

CONCURRENCY MANAGEMENT REPORT FISCAL YEAR 2018 (July 1, 2017 – June 30, 2018)



*Carroll County Department of Land & Resource Management
Bureau of Development Review*

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OVERVIEW

The stated purpose of Adequate Public Facilities and Concurrency Management (Chapter 156 of the Carroll County Code of Public Local Laws and Ordinances) is to ensure that proposed or planned residential growth proceeds at a rate that will not unduly strain public facilities, including schools, roads, public water and sewer facilities, and police, fire, and emergency medical services. The Code established minimum adequacy standards or thresholds for those facilities and services and mandates that the cumulative impacts of proposed or planned residential growth within the incorporated municipalities and the County be considered in testing for adequacy under these standards. Concurrency management was initially adopted in 1998. Concurrency testing does not apply to projects in any of the municipalities, off-conveyances, commercial and industrial projects, minor residential subdivisions, and attached/detached accessory dwelling units. Although these lots are not tested, they are included into the development pipeline. Retirement homes that are located within a public water and a public sewer service area do not require adequacy approval as to schools but shall meet all other requirements of the Chapter.

The ordinance defines Available Threshold Capacity (ATC) as “The amount of capacity available for future development under this chapter determined by balancing the county’s ability to pay for infrastructure, schools, and police, fire, and emergency medical services with building permit reservations and phasing of projects. Capacity of a facility is determined by the county or the incorporated municipality, if applicable.” When a facility or service becomes inadequate in accordance with the standards, the Board of County Commissioners (the Board) can adopt specific geographical area restrictions on the issuance of building permits.

A development project’s ATC is tentatively determined when a developer submits a concept plan. This tentative determination expires six months after issuance unless a preliminary plan is submitted. The ATC for a development project is officially reviewed prior to presentation of the preliminary plan to the Carroll County Planning and Zoning Commission (the Commission). If all public facilities and services are adequate during the current Community Investment Plan (CIP), the Commission may approve the plan to proceed to the final plan stage and issue a recordation schedule and building permit reservations. When a development plan is presented to the Commission regarding the adequacy of public facilities and services for projects subject to this chapter, the Commission shall consider the cumulative impacts of the development pipeline in both the county and in the incorporated municipalities.

Where ATC does not exist or is projected to be inadequate at the preliminary plan stage and no relief facility or service is planned in the six-year CIP that addresses the inadequacy, the plan shall be denied by the Commission and assigned a place in a queue and re-tested annually. If a relief facility or service is planned in the six-year CIP to address the inadequacy or if the public facility or service is approaching inadequacy during the current CIP, the Commission may conditionally approve the plan to proceed to the final plan stage and issue a tentative recordation schedule (phasing of permits can occur) and tentative building permit reservations, which are subject to modification at the final plan stage. If the public facility or service is considered inadequate during the current CIP, the developer may propose mitigation to alleviate the inadequacy; however, the Board would determine the acceptability of the mitigation.

Chapter 156 limits the issuances of building permits as follows:

E) Building permit limits:

(1) Except as provided in division (E)(2) below, the county shall not issue more than 25 building permits per subdivision or 25 residential dwelling units or equivalent dwelling units, as applicable for the project, per fiscal year. The building permits are nontransferable from one lot to another and shall not exceed 25 per subdivision regardless of multiple or successive ownership;

(2) For multi-unit residential site plans, the county shall not issue a building permit or permits for more than 50 residential dwelling units or equivalent dwelling units, as applicable for the project, per fiscal year;

(3) A developer may not circumvent the provisions of this chapter by submitting piecemeal applications for approvals for any parcel of land subdivided after March 5, 1998; and

(4) This division (E) is in addition to and not in lieu of any other limit imposed by law, regulation, or PWA.

(5) Waiver. A written request for a waiver may be submitted to the Department requesting relief from § 156.04(E)(2). The request must be supported by compelling, credible data and evidence associated with special conditions or exceptional circumstances peculiar to the project. The issuance of a waiver will be available only for retirement home developments which shall not exceed 150 dwelling units during a three consecutive fiscal year period. (The waiver request code section was adopted by the Board of County Commissioners on July 3, 2017.)

Additionally, a specific code requirement in Chapter 155, Development and Subdivision of Land, specifically restricts the number of recorded lots per development parcel to 25 lots per fiscal year. The testing of projects in accordance with Chapter 156 and the limitation on recordation of lots do phase and manage the impact of residential development located in the unincorporated areas of Carroll County.

In 2012, the State of Maryland passed Senate Bill 236 (The Sustainable Growth and Agricultural Preservation Act of 2012) which prohibits the Carroll County Planning Commission from approving any new residential preliminary plan greater than seven lots for residential subdivisions on private septic systems. Residential developments of eight lots or greater will now occur solely in public sewer areas which are located in either the municipalities or in the Freedom service area.

Residential developments located in the municipalities are subject to their own Planning Commission review and approval process. Each municipality independently defines levels of adequacy and establishes phasing requirements which may differ with County standards.

As required by the Code (§156.07B), an annual report is to be prepared for the Board and the Commission to assist in the CIP planning process, to recommend possible building permit caps for areas of the County where facilities or services are not adequate to serve proposed residential development, and to identify issues regarding implementation of concurrency management.

The following is a summary of this report:

Residential Development Activity

- 2,078 new residential units were issued a building permit for the six-year reporting period of FY 2013-2018.
- 518 new residential lots were recorded; 447 of those were in the municipalities.

Actions by the Planning Commission

- The Commission approved one residential site plan (age-restricted).
- The Commission approved 9 new residential subdivisions comprising 13 lots.

Available Capacity of Public Facilities and Services

- Improvements are planned in the six-year CIP for 2 bridges that are inadequate for certain fire and emergency response apparatus.
- Freedom Elementary is rated approaching inadequate for FY 2021-2023. All other elementary schools are projected to be adequate through FY 2024.
- All middle and high schools are rated adequate through FY 2024

Recommendations

- Police: Consider recognizing authorized positions instead of sworn positions.
- CCVESA continues to discuss changes to fire and medical emergency service threshold standards.

CHAPTER ONE

DEVELOPMENT ACTIVITY

To provide analysis of the cumulative impact of residential units on the management and capacity of facilities, the monitoring and tracking of residential development includes projects in the development review process for both the incorporated and unincorporated areas. Although the County tracks development projects in the incorporated areas, specific plan approval and adequate facility review is administered by the applicable municipality.

Division of property typically involves either the off-conveyance procedure or the subdivision process. Unlike the subdivision process which requires the approval of the Commission, the off-conveyance procedure is administered through a staff review and approval process.

