

# ***DUNKIRK MASTER PLAN AND ZONING ORDINANCE***



***Adopted July 28, 1987***

Revised 02/27/92  
Revised 06/13/95  
Revised 03/12/96  
Revised 04/02/96  
Revised 10/15/96

Revised 06/17/97  
Revised 08/12/97  
Revised 08/04/98  
Revised 12/08/98  
Revised 03/23/99

Revised 10/28/03  
Revised 12/02/03  
Revised 08/10/04  
Revised 05/01/06  
Revised 03/25/08

Revised 05/04/2012  
Revised 01/31/2018  
Revised 01/03/2019

3-269

RESOLUTION NO. 59-87

(A Resolution Adopting the Dunkirk Master Plan)

WHEREAS, pursuant to the authority contained in Article 66B of the Annotated Code of Maryland, the County Commissioners have general powers to promulgate zoning ordinances and master plans; and

WHEREAS, on June 10, 1987, the Planning Commission held a public meeting and considered the proposed Ordinance and Master Plan; and

WHEREAS, on June 17, 1987, the Planning Commission approved the Plan and Zoning Ordinance and recommended adoption of the same to the Board of County Commissioners; and

WHEREAS, on July 14, 1987 the Board of County Commissioners held a public meeting and considered the proposed Ordinance and Master Plan; and

WHEREAS, on July 28, 1987, the Board of County Commissioners adopted both the Plan and Ordinance without substantive changes; and

NOW, THEREFORE, BE IT RESOLVED, by the Board of County Commissioners of Calvert County, that the adoption of the Dunkirk Master Plan and Zoning Ordinance, which is attached hereto and made a part hereof, BE and hereby IS approved as the official Master Plan and Zoning Ordinance for the Dunkirk Town Center.

DONE, this 25<sup>th</sup> day of August, 1987, by the Board of County Commissioners of Calvert County, Maryland, sitting in

3-270

regular session.

ATTEST:

BOARD OF COUNTY COMMISSIONERS  
OF CALVERT COUNTY, MARYLAND

Mary S. Watson  
Mary S. Watson, Clerk

John M. Gott, Sr.  
John M. Gott, Sr., President

Joyce L. Terhes  
Joyce L. Terhes, Vice-President

Received for Record Aug. 27, 1987  
at 3:30 o'clock 3 P.M. Same day  
recorded in Liber A. B. E. No. 3  
Folio 269 COUNTY COMMISSIONERS  
ORDINANCES AND RESOLUTION.

William T. Bowen  
William T. Bowen

Mark R. Frazer  
Mark R. Frazer, D.D.S.

Audrey E. Evans, clerk

Barbara A. Stinnett

*7/22/87*  
*8/10/87*

**TOWN CENTER MASTER PLAN  
DUNKIRK, MARYLAND**

**Prepared for:**

**CALVERT COUNTY COMMISSIONERS  
Calvert County Courthouse  
Prince Frederick, Maryland 20678**

**Prepared by:**

**CALVERT COUNTY DEPARTMENT OF PLANNING & ZONING  
Calvert County Courthouse  
Prince Frederick, Maryland 20678**

**A. D. REDMAN ASSOCIATES  
12 North Washington Street  
Easton, Maryland 21601**

TABLE OF CONTENTS

	<u>Page Number</u>
CHAPTER I - INTRODUCTION . . . . .	1
A. PURPOSE OF THE DUNKIRK MASTER PLAN . . . . .	2
B. EXISTING CONDITIONS . . . . .	2
C. COMMUNITY CONCERNS . . . . .	8
D. PLANNING POLICIES . . . . .	8
CHAPTER II -- THE PLAN . . . . .	13
A. LAND USE RECOMMENDATIONS . . . . .	14
B. TRANSPORTATION RECOMMENDATIONS . . . . .	15
C. APPEARANCE GUIDELINES . . . . .	20
CHAPTER III - PUBLIC IMPROVEMENTS . . . . .	25
A. INTRODUCTION . . . . .	26
B. PUBLIC IMPROVEMENTS . . . . .	26
CHAPTER IV - IMPLEMENTATION . . . . .	31
A. INTRODUCTION . . . . .	32
B. STAGING COST OF PUBLIC IMPROVEMENTS . . . . .	32
C. FINANCING . . . . .	33
D. EVALUATION . . . . .	33
E. REVIEW OF MASTER PLAN . . . . .	33
CHAPTER V - DUNKIRK ZONING ORDINANCE - LAND USE REQUIREMENTS . . . . .	35
A. INTRODUCTION . . . . .	36
B. PERMITTED LAND USES . . . . .	36
C. CONDITIONAL USES . . . . .	47
D. SPECIAL DEVELOPMENT REQUIREMENTS . . . . .	48
E. APPEARANCE CODE . . . . .	49
CHAPTER VI - GENERAL PROVISIONS . . . . .	51
A. APPLICATION OF DUNKIRK ZONING ORDINANCE . . . . .	52
B. EFFECTIVE DATE OF THE DUNKIRK ZONING ORDINANCE . . . . .	52
C. SEPARABILITY . . . . .	52
D. INTERPRETATIONS . . . . .	52
E. PERMITS . . . . .	53
APPENDIX 1 - MARKET ANALYSIS . . . . .	55
A. INTRODUCTION . . . . .	55
B. MARKET AREA . . . . .	55
C. POPULATION FORECASTS . . . . .	57
D. DEMAND . . . . .	58
APPENDIX 2 - TRAFFIC VOLUME TRENDS & ACCIDENT INFORMATION . . . . .	59
A. VOLUME TRENDS . . . . .	59
B. TRIP GENERATION . . . . .	60
C. ACCIDENT EXPERIENCE . . . . .	61

**CHAPTER I**  
**INTRODUCTION**

- A. PURPOSE OF THE DUNKIRK MASTER PLAN**
  - 1. Transportation**
  - 2. Appearance**
  - 3. Land Use**
- B. EXISTING CONDITIONS**
  - 1. Geographic Location**
  - 2. History**
  - 3. Socio-economic Indicators**
  - 4. Existing Land Use**
  - 5. Transportation Facilities**
  - 6. Natural Features**
- C. COMMUNITY CONCERNS**
- D. PLANNING POLICIES**
  - 1. Relevant Comprehensive Plan Objectives & Recommendations**
  - 2. Dunkirk Master Plan Policies**

A. PURPOSE OF THE DUNKIRK MASTER PLAN

The purpose of the Dunkirk Master Plan is to provide a framework for the development of the Dunkirk Town Center. Three basic factors have been addressed which control the quality of life in the Dunkirk Town Center and which affect its growth and economic viability.

1. Transportation

Maryland Route 4 bisects the Dunkirk Town Center. Therefore, the issue of transportation is of paramount importance. One purpose of this plan is to control access to Route 4 and to develop a circulation plan for the Town Center which will facilitate safe and convenient movement within the Town Center without disrupting the level of service on Route 4.

2. Appearance

The second purpose of this plan is to create a distinctive identity for the Dunkirk Town Center which will emphasize its role as the "gateway to Calvert County" and create a unified and attractive aspect for the Dunkirk Town Center through an appearance code and an appearance review committee.

3. Land Use

There are certain land uses which are inappropriate in a town center. The third purpose of this plan is to prohibit all land uses which might constitute a hazard or be detrimental in a town center and regulate those uses which might have an adverse impact on the Town Center unless carefully controlled.

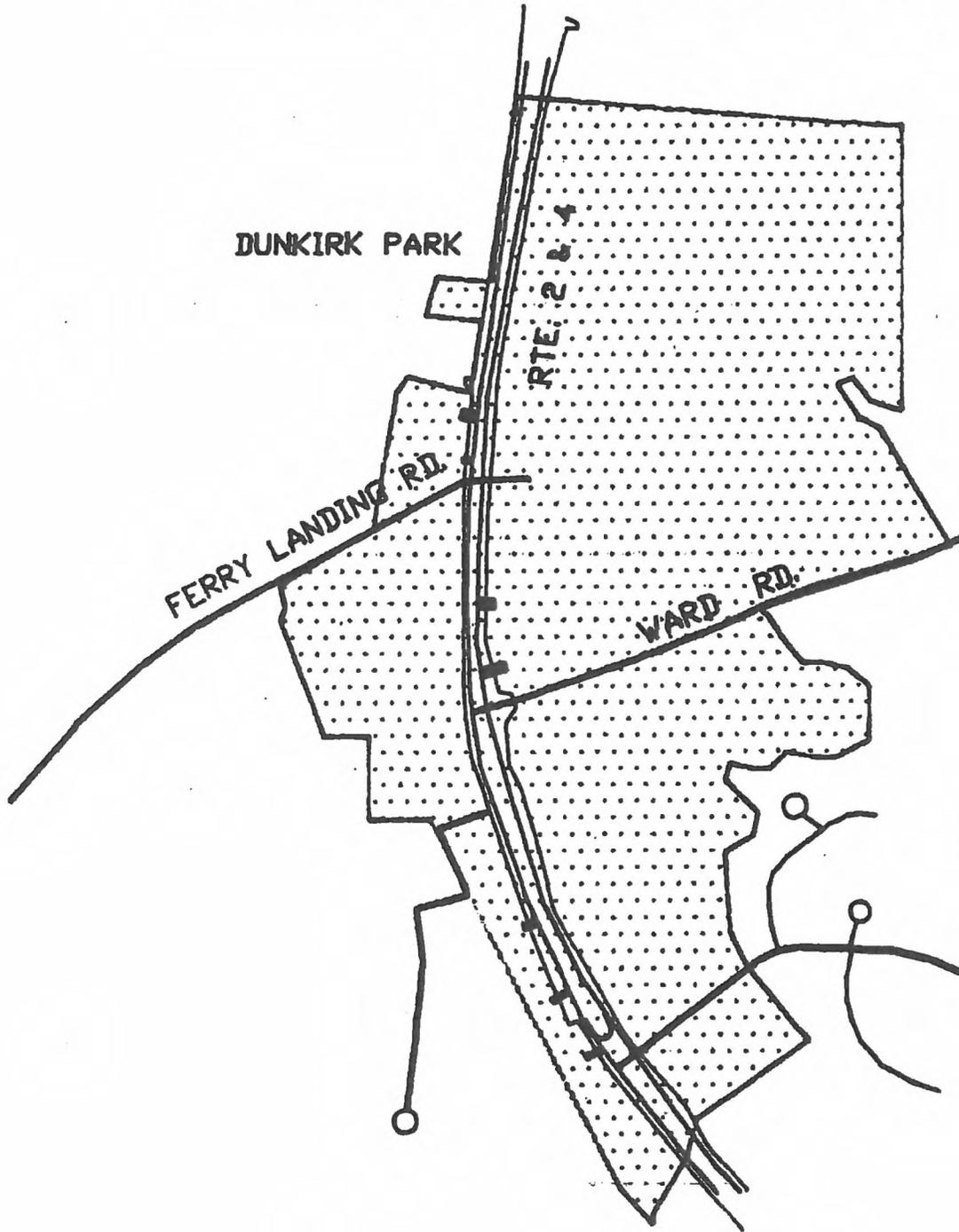
B. EXISTING CONDITIONS

1. Geographic Location

Dunkirk is located in Calvert County, Maryland, approximately 22 miles south of Washington, D.C. on Maryland Route 4.

The Dunkirk Town Center includes approximately 200 acres of land which were zoned Town Center District under the Comprehensive Rezoning undertaken by the County in 1984.

# DUNKIRK TOWN CENTER BOUNDARY



2. History

In the late 17th century, Dunkirk was part of the estate of William Groome, a lawyer and legal counselor in the fledgling colony of Maryland. The history of Dunkirk is interwoven with that of the Smithville Methodist Church, which still stands near the intersection of Ferry Landing Road and Route 4.

Dunkirk was known as Smithville until 1842 when the first post office was opened. According to a prominent local resident, there was already a post office on the Eastern Shore named Smithville. A lady from Dunkirk, Scotland was visiting the Drury family and the name Dunkirk was suggested for the post office. Although the post office was called Dunkirk many residents continued to refer to the town as Smithville until quite recently.

In the early 20th century, there were many orchards in the Dunkirk area and it was known for its delicious fruit.

3. Socio-Economic Indicators

a. Population Trends

In the last several decades, Calvert County has been experiencing one of the most substantial population growth rates in the State of Maryland. U.S. Bureau of Census population estimates for 1983 show Calvert County is now experiencing the second fastest growth rate of any county in Maryland.

The Third Election District, the most populous district and the one in which Dunkirk is located, has been growing at an even faster rate than the other two Election Districts in the County. From 1930 to 1980, the population of the Third Election District grew by 496%, from 3,145 to 15,621.

Nearly 45% of the County's population resided in the Third Election District in 1980. The distribution of population within the County is not surprising considering the fact that the Third Election District is the closest and most accessible area of the County to the Washington and Baltimore Metropolitan areas.

