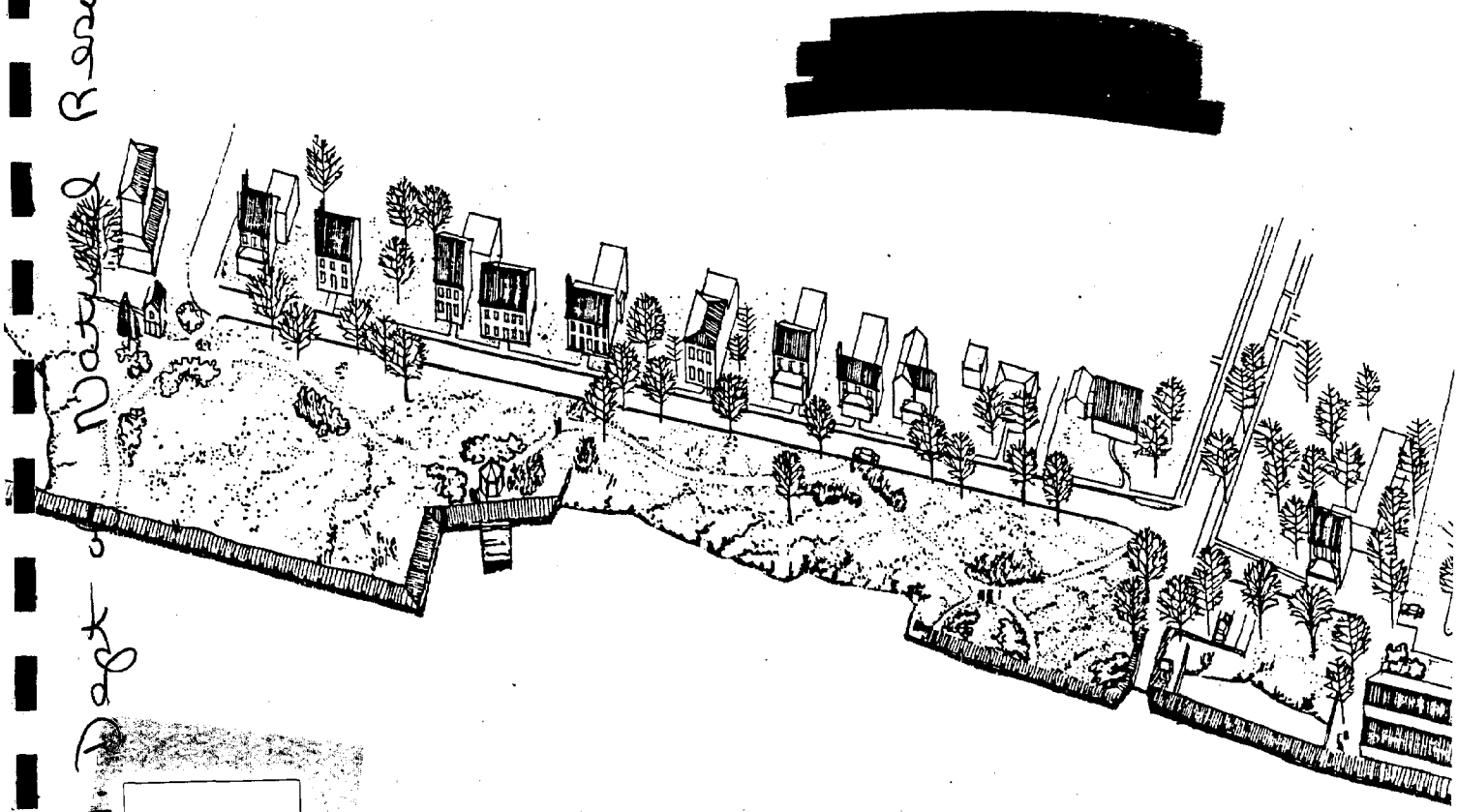
WATERFRONT PLAN

VIENNA, MARYLAND



H CREVELING ASSOCIATES

VIENNA WATERFRONT PLAN
Town of Vienna, Maryland

May, 1983

[redacted]

Town Commissioners
Dewey E. Blades, President
Winfield Bell
Wm. Mark Dennis
Harold Richardson (former Commissioner)

Consultants
Kenneth Creveling Associates
Fairfax, Virginia

Site Design: John J. Gattuso, ASLA
Conceptual Sketches: Robert P. Winthrop, AIA

Funds for this study and plan were provided by the Maryland Department of Natural Resources, Tidewater Administration, through a grant from the Federal Coastal Energy Impact Program.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

I. INTRODUCTION

Relation to Town Comprehensive Plan

The 1981 Vienna Area Comprehensive Plan proposed the redevelopment of the Town's Nanticoke River waterfront as a place for public use and compatible commercial activity. Under this proposal, the appearance and accessibility of the waterfront would be improved to benefit Town residents and to stimulate local economic growth through tourism.

Waterfront redevelopment will have a significant role in promoting local tourist trade, in revitalizing the Town's old business area, in attracting future residents, and in preserving the Town's historic character. Vienna Heritage Days, an annual crafts and entertainment festival, and a budding "bed'n breakfast" industry are indicative of local interest in the Town's growth and of its potential.

Source of Funding

After completion and adoption of the Comprehensive Plan, the Town applied for a grant from the Maryland Department of Natural Resources, Tidewater Administration to prepare detailed plans for its waterfront area. Funded under the Federal Coastal Energy Impact Program (CEIP), the grant was awarded to the Town in 1982. At the time of application, CEIP funds were available to communities impacted by coastal energy facilities and offshore energy-related development programs. An important objective of waterfront redevelopment in Vienna is to offset visual and other impacts associated with the existing Delmarva Power & Light Company power plant and its proposed major expansion on lands immediately adjacent to and upriver from the Town.

Scope of Waterfront Studies and Plans

A consulting firm, Kenneth Creveling Associates of Fairfax, Virginia was retained in September, 1982 to prepare detailed studies and plans on behalf of the Town, as follows:

- Preliminary and final site plans for the waterfront area, defined as the all lands generally between Water Street and the Nanticoke River downriver of the U.S. 50 bridge.

- Construction specifications and cost estimates for proposed improvements.

The following documents have been prepared, submitted to, and approved by the Commissioners of Vienna:

- This Waterfront Plan report which describes and illustrates waterfront redevelopment proposals, discusses phasing and implementation, assesses the potential market support for a waterfront restaurant, and presents construction cost estimates.

- Sketch renderings mounted for display purposes.

- A 14-sheet set of final plans at 1"=20', covering demolitions and removals, grading, site development, and planting, and associated construction details for such features as decks and bulkheads. A set of 1'=50' preliminary plans was also prepared and submitted.

- Construction specifications in booklet form.

- A topographic base map of the waterfront area prepared by aerial photogrammetric means at 1'=50" with a two foot contour interval.

II. DEVELOPMENT PLAN

Existing Conditions

The waterfront redevelopment area extends approximately 1,300 feet along the Nanticoke River on the downriver side of the U.S. 50 bridge. Depth of this area varies from 80 to 180 feet between the shoreline and Water Street, which is the landward boundary of much of the redevelopment area.

Nine properties make up this area, as shown in Figure 1. Three are already owned by the Town of Vienna, including the site of the historic Customs House, the old Coast Guard station site, and a boat ramp, which once functioned as a ferry slip before the bridge was built over the Nanticoke River. Owners, assessed values, and other information for the nine properties are listed in Table 1.

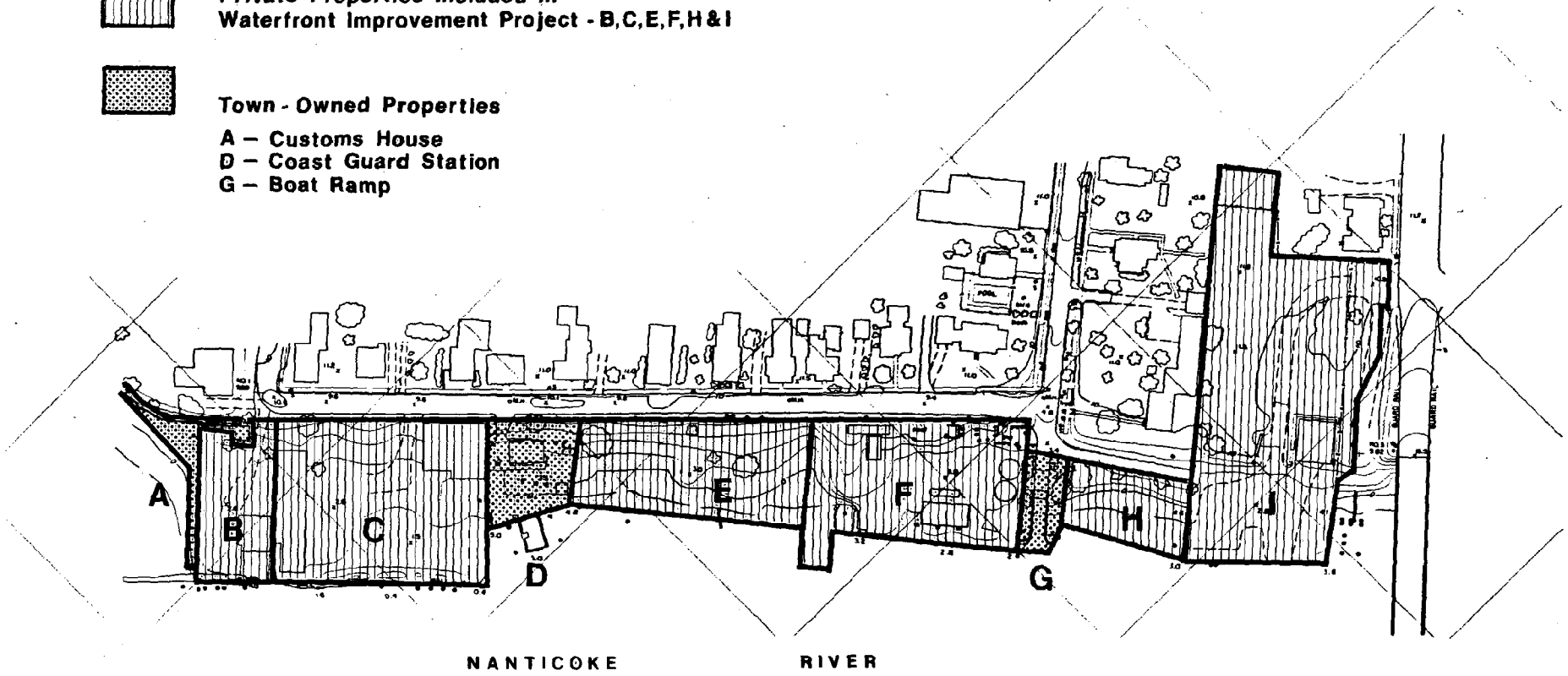
The character of Vienna's historic district and views of and from the fine old homes lining Water Street are diminished by unsightly conditions along the waterfront. Once a thriving and vital location for water transportation and industry, the old steamboat berth, cannery, and granary exist today only as foundations, vacant or inactive buildings, and other remnants. Where it exists, timber bulkheading has deteriorated, and the area generally shows neglect.

Meanwhile, the potential of the waterfront area is reflected by the row of 18th and 19th Century homes along Water Street. These homes are representative of the historic character and quiet charm of Vienna and provide a handsome backdrop for waterfront redevelopment, as Figure 2 reveals.

