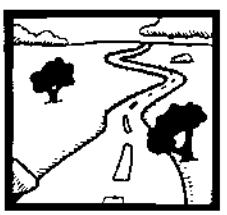
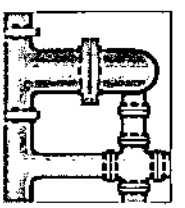
1999 Annual Growth Report





Harford County Government
Department of Planning and Zoning

James M. Harkins
County Executive

John J. O'Neill, Jr.
Director of Administration

Joseph Kocy
Director of Planning and Zoning

The 1999 Annual Growth Report

Table of Contents

Executive Summary 1

Introduction and Growth Trends 5

Public Schools 11

Water and Sewerage 22

Road System 28

Appendix .....

1. Pupil Yield Factors
2. Elementary School District Map
3. Middle School District Map
4. High School District Map

List of Tables

Table 1 Harford County - Baltimore Region Residential Building Permit Activity 6

Table 2 Harford County - Baltimore Region Population and Household Projections.....7

Table 3 Harford County - Baltimore Region Employment Projections.....8

Table 4 Harford County - Baltimore Region Non-Residential Permit Activity New Permits Valued $50,000 and Over.....9

Table 5 Harford County - Baltimore Region Non-Residential Permit Activity Additions, Alterations, and Repairs Valued $50,000 and Over.....10

Table 6 Harford County Elementary Schools Utilization Chart 13

Table 7 Harford County Middle Schools Utilization Chart 14

Table 8 Harford County High Schools Utilization Chart 15

Table 9 Harford County Residential Building Permit Activity by Elementary School District.....16

Table 10 Harford County Residential Building Permit Activity by Middle School District.....17

Table 11 Harford County Residential Building Permit Activity by High School District ...18

Table 12 Harford County Population and Households by Elementary School District.....19

Table 13 Harford County Population and Households by Middle School District 20

Table 14 Harford County Population and Households by High School District 21

Table 15 Water Consumption and Sewage Generation (January - December 1999).....24

Table 16 Harford County System Water Demand Projections 25

Table 17 Harford County Present and Projected Sewerage Demands and Planned Capacities.....26

Table 18 2000 Existing Water and Sewer Capital Projects 27

Harford County Road System:

To determine existing service levels at intersections and the impact of additional traffic, a Traffic Impact Analysis (TIA) must be submitted for developments that generate 249 trips per day at the time of preliminary/site plan review. Proposed development located within the Route 40 Overlay District will not be required to submit a Traffic Impact Analysis unless the proposed use will generate 1,500 trips per day at the time of preliminary/site plan review.

The adequacy standards for road intersections within the study area are based on the property's location within or outside the Development Envelope and are defined as follows:

> ***Inside the Development Envelopment:*** Level of Service (LOS) D.
> If existing LOS is E or F at an intersection within the Development Envelope, the developer must mitigate the development's new trips.

> ***Outside the Development Envelope:*** Level of Service (LOS) C.
> If the existing LOS is D or lower, then the developer must mitigate the development's new trips.

A developer is required to provide improvements at intersections within the study area where trips generated by the development lowers the Level of Service (LOS) below the adopted standards. These improvements must bring the level of service to the adopted standard. If the TIA determines that the existing level of service does not meet the adopted standards, the subdivider must mitigate the impact of the trips generated from the development site. The study area is defined for areas within and outside the development envelope as:

> ***Inside the Development Envelope:*** The TIA study area shall include all the existing County and State roads from point of entrance of site to the second intersection of an arterial roadway or higher functional classification road, in all directions. Developments which generate 1,500 or more trips per day may be required to expand the study area.

> ***Outside the Development Envelope:*** The TIA study area shall include all existing County and state roads from point of entrance to first intersection of a major collector or higher functional classification road, in all directions.

The determination of existing and projected Levels of Service is calculated in the Traffic Impact Analysis, which is performed by the developer and reviewed by the Departments of Planning and Zoning and Public Works.

In addition to the review of individual Traffic Impact Analyses, the Departments of Planning and Zoning and Public Works have studied a number of major roads and intersections to identify existing conditions. This list represents a cross section of key intersections located inside, outside, and on the fringes of the Development Envelope. There are two signalized and three unsignalized intersections with one or more movements operating at a LOS E or lower during peak hours.

The following intersections contain one or more movements that operate at an unacceptable LOS. The evaluation of the LOS is determined on performance of the intersection during one hour peak traffic periods in the a.m. and/or p.m.:

1. MD 24 and MD 924 (Tollgate)
2. MD 152 and U.S. 1
3. Interstate 95 and Maryland 24 Ramp
4. MD 152 and Singer Road
5. MD 24 and Forest Valley Road

Developments that impact these intersections will be required to mitigate their impacts to the intersection.

Table 1

Harford County - Baltimore Region
Residential Permit Activity
1995 - 1999

County	1995	1996	1997	1998	1999	Total	Percentage of Baltimore Region
Harford County	1,616	1,929	1,695	1,704	1,964	8,908	15.6%
Anne Arundel County	3,307	2,996	2,930	3,822	3,682	16,737	29.2%
Baltimore City	366	596	183	152	200	1,497	1.6%
Baltimore County	2,649	2,443	3,199	3,695	3,309	15,295	26.2%
Carroll County	1,299	1,162	778	919	1,108	5,266	8.8%
Howard County	1,860	1,706	2,027	2,255	2,365	10,213	18.7%
Total	**11,097**	**10,832**	**10,812**	**12,547**	**12,628**	**57,916**	**100.0%**

Source: Baltimore Metropolitan Council, March, 2000.

Table 2

Harford County - Baltimore Region
Population and Household Projections
1999 - 2009

County	1999 Population	1999 Households	2004 Population	2004 Households	2009 Population	2009 Households
Harford County	223,830	80,136	236,920	86,820	247,340	92,500
Anne Arundel County	476,100	173,420	496,840	186,020	509,160	195,380
Baltimore City	692,000	268,720	683,640	270,420	674,640	271,680
Baltimore County	726,040	297,800	738,060	309,200	747,520	314,860
Carroll County	147,440	52,320	158,740	57,220	173,100	63,560
Howard County	246,800	92,160	277,740	105,860	298,760	115,880
Total	**2,512,210**	**964,556**	**2,591,940**	**1,015,540**	**2,650,520**	**1,053,860**

Source: Baltimore Metropolitan Council, March, 2000.

Table 3
Baltimore Region
Employment Projections
1999 - 2009

County	1999 Employment	2004 Employment	2009 Employment
Harford	87,460	94,640	100,560
Anne Arundel	271,100	286,700	300,200
Baltimore City	456,260	460,880	465,160
Baltimore County	425,200	442,940	458,960
Carroll	60,920	65,000	68,520
Howard	136,560	149,880	160,000
Total	**1,437,500**	**1,500,040**	**1,553,400**

Source: Baltimore Metropolitan Council, March, 2000.

Table 4

Harford County

Non - Residential Permit Activity

New Permits Valued $50,000 and Over

	1995		1996		1997		1998		1999	
Permit Type	Number Of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage
Commercial	22	371,664	24	389,119	27	1,164,384	36	502,761	29	356,896
Industrial	6	328,786	12	237,575	14	513,977	0	0	9	490,502
Institutional	6	40,546	10	196,839	8	70,821	8	145,025	15	202,482
Utilities	1	80	3	9,038	2	2,828	2	3,160	2	0
Other	1	7,542	4	15,092	3	17,698	2	134,338	0	0
	36	**748,618**	**53**	**847,663**	**54**	**1,769,708**	**48**	**785,284**	**55**	**1,049,880**

Source: Baltimore Metropolitan Council, March, 2000.