The consultants prepared a market area study for Community Planning Districts (CPD) 1, 2, and 3, or roughly 36% of the land area of the Third Election District. In 1980, the population of this area, which is estimated to be the primary retail sales and service market area, was 5,570. See Appendix 1 for the results.

b. Employment

The Calvert County labor force totalled 15,623 persons in 1980. The major employment sectors were services (27%), public administration (16%), retail trade (15%), construction (14%), and transportation, communications, and other public utilities (15%).

The Baltimore area and Washington Metropolitan areas were the major employment centers for Calvert County residents. Approximately 44% of the total County labor force work in these areas. The percentage of workers commuting outside the County to work places in the nearby urban centers, is undoubtedly higher for the Third Election District by virtue of its northern County location.

c. Income

Recent and historic trends indicate that the future population of Dunkirk will be composed of a significant percentage of workers who will travel outside the County to work. Even today, more than half the county work force commutes outside Calvert County to work, many to the Metropolitan Washington, D.C. and Maryland suburban areas. Average incomes of these workers will likely continue to be well above average incomes county-wide.

In 1984, the gross household income in Calvert County was \$34,275. Calvert County ranked 8th at that time in gross household income among counties in the State.

4. Existing Land Use

The current land use pattern in Dunkirk can generally be described as mixed public, residential, commercial and open space. Of these uses, commercial dominates the Town Center identity.

Existing land uses within the Town Center include a post office, a fire station, two gas stations, a restaurant, two shopping centers with approximately 100,000 square feet of floor area, several small office buildings, and a small printing establishment. In addition, the Town Center contains two cemeteries, scattered single-family units, and several undeveloped tracts, one on the northeast corner of the Town Center, one on the southwest side of Maryland Route 4, just below the intersection of Ferry Landing Road, and one just north of Apple Green subdivision. Immediately surrounding the Town Center are farms, scattered residential lots, residential subdivisions and a regional County park facility.

5. Transportation Facilities

a. Facilities Description

The major State Highway facility which serves the Dunkirk area is Maryland Route 4, a four-lane, divided arterial highway which extends from the Washington, D.C. urban area through Calvert County. The importance of Maryland Route 4 to Calvert County as a corridor providing for the movement of people and goods within and out of the County is readily apparent.

The Dunkirk area is also served by two local county collector roads which provide access to areas to the east and west of Dunkirk. Ferry Landing Road, a two-lane facility, provides access to farms, lots, and residential subdivisions between Maryland Route 4 and the Patuxent River. Ward Road, also a two-lane facility, extends east and then north from Dunkirk to farms and residential areas located between Maryland Route 4 and Brickhouse Road.

Several park and ride facilities are located in the Dunkirk area. Available data on utilization of existing commuter parking areas (park and ride lots) within the Maryland Route 4 corridor indicates that these facilities are at or near capacity. Planning for new facilities located in or just north of Dunkirk should begin.

b. Level of Service

Historic journey-to-work information indicates that the percentage of the Calvert County labor force employed outside the County has steadily increased over the last 30 years. The percentage of workers residing in the Dunkirk area who travel to other counties to work is higher than 56% of the employed work force.

In terms of traffic patterns on Maryland Route 4, the dominant direction of travel in the AM hours is north. As much as 70% of the traffic heads north during the AM peak hours.

A traffic study and analysis was carried out to determine the expected Level of Service at major intersections. Analysis of intersections indicates that by the year 2000 the capacity of the Ward Road and Ferry Landing Road intersections will not be adequate and that traffic signals or other traffic management controls will be warranted. Deterioration of the Level of Service at these intersections corresponds to the decrease in Level of Service that will occur on Maryland Route 4 as a result of normal growth in traffic volumes, not even considering the additional traffic that may be generated by new commercial development in the Town Center. See Appendix 2 for volume trends and accident information and Level of Service.

6. Natural Features

a. Topography

The beauty of the Dunkirk area can be attributed to the naturally varying relief of the land. Topography of this nature, although posing some limitations for construction, can provide opportunities for exciting site designs.

Along with the need to wisely use the land to minimize disruption of wildlife habitat often associated with wooded slopes and stream valleys, site design must also consider the impacts of development on steep slopes, especially erosion and flooding.

b. Soils

Soils are an important limiting factor in the development of the Town Center. The County is planning no public expenditures for sewer and water facilities and all development will require adequate land area on suitable soils for private sewer facilities.

c. Hydrology

Drainage ways are also associated with wildlife habitat, wooded slopes and stream valleys. Site design must consider the impacts of clearing and the installation of impervious surfaces on drainage patterns and water quality.

d. Vegetation

Dunkirk has an abundance of natural vegetation, including stands of mature tree species, that provide opportunity to blend the man-built environment into the impressive rolling countryside. Native trees include:

White Oak	Dogwood
Red Oak	Shadblow
Sassafras	Tulip Poplar
Black Locust	Yellow Wood
Sweet Gum	Sweetbay Magnolia
Willow Oak	

e. Wildlife

The Dunkirk area contains ideal habitat for numerous wildlife species including deer, rabbits, quail, geese, and a variety of songbirds.

### C. COMMUNITY CONCERNS

The residents and landowners within Dunkirk were actively involved in the Dunkirk town Center planning process. At a citizen workshop conducted by the County Planning staff on November 30, 1984, the community expressed its perceptions of the problems, needs, and issues that should be addressed in a master planning program for the Dunkirk Town Center. A summary of citizen comments and a tabulation of the priority issues identified by the public are contained in Appendix 3.

The top five topics which the community felt should be addressed in the Town Center Plan included:

1. "Need for compatible architecture and design for quality atmosphere (landscaping)."
2. "Protect natural and historical environment."
3. "Maintain free traffic flow."
4. "Traffic control for the intersections of Route 4 and:
  - a. Ferry Landing Road
  - b. Ward Road"
5. "Provide good access into commercial areas and limit the number of accesses."

### D. PLANNING POLICIES

The recommendations incorporated into this Dunkirk Master Plan reflect and support the planning policies developed over the years in Calvert County. In particular, this plan seeks to accomplish the County's goals and objectives as documented in the Comprehensive Plan.

#### (8/4/98) 1. Relevant 1983 Comprehensive Plan Objectives & Recommendations

The Comprehensive Plan objectives having general relevance to the Dunkirk Master Plan are the following:

##### a. Land Use:

Encourage new residential development to locate in Towns; encourage institutions and businesses to locate in Town Centers.

Provide for efficient uses of land, environmental safeguards, and high quality site designs through the use of flexible development controls; density transfer, cluster developments, historic district zones, and site plan review.

Designate adequate areas for commercial use in the Town Center.

b. Public Facilities:

Reinforce Town Centers by identifying appropriate public facilities – sidewalks, street lights, curbing, landscaping, public squares, etc. – and providing or requiring provisions of such facilities.

c. Historic Preservation Controls:

Encourage multi-family, commercial and industrial site design to be visually compatible with surrounding areas that have been designated historically or culturally significant.

d. Farmland Retention:

Encourage and support the marketing of County produced farm products by providing farmers' markets within Town Centers.

e. Town Center Recreational Space;

Recreational open space should be provided within Town Centers. It should be attractive and useful – with places to sit and relax, and to present shows and ceremonies. It should be near or at the center of activity.

Provide and/or regulate public squares, pedestrian walkways and safe bicycle routes within Town Centers.

f. Economic Development

Provide a legal mechanism for establishing public facilities construction districts which would permit, under specific circumstances, the development of streets, sidewalks, water and related public facilities in the Town Centers. Under this provision, the County Commissioners should be empowered to levy a benefit charge.<sup>1</sup>

(8/4/98) <sup>1</sup>The 1983 Comprehensive Plan recommended sewage treatment facilities for Solomons, "Twin Beaches" and Prince Frederick areas. Sewer was not planned for the Dunkirk Town Center as it was designated a minor Town Center.

**g. Transportation:**

- i. Prohibit ingress-egress points on Route 4 wherever possible.
- ii. Limit major intersections to essential locations such as access to designated Town Centers and Collector roads.
- iii. Develop and implement a landscaping program for the Route 2/4 corridor by enlisting cooperation from the State Department of Transportation and private interests.
- iv. Implement a program of spot improvements, aimed at the needs of particular intersections and road segments.
- v. Encourage regional commuter services -- buses, parking lots, car-pooling.
- vi. Consider commuter parking on private parking lots with the County's participation in the upgrading and maintenance of such parking lots.
- vii. Establish bicycle and pedestrian routes to connect residential, employment, educational, recreational and open space areas as feasible.
- ix. Require sidewalks in areas where there is high pedestrian and vehicle traffic in apartment areas and commercial areas.

**2. Dunkirk Master Plan Policies**

As stated in the Comprehensive Plan, each town is unique. Therefore, special policies should be adopted for the Dunkirk Town Center. For example, by virtue of its location, Dunkirk should serve as a visual marker much like a gateway, at the entrance to Calvert County. As such, it is important that Dunkirk reflect the best features of the County's land use development philosophies and create a positive first image.

To achieve this goal, six policies are followed:

- a. The entire Town Center area of Dunkirk will be treated as an economic and aesthetic whole.
- b. A "sense of place" with recognizable boundaries and unifying characteristics will be created in the commercial core of Dunkirk.

- c. Established residential areas adjacent to the Town Center will be protected and enhanced.
- d. Commercial development will be encouraged.
- e. The efficiency and safety of Route 4 will be a primary goal of this plan.

This page intentionally left blank.

## CHAPTER II

### THE PLAN

#### A. LAND USE RECOMMENDATIONS

1. Considerations
2. Actions

#### B. TRANSPORTATION RECOMMENDATIONS

1. Considerations
2. Actions

#### C. APPEARANCE GUIDELINES

1. Considerations
2. Actions

A. LAND USE RECOMMENDATIONS

1. Considerations

(8/4/98)  
(3/23/99)

- a. Dunkirk is a minor Town Center. Principally, Dunkirk should meet the commercial and public facilities needs of area residents, rather than be a high density residential area. The 1997 Comprehensive Plan permits "water and sewer in all Town Centers when needed to support environmental health and/or support County identified economic development goals, when and if cost effective and economically feasible." A study was conducted in November, 1998 by the consulting firm of Wallace, Montgomery & Associates, which found that a County-installed and operated water and sewer system for Dunkirk would not be economically feasible.

The 1997 Plan does not allow multi-family housing in minor Town Centers except as may be required in Town Center master plans. No multi-family housing is proposed in Dunkirk other than elderly housing.

- b. Dunkirk serves as a gateway to Calvert County. Most of the town is visible from Route 4. Certain industrial land uses, if allowed in the town, could detract from the County's positive image. In other cases, additional conditions and special exception approvals need to be imposed on certain land uses.
- c. It is inappropriate for only part of the triangle formed by the extension of Ward Road, Ferry Landing Road and Route 4 to be within the Town Center. A more appropriate use of the property would be for the entire property to be zoned Town Center. This would allow an overall plan for the entire parcel to be developed.

2. County Actions

(8/4/98)

- a. Limit residential development by reducing maximum density allowances in the Town Center in keeping with Dunkirk's status as a minor Town Center.
- b. Prohibit industrial uses that cannot be adequately screened, in order to maintain the attractive image of the community.
- c. Adopt a Dunkirk Zoning Ordinance to supplement the Calvert County Zoning Ordinance.
- d. Rezone the entire triangle formed by the proposed extension of Ward Road, Ferry Landing Road and Route 4 to the Town Center District.

B. TRANSPORTATION RECOMMENDATIONS

1. Considerations (Traffic Management Issues)

The Department of Planning & Zoning forwarded a copy of the original consultant's recommendations on transportation to the State Highway Administration. The State Highway Administration volunteered to have a private consultant evaluate their recommendations and also determine if there was a means of developing a transportation system without lights along Rte. 4. The consultant re-evaluated all information prepared by the original consultant and found that the first proposal would require three traffic signals along Rte. 4.

SHA's consultant reviewed a number of different transportation patterns including six lanes of traffic, one-way routing systems, "T" intersections, and an overpass. He also determined that, with just the normal increase in traffic on Route 4 with no additional commercial development, three traffic signals would still be needed in the Dunkirk Town Center within the next 10 to 20 years.

Transportation planners evaluate level of service on a scale of "A" to "F". "A" represents smooth traffic flow and "F" represents a failed system where traffic during peak hours stops more than it moves. "C" is considered an acceptable level of service.

With three traffic signals, the consultant found that the morning peak hours would have level "D" or "E" service and "F" level service during the afternoon peak hours. The consultant found equally disappointing results by using six lanes of traffic and by using one-way traffic systems. The problem with these traffic systems is the amount of traffic anticipated along Rte. 4. Any turning movements with this level of traffic creates a failed traffic intersection. After developing a number of alternatives, the consultant determined that the alternative with the over-pass at Ward Road, without full crossovers within the Dunkirk Town Center, was the only one which would function at an acceptable level of service.

