing Born	
1801 St-6-25	488, 482 Peerson	Relian Inter Wess Irust	488 Person		25	3		2000 94	St. California Services Constitution and	
表-字-A 5/81	486 Pearson	Mellen Inter Vivos Trust	450 Pearson		3	100	2	2 60	S to Children of Breadles	
200 x-2-2	485 Pegraces	Relian Inter Vivos Trust	438 Peerson		2	2 3		2 1	a to train and the second	
1117 St-8-16	SSS Clark	Ribert Sen	187 Gard Lane			174		2 1	E.N. Maje 5 Pet Put	
1118 54-49-27	Still Clark	Becade: Flash	380 Super Bad		£ :	8	1	2288 82	8.58 famil's hose center	
1145 54-19-41	Will Clay	Ullace Australe	CAN'S SECURIT MODE		3	*	6.65	2580 ES	1.29 Diduce Construction	
110 4-15-41	Club Clark	Manager occupant	DOME LITTLE BYBIG CBTYON		2	185	2	2800 65	1.88 Ace Sentals	
116 6. 19.19	2000 11871	Creip Wilson	SMC Clark		2	N.	3.67	2300 85	2.58 Bost Snop	
SULT RES	Na can	Charles Rent powers	198 Walley Way		3	33	2.48	1888 75	2.88 Naircrafter	85/8
30. N. S. S.	MA Clark	Nery Reinhold	SSA Clark		ī	CI	7.41	1700 PS	1.28 Kill Autosotive	
17-K-18-10	SESS Clean	Variation of Trust	P.O. Box PR		7	130	6.51	2000 20	2 80 Percentise and Calcalder Budlac Br. Budlac and	the Reference of State on an
100 S-28-C		fells fullers	P.O. Box 1287		14	8	9	8	1 M Enthre's Bookstone	11 No 100 T 1 100 No 11 11
STATE OF THE	711, 783 Buscharm	Fare Coss Park Red Center 771 Buschsamm Road	771 Buscheern Red		ž	45	8	5 8	80.67	15 buildings: phenacy, and lab., 15
		1	3.524 - 0.000 3.12 0.000 0.000							doctors incl radiologists. 5 destists
100 mm o		T Marie	26 Villiambury Lave	Option	200	K	27.0	1780 S	3.68 Brooks Pet Grossing	
80018	581	T I Mest		Origo	20	12	8.87	1480 S	8.80 Kinship Vet. Clinic	
2007	MATE CLIBYS	Otherster Sevings & Loan		Bever'ty Hills	200	239	8.90	1986.5	3.56 Elbratter Sevings.	Gibralter Saulnos
C +1-4-2	MASS Clark Red	Secrements Sevings	P.D. Sec 872	Serraento	333	R	2.73	3288 S	4. St Servagento Sacines	Office and and and area
7 34-14-62	6625 Clark Rad	Caryl Firmult	6635 Clark Road		z	19	8.75	1288 S	1.80 feodir Serve & Associates	
記念表記	4548 Clark Red	Nelvin Salin	785 Street		2	35	W 10	1900 c	B G Green's Tree Consider	
不完 表 不	6429 Clark Red	Lyle Benedict	1948 Dean Road		2	12	0.00	1990 6	2 Miles 1944 1941	
おおおお	64M, 64BS Clark Road	Central Bank	M. 28th Street	Del lay	200	1 2		2000	The state of the s	
お水水の	1457 Measteff	Novell Fasily Irust	SALS No. 1 (100 Prest)			:			1.10 URINES DOOR	
おおまれ	6787 Chert Bard 438	Crafe Liebty	COR Shoot not 5	-	\$:			5 8071	8.36 Sien Realty [Tesp - vill soon]	
20 20 20	6669 Clark Boad	News Carioss of Securior	The selection when	anna.	2	9	8	5 82	2.88 A-Glen Realty B-Ed Junes Stock /1188	. 71100
55 SE-48-86	All Clark Boat	The state of the s	and standing band.	LOS ANDEJAS.	2	150	0.42	2780 5	2.86 hose Serings	
2	WITH LIGHT MAN	TO BOLDS TAKE	WAS RIISHIYE ENG	Beverly Hills	2	-	2	13586 5	2.86 Siers Central Cred Onlon/Video IIS Video Rental	It's Video Rental
20十二年 25	6616 Clark Road	Paradiae Plaza	9864 Wilshire Blvd	Severity Hills	2-5 00	•	8	13480.5	9 19 lists Sentation	
20-10-98 CS	6648-1 Clark Road	Faradise Plaza	9864 Wilshire Blvd	Sever'ly Hills.	20.00	9		5 0070	The formal project form	
25-12-15 MG	1899 Mepstaff	Den krderson	1899 Meestaff	-	1 2			2000	A. No. Colonially Photolic Deriv.	
\$6.51-13-13-13	\$321 Severy	Paradise Ready Mis	KUI Sever		\$ 2	8 5		5 000	E. S. Peredix Realty	
			dan in a sunt		\$	274	7.7	5	6.38 O'I Gravel/Rook	

		Kenned _W J	Other Information						prite)															frontage land use 127/434										,		Ş					
			Paris Paris					-	9 (sobile)													_		fronts	Delt.														100		
1			Area, Building Current COU's Business name sorts erret, use so, ft.		8.50 Knem Const Office & Rock Stre	1.88 Paradise Britriperation?	6.86 Crone's Trensalssion	1.88 Jamie's Auto Body	1.20 Semis Struey Sediator	6.50 Ainistorage	1.18 Paradise Abbilance Service	1.38 besign Studio	C. Of Priples Bliff Storage	7 88 Sav's Surface's	2.86 8111's Auto Appeir	8.80 Rocky's Redistor	3.58 B.J. 's Towing Service	1.00 Delate Breed Atty.	E Se Not Towns has Caroline	8.58 C-0 Startmenton (tools)	8.59 Lispinosti Suvering	1.49 Graphic Laurensions (Printing)	8.60 John's Gargon (suito repair)	8.00 Leisure Land Seal Estate	4 10 10 10 10 10 10 10 10 10 10 10 10 10	5.30 Let less Co. 2.30 Series's South Calcon	8.50 Paradise Mini Storage	1.58 Arch Merjawa Construction	5.28 Averton Sevings	1.18 Funderosa Realty	3.00 Susiness Offices	1.00 Business Offices	1.00 forth features.	1.06 Section/Freeen Chi's	8.00 NSV Insurance	3.88 Neart Federal Sevings	1.88 Paradise Nortgage	8.88 Troses Brown Orthodontist	A. St. Car. Mach.	2 00 Transaction	8.86 Farcy Finery (usino)
1			building Correct erre, use so, ft.		0.000 5	88.0	38	2002	3	90	3886 \$	1386 5		500 5	1786 5	1288 \$	2540 5	9 900	200		1286.5	1286 5	5 8867	1286 5	93	2 22	8	2 880	2,000	258.5	2186 5		1990 5	282	1586.5	2000 5	1000 5	1888 5		1808 S	3
•			4 F 8		2.43	6.50	2 :	*	X	W. W.	1.65	3 1	2 2		6.19	8.18	2 :	8 1		9.63	28	3		8 8		2	2	8.8	1.63	3 :	9	7.7	8	2	8.18	8.39	2	2 :		2	2
			frost feetings		R	1	8	g z	1 11	•	278	8 1	1 5	171	3	5	28 5	2 *	. 12	2007	8	8 :	8 7	9	2	2	ĕ	3	18	2	g •	• •		•	-	35	\$	2 5	e e	: 3	3
1			Zone		3	3	3 3	2 2	r	I	3	33	3 3	3	Z	3	33	33	3 3	3	z	3 :	3 3	2 2	2	: 3	X	Y	3 5	2 :	2 2	53	2	3	z	2	3	3 3	3	3	235
1			City, State			Megalia	Megal 18	ACCUSATES.			Pegalia	Drowille from ille	all the same								200000000000000000000000000000000000000	Gerberville	MILITARIA MARIA						Stackton							Arburn				Chico	Chico
			Ower's Street Address		278 Willer View Drive	P.O. Box 512	F.U. 501 517	1165 Meestaff	S789 Copeland Rand	SELL Mildwood Lane	P.O. See 217	22 Leading Laws	Sook Cathy Lave	P.O. Box 985	IMI Green Tree Court	IMI Green Tree Court	INI Green Ires Court	698 Santet Delve	P. O. Box 2013	P.O. Box 1395	MAN Bille Road	912 Redwood Driver	P.D. Box 12%	P.O. Box 1284	44 Sterre Viste Orice	44 Sterra Vista Drive	7856 Skywer	1839 Arrowhead Drive	399 E. Meter - 2nd Floor Stockton	Side Street	400 Settington Park	492 Nettingen Park		ENTIL SEPARE	91,518 Stynery	F.O. See 1728 St. 115	7.0. Dog 380	753 Case 115s Deles	P.D. Sos 1872	Ber 425	
			Decer		Calvin Keen	Sonalid Crone	Bord Joneson	Nelvin Noorhead	Sentord Dean	Wildwood Ministerage	Moreone Velliquette	Robert Stevens	Ronald Sinclain	Norman Mr. 1911	Devid Jerro	Devid Jerro	Duright Breed	Stver Instituti	B.E. Foster	Nancy Eiger	Miel Liselnosts	Cilberton facily inst	R. Jode	R. Joule	Allbert Nersa	Alliand Nants	Peter Sonnader	Levis Reider	Aserican Sevings & Loan	TALL P. Inc.	John Bulline	Jon Bulton	Number in Visiter Investors	Nariane Sethas	Natione Sochus	NO SWINGS	Mile Mile	Jed Terum	Richard Riser	Dolght Bess	Divipit Bess
		ħ.c.	Siltus Address		dady acreer	8271 Screen	IIII Kesen Lave	1365 Septent	8336 Styver		MINI SOURCE	MPS Stovery	7KS Stover	79k7 Stynery	MW Green Tree Court	MAN breen tree court	Milk Street	7655 Structor	7849 Skryeer	1867 Rochelle Lane	MAY SALLS	NAC Street	18545 Lise Lave	7816 Servery	7865 Struet	78654 Sayany	7836 Strver	GM.7 Need Road	NAC MART	AUSA & S Styan	WAY NO SEYAN	With 7862 Sayana	6685 Stryety	69327 Screen	WALL Styles	AUR Cooler Count	All Carter Great	6177 Center	63M Center Street	GHS Street	63% Center Street
	Fage No. 12 63/No/89 Town of Persolise	Westmoster Feesibility Study Forcel Information K/3/C 882511	Roard I Parcel No. Situs Address	100 00-01-01		187 51-13-1-17		-		122 N-14-9-18			149 51-15-2-16	146 SI-15-74	8-13-518	10 20 10 70 10 10 10 10 10 10 10 10 10 10 10 10 10					The State of the S	352		N-1-1-15 MI	18-7-11-15-91		28		N 50-40-50			20-18-05 IN	27-8-23	20-W-16	278 27 Sept. 18		55-98-55				20 20 40 20