Table 5

Harford County

Non - Residential Permit Activity

Additions, Alterations, and Repairs Valued $50,000 and Over

	1995		1996		1997		1998		1999	
Permit Type	Number Of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage
Commercial	39	NA	61	NA	49	NA	36	NA	57	NA
Industrial	16	NA	14	NA	5	NA	11	NA	14	NA
Institutional	12	NA	12	NA	14	NA	12	NA	17	NA
Utilities	0	NA	2	NA	5	NA	2	NA	2	NA
Total	**67**		**89**		**73**		**61**		**90**	

NA: Data Not Available

Source: Baltimore Metropolitan Council, March, 2000.

PUBLIC SCHOOLS

Introduction

To assess current and future adequacy of the public school facilities; the capacities of the existing schools, the utilization of the schools, and future populations are analyzed. The data in this report regarding the public school system are aggregated by the elementary/middle/high school districts and include school enrollments, county-rated capacities for each school facility, utilization of each school facility, and 3 year projected school enrollments (Tables 6, 7, and 8). In addition, development information such as building permits issued by dwelling type (Tables 9, 10, and 11) and population and households (Tables 12, 13, and 14) are included in this report. School maps and pupil yield factors by dwelling unit type are included in the Appendix.

Analysis

Each school facility has been analyzed in terms of past growth trends, current conditions and future enrollment projections. The information is based on factual data and is aggregated by the current school districts. Based on the Adequate Public Facilities provision of the County Code, the level of service standard for Public Schools are:

Elementary – exceeds 120% of rated capacity within 2 years
Secondary - exceeds 120% of rated capacity within 3 years

Preliminary Plans greater than five lots for new developments cannot be approved in elementary school districts where the full-time enrollment currently exceeds or is projected to exceed 120 percent of the capacity within two years. All thirty-one elementary schools currently meet adequacy standards. Construction funding has been approved for Abingdon and Church Creek elementary schools that will increase their capacity by 200 and 265 students respectively.

Preliminary plans for new developments cannot be approved in secondary school districts where full-time enrollment currently exceeds or is projected to exceed 120 percent of the capacity within three years. Sixteen of the seventeen middle and high schools in Harford County meet adequacy standards. The projected enrollment for the Southampton Middle School during the 2000/2001 school year is 1,923 for a utilization rate of over 120 percent. No planning and/or construction funds have been identified at this time. New developments within this attendance area will not be approved but will be reviewed and placed on a waiting list until capacity is available for the year beginning July 1, 2001.

School Enrollment Projection Methodology

The methodology for projecting students utilizes historical data for live births and the number of children enrolled in public schools. Using these data, a series of ratios that reflect grade cohort survival are developed. These ratios include consideration of a number of factors:

1. Births in a given year which affect subsequent kindergarten and first grade enrollments.
2. Net migration of school age children.
3. Net transfer of children between public and private schools.
4. Nonpromotion of children to the next grade level.
5. Dropouts in the later years of secondary school.
6. Shifts between regular grade and upgraded groups other than special education.

This technique of establishing a ratio is used for each successive grade. For example, a ratio is developed between the number of children actually in the first grade in 1985 and the number in the second grade the following year. The ratio, therefore, represents the number of first graders who advance to the second grade. If significant variations exist (such as a rapid increase in home building), then factors such as pupil yields for subdivision activity and development trends must be measured.

In order to ensure accurate projections, development monitoring is a key activity because housing expansion periods have a direct impact on school enrollments. A primary means of calculating projected student enrollment due to a housing expansion period are by using pupil yield factors for new developments.

Pupil yield factors are determined by researching the number of students from a particular community/subdivision that are actually attending their home school. By dividing the number of students accounted for by the number of dwelling units, a pupil generation factor is determined. It is important to note that different pupil yield factors are generated depending on housing type (single family, townhouse, apartment etc.) and school level (elementary, middle and high). Surveys of sample subdivisions to assess an accurate yield factor are completed on a regular basis. (See Appendix)

Table 6

Harford County Elementary Schools

Utilization Chart

1999

		Actual		Projected					
		1999 - 2000		2000 - 2001		2001 - 2002		2002 - 2003	
Elementary School	Capacity	ENROLL	% UTIL.	ENROLL	% UTIL.	ENROLL	% UTIL.	ENROLL	% UTIL.
Abingdon	825	765	93%	794	96%	813	99%	823	100%
Bakerfield	500	441	88%	448	90%	445	89%	438	88%
Bel Air	525	511	97%	516	98%	510	97%	514	98%
Church Creek	875	732	84%	755	86%	766	88%	752	86%
Churchville	410	345	84%	334	81%	343	84%	340	83%
Darlington	200	157	79%	149	75%	145	73%	142	71%
Deerfield	585	535	91%	526	90%	491	84%	495	85%
Dublin	325	258	79%	244	75%	233	72%	222	68%
Edgewood	525	410	78%	395	75%	388	74%	377	72%
Emmorton	575	513	89%	517	90%	502	87%	509	89%
Forest Hill	625	467	75%	470	75%	468	75%	469	75%
Forest Lakes	600	560	93%	556	93%	554	92%	555	93%
Fountain Green	600	566	94%	549	92%	535	89%	529	88%
G. Lisby at Hillsdale	475	400	84%	407	86%	406	85%	405	85%
Hall's Cross Rds	600	375	63%	348	58%	336	56%	330	55%
Havre de Grace	640	435	68%	420	66%	423	66%	408	64%
Hickory	700	677	97%	680	97%	671	96%	678	97%
Home/Wakefield	975	919	94%	921	94%	912	94%	920	94%
Jarrettsville	585	495	85%	484	83%	467	80%	472	81%
Joppatowne	535	495	93%	491	92%	469	88%	472	88%
Magnolia	550	518	94%	531	97%	525	95%	521	95%
Meadowvale	600	595	99%	614	102%	615	103%	608	101%
Norrisville	275	224	81%	209	76%	195	71%	188	68%
North Bend	600	509	85%	495	83%	459	77%	450	75%
North Harford	550	448	81%	450	82%	435	79%	427	78%
Prospect Mill	750	697	93%	698	93%	693	92%	700	93%
Ring Factory	600	600	100%	603	101%	605	101%	618	103%
Riverside	600	529	88%	508	85%	483	81%	480	80%
Roye-Williams	710	577	81%	579	82%	553	78%	540	76%
Wm Paca / Old Post Rd	1,035	943	91%	918	89%	883	85%	863	83%
Wm. S. James	575	544	95%	533	93%	524	91%	505	88%
Youth's Benefit	950	999	105%	999	105%	1,005	106%	980	103%
TOTAL	19,475	17,239	89%	17,141	88%	16,852	87%	16,730	86%

Source: Harford County Public Schools & Dept. of Planning & Zoning, October, 1999.

Table 7

Harford County Middle Schools

Utilization Chart

1999

		Actual		Projected							
		1999 - 2000		2000 - 2001		2001 - 2002		2002 - 2003		2003 - 2004	
Middle School	Capacity	ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL
Aberdeen	1,673	1,236	74%	1,220	73%	1,257	75%	1,294	77%	1,299	78%
Bel Air	1,393	1,225	88%	1,231	88%	1,321	95%	1,349	97%	1,388	100%
Edgewood	1,438	1,179	82%	1,254	87%	1,335	93%	1,347	94%	1,322	92%
Fallston	1,058	1,152	109%	1,173	111%	1,134	107%	1,135	107%	1,096	104%
Havre de Grace	830	607	73%	595	72%	609	73%	633	76%	646	78%
Magnolia	1,135	871	77%	829	73%	824	73%	766	67%	743	65%
North Harford	1,380	1,078	78%	1,070	78%	1,132	82%	1,133	82%	1,095	79%
Southampton	1,598	1,823	114%	1,923	120%	2,006	126%	1,999	125%	2,045	128%
Total	10,505	9,171	87%	9,295	88%	9,618	92%	9,656	92%	9,634	92%

Source: Harford County Public Schools and Department of Planning and Zoning, October 1999.