- a. In view of the importance of Maryland Route 4 as the major access route to employment centers, it is imperative that the Dunkirk Town Center Plan be designed to minimize the impact of development on the service capacity and safety of Route 4.
- b. An off-corridor circulation system is needed to prevent congestion and dangerous traffic points. The internal circulation system should contain a hierarchy of roads, streets, and paths which provide a safe and efficient means of controlling traffic and provide sufficient access.

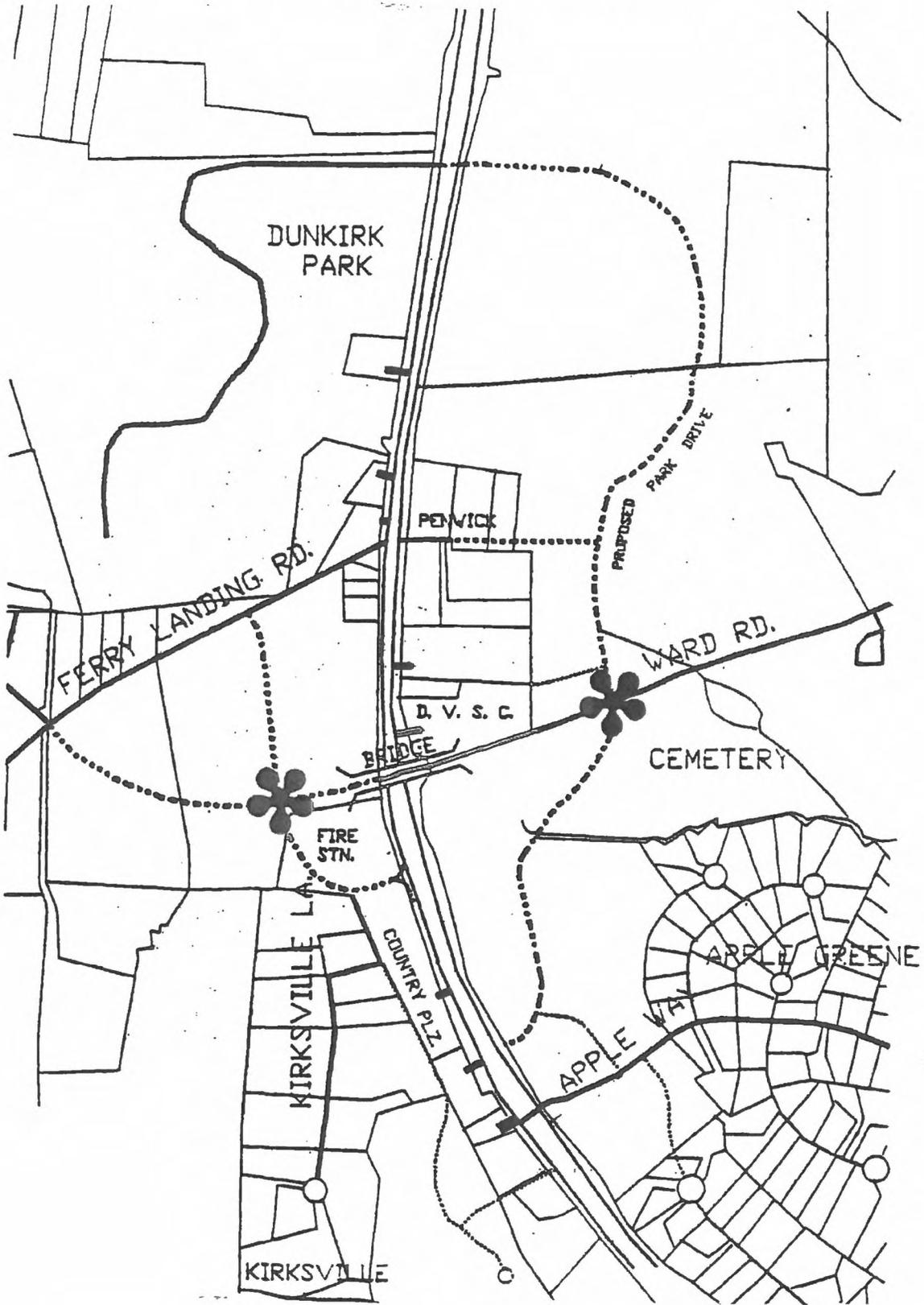
- c. The location of existing entrances and crossovers is not ideal and should be improved.
- d. New road locations need to be pre-planned for the benefit of the general public and potential developers.
- e. The chain link fence along Route 4 is unsightly and detracts from the appearance of the approach to the Dunkirk Town Center. There is not enough room for a stacking lane next to the entrance to the park.
- f. In the future, the level of service at the intersection of Ferry Landing Road and Route 4 will deteriorate and additional steps will need to be taken to improve traffic circulation at this intersection.
- g. When park and ride facilities in the Route 4 corridor are near capacity, new facilities will be constructed at or just north of Dunkirk.
- h. To increase the efficiency of the County Rescue Service, a helicopter landing pad should be constructed in the Third District.
- i. The Route 4 corridor near the Dunkirk Town Center is bare and monotonous. Landscaping along Route 4 will enhance the appearance of the Town Center and promote traffic safety by breaking the monotony of the scenery and making drivers more alert.
- j. Residents of Ferry Landing Woods Road need a way to get to the Dunkirk District Park without going out onto Route 4.
- k. As Dunkirk develops, it may be necessary to consider reducing the speed limits within the Town Center limits.
- l. Even with the overpass option, a way is needed for cars traveling south to reach the development on the east side of Route 4 as well as to turn into Apple Greene.
- m. The residents of Apple Greene need a way to get to the shopping center on the east side of Route 4 without going out onto Route 4. It is important that such an access road not become a short cut for through traffic.

2. County Actions

- a. Adopt a Transportation Map which will show new road locations, the road pattern and number of entrance points along Maryland Route 4. No new road or entrance will be approved unless it is consistent with the Transportation Map. New public improvements shall be addressed in the Capital Improvement Plan.
- b. Require properties to share access to Route 4, as per the adopted Transportation Map.
- c. Restrict the access of all those properties that have frontage on any service road to that service road and not to Route 4.
- d. Allow the property owners to retain the current access drive to the Penwick House property and also allow the owners to provide for an additional drive at the property line between the Penwick property and the adjoining Eisenman property. The purpose of this location is to serve new commercial development on the Penwick and Eisenman properties from a single access point.
- e. Allow no more than two additional access points from north-bound Maryland Route 4 to adjacent developments between Penwick Lane and the northern edge of the Town Center boundary.
- f. Do not permit additional entrances on the west side of Route 4 south of Ferry Landing Road. Limit the number of access points on the east side of Route 4, south of the Ward Road intersection to the locations shown on the recommended Transportation Map.
- g. Improve internal traffic control in the existing shopping center on the west side of Route 4 by better definition of entrances and exits. Encourage strict enforcement of parking laws on Route 4.
- h. Extend Ward Road across Route 4 to intersect Ferry Landing Road at Smith's Purchase. At that time, eliminate the existing emergency cross-over just south of the Ward Road and Maryland Route 4 intersection. Extend Kirksville Lane to create a "T" intersection with the new Ward Road extension.
- i. Request the State Highway Administration to relocate the cross-over at the entrance to Apple Green approximately 100 feet northward.

- j. Locate a park and ride lot in the vicinity of the fire station. Construct a helicopter landing pad in conjunction with the park and ride lot. Also, consider expanding the lot at the Dunkirk Park, if it does not interfere with park activities.
- k. Landscape Route 4 in accordance with the approved landscaping plan on pages 28 and 29.
- l. Construct an access road from Ferry Landing Road to the Dunkirk District Park.
- m. Re-evaluate the current 55mph speed limit within the Town Center.
- n. Allow left hand turns from the southbound lane of Route 4 into the new road across from the entrance to the park as well as into Apple Greene.
- o. Require Cortland Lane to be extended to Apple Way and provide a connecting road between Apple Way and Park Lane. The roads should be designed with stops signs and "T" intersections to discourage through traffic. If it is extended, Cortland Lane, where it connects to Route 4, would be closed. The property between Apple Way and Apple Greene IV would be permitted a density of 2 units to the acre on individual well and septic. With community water, the density could be 3 units to the acre.
- p. Extend the deceleration lane on the southbound lane of Route 2/4 from the crossover at Apple Way to a point opposite the exit to County Plaza Shopping Center.

DUNKIRK TOWN CENTER TRANSPORTATION MAP



LEGEND

- EXISTING ROADS
- - - - PROPOSED ROADS
- || ACCESS TO RTE. 4
- ✿ POSSIBLE TRAFFIC LIGHT

### 3. Phasing of Transportation Plan

This plan is a long range plan for the eventual "build-out" of the Town Center. Until several of the major developments have been constructed and the traffic on Route 4 reaches anticipated levels, all of the transportation plan need not be implemented. Portions of the plan, will not be constructed for many years. However, as properties develop all rights-of-way shown on the transportation plan must be platted. Also, the roads shown on the transportation plan within their project must be constructed within or adjacent to those properties, by the developers.

Meanwhile, as the town develops, the County must periodically evaluate intersections, such as Route 4 and Ferry Landing Road, to determine when the service level reaches the point that it must be closed. Traffic lights will be used as temporary control devices until the overpass is constructed.

## C. APPEARANCE GUIDELINES

### 1. Considerations

- a. The appearance of the Dunkirk Town Center, as the "gateway to Calvert County", will be instrumental in the public's impression of the entire county.
- b. Shopping malls that have a flat linear front detract from the appearance of the Town Center and increase the impression of strip development which this Plan is trying to avoid.
- c. Unity should be achieved through quality of design, Town Center planned landscaping, planned roads, and uniform signage and street lights, and the use of the same kinds of materials for all walkways and parking lots.
- d. Architectural styles need to be in keeping with the existing buildings in the Dunkirk area. Historically, most structures in the Dunkirk area had steep roofs with dormers, and wood or brick siding. The new federalist style construction is consistent with that style. In recent years, some commercial construction has included flat roofs with mansard fronts and metal siding which are not consistent with the original architecture and are inappropriate in the Town Center.
- e. Not only the architectural styles in the Town Center, but also the building materials should have a unified appearance.
- f. Accessory buildings, utility and service areas should not detract from the quality appearance of the Town Center.

- g. Having the roads laid out in blocks would be in sharp contrast to the rural/rural-suburban environment of the Dunkirk area.
- h. Dunkirk is a minor Town Center, and tall buildings are not consistent with its character.

2. County Actions

a. Architectural Styles

In order that the Town Center be architecturally pleasant in appearance from all angles, buildings shall be constructed with the architectural detail of the front being carried around all sides of the structure. False fronts and false mansard roofs shall not be allowed. The style of the original construction shall be encouraged in future construction.

b. Depth of Building Fronts

Attached stores, offices, and residences shall not present a flat linear front. Front elevations shall have varying depths from the setback. Strip shopping malls of one depth only shall not be allowed.

- c. Standards for lights should be established to include style, wattage allowed, height, materials to be used, and appropriate placement. Fixtures to light signs or buildings in general need to be hidden from view in architecturally complementary fashion, if attached to the building, or in landscaping. Exceptions will be made when the fixture is an integral decoration to further the esthetics of a building.

(01/31/18)

d. Signs

Adopt sign standards addressing size, materials, type, location, and lighting to ensure that sign enhance, not detract, from the Town Center's appearance.

Signs add to the visual clutter and distract from landscaping, buildings, and natural beauty. In order to reduce the visual clutter along the highway and improve traffic safety, the number of free standing signs should be limited.

Local government signage should also be included in the effort to reduce visual clutter.

All free standing public informational signage, including the Business Directional Signs, shall be of the same design throughout the Town Center. They also shall have the appearance of wood, stone, brick, brass, or copper. All signs shall be affixed to the ground or to a building. Even in public signage, every effort shall be made to eliminate visual clutter.

e. Roofs

Structures shall have pitched roofs of 6/12 to 12/12. Long roof lines should have varying roof heights., No mansard roofs should be allowed. The Planning Commission may grant modifications based on the size of the building provided that the appearance of a pitch roof is maintained.

f. Use of Building Materials

Exterior construction materials shall be limited to wood, or wood appearance, stone, and brick. Roof materials should be limited to wood shingles, heavy textured asphalt shingles of brown, dark gray, and black, or tiles of earth tone which imitate shingles. Glass should not be reflecting as in mirrored windows. Unless a traditional stained glass window effect is being developed, glass should not be colored in a manner discernible to observers. Tinted glass, to prevent inner glare might be allowed, subject to review.

Walkways within and between centers should be of the same materials and design.

g. Landscaping

Planting shall be in accordance with the site plan requirements of the Calvert County Zoning Ordinance. Plantings should be clustered, be of varying heights, be three dimensional from all perspectives, and include a mix of deciduous and evergreen flora native to Calvert County. Flowering shrubs and trees should be encouraged. Trees should be incorporated into larger plantings whenever possible. Trees standing alone should have large mulched areas with underplantings to compliment the rest of the landscaping design.

A unified landscaping plan along Route 4 was designed in conjunction with the adoption of this Master Plan. Landscaping of sites shall compliment the Route 4 Landscaping Plan. See adopted landscaping plan on pages 28 and 29.