Off-conveyances are the first two divisions (lots created) from a parcel that existed as of April 23, 1963. Since only properties that existed as of April 23, 1963 may be considered for off-conveyances, the number of lots created through this procedure will eventually be exhausted. Once approved, off-conveyances must be recorded within six months or the approval expires. Lots created through the off-conveyance procedure are not subject to the concurrency testing requirement but are tracked in the concurrency database. The following table shows the number of off-conveyances approved in the past nine fiscal years. When compared to the six-year reporting period of FY 1999 to FY 2004 (482 approved off-conveyance lots), the number of approved off-conveyance lots has shown a significant decrease. The locations of the off-conveyance lots are spread throughout the County.

Off-conveyance lots Approved FY 2010 - FY 2018

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
TOTAL	35	22	10	8	8	10	12	17	10

Planning Commission Approvals

Minor subdivisions are the first 3 lots taken from a parent parcel after any eligible off-conveyances have occurred. Although they are not subject to concurrency testing, minor subdivisions are included in the concurrency database for tracking purposes. The minor subdivision process allows for the preliminary and final plans to be approved simultaneously.

Major subdivisions are lots created from the parent parcel after the off-conveyances and minor subdivision lots occur. Once the preliminary plan is approved by the Commission, the final plan review process begins and is reviewed by the Commission.

Multi-family residential developments located on a single property are depicted on a site plan and require approval by the Commission.

The following tables provide a listing of residential subdivision and site plans that were approved by the Commission.

FY 2018 Minor Residential Subdivision Plans(Preliminary & Final)

PROJECT NAME	FILE NUMBER	NUMBER OF NEW LOTS	PLANNING COMMISSION MEETING DATE	ELECTION DISTRICT
Basler Property	M-16-0039	1	7/11/2017	8
Lippy Brothers Farm Property	M-16-0032	1	8/22/2017	8
Amazing Grace Estates	M-17-0011	2	10/17/2017	3
Fields of Woodbine	M-17-0059	1	12/19/2017	14
Cody's Crossing	M-16-0069	3	1/26/2018	13
Morgan Chapel Estates	M-17-0022	1	3/2/2018	14
Woelper Estates	M-17-0057	1	3/20/2018	9
Runway Estates	M-14-011	2	6/22/2018	10
TOTAL NUMBER OF LOTS		12		

FY 2018 Preliminary Approved Major Residential Subdivision Plans (subject to Concurrency)

PROJECT NAME	FILE NUMBER	NUMBER OF NEW LOTS	PLANNING COMMISSION MEETING DATE	ELECTION DISTRICT
Silver Run Estates-Resub lot 4	FX-17-003	1	12/19/2017	3
TOTAL NUMBER OF LOTS		1		

FY 2018 Final Approved Major Subdivision Plans Approved (subject to Concurrency)

PROJECT NAME	FILE NUMBER	NUMBER OF NEW LOTS	PLANNING COMMISSION MEETING DATE	ELECTION DISTRICT
Silver Run Estates-Resub lot 4	FX-17-003	1	1/16/2018	3
TOTAL NUMBER OF LOTS		1		

NUMBER OF RESIDENTIAL LOTS APPROVED BY THE PLANNING COMMISSION		
	PRELIMINARY	FINAL
FY 18	13	13
FY 17	28	8
FY 16	21	55
FY 15	26	88
FY 14	120	163

Once the final plan is approved by the Commission, the record plat may be recorded and application for building permits can begin.

FY 2018 County Residential Projects Recorded

PROJECT NAME	FILE NUMBER	NEW LOTS (Residential)	RECORDING REFERENCE	DATE RECORDED	ELECTION DISTRICT
Emray Acres, Amended Plat of Lot 1	AP-16-088	0	55/032	7/11/2017	9
Tighes Ridge, Resubdivision of Lot 1A	M-16-0043	1	55/036	7/26/2017	14
Oklahoma, Amended Plat of Parcels E & F-1	AP-16-0076	0	55/049	8/5/2017	5

Seymour subdivision, Amended Plat, Lots 2 and 3	AP-16-0018	0	55/052	8/22/2017	5
Salem Crest, Amended Plat, Lot 2A	AP-17-0033	0	55/053	8/22/2017	7
Kirby Kountry	M-16-0029	2	55/054-055	8/22/2017	4
Basler Homestead	M-16-0039	1	55/059	9/11/2017	8
Flotow Mountain	M-16-0062	3	55/060	9/14/2017	6
Elderwood Village, Amended Plat	AP-16-0077	0	55/061	9/14/2017	5
Cambridge Estates, Land Condominium	n/a	0	55/062-65	9/18/2017	3
Lippy Brothers Farms Property	M-16-0032	1	55/067	9/29/2017	8
Elderwood Village, Amended Plat	AP-17-0013	0	55/070	9/29/2017	5
Holy Spirit Lutheran Church, Amended Plat	AP-17-0006	0	55/071	10/5/2017	5
Robenette Acres, Amended Plat	AP-17-0045	0	55/072	10/10/2017	7
Maidens point, Amended Plat	AP-17-0020	0	55/073	10/10/2017	1
Eldersburg Marketplace, 2nd Amended	AP-17-0043	0	55/076	10/16/2017	5
Random House, Amended	AP-16-0064	0	55/080-084	10/26/2017	7
Snowdens, Manor, Amended Plat Lots 24 -26	AP-17-0005	0	55/085	10/27/2017	7
Antlitz Estates, Condominium Plat	n/a	0	55/089-090	11/9/2017	5
Antlitz Estates, Condominium Plat	n/a	0	55/091-092	11/9/2017	5
Shay's Run	M-16-0008	1	55/095	12/1/2017	10
Evergreen Plantation, Amended Plat, Lot 3A	AP-17-0049	0	55/096	12/12/2017	14
Rustic Rising	F-14-006	35	55/109-114	12/20/2017	5
Deer Trail Estates	F-10-015	9	55/116-117	1/18/2018	4
Water's Edge, Amended Plat, Lot 97	AP-17-0046	0	55/118	1/18/2018	5
Piney Ridge Village, Amended Plat, Lots 321-324	AP-17-0051	0	55/119	1/22/2018	5
Antlitz Estates, Condominium Plat	n/a	0	55/120-121	1/30/2018	5
Groves Mill LLC	n/a	0	55/122	2/1/2018	6
Dell Property	n/a	0	55/123	2/6/2018	7
Eldersburg Estates, Amended Plat Parcel A	AP-17-0029	0	55/124	2/12/2018	5
Crosswind Church, Amended Plat	AP-17-0031	0	55/125	2/12/2018	7