Table 8

Harford County High Schools
Utilization Chart
1999

High School	Capacity	Actual 1999 - 2000 ENROLL	Actual 1999 - 2000 %UTIL	Projected 2000 - 2001 ENROLL	Projected 2000 - 2001 %UTIL	Projected 2001 - 2002 ENROLL	Projected 2001 - 2002 %UTIL	Projected 2002 - 2003 ENROLL	Projected 2002 - 2003 %UTIL	Projected 2003 - 2004 ENROLL	Projected 2003 - 2004 %UTIL
Aberdeen	1,873	1,173	63%	1,178	63%	1,175	63%	1,183	63%	1,179	63%
Bel Air	1,483	1,556	105%	1,600	108%	1,606	108%	1,608	108%	1,679	113%
C. Milton Wright	1,650	1,763	107%	1,820	110%	1,891	115%	1,962	119%	2,034	123%
Edgewood	1,435	1,143	80%	1,150	80%	1,191	83%	1,225	85%	1,300	91%
Fallston	1,640	1,554	95%	1,584	97%	1,611	98%	1,607	98%	1,595	97%
Harford Technical	1,038	901	87%	930	90%	986	95%	1,060	102%	1,086	105%
Havre de Grace	908	661	73%	681	75%	703	77%	709	78%	699	77%
Joppatowne	1,203	1,019	85%	1,026	85%	998	83%	985	82%	955	79%
North Harford	1,615	1,187	73%	1,240	77%	1,256	78%	1,269	79%	1,309	81%
Alternative Education		18									
Total	12,845	10,975	85%	11,209	87%	11,417	89%	11,608	90%	11,836	92%
Total Secondary	23,350	20,146	86%	20,504	88%	21,035	90%	21,264	91%	21,470	92%

Source: Harford County Public Schools and Department of Planning and Zoning, October 1999.

Table 9

Harford County Residential Building Permit Activity
by Elementary School District
1995 - 1999

SCHOOL	1995 BUILDING PERMITS ISSUED BY DWELLING TYPE					1996 BUILDING PERMITS ISSUED BY DWELLING TYPE					1997 BUILDING PERMITS ISSUED BY DWELLING TYPE					1998 BUILDING PERMITS ISSUED BY DWELLING TYPE					1999 BUILDING PERMITS ISSUED BY DWELLING TYPE				
	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL
Abingdon	76	157	0	0	233	79	91	0	0	170	64	119	0	0	183	50	86	0	0	136	34	131	0	0	165
Bakerfield	20	31	0	0	51	14	55	0	0	69	31	10	0	1	42	33	23	0	1	57	41	8	0	1	50
Bel Air	4	0	0	0	4	1	0	0	1	2	25	16	0	0	41	64	66	0	0	130	61	52	0	0	113
Church Creek	10	39	0	0	49	39	43	116	0	198	29	1	1	1	32	7	5	4	0	16	24	8	19	0	51
Churchville	20	0	0	1	21	18	0	0	3	21	13	0	0	1	14	29	0	0	0	29	22	0	0	1	23
Darlington	6	0	0	4	10	13	0	0	4	17	12	0	0	3	15	14	0	0	3	17	12	0	0	2	14
Deerfield	17	0	0	0	17	39	0	0	0	39	36	0	0	0	36	30	0	0	0	30	36	0	0	0	36
Dublin	15	0	0	4	19	20	0	0	4	24	11	0	0	3	14	7	0	0	1	8	15	0	0	1	16
Edgewood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Emmorton	34	42	0	0	76	37	43	0	0	80	12	19	0	0	31	4	0	0	0	4	16	20	0	0	36
Forest Hill	45	64	24	3	136	63	46	24	0	133	74	35	60	1	170	150	30	60	0	240	151	86	68	1	306
Forest Lakes	41	15	0	0	56	69	28	0	0	97	94	21	0	0	115	26	9	0	0	35	26	7	0	0	33
Fountain Green	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1
G. Lisby at Hillsdale	8	0	0	0	8	11	0	0	0	11	7	0	0	0	7	13	0	1	0	14	18	0	5	0	23
Hall's Cross Roads	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18	2	0	0	0	2
Havre de Grace	0	0	1	1	2	2	0	16	0	18	3	0	17	0	20	7	0	0	0	7	4	0	0	0	4
Hickory	30	0	0	0	30	89	19	0	0	108	123	30	0	1	154	132	51	0	0	183	114	40	6	1	161
Homestead/Wakefield	48	4	50	0	102	52	16	35	0	103	44	1	0	0	45	66	7	0	0	73	97	4	0	0	101
Jarrettsville	21	0	0	2	23	19	0	0	1	20	14	0	0	0	14	21	0	0	1	22	34	0	0	1	35
Joppatowne	66	0	0	2	68	42	17	1	0	60	58	40	12	0	110	45	30	25	0	100	26	38	0	0	64
Magnolia	2	0	0	0	2	26	0	0	0	26	17	0	0	0	17	25	0	0	0	25	16	0	0	0	16
Meadowvale	78	12	6	0	96	90	23	48	0	161	30	30	0	0	60	41	20	0	2	63	40	33	24	0	97
Norrisville	8	0	0	1	9	10	0	0	1	11	15	0	0	0	15	26	0	0	5	31	21	0	0	1	22
North Bend	30	0	0	0	30	34	0	0	5	39	28	0	0	3	31	31	0	0	0	31	42	0	0	2	44
North Harford	32	0	0	6	38	42	0	0	5	47	30	0	0	5	35	37	0	2	3	42	35	0	0	11	46
Prospect Mill	67	24	0	1	92	93	0	0	0	93	59	0	40	0	99	86	0	39	0	125	72	0	55	1	128
Ring Factory	80	37	35	0	152	61	70	46	0	177	36	35	36	0	107	36	59	3	0	98	18	79	0	0	97
Riverside	3	0	0	0	3	11	0	0	0	11	7	0	0	0	7	9	0	0	0	9	22	20	0	0	42
Roye-Williams	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	2	0	0	0	2
Wm. Paca/Old Post Rd	52	117	0	0	169	11	68	0	0	79	43	26	0	1	70	42	30	1	0	73	63	21	0	1	85
Wm. S. James	5	0	0	0	5	1	0	0	0	1	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0
Youth's Benefit	37	0	0	0	37	48	0	0	0	48	90	0	0	0	90	90	0	0	1	91	76	0	0	1	77
TOTAL	868	542	116	25	1,549	1,035	519	286	24	1,864	1,008	383	166	20	1,577	1,126	434	135	18	1,713	1,141	547	177	25	1,890

Source: Harford County Dept. of Planning & Zoning, March, 2000.

KEY:

SF = Single Family Dwelling
TH = Townhouse
APT / CONDO = Apartment / Condominium
MH = Mobile Home

Table 10

Harford County Residential Building Permit Activity
by Middle School District
1995 - 1999

	1995					1996					1997					1998					1999				
	BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE				
SCHOOL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL
Aberdeen	55	35	0	1	91	73	62	116	1	252	73	10	1	2	86	69	41	5	2	117	88	16	24	2	130
Bel Air	181	83	85	0	349	169	129	81	0	379	94	55	36	0	185	109	66	3	0	178	129	103	0	0	232
Edgewood	146	309	0	0	455	131	195	0	1	327	144	146	0	2	292	124	121	1	0	246	137	152	0	1	290
Fallston	77	15	24	1	117	113	28	0	0	141	192	21	0	0	213	125	9	36	1	171	113	8	31	1	153
Havre de Grace	84	12	7	5	108	104	23	64	4	195	45	30	17	3	95	61	20	0	5	86	56	33	24	2	115
Magnolia	71	0	0	2	73	79	17	1	0	97	82	40	12	0	134	79	30	25	0	134	64	58	0	0	122
North Harford	100	0	0	12	112	120	0	0	15	135	93	0	0	10	103	120	0	2	9	131	142	0	0	15	157
Southampton	152	88	0	4	244	246	65	24	3	338	285	81	100	3	469	439	147	63	1	650	412	177	98	4	691
TOTAL	866	542	116	25	1,549	1,035	519	286	24	1,864	1,008	383	166	20	1,577	1,126	434	135	18	1,713	1,141	547	177	25	1,890

Source: Harford County Department of Planning and Zoning, March, 2000.