Tree plantings along roads other than Route 4 should be spaced 40 feet apart.

**h. Screening**

Screening fences should not be chain link. Screening fences should be painted or stained to match the main structure. Landscaping should be placed around fencing. Fencing should be limited and stringent design controls for height, construction, and color should be developed.

**i. Utility Areas**

Utility and service areas including but not limited to refrigeration units, piping, wiring, utility boxes, heating units, plumbing, trash disposal, and loading areas shall be screened from view. If such units are attached to the structure either on the front, back, sides, or roof of the structure, these units should be incorporated into the design and screened from view.

**j. Accessory Buildings**

Accessory buildings should be constructed in the style and of the materials of the main buildings which they service. Architectural limitations should be enforced for accessory buildings.

**k. Internal Roads**

Roads within the Town Center should curve rather than be laid out in blocks, wherever possible.

**l. Height of Buildings**

Dunkirk is a minor Town Center, and tall buildings are not consistent with its character. Buildings, residential, commercial, retail, or light industrial, should be no more than three stories high for a total of 50 feet including the roof.

This page intentionally left blank.

**CHAPTER III**

**PUBLIC IMPROVEMENTS**

- A. INTRODUCTION**
- B. PUBLIC IMPROVEMENTS**

A. INTRODUCTION

Public improvements are necessary to stimulate commercial development and enhance the quality of life in the Dunkirk Town Center. The Comprehensive Plan recommends that the County "reinforce town centers by identifying appropriate public facilities - sidewalks, street lights, curbing, landscaping, public squares, etc. - and providing or requiring provision of such facilities."

During the construction, the developer will be responsible for on-site improvements plus any off-site improvements needed to insure adequate access. Other improvements may need to be provided by the County or State.

B. PUBLIC IMPROVEMENTS

1. Chain Link Fence

The County should place the chain link fence at the Dunkirk District Park behind the trees.

2. Utility Lines

Overhead utility lines (electric, telephone and cable) add to the visual clutter of the Town Center. The County should request that existing overhead utility lines should be put underground along the Route 4 corridor within the boundaries of the Town Center wherever possible. New developments are required to have underground utilities.

3. Business Directional Signs

The County should erect Business Directional Signs at the entrances of the Town Center and in appropriate locations throughout the Town Center indicating the location of businesses in Dunkirk. They should be uniform in design and material. Financing should be a public/private partnership.

4. Lighting

Where lighting fixtures are needed, street lights and parking lights need to be of a uniform design throughout the Town Center, and need to be of a design complementary to the Town Center. The County should adopt a design to be used in public and private projects.

5. Park and Ride

A park and ride should be constructed in the vicinity of the Fire Station.

6. Helicopter Pad for Medical/Emergency Use

A helicopter pad should be constructed in close proximity to the Fire and Rescue Station.

7. Town Center Entrance Sign

To clearly delineate the boundaries of the Town Center, an attractively landscaped sign with the name "Dunkirk" should be erected at either end of the Town Center on Route 4. This should be a public/private project.

8. Landscape Plan for Route 4

The Route 4 corridor should be landscaped in accordance with the Approved Landscaping Plan on pages 28 and 29. This should be a public/private project.

(8/4/98)  
(3/23/99)

9. Community Water and Sewer System

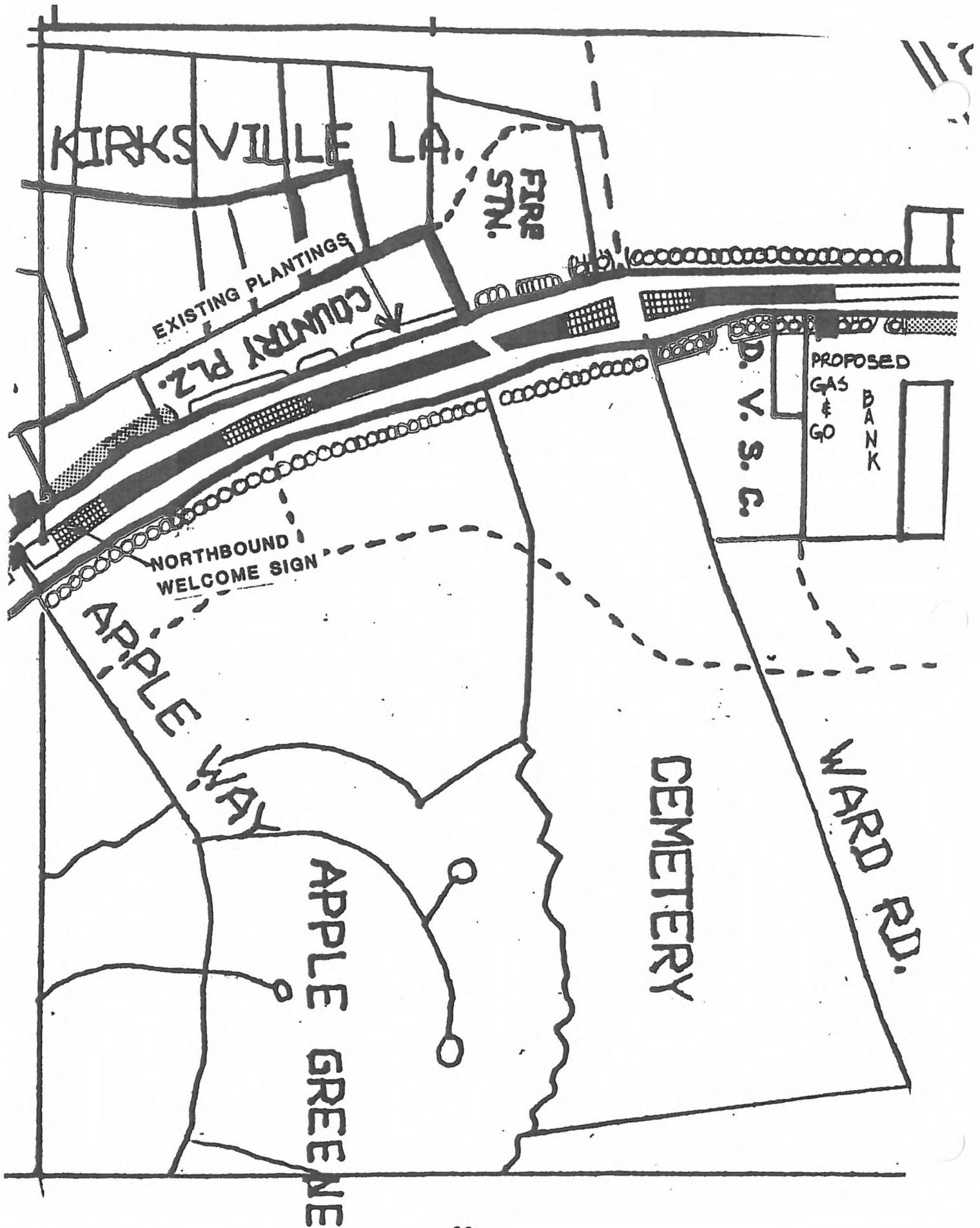
A water system may be needed for public safety purposes and to promote the efficient and proper use of the County's aquifer.

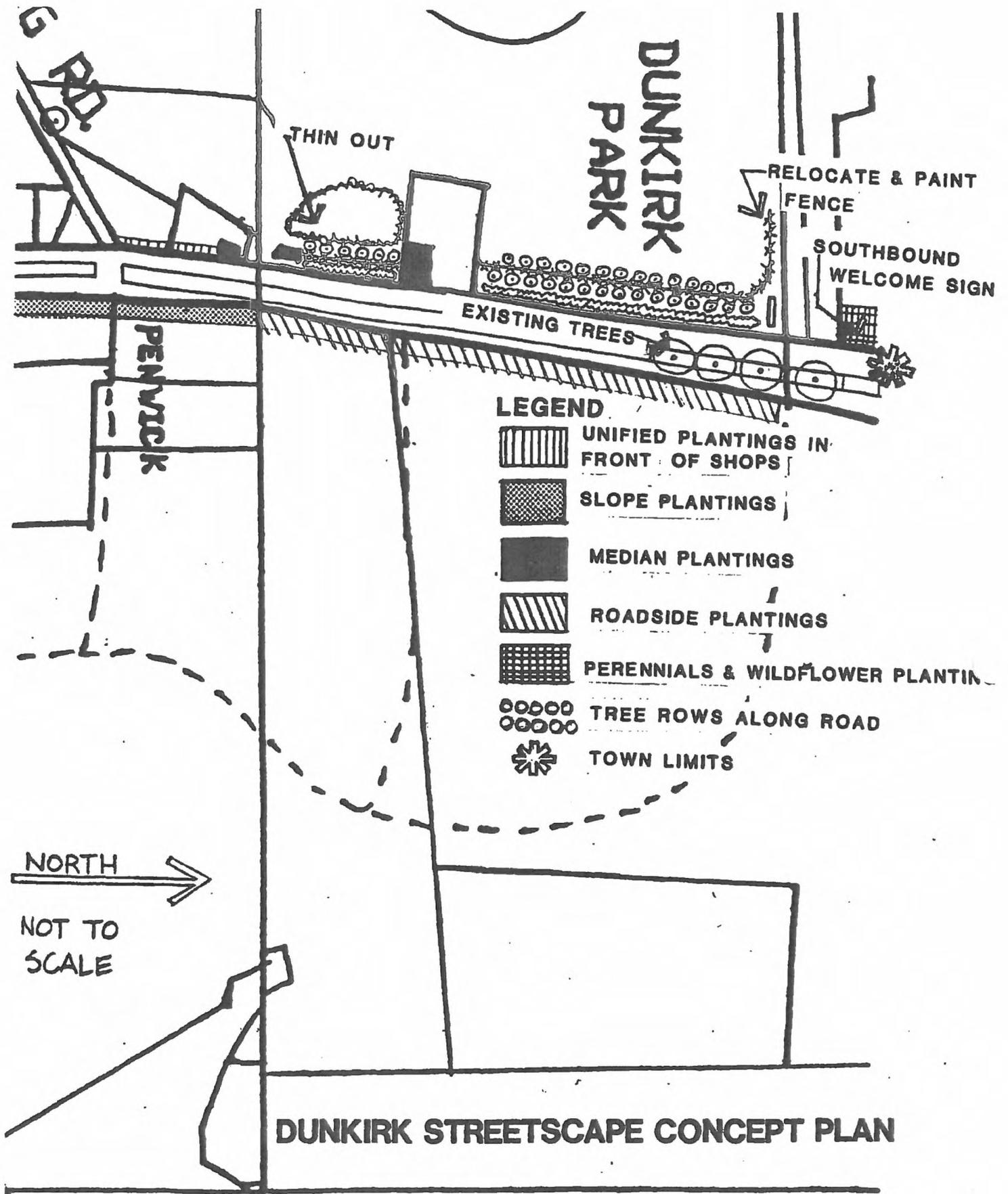
10. Connection from Ferry Landing Road to Dunkirk District Park

After the overpass is built, the County should connect Dunkirk District Park to Ferry Landing Road to improve the access for residents on Ferry Landing Road. At the same time, the County should construct a bicycle path along the access road.

11. Overpass

The overpass is essential to the implementation of the Transportation Map. The County should request that the State include the overpass in its Transportation Program for Calvert County as soon as traffic volumes indicate the need for doing so.





This page intentionally left blank.

**CHAPTER IV**  
**IMPLEMENTATION**

- A. INTRODUCTION**
- B. STAGING COST OF PUBLIC IMPROVEMENTS**
- C. FINANCING**
- D. EVALUATION**
- E. REVIEW OF MASTER PLAN**

A. INTRODUCTION

Implementation of this Dunkirk Master Plan will depend on strong public and private support. Primary, of course will be approval of the Plan by the Planning Commission and the Board of County Commissioners and their decision to aggressively seek funding from various sources to implement the public improvements in this Plan. Also significant will be their approval of channeling revenues generated by new development into the Dunkirk Town Center to assist in implementing the public improvements.

In order to make the policies in this plan viable, it will also be important for the public to be vigilant and support the enforcement of the necessary rules and regulations.

This plan is designed to address concerns to the "build-out" of the town in the year 2010 or beyond. The County should work toward these objectives by carrying out the recommendations in the Plan. Some of the recommendations require capital funding; others are changes in policies or plans. Those recommendations requiring capital funding should be carried out as funds become available - priorities should be set by the County Commissioners through the Capital Improvements Program. Those recommendations that require a change to policies and plans should be accomplished as soon as possible.

The Planning Commission's Annual Report should reflect how the recommendations are being reached. In addition, the County Commissioners should appoint an Appearance Review Committee to advise the Planning Commission.