Private Properties Included in
Waterfront Improvement Project - B,C,E,F,H & I

Town - Owned Properties

A – Customs House
D – Coast Guard Station
G – Boat Ramp



Scale in Feet

50 0 100 200
25 50 150

Figure 1

THE VIENNA RIVERFRONT

Table 1

OWNERSHIP AND ASSESSMENT DATA FOR WATERFRONT PROPERTIES

Property Designation[1]	Owner of Record	Tax Map/ Deed No.	Assessed Value ($) Land	Improvements	Total	Site Area (square feet)	Comment or Present Use
A	Town of Vienna	177/435	3,000	1,000	4,000	4,360	old Customs House
B	C. Calvert Evans and Dorothy D.	209/259	14,000	5,000	19,000	13,964	residence; old steamboat berth (part)
C	Deborah W. Guinta and Linda Gorman	221/705	41,090	13,710	54,800	41,100±	old cannery site
D	Town of Vienna	217/636	10,500	33,820	44,320	9,649	old Coast Guard station
E	Ann W. Denniston et al (formerly Nellie M. Webb)	224/669	6,130	-	6,130	26,180	undeveloped
F	Roland E. Trego & Sons, Inc.	177/562	30,650	350	31,000	30,649	old granary site
G	Town of Vienna	156/252	5,200	7,500[2]	12,700	5,500	boat ramp; old ferry slip
H	Herman L. & Katherine E. Bradley	part of 205/385[3]	1,500±	-	1,500±	4,500±	undeveloped; part of residential property
I	Trego Construction, Inc.	201/164	42,570	20,570	63,140	42,360[4]	marine contractor's yard

(1) As designated on Figure 1.
(2) Nature of improvements is not clear.
(3) Portion of property included in waterfront improvement project is approximately 4,500 s.f. above water line; land valuation estimate for this portion is proportional to assessed value for total land area of property.
(4) Measured area of property is greater than as shown in County tax records.

Source: Dorchester County tax assessors office; and Kenneth Creveling Associates.

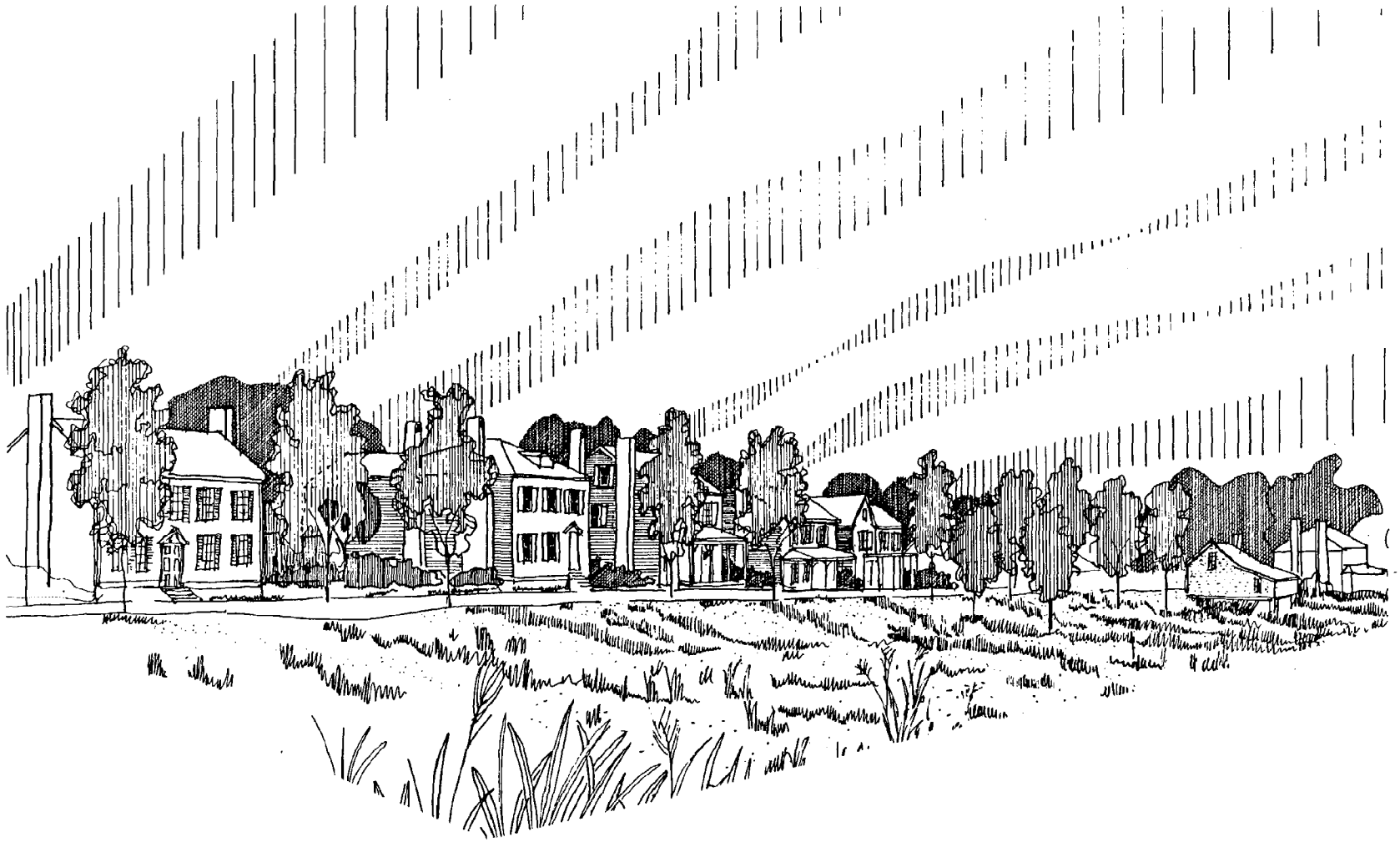


Figure 2

Character Of Water Street Homes

Design Concept

The Vienna Waterfront Plan reflects these design objectives:

- Improvement of the appearance of the riverfront area to make it and the Town more attractive to residents, potential investors, and tourists.

- Provision of access to and use of the riverfront primarily by Town residents.

- Reinforcement of the maritime history of the riverfront and Town of Vienna.

- Preservation of natural shorelines and creation of natural amenities on presently disturbed sites.

- Provision of opportunities for beneficial and compatible commercial development in prescribed riverfront sections.

Toward these ends, the Vienna waterfront would be redeveloped primarily as a public open space for passive enjoyment by Town residents, rather than as an active recreation area. Commercial development would be limited to only those riverfront properties which also front on U.S. 50. No public access to commercial properties would be provided from Race or Water Streets.

Existing buildings, except the historic old Customs House, and other structural features would be removed. After removal of structures and some re-grading, most of the waterfront area would be seeded with grasses and planted with trees and shrubs appropriate to the coastal environment. Landscape treatment would be designed for low maintenance and to produce an attractive riverfront setting for the Town. Use of natural materials would be reinforced by constructing pathways of crushed oyster shells.

Wooden boardwalks would extend along and cover existing bulkheads to accommodate pedestrian enjoyment of the riverfront and improve shoreline appearance. Existing timber bulkheads would be repaired and stabilized, as needed, and natural shoreline sections would remain generally undisturbed. A section of boardwalk will link the Town park with a proposed riverfront restaurant (commercial development), so that restaurant patrons may also enjoy nearby sections of the waterfront during their visit. Tie-ups and moorings would be provided along the waterfront for boats owned by residents and for visitors to Vienna.

Overhead electric and telephone services along Water Street would be relocated underground. Street lighting would be provided instead using poles and fixtures in keeping with the nautical and historic character of Vienna. In addition to the existing old Customs House at the Church Street intersection with Water Street, the old ferry tender's office would be re-established adjacent to the boat ramp (old ferry slip) at the foot of Race Street to add historic interest in the waterfront area.

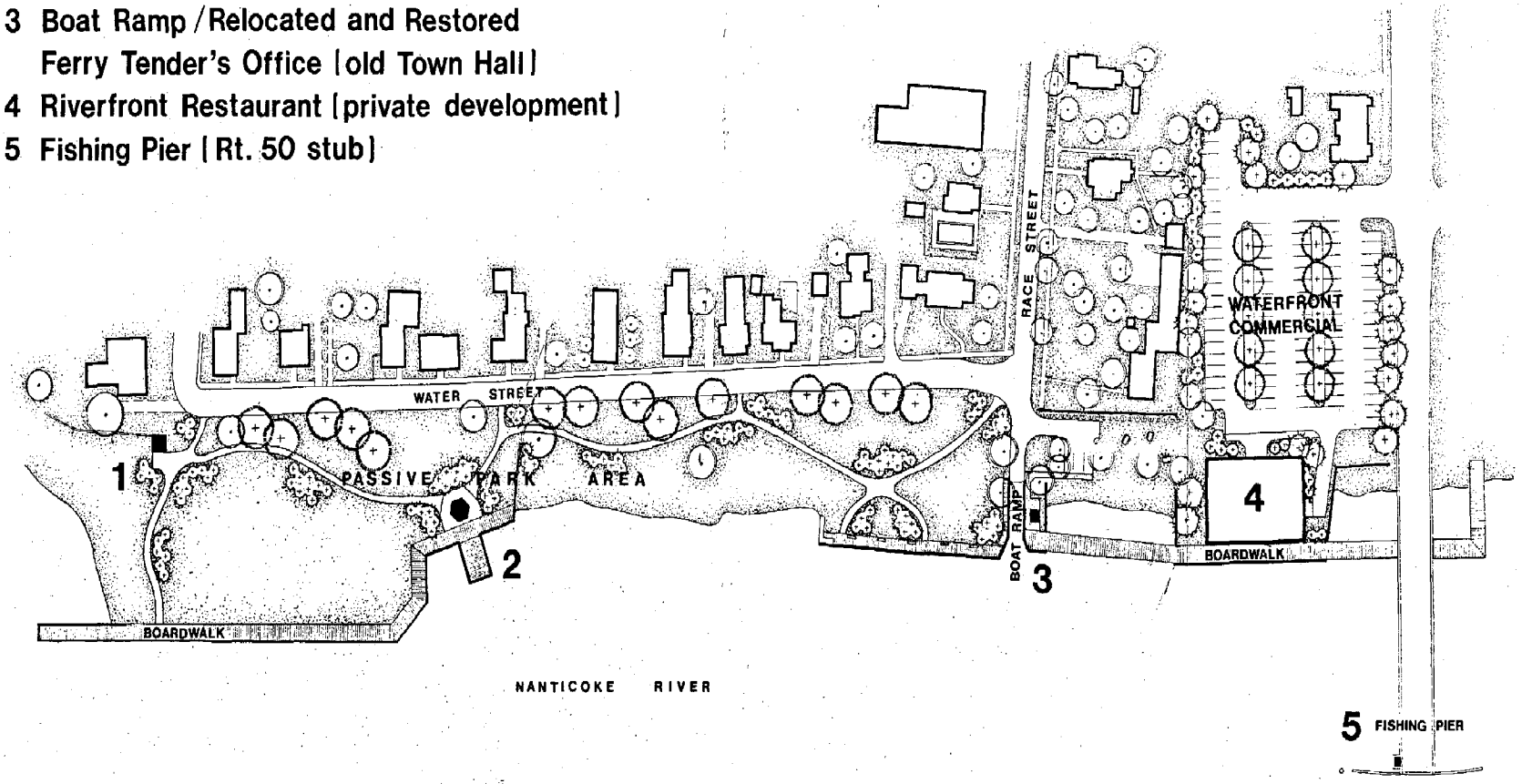
The Vienna Waterfront Plan is shown in Figure 3. An aerial perspective on the Plan is provided by Figure 4. Major elements of the Plan are described further below.