KUN MESHI											
neon's Percel So. Situs Address	Situs Address	Ower	Duren's Street Address City, State	City, State	Zone	front factors	Are, T	seliding Current eres, use	Area, Bailiding Current EDU's Business ness sores, seres, use	Other information	
								i			
27-28-55 522	692 Sover	Virgil Anderson	P.O. Sox 463	Nerford	20	35	8.41	2 888 5	1.28 Brecon Station - gas	fracting land use 134/165	
247 52-46-37	6779 Sovery	Howard Velliquette	6779 Struer		3	*	6 33	2 007	P. G. Bellingerte, Santie.		
28 5-8-22	598 Acciain Lave	2			Z	180	27		8.50 Manuf Schoolston		
15-49-25 662	5912 NoClain	76				-	15 8		8 to POST Sparation		
27 PF 25 PF 25	755 Ellistt	faroly fests	SRII Country Club Drive		3	K	8	S 2879	4. M. M. Mehire Spec		
27-89-55 SE	795 Ciliott	Caroly Catto	Skill Country Club Onlive		3	K	8.8	1200 5	A SE SE LACTOR		
27 ST-84-CS	75 Ullistt	Karoly Kasza	SRI1 Country Club Drive		3	10	8	2000 5	E. St. Mari's Arthur Body		
27-8-22 EX	795 Ellistt	Earth facts	SELL COUNTY Club Drive		I	R	2	1588 5	E.M. Gres and Bon's Sheet Stop		
25 ST-88-42	MAY, MAS Elliott	Malter Sect	1989 Garden Street 47	Sents Serters	2	-	2	200	1.00 feather River hase Health	frontage land use 188/384	
25-89-52	\$23, \$15 Elliott	Albert Perre	815 Elliett		3	-	1	2 95	The Applies falls deather		
25年25年2	\$23, \$15 Ellient	Albert Pene	815 Elliott Road		12	1 5	1 3		a to him a control near scyling		
日本の大	6687-6611 Styate	Steve Gerevich	6687 Senater		2	107	2 2		THE PARTY COURTS		
12-69-03 BC	4385 Skyway	Scarteen Corporation	P.D. Nos 7480	Los Angeles	3	138	2 2		2 G CONTRACT CONTRACT	designation from the con-	
124 59-13-1-11	4090 Skyway	William Sorumon	5539 Nerrison Road		3	9	8	2786.5	8 St North Pides Past Control	201 (NOT 200 OLD) 1/4/10/10	
25-12-1-25 SE	SELL Mildwood	Loren Berrett	SEES Wildwood Lane		3	2	8	8 8	E.S. Ministorace	frontace land one (BIV)	
\$1-1-01-01 PM	SESS Milithroad	Loren Bernett	Skil kildwod Lave		T	9	3		8.80 Ministorese	frontace land use (807).	
38 50-10-1-5	666 Elliott	Lavrence Acheson	666 Elliott		3	165	22	800 5	8.58 Acheson Sign Co.	one type 6/05	
#-1-0-ds #3	6265, 6353 Stynery	Glein Parwill	P.A. Soc 457		1.5	10	8	1000 5	8.58 Alloine Seal Extate	frontage land use 547145	
399 52-12-1-22	6339 Skywer	Lyrn Tilden	6219 Strver		2	2	8	200.5	1.68 Lym Tilden Sentist	70100 000 000 000	
421 SP-10-1-12	648: Syvey	Errobe Kottybuk	164 Cohesset Road	Olice	25	4	3	2 886	8.38 Frank Fredericks Sen. Controct	h	
25-12-12-23	GARD Strivery	Erride Katyliak	166 Constant Road	Orice	25	3	8	2 888	1.88 NM Block Ten Service	i i	
W-1-21-25 CT	6345 Stylen	Beverity Endean	P.O. Box 6230	Eurela	20	R	=	1888.5	8.58 Cabbler's Shoe Repair	use type S/RS	
20-00-00 Mg	Mary Screen	Villias Perry	P.O. Sor		1	2	2	5 800	1.88 Glbb's Dentist		
7-1-11-15	6451 Server	Name of Person	Zero and Harrington St.	Aimsorth	8-1 H	25	2	5 889 5	3.88 U.R. South Insurance		
# 121-25 Mg	6449 Scyully	Harold Parcer	Zero and harrington 52.	Airaworth	8 C-8	27	8	5 899	E.M Street Directoric		
7-1-1-1	DALL SCHAR	Marold Parzer	Zero and harrington St.	Alreaorth	3	21	6.8	888 5	8.80 California Nedical Claims		
700000	66.39 Server	Harold Parzer	Zero and harrington St.	Ainsaorth	F C-1	138	2	1200 \$	8.80 Bersan Cleaners		
00000000000000000000000000000000000000	DIONE CAR	Doe Seem	9425 Alsond		9	K	2	1700 \$	1.89 Dai: Ridge Builders.		
Date of the state	THE SECOND	COCCUSE NOTTHEN			3	111	2	5 886 5	1.80 Velvet Touch Beauty Selon		
17-2-27-27 are	Court School	LUCITIE NOTTHEN	9		5	n	2	1500 5	8.86 Bidwell Title Company		
# 10 months of the	DARK SKINGS	C. E. P. Investment Conputy	e e		3	2	3	1000 5	5.88 Sutte County Title Cospany		
Marin and and	DARRO MUNETY	C.L.A. Investment Company	d		3	128	2	1866 5	8.60 Paradise Telephone Assuring		
866000000000000000000000000000000000000	SARS SCHART	C.E.A. Investment Coapery P.	d		I	75	2	0.000	8.89 Wildwood Beauty Salon		
Berger 200	MIN Struey	C.E.R. Investment Coppery P.	9		Ī	27	8	3,996.5	8.89 Enterprise-Second Newspaper	offices	
92-11-12	DADE ALBERTO	Don Salth	SKS Alsond Street		I	280	673	1380 \$	8.58 Sotiller/Riberts Lav Attorneys		
# 10 m 10 m	DOME A LINCOLD	Novale Sincials	2008 Cathy Lane		I	2	6.21	288	8.58 Auto Repair (no name visible)		
201 00-10-10	AND MARK	Carl Williams	SOON Dries law		Ī	2	2	S 982	1.88 Earl's Better Stop		
100000000000000000000000000000000000000	ESE Myety	Janes Marren	P.O. Box 973		Ī	S	6.24	5 987	1.88 Redicare Suplement Realth		
10 00 00 00 00 00 00 00 00 00 00 00 00 0	GAL Systy	Jases Marrell			I	5	8	5 907	8.88 Ados Insurance		
Ch.	Arro Rouge	bark of Aserica	P.O. Don 37889	Sen Francisco	235	2	2	2 886 5	2.86 Bark of America		
CO. 171-17-17-17-17-17-17-17-17-17-17-17-17-	AND ATT START	Tolland /recean	P.D. See 1176		Ī	28	9.8	2 905	8.86 freesan Financial Services		
504 50-14-1-18	SZR Stratt	Nontain Valley Investors 419 Locksley Court	rs 419 Locksley Court	10000000	3	SI :	8	1880 5	1.00 Paradise Sarate Studio		
	WAT FURNISH FRIDES	DOUGH MALDIES	AZM NEIGHOUS COURT.	Paralita .	200	*	2	1990 5	2.00 Hopey Nair		

Page No. 13
62/06/19
Town of Peredite
Statewater Feasibility
Stude
Pered Information
KUNE 82231

KennedyJer	i City, State Ione Front Arte, Muliding Current EDG's Business name Other information footbare sorts arte, use so. ft.	C-8 55 8.68 1208 5 2.08 herver ferrett bentjet C-8 188 8.17 888 5 2.08 ferver ferrett bentjet C-8 189 8.07 888 5 2.08 ferver fall bentjet C-9 180 8.08 8.08 6.08 ferver fall bentjet C-9 78 8.08 8.08 6.08 ferver fall bentjet Trontage land use 180/75 C-8 78 8.08 8.08 ferver fall bentjet CA N-C 85 8.19 800 5 8.08 fervelies frevel Trontage land use 35/188	C		Disco CA C-6 48 8.45 1888 S 1.46 Press Natura's hair Salon Chico CA C-6 118 8.42 1888 S 1.48 Dress Natura's hair Salon Chico CA C-6 118 8.42 2888 S 1.48 DANIST Cleasers C-6 118 8.88 88 1.48 DANIST Cleasers C-6 118 8.88 88 1.48 DANIST Cleasers C-6 118 8.83 888 S 1.48 DANIST Rediction - Purifiers Nordally RI C-6 28 8.11 888 S 1.88 DANIST Rediction C-6 25 8.11 888 S 1.88 DANIST REDICTION C-6 25 8.13 8.88 S 1.88 DANIST REDICTION C-6 25 8.13 8.88 S 1.88 DANIST REDICTION C-6 27 8.13 8.88 S 1.88 DANIST REDICTION C-6 28 28 28 28 28 28 28 28 28 28 28 28 28	
	Daner's Street Address	NG Committee Brive P.O. Box 146 P.O. Box 146 P.O. Box 141 AMM Ellists P.O. Box 1185	98 Central Park Drive 543 Server 544 Jeell Mod 568 Little Great George 613 Server 617 Server 617 Central Cells	A Li Gerreco Deller RLIS Sever F.O. Box Vol. Still Cone Rood F.O. Box 1361 R. J. Sox 1361 R. J.	Add Ris Linds Jenne 148 Scottsdeir Court 149 Scottsdeir Court 149 Strawn 150 France 150 Scottsdeir Lair DRD 150 Sewell Lair DRD 150 Sewell Lair DRD 150 Sewell Lair DRD 150 Sewell Lair LDD 150 Sewell Lair LDD 150 Sewell Lair LDD 150 Sewell Lair LDD 150 Sewell	221 K. 11th Avenue 522 K. 11th Avenue P.O. See W. 5922 Foster Road P.O. See SM 333 Sendosalsh Drive 148 Feerson 148 Feerson
1	Pare .	Hervey Perrott Richard hall Blowerd hall Frank Sterie Sere Son Jean keloh	John Coverston Jerose Nenier J.M. Elsosk Donald frue John McCool Donald nevett Johns Flood Actional Period			That That
l t e	Situs Address	259 Alamid Street SSS Alamid Street SSS Alamid Street SSS Alamid SBS Elliott SBS Quem Brive	617 Street 886 Joseff Red 885 Street 510 Street 615 Street 615 Street 611 Street	6807 Fotor 5804 Shwar 680 Elruh 722, 728 Fir Street 172, 724 Fir Street 1519 Street 1519 Street 1519 Street 1519 Street 1510 S	MM 11 Street MS - 811 Code MS - 811 Code MS Street MS Street M Person S Person S Person S Person S Person	MAN Street MAN Street 78 Sirch 552 Foster Road 119 Feerson 552 Allond MAS Allond
Page 10. 34 12/6s/8s Tow of Persoline Sector Fersibilities Study Percel Intersection KANE SECSI	Record # Parcel No. Situs Address	150 St. 151 St	25 25 25 25 25 25 25 25 25 25 25 25 25 2			

Page No. BL/BS/399 Inchestor Parcel K/3	wer for. 15 JOB/OF Town of Persoline Study Percel Information KUM: MESSI	, £ s									Kennedy/Jenks/C
Record I	Percel No.	Moord I Parel Ib. Sibs Abress	brer	Ower's Street Adress	City, State	De	frost fottage	Are, M	Milding Correct arts, use sq. ft.	Area, building Correct EDU's business rame sores, area, use sq. ft.	Other Information
班班	2445	152 Pearson 541-5497 Black Olive 5625, 568 Struey	Thoses McLeuphlin John Heaty Centry Johnson	V25 Thomason Lare P.O. Set 842 SAM Street	Petala	223	28 28 28	3 5 5	2 0021	2.80 Stresso's Perfect Curl (salan) 1.60 Sterre Mest Surveying	227
新兴港	128 S-25-43 26 S-25-45 26 S-25-45	SAN, SAN Seyver SAN Vists lay SAN Vists lay	David Noterts Robert Pinocotio Robert Pinocotio	138.3 So. Park Brine 6821 Seportto Lane 6821 Seportto Lane	Pepalis	3 2 2 3	2 38 E E	9898		2.00 Server Auto Breaking 1.50 Per Apolimon/Ride Rediator 1.00 Perver Flattein - Perchologies	alde
杂类类	京 20 10 10 10 10 10 10 10 10 10 10 10 10 10	S78, S74, Stylest N28 Stylest S78, Stylest	Ruth Callins Rocald Herris Adolph Peerson	2119 Cherry Street P. D. Box Set	Victobery	# 2 # 2	i i i i	133		1.80 'Bug Fectory/kithery's Auto 8.50 Jernan's Real Estate	
2 2 2	88. S-61-1-57 88. S-61-1-65 82. S-61-1-65 82. S-61-1-61	GSS Clerk Road GSB Clerk Road 7545 Street	Lee Malicia Feather River Hoseital Arthur Leanwel	6251 Clark Road MRN Pentz Road P. G. Son AN		(TŽ)	1 2 3 4	E E E		2.60 North Par Auto Repair 2.60 Naithins Nove of Hair 38.30 Peredise Redical Center	under construction
833	21-1-21-22 (12) 21-1-21-22 (13) 21-1-21-22 (13)		Arthur Leanerd Narion Hobson	P.O. Son 439 1625 Nargrove Ave	Orion	3 3 3	P = 29	CEC	1280 5	2.00 wilts a wealth Corner 8.00 mair Talk Seban 1.70 Perediar Procis lans	
2 12 2	82 S-60-57		James Jornson Terri Jamise	10.25 Tangerove Ave 6666 Dolares Drive 7334 Street	800	3	BEE	335	1888 S 2888 S	1.78 Automotic Cer leash 8.58 James Johnson Attorney 3.88 Skywey Pet Nosoital	
2 4 5	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	GRAP CLEY Bod Gard furter A Journal Folia AND CLEY Bod Control From Control From From Control From From From From From From From From	Edward Parter Central Park Properties	14795 Neither Prive 5488 Neview Road		X		2 2 2	2 3 8	8.30 Devid C. Schott Construction E.N Houard Bhalty 8.30 Central Park Properties	
2 8 2	20 00 00 00 00 00 00 00 00 00 00 00 00 0	Constitution (See 1-4) U.P. Client Sec 1-1 Clerk	soofroes frot. Grope Jaes Dalaers Jaes Natury Inc Flord Foetil	Old Clerk Roof 88 728 Molliner Coapell 555 Casifal Mall, Ste 188 Servaento 357 Adobe Lare	Coaptell 8 Serments	1333	2 ° E	1111	2 2 2 2	5.80 hetical Offices, A.S. Educis 8.90 (recycle center) 8.90 Certaon Trees!/V 4.00 Commonwalth Title, LA Birect	3 ND's DN, FA Remark, Note Newto, Steret Co.,
2	平 2 公 数	5921, 5913, 5985 Clark	Safeway Development Enter 193 Valley	r 193 Walley Risse Drive		3	R	5	\$ 10000	6.08 Dff., Feather Kiver Nose Cars,	3 offices - V 5, EG, 0, R Size Stoc, Anderson levelry, Searlings, Mariantes, Oristics Ecots, Peradise Stationers, Video Rentals, Peradise Foults Center, Derter, Little Genan
3535	#-1013 S	SATA CIENT 3122 Cillott SATA CIENT 5018 Cient	Newalt Anderson Jeffrey Desset Serber Japanes Quell Res Prof., Plans	P.O. Sor So 3809 Resaille Valler 2048 Cruser Lave P.O. Son 2009	broville Dice	2223	2 8 5 5	5225	2 8 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8.50 Nelp-1-Sell 1.88 Perodise Auto Bode 1.88 Terry's Terrosissions	Metharent, Peralise Prot, 2 offices - Y
8C1 82 82	28 S-15-12 92 S-15-12 83 S-21-44	6377 Clerk 1335 Mille 7350 Sever	Rose Dugel Inc. Clark With Reynord Pilops	AND CLOY Road MAS Bills My E. 2nd Street	Sorose	2222	88 # 8		2 S S S S	38.59 Gall Run Plate Frot. Offices 4.68 Rose Castel Furent Rase 1.08 Clark's Auto Rosein 3.98 Metric Nators	÷
2 2 2 2 3	50 S-71-8 50 S-71-8 50 S-71-8 50 S-71-8	AUS Screen Nath Screen 7385 Screen S778 Clark S798 Clark	Malter Nation Francia Nover Alan Avis Wilbur System Gward Phers	7455 Sayuar 1948 Crandall May 7285 Sayuar P. O. Box 219 5796 Clark Rood		33333	# # # = K	35335	2548 5 2548 5 268 5 88 5	insurance multipaling rree rree	SEIS
688	24-110	57% Clark	Saroly fasts	Skil Country Club Brive		3	ĸ	112	3006 5	9.66 Ridge Dental Lab, Dilco Cardio Milliss R. Bousen, R.D., Travel	William R. Bousen, R.D., Travel