B. STAGING COST OF PUBLIC IMPROVEMENTS

It is recommended that the staging of the public improvements occur in the following order of priority:

<u>YEARS</u>	<u>PRIORITY</u>
1	1. Study the need for a community water system
1-3	2. Erect Town Center entrance signs
1-3	3. Implement Landscaping Plan for Route 4
1-3	4. Move chain link fence
2-5	5. Install streetlights
2-5	6. Construct a park and ride with a helicopter pad
5-10	7. Construct an overpass over Route 4
5-10	8. Construct connection between Ferry Landing Road and Dunkirk District Park

C. FINANCING

One of the shortcomings of most plans is that proper financial steps are not taken to assure implementation. It is proposed that public improvements called for in this plan be financed through the Capital Improvement Plan and Budget including the use of impact fees.

Some projects, such as landscaping, could be financed through donations from civic groups and businesses.

D. EVALUATION

The Dunkirk Town Center Master Plan should be evaluated periodically to make sure that the goals and the objectives are being met, the public facilities are being implemented and that development is occurring in accordance with the Plan.

At the time of adoption of the Master Plan, the Board of County Commissioners should assign the parts of the plan to be implemented by the County to appropriate Department Heads and require the Department Heads to give regular reports on the status of all projects assigned to their departments.

E. REVIEW OF MASTER PLAN

No plan is ever final or definitive. It reflects current conditions and anticipates future developments. It's function is to provide policy guidance and site specific recommendations as a planning framework within which change may occur.

The Dunkirk Town Center is in a high growth area. As conditions change over time, the Master Plan will be reviewed no later than eight years after adoption and will be updated if necessary.

This page intentionally left blank.

**DUNKIRK ZONING ORDINANCE**

**CHAPTER V**

**LAND USE REQUIREMENTS**

- A. INTRODUCTION**
- B. PERMITTED LAND USES**
- C. CONDITIONAL USES**
- D. SPECIAL DEVELOPMENT REQUIREMENTS**
  - 1. Road Access**
  - 2. Route 4 Corridor Landscaping**
  - 3. Clearing Permits**
  - 4. Signs**
- E. APPEARANCE CODE**
  - 1. Introduction**
  - 2. Application**
  - 3. Appearance Code Criteria**

A. INTRODUCTION

This Dunkirk Zoning Ordinance specifies permitted land uses and describes additional conditions and use requirements that apply to the Dunkirk Town Center.

Except as otherwise specified in this Dunkirk Zoning Ordinance, the use of any property and the construction or alteration of any building or structure shall conform with the requirements of the Calvert County Zoning Ordinance.

B. PERMITTED LAND USES

Table 1 is a list of Permitted Land Uses in the Dunkirk Town Center. No use shall be allowed except as indicated in the Table.

Following is a key to the Table.

P - Permitted Use. Uses designated by the letter "P" shall be permitted on any lot in the geographic area inside the Dunkirk Town Center boundaries, subject to all applicable regulations.

(10/28/03) S - Special Exception. Uses designated by the letter "S" may be authorized by the Board  
(05/01/06) of Appeals in accordance with the provisions of Article 11 of the Calvert County Zoning Ordinance.

S1 - Permitted Use, subject to a Special Exception if less than 150 feet from a residential building or site where there is an active house permit or an established Historic District.

S2 - Permitted Use, subject to a Special Exception if less than 300 feet from a residential building or site where there is an active house permit or an established Historic District.

(10/28/03) C - Permitted Use subject to certain conditions. The conditions are listed in Section  
(05/01/06) 3-2.01.A of the Calvert County Zoning Ordinance and paragraph C of this Chapter.

SC - Permitted Use, subject to a Special Exception if it meets conditions.

**KEY TO LAND USE CHARTS:**

	A blank indicates the use is not permitted	SC	Permitted use subject to special exception if it meets conditions
P	Permitted Use	S1	Permitted Use subject to special exception if less than 150 feet from a residential building or site where there is an active house permit or an established Historic District.
C	Permitted Use if it meets certain conditions	S2	Permitted Use subject to special exception if less than 300 feet from a residential building or site where there is an active house permit or an established Historic District.
S	Permitted Use subject to special exception from the Board of Appeals		

DUNKIRK TOWN CENTER		
USE #	3-2.01 DUNKIRK TABLE OF LAND USES – AGRITOURISM, ECO-TOURISM, AND HERITAGE TOURISM USES	TC
1.	Agritourism Enterprise	
2.	Campground, Farm	
3.	Canoe or Kayak Launching Site, Commercial	
4.	Commercial Kitchen, Farm	
5.	Ecotourism Enterprise	
6.	Farm Support Business, Less than 5,000 square feet	
7.	Farm Support Business, More than 5,000 square feet	
8.	Heritage Trail Displays	
9.	Hunting Service	
10.	Public Events/Public Assemblies on Farmland	
11.	Rental Facilities on Farms	
12.	Sports Practice Fields on a Farm	

DUNKIRK TOWN CENTER		
USE #	3-2.01 DUNKIRK TABLE OF LAND USES - AGRICULTURAL	TC
1.	Animal Husbandry	
2.	Aquaculture, Freshwater and Land-based	
3.	Aquaculture, Marine/Estuarine	
4.	Commercial Greenhouse, Retail	
5.	Commercial Greenhouse, Wholesale	P
6.	Commercial Kennel, with indoor facilities only	P
7.	Commercial Kennel, with outdoor facilities	
8.	Commercial or Non-Profit Stable or Horseback-Riding Club	
9.	Commercial Raising of Dangerous or Wild Animals	
10.	Commercial Raising of Fur-bearing Animals	SC
11.	Farm	
12.	Farm Brewery	P
13.	Farm Building	P

USE #	2-2.01 DUNKIRK TABLE OF LAND USES - AGRICULTURAL	
14.	Farm Distillery	TC
15.	Farm Stand	
16.	Farm Winery	
17.	Field Crops	
18.	Forest Product Processing	P
19.	Garden Center or Farm Supply Store, 75,000 square feet	
20.	Garden Center or Farm Supply Store, less than 75,000 square feet	C
21.	Livestock Auction and/or Sales Barn, Commercial	P
22.	Livestock Auction, by a Non-Profit Organization or Farm Owner	
23.	Nursery, Retail	
24.	Nursery, Wholesale	P
25.	Tree Farming	P
26.	Veterinary Hospital or Clinic, Livestock	
27.	Veterinary Hospital or Clinic, Small Animals and Household Pets	P
<b>DUNKIRK TOWN CENTER</b>		
USE #	3-2.01 DUNKIRK TABLE OF LAND USES - RESIDENTIAL	
1.	Apartment, Accessory	TC
2.	Apartment, Accessory for Resident Watchman/Caretaker	C
3.	Apartment, Attached to a Business (3/25/08)	C
4.	Assisted Living Facility	C
5.	Bed & Breakfast Facility with up to 2 Bedrooms in Use	P
6.	Bed & Breakfast Facility with 3 to 5 Bedrooms in Use	C
7.	Boarding House	SC
8.	Dwelling, Attached: Duplex	C
9.	Dwelling, Attached: Fourplex	P
10.	Dwelling, Attached: Multi-family	P
11.	Dwelling, Attached: Townhouse	C
12.	Dwelling, Attached: Triplex	P
13.	Dwelling, Single Family Detached	P
14.	Group Home	C
15.	Liveboards	P
16.	Lodgers in Residence (no more than 3)	
17.	Manufactured Home Community	P
18.	Manufactured Home for Resident Watchman/Caretaker	
19.	Manufactured Home on Individual Lot	
20.	Manufactured Home or Recreational Vehicle (Emergency)	
21.	Manufactured Home Subdivision	C
22.	Manufactured Home, Farm	
23.	Tenant House	
24.	Tenant Houses, Additional (no more than 2 additional)	

**DUNKIRK TOWN CENTER**

<b>USE #</b>	<b>3-2.01 DUNKIRK TABLE OF LAND USES - COMMERCIAL RETAIL</b>	<b>TC</b>
1.	Agricultural Machinery, Service and/or Supplies	S2
2.	Antiques Sales	P
3.	Art Gallery, Less than 75,000 square feet	P
4.	Artisans' and Crafters' Market	C
5.	Auction Building	S1
6.	Boat Dealership	S2
7.	Farmers' Market	P
8.	Flea Market by Non-profit Organization	C
9.	Home Improvement Center, 75,000 square feet	C
10.	Home Improvement Center, Less than 75,000 square feet	P
11.	Manufactured Home Dealer	
12.	Mobile Food Sales	C
13.	Retail Commercial Building with Drive-up Facility, 75,000 square feet	C
14.	Retail Commercial Building with Drive-up Facility, Less than 75,000 square feet	P
15.	Retail Commercial Building, 75,000 square feet	C
16.	Retail Commercial Building, Less than 75,000 square feet	P
17.	Retail Commercial Sale or Display Area; Outdoor	C
18.	Watermen's Market	C

**DUNKIRK TOWN CENTER**

<b>USE #</b>	<b>3-2.01 DUNKIRK TABLE OF LAND USES - BUSINESS &amp; PERSONAL SERVICES</b>	
1.	Boat Service and/or Repair	TC
2.	Boat Storage, Commercial	S
3.	Boatel	S
4.	Commercial Kitchen (not associated with an Eating Establishment)	
5.	Commercial Pier	S1
6.	Commercial Trade or Business School	
7.	Corporate Headquarters, less than 5,000 square feet	S1
8.	Corporate Headquarters, more than 5,000 square feet	P
9.	Crematorium	S1
10.	Eating Establishment with Drive-up Facility	P
11.	Eating Establishment without Drive-up Facility	S2
12.	Entertainment Business, Adult	P
13.	Flex Space Business	
14.	Funeral Home	SC
15.	Home Occupation, All Employed are Residents	P
16.	Home Occupation, with up to 2 Equivalent Full-time non-resident employees	C
17.	Laundry, Industrial	SC
18.	Laundry/Laundromat	
19.	Motel or Hotel	P
20.	Office, Medical, Non-medical or Clinic, less than 5,000 square feet	S1
21.	Office, Medical, Non-medical or Clinic, more than 5,000 square feet	P
22.	Office Support Services, including printing, copying, faxing, internetworking, etc., less than 5,000 square feet	S1
23.	Office Support Services, including printing, copying, faxing, internetworking, etc., more than 5,000 square feet	P
24.	Personal Services Less than 5,000 sq.ft.	S1
25.	Personal Services More than 5,000 sq.ft.	P
26.	Tavern, Nightclub, Lounge, Dance Hall	S1
27.	Tavern, Nightclub, Lounge, Dance Hall with Outdoor Facilities such as Bars	S2

**DUNKIRK TOWN CENTER**

<b>USE #</b>	<b>3-2.01 DUNKIRK TABLE OF LAND USES - RECREATION</b>	<b>TC</b>
1.	Campground and/or Recreational Vehicle Camp, Non-Farm	
2.	Carnival, Fair or Circus – Temporary, Less than Five Acres	SC
3.	Carnival, Fair or Circus – Temporary, More than Five Acres	
4.	Commercial or Non-Profit Meeting Hall, Banquet Hall	S1
5.	Convention Center	S1
6.	Drive-in Theatre	
7.	Golf Course	
8.	Golf, Driving Range	
9.	Golf, Miniature	
10.	Indoor Commercial Amusements: Arcade, Pool Hall, Bingo Hall	SC
11.	Indoor Commercial Amusements: Bowling, Skating Rink, Theatre	S1
12.	Indoor Commercial Amusements: Fitness Center	P
13.	Indoor Commercial Amusements: Studio, Commercial-Performing Arts	P
14.	Indoor Commercial Amusements: Swimming Pool, Athletic Courts	S1
15.	Marina	
16.	Outdoor Recreation Facility, such as: Swimming Pools, Athletic Courts	S
17.	Retreat, Day	S1
18.	Studio, Commercial	C
19.	Target Range, Indoor	
20.	Target Range, Outdoor	

**DUNKIRK TOWN CENTER**

<b>USE #</b>	<b>3-2.01 DUNKIRK TABLE OF LAND USES - COMMERCIAL WHOLESAL</b>	<b>TC</b>
1.	Mini-Storage	S
2.	Warehouse, Indoor	
3.	Warehouse, Outdoor	
4.	Wholesale Lumber and/or Other Building Materials, 75,000 square feet	C
5.	Wholesale Lumber and/or Other Building Materials, less than 75,000 square feet	P
6.	Wholesaling, Indoor Only	S

USE #	3-2.01 DUNKIRK TABLE OF LAND USES-MOTOR VEHICLE & RELATED SERVICES	
1.	Automobile Filling Station	
2.	Automobile Filling Station with Convenience Store and/or Eating Establishment	SC
3.	Automobile Parking Lot/Garage as a Principal Use	SC
4.	Automobile Parts Dismantling and/or Storage	P
5.	Automobile Repair/Service Shop without fuel sales	
6.	Bus lot or garage	SC
7.	Car Wash	S2
8.	Commuter Parking Lot	S2
9.	Inoperative Vehicle, 1 per lot	P
10.	Inoperative Vehicles, 2 per lot	P
11.	Motor Vehicle Accessory Shop	
12.	Motor Vehicle Dealership - New or Used	C
13.	Other Motor Vehicle Related Uses including: Bus depot, taxi service, vehicle rental or leasing	S
14.	Park-and-Sell Lot	S2
15.	Parking of Commercial Motor Vehicles	S
16.	Storage of Motor Vehicles	C
17.	Truck Terminal	
18.	Truck, Bus and Diesel Service and Repair Shop	
19.	Vehicle Ferry Service	