Major Eelments of the Plan

Old Customs House. The old Customs House, which dates to 1768, is a reminder of the days when Vienna was a leading port of entry on the Eastern Shore. The small three-level brick and frame structure is being carefully restored by the Town. Removal of nearby waterfront structures and the introduction of new plantings and other landscaping improvements will enhance the setting of and access to this historic symbol of old Vienna.

PLAN ELEMENTS

1 Customs House Restoration
2 Open Shelter/Coast Guard Sta. Site Imprvt.
3 Boat Ramp/Relocated and Restored
Ferry Tender's Office [old Town Hall]
4 Riverfront Restaurant [private development]
5 Fishing Pier [Rt. 50 stub]



Scale in Feet

25 50 150
50 0 100 200
SCALE IN FEET

Figure 3

VIENNA WATERFRONT PLAN

VIENNA, MARYLAND

Kenneth Creveling Associates
John J. Gattuso, ASLA

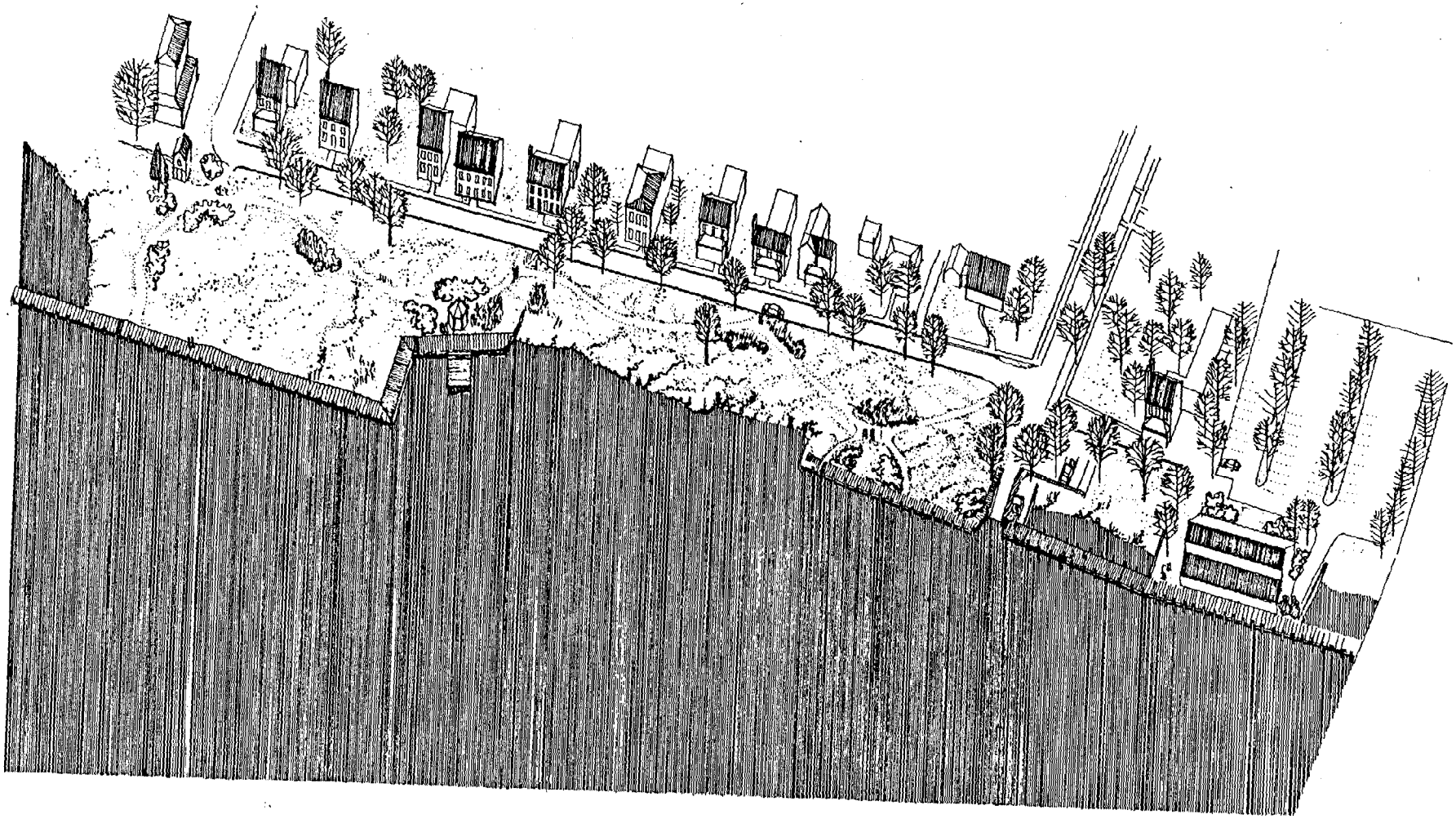


Figure 4

An Aerial View

Open Shelter/Boat Dock. The old Coast Guard station site would be redeveloped as the centerpiece of the passive park area. Existing structures and pavements would be removed and replaced by natural grasses and shrubs, wood decking on the existing pier, and an open-sided shelter at the head of the pier. The latter would provide a place for relaxed enjoyment of the waterfront park and river views in a shaded environment.

Boat Ramp/Ferry Crossing. Existing Town property and the public boat ramp at the foot of Race Street will be improved as both a recreational feature and historic site. The ramp itself needs resurfacing and repair and stabilization of side walls. Some approach channel dredging may also be necessary. A small (3-5 cars) off-street parking area for motor vehicles and boat trailers adjacent ot the ramp is recommended as an additional convenience to ramp users largely to prevent or minimize parking along Water Street. The existing portable toilet should be removed entirely or, at minimum, relocated to the nearby firehouse property, where most parking for ramp users is provided.

Long before becoming a recreational facility, the ramp site served an important water transportation function, linking Vienna with communities to the south. Ferry service across the Nanticoke River was discontinued in 1931 when the existing U.S. 50 bridge was opened. The small ferry tender's office was moved to a site on Race Street and until recently served as the Town Hall. Now vacant, it is fitting to relocate this structure back to the boat ramp site as an historic feature of the waterfront. Old photographs of Vienna show the ferry tender's office located on the upriver side of the ramp.

Filling and bulkheading adjacent to the ramp will be necessary to create land for siting this structure. To add to the historic character of the ramp site, aquisition and restoration of an old river ferry of the type which once crossed the Nanticoke is recommended highly. There are a few remaining local ferry operations on Eastern Shore waterways from which an old unused vessel might be obtained.

Waterfront Restaurant. Vienna offers an exceptional opportunity for private investment in developing and operating a restaurant on an established tourist travel route, and in an attractive old Eastern Shore waterfront setting. Upper Eastern Shore communities such as St. Michaels, Chestertown, and Chesapeake City provide examples of the possibilities in Vienna.

The Waterfront Plan makes provision for an approximate 200-seat restaurant on the site presently occupied by Trego Construction, a marine contracting firm. Parking for some 80 cars is shown on the Plan. Information and analyses supporting this waterfront restaurant proposal are presented in Section IV of this report.

Fishing Pier (U.S. 50 Bridge). The Maryland State Highway Administration is preparing plans for the relocation of U.S. 50 around Vienna and construction of a new high span bridge upriver from the existing bridge. When construction of the bypass route will take place is indefinite, but some progress is reasonable to expect around 1990. The new route and River crossing will render the existing drawbridge obsolete and subject to closure and dismantling by the State.

We recommend retaining the existing bridge as a local route to/from Vienna. If this option is not possible, however, at the very least the Vienna end of the bridge should be left in place for use as a local fishing pier, as shown in the Waterfront Plan (Figure 3). Parking for fishing pier users can be provided near the foot of the bridge.

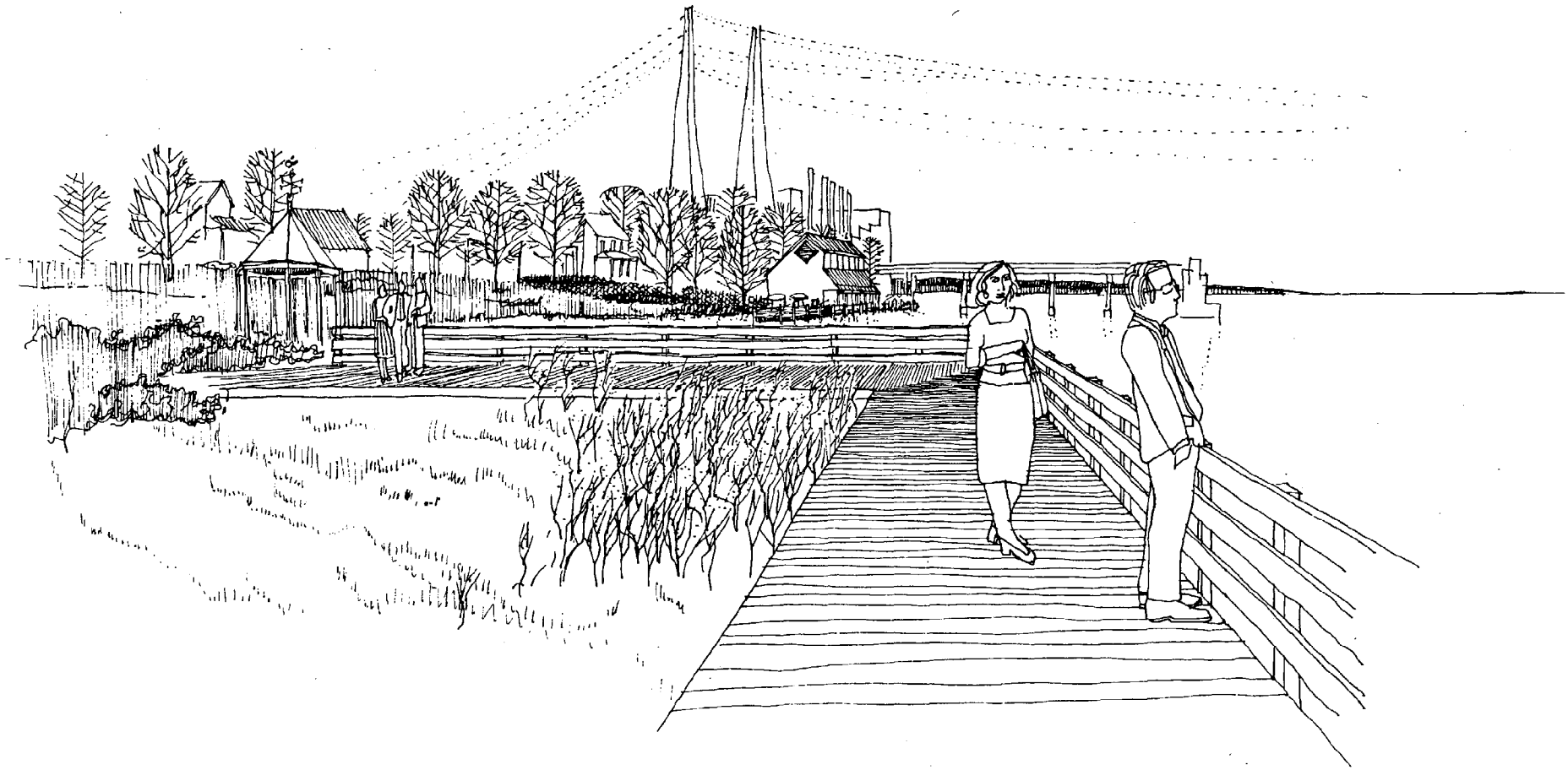


Figure 5

A View Up The Nanticoke

III. IMPLEMENTATION

Cost and Phasing of Development

Acquisition. Redevelopment of the waterfront area will require acquisition of five (5) private properties by the Town. Their current combined assessed value is $93,500, according to Dorchester County tax records. Assessed value is not necessarily indicative of market value. We expect that most properties can be acquired based on appraisals and negotiated purchase prices. In some cases, use of Town eminent domain powers may be necessary.