			1		1	l.	1		Kennedy/Jenks/C
la de		Ower's Street Address	City, State	lore	Front Footspe	# #	Adilding Current eres, use so, ft.	Arts, Building Current. EDU's Business name acrts artes, use so, ft.	Other information
Geraly Gersta		Skil Country Club brive	99	Z	25	8.8	3000 5	8.88 W.W. Bus Srv., Susan Fulton Ch	Connection 6.89 M.M. Bus Srv., Super Fulton O'S Century 23, NoCleaption Insurance,
Karoly Karsze Jan Kulirepor		Stil Coartery Club Brive SVIS Cherotee Brive	Ų	23	25 *	38 5	1888 5	8.80 Deaber of Comerce	
					•	3	2 200	J.M. Ji Sofregor Elec. Contractor	AM laving 2,588 auto repair/contractor office
Take Saffe				3	•	8.8	97 00	8.38 Rockyand	
foreid Travers	,	P O Drawn III		3 :	2	27.0	28	8.59 Rock Yand	
Albert Pallbride	ride	5799 Clark Asad		z z	2 4	2 2	200.5	1.88 Travers, Jacobs, Peter Lay Orc	9
Carlisle Richards	herts	191 Valley Bidge Orive		3	u	17	S 28	1.38 Ship Seafty Salan	
Carlisle Ringerds	Dents	197 Valley Ridge Drive		I	16	8.8	2 000	1.88 Peredise Plusbing	
George Barrary	* 1	500 / UP IN LANE		3		3.		8.56 RV Stonege	
William Partin	. 5	SET Premium	MODELEND	3 3	a ;	6.5		1.60 Nay Carter, DOS	華凯
Joseph 0'Comor		9089 Struey 134		2 2	g p	2 2	2000 5	1.38 Net Clinic 1.56 Pifer Immericalizable auto 2000	į
Patel Speeches	vî.	6289 Fern Lane		z	3	27	1,000 5	1.88 Art Stone Plumbins	
No. US. COTT ASSOC 3DA	ASSOC SOA	Self Debbir Lane	-	3	E	27.7	S 386	1.89 Print Beel & Brace	
Carlisle Richards	hards	191 Valley Ridge Drive	8	3 3	2 2	N 0	1780 5	1.28 Tensos	
Carlisle Richards	herds	191 Valley Rispe Drive		3	R	8 8	1800 5	M. 20 featir's Drink land	
NO WALLE				2	208	1.65	3,999 5	8.59 fold Nuppet Paseus	
NO WLIF SOED	909			+ :	9	1.65	2888 \$	8.50 Saretouse	
NO VALUE SCHOOL	HOU.			t	- 3	8 8		2.00 flat Schedule 8.50 Apartic heet	
Mand Caseron	•	15155 Multipup	Papalia	25 25	5	1.65	**	8.36 Mini Storage	
Brian Heinz	. 1	F.D. Sor 1138		3	118	8.48		B. Se Mini Stange	
Frir Kenner	5	500 Flad	Chase	3	677	8 .	1380 5	2.88 Asertican Sevings	
Phillip Gallagter	later	SSC Clerk		3 3	2 8	2 %	1882	8.36 Difrapriator - Dr. Flater 7.86 Callander Colomographic	
David Seston		1117 Noffsinger Lane		3	8	2.8	8 8	8.56 Mini Starage	
Remondes Fisci	-	2333 Stearns Road		7	28	8.3	2000 5	2.88 larehouse & dupler	0/W-2
Lovell flantfort	T.	P. D. Box 78		I	671	1.68	2500 5	4. 86 Peredise Post	
Derles Nortpoerry	OBILLY	198 Valley Yiew		I	138	8.8	2000 5	1.88 Auto Gerage	578
Cheries Nontpoerry	1.50	198 Valley Yies		I	E	8.8	1000 S	8.38 Peradice Misseal & Storage	
Bark of Paradise	3	P.G. Sec 2299		3	12	3	5 9099	3.50 bars of Paradise	-
Paradise Mest		SAS herranite	Dilas	G 1-5	218	2.11	1886.5	1.88 Tuin Pines Golf Course	(Solf Course Parties)
T. Ballion	1	Marie President		34					1888 sq fact club house
J.L. Belley 8 Sons	e i	PHIS EMY STreet		5	53	g.	1586 S	1.00 Artin's R.V. Broate	Flux vacent building 986 ag ft.
400.000	9369	No casy street		9	3	6.80	3886 S	1.80 Cen's Hitch and Melding	
David Litotreett	worth	Selfo forderses factor	Paris Clar	2 :	- :	2	: 000	2.80 Coupec Engineering	Another 1886 Sf blds on parce]
Ribert Hoden	-	20 Eastwood Drive	Or Sindle	2 8 2	150	2 2	200 to 100 to 10	8.38 Golden State Coaches	
Hars Boer		1549 Mest Drive	0.500000	35	#	2 2	n bi		
Darles Salth	s	1534 Mest Drive		ibs.	-	3	n bn		

									Kennedy
page (Owner's Street Address City, Stabe	City, State	Doe	frost feetings	1 E	ballding Carrell ares, use sc. ft.	Area, Suliding Correct EM's Souiness nose sorts area, use	Other Information
Vesily Soury Clifford Nesilton EN West Nesin Seith	estites es	1548 lest brive 1375 Anatrony Place 20 Williambers Leve 6525 Clerk Red	Chico	1 * 2 1	8-85	8 8 9 9	bs bs bs b	3 8 8 1	
Ervin Arastrony Kerneth Davis George Bouser Clifford Lappen	Arang Mis Her	653 Clark had 663 Clark had 603 Clark had 645 Clark had		1111	12 8 8 2	1933:	*****	8888	# 8
Reindin Bollin John Johnson Betro Properties James Coules	4 s # c	7854 Sever 6562 Clark Bad 4256 Rody Ridge Coart 5466 Swell II		1222	188-	18538	****	1.86	ę
Anthono Oleady Ameno Oleady James Bezzer George Scillago Goldle Extert Habert Andler Nery Nahanikun Jerry Nahanikun	Vorsit Nill Authoro Olesky Jakes Bozzer Jakes Estrer Goodle Estert Marit Author Pery Nahritin	200 E. Nerrace brive P. O. Bes 117 639 Costle Brive 1548 Roseary Court 6422 Clerk 1349 Rille P. O. Bes 1372 Bes 17 Antes UGOC	Newford No. 1947	22277775	第2条第二页记录		* * * * * * * * *	8888888	
William Kinnear Kurt Gurner Walter Beck Form Houltt	4 8	659 Clark had 1899 Sedveros lar 131 1886 Server Court 17 8695 Server 153 Server		11122	នេងម៉ូម៉ូន	2222	*****	2 2 2 3 3	-fit (mobile)
Eras Lathie Suan Lotiwood Joe Lotiwood Joe Nalswetes Desdewre Natelliti Billy Messwder	p #13 4	62 C. Sth Street SNs Sever SNR Country Club brine 8655 Sever 8635 Sever	Metsondille	3	3.25 25 8 8 8 3		* * * * * * * *	888888	
Silly Alexander Forest Samer M. N. Cambell Evelm Arreid	b . = -	8035 Sever 8585 Sever F.O. for 634	44	rrrI	3258	2222	* * * *	****	(mobile)
Nekalom Feelly Trust Lester Ropers Onester Knodles	ally frast	907 Octo Kiss brive 8637 Sever 6069 Firland	laville	* * ₹ 5	2 2 2	222	bs bs bs	8 8 8 1	
George Noffaen John Yasiae Andrew Odor Leen Salth Thease Sterling Rucklan Gelicke Robert Wildhirt	Ling Ide	Skil Srver Skil Srver Skil Srver Skil Srver Kill Srver 181 bestaff		*****	2 E k k 3 x 3	232333	*****	888888	(actite)
								8 1	

loan of Persolice Mastewater feasibility Study Percel Information Kille amount									Kenned
Record & Percel Ro. Situs Address	Dener	Gener's Street Address	City, State	Star	Fred Page 1	# F	Mildin Gerent area, use 16, ft.	Arm, building Current EM's business near sorts area, use MC, ft.	Other information
97 51-13-1-2 1135 kmen Lave 181 51-13-1-6 1877 kepsterf 133 51-13-0-121 1179 kepsterf	Bord Johnson Tos Stefanicis Rube Staton	1281 Clifton Street 6400 Marel May 1120 Meetar?	Retlands	222	g = 1	533	by by i	8 8	(mobile)
115 St-15-0-25 6417 Date lary 114 St-15-0-25 1117 Reputeff 115 St-15-0-25 634 Sovery 124 St-15-1-1 von Second	Norte Ohlisper Roser Erright Nort Ellbertson	Side Salarton Street 1167 Septiant 635 Sover	Lony Beach	3 2 2 2	R = 2 R	2512	h h h h	8888	(mobile) (mobile) (mobile)
	Frank Footlok Frank Social	1100 Messterf 8100 Sayway 5666 Cethy Lane		2223	E - E	1919	b b b 5	222	193/188 (#0116)
****	Peter Schedur Norwan Nution Norwan Nution Derich Drosein Delate Breed Hendell Peter Delate Levelal Eve Raso	884 Street 703 Street 703 Street 808 Street 825 Street 733 Street 730 Street	Nosile	********	8 2 2 3 3 3 3 3 3 3	33555555	*****		applie
n n 10	Stree Inestors Stree Inestors 16 Plaser Sorve Ruines	698 Saraet 698 Saraet Brive 1301 Messteff 899 Elliott		33 33	製品 麗多	23 22	** **	188 88	frontage land use 132/200
2014-20 2014-2	Jahn Rooo Nortis fournier Robert Estrea Nortis French Norce Esper John Franklin Arthur York Peter Sornader Gerryn Mits	730' Street	forgen HIII	27777 × 2777 ×		13553939393	***********		(metrile)
223 31-22-11 SSS Schwale 222 51-22-12 SSS Schwale 223 51-22-13 SSS Schwale 224 51-22-25 SSS Schwale 224 51-22-25 SSS Schwale 225 51-22-25 SSS Schwale 225 51-22-25 SSS Schwale 225 51-22-35 SSS SChw	Are Roller Forson Serson Energy Floor Probrids Broon Victor Pripos Victor Pripos Victor State Joses Miller Poubl' Sonet	5542 Schwale 481 Lettoni Drine 5535 Schwale 5539 Schwale 5539 Schwale 5536 Schwale 5546 Schwale 5546 Schwale 5546 Schwale 5546 Schwale 7-0. No 292 9912 Allowd Street		*********		1995555555			× :

Ţ	A/Apa							5	ı																													
1	Kennedy/Je	Other Information	Apertaent					(mobile) freshees hard use staffed		(mobile)			(motile)												[aobile]					,	(modile)		droption had not 61/88	MATERIAL DIEST SEGMANI				
		Area, building Current EDU's business name sorts area, use sq. ft.																																				
		# EW.	8.1	8 8	8.5	8 8	28	8 8	8.1	3	1.86	1.80	2 2	8 8	8	8	8 :	8 1	8 8	2	8	3	2 3	2	1.8	8	8	2	8 2	8 8	8 8		8	8	8	3	1.8	1.8
1		Milding Curre area, use 19. ft.	b 1	n in	th to	1 10	5 1	th th	50		N 00	55	bs 5	, bi		th e	5% I	b 1	0x 0x	20	in a	50	h b	the state of	5.0	*	*	b 1	h 1				, th	20		*	*	
Fi.		# F .	6.07	12	3:	2.2	9.5	2 8	3	1.23	2.75	2	878	17	Z.	6.3	3	3 :	3 2	1.82	9.62	39	2.2	7	1.38	8.57		2 :	9 1	2 8		1	8.23	2	1.34	2.3	8.38	8.16
		Frost factor	3 5	3 13	SE 15	-	12 :	R 25	23	E	ñ	2	8 5		E	R	3 .	• :	2 2	91	8	8 1		2	21	n	2 :	8 :	8 =	2 8	165		2	8	89	ĸ	r.	- 5
		. Jane	3.2	3	12	2	2;	2 2	3	z	ı	1	2 2	3	Z	I	3	1 7	1 1	Z	1	Z	× 3	3	z	7	De 1	h 5	h 8	. 3	3	3	3	3	3	3	3	33
		City, State						No. Highlands									Secretario		896				Massyllie				Pelas	8775										See Party
		Ower's Street Address	P.O. Box 719 5963 Pechain	5985 NeClain	5977 NoClain 7818 Street	AD Elliet	5964 NoClain Lane 5854 NoClain Lane	6234 Larry May	3959 NoClain Lane	STX2 Shady Lane	SN2 Notisin	1998 Include Lane	Cli Green Data Drive	P.O. Son 1688	786 Luther Drive	P.D. Box 515	2775 Narioness Spreed P. ft. Res 1480	Age Lither from	Stel	P.O. See 1345	SW1 NeClada	PAGE SANITARY LANG.	Sell Server	6633 Scrwery	MAZS Struey	MI Numer	7.0. 201 200 1101 delivera	A71 Fillints Enach	667 Ellisett	5425 Sayer	666 Ellistt	SMP Wildwood	5799 kildwood Lane	5238 Country Club Drive	645 Elliott	654 Ciliott Road	606 Elliott	P.O. See 901 219 M. Meth. Asmade
		Dane	Nurtein Valley Investors Jonald Jucker		Johann Kirapa		George Billie Edulo Surtee		Jeann froms	ile		Devilo Konsendy		Shop of Sac		Ħ	Elizabeth Palgen Georgia Yout		-		90	Richard Turnelli	wents		ij.	2	Richard Names			ŧ.		John Neidelberger 5	William Richards 5		sp			Linds Augmenter 2
	h e	Situs Adress	688N. Server SHU McClain	SWS Notices	S90t Neclasin	AU Elliott	5964 Reclain 5822 Neclain	5921 hoClain	SNB1 NeClain	SWS Richard	SPEC POLISION	5965 ReClain	559 Elliste	NO Elisate	786 Luther	All LIGHER	AND CLISHE	MS Luther	799 Luther (797)	5913, 5915 Reclain	SVII Notlain	663 Elliner	6507 Street	692 Resortal May	698 Resorial May	ANY FILLIAM	69 Ciliett	671 Elliett	667 Elliptt	SELL Seyage	666 Elliott	SMD Wildwood	SBS killshood	439, 437, 435 Boarest	Ma Elliott	to children	5967 Alsoyd	70 Ellist
Page No. 19 83/84/89 Town of Persolate	Mestewater Fessibility Study Percel Information KUNC MESSII	Record & Percel No. Situs Address	25-28-25 EE	21.8 SS-48-12	20年15年	17-8-23 Mg	20 20 年 22	34 5-8-75	57-87-55 GR	25-25-25 Mg	Mrs 50,48,42	12 S-4-S	中华 55 65	20-50-02 000	20 00 00 00 00 00 00 00 00 00 00 00 00 0	361 53-48-29	S-88-22	_			216 52-48-46 217 53-48-49				Mary Street					-				_	The state of			

