

BK 00039PG076

BK 00039PG037

Ordinance No. 11-12

Subject: Repeal and Adoption of the
Calvert County Road Ordinance

Page 1 of 3

ORDINANCE

**AN ORDINANCE FOR THE PURPOSE OF REPEALING THE
CALVERT COUNTY ROAD ORDINANCE AND ADOPTING A
REVISED CALVERT COUNTY ROAD ORDINANCE**

Recitals

WHEREAS, Sections 1 and 25 of *Article 25* of the Maryland Annotated Code empowers the Board of County Commissioners of Calvert County, Maryland to control and regulate the public roads and bridges to promote the health, safety and welfare of Calvert County, and to provide for its administration, enforcement and amendment; and

WHEREAS, the Board of County Commissioners did on the 12th day of October, 1976 adopt the Calvert County Road Ordinance by Resolution No. 41-76 , which was subsequently repealed by Resolution No. 5-97 adopted on January 28, 1997 and amended the same from time to time; and

WHEREAS, comprehensive revisions have been proposed to the Calvert County Road Ordinance; and

WHEREAS, on February 28, 2012, for which due public notice was published in two newspapers of general circulation in Calvert County, the Board of County Commissioners of Calvert County, Maryland conducted a public hearing at which time the proposed Road Ordinance was discussed, staff's recommendations were considered, and public comment was solicited; and

WHEREAS, all procedural requirements regarding due public notice and subsequent action of the Board of County Commissioners of Calvert County, Maryland have been met; and

WHEREAS, the Board of County Commissioners, having considered all comments, has determined it is in the best interest of the citizens of the County to adopt the Calvert County Road Ordinance as set forth in Exhibit "A" attached hereto and made a part hereof, together with all documents incorporated therein by reference.

Subject: Repeal and Adoption of the
Calvert County Road Ordinance

Page 2 of 3

NOW, THEREFORE, BE IT ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Calvert County Road Ordinance, adopted January 28, 1997 being Resolution No. 5-97, as amended, and as set forth at, Section 104-1, *et seq.* and Section 105-1, *et seq.* within Article 5 of the Code of Public Local Laws of Maryland is hereby repealed effective July 1, 2012; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Calvert County Road Ordinance, Exhibit "A" hereto and hereby incorporated by reference, is hereby approved and adopted and shall be effective July 1, 2012; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that this Ordinance may be codified to become part of Article 5 of the Code of Public Local Laws of Maryland and may be altered to meet the numbering, chapter and paragraph conventions and references of that document; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the following transitional provisions are hereby adopted:

1. All residential, institutional, and commercial developments that have a preliminary subdivision plat approval from the Planning Commission before the effective date of this Ordinance (July 1, 2012) shall be permitted to proceed in conformance and compliance with Ordinance 5-97, as amended heretofore, unless and until such approval expires.
2. All residential, institutional, and commercial developments that have a preliminary site plan approval from the Planning Commission before the effective date of this Ordinance (July 1, 2012) shall be permitted to proceed in conformance and compliance with Ordinance 5-97, as amended heretofore, unless and until such approval expires.
3. In the case of expiration of preliminary subdivision plat approval or preliminary site plan approval, all further work and re-approval shall be in conformity with all provisions of the Calvert County Road Ordinance adopted hereby.; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that in the event any portion of the Calvert County Road Ordinance adopted hereby is found to be unconstitutional, illegal, null or void it is the intent of the Board of County Commissioners to sever only the invalid portion or provision, and that the remainder of the Ordinance shall be enforceable and valid; and

BK 00039PG077

Received for Record April 2 2012
at 1:20 o'clock P. M. Same day
recorded in Liber KPS No. 37 BK 00039PG039
Folio 76 COUNTY COMMISSIONERS
ORDINANCES AND RESOLUTION.

Ordinance No. 11-12

Subject: Repeal and Adoption of the
Calvert County Road Ordinance

Page 3 of 3

Gary P. Smith

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the foregoing recitals are adopted as if fully rewritten herein.

DONE, this 20 day of March, 2012 by the Board of County Commissioners of Calvert County, Maryland, sitting in regular session.

Aye: 5
Nay: 0
Absent/Abstain: 0

ATTEST:

**BOARD OF COUNTY
COMMISSIONERS OF CALVERT
COUNTY, MARYLAND**

Corinne J. Cook
Corinne J. Cook, Clerk

Gerald W. Clark
Gerald W. Clark, President

Approved for form and legal
sufficiency on March 8, 2012 by:

Steven R. Weems
Steven R. Weems, Vice-President

Pat Nutter
Pat Nutter

John B. Norris, III
John B. Norris, III, County Attorney

Susan Shaw
Susan Shaw

Received for Record 3/30 2012
at 10:45 o'clock A. M. Same day
recorded in Liber KPS No. 39
Folio 37 COUNTY COMMISSIONERS
ORDINANCES AND RESOLUTION.

Evan K. Slaughenkopt, Jr.
Evan K. Slaughenkopt, Jr.

Gary P. Smith

BK 00039PG078

51

1815

1815

1815

1815

CALVERT COUNTY, MARYLAND
ROAD ORDINANCE



CALVERT COUNTY DEPARTMENT OF PUBLIC WORKS

150 Main Street, Suite 202
Prince Frederick, Maryland 20678
Terry P. Carlson, P.E., Director

2012 Edition

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
Part 1	Introduction	
Article I.....	GENERAL.....	4
§104-1.....	Road Ordinance Sections.....	4
§104-2.....	Purpose.....	4
§104-3.....	Application, Effective Date, Territorial Limits.....	5
§104-4.....	Interpretation of Standards.....	5
§104-5.....	Responsibility.....	5
Article II.....	DEFINITIONS.....	6
§104-6.....	Terms Defined.....	6
Article III.....	APPLICABLE DOCUMENTS.....	19
§104-7.....	References.....	19
Article IV.....	AUTHORITY.....	21
§104-8.....	Alternate Standards.....	21
Article V.....	ENFORCEMENT.....	22
§104-9.....	Violations Defined.....	22
§104-10.....	Validity.....	32

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
Part 2	Road Plan Procedures	
Article VI.....	PLANS	35
§104-11.....	Road Construction Plan Submittal	35
§104-12.....	Road Construction Plan Requirements.....	36
§104-13.....	Road Construction Plan Content	37
§104-14.....	Applications, Cost Estimates, Fees, and Additional Data.....	53
§104-15.....	Road Construction Plan Approval.....	57
§104-16.....	Road Construction Plan Expiration	60
§104-17.....	Discrepancies in the Approved Road Construction Plans.....	60
Part 3	Specifications and Design Standards	
Article VII.....	DESIGN SPECIFICATIONS	63
§104-18.....	General.....	63
§104-19.....	Road Classification.....	64
§104-20.....	Design Standards	78
§104-21.....	Roadway Geometry.....	79
§104-22.....	Road Intersections	83

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
§104-23	Design Speed	87
§104-24	Superelevation	87
§104-25	Cul-De-Sacs and Tee-Turn-Arounds	88
§104-26	Residential Driveways	89
§104-27	Commercial Entrances	91
§104-28	Drainage	91
§104-29	Cross-Section Elements	92
Article VIII	EXCEPTIONS	100
§104-30	Roads Serving Ten or Fewer Newly Created Lots in the Rural District	100
§104-31	Family Conveyance Lots Serviced by Private Roads	101
§104-32	Private Roads in the Farm and Forest Districts	104
§104-33	Common Access Driveway	106
§104-34	Private Roads for Industrial Subdivisions	108
§104-35	Private Lanes	110
§104-36	Existing Serviceable Roads and Recorded Lots	112
§104-37	Agri-Business Roads	113
§104-38	Existing Subdivisions Recorded Prior to the Adoption of the Calvert County Zoning Ordinance (July 29, 1967)	114

CALVERT COUNTY, MARYLAND
ROAD ORDINANCE
TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
§104-39.....	Road Tax Districts.....	116
§104-40.....	Abandonment of Right of Ways.....	116
Part 4	Storm Drainage Design Criteria	
Article IX.....	GENERAL PROVISIONS.....	120
§104-41.....	Introduction.....	120
§104-42.....	Right-to-Discharge and Storm Drain Easements.....	122
Article X.....	STORM DRAINAGE IMPACT STATEMENT.....	125
§104-43.....	Study of Impact on Downstream Development.....	125
Article XI.....	100-YEAR FLOOD PLAIN.....	127
§104-44.....	General.....	127
Article XII.....	OVERLAND FLOW OF A 100-YEAR FREQUENCY RAIN	
	STORM.....	128
§104-45.....	General.....	128
Article XIII.....	ESTIMATION OF RUNOFF.....	129
§104-46.....	Soil Conservation Service Method.....	134
Article XIV.....	PIPE SIZE DESIGN.....	135

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
§104-47.....	Size.....	135
§104-48.....	Detailed Material Requirements.....	136
Article XV	ROADSIDE DITCHES	139
§104-49.....	Hydraulic Design.....	139
§104-50.....	Location and Alignment	139
§104-51.....	Limiting Velocities	139
§104-52.....	Outfall Erosion Control	140
Article XVI.....	STORM SEWERS.....	141
§104-53.....	Design	141
§104-54.....	Inlets.....	142
§104-55.....	Other Structures	143
Article XVII.....	HYDRAULIC DESIGN.....	144
§104-56.....	Manning's Formula	144
§104-57.....	Hydraulic Gradient	144

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
Part 5	Public Works Agreement Procedures	
Article XVIII	PUBLIC WORKS AGREEMENT	147
§104-58.....	Submission of Suitable Public Works Agreement.....	147
§104-59.....	Submission of Suitable Public Works Agreement Surety.....	155
Article XIX.....	PUBLIC WORKS AGREEMENT WARRANTY.....	160
§104-60.....	Warranty	160
§104-61.....	Submission of Suitable Warranty Surety	162
§104-62.....	Public Works Agreement Phasing.....	164
Part 6	Structures	
Article XX.....	GENERAL.....	168
§104-63.....	Road Signs	169
§104-64.....	Mailboxes and Newspaper Delivery Boxes	171
§104-65.....	Monumental Entrances.....	175
§104-66.....	Other Structures.....	176
§104-67.....	Sidewalk Requirements	177
§104-68.....	Retaining Walls Supporting Any Infrastructure and Embankments.....	181

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

TABLE OF CONTENTS

<u>Part/Article</u>	<u>Contents</u>	<u>Page</u>
Part 7 Permit Procedures		
Article XXI.....	PERMITS.....	187
§104-69.....	Submission of Suitable Permits.....	187
§104-70.....	Submission of Suitable Permit Surety.....	193
 Part 8 Construction and Maintenance Requirements		
Article XXII.....	GENERAL REQUIREMENTS.....	197
§104-71.....	Construction and Inspection.....	197
§104-72.....	Construction Notification.....	200
§104-73.....	Certification Requirements.....	204
§104-74.....	Engineering Professional Representative Certification and As-Built Plans.....	218
§104-75.....	Interruption in Construction.....	220
§104-76.....	Maintenance of Existing Road Condition and Traffic.....	221
§104-77.....	Field Modifications.....	224
§104-78.....	Utility Construction and Maintenance in County Rights-of-Way.....	226

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

PART 1

INTRODUCTION

PART 1
INTRODUCTION
TABLE OF CONTENTS

<u>Article</u>	<u>Contents</u>	<u>Page</u>
I.....	GENERAL.....	4
§104-1.....	Road Ordinance Sections.....	4
§104-2.....	Purpose.....	4
§104-3.....	Application, Effective Date, Territorial Limits.....	5
§104-4.....	Interpretation of Standards.....	5
§104-5.....	Responsibility.....	5
II.....	DEFINITIONS.....	6
§104-6.....	Terms Defined.....	6
III.....	APPLICABLE DOCUMENTS.....	19
§104-7.....	References.....	19
IV.....	AUTHORITY.....	21
§104-8.....	Alternate Standards.....	21
V.....	ENFORCEMENT.....	22
§104-9.....	Violations Defined.....	22
§104-10.....	Validity.....	32

ORDINANCE
**AN ORDINANCE FOR THE PURPOSE OF REPEALING THE
CALVERT COUNTY ROAD ORDINANCE AND ADOPTING A
REVISED CALVERT COUNTY ROAD ORDINANCE**

Recitals

WHEREAS, Sections 1 and 25 of *Article 25* of the Maryland Annotated Code empowers the Board of County Commissioners of Calvert County, Maryland to control and regulate the public roads and bridges to promote the health, safety and welfare of Calvert County, and to provide for its administration, enforcement and amendment; and

WHEREAS, the Board of County Commissioners did on the 12th day of October, 1976 adopt the Calvert County Road Ordinance by Resolution No. 41-76 , which was subsequently repealed by Resolution No. 5-97 adopted on January 28, 1997 and amended the same from time to time; and

WHEREAS, comprehensive revisions have been proposed to the Calvert County Road Ordinance; and

WHEREAS, on February 28, 2012, for which due public notice was published in two newspapers of general circulation in Calvert County, the Board of County Commissioners of Calvert County, Maryland conducted a public hearing at which time the proposed Road Ordinance was discussed, staff's recommendations were considered, and public comment was solicited; and

WHEREAS, all procedural requirements regarding due public notice and subsequent action of the Board of County Commissioners of Calvert County, Maryland have been met; and

WHEREAS, the Board of County Commissioners, having considered all comments, has determined it is in the best interest of the citizens of the County to adopt the Calvert County Road Ordinance as set forth in Exhibit "A" attached hereto and made a part hereof, together with all documents incorporated therein by reference.