Site Development. Clearance, regrading, and development of the waterfront area (excluding the restaurant site) will involve eight (8) properties, three of which are already Town-owned. A cost of $485,000 (1982-83 dollars) is estimated for work specified in the detailed site plans, including a 15 percent contingency for presently unforseen costs. A detailed construction cost estimate is provided in Appendix A.

In addition, underground relocation of existing overhead electric and telephone services on Water Street would cost in the order of $70,000. Estimates of utility relocation costs prepared by the Delmarva Power & Light Company are presented in Appendix B.

In the unlikely event that the Town would want to acquire and prepare the restaurant site for eventual sale to the private sector, basic improvements would cost approximately $82,000 (1982-83 dollars), including contingency. This estimate is also itemized in Appendix A.

Phasing. Vienna's waterfront improvement project is not large in relation to those in other communities. All acquisition and development (excluding the restaurant site) can be achieved for under $700,000 (1982-83 dollars). For a community as small as Vienna, however, implementation of the entire

project will take several years. We have identified several possible increments or phases of acquisition and development, summarized in Table 2.

The two private properties between the old Coast Guard Station and boat ramp sites should be acquired first in order to permit eventual redevelopment of the waterfront between and including the Town-owned properties. First priority for development should be given to the Coast Guard Station site, costing an estimated $66,500, including contingency.

It should be possible, though not efficient and cost effective, to phase most development by property segment. Underground relocation of overhead utilities is an obvious exception that should take place at one time.

Financing

Funding for property acquisition and development may be available from one or a combination of several Federal and State of Maryland financial aid programs. Leading possibilities are reviewed below.

Program Open Space. Administered by the Capital Programs Administration of the Maryland Department of Natural Resources (DNR), Program Open Space (POS) provides funds for site acquisition and development of outdoor recreation areas and facilities. POS funds will finance 100 percent of acquisition costs and 75 percent of the costs of development.

POS is the principal non-local source of financial assistance for these purposes in Maryland and has supported numerous county and local parks and recreation projects, including those related to waterfront redevelopment. Chestertown and Salisbury are examples of Eastern Shore communities which have used POS funds for waterfront improvement projects in recent years. POS funds have financed a number of local projects in Dorchester County, including the Vienna tennis courts.

Table 2

POTENTIAL PHASING OF IMPLEMENTATION OF TOWN PROJECTS
INCLUDED IN VIENNA WATERFRONT PLAN

Phase	Land Acquisition		Site Development	
	Properties Involved (1)	Assessed Value($) (2)	Properties Involved (1)	Estimated Cost($) (3)
1	E & F	37,000	D	66,500
2	H	1,500	E & F	98,000
3	B & C	55,000	G & H	117,000
4	-	-	A, B & C	161,500
Other (4)	-	-	-	42,000
		$93,500		$485,000
Underground utility relocation	-	-	All	70,000±
				$555,000

Note: Phasing and costs of restaurant site are not shown in this table as they will depend primarily on private sector initiative.

(1) Properties are as identified in Figure 1.

(2) Assessed values are from Dorchester County tax records and are rounded. Values are not necessarily reflective of market values.

(3) Estimates reflect 1982-83 constant dollars and are rounded. A 15 percent contingency is included in all figures except undergound utility relocation costs.

(4) Boardwalk connection from restaurant site to land on northern side of U.S. 50 bridge.

POS funds come from two basic sources: State of Maryland transfer tax revenues and the Federal Land and Water Conservation Fund (LWCF). Allocations of available funds are made each fiscal year to all 23 counties and Baltimore City. Local projects are then funded under these annual allocations and any unused balances carried over from prior years.

The local share of revenues from the LWCF has declined from a high of $3.6 million in FY 79 to only $700,000 in FY 83. Similarly, the local share of State transfer tax revenues declined from $14 million in FY 79 to an estimated $8 million for FY 84. Declines in LWCF monies can be traced to changes in Federal revenue sources and budget policies, while State funds face increasing competition from the State's Agricultural Land Preservation Program for transfer tax revenues. The outlook for future funding of POS activities is, therefore, uncertain.

Current apportionments from these POS fund sources for Dorchester County are as follows:

POS Fund Source	Percent of Total in State	Apportionment($)
LWCF	2.00	14,000 (FY 83)
State Transfer Tax	0.44	35,280 (FY 84)

As of 6/1/83, State DNR records indicate an unobligated POS State fund balance of $168,000 for Dorchester County for land acquisition and a zero balance for development. These balances are inclusive of FY 84 allocations of State transfer tax funds to the County. In addition to these unused State funds, approximately $88,000 of LWCF monies for acquisition and/or development were unobligated as of 6/1/83, according to the DNR. Thus, up to $256,000 may be currently available to local jurisdictions in the County for various outdoor recreation projects, including redevelopment of the Vienna waterfront.

Before a grant application is submitted to and approved by DNR, a local project first must receive county approval and reservation of funds from its unobligated balance. Once these have been obtained from the county, the award of funds from DNR will normally take 60 days after receipt of an application from the locality.

To be considered eligible for funding, local projects must be included in the county comprehensive recreation and open space plan. Counties were requested to prepare these plans by 1/31/82 in order to maintain funding eligibility for county and municipal projects. In addition, counties submit annual plans for use of their POS funds by July of each year, although modifications can be made at any time.

Waterway Improvement Fund. The Waterway Improvement Division of the Maryland Department of Natural Resources administers this assistance program. The Fund was created by the State Boat Act and can be used to finance various projects, including the construction of marine facilities such as bulkheads and related shoreline structures, boat ramps, and other facilities which benefit boating. At any one time, up to $25,000 can be made available as a grant to help finance an individual project or project segment.

In the recent past, the Fund has been undersubscribed, which increases the probability of awards to Vienna. Potential uses of the fund include repairs to the boat ramp, bulkhead stabilization, and boardwalk construction, all of which will benefit boating. Pocomoke City, for example, has made generous use of the Fund on several occasions to help finance waterfront improvements, including a boardwalk structure of the type proposed in Vienna.

Coastal Energy Impact Program (CEIP) and Successor Coastal Programs. Administered by the Coastal Resources Division of the Maryland Department of Natural Resources, the CEIP provides funds for planning and implementing (including acquisition and construction) projects which are designed to ameleorate the adverse impacts of energy facilities and development programs in coastal areas. The CEIP is a Federal program of financial assistance

which has been "zeroed out" in recent budgets but still has some residual carryover funding. Maryland is among many coastal states which are seeking to perpetuate this program or substitute funding. Inasmuch as the CEIP program provided planning funds for preparation of the Vienna Waterfront Plan, the pursuit of additional funds for implementation is a logical course of action by the Town. Applications for funds for acquisition and development should be made to the Maryland Department of Natural Resources, Tidewater Administration, Coastal Resources Division.

Community Development Block Grants. The Community Development Block Grant program (CDBG) is a Federal program administered by the Maryland Department of Economic and Community Development (DECD). Originally intended primarily to aid urban communities, small towns are also eligible under certain circumstances. Under new Federal rules and regulations, states are given more authority over the distribution of CDBG funds. These funds may be used for a wide variety of public improvement projects, including open space and recreation. Contact should be made with DECD to determine Vienna's eligibility for CDBG assistance.

Recommended Initial Actions

Securing Implementation Assistance. The Town of Vienna is likely to need continuing technical assistance to move the Waterfront Plan forward. We recommend, therefore, that the Town apply for a $5,000 supplemental CEIP grant or other coastal program funds from the Department of Natural Resources to provide monies for on-going professional legal and planning services over the next year. These services would include:

- Preparation of applications and supporting documents for acquisition and development grants.
- Technical support at meetings with Town Commissioners.
- Meetings and correspondence with State and County officials.

- Meetings and correspondence with affected local property owners.

- Meetings and correspondence with potential developers, investor groups, and/or restaurant industry representatives, to interest them in waterfront opportunities.

Coordination With Dorchester County. Contacts with appropriate Dorchester County officials should be initiated by the Town for the following purposes:

- To make the County Commissioners, Recreation and Parks Board, and Planning and Zoning Office aware of the Vienna Waterfront Plan and of Town support for its implementation.

- To request the Planning and Zoning Office to amend the County's comprehensive recreation and open space plan at an early date, as necessary, to reflect the Vienna Waterfront Plan.

- To request from the Recreation and Parks Board and County Commissioners early approval of Program Open Space funds from the County's for, at the minimum, Phase 1 land acquisition. Initial contacts should be made with Mr. Harold Carr, Jr., Director of the Recreation and Parks Board and County Liaison Officer for Program Open Space.

Application for POS Funds. After receiving the necessary County approvals, we recommend that the Town apply to DNR for a POS grant for Phase 1 land acquisition, at the minimum.

Coordination With Maryland Department of Economic and Community Development; Application for a MICRF Grant. A copy or copies of this report should be filed with DECD tourism and community development offices to make them aware of possibilities for waterfront commercial development in Vienna. The availability of Community Development Block Grant (CDBG) funds and Vienna's eligibility should be determined. We also recommend that an application be submitted to the Maryland Industrial and Commercial Redevelopment Fund

(MICRF) to prepare more detailed market and financial feasibility studies supporting the waterfront restaurant and other commercial development possibilities in Vienna. MICRF studies have been conducted in several of Maryland's small communities, including Snow Hill.

IV. POTENTIAL MARKET SUPPORT FOR WATERFRONT RESTAURANT

Background

Eating out has become a national habit and pastime. The industry has grown dramatically over recent years in response to changing lifestyles and real gains in personal income. This eating out phenomenon not only affects the resident population, but is a major activity for Eastern Shore visitors, many of whom come expressly to enjoy fish and shellfish from the Cheaspeake Bay and other local waters, served in Eastern Shore ambiance. Located relatively near to the Baltimore-Washington and Philadelphia-Wilmington metropolitan areas, the Maryland Eastern Shore attracts hundreds of thousands of sightseers, recreationists, and vacationers each year.

Concept. The historic character of Vienna, the Town's riverfront setting, its location on a well traveled tourist route, and proposed waterfront improvements make Vienna an ideal location for a restaurant on the riverfront. We recommend development of an approximate 200-seat facility immediately adjacent to the Nanticoke River and having direct access to/from U.S. 50. With expansive views of the River, waterfront park, and the historic homes of Vienna, the restaurant would be distinctive in the region.