KEY:

SF = Single Family Dwelling
TH = Townhouse
APT / CONDO = Apartment / Condominium
MH = Mobile Home

Table 11

Harford County Residential Building Permit Activity
by High School District
1995 - 1999

	1995					1996					1997					1998					1999				
	BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE				
SCHOOL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL
Aberdeen	55	35	0	1	91	73	62	116	1	252	73	10	1	2	86	69	41	5	2	117	88	16	24	2	130
Bel Air	181	83	85	0	349	169	129	81	0	379	112	55	36	0	203	141	69	3	0	213	165	116	0	0	281
C. Milton Wright	140	81	0	4	225	229	19	0	3	251	245	46	40	3	334	377	114	39	1	531	341	79	55	4	479
Edgewood	146	309	0	0	455	131	195	0	1	327	144	146	0	2	292	124	121	1	0	246	137	152	0	1	290
Fallston	89	22	24	1	136	130	74	24	0	228	214	56	60	0	330	155	39	60	1	255	148	93	74	1	316
Havre de Grace	84	12	7	5	108	104	23	64	4	195	45	30	17	3	95	61	20	0	5	86	56	33	24	2	115
Joppatowne	71	0	0	2	73	79	17	1	0	97	82	40	12	0	134	79	30	25	0	134	64	58	0	0	122
North Harford	100	0	0	12	112	120	0	0	15	135	93	0	0	10	103	120	0	2	9	131	142	0	0	15	157
TOTAL	866	542	116	25	1,549	1,035	519	286	24	1,864	1,008	383	166	20	1,577	1,126	434	135	18	1,713	1,141	547	177	25	1,890

Source: Harford County Department of Planning and Zoning, March, 2000.

KEY:

SF = Single Family Dwelling
TH = Townhouse
APT / CONDO = Apartment / Condominium
MH = Mobile Home

Table 12

Harford County
Population and Households
by Elementary School District

1995 - 1999

SCHOOL	1995 *		1996 *		1997*		1998*		1999*	
	Population	Households	Population	Households	Population	Households	Population	Households	Population	Households
Abingdon	9,890	3,483	10,465	3,704	10,931	3,866	11,356	4,039	11,643	4,169
Bakerfield	7,699	2,711	7,797	2,759	7,968	2,825	8,054	2,865	8,153	2,919
Bel Air	9,113	3,209	9,086	3,216	9,098	3,217	9,155	3,256	9,440	3,380
Churchville	6,045	2,129	6,147	2,175	6,683	2,363	6,730	2,394	6,729	2,409
Church Creek	7,708	2,714	7,740	2,739	7,802	2,759	7,794	2,772	7,821	2,800
Darlington	2,240	789	2,255	798	2,303	814	2,329	829	2,359	845
Deerfield	5,700	2,007	5,717	2,023	5,826	2,060	5,888	2,094	5,930	2,123
Dublin	3,852	1,356	3,884	1,374	3,951	1,397	3,965	1,410	3,961	1,418
Edgewood	4,851	1,708	4,827	1,708	4,830	1,708	4,802	1,708	4,774	1,709
Emmorton	4,704	1,656	4,884	1,729	5,103	1,805	5,156	1,834	5,133	1,838
Forest Hill	6,411	2,258	6,758	2,392	7,121	2,518	7,533	2,680	8,121	2,908
Forest Lakes	3,635	1,280	3,922	1,388	4,188	1,481	4,471	1,590	4,536	1,624
Fountain Green	5,997	2,112	5,967	2,112	5,971	2,112	5,942	2,114	5,906	2,115
G. Lisby at Hillsdale	5,393	1,899	5,388	1,907	5,421	1,917	5,409	1,924	5,411	1,937
Hall's Cross Roads	5,239	1,845	5,226	1,849	5,230	1,849	5,199	1,849	5,213	1,867
Havre de Grace	7,359	2,591	7,328	2,593	7,381	2,610	7,392	2,629	7,363	2,636
Hickory	5,161	1,817	5,230	1,851	5,524	1,954	5,903	2,100	6,351	2,274
Homestead/Wakefield	13,392	4,716	13,613	4,818	13,900	4,915	13,939	4,958	14,043	5,028
Jarrettsville	6,431	2,264	6,460	2,286	6,519	2,305	6,518	2,319	6,534	2,339
Joppatowne	8,362	2,944	8,503	3,009	8,670	3,066	8,913	3,171	9,121	3,266
Magnolia	4,110	1,447	4,095	1,449	4,168	1,474	4,189	1,490	4,228	1,514
Meadowvale	7,451	2,624	7,685	2,720	8,124	2,873	8,237	2,930	8,350	2,990
Norrisville	2,261	796	2,274	805	2,305	815	2,332	829	2,399	859
North Bend	5,662	1,994	5,719	2,024	5,828	2,061	5,877	2,091	5,921	2,120
North Harford	5,571	1,962	5,646	1,998	5,776	2,043	5,836	2,076	5,910	2,116
Prospect Mill	7,028	2,475	7,254	2,567	7,509	2,656	7,730	2,750	8,012	2,868
Ring Factory	6,019	2,119	6,445	2,281	6,925	2,449	7,170	2,551	7,384	2,644
Riverside	8,960	3,155	8,923	3,158	8,959	3,168	8,926	3,175	8,892	3,184
Roye-Williams	4,823	1,698	4,802	1,699	4,808	1,700	4,780	1,700	4,752	1,701
Wm. Paca/Old Post Rd	9,709	3,419	10,184	3,604	10,404	3,679	10,530	3,746	10,656	3,815
Wm. S. James	4,403	1,550	4,394	1,555	4,400	1,556	4,377	1,557	4,357	1,560
Youth's Benefit	13,952	4,913	13,982	4,948	14,121	4,994	14,279	5,079	14,428	5,166
TOTAL	209,130	73,640	212,600	75,238	217,770	77,010	220,710	78,508	223,830	80,136

*Population as of April 1.

Source: Harford County Dept. of Planning & Zoning, May, 2000.

Table 13

Harford County
Population and Households
by Middle School District

1995 - 1999

SCHOOL	1995 *		1996 *		1997 *		1998 *		1999 *	
	Population	Households	Population	Households	Population	Households	Population	Households	Population	Households
Aberdeen	33,285	11,705	33,319	11,791	34,020	12,031	34,052	12,113	34,142	12,224
Bel Air	27,173	9,556	28,058	9,930	29,080	10,284	29,405	10,459	29,689	10,629
Edgewood	30,721	10,853	31,889	11,285	32,791	11,596	33,379	11,873	33,816	12,107
Fallston	21,302	7,491	21,481	7,602	21,876	7,736	22,317	7,938	22,627	8,101
Havre de Grace	17,009	5,981	17,190	6,084	17,727	6,269	17,877	6,359	17,990	6,441
Magnolia	21,678	7,623	21,736	7,692	22,013	7,785	22,242	7,912	22,454	8,039
North Harford	22,504	7,914	22,782	8,062	23,162	8,191	23,302	8,289	23,498	8,413
Southampton	35,458	12,517	36,143	12,791	37,101	13,120	38,134	13,564	39,612	14,182
TOTAL	209,130	73,640	212,600	75,238	217,770	77,010	220,710	78,508	223,830	80,136

* Population as of April 1

* Source: Harford County Department of Planning and Zoning, March, 2000.