Lippy Brothers Farm Property	n/a	0	55/126	3/5/2018	8
Fields of Woodbine, Section 2	M-17-0059	1	55/131	3/8/2018	14
Liberty Exchange, Resubdivision of Lot 6	P-17-0025	0	55/132-134	3/8/2018	5
Antlitz Estates, Condominium Plat	n/a	0	55/135-136	3/27/2018	5
Morgan Chapel Estates	M-17-0022	1	55/137-138	3/27/2018	14
Charles Ray Acres, Section 2	P-16-0030	0	55/139	3/27/2018	9
The Enclave at Morgan Run, Amended Plat Lot 1	AP-17-0067	0	55/140	3/27/2018	14
Bowers Property	n/a	0	55/148	4/26/2018	1
Leader Heights	M-09-015	1	55/149	4/27/2018	8
Lauren Hill, Amended Plat, Lot 8	AP-17-0060	0	55/150	4/27/2018	4
Grace Acres	M-08-017	1	55/156	5/11/2018	6
Zepp Acres, Resubdivision of Parcel B	M-08-018	1	55/157	5/11/2018	6
Windy Hills Farms, Phase 4A	F-14-0043	11	55/158-161	5/14/2018	7
Schaeffer Property	n/a	0	55/162-164	6/7/2018	6/7
Amazing Grace Estates	M-17-011	2	55/172	6/25/2018	3
TOTAL		71			

Plats Recorded in Municipalities

PROJECT NAME	# OF NEW LOTS/ UNITS (Residential)	RECORDING REFERENCE	DATE RECORDED	MUNICIPALITY	ELECTION DISTRICT
The Reserve at New Windsor, Condominium Plat	0	55/033-035	7/12/2017	New Windsor	10
Carroll Vista Condominium III	0	55/037-038	7/28/2017	Taneytown	1
Bolton Hill, Section 5	47	55/039-048	8/2/2017	Westminster	7
Carroll Vista Condominium III	0	55/050-051	8/11/2017	Taneytown	1
Carroll Vista Condominium III	0	55/056-057	8/24/2017	Taneytown	1
Hillcrest, Amended Plat	0	55/058	8/28/2017	Westminster	7
Sterling Glen, Resubdivision of lot 78	2	55/066	9/21/2017	Mount Airy	13
Carroll Vista Condominium III	0	55/067-068	9/28/2017	Taneytown	1
Carroll Vista Condominium III	0	55/074-075	10/6/2017	Taneytown	1
Castlefield II, Phasing Plat	0	55/077-079	10/25/2017	Manchester	6

Twin Arch Business Park, Amended Plat Lot 9A	0	55/086	11/3/2017	Mount Airy	13
Carroll Vista Condominium III	0	55/087-088	11/9/2017	Taneytown	1
The Reserve at New Windsor, Condominium Plat	0	55/093-094	11/20/2017	New Windsor	10
The Village at Meade's Crossing, Phase 1	169	55/097-104	12/18/2017	Taneytown	1
The Village at Meade's Crossing, Phase 1A	19	55/105-106	12/18/2017	Taneytown	1
Castlefield II, Phasing Plat	0	55/107	12/19/2017	Manchester	6
Taneytown Industrial Park, Amended Plat, Lot 2	0	55/108	12/20/2017	Taneytown	1
Westminster Technology Park, Amended Plat, Lots 1A & 2	0	55/115	1/11/2018	Westminster	7
Castlefield II, Phasing Plat	0	55/127-129	3/6/2018	Manchester	6
Milton Bussards Estate, Amended Plat	0	55/130	3/8/2018	Mount Airy	13
Carroll Vista Condominium III	0	55/141-143	4/3/2018	Taneytown	1
Stonegate, Section 1, Phase 3	22	55/144-147	4/9/2018	Westminster	7
The Reserve at New Windsor, Condominium Plat	0	55/151-152	4/30/2018	New Windsor	10
Meadowbrook, Section 5	43	55/153-155	5/3/2018	Taneytown	1
Warfield, Phase One	145	55/165-169	6/12/2018	Sykesville	5
The Reserve at New Windsor, Condominium Plat	0	55/170-171	6/20/2018	New Windsor	10
TOTAL	447				

NEW RESIDENTIAL LOTS RECORDED			
	County	Municipality	TOTAL
FY 18	71	447	518
FY 17	51	103	154
FY 16	80	84	164
FY 15	75	38	113
FY 14	192	74	266

FY 2018 Residential Site Plans Approved by the Commission

PROJECT NAME	FILE NUMBER	NUMBER OF UNITS	PLANNING COMMISSION MEETING DATE	ELECTION DISTRICT
Adams Paradise, Senior Housing	S-17-0004	109	8/22/2017	5

RESIDENTIAL UNITS APPROVED BY PLANNING COMMISSION-all age restricted		
FY 18	109 independent living units	Adams Paradise (replaced previous plan)
FY 17	0	
FY 16	85 independent and 75 assisted living units	Adams' Paradise
	16 assisted living units	Golden Crest
FY 15	0	
FY 14	21 independent living units	Antlitz Estates

Discussion

- At the time the Concurrency Ordinance was enacted (1998), the number of off-conveyance lots being created was nearly 100 per year. Carroll County Code limit off-conveyances to property that existed as of April 23, 1963. Implementation of that regulation will eventually lead to an elimination of off-conveyances. As previously shown, these numbers have decreased significantly and somewhat stabilized and no longer have the same impact on growth as in 1998.
- In accordance with SB236, the Planning Commission is not allowed to approve any subdivisions greater than seven lots per parcel, unless it is connected to public sewer. No four lot or greater subdivision on private septic has been approved by the Planning Commission since January 2017.
- In the unincorporated area of the County, 469 new residential lots were recorded for the period FY 14-18. In the same period, only 208 residential lots received Commission approval. Previously approved plans, that had received extensions, comprised most of the difference.
- 333 of the 447 municipal lots recorded in FY18 were located in two developments. As municipalities regulate their own growth, they are not subject to the same project phasing Code requirements, which could impact County residential development plan approval if the threshold standard is rated approaching inadequate.
- The chart below provides the approximate total number of unrecorded lots in the development pipeline plus the number of recorded subdivision lots (after the adoption of the Concurrency Management Ordinance 3/5/98) available for building permits (includes municipalities). The number of lots has remained relatively consistent over the past four years.