Open-air dining and cocktail service would also be possible on decks and boardwalks along the riverfront. Boat tie-ups would be provided along the riverfront as conveniences to visitors by water and to add further interest to the waterfront scene. Boardwalk connections to the Town park area would permit restaurant visitors to see part of the Town while waiting to be seated or after dining, particularly on busy summer weekend days. Figure 6 shows the concept for restaurant development. The architecture is contemporary, but is compatible with nearby homes.

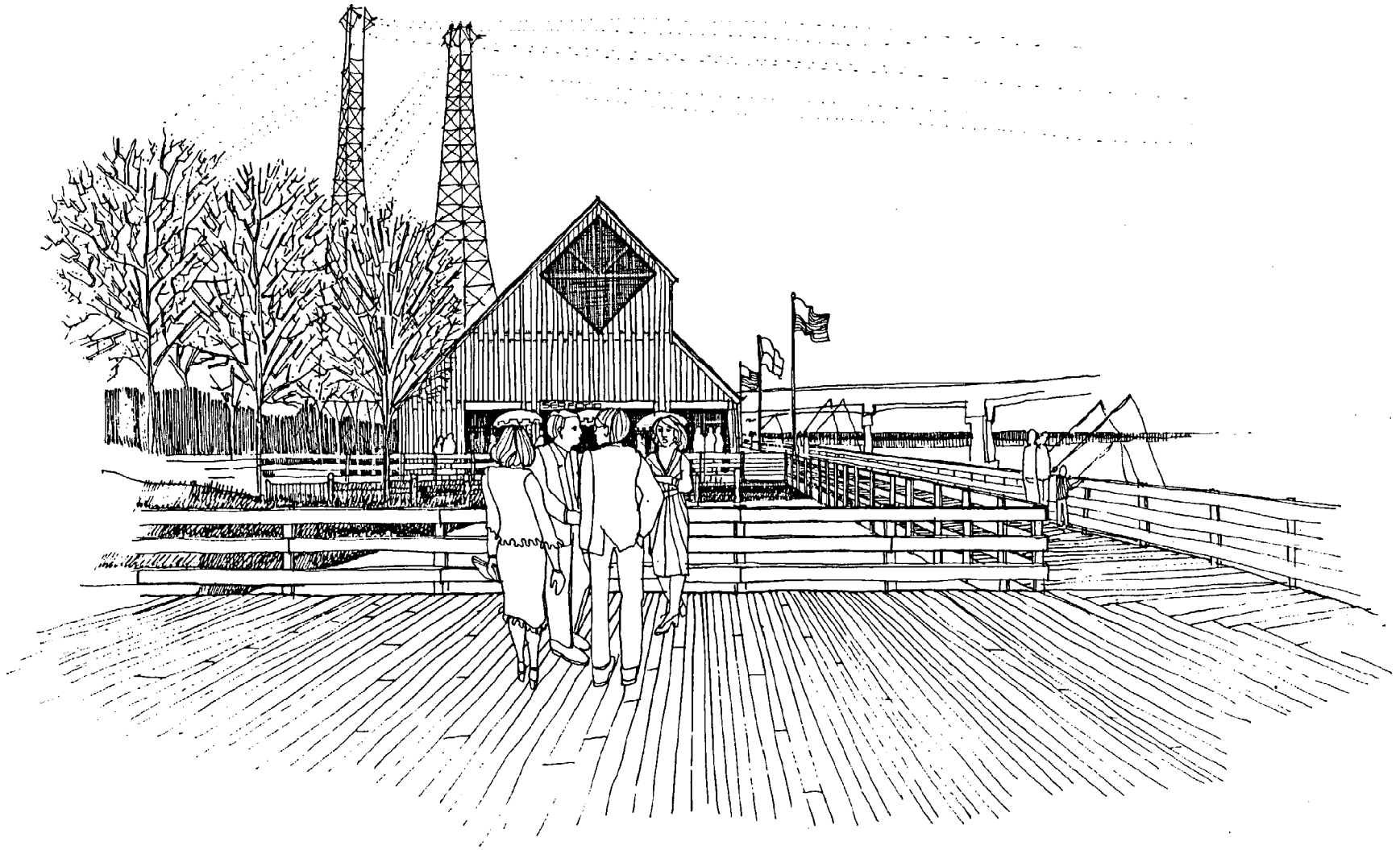


Figure 6

Riverfront Restaurant and Boardwalk

Market Location. U.S. 50, the primary tourist travel route in Maryland's Eastern Shore, passes directly through Vienna. Along this route, the Town is midway between Cambridge and Salisbury, the two largest Maryland communities on the Delmarva Peninsula. Vienna is approximately 16-17 miles from both, and is less than 50 miles west on Route 50 from Ocean City, the popular seashore resort community. Thus, the Town enjoys a strategic local and regional location.

Vienna is only a two hour drive from much of the Baltimore and Washington, D.C. metropolitan areas, with a combined population of over 5 million. The Wilmington, Delaware urbanized area is almost as close, and much of the Philadelphia region's 5 million residents live within three hours drive from Vienna.

Among Eastern Shore locations, particularly the lower counties, the Town's historic character and waterfront setting present a rare opportunity for development. Interestingly, Cambridge has yet to take commercial advantage of its waterfront location in terms of restaurant development. And, Salisbury does not have the same riverfront amenities and potentials found in Cambridge and Vienna. Vienna, therefore, has the dual opportunity to serve the local Dorchester-Wicomico market and to capture a share of the extensive tourist traffic passing through on Route 50.

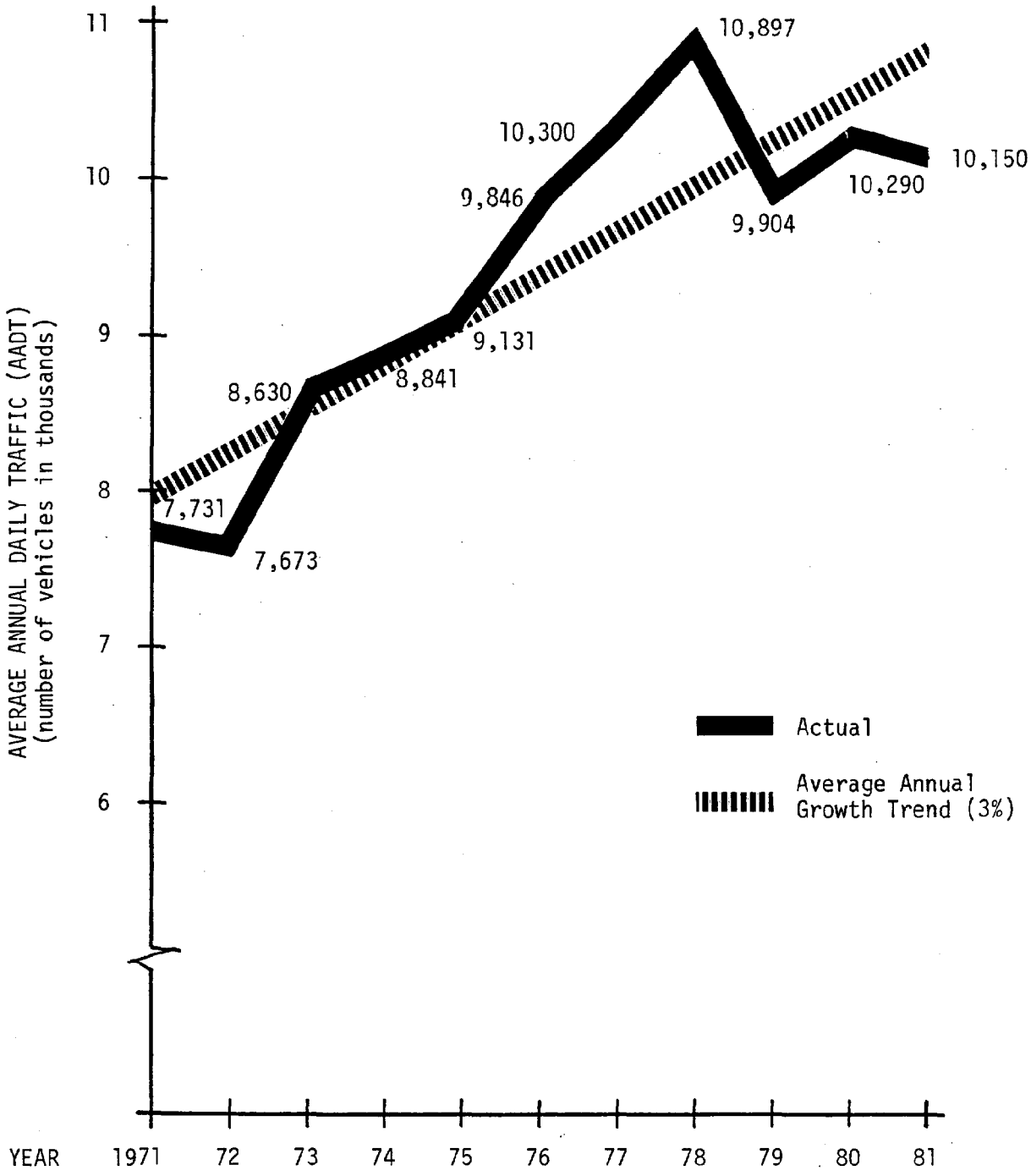
U.S. 50 Traffic

Detailed traffic volume data is recorded for this important tourist and local travel route by means of a permanent counter stationed between Cambridge and Vienna in Dorchester County. Data clearly shows the impact of tourist travel through the Vienna area.

Growth Trends. Figure 7 illustrates the growth of average annual daily traffic (AADT) on U.S. 50 near Vienna from 1971 to 1981. Traffic peaked in 1978 at nearly 11,000 vehicles per day, but dropped in 1979, reflecting fuel price increases which occurred at that time. Since then, traffic

Figure 7

TRENDS OF AVERAGE ANNUAL DAILY TRAFFIC (AADT)
ON U.S. 50 NEAR VIENNA, 1971-1981



Source: Maryland Department of Transportation; and Kenneth Creveling Associates

growth has been sluggish. During the entire 11 year period, however, AADT increased at an average yearly rate of three (3) percent.

Monthly and Daily Variations. The impact of seasonal travel to the Eastern Shore is vividly pictured in Figure 8, which shows significant peaks in average daily traffic (ADT) from June through August of 1981. Correspondingly, ADT during the colder non-tourist months was substantially less than AADT. ADT also varies by day of the week for each month and season. Weekday and weekend day ADT for the summer season (June-August) exceeded the AADT in 1981, and peaked significantly on Saturdays during the summer. Fridays and Sundays also had high volumes during the summer season.