Table 14

Harford County
Population and Households
by High School District

1995 - 1999

SCHOOL	1995 *		1996 *		1997 *		1998 *		1999 *	
	Population	Households	Population	Households	Population	Households	Population	Households	Population	Households
Aberdeen	33,310	11,705	33,319	11,791	34,020	12,031	34,053	12,113	34,148	12,226
Bel Air	33,840	11,992	34,941	12,366	35,969	12,720	36,253	12,895	36,491	13,064
Edgewood	30,503	10,853	31,889	11,285	32,791	11,596	33,379	11,873	33,816	12,107
Fallston	24,165	8,429	24,132	8,540	24,529	8,674	24,954	8,876	25,247	9,039
Havre de Grace	16,946	5,981	17,190	6,084	17,727	6,269	17,877	6,359	17,990	6,441
Joppatowne	21,671	7,623	21,736	7,692	22,013	7,785	22,242	7,912	22,454	8,039
North Harford	22,469	7,914	22,782	8,062	23,162	8,191	23,302	8,289	23,498	8,413
C. Milton Wright	26,226	9,143	26,609	9,417	27,560	9,746	28,648	10,190	30,185	10,807
TOTAL	209,130	73,640	212,600	75,238	217,770	77,010	220,710	78,508	223,830	80,136

* Population as of April 1

* Source: Harford County Department of Planning and Zoning, March, 2000.

WATER AND SEWERAGE

Introduction

The data included in this section for the water and sewerage system are aggregated by the water & sewer service area, which essentially reflects the Development Envelope as defined in the 1996 Harford County Land Use Element Plan. Additional information is included in this report on water/sewerage usage by dwelling type and for nonresidential uses, an inventory of existing water consumption/sewerage flows, demand projections (including the basis for their computation), and a list of capital projects contained in the County's Capital Improvements Program for expanding facilities - including project status. This information is extracted from the "1999 Water and Sewer Adequate Public Facilities Report," and can be found on pages 24 - 27 of this report.

Water and Sewer Facility Projection Methodology

Water:

The Harford County water service area is divided into four pressure zones because of varying topography within the Development Envelope. To provide an adequate supply of water, the transmission lines, pumping and storage facilities for all zones must be sized for estimated future demands. In 1990, the average daily water demand by customers served by the County's central system was approximately 5.9 MGD, with a corresponding maximum day demand of approximately 7.6 MGD. In 1999, the County's average day and maximum day demands were 10.6 MGD and 14.8 MGD respectively. To keep pace with the projected growth, staged construction programs are established so that facilities are available as required and are distributed over the long term.

There are seven multiple-use water systems that are not maintained or operated by Harford County, but are subject to the APF provision of the County Code. These systems are listed below:

1) Maryland-American Water Co.
2) Conowingo Power Co.
3) Campus Hills Water Works Inc.
4) Darlington
5) Greenridge Utilities Inc.
6) Lakeside Vista
7) Bel Air Heights

Sewerage:

The sewage flows to Harford County's existing Sod Run and Joppatowne Wastewater Treatment Plants (WWTP) originate from a portion of the Development Envelope. The area between the municipalities of Aberdeen and Havre de Grace as well as the cities themselves, are within the Development Envelope and are served by the municipal sewerage facilities. A complete "Sewer System Capacity Analysis" is included on pages 8 - 10 and pages 32 - 147 of the 1999 Water and Sewer Adequate Public Facilities Report.

The average daily influent flow to the Sod Run WWTP in 1999 was approximately 10.8 MGD, exclusive of recycle flows and septage. The average daily influent flow to the Joppatowne WWTP in 1999 was approximately 0.812 MGD. The determination of future wastewater flows to wastewater treatment plants are made by using population and household projections developed by Harford County Department of Planning and Zoning for the years 1995 through 2010. The projections were distributed by local transportation zone (LTZs) by aggregating the ultimate development in terms of equivalent dwelling units into sewerage drainage areas. In order to keep pace with projected growth, construction of an expansion of the Sod Run Wastewater Treatment Plant from 12 MGD in 1995 to 20 MGD by 2000 had been initiated. There are two private multi-use sewerage systems in the County. The Conowingo-Susquehanna Power Company provides sewerage service to the Conowingo Power Plant and some surrounding residences and the Swan Harbor Dell Mobile Home Park that serves about 160 units.

Table 15

JANUARY - DECEMBER 1999
WATER CONSUMPTION & SEWAGE GENERATION

This table reflects the total number of water and sewer customers and the water consumption and sewage generations for residential and commercial/industrial users.

	1999
Total Number of Connections	33,311
WATER	
Average Water Production	10.6 MGD
Maximum Day Water Production	14.8 MGD
Average Water Usage per Connection (gal/day)	341
Residential Unit Water Usage (gal/day)	174
Average Commercial/Industrial Water Usage (gal/day)	3,311
SEWAGE	
Average Sewage Flows	11.6 MGD
Maximum Day Sewage Flows	30.1 MGD
Average Sewage per Connection (gal/day)	361
Residential Sewage Generation (gal/day)	174
Average Commercial/Industrial Sewage Generation (gal/day)	3,311

- MGD = Million Gallons per Day

Table 16

HARFORD COUNTY SYSTEM WATER PRODUCTION PROJECTIONS

SYSTEM WIDE RESIDENTIAL/ COMMERCIAL INDUSTRIAL WATER DEMAND	YEAR												
	1990	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020
FIRST ZONE													
Avg. Day, mgd	3.4	3.2	3.4	4.1	4.05	4.5	4.5	4.6	5.2	6.2	7.0	9.0	10.4
Max. Day, mgd	4.3	4.6	4.8	6.0	4.8	6.5	6.6	6.5	6.6	8.4	9.9	15.3	18.2
Total of Second, Third and Fourth Zones Requirements													
Avg. Day, mgd	2.5	3.5	3.7	3.8	4.5	5.0	5.0	5.7	5.0	6.3	7.9	9.0	9.9
Max. Day, mgd	3.3	3.9	4.0	5.6	5.9	6.8	6.9	7.3	8.0	10.0	12.0	17.7	19.5
Aberdeen													
Avg. Day, mgd	0.0	0.0	0.0	0.5	.05	.03	.01	0.3	0.5	0.5	0.5	0.5	0.5
Max. Day, mgd **	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Maryland-American Water Company													
Avg. Day, mgd	0.0	0.0	0.0	0.0	0.0	.07	.01	.01	.01	.01	.01	.01	.01
Max. Day, mgd **	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total													
Avg. Day, mgd	5.9	6.7	7.1	8.4	8.6	9.6	9.5	10.6	10.7	13.0	15.4	18.5	20.8
Max. Day, mgd	7.6	8.5	8.8	12.1	11.2	14.3	14.5	14.8	15.6	19.4	22.9	34.0	38.7

** - Allocated maximum day flow projections per service agreements.

Table 17

Harford County Present and Projected Sewerage Demands and Planned Capacities In Million Gallons Per Day - (MGD)

		SERVICE AREAS		
	PLANNING YEAR	HARFORD COUNTY	JOPPATOWNE	SPRING MEADOWS
PER CAPITA SEWAGE FLOW	1993-2010	90	80	65
RESIDENTIAL POPULATION SERVED	1993	70,732	7,000	153
	1994	78,849	7,000	153
	1995	81,696	7,000	153
	1996	85,449	7,300	153
	1997	86,000	7,400	153
	1998	91,547	7,500	153
	1999	97,198	7,600	153
	2000	100,000	8,100	153
	2005	104,000	8,800	153
	2010	113,000	9,500	153
DOMESTIC FLOW (ADF)	1993	7.7	.59	.01
	1994	7.9	.56	.01
	1995	7.7	.56	.01
	1996	8.1	.56	.01
	1997	7.8	.56	.01
	1998	8.4	.71	.01
	1999	8.6	.64	.01
	2000	8.6	.59	.01
	2005	9.4	.65	.01
	2010	10.0	.76	.01
INDUSTRIAL FLOW (ADF)	1993	.4	0.0	0
	1994	.5	0.0	0
	1995	.5	0.0	0
	1996	.5	0.0	0
	1997	.5	0.0	0
	1998	.5	0.0	0
	1999	.5	0.0	0
	2000	.5	0.0	0
	2005	.6	0.0	0
	2010	.6	0.0	0
INFILTRATION/INFLOW (ADF)	1993	1.0	.19	0
	1994	1.4	.19	0
	1995	1.4	.19	0
	1996	1.5	.19	0
	1997	1.4	.19	0
	1998	1.6	.19	0
	1999	1.7	.19	0
	2000	1.7	.19	0
	2005	1.7	.19	0
	2010	1.9	.19	0
TOTAL FLOW	1993	9.1	.78	.01
	1994	9.8	.75	.01
	1995	9.6	.75	.01
	1996	10.0	.75	.01
	1997	9.7	.75	.01
	1998	10.5	.90	.01
	1999	10.8	.80	.01
	2000	10.8	.80	.01
	2005	11.7	.84	.01
	2010	12.5	.95	.01
SYSTEM CAPACITY	1993	10.0	.75	.01
	1994	12.0	.75	.01
	1995	12.0	.75	.01
	1996	12.0	.75	.01
	1997	20.0	.95	.01
	1998	12.0	.95	.01
	1999	20.0	.95	.01
	2000	20.0	.95	.01
	2005	20.0	.95	.01
	2010	20.0	.95	.01

Table 18

1999 Existing Water & Sewer Capital Projects

The Capital Improvement Program establishes projects for expanding water and sewer facilities. This list of 1999 Capital Projects includes the projects status.