Face No. 28 EX/BA/19 Tool of Paradise Matteutter Feesibility Study Faces Information K/2/C 845511	a til a	1	1			1	1.1	1	1	1	Kennedy
Around & Partel No. Situs Address	. Situs Address.	à	Over's Street Address	City, State	Zone	front footage	4 2 2	Milding Current eres, use No. ft.	Area, Building Current EOU's business name acres erres, use 86, ft.	Other 1	Other information
43 S-15-52 48 S-15-53 48 S-15-53 10 S-15-11 48 S-15-11		Linds Assessment Linds Assessment Cords Carm Linds Assessment Model Schott Soutia Corrett Thomas Draine Contin	219 38th Aserue 219 38th Aserue 379 38th Aserue 379 38th Aserue 379 38th Aserue 570 38th Aserue	Sen Notes Sen Notes El Dorsos Hills Sen Notes	222222 3333	******	555555	*****	******		
400 September 100 September 10		South Corbett Son Son Lile Newtor Ridord Rience Seventh for Absentiat Allord Sout	P.O. Box 1186 800 Ellisti 5777 Alanno Street 707 Name Prive 5008 Alanno Street		IIIIII	*****	25222	* * * * * *		(actod)	_
	500 cass upon 506 - 509 Aland Street 579 Blast Olive 517 Blast Olive		300 Black Olive 386 Alsond Street P.A. See 1502 639 Street		IIII	2 2 2 2	3535	* * * *	***	frontag	frontage land use 158/125 frontage land use 58/58
	575 Black Olive 75 Fir Street 574 Black Olive 578 Black Olive 586 Black Olive 541 674 Black Olive	Elimbeth Ouglas Charles Bell William Terlor Rurt Pervetuel Sterlon Bess	1536 Just Lave 795 Fir Street 4170 Berkstüre Jay 816 Fize Anthape 5886 Slack Otton	Commontal	73355 5	F 3 5 3 3	53553	****		frontag	frontage land use 76/125 frontage land use 125/48
80 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mil. With last Olive Mil Violet lay Mil Violet lay Mil Violet lay Mil Minsor Mil Minsor Mil Minsor Mil Minsor Mil Minsor Mil Minsor Mil Minsor Mil Minsor Mil Minsor	Furnance Augusto Killian Schend A.C. Solbery Rebert Sources Frepory Source Virginia Parier Willian Scheder Luther Weeler Sone Sone	623 Sewill Red 867 Votes law 887 Votes law 886 Votes 885		31111111	化化凝凝化化凝凝	22222222	******		frostap	frortage land use 96/95 frontage land use 95/180
	80 Minor Print 20 Elliett 848, NZ Cliet 308 huis	Nexton Report of Nexton Report of Nexton Report of Nexton Report of Nexton Virginis Preston Mondais Report of Nexton Mondais Report of Nexton Mondais Report of Nexton Report of	678 Navil fai Prive 678 Navil fai Prive 68 Elliet 88 Elliet 88 blist	Monedulu	I I I I I I	S 8 2 3 5 5	25235	****	55555	frontage (sebile)	frontings land use \$5/180 (molite)
244 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	MAN Tulip Lave SMX Deep Drive SMX Millow Street SMX Millow Street	Virginia Preston Enrico Balled John Webers Forme Youngool Ent Peasor Forme Silves Forme Silves Forme Clark Forme Clark Gine Cover Gine Cover	Med fulls MN fulls Law MN fulls Law MN deen fulle MN deen fulle MN fulls fare	Version Beach		******	53555555	*******		(action)	
記事会院	765/791 Ellow Street	Joers Poff	GRES Visco May	Davis	2 25	2 3	22	51 51 	1.8		

Other information

[acbile]

(actile)

tet hees hot Eerle Aluae et Tred Joelner Jerry Neet Neet Jerry Jerry Neet Jerry Neet Jerry Neet Jerry Neet Jerry Neet Neet Jerr		Duren's Street Address City, State 2ane Front Area, Building Current EDU's Business name feetage acres area, use so, ft.	j	CE STATE STATE	Series Senitores Cara as an assessment	Silve Jey Cary	2 83 88 E	00 35 8.36 10	Park Drive	± 673 973 9-3	20 C C C C C C C C C C C C C C C C C C C	Mac City Ca Ca and a see	Tube City Cu Cub	the handley cace up a.m. a	1 59'8 59 BO		the feedile CAC-6 15 e.16 a	C-6 28 1.27 -	Dico CA C-6 144 8.25 8	Onless Co.C6 49 8.16 6	21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	174500 CA C-6 SW B.18 B		Melinat Overk CarC-8 SE	C-8 122 E.15 6	C-8 71 E.D 8	64 N 4.12 4	# # # # # # # # # # # # # # # # # # #	10 10 10 10 10 10 10 10 10 10 10 10 10 1	20 2/2 2/2 g-3		Prive Samerafield Ca. N.F. co.	2	. 1	2	*	Or. 47NC Novelulu HT C-8 &L	None	6-4 M 8-29 8-5 1.88	
1				- 3											7007						33				<i>500)</i>		8.0	State of the state			353			-	Assn 524					Recorded to Follows
20	Now No. 21 Slaw of Peredise San of Peredise Sante Fessibility State Forcel Information \$(1)\text{if \$2551}\$	Record & Percel No. Sibus Advess	779 Willow Street			William						SET Usovich Lare	SII Udovice	Mil Movies	MC linear Brn	3859 Nover Ban			ME Birch	Mei, Alz Für Street			APP ELBOX Ollive		Sell Slack Olly	549	995			À		2000			7.					

From No. 22 63/86/89 Joan of Paradise State Percel Information KIJIC 883511

Stoard I Parcel No. Situs Address	Situs Address	Dener	Ower's Street Address	City, State	Zone	Frant	Arm.	Milding Current	Arms. Building Carrest (Taffs Business page	Phine Selection
						fortase	-	-	THE RESIDENCE OF	tive intorestion
								f ei		
리수:다-당 #9	SI79 Black Olive	Pary Figure	SUP Black Give			3				
69 50-0-40	SHE Black Office	Person Stockers	Killy Street Street		1	5	2.2	04	37.1	
40 SP-31-3-17		Acres 1999	AND DIRECTION		I	2	2		3.1	
471 50-31-123	San Calcusor	Constitution and	2007 FELBER NOBE		2	318	2.8	is a	1.00	
100000000000000000000000000000000000000	000 000 000	Method Section	382 Deliacod		8-3	3	8.38	50	3.1	
0.00 TO 100 TO 100	200 (00) (00)	ROOFT NOTES	157A Pases Largevista	Sen Lorenzo	8-5 75	2	8.26	35	1.00	
-17-75 CIG	342 (Betwood	Grover Adamson	532 Delucod		4	2	2	5 0	8	
M 25-25-51	5166, 5177 Black Olive	Osrits Welbrock	S177 Black Olive		3-6	921	8.71		8 8	
28 Sty 25-5-2	7N, 778 Blinch	Nin Au	5719 Denokee Drive		3	3	8 13	. 5		
子がなき	13t, 13t Peerson	Once Bryan	15555 Humbup Road	Pearlie	77.0	2	77.		8 1	
77 25-22-4-3	136 Premuon	Min Au	5219 Charoline Delice				1	h 1	87	
72 59-23-4-4	SME. Sills Fouter	Tigothe dite.	the fallence of the		2	2	2	Di e	8.1	
271 50-20-4-4	50 . 10th Factor	Township Ports	Series legislated vertice	OBLIBE	70 5	3	1.8	5.0	1.80	
FF65-65 164	State Carlo	Accept falls	r.u. 808 480		I	2	9.7	bs as	1.00	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	match acce (deep	JOSEPH MOLE	P.O. Box 487		92	2	8.18	55 40	1.00	
20.77.78 87	ALLO RINCE OTHER	ALCH Norton	SUS Black Oldw-		I	188	6.35	5.0	20	
N 25-25-5-7	SAES Black Olive	Remond Milson	5485 Black Olive		9	186	8.34	5 0	1 8	
工力なれ	SMI Black Olive	Llord Sample	5381 Black dijer		6.0	180				
15 ch ch 62	S255, S243 Black dilive	Jessie Fischer	SASA Alteand Street					* 1	2 1	
おおや部	SAST Street	Mark Institute Center	2255 Pair Street	Die		8 2	:		8.	
20 50 50 EE	NA Styles	TOWNEL	F 0 km 11	anna.	9		2	DN	1.86	
M-42-55 CM	S773 Foster	C. Des Jellium	USE to 10th Bear		9	2	7	is a	8.7	Mobile
N2 52-25-36	Sill Optioned Lane	Mireban Barrell Lan	COST CALL STATE AND STATE OF THE PERSON NAMED IN COST CALL STATE OF THE PERSON NAMED IN COST CAL		i.	3	22	24	1.86	
75. 50-25-27	SM Delanord Lane	Bern Ander	See UBWOOD Light		I	2	27.53	ts a	1.80	
74 50-25-20	Call Faster Brad	The formula	50.00 NBT1815	Caratchan	1 2	n	23	55 2	1.80	
TA 50-36-18	Clark Franker	Mr. College	7.0. Box 6%		7	ĸ	6.17	th -	1.80	
10000	CALL BLACK AND	JOH 10116	DAZ BIDALLI Avenue		ž	-	1.23	5.2	1.00	
10 10 10 10 10 10 10 10 10 10 10 10 10 1	SALE CORCE GLINE	Easily Nouth	SN3 Black Olive		Z	2	27	bs	38.7	
2000	SALAD SLACK Ullyre	August fuertz	6548 Clark Stud		14	8	2	5 2	2	
3000	See low Lane	Kilson Bruce	1656 Numeley Road		3	8	8.16	20.00	20	
AND 32-22-65	SAL TANT LINE	Lauren 6111	SAL Town Lane		ž	8	8.16	5.0	8	
20 St St St	5275 Black Olive	Pullip Kelly	5899 Dataport		2	•	25.00			
ひれな 変	5271 Black Olive	Verne Handervold	5271 Black Olive		2	2	* *		8 8	
部内分別	SME, STJE SENSEY	Arthur Boyle	4727 Pasco fortune	Paladale	3	164	1 34			
12 St. O. A.	SALE Stylen	Styliand Bridges	P.O. Ser 13%		3	2	# HK			
日内 公 市	SUN BLack Drive	Buth tollins	2119 Derry Street	Vicksburg	20.00	3			11	
報のお客	572, 578 Style	Anth Clark	964 Carbett Auman	Sen Francisco	200					
	5558 Vists lay	Lloyd Grass	SSSW Windle May		3	1	2 3	N 10	8.3	0.000000
	537, 5372 Street	Robert Jeffords	SLM Sever		2				8 1	(actorie)
35-1-10-10 NO	1266 Tathor May	Jerry Carberder	781 Finner the		5 8	9 1		h !	20.1	
885 ST-41-455	6333 Chart. Road	John Broken	# ft Ace 1470	A designation of			8	N	2	17.77
	6288-8 Clark Red	Alliance	ch 4481 Flack Steel	0.000	+++		1.72	bs :	1.8	
	6350 Chart	Brite Charal				-	9	× -	1.00	
	ANS Clark Boad	Flore felicione	4755 Clast Bush		Y	R	£2	6.	1.00	ě
	AUS Clark Brad	William Branchar	0000 LIBT 0000		Y	8	£.20	*	1.8	
	620, 638 Clerk	Faily lister	8751 F0816F NO60		77	20	2.78	bs -	1.8	
	68% Boules Dod	Total Referen	7.0. Del 200	Pepalie	THE	2	2	5.0	1,86	
	68% Boules Blvd	Arra fulle	COST SOCIETA STATE		bs.	2	12	S -	1.80	
		MAR INTER	DATA SONIES SING		in.	25	2	55.0	1.00	