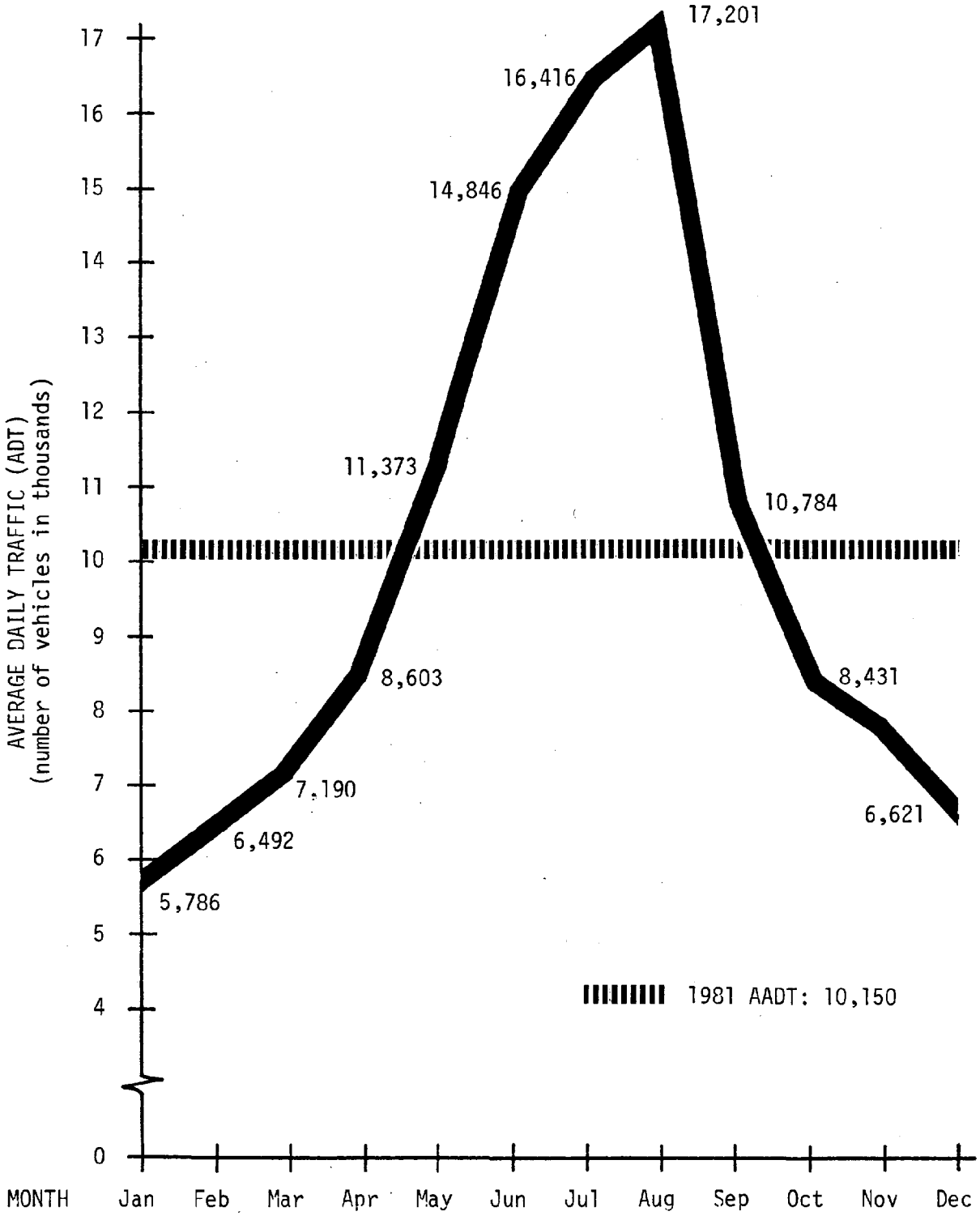
Spring (March-May) and fall (September-November) seasons had remarkably similar daily traffic volume patterns in 1981. Fridays were peak days in the fall season, while Fridays and Sundays were the peak days during the spring months. Patterns in 1981 are representative of other years, except that minor differences show up when there are major differences in the weather. Tables C-1 and C-2 in Appendix C present detailed traffic data by month, day, and during peak dining periods as further aids to restaurant planners.

Estimation of Tourist Traffic. Using monthly traffic data, it is possible to estimate the numbers of tourists passing through Vienna, from which restaurant clientele can be drawn. Non-tourist traffic on U.S. 50 is assumed to be the average ADT for the three winter months (December-February) extended over 12 months. Tourist traffic, therefore, is the difference between the AADT and the average winter month ADT extended over the entire year, less a percentage for increased commercial and other non-tourist traffic during the warmer months. For 1981, tourist traffic and the number of tourists passing through Vienna are estimated as follows;

1. [(AADT x 365 days) - (average winter month ADT x 365)] - [15% for increased non-tourist traffic during warmer months] = no. tourist vehicles x 3 persons per vehicle = no. tourists.

Figure 8

MONTHLY VARIATIONS IN AVERAGE DAILY TRAFFIC (ADT)
ON U.S. 50 NEAR VIENNA, 1981



Source: Maryland Department of Transportation; and Kenneth Creveling Associates

2. [(10,150 x 365) - (6,300 x 365)] - 15% = approximately 1.2 million tourist vehicles x 3 = 3.6 million tourists.

The Local Food Service Industry.

General Sales Trends. U.S. Census of Retail Trade data for 1972 and 1977 (1982 data not available) showed an 88 percent increase in sales at eating and drinking places in eight Maryland Eastern Shore counties during this five-year period (see Appendix C, Table C-3). The four Lower Eastern Shore counties (Dorchester, Somerset, Wicomico, and Worcester) increased their sales by 97 percent, while the four Upper Eastern Shore counties (Caroline, Kent, Queen Anne's, and Talbot) increased by 70 percent. Sales in Dorchester and Talbot Counties showed the greatest proportional increases between 1972 and 1977 (110 and 107 percent, respectively).

The number of food service establishments increased by 11 percent overall in the eight counties from 1972 to 1977, but increased by 35 percent in Dorchester County, as several "fast food" establishments were added in the County. At the same time, Dorchester County lagged six other Eastern Shore counties in average sales per establishment in 1977.

More recent trends are revealed by sales tax data reported by the Maryland Comptroller of the Treasury, Retail Sales Tax Division. Sales tax receipts were converted to estimates of taxable sales for food service establishments in the same eight counties for FY 79 and FY 82. Earlier fiscal years were not selected because of differences in tax rates and covered sales. Results are summarized in Table 3. These data are not necessarily comparable to U.S. Census of Retail Trade data, but do show continued growth in overall sales, with the four Lower Eastern Shore counties leading the four northern counties both in dollar volume of sales and percentage increases. Sales tax records do not include numbers of establishments by county, therefore, analyses of average sales cannot be made.

Table 3

RECENT TRENDS IN TAXABLE SALES
AT RESTAURANTS AND OTHER FOOD SERVICE ESTABLISHMENTS,
MARYLAND EASTERN SHORE COUNTIES
FY 79-82

Area	Estimated Sales ($000)[1] FY 79	FY 82	Increase $(000)	%
Lower Eastern Shore				
Dorchester Co.	4,388	5,924	1,536	35.0
Somerset Co.	1,869	2,454	585	31.3
Wicomico Co.	24,383	28,194	3,811	15.6
Worcester Co.	44,245	69,967	25,722	58.1
	74,885	106,539	31,654	42.3
Upper Eastern Shore				
Caroline Co.	2,384	2,522	138	5.8
Kent Co.	4,067	4,966	899	22.1
Queen Anne's Co.	6,424	6,497	73	1.1
Talbot Co.	12,805	21,344	8,539	66.7
	25,680	35,329	9,649	37.6
Eight County Total	100,565	141,868	41,303	41.1

Note: Fiscal years run from July 1 through June 30.
(1) Estimated sales derived from retail sales tax data.

Source: State of Maryland, Comptroller of the Treasury, Retail Sales Tax Division; and Kenneth Creveling Associates.

Table 3 shows that sales volume in the eight-county area increased $41 million from FY 79 through FY 82, with Talbot and Worcester Counties alone accounting for 83 percent of this increase. The growing popularity of St. Michaels, other Talbot County communities, and Ocean City in Worcester County is clearly indicated by this data. Wicomico and Dorchester Counties ranked distant third and fourth in increased sales volume, growing by a combined $5.3 million during the three-year period. In FY 82, their total estimated sales were $34 million.

Trends by Type of Establishment. Maryland sales tax records distinguish between establishments with and without alcoholic beverage licenses. Table 4 summarizes estimated sales for each type of establishment in Dorchester and Wicomico Counties -- Vienna's local market area. In both counties, establishments without licenses (including typical "fast food" places) lead in sales volume in FY 82 and increased their shares of total sales from FY 79 to FY 82.

Sales in local establishments with alcoholic beverage licenses, which include the type of restaurant proposed in Vienna, dropped slightly from 47 percent of the market area total in FY 79 to 45 percent in FY 82. This proportional decline does not indicate inherent weaknesses in the traditional "sit down" restaurant market. Rather, it shows the strength of the "fast food" segment of the industry.

Seasonal Variations in Sales. Maryland sales tax data is not available by month, but the Commonwealth of Virginia publishes estimates of gross taxable sales and tax collections quarterly. Records for Virginia's Eastern Shore counties, therefore, may give some indication of seasonal sales variations in Maryland's Lower Eastern Shore counties. For Virginia counties in 1980, quarterly shares of total annual sales for eating and drinking places and for overnight accommodations were as follows:

Table 4

RECENT TRENDS OF TAXABLE SALES AT FOOD SERVICE ESTABLISHMENTS WITH AND WITHOUT ALCOHOLIC BEVERAGE LICENSES IN THE VIENNA MARKET AREA

Area	Sales at Establishments Without Licenses ($000)(1)		Sales at Establishments With Licenses ($000)		Percent of Total Sales at Establishments With Licenses	
	FY 79	FY 82	FY 79	FY 82	FY 79	FY 82
Dorchester County	2,374	3,622	2,013	2,302	45.9	38.9
Wicomico County	12,955	15,229	11,429	12,965	46.9	46.0
Market Area	15,329	18,851	13,442	15,267	46.7	44.7

(1) Includes "fast food" establishments.

Source: Maryland Comptroller of the Treasury, Retail Sales Tax Division; and Kenneth Creveling Associates

Quarter	Percent of Annual Sales	
	Eating and Drinking Places	Overnight Accommodations
January - March	14.2	5.4
April - June	29.4	29.1
July - September	35.1	54.0
October - December	21.3	11.5
	100.0	100.0

These data indicate that restaurant business fluctuates much less than that of motels and other lodgings, which are highly sensitive to non-resident traffic. The resident market, even in an area as rural and remote as the Virginia Eastern Shore, exerts a significant influence on restaurant business throughout most the year.

Projected Local Market Area Expenditures for Eating Out

A national survey of consumer expenditures indicated that families with income levels similar to those in Dorchester and Wicomico Counties spent approximately 3.3 percent of their annual incomes on eating out near home, excluding meals purchased on trips and vacations.(1) The percentage of family incomes spent on eating out has been increasing nationally, and is expected to continue to do so in the years ahead. This trend is borne out by comparing increases in local sales and personal income. Retail sales at at eating and drinking places have grown at a much faster rate than personal income for most Eastern Shore counties during recent years. In part, this is due to inflation and increased tourist spending, but proportional increases in local spending relative to incomes are a significant factor.

Spending for eating out by residents of the Dorchester-Wicomico area in 1980 is estimated conservatively at $26 million, as shown in Table 5. These expenditures are projected to increase to nearly $40 million by 1990 (in

(1) Consumer Expenditure Survey Series: Interview Survey, 1972-1973, U.S. Department of Labor, Bureau of Labor Statistics, 1977.