EX000396090

NOW, THEREFORE, BE IT ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Calvert County Road Ordinance, adopted January 28, 1997 being Resolution No. 5-97, as amended, and as set forth at, Section 104-1, *et seq.* and Section 105-1, *et seq.* within Article 5 of the Code of Public Local Laws of Maryland is hereby repealed effective July 1, 2012; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the Calvert County Road Ordinance, Exhibit "A" hereto and hereby incorporated by reference, is hereby approved and adopted and shall be effective July 1, 2012; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that this Ordinance may be codified to become part of Article 5 of the Code of Public Local Laws of Maryland and may be altered to meet the numbering, chapter and paragraph conventions and references of that document; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the following transitional provisions are hereby adopted:

1. All residential, institutional, and commercial developments that have a preliminary subdivision plat approval from the Planning Commission before the effective date of this Ordinance (July 1, 2012) shall be permitted to proceed in conformance and compliance with Ordinance 5-97, as amended heretofore, unless and until such approval expires.
2. All residential, institutional, and commercial developments that have a preliminary site plan approval from the Planning Commission before the effective date of this Ordinance (July 1, 2012) shall be permitted to proceed in conformance and compliance with Ordinance 5-97, as amended heretofore, unless and until such approval expires.
3. In the case of expiration of preliminary subdivision plat approval or preliminary site plan approval, all further work and re-approval shall be in conformity with all provisions of the Calvert County Road Ordinance adopted hereby.; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that in the event any portion of the Calvert County Road Ordinance adopted hereby is found to be unconstitutional, illegal, null or void it is the intent of the Board of County Commissioners to sever only the invalid portion or provision, and that the remainder of the Ordinance shall be enforceable and valid; and

BE IT FURTHER ORDAINED by the Board of County Commissioners of Calvert County, Maryland that the foregoing recitals are adopted as if fully rewritten herein.

DONE, this 20 day of March, 2012 by the Board of County Commissioners of Calvert County, Maryland, sitting in regular session.

Aye: 5
Nay: 0
Absent/Abstain: 0

ATTEST:

BOARD OF COUNTY COMMISSIONERS OF CALVERT COUNTY, MARYLAND

Corinne J. Cook, Clerk

Gerald W. Clark, President

Approved for form and legal sufficiency on March 8, 2012 by:

Steven R. Weems, Vice-President

Pat Nutter

John B. Norris, III, County Attorney

Susan Shaw

Handwritten notes and stamps: 3/30, 10:45, 30, COUNTY COMMISSIONERS AND RESOLUTION.

Evan K. Slaughenbaupt, Jr.

0X0003976092

This page intentionally left blank

CHAPTER 104

ROADS

ARTICLE I

GENERAL

§ 104-1 Road Ordinance Sections

A. Chapter 104 is divided into eight parts as follows:

1. Introduction
2. Plans
3. Specifications and Design Standards
4. Storm Drainage Design Criteria
5. Public Works Agreement
6. Structures
7. Permits
8. Construction and Maintenance Requirements

§104-2 Purpose

The purpose of this chapter is to establish regulations and criteria for the planning, construction, improvement, reconstruction, maintenance, and repair of roads, including but not limited to sidewalks, curbs and gutters, storm drainage facilities, utilities, incidental structures, street lighting, and landscaping, etc.

§104-3 Application, Effective Date, Territorial Limits

This shall take effect immediately upon adoption by the Board of Commissioners of Calvert County, Maryland. This chapter shall apply to all areas within the territorial limits of Calvert County, Maryland, except roads that are governed by state and federal agencies, incorporated municipalities not covered by special agreements, and private rights-of-way unless deemed by the director to meet the road ordinance requirements.

§104-4 Interpretation of Standards

The provisions of this chapter shall be construed as minimum requirements. Should any requirements of this chapter be found to be in conflict with those imposed or required by other provisions of law, the more restrictive or higher standards shall prevail.

§104-5 Responsibility

It is the responsibility of the developer, permittee, contractors, and the engineering professional representative to be aware of and become thoroughly familiar with all applicable laws, ordinances, and policies associated with projects under design and construction.

ARTICLE II
DEFINITIONS

§104-6 Terms Defined

In this chapter, the following definitions describe the meaning of the terms used in the road ordinance:

100-Year Floodplain	(1) An area along or adjacent to a stream or body of water, except tidal waters, that is capable of storing or conveying floodwaters during a 100-year frequency storm event, or a 100-year flood. (2) Any area depicted as "My" soils on the Calvert County Soil Survey Maps. It can be revised based on a hydrologic study or onsite soil survey.
100-Year Storm	A rain event having a 1% chance of occurring in any given year – also referred to as the base or 100-year flood.
AASHTO	American Association of State Highway and Transportation Officials.
Access	A way or means of approach to provide physical entrance onto a property.
ADA	Americans with Disabilities Act.
Alley	A public or private right-of-way that connects two or more streets and is intended to provide access to the rear or side of a building or lot. It is intended for local traffic only.

Amenity	An improvement to include, but not limited to, interior street trees, recreational facilities, focal point plantings, sidewalks, trails, fences, and street lighting.
APFO	Adequate Public Facilities Ordinance, refer to Section 7-1.05 of the Calvert County Zoning Ordinance.
Approval	The written affirmative action on a project by county agencies.
As-Built	A design or construction plan, or similar document that has been marked to display and certify field verified locations and elevations of all required features.
Base Course	The one or more layers of asphalt material placed on a subbase or a subgrade to support a surface course.
Base Road	That portion of roadway construction, which includes, but is not limited to, roadway excavation, fill, ditches, storm drain construction, roadway subbase material, sediment control measures, stabilization, and base course of asphalt.
Board	The Board of County Commissioners of Calvert County, Maryland.
Bridge	Any structure, with a span of at least 20' that provides a traveled way.

Building Permit	Written permission issued by the Division of Inspections and Permits for the construction of a new structure or repair, alteration or addition to an existing structure.
Certification	A signed document which states that the material and/or work complies with the applicable specifications, and includes the actual test results to confirm the statement.
Clearing	The process of cutting or removing trees, ground cover, and/or stumps, with or without removal of the associated roots.
Common Access Drive	An access area, measuring between 50 feet 75 feet wide by between 50 feet and 75 feet long, commonly owned by adjoining lot owners created to provide access to lots.
County	Calvert County, Maryland.
County Road	Any road accepted into the county maintenance system prior to the enactment of this ordinance, constructed under the authority of the Department of Public Works, or constructed by others with construction approval and deed dedication accepted by Calvert County.
Cul-De-Sac	A paved, circular turnaround area at the closed end of a local road.
Culvert	Any structure, with a span less than 20', not classified as a bridge, which provides an opening under any traveled way.
Danger Reach	The distance below a dam where the depth of flow would increase within the floodplain as a direct result of a dam failure.

Deed	A legal document conveying ownership of or interest in real property.
Department	The Department of Public Works, Calvert County, Maryland.
Design Speed	A selected speed used to determine the various geometric design features of a roadway.
Developer	Any individual(s), partnership, firm, corporation, public housing authority, or agent therefore, that undertakes or participates in the establishment or development of a subdivision or parcel of land.
Development	Any activity, other than normal agricultural and/or forestry activity, which materially affects the existing condition or use of any land or structure.
Director	The Director of Public Works for Calvert County, Maryland, or duly authorized representative.
Disturbed Area	The limit of land area disrupted and/or impacted by construction activities.
Drainage Ditch	A long narrow excavation in the earth for carrying off excess water.
Drainage Structure	Culvert, bridge, storm sewer, catch basin, canal, ditch, subsurface drain, and any structure or water-course designed to convey surface or other waters.

Driveway	A private area providing access for vehicles to a parking space, dwelling, garage, or other structure.
Dwelling	<p>A. <u>Single-Family</u> - A residential building on a permanent foundation, containing one dwelling unit occupied by one family.</p> <p>B. <u>Dwelling, Attached: Duplex, Triplex, Fourplex, or Townhouse-</u> Attached dwelling units, separated by a vertical division wall, each of which has direct access to the ground level. The first floor enclosed living area is on the ground level, or may be elevated above the dwelling unit's private parking or storage space on the ground level. These units do not have horizontal separation from any other residential unit or attachment to any non-residential use or parking garage.</p> <p>C. <u>Dwelling, Attached: Multi-Family</u> – A residential building on a permanent foundation containing three or more dwelling units, such as an apartment complex, condominiums, etc.</p>
Dwelling Unit	One or more rooms forming a single habitable unit with facilities for living, sleeping, cooking and sanitation.
Easement	A grant by the property owner of the use of his land by another party for a specific purpose.
Engineering Division	A division of the Department of Public Works.
Engineering Professional Representative	A professional engineer or professional land surveyor licensed by the State of Maryland through the Board of Registration of Professional Engineers and Land Surveyors.

Excavate	Any act, by which, soil, earth, sand, rock, or any similar material is cut into, dug, quarried, uncovered, removed, displaced, relocated, or bulldozed.
Family Conveyance Subdivision	A single-family residential development within which lots are designated to be conveyed only to family members of lineal descent or ascent, being parent, child, grandchild or grandparent of the grantor.
Fill	Any act, by which soil, earth, sand, gravel, rock, or any similar material is deposited, placed, pushed, pulled, or transported, or the material used to complete this act.
Finance & Budget	The Calvert County Department of Finance & Budget.
Geotechnical Representative	A professional engineer licensed by the State of Maryland through the Board of Registration of Professional Engineers and Land Surveyors with expertise and training in Geotechnical Engineering.
Grading	Any act by which soil is cleared, stripped, stockpiled, excavated, scarified, filled, or any combination thereof.
Grubbing	Removing from the ground and disposing of stumps, roots, brush, and debris at an approved facility.
Handicap Ramp	A sloping or modified surface from the level of the sidewalk or curb to the level of the road designed to accommodate persons who may have difficulty in making the required step up or down from curb

level to road level in accordance with ADA standards.

Impervious Surface	A surface that has been compacted or covered with a layer of material so that it is resistant to infiltration by water.
Inspections & Permits	A division of the Department of Planning & Zoning.
Inspector	The representative of the Department of Public Works who reviews construction tasks for the purpose of determining compliance with this ordinance.
Lot	A parcel or portion of a larger parcel or subdivision whether buildable or not. A contiguous area of land separated from other areas of land by separate description including a recorded deed, a subdivision plat, or record of survey map, or by metes and bounds, for purpose of sale, lease, transfer of ownership, or separate use.
Maintenance Agreement	An agreement executed by a developer covering maintenance aspects of public roads and storm drainage construction, utilities, and amenities.
MDE	Maryland Department of the Environment.
MSHA	Maryland State Highway Administration.
MUTCD	Manual on Uniform Traffic Control Devices published by the Federal Highway Administration.