	1.8	51	123	77	CARA	Nephila		Rillerd Stimers	NEW CLINES	200
	8.8	n 5		133	2		7828 Stylesy	Steven & Donna Canterbury 7828 Sayvery	Mit Ellison	25
		k t	8 3		2		Contembury 7828 Sayuny	Steven & Some Canterbury	MS Cillant	1286 55-11-41-26 883 Elliott
	8:	b !	2 !	380	¥ :		HILL LAIMS	Velas liest	See Elisate	128 St-11-40-12 869 Elisate
	1.80	5	8.30	18	2		7289 Stylen	Agreed Sect.	1181 Elliott	
	1.80	bi	3	28	25	tos Almaitos	11191 Mindore	Louis Sentovel	6127 Clark	M1 52-18-7-19
(6.2)	1.00	D.	2	113	Z		5675 Riddle Litter	Janet Scuitti	1888 Linner Mr.	80 St. 181-28
	2 1	h 5	3 5	2 10		Wilesier	P.O. See 735	Bettyam Lagart	4187 Clark Road	MU 53-18-1-18
	8 1	h b	13	9 8	3		GEPS Clark	Trosas Própers	48YF Clark Road	484 SP-18-3-23
	8 :	N 1	9 3				6185 Clark And	A.J. Melbrook	6189 Clark Road	お中なら
		n :	3 3		1 1		18k3 Central Park Selve	Lucille Brinater	38/3 Central Park	175 52-45-70
	2	bs 1	E :	2 :	2 :		MET General	Robert Pinocotio	6421 Georetto	11% 53-66-49
	8:	is .	-	8	2 :		6910 flags. Place	Vicce Personni	6254 Clark Road	SAL 53-66-43
F-55	1.88		. 20	218	200	SOUTH STATE	ACRE Selected for	Edutoric Prontuce	6348-0 Clark	平平55 200
	1.80	5.	8	•	2	Secrimento	AN LONG DURING ME	the Gift	ACC Clark Pred	558 53-64-33
	1.86	*	6.77	98	¥		20/2 SWELLI REG	Ter Owner	1803 Central Park Seites	85-85-65
	1.8	ts e	8.87	Ħ	Z.		COOL COMPT.	Clara Brata	125 Bookraft	869 S3-64-36
	1.88		6.80	3	Z		0000 LUCKY JOHN	North AND PRINT THEIR	623 Clark Boad	BA1 53-84-87
	1.00	15.00	2.38	8	3		0006 LLCRy John	Marie Jedryaya, Trans	Affiliativ Nam	120, 51-81-10
allso verebouse	1.8	bs =	9.60	20	Z		6868 Peck Lane	Jeraid & Sendra Powell	APP LINE TOP	1750 KL-85-40
	1.8	bs ==	8.8	3335	I		5952 Alsond	Rudall' Schott	DROC PROPELL	1346 61-44
		35	8.53	1135	1		5952 Alsond	Budelf Schott	MON Meneal	13-03-00 SC21
	8 8	N 30	8 8	2	1		6679 Novell	Everett & Ore Wilson	6879 Name 11	124 53-43-35
	* 1	is 2	8 3	3 2	1 2	ALUMN A	-	foverd & Agnes Belich	6829 Novell	12-69-22 8921
	2.0	is i		9		Poline		fartit burtsault. Rister	6878 Lucky John	1251 53-45-28
	911	is t	8 :	PC 1	2 2		MS7 Cathy Lave	fati Toutoure	SRES Astro-11	22-09-03 5501
	1.80	is a	8.8	8	3	San Francisco	City Septem 12	Fall Taylogs	SVB9 Parsell	1246 53-63-21
	3.8	B =	8.8	8	ī	Sen Frencisco	Ziri Jackson #2	Moert & Descript Break	4007 ferral!!	1265 53-61-26
	2	5	8.8	185	2		6863 Perveil	Edith Narshall	6680 fervell	S1-24 TRI
		i be	2	S	1		P.O. Ber 1384	Nery Dien Norris	Will havell	200 SI-60-08
	8 3	0 0		12	1		6605 Reveil	Derlere Querle	6025 Persell	120 50-60-12
	8	N 10	2 2	1 2	2	Escontido	831 E. 3rd Ave., 833	Robert & Donothy Craft	6187 Lucky John	25-25-25
	8 3	n 5	3 5	2 2	3		1239 Losely Lare	Ellery Kostuler	1219 Lively Lane	15-45-45
	2 1	n b		8 5	3		1838 8111e	Virginia Culten	1838 Bille	A49 53-69-04
	8	b !	8 :	1	33		1822 Rills	Nery Section	1822 8111e	848 55-62-53
	20	b 1	3 :	i i	3		1918 Sills fract	Net folds Inc.	1818 Sille	第七章な (単
	1.00	ds i		8	2 9		Sill he had	Essas Nellife	758 Synty	27-C-03-CS 778
	8 1	b 1	2 :	8 5	\$ 2		7337 Sever	lands Boutes	7327, 7335 Street	812 53-60-1-61
	200	h 1			1 2	-	958 Bills	Retail Reseased	958 Billie	55 St. 55-5-7-3
	8 1	to 1	4 :		1 2	Some	239 Second Street E.	Remond Phipps	System	1219 52-62-1-43
	8 1	k i	9 7		5 5	Olle	3689 Bridin Lane	Nerold Koke	944 Theles Court	1217 52-45-1-41
				•	6 13	brtee	2354 Florida Lane	Jees tuellen		221 52-42-1-59
NOT THE WEST OF		arts, use	SOTES	factage						
Other information	Area, Building Current (30's Business name	Building Current	A.	Front	Zone	City, State	Owner's Street Address City, State	Durer	Situs Address	Record # Parcel No. Situs Address
										K/3/C M25/11
									8	Fartel Inforaction
Kenn										Study
									. 4	Mattereter Femiliality
										Date of Persons
										65/66/27
										Page No. 25 82/86/89
	1	1	,	ŀ		1]	1	Page No. 23 82/86/99

	86.	, n	1.00	104	E						
house, parting	8.	bi .	8	36	3 ;		NOT MOVET 134	Devid Wolfe	S718 Academ	1855 54-44-39	
	8.	*	2.16	-	ī		1909 Santtawn Seron	Managed Strategy	SAME ACROSON	189 34-86-33	
	8.8	* 5	2 5	1 2	3		SAS Premion	Willies Nortin	Self Dapel	10-10-15 EMI	
	8.1	b 5	3.5	3	3 3		P.O. Bee 793	Ella Travers	SPP Premium.		
	.88	h	6.73	3 '	3 3	Sterago data	Mary Cody Road	Edward Parter	SVP Peerson		
		2001	1.57	2	z		MS legiter?	R. A. Dother Ribert Schaontallin	SSS Prayson	1622 54-64-39	
	2	bs -	1.77	•	I		S722 Sutir Lave	Barbara Arey	Sti Prerson	183 S. 4-15	
,			5.46	20	to to	Pleasant Hill	P.C. Ser 23165	No. Cal Conf., Appr SQA	STAR Academy	CI-W-K (D8)	
E-St	8.3	s 50		-	: 3		191 Valley Ridge Drive	Carlisle Richards	5775 Clark	190 X-90-123	
3		s b	2 2	10	3		191 Valley Ridge Drive	Carlisle Richards	570 Clark Road	門-神水 666	
	8.8		1 9		T		S734 Sydney Lane	Sydney Lang	S716 Sydney	S11-10-10 S200	
· Fix	8 8	. 5	1		2		57% Sydney Lane	Let's Lang	S/ML Sydney	MI-PA CHI	
F-16	8 2	N 1	3 2	E 2	2		5698 Academy Orive	Christopher Varietis	MRS Academy	1051 54-44-136	
0.7577	8 1	N I		. 8	2		59% Academy Drive	No. Cal Conf Assn SDA	26% Academy	1808 St-64-185	
事が	2 2	k 8	2 -		2		BIS Rits Lave	Aurella Salisbary	853 Kits Lave	SE-18-18 1981	
	8 1	k b	8 8		2		886 Fits Lave	Donald Mokipin	MS Fits Lave	第1-年末 [58]	
	28 2	N 1	2 3	• •	. 2		S722 State Lane	Dorothy Strand	5722 Smir Lene	1822 St-44-18	
	1.8	94 :	2 :		3 7		S722 Susie Lave	Sorothy Strand	5178, 5722 State	1828 54-64-18	
	1.00 (future suits storage)	5.0	8		3		Will Control Class Selve	Grote Genus	SNO Clark	912 52-61-186	
	1.80	*	8.16	•	200	200,000	Call freedom first factor	Earth Cacra	S7k Clerk	第1-17-15 266	
	1.00	bs ·	7	2	ı		T.U. 200 6.75	English Montages	7 Street	50 SP-2-45	
	1.00	b:	見い	2	Z		\$372 Clark Rised	Tanion the desirate	- Bost Day	977 53-15-10	
	2	th.	2	9	I		1246 Ellistt	Narry Richard	Line Elliott	03 C-1-1-13	
		s to		2	3		SAN Clark	Elfriede Aust	MR Clark	2-1-1-c #4	
	81	b 1		8 5	2 2	Orice	274 Craser Lave	Frencis Blusert	MSK Clark	945 53-13-1-41	
	3.80	5 ·	2.3	3 !	2 :	Selection of the select	2020 Creater Lane	Borter James	SMM Clark	944 53-13-1-99	
	3.8	5.2	3:	M	774		22% Renal Carroon Lane	Services Artist	UM Cliett	\$2 5-15-1-88	
		5.0	6.17	Si	CASPF	Concord	3380 Orferd Place	James Perry	1301 1711	WAS STATE OF	
	1.00	n b	10		2-1-4		1142 E111ott	Rora Files	IM2 Elliott	2000 B	
	8 1	h t	2 2	11	2		1899 Nameley	Earry lettern		50 20-13-1-27	
	8 :	th t	8 5	9 :	1		32 Saw Lave	Jeon Bresu	1878, 1888 Elliott	W-01-65 104	
	8.7	Di 1	9.78	5 8	2		SSI hanerview Terrace	Jases harding	Skil Cesino	24 5-13-71	
used by church	1.80	bs :		9 :	7:		-		388 Elliott	19-17-20 EA	
	38.7		3.5	5	Ι.			Safe-iles Development Tre	SVII Clark	C-01-05 E3	
	1.80	bs -	3	130	+14		MR FILIOTE	Pauline Name	SSS Ciliett	418 57-12-4	
	1.00	50	8.41	200	11		1911 [11] [21	SELLINE BOOK	M28 Elliott	章心会 数	
	1.00	th ···	25.50	8	1		1907 E111-44	John Biseldi	185 Ciliott	\$28.55-12-38	
	1.86	is .	8.3	×	4-5-6		Chic Charles	Julius Saal	3862 Elliott	20.52-52-52	
	1.00	24	177	2	C 845-	Orice	25 Artono May	Melan house	1872 Elliott	AL-C1-C2 809	
	1.00	*	8.77	3	9-3-4		S886 Green Thanb	George Neyer	Mile Green Thanks	928 SQ-13-33	
										20 00 000	
		4									
United Information	Section of the sectio	ares, use	80.45	factage							
Phys. leftered	Area, Building Current (DU's Business rose	Bullding Current	Area	Front	Zone	City, State	Over's Street Adress	Ower	Situs Address	Record & Parcel No. Situs Address	
										K/J/C M2511	
Kennedy									8	fartel Interaction	
									int.	Strate Strate	
									N	law of Paradise	
										63/36/39	
1	1	1				1				Page No. 24	
]		1	
			Ì								