11/1/2018	2300
3/24/2017	2300
5/20/2016	2200
7/7/2015	2150
7/8/2014	2400

CHAPTER TWO BUILDING PERMIT INFORMATION

Once the development review process is complete, a building permit application can occur for construction of the new residential unit. When the building project is complete, a use and occupancy permit is issued indicating the unit is ready for occupancy. Building permit activity indicates the current status of residential growth; whereas, developments in the review process identify planned growth. Although recorded lots are entitled to a building permit, the result of numerous external factors, i.e. mortgage rates, land prices, job security, etc., influence a buyer’s decision as to when to purchase a lot or construct a new residence.

The Code (§156.04B) states that the County intends that the number of residential development building permit approvals issued in the County shall not exceed an average of 6,000 during any six-year period. For purposes of counting the 6,000 permits, all building permits issued county-wide, including those issued in municipalities and those issued for projects that are not subject to this chapter, shall be included. In order to achieve this goal, the County may establish a building permit cap prescribing the number of residential building permits to be issued in the County for projects applicable to the chapter.

The following chart tabulates the number of new residential units issued in both the unincorporated and incorporated areas of Carroll County (does not include building permits for replacement of structures). In comparison, there were over 7,000 residential permits issued between FY 1998 and FY 2003.

Number of New Residential Units Issued

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Unincorporated	131	133	157	201	274	278	203	201	178
Municipality	109	80	125	166	163	110	70	115	119
County Total	240	213	282	367	437	388	273	316	297

CHAPTER THREE SCHOOLS

Threshold: Defined in § 156.05D(1)(a)(2)(a)(3)(a)

Adequate: An elementary or high school serving a proposed project is adequate, for the purposes of this chapter, when current or projected enrollment equals or is less than 109% of the state-rated capacity. A middle school serving a proposed project is adequate, for the purposes of this chapter, when current or projected enrollment equals or is less than 109% of the functional capacity.

Approaching inadequate: An elementary or high school serving a proposed project is approaching inadequate, for the purposes of this chapter, when current or projected enrollment is 110% to 119% of the state-rated capacity. A middle school serving a proposed project is approaching inadequate, for the purposes of this chapter, when current or projected enrollment is 110% to 119% of the functional capacity.

Inadequate: An elementary or high school serving a proposed project is inadequate, for the purposes of this chapter, when current or projected enrollment is equal to or greater than 120% of the state-rated capacity. A middle school serving a proposed project is inadequate, for the purposes of this chapter, when current or projected enrollment is equal to or greater than 120% of the functional capacity.

Background

Elementary and high school threshold standards utilize state rated capacity. Middle school threshold is measured utilizing functional rated capacity. The key difference between functional capacity and state-rated capacity lies with whether all classrooms are counted or only core curriculum teaching stations are counted. Carroll County Board of Education uses functional capacity as the measurement for middle school facilities because it accounts for the team approach that is the foundation of the middle school philosophy. The team approach allows teachers of core curriculum subjects to be organized into blocks and, within each block, share a joint planning period. The non-core curriculum teaching stations, such as gym and media center, do not count towards the measurement of functional capacity. Throughout a school day, as various blocks of students rotate through the non-core teaching stations, one block of core curriculum classrooms and core subject teachers are free, allowing a joint planning period. When functional capacity is used, a middle school has capacity for fewer students than it would under state-rated capacity.

The Carroll County Public Schools Facilities Management Division annually prepares enrollment figures and enrollment projections for a ten-year period, the first six years of which are included in the County's CIP. These projections are utilized to rate capacity in accordance with the requirements of Chapter 156. Bureau of Development Review staff routinely provide project updates that are in the development pipeline to the Carroll County Public Schools Facility Planner for use in developing the projections. Also, the Bureau transmits one set of plans to the school system for all new residential developments that are submitted to the County.

Carroll County Board of Education closed Charles Carroll Elementary, New Windsor Middle and North Carroll High schools at the end of the 2015-2016 school year. The following tables show actual enrollment as a percentage of rated capacity for FY 2018 and projected enrollment for FY 2019 through FY 2024.

On January 10, 2018 the Carroll County Board of Education reviewed changes over the past year that resulted in reductions of capacity to several elementary and middle schools. Elementary State Rated Capacities were reduced by a total of 572 seats. Reasons stated were as follows: recognition of need for a Health classroom, recognition of the need to provide classroom space for Resource Teachers (Special Education, Reading, Math, Speech, Gifted & Talented, ESOL, etc.), recognition of the growth in Special Education programs (Autism, BEST), and recognition of the need to provide classroom space for Prekindergarten. Middle Functional Capacities were reduced by a total of 185 seats. Reason stated were as follows: recognition of the need to provide classroom space for Health, recognition of the need to provide classroom space for Special Education Resource teachers, and recognition of the increase of Special Education programs (Autism).

The table indicates by asterisk (*) those schools which had a reduction in capacity and those schools which had an increase (+) in capacity. Based on the reduction of school capacity, the projected enrollment percentages are higher than last year.

Facility Capacity and Projections

Freedom elementary is projected to be approaching inadequate for FY 2022, 2023, and 2024 as a result of the capacity reduction. All other elementary schools are projected to be adequate through FY24.

Elementary Schools FY 2018 - 2024 Enrollment as a Percentage of State-Rated Capacity