Project Number	Project Name	Project Status
6438	Winters Run Parallel Interceptor	Phase 2: Construction Completed
6440	Infiltration/Inflow	Initiating program
6458	Lower Bynum Run Parallel Interceptor	Phase 2: Construction Completed Phase 3: Under design & Awaiting Rights-of-Way
6486	Whiteford - Cardiff Sewer Petition	Design Complete & Awaiting Rights-of-Way
6487	Perryman Well Head Protection Program	Complete
6509	Singer Road Water Transmission Main	Design completed & Awaiting Highway Rights-of-Way issues
6518	Red Pump Road Transmission Main Parallel	Defining re-design scope
6521	Boulton St. & Tollgate Rd. Trans. Main	Under design & Awaiting Rights-of-Way
6531	Sod Run WWTP - Stage 2	Construction complete
6540	Country Walk Tank & Booster Station	Design completed
6547	Underwood Lane Sewer Petition	Construction completed
6553	Upper Lake Fanny Sewer Petition	Construction complete for Phases I & II Bid advertisement for Phase III construction.
6563	Fox Bow Pumping Station	Under construction
6564	Forest Lakes Elevated Water Storage Tank	Construction completed
6565	Fallston Water & Fire Storage	Construction complete
6575	Tollgate Rd & Plumtree Rd Water	Under design and Awaiting Rights-of-Way
6581	Sod Run Interceptor Sewer Parallel Ph. I	Under construction
6582	Bynum Run Collector Section III	Construction complete
6591	Perryman Well Field Improvements	Design complete and Awaiting Rights-of-Way
6594	Sod Run WWTP - Stage 2	Under construction
6596	Connolly Road Water Petition	Under design
6603	Abingdon Road Water Main Phase III	Defining scope
6608	Bush Creek P.S. Force Main Surge Facility Modification	Defining scope
	Old Joppa Road Sewer Petition	Preparing documents for Council approval

ROAD SYSTEM

Introduction

The information for the APF Road System contained in this section includes the following: signalized and unsignalized intersection capacity analysis results - existing conditions (Tables 19 and 20), average daily count locations (Table 21), a list of approved county capital projects funded for construction in FY 98 (Table 22), and a list of state consolidated transportation program projects funded for construction FY 98 (Table 23). This information will help identify existing deficiencies in the road system and guide both County and State capital project funding to the most critical road projects.

The intent of the APF Roads provisions of the County Code is to create a mechanism that requires proposed development to make appropriate and reasonable road improvements, based on the proposed development's impact to the road.

Road Intersection Analysis Methodology

A key feature of the APF Road Intersection regulations is the requirement for preparation of a traffic impact analysis (TIA) for residential and nonresidential uses that generate more than 249 trips. Proposed development located within the Route 40 Overlay District will not be required to submit a Traffic Impact Analysis unless the proposed use will generate 1,500 trips per day at the time of preliminary/site plan review. The TIA provides information regarding the impact of generated trips from proposed land uses on traffic safety and traffic operation within a designated area and recommending solutions to mitigate the impact. The method of conducting a Traffic Impact Analysis is outlined in the "Harford County Traffic Impact Analysis Guidelines".

A complete TIA includes the following:

- The designation of the study area as required in the APF regulations based on whether the proposed development is inside or outside of the Development Envelope.

Inside the Development Envelope :
The TIA shall include all the existing County and State roads from the point of entrance of site to the second intersection of an arterial roadway or higher functional classification road, in all directions. Developments which generate 1,500 or more trips per day may be required to expand the study area.

Outside the Development Envelope :
The TIA shall include all existing County and State roads from point of entrance to first intersection of a major collector or higher classification road, in all directions.

- An analysis of existing conditions including traffic counts, lane configuration, and signal timings.

- An analysis of background conditions without site development, including growth in background traffic, future traffic generated by nearby proposed developments and the determination of Levels of Service with any approved/funded State and County Capital projects.

- An analysis of the projected conditions with site development, including the traffic being generated by the proposed development and the background traffic.

- An explanation of the results with recommended improvements as necessary.

The Developer is required to provide improvements where the trips generated by the development reduce the Level Of Service (LOS) from adequate to a LOS below the standard. The standard for intersections within the Development Envelope will be LOS D. If existing LOS is E or F at an intersection within the Development Envelope, the developer must mitigate the impact of the development's new trips. The standard for intersections outside the Development Envelope will be LOS C. If the existing LOS is D or lower, then the developer must mitigate the impact of the development's new trips.

Table 19

Signalized Intersection Capacity Analyses Results

Existing Conditions

1999

Intersection	Level of Service (Peak Hour)	Delay in Seconds (P.M.)
MD 24 and Bel Air South Parkway	D	54.9
MD 7 and U.S. 40	D	30.1
MD 24 and MD 924 (Tollgate)	F	> 60
MD 24 and Ring Factory Road	D	53.7
MD 543 and U.S. 1	C	32.2
MD 924 and Abingdon Road	D	48.1
MD 22 and MD 136	C	28.5
MD 924 and Moores Mill Road	C	27.6
MD 24 and MD 755	D	38.8
MD 22 and Brierhill Road	C	31.6
MD 543 and MD 22	D	45.0
MD 24 and Trimble Road	D	29.9
MD 136 and MD 165	B	13.6
MD 152 and U.S. 1	F	> 60
MD 24 and U.S. 1	D	50.4
MD 152 & Trimble Road	D	42.7
MD 24 and Jarrettsville Road	C	22.0
MD 543 and Wheel Road	C	32.3
MD 152 and Hanson Road	C	32.3
MD 24 and Plumtree Road	C	22.6
MD 924 and Plumtree Road	B	13.4

Table 20

Unsignalized Intersection Capacity Analyses Results

Existing Conditions

1999

Intersection	Level of Service (Peak Hour)	Delay in Seconds (P.M.)
Interstate 95 and MD 24 Ramp	F	> 60
MD 152 and Singer Road	F	> 60
MD 159 and Spesutia Road	B	12.4
MD 165 and MD 24	C	24.3
MD 24 and Forest Valley Road	F	> 60
MD 7 and MD 159	B	13.5

Table 21

Average Daily Count Locations - 1999

Road Name	Location	Average Weekday Daily Count
Abingdon Road	North of Interstate 95	8,252
Beards Hill Road	North of Churchville Road	10,729
Chapel Road	North of Interstate 95	1,681
Hanson Road	South of Silverbell Road	3,188
Hanson Road	West of Maryland 24	12,547
Jarrettsville Road	East of Maryland 24	8,813
Maryland 152	South of U.S. Route 1	25,975
Maryland 24	North of Singer Road	41,850
Maryland 543	South of Maryland 22	16,675
Maryland 7	West of Maryland 24	5,277
Moores Mill Road	West of Coconut Court	10,884
Moores Mill Road	West of Old English Court	8,363
Pleasantville Road	North of Putnam Road	2,796
Plumtree Road	East of Maryland 24	3,985
Ring Factory Road	West of Maryland 24	4,433
Ring Factory Road	East of Maryland 24	8,104
Singer Road	East of Maryland 24	8,021
Singer Road	West of Maryland 24	10,783
Stepney Road	North of I-95, South of Carsins Run	1,181
Trimble Road	East of Maryland 24	4,977
Trimble Road	West of Maryland 24	6,634
U.S. Route 1	North of Maryland 152	25,675
U.S. Route 40	North of Maryland 24	19,610