Page No. 25
EAVEACHT Town of Persoline
Study
Percel Information
KINK RESSI

Style Develia	0 1 75'0t1 NO.	MESON OF FRICEL MG. 23145 AGENTS	Over	Ower's Street Address	City, State	Zone	front	Pres, 8	of Iding Current	Area, Building Current EDU's Business name	Other Information
23 Oberdelli Gelei mericia F.A. Res 202 Cerviciani Co. P.A. G. E.A. G.							Toolage and and and and and and and and and and	SUE	arte, Use 16. ft.		
Note	97 F- K 528	S711 Durchill		P.O. See 302	Certicheel	3	-	6.66	6.0	9	i i
\$10 Marchell Willish Sheets \$10 Marchell \$10	9-4-3	デース		P.4. Sex 202	Caracidaes	7 5	8	2	. ts		F 10
200 Control	57473	S783 Characteria		\$ Lose Linde Drive	Salversfield	145	8	2.2	50	1.80	
Second Control Seco	25-8-80 D	S718 Ourchall		Still Durchill		I	-	15.9	p.	1.80	
Stream	2000	Sales and	Sydney Lang			I	-	0.45	h	1.80	
Second content	10 M 10 M	and the last	Carlinie Richards			z	ä	8.45	h -	8.1	
St. Shirt term Date Land St. Shirt term Date		Chart Land	D'Ne raust	527 Tits Lave		I	•	2	bs -	1.00	
Section Continue to the proof to the pro	0 TO 10 TO 10	C'AL Carlo Land	Wilbert Lucero	S/W Academy		B-F	12	8.24	bi ee	1.80	
Second S		over some care	Devig Stillert	STAL SLADE Lane		3	277	6.63	5.0	8.1	
Section Section Books Section	11 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	SAZ PRETION	Burton Jacobs	6387 Columbine	Pepalia	2 3	83	8.43	**	1.00	
1875 Autonomer Province 1875 Autonomer 2015 Auton	8-G-X	DAY CLAY	Roward Boots	Skt) Clark		I	177	1.74	5.0	1.80	
148 Chickeners Invanishers Invanishe	11-0-11	SALS CIENT	Erra Gernard	SMS Clark		Z	25	8.8	6.0	8:	
100 Manuarian	244	1867 Suscharm	Norsan legitess	1867 Buschearn Road		T	3	6.65	5 8	2	
Style Libraries	いの中の	1MUS (?) Buschaern	Aprend Arestrong	883 Elliott Road		N.	188	2 34	b		
10 10 10 10 10 10 10 10	だ字ス	SS71 Limitch	Oristine Naryis	5571 Liferich Lane		34	122	0.0			
SWG Littrian Wind Berton SMG Littrian Level Section Level Section SWG Littrian Wind Berton SMG Littrian Level Section Leve	第一年末日	975 Buscheern	Alice Cale	975 Buschamm Road		2	200	3			
SST Clark Cristic Conclusion SSS Clark President Cristic Conclusion SSS Clark President SSS Clark President SSS Clark President SSS Clark	20年12年15日	5995 Limiton	Marold Barton	SS45 Librich Lane		2				8.8	
2020 Clark Free Nation 1934 Clark 1935 Clark 19	244	5579 Livrich	Kristine Candelaria	1861 Country Club	Barbark	200	. 0	1:	h 5	8 1	
SSC Clark Dotablishes SSC Clark C-C 20 to 1.00 C-C 20 to 1.00 1128 Methods Very Service SSC Clark C-C 20 to 1.00 C-C 20 to 1.00 SSG bel finite Very Service SSC Bel finite February SSC Bel finite February SSC Bel finite SSG bel finite Very Service SSC Bel finite February SSC Bel finite February SSC Bel finite SSG bel finite Very Service SSC Bel finite February SSC B	20年末	SSS Clark	Frank Nolan	WALCING	-	1	. 1	2 5	h 1		
112 Metrisper	7-9-3	SSZ Clark	Dariel Defrado	SSZ Clark		12	* 8		N 1	2 :	
MATE bet houte Very Service SAST Del houte No. 1.00 SAST Del houte Very Service SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte Matter between SAST Del houte No. 1.00 No. 1.00 SAST Del houte No. 1.00 No. 1.00 No. 1.00 No. 1.00 SAST Del houte No. 1.00 No. 1.00 No. 1.00 No. 1.00 SAST Del houte No. 1.00 No. 1.00	29-8-3	1128 Noffsinger	Charles Resper	SSIB Clark Bod ID		. 7	2 5	2 :	× 1		
Note themse Grand Indicated Note themse Note thems	お事ま	SALT Del Nonte	Veri Servis	SSEC Del Nonte		1	304	3.5	x b	8 3	
	び辛ス	SMi Del Notte Avenue	Earl Blooderth	SSA4 Del Nonte		-	1 16	2	. 5	2 3	
Mile Dedicy Lane Mile Negerior SNR Dedicy Lane 97 148 128	お辛木	Clark	Secreento Sevings	651 W. Capital Assron	Brodelin	2	2 5			8 3	
MRS Duller Jaller later Vives l'use MRS Clark STATE CLAR	79-3	54% Dudley Lave	Wilter Neembern	SV6 Bulley Lave	-		2 5	8 :	N 1	B 1	
SMS Clark Finite for SMS Clark 1-5 2.5 1-20 <td>7-1-1</td> <td>SARS Dudley</td> <td>Jolley Inter Vives Iron</td> <td>Mill Bulley Lave</td> <td></td> <td>5 5</td> <td>9 .</td> <td>8 2</td> <td>h 1</td> <td>8 :</td> <td></td>	7-1-1	SARS Dudley	Jolley Inter Vives Iron	Mill Bulley Lave		5 5	9 .	8 2	h 1	8 :	
356 Clark 155 Clark <t< td=""><td>S-11-13</td><td>SAM Clark</td><td>Parincie Con</td><td>CUSS Clark</td><td></td><td></td><td></td><td>e :</td><td>N 1</td><td>8 :</td><td></td></t<>	S-11-13	SAM Clark	Parincie Con	CUSS Clark				e :	N 1	8 :	
500 Clark Netter's SMS Clark 1-5 258 0.00 0.5 1.00 MFL. I house on - 25; still part letter's fruit Autoes. 5175 Clark Line hore wild 1542 Settlew Prive Surrorate 54.1-5 159 1.00 Periods Africation Private Surrorate Area (area of the control of the	51-11-15	SM8 Clark	Neinte's	Child Clark		2 :	e i	8	de d	1.8	
1-5 278 1.00 1.	Sec. 18-28	State Clark	in the same of	Clerk Allert		2	F	3	-	1.86	
9479 Clark Moor Auld 1542 Saellow Drive Surrowale 14.15 15.9 1.56 6.9 1.86 5177 Clark Moor Auld 1540 Clark 5434 Clark 155 18 1.56 6.9 1.86 5187 Clark Vermon Bernett 2434 Clark 241-3 18 6.25 1.86 1			C SWIFE S	3000 CIBL		1-5	Ž.	2	bs —	1.8 8	Mp. I house on - 25; all part of
March Marc											figures a cruit Addition
MAT Clark How here SUP Clark 1-5 98 8.75 1-36 SNM Clark Vermon Bernett 2AMA Permon bane 1-5 106 2.15 1.36 SNM Clark Creig Milliam SNM Clark 1-5 106 2.15 1.36 SNM Clark Friedrich SNM Clark SNM Clark 1-6 106 1.36 1.36 SNM Clark Jerman Briggs SNM Clark 1-6 10 8.48 8.95 1.36 SNM Clark Jerman Briggs SNM Clark 1-6 10 8.48 8.95 1.36 SNM Clark Jerman Briggs SNM Clark 1-6 10 8.48 1.36 1.36 SNM Clark Jerman Briggs SNM Clark 1-6 10 8.47 1.36 1.36 SNM Clark Jerman Briggs SNM Clark 1-6 10 8.47 1.36 1.36 SNM Clark Jerman Briggs SNM Clark 1-6 10 1.36 1.36	8-11-8	MIN CLEAN		1632 Swillow Drive	Summale	C 1-5	12	8		98.7	A STATE OF THE PARTY OF THE PAR
MAN Clark Vermon Bernett ANAM Pernarchantis Ave Louits 150 1	2.7.2	MAZ Clark		SUP Clerk		1-5	3	8.73	lh ·	1.00	
SSM Clark Check Milliam SSM Clark 155 164 2.67 158 1.88 SSM Clark Methor 's SSM Clark SSM Clark 156 1.88 1.88 1.88 SSM Clark Glorn Maye SSM Clark SSM Clark 156 1.88 1.88 1.88 1.88 SSM Old Clark Mat Broad Albred Mayer SSM Gloring Mayer SSM Gloring Mayer 1.88	N-12-17	SUM Clark	Vernon Bernett	XXX Pensylvania Ave	Louita	CA 1-5	200	8.83	55 @	2	
SSME Clark NASSE Clark SSME Clark 1-5 NR 0.14 8 % 1.00 SSME Clark STATE Clark	N-12-18	SM Clark	Greig Wilson	SAMS Clark		97.0	36	3.63		1 2	
SSME Clark Glenn Burge SSME Clark C-C 648 8.48 8.95 1.08 SSME Old Clark Jerealan Brigat 590-01d Clark 1-5 116 8.48 8.95 1.08 SSME Old Clark Rd. Broad A Pearl Derryberry SSM 01d Clark Road 8-4 729 1.08 8-7 1.08 SSM 00d Clark Rd. Alfred B Dealm Zohloskee SSI 01d Clark Road 8-4 145 8.17 8.95 1.08 SSM Clark Rd. Dearles B Diana Sabill 1400 Clark Road 8-4 145 8.17 8.95 1.08 SSM Clark Road Dearles B Diana Sabill 1400 Elliott Road 8-4 145 8.17 8.95 1.08 SSM Clark Road Dearles B Diana Sabill 1400 Elliott Road 1-6 1.09 1.09 1.09 Floration Mark Road All Road 1-6 1.09 1.09 1.00 Floration Mark Road 1-6 1.00 1.00 1.00 1.00 Floration Mark Road 1-6 1.00	×-13-19	Stod Clark	Nether's	SOAB Clark		1-6	8	7			`
SSMM 004 Clark Jerealan Brigat 5868 014 Clark 1-5 116 8.48 6 % 1.88 SQM 004 Clark Rd. Broat A Pearl Derryberry SQM 0144 Clark Road R+4 298 1.88 1.88 1.88 1.88 1.89	8-12-41	SOM Clark	Glern Burge	SOM Clark		3	3	2			
\$200 00d Clark Md. Broat & Fresh Derryberry \$250 01d Clark Road R+# 759 1.74 8 9 1.88 8 9 1.88 520 0.00 Clark Md. Ferreth & Counte Name \$219 01d Clark Road R+# 729 1.48 8 9 1.88 1.88 1.89 1.88 5272 00d Clark Md. Alfred & Evelyn Zythoskee \$212 01d Clark Road S272 01d	25-11-28	SWEE DIS Clark	Jereslah Brigas	SMM Gld Clark		2	3116	5			
5229 00d Clark Ma. Remeth & Comple Namer 5219 01d Clark Road RR. 208 1.00	N-11-45	SQN 01d Clark Nd.	Bruce & Pearl Derryberry			2	390	7			
\$272 00d Clark Md. Affred 8 Evelim 2rikookses \$212 01d Clark Road R-F 145 8.477 \$2782 00d Clark Rd. Charles 8 Diana Scandil 1881 Elliott Road R-F 148 1.35 9835 Clark Road (Partian) 1-5 167 8.47 [Partian] 158 Western Road (Partian) 6418 Cascade Street San Diana Cu M-F-P 145 145 145 145 145 145 145 145 145 145	S-11-8	5229 03d Clark, Mt.	Nometh & Comis Namer			2	300	8			
5282 00d Clark Md. Charles & Diana Scabill 1481 Elilott Road Red Red 1548 1.35 8 5855 Clark Road [1-5 162 8.97 8 [Partian] 155 635 20.00 8 1554 Westian] 1554 Westian]	25-11-43	S272 01d Clark Ad.	Alfred & Evelyn Zytkoskee			7	145				
3835 Clark Road [Partian] [Partian] [15] 6.55 20.08 [Sat Westerf Sat Direct San Direct 153 675 20.08 [150 Westerf] [150 Westerf San Direct San Direct 153 675 20.08 [150 Westerf San Direct 153 675 20.08 [150 Westerf San Direct 153 675 20.08 [150 Westerf 153 675 20.08 [150 Westerf 154 675 20.08 [150 Westerf 155 675 20.08 [150 Westerf 15	SS-13-48	S2R2 00d Clark Rd.	Charles & Dieve Stabill			8-8	7	1 12	, b		
[Partian] 1-5 675 20.00 8 150 Western San Diego CA Pri-P 193 1.50 8	2-2-2	3635 Clark Road				2.5	191	8 60			
Wells-81 1551 Wasterfor Moradd Mitchell 6418 Canade Street San Dieso CA Ref-P 193 1.58 a	25-13-25	(Partian)				1.5	678	8	, b	8 8	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	半日末	1534 Reputatt	foreid filtotell	6438 Cascade Street	Sen Diego	CA N-F-P	193	2	. 4		

Kennedy/Jer	Other information	building (delauitated)		beilding		Woomit reed extete	33	frontage 988/448; perking lot	frontage land use 342/78							building (varehouse)						frontage land use 138/145	frontage land use 158/145		blag	bloo	blds - new office to be built			1	bulleting	bide	*****	frontage land use 112/200
1	Area, Building Correct EDG's Business name sures area, use so, ft.	1.9	82	33	3:	22	37.5	X X	2.20	57	2.2	St 0		6.59	3.5	3, 3		1.3	8.2	2 2	2.5	2.5	25.20	37.	200	X S			* *		2 2		8.58 PGE	2.5
Ì	bidding Current s area, use so, ft.	A 8 9	5 8 V	3 2800 V 9 8 V		A 8 A			. B.V	۸.	> *	> >		4.4		- 5		**	> :		> *	^*		•			55				3.0			
]	Frost Ares, Tootage acres	28 1.35	1023	18 8.0 15.80	188 8.43		367 738			2 12		153 1 86				20 62			123 123	2 m			25 2.19			2 2 2		901 8 00					1	112 8.5
1	Zone	Ž	11	II	3 ខ	3 3	8 2	i le	2 2	* 5	1 × 1	e le	W:	k	te :	3 3	3	ž	3 3	3	Z	3	7	¥ :	2 3	2 2 2	Z	2	2	3	. 3	Z		200
{	City, Sate		Bearly Hills			Pepolis	Repolls Reserve Witte		Dester	Destar	Desper													Parently.	Parallia Parallia	Seri Jose								Droville
]	Ower's Street Address	5574 Pentz	984 Wilshire Blvd. SVN Pertr	7.0. Bor 1289 7854 Seyver	P.O. Drawer 2507 5943 No. Litter Reed	P.O. Box 318	P.O. Son 518 9844 Witshire Rivel		815 Late Alsonor Heat Dr.	215 Lake Abaron Best On. Dester	815 Liste Altainor West Dr., Chester Role Grouns	6637 fartis lay	712 Bille Road	722 Mile	SANG Striam Lane	1869 Contifer Drive	1175 Wasstaff	SAM Clark Red, Seace S7	52 fersedos MII briss	420 Lancaster Online	BBYO Skirvety	P.O. Box 1284	F. U. 500 1284	100 Street			6222 Fossy Love	USS Body Ridge Court	654 Luchy John Bod	P.O. Box 517	6544 Lucky John Boad	7856 Street		31 Sort Averue Droville 9925 Resort Drive 8113 Caralcheel
]	Deser	Feather River Scapital	Albert Globan Frather Ever lospital	Nelvin Selin	Notest Audiey Novell Faelly Trust	Paradian Park	Perediae Pers. Perediae Plaza	Richard Royard	Ranne Family Trust	Rapose Faulty Trust	Applie Healty Trust	Northern Severalian	Kerneth Sursitor	Tick	Charles Payed	William Hartsock	Nercy Den	Bornite Nevius					Break Refere			l'amil	Eugene Trimer	Petro Properties Inc.			Richard Caspion	b		Dristopher J's Inc. Jack Distler
	Situs Adoress	6680 Clark Road	608 Clark had 608 Clark had	Clark	6486 Clark Road 1457 Mepitaff	6789 6785 6675 6687 Clark Paradiae Park	MARY, MARY, ARBO, CLIETA, Paradilae Para Clieta, Road/Magataff Paradilae Plaza	SENS SEVARY	SAFF Servery	Mazi Sayany	ASS Street	SSEI Servety	MAT Skyaty	MAI Street	1807, 1813 Knam Lane	CITS Servery	UTS legsteff	SUC STATE	Elif Sover	5158 Street	SPIS Sever	1800 frees free Court	from Irea Curt	7717 Sover	7717 Sayan	7889 Streets	N.Y. Street	NAM Street	1860 Bille	77% Strain	7628 Street	165 Lisa Lane	SSA1 Vista May	SSM Schaele Lave
Free No. 26 62/80/89 Than of Perellie State Feestbillity Fercel Information 67/1/6 88261	Record I Percel No. Situs Address	23-13-53	17 Sept. 18		100 St. 100		9988	64 54-14-1-1	52 50-18-4-123 8889 Skywy	M 51-18-4-153 M21 Sayan	M 51-11-4-12			M-10-10 00		128 51-13-0-128 6519 Seven	112 51-13-2-122 1175 Magatari	125 53-12-2-31				10 9-15-14		-			178 51-15-75 50					38		20, 20-20-20