ELEMENTARY SCHOOL	STATE RATED CAPACITY			ACTUAL FY 2018	PROJECTED					
	K - 5	Pre K	Spec Ed		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Carrolltowne*	548	20	20	92.7%	94.7%	96.6%	97.6%	102.2%	101.7%	101.5%
Cranberry Station	550	20	0	89.3%	89.5%	87.9%	89.1%	89.3%	91.9%	94.4%
Ebb Valley*	548	20	0	96.0%	93.7%	90.7%	91.7%	90.8%	91.4%	91.7%
Eldersburg*	548	20	0	79.9%	78.0%	77.8%	77.5%	77.5%	77.8%	81.3%
Elmer Wolfe*	526	20	0	74.5%	71.4%	69.6%	69.6%	71.2%	72.5%	74.4%
Freedom*	502	0	0	101.8%	102.2%	107.0%	107.4%	110.8%	112.4%	113.3%
Friendship Valley	527	0	0	94.3%	92.6%	89.8%	89.4%	91.5%	92.0%	93.0%
Hampstead*	434	20	60	69.5%	71.2%	73.5%	73.3%	77.8%	78.2%	78.6%
Linton Springs*	685	20	0	89.1%	86.4%	86.7%	87.8%	85.1%	88.4%	89.6%
Manchester*	662	20	0	91.8%	90.2%	88.7%	86.5%	91.6%	93.5%	95.2%
Mechanicsville*	571	20	0	78.0%	78.5%	76.5%	78.5%	80.9%	82.1%	82.6%
Mount Airy (3-5)*	552	0	0	79.0%	81.9%	82.1%	83.9%	82.8%	83.7%	83.5%
Parr's Ridge (K-2)	590	20	0	74.6%	73.6%	74.3%	74.1%	77.4%	80.7%	83.0%
Piney Ridge*	548	0	0	96.7%	93.4%	90.3%	90.5%	90.3%	93.4%	96.7%
Robert Moton*	456	20	60	77.6%	76.3%	75.4%	76.5%	76.3%	76.1%	78.2%
Runnymede+	617	20	20	89.6%	91.0%	91.8%	93.6%	94.7%	94.7%	95.9%
Sandymount*	504	20	0	85.9%	85.5%	87.2%	88.0%	88.5%	90.6%	91.4%
Spring Garden*	525	20	0	82.8%	78.2%	73.9%	75.6%	76.0%	78.0%	80.9%
Taneytown*	504	20	0	77.5%	74.0%	73.5%	73.3%	75.6%	76.5%	78.4%
Westminster*	548	20	0	91.7%	90.7%	88.9%	92.6%	92.3%	94.9%	93.7%
Wm. Winchester*	525	20	0	100.4%	95.0%	91.7%	90.6%	93.0%	94.9%	98.7%
Winfield*	594	20	60	80.1%	81.8%	81.6%	84.3%	85.9%	88.7%	86.8%

Source: Carroll County Public Schools (enrollment projections 2018-19 to 2027-28, January 10, 2018 Department of Facilities Management)

To correspond with the adequacy threshold for middle schools, functional capacity rather than state-rated capacity for each facility is identified. All middle schools are projected to be adequate through FY 2024.

Middle Schools FY 2018 - 2024 Enrollment as a Percentage of Functional Capacity

MIDDLE SCHOOL	FUNCTIONAL CAPACITY		ACTUAL FY 2018	PROJECTED					
	6 - 8	Spec Ed		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Mount Airy	750	20	95.7%	88.2%	89.5%	85.8%	89.1%	88.2%	93.9%
North Carroll	750	20	80.1%	81.6%	81.3%	81.7%	77.1%	75.1%	73.9%
Northwest	750	20	84.8%	86.2%	87.0%	85.2%	81.3%	81.8%	82.1%
Oklahoma Road*	775	20	94.1%	93.0%	86.7%	89.6%	88.4%	95.8%	97.6%
Shiloh*	675	50	91.2%	90.5%	86.6%	83.4%	81.2%	80.3%	81.5%
Sykesville*	700	20	105.7%	107.2%	106.4%	104.3%	105.3%	100.7%	100.7%
Westminster East	750	40	90.1%	91.0%	94.9%	93.8%	92.8%	89.9%	89.5%
Westminster West+	1025	30	91.2%	88.9%	90.0%	89.1%	87.4%	84.3%	88.5%

Source: Carroll County Public Schools (enrollment projections 2018-19 to 2027-28, January 10, 2018 Department of Facilities Management)

All high schools are projected to be adequate through FY 2024.

High Schools FY 2018 - 2024 Enrollment as a Percentage of State-Rated Capacity

HIGH SCHOOL	STATE RATED CAPACITY		ACTUAL FY 2018	PROJECTED					
	9 - 12	Spec Ed		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Century	1352	10	83.2%	84.1%	83.1%	81.7%	80.7%	80.0%	78.2%
Francis Scott Key	1224	30	73.4%	73.5%	71.2%	67.8%	69.1%	68.7%	68.4%
Liberty	1118	20	96.7%	93.7%	93.2%	90.0%	90.5%	87.2%	86.2%
Manchester Valley	1373	10	97.0%	96.4%	99.6%	99.5%	101.5%	101.7%	99.6%
South Carroll	1309	30	78.3%	76.8%	74.4%	72.1%	67.7%	65.3%	65.0%
Westminster	1798	40	83.6%	84.2%	83.6%	82.2%	79.8%	79.4%	76.2%
Winters Mill	1309	30	83.1%	85.1%	84.0%	84.7%	86.6%	87.8%	87.5%

Source: Carroll County Public Schools (enrollment projections 2018-19 to 2027-28, January 10, 2018 Department of Facilities Management)

CHAPTER FOUR ROADS

Threshold: Defined in § 156.05D(1)(b)(2)(b)(3)(b)

Adequate: Projected level of service for road segments and intersections within the traffic impact study area for the proposed project is rated Level of Service C or better, according to the Department of Public Works or by the State of Maryland, as applicable.

Approaching inadequate: Projected level of service for road segments and intersections within the traffic impact study area for the proposed project is rated Level of Service D, according to the Department of Public Works or by the State of Maryland, as applicable.

Inadequate: Projected level of service for road segments and intersections within the traffic impact study area for the proposed project is Level of Service E or F, according to the Department of Public Works or by the State of Maryland, as applicable.

Administrative Procedures

The Department of Public Works (DPW) Roads and Storm Drain Design Manual (5.1.1) states a traffic impact study shall be required for any proposed development that will generate 50 or more peak hour trips. For developments generating less than 25 peak hour trips, a traffic study will not be required. For developments generating between 25 and 50 peak hour trips, based on site specific concerns, a traffic impact study may be required. If a traffic study is required, the study area is determined by applicable County, Maryland State Highway, and municipal staff. The traffic impact study determines the level of service (LOS) that exists on any affected road and road intersection and the LOS that would result if the proposed development were built. The County reviews the results of the traffic impact study against the threshold to determine adequacy. As part of the Commission's approval process, the development will then be responsible to address any deficiencies identified in the traffic study. This may require off-site mitigation.

Projects located in municipalities are not subject to a traffic study unless required by the municipality. The County works with the municipality in defining the scope, but any off-site County road mitigation will require the municipality to ensure County road improvements are included in the plan approval.

The Department of Public Works will be updating the Roads and Storm Drain Design Manual in FY 2019. Any changes to the traffic study requirements will occur as part of that review.

CHAPTER FIVE

FIRE AND EMERGENCY MEDICAL SERVICES

Threshold: Defined in § 156.05D(1)(c)(2)(c)(3)(c)

Adequate:

1. Total number of late and no responses is less than 15%, and the total number of no responses is less than 4% measured on a 24-month basis, updated monthly;
2. Using an average over the previous 24 months, response time is eight minutes or less from time of dispatch to on-scene arrival with adequate apparatus and personnel; and
3. All bridges and roads for the most direct route or acceptable secondary route to the project site are adequate to support fire and emergency response apparatus.