Table 5

POTENTIAL EXPENDITURES FOR EATING OUT
BY RESIDENTS OF THE VIENNA MARKET AREA,
1980 - 1995(1)

	1980	1985	1990	1995
Market area population(2)	95,163	99,306	103,497	105,009
Per capita personal income($) (3)	7,827	8,641	9,540	10,532
Total personal income ($000)	744,876(4)	858,103	987,361	1,105,955
Estimated percent of income spent on eating out, excluding trips(5)	3.5	3.75	4.0	4.25
Estimated total expenditures for eating out by local residents($000)	26,070	32,179	39,494	47,003

Note: All dollar figures are 1980 constant dollars (inflation effects not reflected).
(1) Market area is Dorchester and Wicomico Counties, MD.
(2) Population projections from MD Dept. of State Planning, 10/82.
(3) Per capita income increases based on assumed two (2) percent annual "real" (after inflation) income growth.
(4) Estimate by U.S. Dept. of Commerce, Bureau of Economic Analysis.
(5) Based on U.S. Dept. Labor, Bureau of Labor Statistics survey of consumer expenditures on eating out.

Source: Kenneth Creveling Associates

1980 constant dollars) and to $47 million by 1995. These projections suggest an ample margin for expansion of the local restaurant industry, including the proposed facility in Vienna.

Estimated expenditures by local area residents in 1980 (i.e., $26 million) compare with estimated actual taxable sales of $31-32 million in the two counties (average of FY 79 and FY 82 sales from Table 3). The difference between the two estimates is explained largely by non-resident spending at food service establishments in the area. Moreover, some part of the $26 million in local resident expenditures is probably spent in adjacent counties (e.g., Talbot and Worcester), which would mean that non-resident spending is somewhat greater than the difference between the estimates of resident spending and local sales.

Potential Market Capture and Sales

Local Market. The local market for the Vienna restaurant is primarily that portion of total local expenditures for eating out oriented to establishments with alcoholic beverage licenses. Given the distinctive nature of the proposed restaurant in the Dorchester-Wicomico area, the presently low level of competition, and the accessible central location of the proposed facility to both counties, a four (4) percent capture rate is a reasonable expectation. Estimates of the food and beverage sales potential of the restaurant are presented in Table 6. In 1985, for example, estimated potential sales associated with the local market are $570,000 (in 1982-83 constant dollars).

Tourist Market. The proposed restaurant would be an attractive and convenient stopover for tourists traveling through Vienna, particularly during the summer, spring, and fall months. An estimated 4 million tourists will pass through Vienna in 1985, representing a significant market to draw from.

Because of its riverfront amenities and accessible location on U.S 50, we assume that the restaurant is capable of capturing up to one (1) percent

Table 6

POTENTIAL FOOD AND BEVERAGE SALES
AT VIENNA WATERFRONT RESTAURANT

A. Local Market

	Total Expenditures[1] for Eating Out ($)	Share of Expenditures[2] at Establishments with Alcoholic Beverages (%)	($)	Potential Sales at Approx. 4% Market Capture ($)
1985	32,180,000	44	14,160,000	570,000
1990	39,495,000	42	16,590,000	660,000
1995	47,005,000	40	18,800,000	720,000

B. Tourist Market

	Estimated Number[3] of Tourist Vehicles Through Vienna	Estimated Number[4] of Tourists Through Vienna	Potential sales[5] at Approx. 1% Market Capture ($)
1985	1,350,000	4,050,000	405,000
1990	1,565,000	4,700,000	470,000
1995	1,815,000	5,450,000	545,000

C. Local and Tourist Markets Combined

	Potential Sales ($)
1985	975,000
1990	1,130,000
1995	1,265,000

(1) For derivation of expenditure estimates in the local market area, see Table 5.
(2) Percentage shares are based on analyses of data in Table 4.
(3) Assumes continuation of average annual traffic growth rate of 3 percent experienced from 1971 through 1981; see Figure 7.
(4) Assumes an average of three persons per vehicle.
(5) Assumes an average $10 expenditure at restaurant per person.

Source: Kenneth Creveling Associates

of the tourist traffic passing through Vienna. On this basis, and assuming an average $10 expenditure per patron, the sales potential of the tourist market in 1985, for example, is $405,000, as shown in Table 6.

It is likely that construction of the Route 50 bypass will not be completed before 1990. If the restaurant is established in Vienna well before that time, its reputation and clientele should be firmly established and relatively unaffected by the diversion of traffic around Vienna. Indeed, such diversion of traffic and its associated congestion and noise should improve the atmosphere of the waterfront park area and restaurant site. Moreover, the bypass route will be near enough to the site so as to not be unduly inconvenient to restaurant visitors.

Total Sales Potential. Combining potential sales generated by local and tourist markets for 1985 results in a total of nearly $1 million, increasing to nearly $1.3 million by 1995 (in 1982-83 constant dollars). This sales volume should easily support food and beverage operations for a 200-seat restaurant.

APPENDIX A

Table A-1

VIENNA WATERFRONT PLAN
CONSTRUCTION COST ESTIMATE

Work Item	Quantity[1]	Unit Cost($)[1]	Total Cost($)	Town Projects Quantity	Town Projects Cost($)	Waterfront Comm. Devel. Basic Site Preparation[4] Quantity	Waterfront Comm. Devel. Basic Site Preparation[4] Cost($)
A. Demolition & Removal[2]							
1. Building demolition and removal	7	L.S.	40,000	6	35,000	1	5,000
2. Removal of concrete surfaces	3,250 s.f.	4.50	14,625	2,700 s.f.	12,150	550 s.f.	2,475
3. Removal of concrete foundations/footings	-	L.S.	8,000	-	8,000		
4. Removal of asphalt surfaces	1,380 s.f.	3.50	4,830	1,380 s.f.	4,830		
5. Removal of gravel surfaces	11,650 s.f.	1.50	17,475	1,650 s.f.	2,475	10,000 s.f.	15,000
6. Removal of grain tanks and related	-	L.S.	3,500	-	3,500		
7. Removal of fencing	1,080 s.f.	3.75	4,050	280 l.f.	1,050	800 l.f.	3,000
8. Removal of timber bulkhead	55 l.f.	50.00	2,750	55 l.f.	2,750		
9. Removal of wood docks	4	150.00	600	4	600		
10. Removal of wood pilings	27	75.00	2,025	27	2,025		
11. Removal of trees	9	200.00	1,800	7	1,400	2	400
12. Removal of fuel tank and pump	-	L.S.	1,200	-	1,200		
13. Removal of underwater obstructions and concrete rubble, as needed	-	L.S.	15,000	-	13,500	-	1,500
14. Removal of flag pole and concrete footing	-	L.S.	750	-	750		
15. Misc. other removals (trailer, inlets, posts, bollards, etc.)	-	L.S.	1,500	-	1,000	-	500
16. Removal of utility poles and overhead services	(See Note 3)						
Sub-total (excluding item 16)			$118,105		$ 90,230		$27,875
Contingency (15%)			17,715		13,535		4,180
Total (including contingency)			$135,820		$103,765		$32,055

B. Site Development

1. Clearing and grubbing	2 acres	1,500.00	3,000	2 acres	3,000		
2. Excavation and grading	2,250 c.y.	10.00	22,500	2,050 c.y.			
3. Timber bulkhead (new)	127 l.f.	250.00	31,750	127 l.f.	31,750		
4. Bulkhead repair and stabilization, as needed	-	L.S.	37,500	-	20,000	-	17,500(9
5. Boardwalk and decking, etc.	9,100 s.f.	12.00	109,200	7,900 s.f.	94,800	1,200 s.f.	14,400
6. Boardwalk (over water sections)	2,800 s.f.	20.00	56,000	2,800 s.f.	56,000		
7. Timber retaining wall	150 l.f.	55.00	8,250	140 l.f.	7,700	10 l.f.	550
8. Benches	5	450.00	2,250	5	2,250		
9. Pavement (asphalt)	230 s.y.	9.50	2,185	230 s.y.	2,185		
10. Oyster shell paths	9,000 s.f.	2.50	22,500	9,000 s.f.	22,500		
11. Open shelter	1	9,600.00	9,600	1	9,600		
12. Light posts/fixtures	12	1,700.00	20,400	12	20,400		
13. Relocation of old ferry tender's office (old Town Hall)	-	L.S.	2,500	-	2,500		
14. Resurfacing of boat ramp (top coat to water line)	-	L.S.	3,000	-	3,000		
15. Relocation of existing overhead utility services (underground)	(See Note 3)						
	Sub-total (excluding item 15)		$330,635		$296,185		$34,450
	Contingency (15%)		49,595		44,425		5,170
	Total (including contingency)		$380,230		$340,610		$39,620

C. Planting & Seeding

1. Glossy Abelia	40	38.20	1,528	37	1,413	3	115
2. Black Chokeberry	36	33.00	1,188	36	1,188		
3. Rockspray Cotoneaster	33	32.00	1,056	33	1,056		
4. Autumn Elaeagnus	40	82.00	3,280	40	3,280		
5. Dwarf Burford Holly	19	46.00	874	19	874		
6. American Holly	2	316.00	632			2	632
7. Sargent Juniper	29	58.60	1,699	29	1,699		
8. Bayberry	28	48.40	1,355	28	1,355		
9. London Plane Tree	12	326.80	3,925	12	3,925		
10. Perennial rye grass seed/apply	70,400 s.f.	0.12	8,448			70,400 s.f.	8,448
11. Natural grass seed mix/apply	135,600 s.f.	0.15	20,340	135,600 s.f.	20,340		
	Sub-total		$ 44,325		$ 35,130		$ 9,195
	Contingency (15%)		6,650		5,270		1,380
	Total (including contingency)		$ 50,975		$ 40,400		$ 10,575

SUMMARY	Total Cost of Town Projects and Commercial Site Preparation($)	Cost of Town Projects($)	Cost of Commercial Site Preparation($)
A. Demolition & Removal	$118,105	$ 90,230	$ 27,875
B. Site Development	330,635	296,185	34,450
C. Planting & Seeding	44,325	35,130	9,195
Sub-totals	$493,065	$421,545	$ 71,520
Contingency (15%)	73,960	63,230	10,730
Total (including contingency)	$567,025	$484,775	$ 82,250

(1) Abbreviations: s.f. - square foot; l.f. - linear foot; s.y. - square yard; c.y. - cubic yard; L.S. - lump sum (unit costs not determined).
(2) Unit and total cost estimates include allowances for cartage of debris from site to a dump location in the County or area.
(3) See estimates provided by Delmarva Power & Light Company in Appendix B; relocation of telephone service not included in DP&L estimates, however, cost of this work is expected to be a minor addition to relocating electrical service.
(4) Quantities and costs if Town was to acquire and prepare commercial site for eventual sale to private developer.
(5) The commercial site may require replacement of existing bulkhead rather than repair and stabilization, depending on nature and scale of development.

Note: All cost figures are 1982-83 constant dollars (inflation not reflected).

APPENDIX B

Delmarva Power & Light Company
Southern Division General Office
U.S. 13 & Naylor Mill Rd. • P.O. Box 1739
Salisbury, MD 21801
(301) 546-6000

Delmarva

May 5, 1983

Commissioners of Vienna
Vienna
Maryland 21869

Reference: Underground estimates for Water St., Vienna, Md.

Per request by Mr. Kenneth Creveling of Kenneth Creveling Associates, we have prepared the following estimates to put existing overhead line underground.

The following estimates are based as follows:

A. Estimated cost of underground system
B. Estimated cost of new overhead system
C. Difference (A-B)
D. Remaining life value
E. Estimated salvage value
F. Difference (D-E)
G. Contribution in Aid (C+F)

The above parameters are used to calculate cost of conversion for the Town of Vienna with the following criteria held in mind. When the town makes a request for conversion to underground with no additional load and rebuild is not necessary, then the Town will provide a non-refundable contribution in aid to construction.