DUNKIRK TOWN CENTER		
USE #	3-2.01 DUNKIRK TABLE OF LAND USES - INDUSTRIAL	
1.	Agricultural / Seafood / Livestock Processing Plant	TC
2.	Asphalt Plant	
3.	Commercial Fuel Storage Business	
4.	Commercial Recycling Facility	
5.	Distillation of Alcohol as a Fuel, Commercial	
6.	Distillation of Alcohol as a Fuel on a Farm for Farm Use Only	
7.	Grain Elevator	
8.	Kiln, Wood Drying	
9.	Landfill, Land-Clearing Debris	
10.	Landfill, Rubble	
11.	Landfill, Sanitary	
12.	Manufacturing and/or Assembly, Heavy	
13.	Manufacturing and/or Assembly, Light, Less than 5,000 square feet	S1
14.	Manufacturing and/or Assembly, Light, More than 5,000 square feet	SC
15.	Manufacturing and/or Assembly, Watercraft, Commercial	S2
16.	Outdoor Storage in Connection with Commercial and/or Industrial Uses	C
17.	Power Generating Facility, Accessory to a Residence or Business	C

USE #	3-2.01 DUNKIRK TABLE OF LAND USES - INDUSTRIAL	TC
18.	Power Generating Facility, Commercial	
19.	Research & Development Facility, Environmental	P
20.	Research & Development Facility, Other	P
21.	Salvage and/or Junk Yard	
22.	Sand, Gravel or Mineral Extraction and Processing	
23.	Sand, Gravel or Mineral Extraction (No Processing)	
24.	Sawmill, Commercial	
25.	Sawmill, Portable	
26.	Storage of Machinery & Equipment in Connection With Excavating and /or Contracting Business	
27.	Wind Energy System, Accessory to a Residence or Business (10/13/10)	C
28.	Wind Energy System, Commercial (10/13/10)	

DUNKIRK TOWN CENTER		
USE #	3-2.01 DUNKIRK TABLE OF LAND USES - INSTITUTIONAL	TC
1.	College or University	P
2.	Day Care Center: 19 Clients or Less	P
3.	Day Care Center: 20 or More Clients	S
4.	Elementary or Secondary School	P
5.	Fire and/or Rescue Service	P
6.	Hospital	P
7.	Library	P
8.	Museum	P
9.	Nursing or Convalescent Home	P
10.	Place of Worship, Parish Hall, Convent, Monastery or Rectory	P
11.	Public or Governmental Building	P
12.	Public or Non-profit Park and/or Recreation Area Including: Tennis Courts, Swimming Pools, Athletic Fields, etc.	P
13.	Public Utility Lines & Accessory Structures	S2
14.	Solid Waste Collection Site	
15.	Temporary Structure Incidental to Schools (classroom relocatables)	P
16.	Wastewater Treatment Facility	SC
17.	Water Supply Treatment Facility	P

**DUNKIRK TOWN CENTER**

<b>USE #</b>	<b>3-2.01 DUNKIRK TABLE OF LAND USES – UNCLASSIFIED</b>	<b>TC</b>
1.	Accessory Building or Use	P
2.	Airport or Landing Field	
3.	Cemetery or Memorial Garden	P
4.	Communications Towers & Antennas (Government, Commercial & Private)	SEE SECT. 3-3
5.	Dock, Pier, Private	
6.	Garage Sale, Yard Sale or Estate Sale	C
7.	Heliport	S
8.	Household Pets	P
9.	Livestock Kept as Pets on Non-Farm Properties	
10.	Model Home	C
11.	Structure for the Keeping of Animals (on non-farm properties)	P
12.	Temporary Recreational Vehicle at Construction site (for watchman)	
13.	Temporary Structure Incidental to Construction (non-residential)	C
14.	Temporary Structure Incidental to Sales or Rentals in New Residential or Commercial Developments (sales trailers)	
15.	Unoccupied Recreational Vehicle	
16.	Wild or Dangerous Animals Kept as Pets	

3-2.01.A Dunkirk Town Center Conditional Uses

The following are conditions imposed upon land uses indicated in Section 3-2.01, Table of Land Uses. If a use is listed as conditional in the Land Use Tables (indicated by a 'C' or an 'SC'), and no conditions are listed below, the conditions listed in Section 3-1 of the Calvert County Zoning Ordinance (CCZO) apply. The conditions listed below are unique to the Dunkirk Town Center. Note: this section of the Dunkirk Town Center Zoning Ordinance has been renumbered for consistency with the Calvert County Zoning Ordinance.

Agricultural Use #9	Commercial Raising of Dangerous or Wild Animals, provided that all animals are kept indoors.
Agricultural Use #20	Garden Center or Farm Supply Store, 75,000 square feet, provided that the conditions for "Retail Commercial Building, 75,000 square feet" are met.
Agricultural Use #27	Veterinary Hospital or Clinic, Small Animals and Household Pets – See CCZO for conditions.
Residential Use #1	Apartment, Accessory – See CCZO for conditions.
Residential Use #2	Apartment, Accessory for Resident Watchman/Caretaker, provided that: <ol style="list-style-type: none"><li>1. Only one accessory apartment for a watchman shall be allowed on each lot or parcel; and</li><li>2. the accessory apartment shall be clearly subordinate to the on-site business; and</li><li>3. in no case shall the apartment contain more than 900 square feet gross floor area of enclosed space, including enclosed porches; and</li><li>4. at least two off-street parking spaces shall be available for the apartment; and</li><li>5. the owner shall obtain Health Department approval; and</li><li>6. the accessory apartment shall be located within the building restriction lines required for the principal use; and</li><li>7. only one kitchen shall be permitted within the accessory apartment.</li></ol>
Residential Use #3	Apartment, Accessory Over a Business, provided that it meets the conditions required for "Apartment, Accessory for Resident Watchman/Caretaker".
Residential Use #5	Bed & Breakfast Facility with 3 to 5 Bedrooms in Use – See CCZO for conditions.
Residential Use #6	Bed & Breakfast Facility with up to 2 Bedrooms in Use – See CCZO for conditions.
Residential Use #7	Boarding House, provided that: <ol style="list-style-type: none"><li>1. An owner lives on the premises; and</li><li>2. the facility is a part of the dwelling unit with the exception that existing non-conforming guesthouses may be used; and</li><li>3. no separate kitchens are provided; and</li><li>4. adequate off-street parking is provided; and</li><li>5. Fire Marshall and Health Department approvals are obtained; and</li><li>6. an Occupancy Permit for such use is obtained.</li></ol>
Residential Use #10 (10/15/96)	Dwelling, Attached: Multi-family, provided that: <ol style="list-style-type: none"><li>1. The multi-family dwelling development shall be for age-restricted housing only, and</li><li>2. no more than 10 percent of the Dunkirk Town Center shall be eligible for such age-restricted housing at a maximum density of 14 units per acre.</li></ol>
Residential Use #13	Dwelling, Single Family Detached – See CCZO for conditions.
Residential Use #20	Manufactured Home or Recreational Vehicle (Emergency) – See CCZO for conditions.
Commercial Retail Use #4	Artisans' and Crafters' Market – See CCZO for conditions.
Commercial Retail Use #8	Flea Market by Non-profit Organization, provided that each organization operates a market no more than one day per year.
Commercial Retail Use #9 (8/10/04)	Home Improvement Center, 75,000 square feet, provided that: <ol style="list-style-type: none"><li>1. All storage is 100 percent screened by wood fencing and/or landscaping, and</li><li>2. the conditions for "Retail Commercial Building, 75,000 square feet" are met.</li></ol>
Commercial Retail Use #12	Mobile Food Sales – See CCZO for conditions.

Commercial Retail Use #13 Retail Commercial Building with Drive-up Facility, 75,000 square feet provided that the conditions for "Retail Commercial Building, 75,000 square feet" are met.

Commercial Retail Use #15 (8/10/04) Retail Commercial Building, 75,000 square feet provided that:

1. Building and Site Design

In addition to specific requirements of the Town Center Zoning Ordinance and Article 6 of the County Zoning Ordinance, the following provisions shall apply:

- a. Any outdoor sales areas shall be specifically designed as such and shall include fencing and landscaping around their entire perimeter in accordance with the Architectural Review Standards of this Town Center Zoning Ordinance. They shall not impede pedestrian circulation and shall not be located within parking lots.
- b. An outdoor area or areas totaling a minimum of 2000 sq. ft. shall be provided for a bus stop and outdoor seating. The area(s) shall be landscaped and shall be conveniently located near the public entrance and pedestrian travelways.
- c. All sides having a public entrance shall include some combination of the following features along no less than 70 percent of the horizontal length of any façade with a public entrance: recesses, projections, awnings, arcades, display windows and entry areas. (see Guidelines Appendix attached to the Town Center Ordinance).

2. Maintenance Agreement

Before a building permit is issued, a maintenance agreement shall be executed between the landowner and the Board of County Commissioners, which agreement shall apply whether the building is fully occupied, partially occupied or vacant. The agreement shall provide for the maintenance of the building exterior, signage, lighting, landscaping, parking lots, sidewalks, and trash removal. It shall contain provisions whereby the County shall give the landowner notice of any violations of the agreement and a reasonable time to correct the violation. The agreement shall further provide that if the violation has not been corrected within the specified time, the County shall be permitted to enter the premises, correct the violation and add the costs incurred to the landowner's next tax bill. The agreement shall be recorded among the land records of Calvert County and shall be binding on all subsequent owners so long as the building creating the need for the agreement remains standing.

3. Co-location<sup>1</sup>

For the purposes of these regulations, co-location is defined as: The placement of smaller retail and service buildings with individual outside entrances on the same site as a large (75,000 sq. ft. +) retail building. The total square footage of the smaller buildings shall equal at least 20 percent of the large retail building. (See design guidelines for examples of co-location.)

The square footage of the co-located buildings shall be excluded from the maximum square footage permitted by the Land Use Charts for the large retail building.

a. Waivers for Co-location

The Planning Commission may waive the requirements for co-location in cases where a large retail store in existence as of August 10, 2004, is to be expanded on-site by no more than 50% of its gross square footage. No waivers shall be granted for (1) the expansion of a large retail store in existence as of August 10, 2004, if the expansion is more than 50% of its gross square footage or (2) the expansion of large retail stores constructed after August 10, 2004. Such waivers shall only be granted if the applicant demonstrates that an undue hardship will be imposed due to exceptional narrowness, shallowness, or shape of particular parcels of property or by reason of exceptional topographical conditions or other extraordinary situations or conditions affecting the property. Self-imposed hardship and financial hardship shall not be considered.

Commercial Retail Use #17 Retail Commercial Sale or Display Area, Outdoor – See CCZO for conditions.

<sup>1</sup> The requirements for co-location may apply to each phase of a development or to the entire site, at the developer's discretion.

Commercial Retail Use #18	Watermen's Market – See CCZO for conditions.
Business & Personal Services Use #13	Flex Space Business, provided that: <ol style="list-style-type: none"> <li>1. The conditions of the Calvert County Zoning Ordinance are met; and</li> <li>2. no building is more than 20,000 square feet.</li> </ol>
Business & Personal Services Use #15	Home Occupation, All Employed are Residents – See CCZO for conditions.
Business & Personal Services Use #16	Home Occupation, with up to 2 Equivalent Full-time Non-resident Employees – See CCZO for conditions.
Recreation Use #2	Carnival, Fair or Circus – Temporary, Less than Five Acres – See CCZO for conditions.
Recreation Use #10 (8/10/04)	Indoor Commercial Amusements: Arcade, Pool Hall, Bingo Hall, provided that the facility does not operate during school hours.
Recreation Use #18	Studio, Commercial – See CCZO for conditions.
Commercial Wholesale Use #4	Wholesale Lumber and/or Other Building Materials, 75,000 square feet, provided that: <ol style="list-style-type: none"> <li>1. all storage is 100 percent screened by wood fencing and/or landscaping, and</li> <li>2. that the conditions for "Retail Commercial Buildings, 75,000 square feet" are met.</li> </ol>
Motor Vehicle Use #1	Automobile Filling Station, provided that: <ol style="list-style-type: none"> <li>1. No fuel pump, oil draining pit, or other visible appliance for servicing automobiles is located within 25 feet of the front lot line; and</li> <li>2. no structure or building is erected within 80 feet of any dwelling. Neither setback may be reduced; and</li> <li>3. no new service bay openings shall face a right-of-way; and</li> <li>4. no more than 10 inoperative vehicles and/or junk cars are allowed, except those which are 100 percent screened from adjoining properties and rights-of-way; and</li> <li>5. junk vehicles shall be removed after 30 days; and</li> <li>6. automobile filling stations in existence as of the date of this amendment (September 30, 1994) may expand subject to site plan review.</li> </ol>
Motor Vehicle Use #2	Automobile Filling Station with Convenience Store and/or Eating Establishment, provided that the conditions for Automobile Filling Station are met.
Motor Vehicle Use #5	Automobile Repair/Service Shop without fuel sales – See CCZO for conditions.
Motor Vehicle Use #11	Motor Vehicle Accessory Shop – See CCZO for conditions.
Motor Vehicle Use #15	Parking of Commercial Motor Vehicles – See CCZO for conditions.
Industrial Use #14 (8/10/04)	Manufacturing and/or Assembly, Light (more than 5,000 square feet), provided that no building is more than 20,000 square feet.
Industrial Use #16 (8/10/04)	Outdoor Storage in Connection with Commercial and/or Industrial Uses, provided that all storage is 100 percent screened by wood fencing and landscaping.
Industrial Use #17 (8/10/04) (10/13/10)	Power Generating Facility, Accessory to a Residence or Business, see Section 3-3 of the CCZO for conditions.
Industrial Use #27 (10/13/10)	Wind Energy System, Accessory to a Residence or Business, see Section 3-3 of the CCZO for conditions.
Institutional Use #16	Wastewater Treatment Facility – See CCZO for conditions.
Unclassified Use #6	Garage Sale, Yard Sale or Estate Sale – See CCZO for conditions.
Unclassified Use #10	Model Home – See CCZO for conditions.
Unclassified Use #13	Temporary Structure Incidental to Construction (non-residential) – See CCZO for conditions.