NRCS	Natural Resource Conservation Service of Calvert County, Maryland.
Owner	An individual, firm, association, syndicate, partnership, or corporation having legal title to a piece of land.
Parcel	A unit of land identified by the Maryland Department of Assessments and Taxation as a separate entity for description purposes. May include an aggregation of lots, blocks, sections, or phases.
Pavement	An artificial surface placed upon a traveled way, typically consisting of bituminous concrete (hot mix asphalt) or Portland cement concrete materials.
Pavement Section	All courses of material placed above the earthen subgrade.
Permittee	A person, partnership, corporation, association, syndicate, co-partnership, trust, any other legal entity, who has applied for, or obtained a permit for construction.
Person	An individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any of their affiliates, or any other entity.
Planning & Zoning	The Calvert County Department of Planning & Zoning.
Planning Commission	The Calvert County Planning Commission.

Private Lane	A private right-of-way, a minimum of 30 feet wide, for the purpose of providing access to no less than three single-family residential lots and no more than five single-family residential lots.
Project Management & Inspections	A division of the Department of Public Works.
Public Works Agreement (Public Road)	An agreement executed by a developer covering financial aspects and construction of approved subdivisions containing improvements, some of which may be deeded to Calvert County for ownership and maintenance.
Public Works Agreement (Private Road)	An agreement executed by a developer covering financial aspects and construction of approved subdivisions containing improvements, which shall remain the responsibility of the property owners.
Record Plat	The final plat of a subdivision that is recorded in the Land Records of Calvert County.
Retaining Wall	A wall designed to resist the lateral displacement of soil or other materials.
Right-of-Way	(1) A strip of land acquired by reservation, dedication, forced dedication, prescription or condemnation and intended to be occupied or currently occupied by a road, cross-walk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary storm sewer and other similar uses; (2) Generally, the right of one to pass over the property of another.

BK00039F6105

Roundabout A circular intersection design feature for intersection traffic control.

Rural Community District Please refer to the Calvert County Zoning Ordinance.

Shared Driveway A private access and travel way serving 2 lots.

Shared Entrance The portion of an access which lies within the right-of-way, between the edge of the roadway and the property line, for use in common by 2 properties.

Shared Maintenance Agreement A legal, recorded document establishing the perpetual maintenance responsibilities for users of common access drives, private lanes, and shared driveways.

Shoulder A portion of the right-of-way contiguous with the traveled way for emergency use and for lateral support of base and surface courses.

Sidewalk A traveled way constructed for the use of pedestrians.

Sight Distance A line of unobstructed vision at a road or driveway intersection defined by a continuous line of sight between points.

Slope The deviation of a surface from the horizontal, usually expressed in percent or degrees.

Stabilization Vegetation or structural measures that shall prevent erosion of soil.

State Entrance A point of access from a state maintained road, street, or highway approved by the Maryland State Highway Administration.

(1) A vehicular way constructed within a public or private right-of-way (a.k.a. avenue, drive, circle, street, highway, thoroughfare or other similar terms, but not driveways, lanes, or alleys). (2) When applying setbacks, the term road refers to the right-of-way. Setbacks shall be measured from the edge of the right-of-way unless other means of measurement are specified.

A. Residential/Local – A low volume road providing access to abutting properties with limited through traffic. These roads convey traffic to a higher functional type road.

B. Residential Collector – A road that accumulates traffic from local roads and conveys it to higher classification roads.

C. Minor Collector – A road for linking residential developed areas and larger communities with points of interest such as town centers, parks, agricultural areas, to higher classification roads.

D. Commercial & Industrial – A road that accommodates traffic traveling directly to commercial and/or industrial sites.

E. Major Connector – A road interconnecting to a principal road.

F. Town Center Boulevard - A localized minor collector with scenic attributes typically designated as "parkways".

The official documents which show the location, character, dimensions and details of the work to be done.

That portion of a lot or parcel of land which joins the publicly or privately maintained road surface or existing right-of-way line.

Road

Road Construction Plans

Road Frontage

Stormwater Management	(1) For quantitative control, a system of vegetative and structural measures that control the increased volume and rate of surface runoff caused by man-made changes to the land; and (2) For qualitative control, a system of vegetative, structural, and other measures that reduces or eliminates pollutants that might otherwise be carried by surface runoff.
Street Tree	A single width linear planting that parallels the direction of a road.
Structures	Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, steps, fences and other features which may be encountered in the work and not otherwise classified.
Subbase	The layers of specified or selected material of designed thickness placed on a subgrade to support a base course or surface course.
Subdivision	(1) The division of land. (2) The land or territory subdivided.
Subgrade	The foundation for the pavement section typically consisting of soils, or enhanced soils.
Surety	A surety includes, but is not limited to, a Certificate of Guarantee as defined in Section 1-203 of the Insurance Article of the Annotated Code of Maryland.

Surface Course	One or more layers of the top course of pavement designed to accommodate the traffic load.
Topography	The existing configuration of the earth's surface including the relative relief, elevation, and position of land features.
Trench	An excavation made for the purpose of installing or removing pipes, drains, catch basins, etc., which is later backfilled.
T-Turn-Around	A paved area at the closed end of a local road to facilitate traffic movement.
Treasurer	The Calvert County Treasurer's Office.
Use and Occupancy Permit	A document issued by the proper authorities allowing the occupancy or use of a building and certifying that the structure or use has been constructed or will be used in compliance with all the applicable County codes, ordinances and regulations.
Utility	A privately, publicly, or cooperatively owned line, facility or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water not connected with roadway drainage, or any other similar commodity, including signal systems or street lights, which directly or indirectly serve the public.
Water & Sewerage	A division of the Department of Public Works.

ARTICLE III**APPLICABLE DOCUMENTS****§104-7 References**

The latest currently amended editions of the following publications shall be referred to as necessary in the design of the county roads, used as general specifications and general standards for the design and construction of roads, stormwater management facilities, and erosion and sediment control measures.

A Policy on Geometric Design of Highways and Streets

American Association of State Highway & Transportation Officials, (AASHTO)

A Policy on Geometric Design of Rural Highways

American Association of State Highway & Transportation Officials, (AASHTO)

Book of Standards, Highway and Incidental Structures

State of Maryland, Department of Transportation, State Highway Administration (for structural detail)

The Calvert County Construction Standards for Roads, Streets, and Incidental Structures -

Calvert County Department of Public Works, Calvert County, Maryland

Erosion and Sediment Control Ordinance – Erosion and Sediment Control Guidelines

Chapter 35 of the Calvert County Code

Calvert Soil Conservation District

Calvert County, Maryland

Highway Capacity Manual -

Transportation Research Board, National Research Council, Washington, D.C.

Highway Drainage Manual

State of Maryland, Department of Transportation, State Highway Administration

Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)

U.S. Department of Transportation, Federal Highway Administration, as adopted by the Maryland State Highway Administration via the Maryland Vehicle Law, Section TR 25-104 and applied to local authorities under Section TR 25-106

Maryland Stormwater Design Manual

Maryland Department of the Environment, Water Management Administration

State Highway Access Manual

Maryland State Highway Administration

Standard Specifications for Construction and Materials

Maryland Department of Transportation, State Highway Administration

1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control

Or its latest version

Maryland Department of the Environment, Water Management Administration

Stormwater Management Ordinance

Chapter 123 of the Calvert County Code

Calvert County, Maryland

Zoning Ordinance

Calvert County, Maryland

ARTICLE IV
AUTHORITY

§104-8 Alternate Standards

Upon finding by the director that the standards and specifications set forth in this ordinance are not feasible or practicable for a particular project, alternate or additional standards and specifications, in accordance with good engineering principles, may be required as deemed necessary. Such alternate or additional requirements shall be part of and a condition of the public works agreement.

ARTICLE V
ENFORCEMENT

§104-9 Violations Defined

A. A person is in violation of this ordinance and is liable for the sanctions in this article if the person:

1. Violates any of the provisions of this ordinance
2. Fails to comply with any of the requirements thereof, or who improves any road in violation of any plan submitted or permits issued.

B. Notification, Correction - the department shall give notice of a violation of this ordinance which shall:

1. Be in writing
2. State the nature of the noncompliance
3. Set forth the nature of the corrections required
4. Set forth the time in which the corrections shall be made
5. Be sent to the permittee/or the person charged and surety by:
 - a. Certified mail, restricted delivery, to the last known address
 - b. Personal hand-delivery.

- c. If certified mail is returned by the postal service marked “unclaimed”, then by first-class mail, postage prepaid, to the last known address.

C. Stop Work Notice and/or Citation

1. The department shall issue a stop work notice and/or citation to:
 - a. A permittee who does not act on a notice of noncompliance issued pursuant to this ordinance within the time set forth in said notice
 - b. Any person who undertakes work without first obtaining a permit
 - c. Any person who is performing any work which is creating unsafe conditions as determined by the representative of the department.
2. The department shall attempt to deliver the stop work notice and/ or a citation to the permittee, the person actually performing the work, or the owner of the property, as appropriate, by any means reasonably calculated to effective delivery.
3. Once the stop work notice and/ or citation is delivered, no further work shall be permitted on the site other than as necessary to correct the noncompliance.

D. Civil Citation and Fines

1. On verification of a violation of this ordinance, a department inspector may issue a civil citation to the person, including a contractor, deemed responsible for committing the violation. The citation shall serve as a notification to the person charged that he/she has been assessed a civil

fine that is due and payable to Calvert County, subject to the person's right to stand trial.

2. The citation shall be on a form approved by the Board, which shall include:
 - a. The date of issuance of the citation
 - b. The department's inspector's certification
 - 1) Attesting to the truth of the matter set forth in the citation, or
 - 2) That the citation is based on an affidavit
 - c. The name and the address of the person charged
 - d. The section number of the ordinance that has been violated
 - e. The nature of the violation
 - f. The place where and time when the violation occurred
 - g. The amount of the civil fine assessed
 - h. The manner, location and time period in which the fine is to be paid
 - i. Where applicable, the notice that each day of continued violation thereafter shall be deemed a separate violation subject to additional citation

- j. The name, business address and telephone number of the county official cognizant of the case
 - k. The person's right to elect to stand trial for the violation, and instructions and timing necessary to exercise the right to stand trial; and
 - l. The effect of failing to pay the assessed fine or demand a trial within the prescribed time.
3. The citation is to be delivered in hand or by certified mail, restricted delivery, to the last known address. If certified mail is returned by the postal service marked "unclaimed", then by first-class mail, postage prepaid, to the last known address.
4. Each separate day of violation that remains uncorrected is a distinct civil violation subject to an additional citation and fine in the amount prescribed in this section.
5. The fine for each civil violation of this ordinance is:
 - a. \$250 for the first violation
 - b. \$500 for the second violation
 - c. \$750 for the third violation
 - d. \$1,000 for each violation in excess of three.