Approaching inadequate:

1. Either the total number of late and no responses equals or exceeds 15%, or the total number of no responses equals or exceeds 4% measured on a 24-month basis, updated monthly, but not both; or
2. Using an average over the previous 24 months, response time is between eight and ten minutes from time of dispatch to on-scene arrival with adequate apparatus and personnel.

Inadequate:

1. Total number of late and no responses equals or exceeds 15%, and the total number of no responses equals or exceeds 4% measured on a 24-month basis, updated monthly;
2. Using an average over the previous 24 months, response time exceeds ten minutes from time of dispatch to on-scene arrival with adequate apparatus and personnel; or
3. A bridge or road is inadequate to support fire and emergency response apparatus for the most direct route and a bridge or road is inadequate to support fire and emergency response apparatus for the acceptable secondary route to the project site.

Administrative Procedures

ATC certificates for fire and emergency medical services (EMS) are distributed to the Department of Public Safety for completion and signatures. The statistical data used to evaluate the first and second threshold determining criterion is maintained by the Department of Public Safety (911 Center) and used to determine adequacy with the adopted threshold standards. Data is maintained separately for each of the County's fourteen fire districts. This data is further subcategorized as either a fire or EMS incident. Separate calculations are made for both Fire and Emergency Medical Services, allowing each to be evaluated independently. Testing for the third criterion is achieved by identifying the primary and secondary routes that the first-due fire company would travel from their station to the location of the proposed development during an emergency response. All bridges along these routes are identified and the Department of Public Safety compares with the list of inadequate bridges (as determined jointly between the Departments of Public Safety and Public Works).

Late and No Response Criteria

The first criterion is the percentage of calls that result in either a late or no response. As previously noted, incidents are classified as either fire or EMS in nature. A dispatched unit is given five minutes to respond, once it has been alerted. If the due unit has not responded by the time the allotted five minutes has elapsed, the next due unit is alerted. If the first-due unit responds after the initial five minutes has elapsed, the incident is categorized as a 'late response' for the first-due unit. If the first-due unit never responds, the incident is categorized as a 'no response'.

In FY 2014, the Commission requested that staff initiate the review of concurrency standards for fire and EMS. During FY 2014 and 2015, staff from the Department of Public Safety and Bureau of Development Review met several times with Carroll County Volunteer Emergency Services Association (CCVESA) representatives. Those meetings resulted in a recommendation that the threshold standards for average response time for fire be revised in recognition of the presence of automatic sprinkler protection in all new one and two family dwelling units and the threshold standards for late and no response percentages for EMS be revised in recognition of the utilization of paid personnel in staffing the majority of EMS units. The meetings also resulted in a recommendation to replace the “most direct route of travel” with “primary route of travel”. The recommendations were discussed with the Board of County Commissioners with the Board requesting additional information from the Office of Public Safety. No further action to date has occurred.

Monthly report information, supplied by the Department of Public Safety, is not available for the last eight months of the year. In response to the lack of information, the Office of Public Safety states "As a result of the complete and total transition of the County’s “Computer Aided Dispatch (CAD)” application to a new product, effective Nov. 1, 2017, the ability to generate statistics by executing an appropriate query of the data contained in ‘CAD’ is limited to the data contained in the *new* application. Although an inclusive data migration from the old CAD system to the new application was successfully completed, it does not support the querying of data from two different origins using multiple determinants. Accordingly, the data available when querying the current CAD application is limited to incident history as of and subsequent to Nov. 1, 2017; two years (24 months) of CAD data to support querying for statistical purposes is expected to be available beginning Nov. 1, 2019.”

The Code states that if no response is received from any applicable agency within 30 days of the date the Department distributes the ATC form, the ATC shall be presumed adequate for the particular facility or service for which no response was received. As no data has been received for over eight months, the ATC being presented to the Commission is presumed adequate.

First-Due late/No Response by Station – Fire

<u>FIRE</u>	FY 2018 8/1/15 – 7/31/17 % First Due		FY 2018 9/1/15 – 8/31/17 % First Due		FY 2018 10/1/15 – 9/30/17 % First Due		FY 2018 11/1/15 – 10/31/17 % First Due	
	Station	Late/Fail	Fail	Late/Fail	Fail	Late/Fail	Fail	Late/Fail
Mount Airy	.55%	.20%	.59%	.20%	.59%	.20%	.55%	.20%
Hampstead	2.96	.41	2.83	.37	2.76	.32	2.63	.23
Westminster	.31	.20	.32	.21	.30	.20	.28	.19
Manchester	2.40	.33	2.32	.32	2.39	.38	2.45	.38
Taneytown	2.81	.66	2.77	.62	2.81	.62	2.80	.57
Pleasant Valley	2.05	.49	1.96	.49	1.77	.49	1.67	.49
Lineboro	1.92	.32	2.23	0	2.52	.32	2.27	.32
Union Bridge	0	0	.17	0	.35	0	.34	0
Reese	3.70	.36	3.75	.36	3.41	.30	3.38	.37
New Windsor	.58	.15	.57	.14	.57	.14	.57	.14
Harney	3.03	0	3.03	0	3	0	3.03	0
Sykesville	.55	.06	.52	.06	.51	.04	.48	.06
Gamber	1.94	.07	2.03	.08	1.81	.15	1.75	.15
Winfield	1.22	.11	1.38	.11	1.38	.11	1.43	.11

Source: Carroll County Office of Public Safety

First-Due Late/No Response by Station – EMS

<u>EMS</u>	FY 2018 8/1/15 – 7/31/17 % First Due		FY 2018 9/1/15 – 8/31/17 % First Due		FY 2018 10/1/15 – 9/30/17 % First Due		FY 2018 11/1/15 – 10/31/17 % First Due	
	Station	Late/Fail	Fail	Late/Fail	Fail	Late/Fail	Fail	Late/Fail
Mount Airy	1.95%	1.76%	1.85%	1.65%	1.73%	1.73%	1.69%	1.49%
Hampstead	.09	.09	.09	.09	.09	.09	.09	.09
Westminster	.57	.39	.56	.38	.56	.56	.58	.38
Manchester	.65	.44	.76	.43	.76	.76	.87	.49
Taneytown	5.27	3.64	5.27	3.56	5.36	3.69	5.48	3.77
Pleasant Valley	1.46	.78	1.37	.78	1.28	.79	1.37	.88
Lineboro	2.88	1.92	2.55	1.91	2.52	1.89	2.59	1.94
Union Bridge	.51	0	.51	0	.52	0	.51	0
Reese	.06	.06	.06	.06	.06	.06	.12	.12
New Windsor	.87	.14	.72	.14	.72	.14	.71	.14
Harney	0	0	0	0	0	0	0	0
Sykesville	.53	.38	.54	.37	.54	.37	.52	.35
Gamber	.30	.15	.30	.15	.30	.15	.31	.15
Winfield	.48	.42	.48	.42	.48	.43	.48	.42

Source: Carroll County Office of Public Safety

Average Response Time

The second criterion is “Average Response Time”. Similar to the late and no response percentages, the data and subsequent calculations for this criterion is also a function of the County’s 911 Center.