KennedyJer	6 name Other information	frontage land use 337/223	Area frontage land use \$4(3)		bles bles	e la company de	office block block		se los se	freetage land use 55/NL blob - OffSces
ľ	EDU's Busines	2222	Lis Fartis Ass Lis Lis	22222	13333	12232323	22222		22222	3 2 2
	Ares, Building Carrent, EDU's Business name sorts wres, use 54. ft.	****	:::::	::::::	N	******	288 v 9 v 9 v 1298 v v 9 v 9 v 1590 v v 9 v 9 v 1500 v 9 v 9 v 9 v 9 v 9 v 9 v 9 v 9 v 9 v		7 A A A	:::
)		3883			2235	2833353				233
1	front footing	25 28 28 28	មើននង	33133	128-8	×-3-338	* \$ 3 x 3 3	Fass	6.故 麗 琳 和	•==
	lore	2777 55	3333	333333 55 sss	7 2 2 2 5 5	3322233 3 3333	ZZZZZZ * 5 5	33333	33333	223 33
}	Clty, State	Oraville Oraville	Stockton Victorville Victorville	Sent to Sent t	IN Sentile	Los Argeles Polo Alto Polo Alto Polo Alto Serte Berbero	Aintaorth Seria Rosa Sen Notes	Secretain Secretain Secreents	Mertines	Sersento
]	Daner's Street Appress	1735 Aram Court 31 Soort Avenue 31 Soort Avenue 736 Fir Street	SAN M. Meter - Dad Floor Et S SANN Le Metra Et S SANN Le Metra 186 Meller Edde Ories	777 Overfull Drive Seats of 222 New York Days Live Seats of 224 Mth Inte So. 133 Seattle 224 Mth Avenue So. 133 Seattle 224	8 E	F.C. but \$233 NY Ellist bad UN Seridan Avenu UN Seridan Avenu UN Seridan Avenu UN Seridan Avenu UN Seridan Avenu	Zero and harrington St. F.A. for Mil. 2738 Janes Rosa Avenue 5925 Alland F.O. Son 1878 219 Jeth Avenue	993 Alaced Street 5187 Correction Dr. E. 1531 7th Avenue 1531 7th Avenue	P.O. See 489 P.O. See 128 P.O. See 1179 P.O. See 1179	SATS Alsond Street IIIs 24th Street IIIs 28th Street
]	and the same of th	Jases Serve Orristoster 3's Inc. Orristoster 3's Inc. Nevold Nerse	Aeritan Serins & Loen Edward York Edward York Edward York	Richard Meeter Richard Crattree Ned Nigro Ned Nigro James Pinocotto	7	aden soo of See	oper c)e of here	Don Saith Hilde Neiler Marie Neiler Marie Neile Benk of America	¥	Sopile Corbett R.1.6. Ltd.
	Situs Adress	STS, 535 Street Street Street Fir Street (Mand)	6978 Struey 6107 Center Street 6135 Center 6159 Center	617) Center 617) Center Street 6166 Center 6166 Center Street 6154 Center Street	650 Street 60 Elliott Elliott 590 NCIsin Lee	MAD Styner 7733 Styner 665 Styner 667 Styner 67 Ellist Road — Milboard Lore 144 Board Blvd	-	577 Alacod Street	630-625 Street 72-72 for Street 655 for Street	Librard 7 Library Library Library Library
Roce No. 27 ROMAGES Town of furnalise Study Furned Information KUIC 482311	Roand I Percel No. Situs Aderess	28 15-75-69 28 15-75-69 27 15-75-73 29 15-75-73 59 15-75-73	25 55 6 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	26 54 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	20 20 20 20 20 20 20 20 20 20 20 20 20 2	2002		28 59-19-12 7 458 30-14-1-12 7 458 30-14-1-15 8	42 S-14-1-2 6

Recard & Farcel No. Situs Address (A		Ower's Street Address	City, State	Jone	Frant	Arm, Bu	ilding Current	Arms, Building Current EDV's Business name	Other Information
	MO								
					Foother	*	M. T		
none - Elliott	Milde Neley	MD Correction brise	Secretarito	3	ž			3	
9932 Alaend Rs	fludol! Schott	S952 Alsond Street		3	1 2	2 12		2 2	frontiage land use 114/115
mely	Charles Janes	395 Valley Ridge Drive		2	100	2		8.5	
Syvery	Royald Mest	577 Serbers May		3	180	6.62	>	1 2	
	Paradise Lusber Cospeny	5757 Scyuty		I	180	75.0	>	5 5	42
	Estard levers	1228 Numeley Road		9-0	×	28.8	2 0		Anno Anno
b	file badlov	4118 Sover		3	2	8.17		200	dena
	Miroslav Darúlov	6118 Sovery		3	5	9.	1990 V	20 C	110
ASS Screen	Stanley Cleants	P.O. Box 6		3	2 2				2000
Skyety	forter faulty Trust	P. D. Son 26		2 3	2 :	2 2		E. St. Perking	
	Warre Paul	P. D. Box 974	Pales		# 5			8.36 Perking	
	Solven Sanders	CUE Frank Street Sec.	MINE	9 :	8 :	27.	A 2019	35	bido
1	and a south a	NO CLET FING BIA		T	2	0.20		3.3	
	vevas saserts	1365 St. Pert Drive	Populia	3	R	17	7 SK	8.3	bide
SCHOOL	fichari laskel	5386 Orchard Drive		3	2	879	A 40	8.50 Parking	
	Malph Nein	1889 Hermen Road		3	3	8.14	200 V	35	Nide
	Cynthia Williams	2452 Paddock Driver	Sen Reson	100	200	8.16	1880 V	3	4
	Cynthús Williams	2452 Paddock Drive	Sen Ream	3	9	8.18	2	A to Swedies for Beatles	2010
1998 Foster Cy	Contribe Williams	2452 Paddock Drive	San Ream	100		9 10		a to best to the party	
4	William Notaine	988 Sodette Drive	Mondaide	70	1 12			a co	
MSS Alacnd US	William Flord	27543 Surryritor Red	Palos Vendes Praule		2	. 5	V 0005	P. Sa Sant Orders	
	Ivey Amess	639 Circinocol Brive			3	***	1480 V	100 mm - 201110 mm - 201	4 2
	Lawrence Rolfe	234 Naple Street	Susarville	23	186	27.0		2 2	Serio
	ment	Corp 200 Mittervand Street	Glendale	7 5	77	2.35	> 6	8 Se Partino	described land over 100,000
	Ronald Norlick	6671 Shookupy		9	2				11,000 000 000 000 100/1/0
(5995)(5992)	Devran ISA Jac.	P.O. Son 2611	Sen Francisco	200	3	69.8		2 3	Sero.
	Reveald kest	S77 Serbers May		85	2	0.00		8 5	
	Clarence Kay	SSS Fir Lane		3				200	
300	Roper Cleip	348. Suth Street	San Francisco	47.45	: =		2 000		động.
XX Syver	Social faily Inst	\$21 W. 11th Avenue	Orice		2 3		8 1		6000
	Goodson Feel by Trust		wie.	200	2 3			8 :	office
Inore) Black Olive 3s	Deck Soodnern		Oite	200	2 9	0 77		200	
- Faster De	Berell Redland			2		2 2		8.3	
117, 119 Pearson Ph	Phillip Norler	P. D. See 875		3	1 2			× :	
SS37/SS33 Pren 145 Alleand En	Enach Ferrell	P. ft. See 881		. 3	: :			X :	
Side Aleand	William Alcorn	333 Srobosité Drive	In Corner		1 :	1 2			0100
Premion Ga	Garland Nart	1925 Noney Bun Boad	Dies	3	8 3			R 2	9019
- Slack Olive Ga	Ger land Hart	P.D. See 3230	Dilon	1 2				8.0	Parting
Elack Olive Go	Secrye Reposses	Mile Elack Olive						R :	1040
SAM Black Dilve Ve	Wile Jeffords	P.O. Ser 307		. 3	* 8	1 5		8 1	
MD, 1M Perriam Th	Thomas Notharphlin	929 Trosesson Lave			2				
	Derry Feetler	CON Blace Miles		2 3	9 .		A 808	×	blide
	fred Josiffnee	Wild Count Online		Ξ:	-	12	>	1.30	
Sats	Inner Diet la	AND DATE DAY	Sen Bruno	3	-	ri.	^ =	572	
	Towns Dieta			3	8	7.	> 00	2.3	
	2000 MALLE	AZZ PROTEIN DEINE	0.0000000000000000000000000000000000000	Z	8	23	^ •	1.50	
	-	141 BOLDER 188	urescent titly	200	22	Z,	4	× =	

Page 10. 28
EAMANN
Nam of Perestate
Next Perestation
Study
Perest Interestation
KANK MESTI

Pee No. 29 83/86/89 South of Permitter National Permitter South Farcel Information KJAK 842511

Record # Parcel No. Situs Aggress	Situs Adress	Se et	Ower's Street Adress	City, State	Inc	Front footbage	Area. No	Additing Current eres, the so, ft.	Area, Building Current EDU's Business name sores errea, use so, ft.	(gper	Other Information
762 52-25-83	5674, 5678 Stynesy	Devid Roberts	1385 St. Park brive	Fequilie	200	8	6.19	7 000T	87	Alde	
2000	Mole Syracy	Edward Jissenez	15534 Coutelenc Road	Pagalis	23.5	8	177	> 0	3.		
20 20 20 20	- Xive	Math Callins	2139 Cherry Street	Victoburg	30 M	12	8.95	A 8	8.50 Parking for Senet Ire-		
Series Series	SOME	John ReIntash	2655 Ocean Blvd	Carone Del Nar	233	318	3	A 8	3.2		
A 10 17 CO		NO VALUE				-	6.80	> 0	35		
Na street	SALE SENET	1st Amer Tittle Insurance		Senta Ana	32 3	25	1.30	^ *	3		
N-1-1-20 N-1-20 N-1	1284 Billie	Duane Johnson	P.O. See 1498		3	H	25.00	> 0	5		
118 SS-41-7-17	62% Clark Road	Christi Rustry Allistoe Ch 6691 Clark Road	Ch 6491 Clark Road		Z	2	22		9	21.40	
おかずの変	6344 Clark Road	fine Date!	6382 Clark		3	188	1.85		1 9	2010	
20年1日本	6332 Clark Red	Callf State Auto Assoc.	189 Ven Ness	Sen francisco	474.0	2	3		1 3		
20 SO-60-1-50	7555 Street	Southland Corp.			3	19	2	1500 v		100	
MJ 53-62-2-11	7429 Street	Richard Caspian	6549 Lucky John Bad		3	×	2.0	1000 V	3 5	8 2	
M S-6-7-5	7472 Styleto	AFOR: Investment Ltd	SJ E. Rain Street	American Fork	25 15	205	9	7.007	6 G Co. Option 814s Lebendal	876	
22 S-42-22	7342, 7348 Styvery	Fine Core Plats	7486 Street		3	2	5		6 '6 Pareline for East for Latin		
845 53-62-2-23	non - Sovery	Paradise Investments	11829 White Sock St 1180	Rancho Condova	3		2		S. S. Control for Little St., Williams		
845 53-80-24	none - Savery	Paradise Investments	11829 Molte fock for 8180		200	74	2				
25-2-5	NES SKYMEY	Richard Caspion	6549 Lucky Jahn Boad		3	1	5		1 2		
124 52-63-27					Y	9	8		1 2		
277 57-42-28					3	100	×	>	1 2		
1265 55-60-39	7280 Street	5. Paradiae Investors Ltd 5789 Auturn Blvd.	of S718 Auturn Blvd.	Secreents	2		9	>			
25-44-25 GS	6255 Clark Road	Jack Salth	N. 42% Houthorne	Sookane	3	318	8.8	>			
82 82 82 82 83 82 82 82 82 83	6162 Clark Road	Roboralds Carp	P.O. See 66297	Chicego	20 10	H	2.00	*	35		
802 SO-84-20	62M Clark Road	Mitheel Peluoce	319 Los Cedros lary	Nodesto	20 20	38	6.18	A 4	3		
MS 52-84-68	6348-4 Clark Road	Edward Porter	1479 holawood brine		ž	278	177	>	2		
S-3-0 00	6256 Clark	North Valley Fence	450 E. Park Avenue	Origo	200	22	2	> 0	3		
85-14-13 898	6225 Clark Apad	Design Concepts	6387 Apriles Lane		I	3	1.48	A 8	5		
2 4 1 5 E	6157 Clark Asad	Tolvo Sethery	991 Sathery Drive		74	58	6.35	>	5		
2000	1802 Setbery Drive	Tolivo Seathery	Wil Sathery Drive		474	-	8.8	> 0	5.2		
2000	ELP Clark Road	Fred Hanceh	60ki Clark Road, Suite 8		772	K	2.3	4.0	35		
877 SO-88-13	1819 Brookwood Court	Fred Namesh	6363 Clark Road, Suite 8		774	-	8.8	**	3		
12-1-dr-32-00	6877 Clark Ased	Larraine Goederitz	SWS Stiver 14		ž	n	8.66	> 00	2.5		
10 Sales 100	6891 Clark Road	Andress Wippler	7178 Severly Lave		3	9	8.76	۸۰	5		
SE SI-18-1-32	MRCI CLIEFE ROAD	John Wjooler	MAII E. Nory Street	Downey	20 00	2	22	2 8			
#2 S-18-7-13	Clark	Roper Lundgren	1338 Num Road 83	Yube City	200	7	9		1 2		
892 53-18-2-15	- Clar.	Satherine Milborn	353 feller fence	Sen Lorenza	25.00	8	97.0				
\$5-18-52 \$100 \$100 \$100 \$100 \$100 \$100 \$100 \$10	6857 Clark Road	Lomberd & Associates	1376 Ross Street	Petalian	2	25	27.5			414	Alde . bad here when
M-12-0-18	6832 A-F Clark	Jaso Nasary	36334 Alsaeda Delas Pulge Renjo Park	Mento Park	20		2	>	200	. 2010	TIES DECENTRAL
SA 22-22 BK	MAN A,8 Clerk	Jaso Nursury	36334 Alsseds Delas Polge Perilo Park	- Penilo Park	20		2		District of the control of the contr		
第二十二年 第	6864 Clark	Old Town Plaza Partner	5565 Pale Ceryon Dr. 5212 Pale Sortings	Pala Sorings	200	2	E		1000		
Tack &	59% Clark	016 Your Place Partners	559 S. Pale Caryon, 6-712 Fale Sorings	Pale Springs	200	B	2	2			
125 SP-11-41-14 WI DISSET	901 Elliott	Nortert & Neoal Saith			I	175	2				
129 ST 14-17		James & Vera Scales			7		2				
28	921 Elliett				I	38	9 6		2 2		
	SKS from That	Searge Perser	SMM Green Thusb		2.6.4	2	5		1 5		
25 25-12-45	877 Nameley	Paradise Auditorius CC	P.O. Son 1124		2						2.631.202
					,				8:2	205	under construction -