6. Any civil penalties recovered under this section shall be deposited into the Calvert County General Fund.
7. Subject to the person's right to stand trial, any person or contractor who violates any provision of this ordinance and who is issued a citation under this section shall:
 - a. Be deemed to have committed a civil violation
 - b. Pay to Calvert County a civil fine in the amount prescribed.
8. Upon receipt of the citation:
 - a. A person who receives a citation may elect to stand trial for the violation in the District Court of Maryland by filing with the department a notice of intention to stand trial.
 - b. The notice shall be filed with the department at least five days before the last date on which payment of the fine is due as set forth in the citation.
 - c. On receipt of the notice of intention to stand trial, the department shall cause to be forwarded to the District Court a copy of the citation and the notice of intention to stand trial.
 - d. On receipt of the citation, the District Court shall schedule the case for trial and notify the director of the trial date.
9. Failure to pay fine

- a. If a person who received a citation for a violation fails to pay the fine by the date of payment set forth in the citation and fails to file a timely notice of intention to stand trial, a formal notice of the violation shall be sent to the person's last address, if known.
 - b. If the citation is not satisfied within 20 days from the date of the notice, the person is liable for an additional fine not to exceed twice the original fine or \$1,000 and if, after 35 days, the citation is not satisfied, the county may request adjudication of the case through the District Court.
 - c. The District Court shall schedule the case for trial and summon the defendant to appear.
 - d. The defendant's failure to respond to such summons shall result in the entry of judgment against the defendant in favor of the Board in the amount then due if a proper demand for judgment on affidavit has been made.
10. If any person shall be found by the District Court to have committed a violation of this ordinance:
- a. The District Court shall order the person to pay the fine, including any doubling of the fine, not to exceed the limits set forth in this Article 9.0
 - b. The fines imposed shall constitute a judgment in favor of the Board
 - c. If the fine remains unpaid for 30 days following the date of its entry, the judgment shall be enforceable in the same manner and to

the same extent as other civil judgments for money unless the Court has suspended or deferred the payment of the fine as provided under subparagraph b of this paragraph

- 1) The District Court may suspend or defer the payment of any fine under conditions that the Court sets
 - 2) The person shall be liable for the costs of the proceedings in the District Court; and,
 - 3) The Court may order the person to abate the violation or enter an order permitting the Board to abate any such violation at the person's expense.
11. If the Board abates a violation pursuant to an order of the District Court, the Board shall present the defendant with a bill for the cost of abatement by:
- a. Regular mail to the defendant's last known address
 - b. Any other means that are reasonably calculated to bring the bill to the defendant's attention.
12. If the defendant does not pay the bill within 30 days after presentment, upon motion of the Board, the District Court shall enter a judgment against the defendant for the cost of the abatement.
13. Any fines, penalties, or forfeitures collected by the District Court for the Board shall be remitted the Board.

14. If a defendant fails to pay any fine or cost imposed by the District Court without good cause, the District Court may punish the failure as contempt of court.
15. The Board shall designate the County Attorney or his/her designee to represent the interests of the County under this ordinance and whose duty shall be to prosecute a civil violation under this Article.

E. Forfeiture of Security

1. If the department deems it necessary to obtain forfeiture of any security posted pursuant to this ordinance for any noncompliance with a permit or approved plans, a notice of noncompliance shall be sent to the permittee and the surety.
2. The notice shall:
 - a. Be in writing
 - b. State the nature of the noncompliance
 - c. Set forth the nature of the corrections required
 - d. Set forth the time in which the corrections shall be made
 - e. Be sent to the permittee and surety by:
 - 1) Certified mail, restricted delivery, to the last known addressor

- 2) Personal hand-delivery
 - 3) If certified mail is returned by the postal service marked “unclaimed”, then by first-class mail, postage prepaid, to the last known address.
3. If the corrections required by the notice are not commenced and diligently pursued within five days of notice and continued thereafter:
- a. The permittee shall be considered in default of the obligations imposed by the ordinance
 - b. The director may take immediate action to obtain the necessary security posted.

F. Cost of Control and Restoration

1. If a person who has been found to be in violation of this Article fails to take the corrective action required, the County may perform the work necessary to correct the violation on the property as set forth in Section D.9 of this Article. If the County is required to correct the violation on the property, then the person who has been issued the civil citation, in addition to any other sanction under this Article, shall be liable for any and all costs associated with the County performing, or causing to be performed, the work in accordance with an approved plan and or county construction standards.

2. Calvert County may bring a civil action in the appropriate court of law against the person found to be in violation of this ordinance. The purpose of the civil action is to recover the cost set forth in subsection F1.

§104-10 Validity

Should any court deem any section, paragraph, sentence or phrase of these regulations invalid, it shall apply only to the part or parts declared invalid and not to the entire ordinance.

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

PART 2

PLANS

PART 2
PLANS
TABLE OF CONTENTS

<u>Article</u>	<u>Contents</u>	<u>Page</u>
VI.....	PLANS.....	35
§104-11.....	Road Construction Plan Submittal.....	35
§104-12.....	Road Construction Plan Requirements.....	36
§104-13.....	Road Construction Plan Content.....	37
§104-14.....	Applications, Cost Estimates, Fees, and Additional Data.....	53
§104-15.....	Road Construction Plan Approval.....	57
§104-16.....	Road Construction Plan Expiration.....	60
§104-17.....	Discrepancies in the Approved Road Construction Plans.....	60

ARTICLE VI
PLANS

§104-11 Road Construction Plan Submittal

- A. All road construction plans and documents submitted for approval shall conform to this ordinance. Plans that do not meet the minimum standards for a submittal, per §104-12 and §104-13 of this ordinance, shall not be reviewed. All plan submittals shall include a checklist and a signed acknowledgment that the plans are complete and in compliance with this ordinance.
- B. The professional engineering representative shall submit to the Engineering Division the required number of copies, which include four paper sets and one CD of the complete road construction plans and all applicable fees per §104-14 of this ordinance. The Engineering Division shall distribute the road construction plans to all applicable agencies for concurrent review.

§104-12 Road Construction Plan Requirements

Plans shall conform to the following requirements:

A. Plan Size

Plans shall be submitted on 24" x 36" plan sheets.

B. Plan and Profile Scales

The plans shall be drawn to a minimum scale of 1" = 50'. The profiles shall be drawn to a minimum horizontal scale of 1" = 50' and a minimum vertical scale of 1" = 5', or a scale otherwise approved by the director.

C. Plan Signatures

All plans submitted to the director for approval, including initial submittals, shall be prepared, signed, and sealed by an engineering professional representative. Plans submitted without seals and signatures shall be returned to the engineering professional representative without review.

D. Non-conforming Submittals

Non-conforming submittals shall be returned to the engineering professional representative without review.

§104-13**Road Construction Plan Content**

The plans for road construction shall include the following sheets, when applicable, and be titled as such. Each plan sheet shall include, but not be limited to, sheet name, sheet number – cumulative page number of total pages, dimensions, north arrow, and graphic scale. In the event a sheet is not applicable, this shall be made clear in the index of sheets.

Sheet #1 - Cover Sheet			
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale			
Title Block	Subdivision Name – phase/section number		
	Road Name(s) – denote public or private road(s)		
	Location		
	Election District		
	County and State		
	Subdivision Number		
Vicinity Map	Scale: 1" = 2,000' minimum		
	Major Roads		
	Streams and Ponds		
	North Arrow		
	Site Location		
Location Map	Scale: 1" = 200' Maximum (600' recommended)		
	Overall Subdivision Road Names		
	Adjacent Property Owners		
	Bench Mark (Quick Reference)		
Legend			
List of Abbreviations			
Index of Sheets	Sheet Name	Sheet #	Pages per Sheet
	i.e.,		
	Cover Sheet	1	1
	Road Plan & Profile Sheet	2	2-3
	Storm Drain and Utility Plan & Profile	3	4-5
	Water & Sewer	4	Not Applicable
	Cross Section Plan	5	6-7

Sheet #1 - Cover Sheet, continued	
General Notes	Source of Topography <i>- Aerial or field run topography with a contour interval of 2' or less shall be utilized on all final grading, site, and road (public or private) plans.</i> <i>- Larger contour intervals can be used for slopes greater than 25%.</i> <i>- Any use of County owned topography shall be field verified and certified as correct by an Engineering Professional Representative</i>
	Planning Commission Preliminary Approval Number and Date of Approval
	Horizontal and Vertical Datum
Title Information	Subdivision Name, Phase, Section Number
	Road Name(s) – denote public or private road(s)
	Station Numbers
	Road Length(s)
	Right-Of-Way Width(s)
	Election District
	County and State
	Tax Map, Block, and Parcel Numbers
Owner/Developer's Certificate	Name
	Address
	Phone Number
Engineering Professional Representative	Name
	Firm
	Signature
	Seal
Engineering Firm	Name
	Address
	Phone Number
Sight Distance Certification	
Adjacent Properties	Owners
	Lot and Block Designations
Approval Stamp Box – 9"x7" – bottom right hand corner above the Title Block	

Sheet #2 – Road Plan & Profile Sheet	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
Plan:	A minimum of 2 Benchmarks with Descriptions
	Proposed horizontal road layout and vertical profile
	All existing topography and features within 50', minimum, of the proposed or the existing right-of-way or additional topography as needed to provide adequate information related to known drainage issues or to supplement design assumptions
	Right-of-way
	Road name(s)
	Proposed road grades/grading
	Coordinates
	Survey controls
	Fillet radii
	Horizontal curve data
	Centerline stations, bearings & distances
	Equality stations at intersections
	Curb & gutter
	All existing and proposed utilities, public and private
	Sidewalks and necessary grading to accommodate construction
	Guardrails and necessary grading to accommodate construction
	Driveways
	Location of existing and proposed inlets with their gutter elevations, and sufficient elevations at all road intersections on the curb, gutter, and paving to assure adequate drainage of the intersection

Sheet #2 – Road Plan & Profile Sheet, continued							
Plan: continued							
	Locations of driveway entrances to each adjoining lot per plate RD-15A, 15B, or 15C. <i>(Entrance pipes shall be designed at the lowest point of a lot at the road right-of-way)</i>						
	If any or all of the lots in the project are serviced by water and/or sewerage systems, the road construction plans shall incorporate the design layout of the infrastructure required for the water and/or sewerage systems						
	Adjacent property owners with lot and block designations						
	Easements						
Profile:	The computed proposed grade with vertical curve data						
	Curb Fillet Profiles						
	Existing ground lines at the centerline and both right-of-way lines						
	Proposed ditches for 50' of either side of culverts and when deviating from typical section						
	Centerline tangent grade and elevations shown at 50' stations						
	Vertical curve profiles shall have stations and elevations labeled at every 25' within the curves						
	Stations and elevations of intersections						
	Linear profiles shall be provided for all cul-de-sacs						
	Profiles along the curb and gutter at intersections may also be required						
	Label all high and low points and grade breaks						
	<table border="0"> <tr> <td>Vertical Curve Data</td> <td>PVI, POC, PVC and PVT Stations and Elevations</td> </tr> <tr> <td></td> <td>Vertical Curve Length</td> </tr> <tr> <td></td> <td>K Value</td> </tr> </table>	Vertical Curve Data	PVI, POC, PVC and PVT Stations and Elevations		Vertical Curve Length		K Value
Vertical Curve Data	PVI, POC, PVC and PVT Stations and Elevations						
	Vertical Curve Length						
	K Value						

Sheet #3 – Storm Drain and Utility Plan & Profile		
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale		
<i>- Complete design data shall be submitted for all storm drainage. Refer to the Storm Drain Design Criteria contained herein for detailed guidelines</i>		
Plan:	Right of Way Lines	
	Property Lines	
	Curb Lines	
	Topography – existing and proposed	
	Flow Arrows and Spot Elevations	
	Storm drain, Water & Sewer Lines and Structures	
	All other existing and proposed easements	
	Empty conduits	Size
		Type
	Ditch lining schedule	
Outfall Cross-section locations		
Profile:	Existing and proposed ground	
	Pipe profiles	
	Pipe	Size
		Type
		Gauge / Class
		Length
		Slope
		Flow
		Velocity
	Hydraulic Gradient line	
	Headwater / Tailwater elevations	
	All existing and proposed utility crossings	
	Roadway centerline and right-of-way lines	
Structure numbers and structure type, invert elevations (MSHA Detail #)		

Sheet #3 – Storm Drain and Utility Plan & Profile, continued	
Profile: continued	
	Location, Dimensions, Size and Class for riprap aprons
	Specify select backfill for pipes proposed on fill
	Outfall cross-sections
	Driveway culvert profiles
	Storm drain surface and subsurface systems to downstream watercourse with grade not exceeding 5%.