Response time to a given incident is measured from the time the first-due unit is initially dispatched until on-scene arrival of adequate apparatus and personnel. An “Average Response Time” is determined monthly for each respective fire district, for both fire and EMS, using the data collected during the previous 24-month period.

Standards of adequacy are as follows:

Adequate: 8 minutes or less

Approaching inadequate: 8 to 10 minutes

Inadequate: Greater than 10 minutes

As previously stated the monthly report information, supplied by the Department of Public Safety, is not available for the last eight months of the year. If no response is received from any applicable agency within 30 days of the date the Department distributes the ATC form, the ATC shall be presumed adequate for the particular facility or service for which no response was received.

Average Response Time by Station – Fire

		<u>8/1/15 -</u> <u>7/31/17</u>	<u>9/1/15 -</u> <u>8/31/17</u>	<u>10/1/15 -</u> <u>9/30/17</u>	<u>11/1/15 -</u> <u>10/31/17</u>	<u>12/1/15 -</u> <u>11/30/17</u>	<u>1/1/16 -</u> <u>12/31/17</u>	<u>2/1/16 -</u> <u>1/31/18</u>	<u>3/1/16 -</u> <u>2/28/18</u>	<u>4/1/16 -</u> <u>3/31/18</u>	<u>5/1/16 -</u> <u>4/30/18</u>	<u>6/1/16 -</u> <u>5/31/18</u>	<u>7/1/16 -</u> <u>6/30/18</u>
1	Mount Airy	6:15	6:17	6:16	6:16								
2	Hampstead	7:42	7:40	7:31	7:24								
3	Westminster	6:21	6:23	6:24	6:25								
4	Manchester	6:23	6:19	6:16	6:22								
5	Taneytown	8:20	8:12	8:11	8:09								
6	Pleasant Valley	8:25	8:28	8:25	8:23								
7	Lineboro	8:51	9:10	9:42	9:25								
8	Union Bridge	6:36	6:32	6:44	6:49								
9	Reese	7:56	7:59	7:59	7:56								
10	New Windsor	6:55	7:00	6:58	7:00								
11	Harney	7:41	7:41	7:39	7:34								
12	Sykesville	6:20	6:20	6:16	6:16								
13	Gamber	7:46	7:52	7:46	7:43								
14	Winfield	7:12	7:14	7:12	7:10								

Average Response Time by Station – EMS

		<u>8/1/15 -</u> <u>7/31/17</u>	<u>9/1/15 -</u> <u>8/31/17</u>	<u>10/1/15 -</u> <u>9/30/17</u>	<u>11/1/15 -</u> <u>10/31/17</u>	<u>12/1/15 -</u> <u>11/30/17</u>	<u>1/1/16 -</u> <u>12/31/17</u>	<u>2/1/16 -</u> <u>1/31/18</u>	<u>3/1/16 -</u> <u>2/28/18</u>	<u>4/1/16 -</u> <u>3/31/18</u>	<u>5/1/16 -</u> <u>4/30/18</u>	<u>6/1/16 -</u> <u>5/31/18</u>	<u>7/1/16 -</u> <u>6/30/18</u>
1	Mount Airy	6:24	6:23	6:21	6:20								
2	Hampstead	6:26	6:26	6:24	6:23								
3	Westminster	6:24	6:23	6:24	6:24								
4	Manchester	6:29	6:28	6:28	6:28								
5	Taneytown	6:47	6:46	6:46	6:46								
6	Pleasant Valley	9:57	9:55	9:56	9:58								
7	Lineboro	8:22	8:23	8:23	8:18								
8	Union Bridge	6:08	6:05	6:07	6:05								
9	Reese	7:32	7:32	7:33	7:32								
10	New Windsor	7:06	7:05	7:08	7:12								
11	Harney	7:42	7:44	7:44	7:51								
12	Sykesville	7:03	7:03	7:02	7:02								
13	Gamber	7:18	7:20	7:22	7:23								
14	Winfield	7:28	7:28	7:27	7:27								

Route of Travel

The third criterion reflects the capacity of bridges and roads located along the primary and secondary route of travel between the respective fire station and the location of the proposed development. In the spring of 2006, the County commissioned an analysis of posted bridges to determine their adequacy relative to supporting fire and EMS apparatus. This analysis was based on information submitted by each individual fire company, which detailed the weight and axle characteristics of the various vehicles each department operated. To complete the analysis, a computer program was developed capable of modeling the structure type of each bridge, as well as both the axle loads and axle spacing of the various emergency apparatus. Using this program to model the stress and pressures exerted as a vehicle passes over a given bridge, inadequate structures were identified.

Bridges on state highways, with a few exceptions, are designed for all legal loads and are assumed to be adequate. The three exceptions, two on MD Route 86 and one on MD Route 832, have posted weight limits.

Bridges on county-maintained roads, with a few exceptions, are also designed for all legal loads. The County uses a consultant to perform annual/biennial inspections of bridges on county roads. The County has 13 structures with posted weight limits.

As part of the 2013 bridge inspection cycle, new structural load ratings were completed for all the county-maintained bridges. In addition to new ratings, a revised analysis of fire and EMS apparatus was conducted. The results of the analysis are noted in the chart below. Two bridge projects are included in the CIP. The Department of Public Works will monitor all bridges in cooperation with the Department of Public Safety.

Structure	First 3 responders*	Restricted vehicle/s	Status
CL269 Babylon Road over Silver Run	Pleasant Valley, Taneytown, Westminster	Taneytown Rescue 5	In CIP
CL363 Stone Chapel over Little Pipe Creek	Westminster, New Windsor, Pleasant Valley	Westminster Tower 3	In CIP request
CI241 Pearre Road over Sams Creek	Union Bridge, New Windsor, Westminster	All VFD vehicles restricted	Monitor
CI344 Old Kays Mill Road over Beaver Run	Reese, Gamber	Gamber ET133	Monitor

*First 3 responders determined by Office of Public Safety

CHAPTER SIX POLICE SERVICES

Threshold: Defined in § 156.05D(1)(d)(2)(d)(3)(d)

Adequate: Services are adequate if the projected ratio of sworn law enforcement officers to population is 1.3:1,000. The ratio shall be calculated by counting all sworn officers with law enforcement responsibility in an incorporated municipality or within the County and by counting the total population within the incorporated municipalities and within the unincorporated County.