Table 22

List of Approved County Capital Projects

Funded for Construction in FY 00

Bridge Inspection Program	Inspection
Forge Hill Road Bridge	Reconstruction
Greene Road Bridge	Reconstruction
Moores Mill Road Bridge	Reconstruction
Singer Road Bridge	Reconstruction

Table 23

State Consolidated Transportation Program

Funded for Construction in FY 00

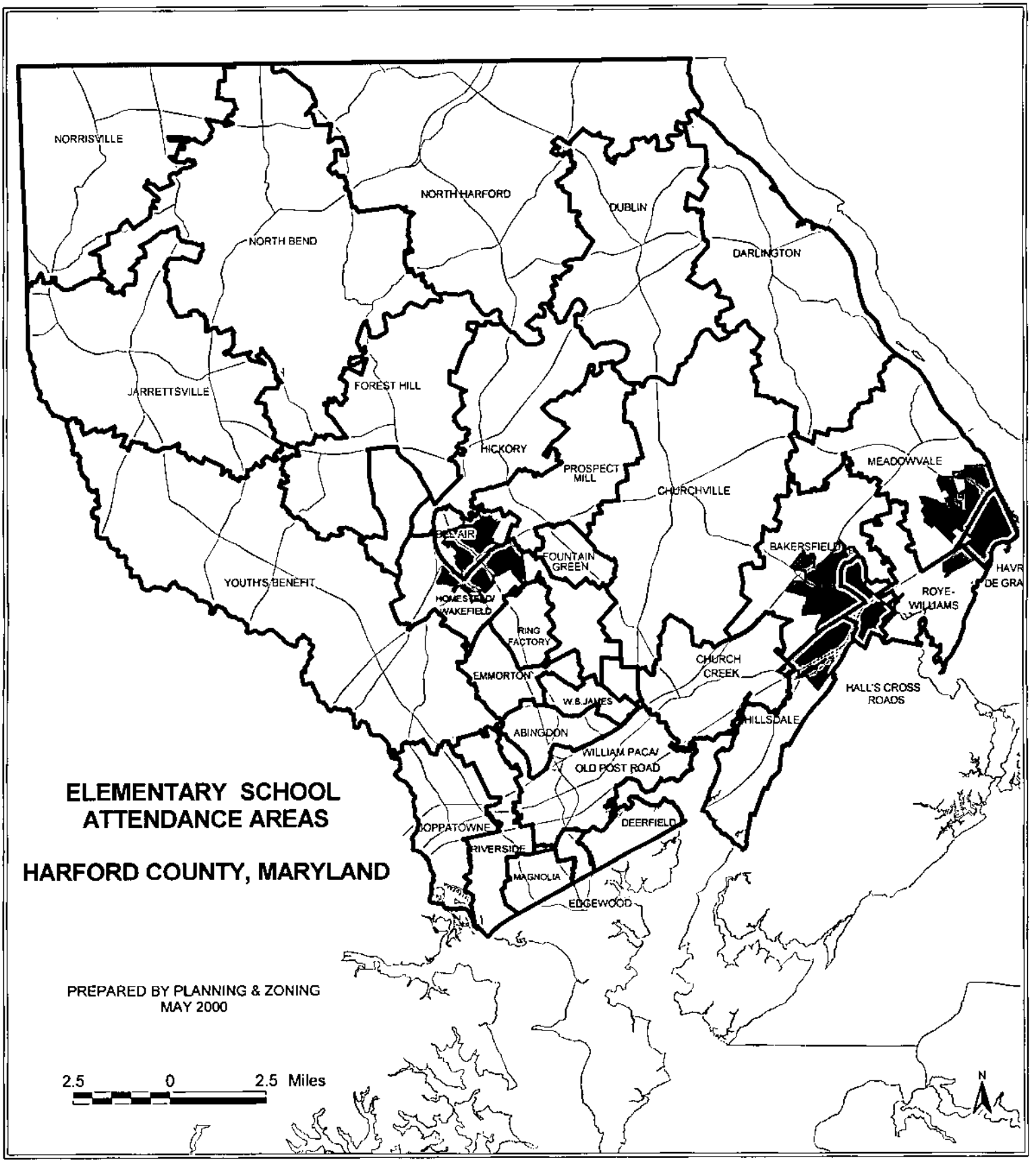
Conowingo Road from Forge Hill Road to Poole Road	Resurface
Bel Air Road from MD 152 to MD 147	Resurface
Norrisville Road from MD 138 to MD 439	Resurface
Pulaski Highway from Long Bar Harbor Road to MD 7	Resurface eastbound roadway
Harford Road from the Baltimore County line to U.S. 1	Resurface
Darlington Road from Harmony Church Road to Trappe Church Road	Resurface
Vietnam Veterans Memorial Highway at MD 924 / Tollgate Road	Construct additional lane
Emmorton Road from Plumtree Road to Patterson Mill Road	Construct auxiliary lane
Troyer Road from Baltimore County Line to MD 23	Resurface
Ma and Pa Trail, Phase II (Bel Air Area)	Hiker / Biker Trail