Sheet #4 – Water & Sewer	
Sheet Name, “Sheet Number-Cumulative Page # of Total Pages” (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
Plan:	Lot numbers and street address numbers
	Right of Way lines
	Property lines
	Curb lines
	Size and location of water & sewer lines – existing and proposed
	Direction of flow of sewer lines
	Existing and proposed sewer manholes and inverts
	Proposed water meter locations
	Existing and proposed fire hydrants
	Existing and proposed water valves
	Water isolation valves at all tees and crosses
	Water cutoff valves at all property lines
	Blow-off valves or fire hydrant (if required) at the end of each line
	Existing and proposed “other” utilities (such as electric, telephone, cable, gas, etc.)
	Existing utilities to be abandoned and abandonment specifications
	Sewer house connections (minimum 4” pipe from house to property line and 6” pipe from property line to main)
	Water service connections (minimum 3/4” pipe)
	Location and Limits of sewer encasement (where applicable)
	Water & sewer easements – existing and proposed
	Drop sewer manhole locations – Label Type A or Type B and drop distance
	Minimum Finished Floor Elevations

Sheet #4 – Water & Sewer (cont)	
	Grease traps, oil & grit separators (if required)
	Provide material take-off table (manholes, valves, fire hydrants, etc.)
	Label horizontal separation between water and sewer lines
	Existing and proposed grades
	Show and label all buffers or protected areas
	Existing and proposed structures
	Grinder pump locations (where required)
	Pumping station(s) – wet well location, size, type, slope and velocity of influent and discharge lines, and control building location
Profile:	Proposed ground and existing grade
	Water line profile with size and type – existing and proposed
	Sewer line profile with size, type, slope, and velocity – existing and proposed
	Sewer manholes numbered and stationed with inverts
	Type of manhole frame & cover identified (such as traffic bearing, watertight, etc.)
	Show all utility crossings (stormwater, electric, gas, telephone, cable, etc.), and dimension separation. Show and label roadway crossings. Critical clearance between the utility and proposed sewer and water main shall be indicated.

- Please refer to the Water and Sewerage Ordinance for additional requirements.

Sheet #5 – Cross Section Plan	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, and Graphic Scale	
Road cross-sections at every 50' station	100' stations as approved by the Director

Sheet #6 – Sight Distance Plan & Profile	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
<p><i>- A Sight Distance Plan and Profile shall be provided for all public and private roads intersecting existing County roads</i></p> <p><i>- A sight distance certification by the Engineering Professional Representative shall be provided</i></p> <p><i>- As needed for driveways, i.e. where sight distance is questionable and should be stipulated or restricted prior to recordation of the subdivision plat</i></p>	
Easements as required	

Sheet #7 – Erosion and Sediment Control Sheet	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
<ul style="list-style-type: none"> - <i>An erosion and sediment control plan shall be required for all road plans.</i> - <i>The plan shall conform to the current Maryland Standards and Specifications for Soil Erosion and Sediment Control 1994 or latest version as released by the Maryland Department of the Environment, Water Management Administration.</i> - <i>An Erosion & Sediment (E&S) check sheet shall be submitted with the Road Construction Plans</i> 	
Soil Information	
Construction sequence and timing schedule	
Erosion and sediment control quantity table	
Erosion and sediment control notes and details	

Sheet #8 – Stormwater Management Plan	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
- <i>Refer to the current Stormwater Management Ordinance for detailed guidelines.</i>	
Easements	

Sheet #9 – Traffic Maintenance & Protection Plan and Signing & Marking Plan	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
<ul style="list-style-type: none"> - <i>A Traffic Maintenance and Protection Plan shall be required for all commercial and residential subdivision plans with construction along a County road per the direction of the Director.</i> - <i>The plan shall conform to the provisions of Section 104 of the current Maryland Department of Transportation - State Highway Administration Standard and Specifications for Construction and Materials and the MUTCD.</i> 	
Sequence of Construction	

Sheet #9 – Traffic Maintenance & Protection Plan and Signing & Marking Plan, continued

- A Sign Plan shall be required for all commercial and residential subdivision plans. The plan shall conform to the current MUTCD and the Maryland Vehicle Law.
- All road signs, existing and proposed, shall be shown on the plan and be so noted. The MUTCD Code and sign size shall also be noted on the plan.
- A Sign Schedule shall be placed on the plan sheet as follows.
- A Striping and Marking Plan may be required for commercial and residential subdivision plans. The plan shall conform to the current MUTCD and the Maryland Vehicle Law
- A Pavement Marking Schedule shall be placed on the plan sheet as follows.

Road Name	Sign Schedule by Road									
	Offset Distance from Centerline (R&L)	Sign MUTCD Code	Sign Description	Sign Dimensions	S.F. of Sign	Road Name for all D-3's	Number of Posts			
							4x4 Wood	LF Metal Post Round	LF Metal Box/Channel	Other LF
Subtotal by Road										
Grand Total Project Signing										

Example: Intersecting Roads of First Avenue with Main Street

Main Street	D-3	Name Sign	6"x24"	1	Main Street	1	14			
	R1-1	STOP	36"x36"	9		1	12			
Subtotal	2			10		1	12	1	14	

First Avenue	D-3	Name Sign	6"x24"	1	First Ave.	1	0			
Subtotal	0			1		1	0	0	0	
Grand Total Sign Assemblies	3			11		1	12	1	14	

BK0003986137

Sheet #9 – Traffic Maintenance & Protection Plan and Signing & Marking Plan, continued

BK00039PG138

Road Name	Pavement Marking Schedule		Quantity of Marking by type	
	Type of Marking by type		LF	EA
Total Project Pavement Marking				
<i>Example: Main Street and First Avenue</i>				
Main Street	Double Yellow 5" Centerline		300	
	White 5"		600	
	White 10"			
	White 24"		60	
	Right Arrow ONLY		1	1
First Avenue				
First Avenue	Double Yellow 5" Centerline		200	
	White 5"		400	
	White 10"			
	White 24"		60	
	Right Arrow ONLY		1	1
Total Project Pavement Marking				
Total Project Pavement Marking	Double Yellow 5" Centerline		500	
	White 5"		1000	
	White 10"			
	White 24"		120	
	Right Arrow ONLY		2	2

Sheet #10 – Environmental and Amenity Plan	
Sheet Name, "Sheet Number-Cumulative Page # of Total Pages" (i.e., 1-1 of 5, 1-2 of 5), Dimensions, North Arrow, and Graphic Scale	
- A Site Plan Amenity Plan shall be required for all commercial and residential subdivisions as required by the Preliminary Approval letter from the Planning Commission.	
- All requirements shall be clearly shown and labeled	
ENVIRONMENTAL REQUIREMENTS	
Limit of Disturbance (LOD)	Labeled
Forest Retention Area (FRA)	Boundary limits
Reforestation/Afforestation	Location of any required areas with boundary limits
Monument trees	Location
	Diameter
	Species
Forest Protection Measures	Type (i.e., signs every 50', blaze orange fencing, or staking and flagging)
	Location (i.e., FRA signs every 50')
Floodplain	Location/boundary
Wetlands	Location/boundary of nontidal wetlands and 50' wetland buffers
Streams	Location of streams and buffers
Steep Slopes	Location (slopes equal to or greater than 25% outside Critical Area and 15% within Critical Area)
Notes	Forest Retention
	Floodplains
	Steep Slopes
	Wetlands
Natural Vegetative Areas	Printed on the plan as they appeared on the approved site plans or subdivision plats
Critical Area Buffer	Printed on the plan as they appeared on the approved site plans or subdivision plats

Sheet #10 – Environmental and Amenity Plan, continued	
ADDITIONAL REQUIREMENTS FOR PROJECTS WITHIN THE CRITICAL AREA	
Steep Slopes <i>(15% or greater)</i>	Location
Critical Area Boundary Line <i>(1000' landward of tidal water or as shown on the Zoning Map)</i>	Location
Critical Area Buffer	Location
Impervious Surface	Amount for the project
	Amount allowed for the project
Recorded Plat of the property <i>(a copy of the most recent plat shall be a part of the initial submittal and shall be sent with the plans to P&Z)</i>	
AMENITY REQUIREMENTS	
Easements as required	
Street Trees	
Front Roadway Buffer	
Recreation Area	
Recreation Area Plantings	
Focal Point	
Street Sign Landscaping Area	
Sidewalks	
Fencing	
Street Lights	

Sheet #11 – Final Sheet	
Sheet Name, Sheet Number-Page # (i.e., 12-1 of 2, 12-2 of 2), Dimensions, North arrow, and Graphic Scale	
<i>- Final Sheet - Details and Specifications Sheet</i>	
Road Construction Notes <i>(Public/Private)</i>	Refer to the current Department of Public Works' policy
Certification Requirements	Refer to the current Department of Public Works' policy
Types of paving	
Typical road and pavement sections	
Details for all proposed Storm Drainage Structures	
Storm Drainage Structure and Pipe Schedule	
Guardrail Details <i>(as required)</i>	
Curb & Gutter Details <i>(as required)</i>	
Operation and Maintenance Plan – Stormwater Management	Refer to Calvert County Stormwater Management Construction and Maintenance Inspection Manual

§104-14**Applications, Cost Estimates, Fees, and Additional Data**

A. Applications for road construction, stormwater management construction, and water and sewer infrastructure construction.

1. Engineering and Inspection Cost Application (E&I):

a. The engineering professional representative shall prepare and submit an E&I application, as provided by the Engineering Division, with all public and private road construction plans when road construction plans are sufficiently complete and submitted for approval stamps by all required agencies. The application shall include construction items, quantities, and costs for the project as required and shall be tabulated as directed using the most current unit price sheet (Schedule of Costs) provided by the Engineering Division (approved at time of road construction plan review). This application may also include stormwater management figures and therefore eliminate the requirement for a separate review & inspection application and fee to be submitted.

b. E&I Approval:

The E&I application shall receive an approval stamp when submitted with the road construction plans to the Engineering Division for approval by all required agencies.

c. E&I Application Fee:

The fee for E&I is a percentage of the estimated construction cost less sidewalks, lighting facilities and sediment control measures. The percentage for Calvert County is two percent (2%) of the estimated road construction cost. Non-refundable E&I application fees shall be determined by the approved E&I application, road construction section. The E&I fee shall be submitted after the plans and E&I application have been reviewed and approved. The minimum E&I fee is \$200.

- d. The E&I application form shall also be submitted with the public works agreement and shall be re-tabulated as directed using the most current unit price sheet provided by the Engineering Division at the time of public works agreement submittal.

2. Stormwater Management Review & Inspection Application (SWM R&I)

- a. The engineering professional representative shall prepare and submit an SWM R&I application as provided by the Engineering Division, with all stormwater management construction plans not associated with road construction plans, when road construction plans are sufficiently complete and submitted for approval stamps by all required agencies. The application shall include quantities and construction items for the project as required, and shall be tabulated as directed using the most current unit price sheet provided by the Engineering Division at the time of initial review submittal.

- b. SWM R&I Application Approval:
The R&I application shall receive an approval stamp when submitted with the road construction plans to the Engineering Division for approval by all required agencies.
 - c. SWM R&I Fee:
Non-refundable R&I fees shall be determined by the approved SWM R&I Application.
3. Water & Sewer Review & Inspection Application (WS R&I)
- a. The engineering professional representative shall prepare and submit a WS R&I Application, as provided by Water & Sewerage, when all water and sewer construction plans are sufficiently complete, when applicable. The application shall include quantities and construction items for the project as required and shall be tabulated as directed using the most current unit price sheet provided by Water & Sewerage at the time of initial review submittal.
 - b. WS R&I Application Approval:
The WS R&I application shall receive an approval stamp when submitted with the road construction plans to the Water and Sewerage Division for approval by all required agencies.
 - c. WS R&I Fee:
Non-refundable R&I fees shall be determined by the approved WS R&I application.

B. Fees

Fees associated with the road construction plan review shall be paid at such times deemed necessary by the applicable department.

C. Additional Data

The director may require any necessary additional data pertinent to the scope of the construction covered by the permit.

§104-15 Road Construction Plan Approval**A. Plan Review**

Within 90 calendar days from the date of receipt of plans, the director, and all applicable review agencies, shall initially approve, deny, approve with modification, or provide written comments requesting revisions to the road construction plans. The director may modify any time limit established in this section for review if the director makes a finding that the modification is necessary to ensure compliance with the provisions of this ordinance, unusual or extenuating circumstances make compliance within the time limits impossible, and/or the time limit imposed is less than is necessary to ensure that the proposed construction shall comply with the provisions of this ordinance.