Color Colo	Outer Outer's S
Columb C	Peredia Auditorius CC P.O. Son
Color Colo	
Color	
Direct Color Col	ic todge
Low beach	Francis Bluert 2NB Cres
Long Beach CA For 18 R.35 R.V R.59	Calvary Chapel of Paradae P.O. Sox 2
Autorn	Loren Balter 3311 Poses
Autorn	
Authorn	
Fig. 10 Fig. 10 Fig. 10 Fig. 10	Date.
Fig. 500 National Col. 20 12.00 N	
Frie Son Parross CA CC	Autori, major 1998 Sirvi Liller. Carlista Richards 191 Waller
Frie Sen Marross CA C-C	
Trice C.C. 25 8.6.57 8.9 8.38 Chloso C.C.C. 25 8.6.57 8.9 8.38 South Lake Tabor C.C.C. 25 8.6.39 8.9 8.39 Salt Lake City Of Crf 23 8.2.3 8.9 8.39 Le Nambres Neights C.C.C. 28 8.3 200 9 8.39 vecant boiliding Les Anneles C.C.C. 28 8.3 2.0 8.9 8.39 Les Anneles C.C.C. 28 1.23 8.9 8.3 8.9 8.3 Les Anneles C.C.C. 28 1.23 8.9 8.3 Les Anneles C.C.C. 28 1.23 8.9 8.9 8.3 Les Anneles C.C.C. 28 1.23 8.9 8.9 8.3 Les Anneles C.C.C. 28 1.23 8.9 8.9 8.3 Les Anneles C.C.C. 28 2.0 8.9 8.3 Repolite C.C.C. 28 2.0 8.0 8.3 Repolite C.C.C. 28 2.0 8.3 Repolite C.C.C. 28 2.0 8.3 R	
Thio	Carlisie Richards 191 Waller R
South Lake Table Cr. C 25	
South Later Tables CA C-C 116 R.NR 1980 V R.S.S Women's C-F 620 R.NR 1980 V R.S.S Women's C-F 620 R.NR 1980 V R.S.S Women's C-F 620 R.NR 1980 V R.S.S Women's C-F 138 R.NR 1980 R.S.S 1980	В
Cof 628 6.00 BV 6.59 weret boilding Cot 100 6.31 200 V 6.59 weret boilding Le Nambre Neights Cot Cot 35 1.20 BV 6.59 Los Angeles Cot Cot 35 1.20 BV 6.59 Los Angeles Cot Cot 35 1.20 BV 6.59 Hay the Cot Cot 35 1.50 BV 6.59 Hay the Cot Cot South Cot Cot 35 1.50 BV 6.59 Hay the Cot Cot South Cot Cot 35 1.50 BV 6.59 Hay the Cot Cot South Cot Cot 35 1.50 BV 6.59 Hay the Cot Cot South Cot	50
Self Lake City 17 Crf 35 1.62 and 2.58 meant boilding Le Narten Reights 0.7 Crf 43 1.62 av 8.58 meant boilding Chico 0.7 Crf 43 1.62 av 8.58 Le Narten Reights 0.7 Crf 43 1.63 av 8.58 Les Aspeles 0.7 Crf 33 1.63 av 8.58 New York Nr Crf 33 1.64 av 8.58 Primed 0.7 Crf 33 1.66 a	NO WUE - SOOO.
Let Marters Recigita Cariford	d latter for
Le Nanton Relights CA C-C 624 2.505 BV E.59 Chido CA C-C 526 E.31 BV E.59 Los Angeles CA F-C 326 1.225 BV E.59 New York NF C-C 326 1.225 BV E.59 Los Angeles CA F-C 326 2.49 BV E.59 Los Angeles CA F-C 326 2.49 BV E.59 New York NF C-C 327 2.49 BV E.59 New York NF C-C 327 2.49 BV E.59 C-C 327 2.49 BV E.59 Primar Pepalis CA C-C 227 2.40 BV E.59 C-C 328 E.30 BV E.59 C-C 327 3.78 BV E.59 An House idea CA C-C 327 3.80 BV E.59 Frontist CA C-C 323 A.87 BV E.59 Frontist CA C-C 323 A.87 BV E.59 An House idea CA C-C 323 A.83 BV E.59 Frontist CA C-C 323 A.83 BV E.59 Frontist CA C-C 323 A.83 BV E.59	
Chico CA C-C 126 1.273 8 V 8.23 Las Angeles CA R-C 126 1.273 8 V 8.24 Las Angeles CA R-C 126 1.273 8 V 8.24 Las Angeles CA R-C 126 1.273 8 V 8.24 Las Angeles CA R-C 126 1.273 8 V 8.24 Las Angeles CA R-C 127 1.273 8 V 8.24 Las Angeles CA R-C 127 1.273 8 V 8.24 Las Angeles CA R-C 127 1.273 8 V 8.24 Las Angeles CA R-C 127 1.273 8 V 8.24 Las Angeles CA R-C 127 1.273 8 V 8.24 C-C 127 1.273 8 V 8.24 Las Angeles CA R-C 127 1.273 8 V 8.24 Las Angeles CA	
District Colored Col	570
New York No Cot 134 125 145 144 125 14	Later A secretary 200 Broader
Hear York MIT C-C 333 2.48 38880 V 8.59 Halmat Oreck Ca R-F 371 2.38 8 V 8.59 Las Angeles Ca R-F 371 2.38 8 V 8.59 Hear York MIT C-C 337 2.48 8 V 8.59 Driand Ca R-F 327 2.48 8 V 8.59 Driand Ca R-F 327 2.48 8 V 8.59 C-C 338 8.78 8 V 8.59 C-C 338 8.78 8 V 8.59 Halmat Ca R-M 8.78 8 V 8.59	
Halmat Oreic Ca RF 177 2.18 8 V 8.59 List Arabits Ca RF 223 4.53 8 V 8.59 last Arabits Ca Cc 23 4.53 8 V 8.59 Driand Ca RF 223 4.53 8 V 8.59 Driand Ca RF 223 2.62 8 V 8.59 Driand Ca RF 226 2.62 8 V 8.59 Cc 108 8.76 8 V 8.59 Cc 108 8.76 8 V 8.59 Cc 208 8.76 8 V 8.59	perty Inest
List Argeliss Ca.P-F 220 4,40 BV 8,59 Line Regalist Ca.C-C 207 2,68 BV 8,59 Driland Ca.P-F 422 2,62 BV 8,59 Driland Ca.P-F 422 2,62 BV 8,59 C-C 208 8,79 BV 8,59 Drilanderial Ca.P-P 538 3,80 BV 8,59	Lang's Drugs 7.0. Res 5222
New York NE C-C MI 1.59 B V E.59	Priber & Associates 97N Hestwo
Papalis Ca C-C 217 Priland Ca M-F 442 Priland Ca M-F 442 Priland Ca M-F 528 Proderick Ca C-C 313 Proderick Ca C-C Proderick C	Carporate Presenty Invest 385 E. 47th Street
Priend CAMF 442 W1863 CSE C.C. 188 C.C. 188 C.C. 188 Featis CAM103 SSE Froderick CACC 313 Broderick CACC 313 Broderick CACC 313	See Intervalili 14198 North
M983 CS 188 CS 1	Jess Noffsinger 98k 4th Street
CC 118 CC 118 CC 118 Notablis Carrings 538 Froderiat Ca CC 213 Froderiat Ca CC 213	Edward Selth 1871 Dean Basic
Papel	
Notablis Carrings 538 (14 25) State (14 25)	
Negatilis Car(1983 SSB	
Ave Broderick CA.C.C. 313 Avenue Broderick CA.S. 318	ь
brokeriak Case 378 ;	Servaneto Sevinos AUS U
200	

	Per No. 11 SL/Ne/89 Found Peredian Founder Fees/Billity Study Pered Interaction KJIC MESSI	s ii s						10	ľ		1	1	Ker	Kennedy
11-25	Record & Percel No	. Sibus Address	Green	Over's Street Address		Jore	Franc footbage	# E	Iding Current arre, use . ft.	EDC's Basin	15 7880	E	her information	
14-22 Modiffer Secrements Secrement Secr	1211 54-11-28	1	Persolise lest	681 M. Capitol Avenue	broderick	20	-	87	2	5				
13-23 West Enaid Coart Workwart Co Services Coart Co	1260 %-11-22	Budley	Secretario Sevings	651 M. Capital Avenue	Broterios	ts of	-	12		2				
13-39 Will Enaid Carry No. Waller 1.05 foot 488 San Frenchool 1.55 1.14 1.04 1.05 13-46 548 Clark Dank of American 1.05 fortione Lane 57 346 Clark Dank of American 1.05 fortione Lane 57 346 Clark Dank of American P. O. Bas 2199 C-C 117 0.08 0.0 13-15 March of Provides 1.05 March of March of Provides 1.05 March	1218 \$4-11-33		Secretario Serings	641 W. Capital Avenue	Broderick	8 B	8 .	12.0	> :	2 :				
141-44	S-11-15 ST-11	1961 Eveld Court	NO VALUE			2		1 2	- >	8 2				
Section Desired 1,000 Cottons Lawe ST 2,000 Cottons Lawe 2,000 Cott	100 Series		Bank of Aperica	P.O. Sco 6488	Sen Francisco	20	133	9	>	2				
Section Particle P.C. Bot 2799 C-C 119 0.00	1146 54-33-1		William White	1355 Cottage Lane		bs	Ħ	13.68	>	3				
Street of Perceits 120 kilderwood Surrevalle CA CC 144 1.48 8 V 20-27	1168 54-33-34		Berlin 11 187 86136	P.O. Sts 2799		3	113	8.5	4	25.0				
Section Continue	1126 54-33-17		Person repeater	F.S. Sen 3773	Orice	3	184	3		38.3				
Fig. 10 Fredition Fredition Cot	1167 54-33-2		State of Secretary	DOWNSON WATER	Survivale	3	413	2.38	**	3.5				
1945 1945	1278 55-38-81		Bearing the first	F.Q. BOI 2199		y	8	3		2.5				
1-5 144 1-52 144 1-52 144 1-52 144 1-52 145 1-52 145 1-52 145 1-52 145 1-52 145 1-52 145 1-52 145 1-52 145 1-52 145 1-52 145 1-52 1	1173 SP-18-46		Ulline Palent	661 V. Capital Avenue	Secremento	500		68.80	^ 0	35				
1-5 144 24.	57-E1-55 BUT		Charle Beliefe	AND WILDER		50	2	3.5	A 4	2.5		2	tion	
1-5 657 1.25 6 V 1-7 50 Aserican lay 1.55 6 V 1-8 5	1140 55-18-73	946 Epts Drawe	At Baller & Sec.	19th Dreich		1-8	200	28.25	^ *	25.00				
Fig. 10 Fig.	1192 55-15-77	St Aserican May	Three Sainty a 2008	No tasy street		2	633	A.	> *	8.50 No. 1	Idne - Easip, Stor	race To for	net franklin Cons	dragitan
1-5 SEPA Gild Clark Performance Performa	1150 55-11-70	951 Notale Avenue	Calufa Recine	TO AMETICAL MAY		1-9	650	5.80	^ =	2.5		ž.	ant	
1-4 204 2.11 6.7 1-5 204 2.11 6.7 1-6 205 2.11 6.7 1-7 205 205 205 205 1-7 205 205 205 205 1-7 205 205 205 205 1-7 205 205 205 205 1-7 205 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 205 1-7 205 205 1-7 205 205 205 1-7 205 205 1-7 205 205 205 1-7	1175 SS-18-70	State of the chart	Mary Terline	//1 Guschean		1-5	689	3.80	۸ ه	8.5				
1-5 336 2.41 0.97 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.04 0.07 0.	1174 55-18-63	Salth Clave	Toke Baller	6154 Lucky John		7	R	2.31		25.5				
1-5 100 1-10 1-	1172 55-18-65	Mr. Palmer Mill Sand	SALES OF THE PARTY	No tasy Street		2	380	2.41		3.0				
P-22 Pertinal Despect Palage STAT Perty Road P-2 P-2 Perty Road P-2 P-2 Perty Road P-2 P-2 Perty Road P-2 P-2 Perty Road P-2 P-	1771 GL 18 AL	Des raiser rull 6280	James Palmer	STSS Pentz Road		25	25	1.80	> 0	2				
-5 NE 20.00 8 V	1180 50-19-71	(Base (sa.)	Janes & Novgeret Palaer	STEE Pents Road		opt one	•	8.8		35				
1-5 150 20.00 E V 1-5 150 20.00 E V 1-5 150 20.00 E V 1-5	1186 55-19-30	(Beating)				2	382	28.86	> 0	35				
1-5 (Writinal) 1-5 (W	1188 55-16-36	(Portion)				2	R	22.80	> 0	2				
1-5 265 1.78 8 V 1-5 Pertiani 1-5 98 8.42 8 V	1185 95-15-11	(Bestina)				1-6	2	22.80	۸.	31				
1-5 99 8.42 g.v.	118 50-16-5	(heriza)				I	18	2.1	>	2				
	lotal ***	70000				- P	32	8.42	^	8.3				
							21	86.55	24	10.3				