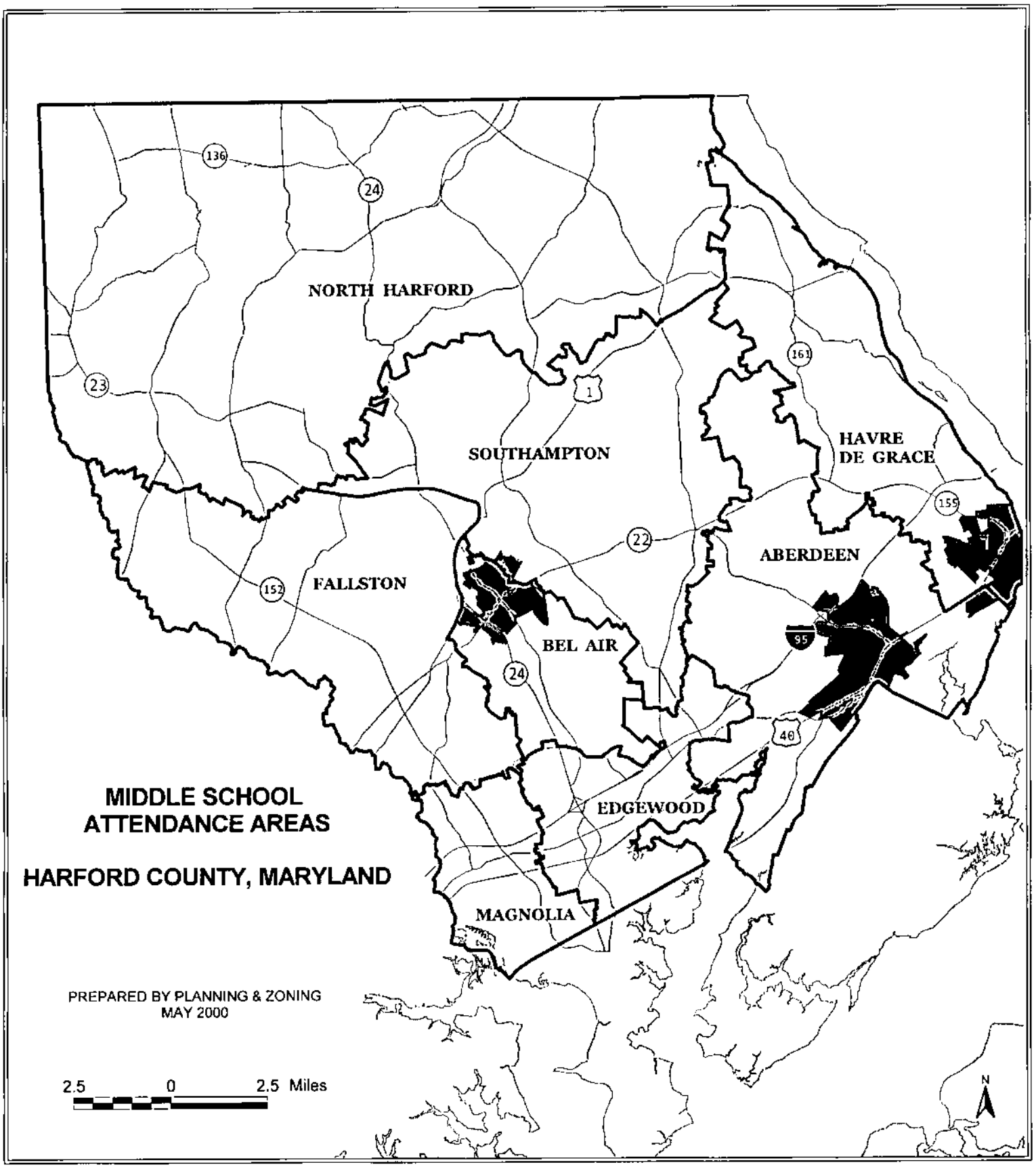
APPENDIX

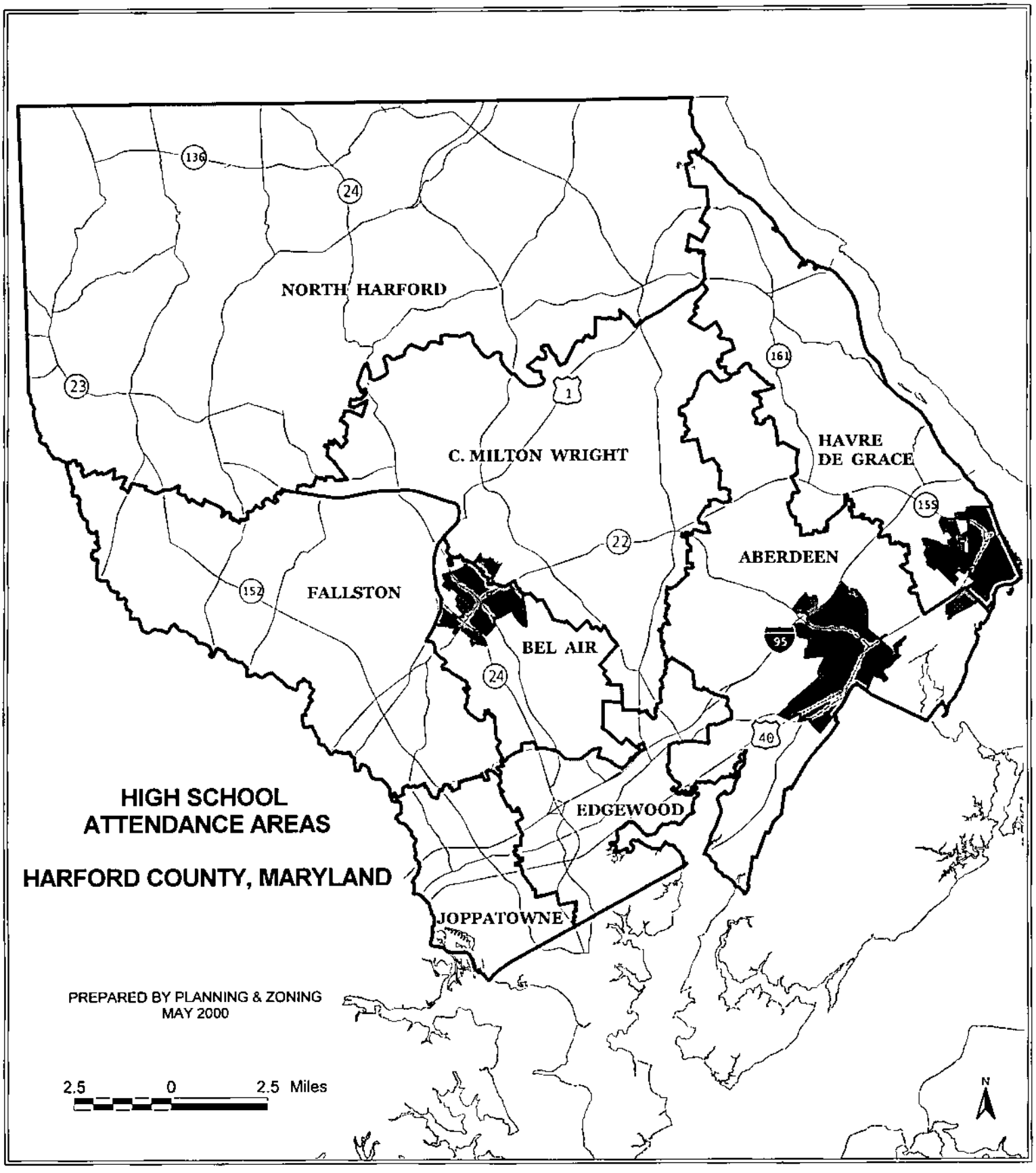
PUPIL YIELD FACTORS

Forty subdivisions were selected from various geographic locations throughout Harford County, to include single family dwellings, townhouse units, apartments/condominium units, and mobile home units. The subdivisions selected represented newly constructed and established subdivisions ranging in size from 28 units to 2,423 units. Additionally, subdivisions were selected to provide a broad range of attendance areas across the County. A count was made of each student who resided in each of the forty subdivisions studied. The data were tabulated by unit type, and the specific pupil yields were calculated for each subdivision in the elementary, middle, and high schools.

	GRADES		
UNIT TYPE	**K-5**	**6-8**	**9-12**
Single Family	.31	.17	.18
Townhome	.25	.09	.09
Apartments (2 Bdrms)	.09	.04	.04
Condo (2+ Bdrms)	.09	.04	.04
Mobile Home	.13	.05	.07


NORRISVILLE
NORTH HARFORD
DUBLIN
NORTH BEND
DARLINGTON
JARRETTSVILLE
FOREST HILL
HICKORY
PROSPECT MILL
MEADOWVALE
CHURCHVILLE
BEL AIR
FOUNTAIN GREEN
BAKERSFIELD
HAVR DE GRA
YOUTH'S BENEFIT
HOMESTEAD/ WAKEFIELD
ROYE-WILLIAMS
RING FACTORY
CHURCH CREEK
EMMORTON
HALL'S CROSS ROADS
W.S. JAMES
HILLSDALE
ABINGDON
WILLIAM PACA/ OLD POST ROAD
DEERFIELD
JOPPATOWNE
RIVERSIDE
MAGNOLIA
EDGEWOOD
ELEMENTARY SCHOOL ATTENDANCE AREAS
HARFORD COUNTY, MARYLAND
PREPARED BY PLANNING & ZONING
MAY 2000
2.5 0 2.5 Miles
N


NORTH HARFORD
SOUTHAMPTON
HAVRE DE GRACE
ABERDEEN
FALLSTON
BEL AIR
EDGEWOOD
MAGNOLIA
136
24
23
1
161
155
22
152
95
40
MIDDLE SCHOOL ATTENDANCE AREAS
HARFORD COUNTY, MARYLAND
PREPARED BY PLANNING & ZONING
MAY 2000
2.5 0 2.5 Miles
N


NORTH HARFORD
C. MILTON WRIGHT
HAVRE DE GRACE
ABERDEEN
FALLSTON
BEL AIR
EDGEWOOD
JOPPATOWNE
136
24
23
1
161
155
22
152
95
40
HIGH SCHOOL ATTENDANCE AREAS
HARFORD COUNTY, MARYLAND
PREPARED BY PLANNING & ZONING
MAY 2000
2.5 0 2.5 Miles
N