1. Any comments generated by the reviewing agencies shall be sent directly to the professional engineering representative and/or the developer.
2. Subsequent Plan Review

Revisions for all agencies shall be submitted to the Engineering Division for distribution. Plans submitted for subsequent review shall include a memorandum with comments addressed as point-by-point responses. If any additional changes have been made to the plan they shall be highlighted and brought to the attention of the director. Subsequent plan submittals reflecting minor changes shall be reviewed within 30 calendar days from the date of submission. Any proposed changes to horizontal or vertical roadway geometry, configuration of drainage areas or drainage courses, type, size or location of stormwater management facilities or waiver requests made after the initial road plan submittal shall constitute a major change and shall be reviewed within 90 calendar days from the date of submission. Review staff shall notify the Engineer and the RCAC within (3) calendar days from the date of submission which length of review the plan submittal qualifies for. On revisions for all agencies, plan submissions in which the date of latest revision is not referenced in the transmittal or on the plan cover sheet will be considered incomplete, and will be returned without review. Similarly, failure to reflect revision history using the revision block will also be considered an incomplete submission, and the plans will be returned without review.

B. Initial Plan Approval

The Engineering Division shall forward a written letter to the engineering professional representative and/or developer/owner, granting initial plan approval. This initial approval does not constitute a permit to construct or proceed with any work until all bonds and fees are paid, a public works agreement executed, and a grading permit issued.

C. Final Plan Approval Stamp

Once the professional engineering representative has received written notice of the “initial plan approval” for the road construction plans from the Engineering Division, all applicable fees, verification of payments to other agencies, one set of originals, and the grading permit application with original signatures shall be submitted. The originals and grading permit application shall be routed to all applicable review agencies for final stamp of approval. Once the originals have received approval stamps from all review agencies, they shall be scanned by county staff and returned to the professional engineering representative for further processing. The road construction plans shall not be considered approved without the inclusion of all applicable agency stamps of approval. Engineering and Inspection costs are based on the most current Engineering and Inspection formulas at the time of final plan approval.

§104-16 Road Construction Plan Expiration

Final approved plans and public works agreements shall expire 3 years after the date of the director's final stamp of approval if construction has not started on the particular project. The 3 year expiration date is based on the preliminary plat approval date of the Planning Commission. Once the plan has expired, it shall be resubmitted for review and shall be subject to any and all new regulations and fees adopted since the previous date of approval. Extension requests are permitted subject to the revisions of schedule of cost estimates and as long as Planning and Zoning approvals are obtained.

§104-17 Discrepancies in the Approved Road Construction Plans

In the event that the permittee and/or developer or his subcontractors discover any discrepancies in the approved plans, he shall immediately notify the director. The engineering professional representative shall then make such corrections as deemed necessary for fulfilling the intent of the approved construction drawings and obtain approval from the director.

CALVERT COUNTY, MARYLAND

ROAD ORDINANCE

PART 3

SPECIFICATIONS AND DESIGN STANDARDS

PART 3
SPECIFICATIONS AND DESIGN STANDARDS
TABLE OF CONTENTS

<u>Article</u>	<u>Contents</u>	<u>Page</u>
VII.....	DESIGN SPECIFICATIONS	63
§104-18.....	General.....	63
§104-19.....	Road Classification.....	64
§104-20.....	Design Standards	78
§104-21.....	Roadway Geometry.....	79
§104-22.....	Road Intersections	83
§104-23.....	Design Speed.....	87
§104-24.....	Superelevation	87
§104-25.....	Cul-De-Sacs and Tee-Turn-Arounds	88
§104-26.....	Residential Driveways.....	89
§104-27.....	Commercial Entrances	91
§104-28.....	Drainage.....	91
§104-29.....	Cross-Section Elements.....	92
VIII	EXCEPTIONS	100
§104-30.....	Roads Serving Ten or Fewer Newly Created Lots in the Rural District.....	100
§104-31.....	Family Conveyance Lots Serviced by Private Roads.....	101
§104-32.....	Private Roads in the Farm and Forest Districts.....	104
§104-33.....	Common Access Driveway.....	106
§104-34.....	Private Roads for Industrial Subdivisions.....	108
§104-35.....	Private Lanes	110
§104-36.....	Existing Serviceable Roads and Recorded Lots.....	112
§104-37.....	Agri-Business Roads.....	113
§104-38.....	Existing Subdivisions Recorded Prior to the Adoption of the Calvert County Zoning Ordinance (July 29, 1967)	114
§104-39.....	Road Tax Districts.....	116
§104-40.....	Abandonment of Right of Ways.....	116

ARTICLE VII**DESIGN SPECIFICATIONS****§104-18 General**

- A. All materials specifications, methods of construction, and methods of measurement shall be in accordance with the current "Specifications for Materials, Highways, Bridges and Incidental Structures", State of Maryland, as amended from time to time.
- B. All road design criteria shall be in accordance with the current AASHTO "A Policy on Geometric Design of Highways and Streets," and The Calvert County Construction Standards for Roads, Streets, and Incidental Structures.
- C. Where not specifically covered by this ordinance, materials and construction methods shall be based on the appropriate "State of Maryland, Department of Transportation, State Highway Administration, Standards and Specifications" with all current errata and addenda.
- D. Design speed shall be 10 miles per hour over the posted speed limit (existing or proposed).

§104-19 Road Classification

- A. Roads are classified according to the intended use and potential traffic capacity requirements. The right-of-way and pavement widths shall be consistent for the entire road as defined in RD-11 and RD-11A of The Calvert County Construction Standards for Roads, Streets, and Incidental Structures.
- B. Classifications assigned to roads are as follows:
1. Residential/Local Roadway – RD-1 Category
 - a. The designation of RD-1A shall apply to:
 - 1) A private road intended to serve and provide access exclusively to the properties abutting thereon, including, but not limited to family conveyance subdivisions, subdivisions recorded prior to the adoption of the Calvert County Zoning Ordinance (C.C.Z.O.) July 29, 1967, Rural Community Districts and Farm and Forest Districts.
 - 2) The minimum right-of-way width is 20 feet.
 - 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-1A shall be used.

- b. The designation of RD-1B shall apply to:
- 1) A private lane intended to serve a maximum of 5 lots and provide access exclusively to the properties abutting thereon.
 - 2) The minimum right-of-way width is 30 feet.
 - 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-1B shall be used.
- c. The designation of RD-1C shall apply to:
- 1) A private alley intended to provide access exclusively to the properties abutting thereon.
 - 2) The placement or construction of any item that obstructs pedestrian or vehicular access within an alley is prohibited.
 - 3) No fixed structures of any kind, such as sheds or fences, or portions thereof shall be constructed within the alley right-of-way.
 - 4) An alley right-of-way within a newly recorded subdivision is generally owned and maintained by a property owners association. Existing platted alley rights-of-ways in existing subdivisions may be owned by an existing property owners association, the owner/developer of the subdivision, or by the county.

- 5) The entity responsibly for maintenance of an alley right-of-way shall ensure the alley remains in a safely passable condition. Maintenance shall include, but is not limited to mowing, litter pick up, and trimming and removal of all trees, vegetation and shrubs within the alley right-of-way.
 - 6) No maintenance is provided in any County owned unimproved rights-of-way or alleys.
 - 7) An alley right-of-way may be used for installation of underground utilities.
 - 8) The minimum alley right-of-way width is 20 feet.
 - 9) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-1C shall be used.
2. Residential/Local Roadway – RD-2 Rural Category shall apply to:
- a. A public road intended to serve and provide access exclusively to the properties abutting thereon.
 - b. The right-of-way is an existing, recorded 30 feet to 40 feet wide reserved area serving existing recorded lots.
 - c. When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-2 shall be used.

3. Residential/Local Roadway – RD-3 Category

Director's prior approval is required for use of this type.

a. The designation of RD-3A – Rural shall apply to:

- 1) A public road intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions serving 6 to 10 lots, or the right-of-way is an existing recorded 40 feet to 50 feet wide reserved area serving existing recorded lots.
- 2) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-3A shall be used.

b. The designation of RD-3B – Urban shall apply to:

- 1) A public road intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions serving 6 to 10 lots, or the right-of-way is an existing recorded 40 feet to 50 feet wide reserved area serving existing recorded lots.
- 2) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-3B shall be used.

c. The designation of RD-3C – Urban shall apply to:

- 1) A public one-way roadway intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions serving 6 or more lots. Minimum right-of-way width shall be 30’.
- 2) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-3C shall be used.

4. Residential/Local Roadway – RD-4 Category

a. The designation of RD-4A – Rural shall apply to:

- 1) A public road intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions.
- 2) It serves up to 50 dwelling units with a right-of-way width of 50 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-4A shall be used.

b. The designation of RD-4B – Urban shall apply to:

- 1) A public road intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions.
- 2) It serves up to 50 dwelling units with a right-of-way width of 50 feet.
- 3) When approved under provisions of the Zoning Ordinance or

subdivision regulations, Plate RD-4B shall be used.

c. The designation of RD-4C – Urban, On-Street Parking, One Side of Road shall apply to:

- 1) A public road intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions.
- 2) It serves up to 50 dwelling units with a right-of-way width of 50 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-4C shall be used.

d. The designation of RD-4D – Urban, On-Street Parking, Both Sides of Road shall apply to:

- 1) A public road intended to serve and provide access exclusively to the properties abutting thereon within newly created subdivisions.
- 2) It serves up to 50 dwelling units with a right-of-way width of 50 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-4D shall be used.

5. Minor Residential Collector Roadway RD-5 Category

a. The designation of RD-5A – Rural shall apply to:

- 1) A public road serving 51 to 150 lots within a newly created single family subdivision which, in addition to providing access to properties abutting thereon accommodates the movement of traffic from lower to higher classification roads. The section of roadway serving the 51 to 150 lots shall be designed to this standard. Roadways accessing this roadway may be built to this standard or to RD-4 standards at a minimum.
- 2) The right-of-way width is 50 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-5A shall be used.
- 4) Roadway width requirements are based on number of lots served.

b. The designation of RD-5B – Urban shall apply to:

- 1) A public road serving 51 to 150 lots within a newly created single family subdivision which, in addition to providing access to properties abutting thereon accommodates the movement of traffic from lower to higher classification roads. The section of roadway serving the 51 to 150 lots shall be designed to this standard. Roadways accessing this roadway may be built to this standard or to RD-4 standards at a minimum.

- 2) A private road intended to serve as the principle residential roadway within a townhouse or multi-family development of 100 to 150 units.
 - 3) A private road servicing uses open to the general public.
 - 4) A private road that provides through traffic.
 - 5) The right-of-way width is 50 feet.
 - 6) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-5B shall be used.
- c. The designation of RD-5C – Urban, On-Street Parking, One Side of Road shall apply to:
- 1) A public road serving 51 to 150 lots within a newly created single family subdivision which, in addition to providing access to properties abutting thereon accommodates the movement of traffic from lower to higher classification roads. The section of roadway serving the 51 to 150 lots shall be designed to this standard. Roadways accessing this roadway may be built to this standard or to RD-4 standards at a minimum.
 - 2) A private road intended to serve as the principle residential roadway within a townhouse or multi-family development of 100 to 150 units.
 - 3) A private road servicing uses open to the general public.
 - 4) A private road that provides through traffic.

- 5) The right-of-way width is 50 feet.
 - 6) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-5C shall be used.
- d. The designation of RD-5D – Urban, On-Street Parking, Both Sides of Road shall apply to:
- 1) A public road serving 51 to 150 lots within a newly created single family subdivision which, in addition to providing access to properties abutting thereon accommodates the movement of traffic from lower to higher classification roads. The section of roadway serving the 51 to 150 lots shall be designed to this standard. Roadways accessing this roadway may be built to this standard or to RD-4 standards at a minimum.
 - 2) A private road intended to serve as the principle residential roadway within a townhouse or multi-family development of 100 to 150 units.
 - 3) A private road servicing uses open to the general public.
 - 4) A private road that provides through traffic.
 - 5) The right-of-way width is 50 feet.
 - 6) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-5D shall be used.