D. SPECIAL DEVELOPMENT REQUIREMENTS

1. Road Access

Road access shall be as shown on the Dunkirk Transportation Map.

2. Route 4 Corridor Landscaping

Wherever possible, a 60 foot landscaped buffer should be required along Route 4 for new construction. All landscaping along Route 4 shall be consistent with the Dunkirk Landscaping Plan (see pages 28 and 29).

(2/27/92)  
(6/17/97)  
(1/31/18)

3. Signs

The provisions of Section 6-8 of the Calvert County Zoning Ordinance apply in the Dunkirk Town Center.

This page intentionally left blank

(12/02/03)  
(5/01/06)

4. Transfer Zone

Dunkirk is designated as a Transfer Zone. The maximum conventional density is one dwelling unit per acre. The density may be increased to no more than four (4) dwelling units per acre with the purchase of Calvert County Transferable Development Rights (TDRs)<sup>1</sup>. The purchase of five TDRs is required for each dwelling unit over one (1) dwelling unit per acre.

In lieu of purchasing TDRs, applicants with bona fide affordable housing projects may apply to the Board of County Commissioners for a waiver of the requirement to purchase TDRs. The Board may approve the application in whole or in part provided that no more than 30% of the existing housing stock within the Town Center meets the State definition of affordable housing.

E. APPEARANCE CODE

1. Introduction

The Appearance Code is based on the premise that building and landscaping design bears a direct relationship to the economic and social well being of residents; that building and landscape design affect property values and provide economic opportunities and that in view of its impact on the general welfare, the right to determine the appearance of a community should not be limited to the few who are directly involved in building construction and alteration, but should be vested in the general citizenry through a publicly mandated, legally adopted Appearance Code Ordinance.

The purpose of the Appearance Code is to enforce the most necessary elements of the Appearance Guidelines in the Dunkirk Plan. While it is desirable that all aspects of the Guidelines are followed, certain portions must be enforced if the town is to develop into an attractive and economically viable Town Center.

Many architectural styles can be accommodated in the Town Center. However, certain features, such as flat roofs and metal siding, will detract from the Dunkirk Town Center image.

2. Application

Compliance with the Appearance Code is mandatory for all new construction and renovation in the Town Center. Additions to existing buildings not now complying with the Code shall also meet the code if:

- a. the addition will increase the total square footage by more than 100% or
- b. the addition is more than 2,000 square feet.

3. Appearance Code Criteria

The following appearance requirements are imposed:

- a. Building Materials (principal and accessory structures) - Either brick, stone, wood or wood appearance siding is required on all sides.
- b. Rooflines and Pitch - Main roof pitches must be in the range of 6/12 to 12/12. Dormer roofs do not have to comply with this requirement. Mansard roofs shall not be permitted. The Planning Commission may grant modifications based on the size of the building provided that the appearance of a pitch roof is maintained.
- c. Utility areas - all utility areas, including but not limited to refrigeration units, piping, wiring, utility boxes, heating units, trash disposal and loading areas, shall be screened from view.

<sup>1</sup> The use of Transferable Development Rights (TDRs) shall not be required for age-restricted housing developments that comply with Section 5-5 of the Calvert County Zoning Ordinance and which are properly submitted prior to July 1, 2006.

- d. Screening - Security fencing, such as chain link fencing, shall be landscaped.

(03/12/96) 4.  
(05/01/06)  
(01/03/19)

Architectural Review Committee

- a. Composition

The committee shall be composed of five members. Priority shall be given to the appointment of members who reside or work within the Town Center. At least one member shall have experience in architecture, landscape architecture, historic preservation, urban design planning, engineering or related fields. All members shall either work, reside, or represent an institution within the Calvert County postal area of the Town Center. At least one member shall be an owner of a business located within the Town Center and at least one member shall be a County resident (within the postal area) who is not connected with a business within the Town Center. Priority may be given to those who have participated in the master planning process. Exceptions in the criteria listed above may be made by the Board of County Commissioners in the event there is only one qualified candidate or no qualified candidates.

- b. Tenure

The initial committee appointed by the County Commissioners shall serve for two-year, three-year and four-year terms. Thereafter, members shall serve for four years and may be reappointed by the County Commissioners, subject to Chapter 11 of the Calvert County Code, including, without limitation, Sec. 11-3 Appointments and Removal and Sec. 11-4 Term Limits. The composition of the Committee shall remain as above.

- c. Officers

The committee shall elect a Chairman and Vice-Chairman biennially. The Chairman and Vice-Chairman may be a committee member or staff may be elected Chairman-Pro-Tem without voting authority. The Chairman-Pro-Tem may assign the Chairmanship as needed in his/her absence.

- d. Meetings

The Committee shall hold two regular meetings every month, unless the Committee has no business. The Committee may schedule special meetings. Special meetings may be called by the chairperson upon written request to the chairperson from a majority of members of the Committee, or by the staff of the Department of Planning & Zoning. Three members shall constitute a quorum.

Should a Committee fail to have a quorum or fail to provide a recommendation, jurisdiction shall pass to and the project packet will be processed by staff within ten (10) business days of the Committee's scheduled meeting date.

- e. Jurisdiction

The Committee or its designee shall have authority to review site designs and external design features of buildings, structures other than buildings and signs for public, quasi-public, commercial, residential, industrial, multi-family or mixed use development. The Committee or its designee shall make judgments on the external design features based on the requirements of the local Master Plan.

The Committee shall not have authority to approve site plans, including landscaping plans. Site plans shall be approved as set forth in the Zoning Ordinance and Town Center Master Plans.

The Committee shall have authority to review existing rules and regulations governing landscaping and site design and make recommendations to the Planning Commission.

The Committee shall also review proposed plans for public amenities such as public squares, landscaping plans, signs, and street furniture and shall make recommendations to the Planning Commission and Board of County Commissioners.

(01/03/19) 5. Review Process for Projects Requiring Architectural Review

a. Submittal of Applications

Applicants for architectural review shall submit an application form together with required illustrations to the Department of Planning & Zoning. Forms and a list of specific requirements are available at the Department of Planning & Zoning.

Applications may be submitted at any time during the development process. However, applicants are strongly encouraged to submit their plans as early as possible in order to avoid any delays.

b. Review Procedure

The Committee will have only one opportunity to review an application and make comments. Should any extenuating circumstance occur, which may hamper the ability to have a review at the next scheduled regular meeting, the Director of the Department of Planning & Zoning may allow additional time.

The Dunkirk Architectural Review Committee shall review applicable projects in accordance with the provisions of this Ordinance and make recommendations in writing to the Planning Commission for decision.

Applicants or their representatives are required to attend and participate in discussion concerning proposed projects. Projects will not be reviewed unless the applicant or a representative is present at the Architectural Review Committee review meeting except upon request of the applicant.

Should the Planning Commission require additional information regarding the comments by a Committee, the Planning Commission Administrator will contact the Committee within three (3) business days to resolve the situation.

The Planning Commission may designate authority to its Chairperson or its Secretary to approve design features that are both consistent with the Master Plan and its Zoning Ordinance and comply with the recommendations of the Architectural Review Committee.

c. Appeals

Any appeal from a decision of the Planning Commission for architectural review of a project associated with a Category I Site Plan (See Section 4-2.01.B.3 of the Calvert County Zoning Ordinance) shall be noted in the Circuit Court for Calvert County. Such appeal shall be taken according to the Maryland Rules as set forth in Title 7, Chapter 200, as amended from time to time, within 30 days of the Planning Commission's decision.

Any appeal from a decision of the Planning Commission for architectural review of any project other than those associated with a Category I Site Plan may be appealed to the Board of Appeals. Such appeal shall be made in accordance with Section 11-1.04 of the Calvert County Zoning Ordinance within 30 days of the Planning Commission's decision.

This page intentionally left blank.

CHAPTER VI  
GENERAL PROVISIONS

- A. APPLICABILITY OF DUNKIRK ZONING ORDINANCE
- B. EFFECTIVE DATE
- C. SEPARABILITY
- D. INTERPRETATIONS
- E. PERMITS
  - 1. Building Permits
  - 2. Additions
  - 3. Grading and Clearing Permits

A. APPLICATION OF DUNKIRK ZONING ORDINANCE

The Dunkirk Zoning Ordinance is a supplement to the Calvert County Zoning Ordinance and applies to the Dunkirk Town Center. Except in cases specifically addressed in the Dunkirk Zoning Ordinance, the Calvert County Zoning Ordinance applies.

B. EFFECTIVE DATE OF THE DUNKIRK ZONING ORDINANCE

The Dunkirk Zoning Ordinance shall be effective on July 28, 1987 and continue in force until amended, modified, or repealed. All site plans and subdivision plans which have received final approval as of the above date shall be allowed to be constructed even if they do not conform to this Master Plan. However, if substantial construction is not completed within one year, approval is withdrawn and new plans which meet the requirements of this Master Plan must be submitted and approved before work on the project can continue.

C. SEPARABILITY

If any section, subsection, sentence, clause or phrase of this Zoning Ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, such provision shall be deemed separate and such invalidity or unconstitutionality shall not affect the validity of the Zoning Ordinance in its entirety or of the remaining sections or parts thereof.

D. INTERPRETATIONS

The Zoning Officer shall be responsible for clarifying the intent of this Zoning Ordinance. Should there be a question on the meaning of a section of the Zoning Ordinance, an "official interpretation" shall be approved and signed by the Zoning Officer. All official interpretations shall be attached to the Zoning Ordinance. The following parties shall be notified within seven days following the interpretation: the County Commissioners, Planning Commission, Department of Planning & Zoning, the County Attorney, and the Appearance Review Committee.

E. PERMITS

1. Building Permits

Building permits must be obtained before constructing or erecting buildings or structures covering more than 150 square feet; moving, adding to, extending buildings or structures.

Building permits will be issued only for construction on buildable lots, parcels, or tracts which meet the requirements of the Dunkirk Zoning Ordinance and/or the County Zoning Ordinance, the Subdivision Regulations, and other applicable agency requirements.

2. Additions

Additions to existing structures which do not conform to the architectural standards in the Appearance Code shall be permitted to be constructed in conformance with their own style.

3. Grading & Clearing Permits

No grading or clearing permits for clearing sites shall be issued until a site plan or subdivision plan is approved or in the case of a farm, a soil conservation plan is approved by the Soil Conservation Service.

This page intentionally left blank.

APPENDIX 1  
MARKET ANALYSIS

A. INTRODUCTION

The estimate of the Dunkirk Town Center's primary market area is based on general planning standards for commercial shopping facilities, which are summarized in Table 1. These standards are gross measures for estimating market area which were applied in the Dunkirk analysis to test assumptions and conclusions, and to establish a basis for quantifying the demand for commercial space in the Town Center. Consideration of the market effects of specific land uses in the region was incorporated into the market analysis to account for local variables such as physical features, access, and competing market centers.

In that the purpose of the analysis was to evaluate the reasonableness of the purported results of two market studies, one for the Penwick Village project (convention center) and the other for Howlin Real Estate (shopping center), and to establish some basis for quantifying the demand for commercial space in the Dunkirk Center, this analysis attempts to estimate on the high side of demand.

B. MARKET AREA

The radius of the service area for a neighborhood shopping center was set at 0.5 miles, the community shopping center at two miles and the regional center at four miles. These are general guidelines, which provide a basis for defining a reasonable market area for Dunkirk. Even at the extreme radius of four miles, the Dunkirk market area takes in only portions of Calvert County Community Planning Districts 1, 2 and 3.