Our estimates in similiar situations such as these are prepared with two different options available to the Town in order to save cost on the project. The first option referenced as exhibit (A) would be the Town of Vienna will break and repair all sidewalks and streets. Second option referenced as exhibit (B) would be the Town of Vienna will break and repair all sidewalks and streets and furnish and install all conduits on city Rights-of-Way.

Delmarva

These estimates are based on a totally underground Distribution System along with underground streetlighting system. Existing street lighting to be replaced with 7 - 30' embedded aluminum standards, 4' brackets with 100W Mercury Vapor Lamps. However, we have a street lighting specialist who will make a detailed survey upon request. All street light inquiries can be made to William C. Brittingham - Delmarva Power P. O. Box 1739, Salisbury, Md. 21801.

In all cases it is the Town's responsibility to make customer's facilities accept this new underground system, which means the town is to be responsible for any material and labor necessary to convert existing overhead customers to underground. Delmarva will supply any necessary meter sockets or cabinets and install service conductors to point of attachment to customer's entrance equipment.

In reference to the sewage pumping station, Mr. Dewey Blades was contacted about a possible outage due to a fault in the proposed underground system. He stated that a prolonged interruption would not be desirable. With this in mind, it is recommended a dual feed be installed. This would involve extending overhead primaries from Middle Street and tieing into existing overhead line on Church St. This has not been included in the estimate. The additional cost for this tie is estimated at $3,000.00.

1. All procurements of private Rights-of-Way will be the Town's responsibility.

2. Any additional costs incurred as a result of changes in construction plans as submitted to Delmarva Power, and more specifically, those plans attached shall be borne by the Town of Vienna.

3. If there is any material in addition to conduit supplied by the Town of Vienna for Delmarva Power, it must meet Delmarva's specifications.

4. Town of Vienna to assure Delmarva Power that all underground cable and service routes are free of obstructions, and that

Delmarva

all grades in the area of transformers, switchgear, and cable routes are within six inches of final grade before installation begins.

5. Other factors not included in the estimate are: Removal of 4 - private poles, removal of existing overhead telephone facilities, (should get estimate from Telephone Co. to place underground) can place cable in joint use trench with power. Extra work excavating around water & sewer lines.

If estimate is accepted, please allow adequate time to assemble the required material and schedule the construction.

Due to periodic increases in labor and material, estimate may have to be revised, if not accepted within a reasonable time.

If I can be of further assistance, please advise.

Very truly yours,

W. G. Redden

William G. Redden
Project Engineer
Distribution Engineering Dept.

WGR/gjd

Attachments

cc: Bill Neville, Art Noble, Gene Messick, Dewey Blades, Bill Brittingham, [redacted]

Water Street

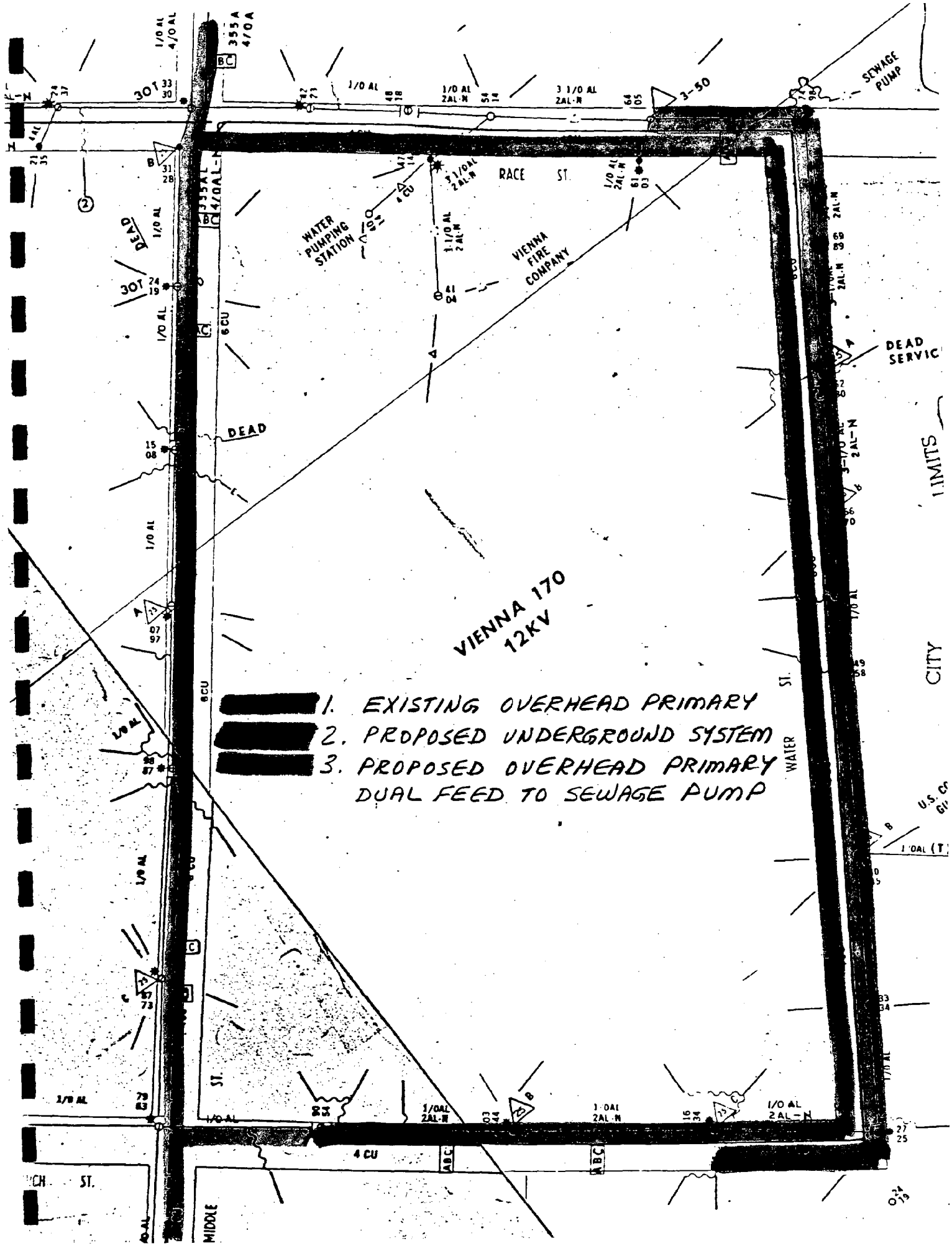
Vienna, Md.

Exhibit (A)

A.	Estimated cost of Underground System	$ 79,716.81
B.	Estimated cost of New Overhead System	15,647.89
C.	Difference (A-B)	64,068.92
D.	Remaining Life Value	3,247.06
E.	Estimated Salvage Value	168.66
F.	Difference (D-E)	3,078.40
G.	Contribution in Aid (C+F)	67,147.32

Exhibit (B)

A.	Estimated cost of underground	59,834.43
B.	Estimated cost of New Overhead System	15,647.89
C.	Difference	44,186.54
D.	Remaining Life Value	3,247.06
E.	Estimated Salvage Value	168.66
F.	Difference (D-E)	3,078.40
G.	Contribution in Aid (C+F)	47,264.94


RACE ST.
WATER PUMPING STATION
VIENNA FIRE COMPANY
SEWAGE PUMP
DEAD
VIENNA 170
12KV
1. EXISTING OVERHEAD PRIMARY
2. PROPOSED UNDERGROUND SYSTEM
3. PROPOSED OVERHEAD PRIMARY
DUAL FEED TO SEWAGE PUMP
CITY LIMITS
WATER ST.
MIDDLE ST.
4 CU
6 CU

APPENDIX C

Table C-1

VARIATION OF TRAFFIC FLOW
ON U.S. 50 NEAR VIENNA
BY DAY AND MONTH, 1981(1)

Month	Season	Percent of Average Annual Daily Traffic (AADT=10,150 Vehicles)						
		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January	Winter	53.2	54.5	53.7	54.3	50.5	70.7	59.6
February	"	68.6	60.7	55.3	56.5	57.3	79.1	70.3
March	Spring	84.2	64.5	59.3	63.0	61.1	87.8	77.2
April	"	101.4	77.5	66.9	70.0	77.8	111.3	94.0
May	"	144.7	108.1	81.5	76.8	88.1	135.9	130.5
June	Summer	197.0	129.3	104.6	111.0	117.7	175.3	203.7
July	"	189.1	154.4	118.6	123.8	140.4	189.6	223.4
August	"	198.8	150.1	129.9	133.5	138.1	182.5	234.7
September	Fall	117.2	86.4	85.0	83.3	97.5	144.9	140.6
October	"	97.5	76.0	66.2	70.0	77.1	105.4	84.9
November	"	79.8	67.5	64.0	72.8	67.8	97.7	85.8
December	Winter	57.3	62.0	62.2	65.4	68.1	70.5	71.2

(1) Based on data for traffic counter station 16 in Dorchester County.

Source: MD Dept. of Transportation, Bureau of Traffic Engineering; and Kenneth Creveling Associates.

Table C-2

AVERAGE NUMBER OF VEHICLES PER HOUR(VPH)
DURING LUNCH AND DINNER PERIODS BY MONTH
ON U.S. 50 NEAR VIENNA, 1981(1)

Month	Lunch Period (11:00am - 2:00pm)		Dinner Period (5:00pm - 8:00pm)	
	Weekday VPH	Weekend VPH	Weekday VPH	Weekend VPH
January	370	410	405	415
February	405	465	460	480
March	445	475	515	585
April	550	570	600	620
May	710	690	775	770
June	1,015	1,055	945	865
July	1,195	1,355	1,015	820
August	1,265	1,375	1,110	1,000
September	740	800	740	690
October	540	565	600	605
November	495	515	535	570
December	430	450	465	480

(1) Based on data for traffic counter station 16 in Dorchester County.

Source: MD Dept. of Transportation, Bureau of Traffic Engineering; and Kenneth Creveling Associates.

Table C-3

CHARACTERISTICS OF EATING AND DRINKING ESTABLISHMENTS
IN MARYLAND EASTERN SHORE COUNTIES, 1977

Area	Establishments		Sales		Avg. Sales per Estab.	
	Number	Increase From 1972 (%)	Volume ($000)	Increase From 1972 (%)	Volume ($000)	Increase From 1972 (%)
Lower Eastern Shore						
Dorchester Co.	58	34.9	6,848	109.9	118	55.3
Somerset Co.	21	(12.5)	3,214	101.1	153	128.4
Wicomico Co.	97	34.7	20,485	95.4	211	44.5
Worcester Co.	161	11.8	30,953	94.5	192	73.0
	337	19.1	61,500	96.7	182	65.5
Upper Eastern Shore						
Caroline Co.	27	(6.9)	2,494	58.1	92	70.4
Kent Co.	40	11.1	5,971	29.4	149	16.4
Queen Anne's Co.	32	(15.8)	6,076	79.1	190	113.5
Talbot Co.	47	(4.1)	9,794	107.1	208	114.4
	146	(4.9)	24,335	70.0	167	77.7
Eight County Total	483	11.0	85,835	88.3	178	69.5

Note: Percentages in parentheses mean losses.

Source: U.S. Department of Commerce, Bureau of the Census, Censuses of Retail Trade for 1972 and 1977; and Kenneth Creveling Associates