6. Residential Collector Roadway RD-6 Category

a. The designation of RD-6A – Rural shall apply to:

- 1) A public road intended to serve and provide access to newly created single-family subdivisions with more than 150 lots. The section of roadway serving these lots shall be designed to this standard. Roadways accessing this roadway may be built to this standard or to RD-4 or RD-5 standards, depending on the number of lots the roads serve.
- 2) The minimum right-of-way width is 60 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-6A shall be used.

b. The designation of RD-6B – Urban shall apply to:

- 1) A public road intended to serve and provide access to newly created single-family subdivisions with more than 150 lots. The section of roadway serving these lots shall be designed to this standard. Roadways accessing this roadway may be built to this standard or to RD-4 or RD-5 standards, depending on the number of lots the roads serve.
- 2) A private road intended to serve as the principle residential collector roadway within a townhouse or multi-family development of greater than 150 units.

- 3) A private road servicing uses open to the general public.
- 4) A private road that provides through traffic.
- 5) The minimum right-of-way width is 60 feet.
- 6) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-6B shall be used.

7. Minor Collector Roadway RD-7 Category

a. The designation of RD-7A – Rural shall apply to:

- 1) A public road which primarily accommodates the movement of traffic from lower classification roads to the arterial network and links major land uses and traffic generators of County significance to the arterial network, serving average daily traffic (ADT) volumes greater than 2000 vehicles per day.
- 2) The right-of-way width is a minimum of 60 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-7A shall be used.

b. The designation of RD-7B – Urban shall apply to:

- 1) A public road which primarily accommodates the movement of traffic from lower classification roads to the arterial network and links major land uses and traffic generators of County significance to the arterial network, serving average daily traffic (ADT) volumes greater than 2000 vehicles per day.
- 2) The right-of-way width is a minimum of 60 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-7B shall be used.

8. Commercial & Industrial Roadways RD-8 Category

a. The designation of RD-8A – Rural shall apply to:

- 1) A public road which primarily provides access to and within a commercial or industrial area.
- 2) The right-of-way width is a minimum of 60 feet.
- 3) When approved under provisions of the Zoning Ordinance or subdivision regulations Plate RD-8A shall be used.

b. The designation of RD-8B – Urban shall apply to:

- 1) A public road which primarily provides access to and within a commercial or industrial area.

- 2) The right-of-way width is a minimum of 60 feet.
 - 3) When approved under provisions of the Zoning Ordinance or subdivision regulations Plate RD-8B shall be used.
9. The designation of Major Connector - RD-9 Category shall apply to:
- a. A public road which primarily accommodates the movement of traffic to and from the arterial network serving average daily traffic (ADT) volumes greater than 4000 vehicles per day.
 - b. The right of way width is a minimum width is 64 feet without median or 80 feet with median.
 - c. When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-9 shall be used.
10. The designation of Town Center Boulevard Roadway - RD-10 shall apply to:
- a. A public road which primarily accommodates the movement of traffic between commercial and residential development within Town Centers.
 - b. The right of way width is a minimum width 83 feet.
 - c. When approved under provisions of the Zoning Ordinance or subdivision regulations, Plate RD-10 shall be used.

11. The designation of Common Access Driveway (Private) – RD-16 shall apply to:
 - a. A private access area.
 - b. A minimum of 50 feet and a maximum 75 feet wide by a minimum of 50 feet and maximum of 75 feet long, commonly owned and privately maintained by adjoining lot owners.
 - c. Created to provide access to 3 to 5 residential lots.
 - d. Plate RD-16 shall be used.
 - e. When a common access driveway accesses a collector road, the use of a modified transition lane/deceleration lane (RD-18A) shall be used.

§104-20 Design Standards

A. Roadway Typical Sections

1. Typical road design and construction shall be as depicted on plates contained in The Calvert County Construction Standards for Roads, Streets, and Incidental Structures.
2. Any variance to these typical sections shall be approved by the director.

B. Minimum Pavement Sections

1. Minimum pavement sections shall be consistent for the entire road section as defined on Plate RD-12 and RD-12A of the The Calvert County Construction Standards for Roads, Streets, and Incidental Structures.
2. The pavement depth requirements are minimum standards. Variances to these typical sections may be required by the director due to, but not limited to, soil conditions, traffic loading, or frost level.
3. Any variance to the minimum standards requested by the permittee shall be approved by the director. The proposed typical section shall meet the pavement design criteria per AASHTO or comparable criteria as submitted by the engineering professional representative or a geotechnical representative.

§104-21 Roadway Geometry**A. Horizontal Alignment**

1. Traffic way centerlines within a curve shall be connected by a horizontal curve with a minimum radius, as shown in Plate RD-11 and RD-11A of The Calvert County Construction Standards for Roads, Streets, and Incidental Structures, when the centerline changes direction by more than 30 minutes. The director may approve a variance to this condition on a case-by-case basis when required by unusual or special conditions.
2. Horizontal curve data shall be computed by the arc definition of a circular curve.
3. A tangent of a least 100 feet shall be used between reverse curves.
4. Tangents should not be introduced between two curves in the same direction unless the length of the tangent is greater than 500 feet.

B. Vertical Alignment

Finished road grades shall be in accordance with the following standards:

1. Roads shall be designed and constructed so that finished grades do not exceed 8% for collector and commercial roads, and 10% for residential roads and common access drives. No grade shall be less than 1%. The maximum grade in a cul-de-sac shall not exceed 6%. The maximum grade in a round-about shall not exceed 4%.
2. Gutter grades on concrete and paved gutters shall be not less than 1%.
3. Vertical changes in road grades of more than 1% shall be connected by vertical curves with a minimum length of 100 feet.
4. Tabulation of vertical standards is shown on Plate RD-11 and RD-11A of The Calvert County Construction Standards for Roads, Streets, and Incidental Structures.
5. Standard landing requirements for residential or collector roads, common access drives, shared driveways, or private lanes intersecting a residential or collector road are shown on Plate RD-11B of the Calvert County Construction Standards for Roads, Streets, and Incidental Structures, and shall conform to the following:

- a. For Grades Less than 5.5%:
- 1) A 100' vertical curve shall be used with the point of vertical curvature (PVC) beginning at the edge of shoulder to the point of vertical tangency (PVT) of the proposed road/lane/drive.
 - 2) Maximum up-slope from the edge of shoulder shall be 1%.
Maximum down-slope from edge of shoulder shall be 2%.
 - 3) Algebraic difference shall not exceed 5% for residential or collector roads. Algebraic difference shall not exceed 10% for common access drives, shared drives and private lanes.
- b. For Grades between 5.5% and 10% (15% for Private Lanes and Shared Drives):
- 1) A 25' long landing grade shall be provided from the edge of shoulder, with the point of vertical curvature (PVC) beginning at the terminus of said landing grade for the proposed road/lane/drive.
 - 2) A 200' vertical curve shall be used for slopes between 5.5% and 7%. For grades between 7.01% and 10%, a 250' vertical curve shall be used.
 - 3) Maximum up-slope from the edge of shoulder (including landing grade) shall be 3%. Maximum down-slope from edge of shoulder (including landing grade) shall be 2%.
 - 4) Algebraic difference shall not exceed 10% for residential, collector roads, common access driveways, shared drives and private lanes.

Any deviation from design standards shall be on a case per case basis and shall be requested in writing, and approved by the director.

6. Vertical curves shall meet the minimum rate of curvature (K) based on stopping sight distance per AASHTO.
7. The director may approve a variance of not more than 10% of the standard specified maximum grade where required by unusual topographic situations and where public safety shall not be compromised.

§104-22 Road Intersections

- A. Minimum intersection sight distances shall be provided at all intersections of existing county and proposed subdivisions roads per AASHTO.
- B. Minimum stopping sight distances shall be provided at all intersections of interior subdivision roads per AASHTO. No proposed road shall be permitted to intersect an existing county road at a location that would result in undue interference with or hazard to the free movement of normal traffic.
- C. The radii of traffic curbs and pavement edges at intersections shall be shown on the plans and governed by the following criteria:
 - 1. At an intersection of residential roads, or of a residential road with a collector road, the radius of the returns shall be 25 feet to face of curb, or 35 feet to edge of pavement where no curbs are provided.
 - 2. At an intersection of collector roads, the radius of the returns shall be 30 feet to face of curb, and 35 feet to edge of pavement where no curbs are provided.
 - 3. When any of the aforesaid road intersections involve the intersection of a curbed traffic way with a non-curbed traffic way, the radius of the returns shall be 35 feet.
 - 4. At an intersection into a commercial/industrial subdivision, the radius of returns shall be a minimum 50 feet to face of curb.

5. Where conditions warrant, i.e., intersection geometry and design vehicle issues, the use of 3 centered (compound) curves may be allowed subject to the director's approval.
 6. The director will consider the use of smaller entrance radii upon satisfactory evidence from the Engineer that the proposed entrance will provide unrestricted access to the largest delivery vehicle that will serve the site. The largest vehicle considered is a WB-67 unless otherwise specified by the director.
- D. Centerlines of traffic ways shall continue through intersections without offsets, and shall intersect as nearly as possible at right angles. Where various conditions make a right angle intersection impracticable, the minimum deflection angle between the centerline of a residential road and the centerline of any other road shall be 70°, and the minimum deflection angle between the centerline of a collector road and the centerline of another collector road shall be 75°.
- E. The minimum offset between centerlines of public and/or private roads shall be 200 feet. The minimum offset between a public road and a commercial entrance shall be either 150 feet measured between their respective centerlines, or 125 feet from the edge of pavement along the public road to the edge of pavement along the commercial entrance, whichever is greater.
- F. Driveway entrances are not permitted within intersection fillets, and shall be offset a minimum of 60 feet from fillet to fillet.
- G. The design of the intersection should be such that a clear line of sight shall be provided continuously within the triangle formed by the following three points:

1. Intersection of centerlines.
2. Location shall be
 - a. Fifteen feet back of the edge of the travel way on gravel roads and roads without paved shoulders at the proposed intersection location
 - b. Fifteen feet back of the edge of paved shoulders on roads with paved shoulders at the proposed intersection location
 - c. Fifteen feet back of the edge of acceleration and deceleration lanes on roads having these at the proposed intersection location.
3. Minimum intersection sight distance measured from the intersection and along the roadway centerline to meet criteria as described in AASHTO. Easements required to obtain sight distance shall be provided and recorded on the record plat.
4. Visibility at intersections: On a corner lot in any zoning district, nothing shall be constructed, erected, placed or allowed to grow in such a manner as to obstruct vision between a height of two and a half (2 ½) feet and eight (8) feet in height above the center line grades of the intersecting streets in the triangular area formed by extending the street lines (curb lines) of such corner lots to a point of intersection, then measuring back from this point of intersection along each street a distance of 25 feet to a point then connecting these two points with a base line to form an isosceles triangle. Some objects may be exempt provided the sight distance is adequate as determined by the department.

- H. Intersections with county collector and arterial roads shall be kept to a minimum during the planning and layout of subdivisions and individual lots. No more than 100 lots are to be accessed by a single subdivision entrance. All intersections with state roads shall conform to standards of the MSHA.

- I. Geometric features such as transition, acceleration, deceleration, channelization, and by-pass lanes at an entrance to, or within, a proposed development shall be required for roadways intersecting a collector road. Use of these features shall be based upon the ultimate size of the proposed development, and the potential function of the roads.

- J. A 25' minimum filleted truncated shall be provided at all road intersections.

§104-23 Design Speed

All roads shall be designed and constructed for the design speed of the road. The design speed shall be 10 mph over the posted speed limit, or as determined by the director. If the roadway is not posted, according to Maryland State law, the speed limit of the roadway is 30 miles per hour.