Considering the market effects of specific land use characteristics also helped define the market area. For example, the Huntingtown Town Center, a competing center projected to be about the same size as Dunkirk, is located approximately 7.8 miles south of Dunkirk. Splitting the distance between the two centers served as a basis for estimating the southernmost boundary of the Dunkirk area.

Proceeding west, the boundary splits the mileage on Briscoe Turn Road and Chaneyville Road, and assumes that those residents along those roads closer to Huntingtown, will travel there to shop. The Patuxent River is a convincing boundary to the west. The urban area boundary on the north was established as the market area's northern boundary and is also a convincing break point between Dunkirk and competing urban market centers.

\*Note by Department of Planning & Zoning: This information was provided by the consultant. These radii apply to urban areas, not rural areas where there may not be only shopping for 5 to 10 miles. However, the following information would be applicable for the confines of the consultant's study area.

TABLE 1

Commercial Facilities

	<u>Neighborhood Center</u>	<u>Community Center</u>
Leading Tenants	Supermarket and drugstore	Variety store and small department store
Radius of Service Area	.5 miles	2 miles
Minimum Population to Support Center	4,000	35,000
Site Area	4-8 acres	10-30 acres
Range of Gross Floor Space	30,000-70,000 sq. ft.	100,000-250,000 sq.ft.
Number of Stores and Shops	5-20	15-40

Source:

George Nez, Standards for New Urban Development - The Denver Background, Urban Land Institute, Vol. 20, No. 5 Urban Land Institute, 1200 18th Street N.W., Washington, D.C.

The distance between Dunkirk and the Town of North Beach is approximately 7.7 miles straight-line distance. The North Beach/Chesapeake Beach Community Planning District has one of the largest populations in the Third Election District, about 17% and along with Community Planning District 4 is expected to have a total population of nearly 10,000 by 2010, enough to support a small neighborhood center.

Both Community Planning Districts 4 and 18 are located west of Maryland Route 2, putting them on the fringe of the Route 4 and Route 2 corridor. Dunkirk is both closer to Route 2 and more easily accessible to a larger segment of the population in Community Planning District 3, consequently Maryland Route 2 seems appropriate for an eastern border. For purposes of evaluation, the market area was expanded somewhat from the above description to include Community Planning Districts 1, 2 and 3 in their entirety. (See Map 1).

C. POPULATION FORECASTS

Table 2 shows population projections through the year 2005. Projections through 2000 were prepared by the Calvert County Department of Planning & Zoning in 1981 and subsequently used in the County Comprehensive Plan. The various growth rates assumed in the County's projects were extended through the year 2005. They provided a range of population forecasts between the extremes of 71,900 and 122,400 by the year 2005.

An unofficial 2005 population projection for Calvert County prepared by the Maryland Department of State Planning does not exceed 63,000. The modified growth trend as assumed by the planning staff, which projected out to 82,000 people by 2005, appears to be the most reasonable upper range of planning in the Town Center.

TABLE 2

County Population Projections

<u>Assumption</u>	<u>1985</u>	<u>1990</u>	<u>2000</u>	<u>2005</u>
Slow Growth	40,200	46,600	62,000	71,900
Trend Growth	44,600	57,000	95,000	122,400
Modified Trend	40,200	48,900	69,000	82,000

Using the modified growth trend estimates as a base, and assuming that the Third Election District continues to contain 45% of the County population through 2005, the population of the District would be approximately 37,000. Similarly, if Community Planning Districts 1, 2 and 3 continue to contain 16% of the County population through 2005, the population of the Dunkirk area will be about 13,000 at the high end. Assuming a higher rate of growth, "trend growth", the population of Community Planning Districts 1, 2 and 3 would be nearly 20,000. Market area population estimates assume that Community Planning Districts 1, 2 and 3 will continue to represent about 16% of the County's total population through 2005.

Based on commonly accepted planning standards, a minimum population of 4,000 is required to support a neighborhood shopping center (5-20 stores). The minimum population to support a community shopping center (15-40 stores) is 35,000. The population range estimated for the Dunkirk market area clearly exceeds the minimum for the neighborhood center, but falls short of the community shopping center minimum by 15,000. In other words, the growth of Community Planning Districts 1, 2 and 3 would have to exceed the highest current estimates by 75%, which is unlikely.

D. DEMAND

The type of shopping facilities most likely to locate in the Dunkirk Town Center are neighborhood facilities. The following standards, suggested by DeChiara and Koppleman (Urban Planning Design Criteria, 1980), indicate that the likely range of gross retail floor area will be 30,000 to 75,000 square feet. The Community Builders' Council of the Urban Land Institute suggests that the gross leasable area for neighborhood shopping facilities is in the range of 30,000 to 100,000 square feet, with 50,000 square feet as the average. To support a neighborhood shopping facility, the Community Builders' Council feels a minimum population of between 7,500 and 40,000 people is required.

Planning guidelines established by DeChiara and Koppleman for shopping centers and applied in the Dunkirk analysis indicate that the primary market area for the Dunkirk Town Center is within Community Planning Districts 1, 2 and 3. Based on these planning standards, and those set by the Community Builders' Council, the demand for commercial space by 2005 in the Dunkirk Town Center is estimated to be in the range of 30,000 to 100,000 square feet of gross leasable area.

APPENDIX 2

TRAFFIC VOLUME TRENDS AND ACCIDENT INFORMATION

A. VOLUME TRENDS

Traffic volume trends for Maryland Route 4 are shown in Table 1. The Dunkirk analysis assumed an annual average daily traffic (ADT) growth rate of 5% per year through the year 2005. Historic average daily traffic counts or estimates for Maryland Route 4 were provided by the Maryland Department of Transportation (MD DOT) for the years 1978 through 1983.

Table 1 summarizes the projected volumes for Maryland Route 4 through the planning period. They are estimated for through-traffic only and do not include additional traffic that will be generated from new commercial and residential land uses developed within the Town Center. Experience indicates there will be a concurrent deterioration of the level of service at the intersections at Ward and Ferry Landing Roads with Maryland Route 4 that corresponds to the reduced level of service on Maryland Route 4.

TABLE 1

Volume Trends

<u>Year</u>	<u>Average Daily Traffic</u>	<u>Percent Increase</u>
1980	10,200	
1981	10,600	4
1982	10,700	1
1983	11,000	3

Table 2 shows the projected average daily traffic at different growth rates of 4%-6%.

TABLE 2

Projected Average Daily Traffic

<u>Year</u>	<u>4%</u>	<u>5%</u>	<u>6%</u>
	<u>Percent Increase</u>		
1985	11,880	12,100	12,320
1990	14,495	15,440	16,320
1995	17,680	19,870	22,050
2000	21,570	25,570	29,570
2005	26,320	31,150	35,975

## B. TRIP GENERATION

Additional trips that will be generated as a result of new development within the Town Center were estimated based on discussions of specific planned improvements with property owners. In instances when no specific plans were mentioned, land uses were assumed in the context of the market estimate and the likely highest and best use of the property.

Trip generation was estimated for the shopping center being planned by Howlin Realty, the conference center and related retail center and light industrial park being planned for the Penwick site, two alternative site development scenarios assumed for the Lyons property, one an 80,000 square foot commercial center and the other a 40,000 square foot commercial center, and a low density residential development of up to 80 units on the Eisenman property.\*

Trips generated from proposed developments were not distributed and assigned to the highway network, because the short-term impact of the additional traffic is slight. Critical movement summations for the design years 1990, 1995, 2000, and 2005 were prepared to determine the expected level of service at major intersections. Analysis of intersections indicates that by the year 2000 the capacity of the Ward Road and Ferry Landing Road intersections will not be adequate and that traffic signals and other traffic management controls will be warranted. Deterioration of the level of service at these intersections corresponds to the decrease in level of service that will occur on Maryland Route 4 as a result of normal growth in traffic volumes, not even considering the additional traffic that may be generated by new commercial development in the Town Center.

\*This estimate was done in 1986.

### C. ACCIDENT EXPERIENCE

Accident records provide insights into how the existing system is operating. Examining accident trends provides indications of design related cause and effects and helps establish the highway system needs of the Town Center. The purpose of accident analysis, in this case, is to estimate the role of current highway design in accidents which result in property damage, personal injury and loss of life.

Accident data was gathered and mapped for a segment of Maryland Route 4, from Brickhouse Road to Mount Harmony Road. The actual Town Center boundaries are encompassed within this area.

Accident data for Ward Road (CO124) and Ferry Landing Road, two County collector roads which serve the Town Center, was too limited to provide a valid measure of design performance. For the most part, the few accidents recorded were well removed from the intersection of these roads with Maryland Route 4. Consequently the accident analysis focused on Maryland Route 4 incidences.

The analysis segment of Maryland Route 4 extends 2.49 miles south from Brickhouse Road to Mount Harmony Road, approximately a mile of which is within the Dunkirk Town Center. In the period, 1978 to 1982, there were a total of 72 accidents on the overall analysis segment.

Actual accidents recorded in the data provided by the Calvert County Engineer were for the years 1978, 1979, 1981 and 1982. Apparently there were no recorded accidents between Brickhouse Road and Mount Harmony Road in 1980. Considering the very low probability of repeating a year with no accidents occurring, when the average for 1978, 1979, 1981 and 1982 was 18 accidents annually, the data was reviewed as a composite of four non-continuous years.

The Dunkirk accident analysis focused on the following characteristics from the accident reports:

1. Accident Results
2. Time of Accident (day, month, year, time of day)
3. Travel Direction
4. Single vs. Multi Vehicle
5. Total Accidents
6. Accident Rate
7. Location

8. Accident Type

9. Results (i.e., property damage, injury or fatality)

A summary of the data is shown in Table 3.

TABLE 3

Accident Analysis Summary for 1978, 1979, 1981 and 1982

Maryland Route 4  
Dunkirk Town Center

Analysis Segment: 0.97 miles  
Total Accidents: 32  
Single Vehicle Accidents: 19

Results:

Fatalities: 1  
Injuries: 16  
Property Damage: 16

Time of Day:

AM Peak (7 a.m. - 9 a.m.) = 3  
PM Peak (6 p.m. - 8 p.m.) = 6  
Night (9 p.m. - dawn) = 15  
Daylight (10 a.m. - 9 p.m.  
less PM Peak) = 9

Direction of Travel:

South: 69%  
North: 22%  
West: 5%  
East: 4%

Accident Rate (per one-hundred million vehicle miles)

1978: 476  
1979: 210  
1981: 198  
1982: 130

Intersection Related Accidents: 16  
by Intersecting Route:

Ward Road = 3  
Ferry Landing Road = 4  
Crossover = 2  
Other = 7

As mentioned, there were a total of 72 accidents in the four years over the entire 2.5+ mile segment. Of these, 33 accidents, or 46%, occurred in the Town Center segment. The Town Center segment includes about 40 percent of the segment miles. Although the Town Center has a larger percentage of accidents as compared with the percentage of miles, the difference is very slight and the significance uncertain.

Accident rates alone would not indicate especially dangerous traffic operating conditions. The rate of accidents per mile along the Dunkirk Town Center segment did not differ greatly, although it was slightly higher than the rate for the entire segment (19%). The 1982 annual average accident rate for four lane divided rural highways with no access control was 250 accidents per one hundred million vehicle miles of travel. The actual 1982 rate in Dunkirk was 130 accidents.

Accidents within the Town Center highway segment were more likely to involve two cars. Nearly 42% of the accidents in the Town Center segment involved more than one vehicle, whereas only 31% of the accidents along the analysis segment involved more than one vehicle during the four years analyzed. The difference in the multiple-vehicle accident rate for the Town Center segment is nearly 40% higher than that of the entire analysis segment.

Accident location distribution along the analysis segment included: 16 accidents, or 22%, at intersections; 17 accidents, or 24%, in shopping or business areas, all within the Town Center; and six accidents, or 8%, in residential areas, two of which were in the Town Center. Of the 16 intersection accidents, nine occurred along the Town Center highway segment; three at Ward road, four at Ferry Landing Road, one in the area of the Penwick Inn, and one approximately 100 feet north of the entrance mapped for Pippin Court.

The locations of the remaining intersection accidents were; one at Mount Harmony Road, two at Yellow Bank Road, two at Brickhouse Road, and one at Cortland Lane. Over half the intersection accidents, 58%, occurred within the Town Center and intersection accidents comprised 30% of the total accidents within the Dunkirk Town Center. By comparison, intersection accidents within the total analysis segment comprised 22% of the total. Considering the density of shopping and business areas within the Town Center, the 36% higher proportion of intersection accidents is not surprising. The actual number of accidents attributable to negotiating access off Maryland Route 4 at Ward Road and Ferry Landing Road was seven for the four years, 1978, 1979, 1981 and 1982.

Although the data does not indicate that the accident experience within the Town Center is unusually high, the location of existing entrances and crossovers is not ideal. Elimination of crossovers that are too close to intersections, e.g., the present emergency crossover for the volunteer fire company, and intersections that have short or obscured sight lines should be an objective of the Town Center design.