§104-24 Superelevation

- A. Roads shall be superelevated in accordance with AASHTO Standards.
- B. To superelevate, pavements shall be rotated around the centerline, except where such procedure would adversely affect adequate drainage design. To avoid such a situation, the engineering professional representative may rotate the superelevation around the inside or outside edge of pavement; whichever affords the best drainage design.
- C. Whenever possible, $\frac{2}{3}$ of the transition shall be accomplished on tangent, and the remaining $\frac{1}{3}$ shall be accomplished on the curve.
- D. Horizontal curves of roads in subdivisions, commercial and industrial areas are not generally superelevated. The use of superelevated roads in these areas shall be approved by the director.

§104-25 Cul-De-Sacs and Tee-Turn-Arounds

Standard details for cul-de-sacs and permanent and temporary tee-turn-arounds are shown on Plates RD-17A, RD-17B, RD-17C, RD-17D, and RD-17E.

A. Cul-de-sac.

1. The radius of the paved circular portion shall be determined per Plates RD-17C, RD-17D, or RD-17E.
2. The minimum length of the cul-de-sac road shall be 400 feet. The maximum length of the cul-de-sac roads shall be 1600 feet.

B. Tee-turn-around.

1. If a road, designed as a temporary dead-end road, is to be extended at a future date, a temporary tee-turn-around shall be used in place of a cul-de-sac. The length of the turnaround, or "T" portion, shall be equal to the width of the right-of-way. Barricades, and/or special end treatments may be required on a case-by-case basis as directed by the director.
2. Permanent tee-turn-arounds shall be restricted to subdivisions serving a maximum of 10 lots or as approved by the director.

§104-26 Residential Driveways

- A. Residential driveways shall be constructed in accordance with Plates RD-15A, RD-15B, and RD-15C of The Calvert County Construction Standards for Roads, Streets, and Incidental Structures as minimum requirements. The developer shall construct the driveway under a grading permit.
1. A maximum-landing grade of 8% from the edge of the shoulder to the right-of-way line is permissible. The maximum grade of driveways shall be 15%.
 2. Driveways serving individual lots shall be constructed to a minimum width of 10 feet, and final surface for all residential driveways shall be constructed to a minimum thickness of 4 inches of compacted CR-6 or approved equal. Driveway material shall be noted on plans submitted for approval.
 3. Shared driveways serving 2 lots shall be constructed to a minimum width of 12 feet with the travel way constructed to a minimum thickness of 4 inches of compacted CR-6 or approved equal.
 4. Shared driveways accessing 3 or more lots that are served by platted easement areas shall be constructed to a minimum width of 16 feet with the travel way constructed to a minimum thickness of 4 inches of compacted CR-6 or approved equal. This standard does not apply to newly platted lots served by a private lane.
 5. Concrete driveway aprons are not acceptable within public rights-of-way for open section roadways. Concrete aprons are acceptable in closed section roadways.

6. All shared driveways shall require a recorded shared maintenance agreement approved by the county attorney.
- B. Driveway entrances to properties shall be constructed according to the standard driveway design.
1. Driveway aprons shall not be constructed in, or partially in, any intersection fillet.
 2. All driveway entrances shall meet AASHTO sight distance criteria, and be certified thereto. In some cases, grading improvements shall be necessary to conform to these standards. If, upon completion of all feasible grading improvements it is found that the lot still does not meet the minimum sight distance criteria, the driveway entrance shall then be placed to attain the optimum sight distance as approved by the director.
 3. The end of the driveway flare at the edge of paving shall not extend beyond the perpendicular projection from the edge of paving to the property corner at the right-of-way.
- C. Residential lots shall be limited to 1 driveway entrance onto county roads.
- D. An on-site turn-around area is recommended for driveways on lots ½ acre or greater.
- E. Entrance pipes shall be designed at the lowest point of a lot at the road right-of-way.

§104-27 Commercial Entrances

Commercial and industrial entrances shall be constructed in accordance with MSHA standards, or as shown on Plate RD-13B.

§104-28 Drainage

- A. Every roadway and residential subdivision shall be provided with storm drains, culverts, drainage ways, or other means of conveyance adequate to collect and dispose of all water, originating on or flowing across the roads and property without inundating or damaging roads, lots, or other properties.
- B. Drainage facilities shall be designed in accordance with Part 4, Storm Drainage Design Criteria, of this ordinance.
- C. All state and county erosion and sediment control requirements shall be strictly complied with at all times during construction.
- D. Flood Plain District

Development of designated flood plain areas designated by mapping or elevation shall be restricted to the uses specified in the County Zoning Ordinance and in accordance with erosion and sediment control plans approved by the U.S. Department of Agriculture/NRCS.

§104-29 Cross-Section Elements**A. Embankment**

1. Embankment shall be formed of suitable material obtained from roadway, structure, borrow and other excavation, and it shall be placed, processed and compacted to the lines and grades shown on the plans and in accordance with Section 204 of Maryland Department of Transportation, State Highway Administration, Standard Specification for Construction and Materials.
2. For areas where embankment is to be made 3 feet or more in depth, trees and stumps shall be cut off as close to the existing ground as is practical, but not to exceed 12 inches above the ground surface. Near the toe of embankment slopes, none of the stumps or trees shall extend above a point 1 foot beneath the slope surfaces. In addition, brush, rubbish, debris, and wood shall be removed prior to placement of fill.
3. For areas where embankment is to be made less than 3 feet in depth, all trees, stumps, roots, brush, matted roots, and debris shall be removed, grubbed, or blasted from the existing ground prior to placement of fill, and disposed of at an approved facility. In the event that the embankment is 2 feet or less in depth, these materials shall be grubbed in the same manner required where excavation is to be made.

4. Within areas to be excavated, said areas shall be cleared and grubbed. All imbedded stumps, root mats, etc., shall be removed to a depth of not less than 1 foot below the subgrade or slope surfaces. All depressions made below the subgrade or slope surfaces by the removal of stumps or roots shall be refilled with materials suitable for embankment and shall be compacted in conformity with the requirements of this ordinance.

B. Subgrade

1. This work shall consist of the preparation, protection, and maintenance of the subgrade prior to the construction of succeeding courses in accordance with the current Maryland Department of Transportation, State Highway Administration Standard for Construction Materials.
2. All soft and unstable material and any other portions of the subgrade that shall not properly compact shall be removed, disposed of, replaced with suitable material, and compacted. The material shall be proof rolled and approved by the inspector before subsequent material is placed.
3. After roadway excavation and embankments have been completed, the subgrade shall be fine graded and compacted.

C. Subbase

Subbase shall be placed in accordance with Section 3. (Road standard detail plates and pavement section Plate RD-12 and RD-12A.)

D. Base and Surface Pavement

Base and surface pavement shall be placed in accordance with section 3. (Road standard detail plates and pavement section Plate RD-12 and RD-12A.)

E. Sidewalks

1. Sidewalks may be required where standard combination curb and gutter is built, and where otherwise considered necessary by the director or where required by the Calvert County Zoning Ordinance or Town Center Zoning Ordinances.
2. Maintenance agreements are required for all sidewalks proposed within a public right-of-way. Grants of perpetual easement to the public and maintenance agreements shall also be provided for sidewalks adjacent to, but outside a public right-of-way when the sidewalks are for public use.
3. Sidewalks in residential areas shall be a minimum of 5 feet in width as shown on Plate RD-20A and RD-20B, unless otherwise specified by the director.
4. Along open section roadways, sidewalks shall be located a minimum of 10 feet off the edge of pavement.
5. Sidewalks are to be port land cement concrete, MSHA Mix No. 3, Section 902.10.03, reinforced with 6 x 6 10/10 W.W. Mesh (6 x 6 W 1.4/W 1.4) unless otherwise required in the Town Center Zoning Ordinance, constructed over 6" minimum of graded aggregate base.

6. Sidewalk geometry and traffic way crossings shall be designed to meet or exceed the minimum requirements put forth by the current Americans with Disabilities Act standards.

F. Road Signs

Road name, regulatory, warning, and guide signs shall be erected by the developer on all county roads. These signs shall show direction, warning, and road names of intersecting roads, and shall comply with the current issue of the MUTCD. All private road name signs shall have a blue background with white letters to illustrate a non-county maintained road.

G. Traffic Barriers

1. Traffic barriers with proper signage shall be erected on all new roadways at points of extreme hazard to a vehicle leaving the traveled portion of the traffic way, and at the end of permanent or temporary tee-turn-arounds. Generally, potential hazards develop at fills over 8 feet in vertical depth from the edge of the shoulder to the toe of the slope when the slope ratio is steeper than 4 to 1, and for fills greater than 15 feet regardless of slope. Traffic barriers and other end of road treatments may also be required at other locations at the discretion of the director.
2. Traffic barriers shall be placed as shown with typical roadway sections. The type of traffic barrier to be used shall be traffic barrier W beam. Where traffic way construction ends in fill areas, traffic barrier w beam barricades shall be erected.

3. The State of Maryland, Department of Transportation, State Highway Administration Standards for Highway and Incidental Structures shall be used for traffic barriers, barricades, and end treatments.
4. Material shall be per Section 612 of the Maryland Department of Transportation, State Highway Administration Standard Specification for Construction and Materials.

H. Curb and Gutter

1. Curb and gutter shall be required in all urban residential subdivisions and town centers where sidewalks are required along public roads.
2. At the discretion of the director, curb and/or gutter shall be required in residential subdivisions and commercial development where conditions warrant, i.e. soil conditions, topography, or volume of runoff.

I. Shoulders

When applicable, shoulders shall be earthen or paved per the detailed standard plates contained herein.

J. Valley Gutters

Valley gutters shall be used only when approved by the director but normally shall be permitted where the approach road is a residential local road, providing that the rate of water flow across the intersection does not exceed 2 cubic feet per second.

K. Bicycle Pathways

1. Hiker/bicycle pathways shall be constructed when required as part of the development review and approval process by the Planning Commission. Construction standards shall be designed by the engineering professional representative, and approved by the director.
2. Bicycle pathways may be located within the roadway pavement, separate from the traveled way but within the right-of-way, or within their own right-of-way such as through open areas.
3. Signing and marking shall be required in accordance with the MUTCD.

L. Lighting

Maintenance agreements between the county and property owners are required for all lighting proposed within a public right-of-way.

M. Street Trees – Interior to Subdivisions

1. Street trees shall be provided for new development projects in accordance with The Calvert County Zoning Ordinance applicable to commercial and residential development within Calvert County.
2. Street trees shall be planted outside the road right-of-way. Species are to be selected from the current Zoning Ordinance and the current Rural Design Manual for the applicable condition. In general, species should be varied for texture, color and form and selected to be compatible with the scale of the roadway, intersections, adjacent improvements, and any underground or overhead utilities.
3. Planted trees shall be installed using the General Spacing Guidelines in Table 3-1 to maintain safety and prevent interference with utility structures and appurtenances. Street trees shall not obstruct or obscure any traffic control device, street lighting, signage or sight distance.

<i>Table 3-1</i>	
General Spacing Guidelines	
30 feet	Intersection
25 feet	Traffic or Directional Sign
25 feet	Light or Utility Pole
10 feet	Entrance Drive or Alley
15 feet	Drain or Drain Inlet Structure
15 feet	Open Space or Stormwater Management Access Easement
15 feet	Underground Utility

4. The species, ultimate size of the tree and the canopy desired should be compatible with the size of the right of way and the road classification. Trees shall be selected to survive the environmental stresses of the proposed location.
5. Planting plans shall be reviewed by Planning & Zoning. Please refer to the Rural Design Manual.

N. Landscaping

Regulations governing the installation of landscaping are contained in the current Zoning Ordinance and the current Rural Design Manual. However, no landscaping shall be planted in the shoulder areas or within 5 feet of a ditch.

**ARTICLE VIII
EXCEPTIONS**

§104-30 Roads Serving Ten or Fewer Newly Created Lots in the Rural Community District

- A. Right-of-way widths for proposed roads shall be a minimum 30 feet.
- B. The road shall be constructed per Plate RD-3A of The Calvert County Construction Standards for Roads, Streets, and Incidental Structures.
- C. The road shall be constructed in accordance with an approved plan under a public works agreement.
- D. The issuance of building permits and use and occupancy permits will depend upon bonding method A or B.