Approaching inadequate: Services are approaching inadequate if the projected ratio of sworn law enforcement officers to population is between 1.2-1.3:1,000.

Inadequate: Services are inadequate if the projected ratio of sworn law enforcement officers to population is anything less than 1.2:1,000.

Administrative Procedures

The number of sworn law enforcement officers is provided monthly by the Carroll County Sheriff's Department. Population estimates are provided by the Department of Planning. The monthly population is estimated by multiplying the number of use and occupancy permits issued since the last census by the average household size in the County and adding the result to the population in the most recent census. Law enforcement officer counts include sworn officers from the Sheriff's Office, Maryland State Police, and the various municipal police departments. Sworn positions include personnel currently in academy or training.

Projected number of sworn law enforcement officers for the Sheriff's Office and municipal police departments includes the number of funded positions in the annual budget of the appropriate jurisdiction. The staffing level at the Maryland State Police is subject in part to the number of officers from a statewide police force assigned to the Westminster barracks at any given time.

Future threshold capacity is calculated by adding the projected population from developments in the pipeline to the latest population estimate and sheriff's deputy positions planned for each year in the current adopted Operating Plan to the latest total of funded positions. The Operating Plan is a companion document to the CIP that is adopted annually by the Commissioners as part of the budgeting process.

Development Projections

The number of county-wide sworn law enforcement officer positions at the beginning of FY 2017 was 219 and the number of sworn law enforcement officer positions at the end of FY 2018 was 231. The estimated county-wide population as of July 1, 2017 was 173,594 and at June 30, 2018 was 174,386. The ratio of sworn officer positions per 1,000 citizens was below 1.3; however, at the end of the fiscal year was above 1.3. Including developments in the pipeline and the increase in Carroll County sheriff positions, the projected ratio for FY 2019 will be above the 1.3 threshold.

Mount Airy began its own police service with the official first day on October 1, 2017.

The following chart indicates the number of authorized positions (sworn + vacant) positions at the beginning of the 2018 fiscal year and at the end of the fiscal year.

	July 1, 2017			June 30, 2018		
	Sworn	Vacant	Total Authorized	Sworn	Vacant	Total Authorized
Carroll County Sheriff's Office	106	13	119	109	10	119
Maryland State Police	35	N/A	35	35	N/A	35
Mount Airy Police	0	0	0	9	1	10
Westminster Police	42	2	44	44	0	44
Hampstead Police	8	2	10	8	2	10
Manchester Police	6	0	6	6	0	6
Sykesville Police	7	0	7	7	0	7
Taneytown Police	14	0	14	13	1	14
TOTAL	219	17	236	231	14	245

CHAPTER SEVEN

WATER AND SEWER SERVICE

Threshold: Defined in § 156.05D(1)(e)(2)(e)(3)(e)

Adequate: Water and sewer services. For water services, the facility is adequate if the maximum day demand is less than 85% of the total system production capacity. For sewer services, the facility is adequate if the projected annual average daily flow is less than 85% of the wastewater treatment facility permitted capacity.

Approaching inadequate: For water services, the facility is approaching inadequate if the projected maximum day demand is equal to or greater than 85% but less than 95% of the total system production capacity. For sewer services, the facility is approaching inadequate if the projected annual average daily flow is greater than or equal to 85% but less than 95% of the wastewater treatment facility permitted capacity.

Inadequate: For water services, the facility is inadequate if the projected maximum day demand is equal to or greater than 95% of the total system production capacity. For sewer services, the facility is inadequate if the projected annual average daily flow is greater than or equal to 95% of the wastewater treatment facility permitted capacity.

Administrative procedures

Carroll County operates several public utility facilities: Hampstead Sewer System, Freedom District Sewer System, Freedom District Water System, Bark Hill Water System, Pleasant Valley Water System, and Pleasant Valley Sewer Service. The ATC certificates for water and/or sewer service in the Freedom area and sewer service in the Hampstead area are completed and signed by the Bureau of Utilities in the Department of Public Works. For projects in unincorporated areas of the County that are planned to connect to a municipally-owned water or sewer system, the ATC certificates are completed and signed by the municipality.

The adequacy thresholds for water and sewer are based on measurement of flows, but they are handled differently. The adequacy threshold for water requires that the County compare the projected maximum day demand for water with the total production capacity of the system (TSPC). The TSPC is the amount of water flow the system can provide. It is typically measured in million gallons per day (mgd). The maximum day demand is calculated by applying a factor of 1.75 to the projected annual average day demand which consists of three components:

- the existing demand for water of all users hooked up to the system;
- the total projected demand of any developments that have received preliminary or final approval from the Commission but have not yet hooked up to the system; and
- the projected demand for water that the proposed development currently undergoing testing for adequacy would generate.

For the projections, the County uses the Maryland Department of Environment (MDE) standard which is to multiply the number of proposed residential units by 250 gallons per day (gpd). The resulting number, expressed in gpd, represents the amount of water flow that the proposed development would draw from the system if it were connected, i.e. the projected demand of the development. As proposed developments go through the approval process, the Bureau of Utilities is responsible for monitoring the status of all projects that would connect to County water, including those not subject to Chapter 156, and the impact the projected demand would have on capacity in the water system.

The adequacy threshold for sewer requires that the County compare the projected annual average daily flow of wastewater with the wastewater treatment facility permitted capacity. The wastewater

treatment facility is permitted and monitored by MDE and its capacity is expressed in mgd. For the purpose of testing the projected adequacy of sewer service capacity, the projected average daily flow consists of three components:

- the existing usage by all connections to the system;
- the total projected usage by any developments that have received preliminary or final approval from the Commission but have not yet hooked up to the system; and
- the projected usage by the proposed development currently undergoing testing for adequacy.

For the usage projections, the County uses the MDE standard which is to multiply the number of proposed residential units by 250 gpd. The resulting number, expressed in gpd, represents the amount of wastewater treatment capacity the proposed development would use if it was connected, i.e. the projected usage by the development. As with water service, the Bureau of Utilities monitors the status of all projects that would connect to a County sewer system, including those not subject to Chapter 156.

Freedom Water Supply

Freedom Water Plant	6.000 mgd
Fairhaven Well	0.340 mgd
Raincliffe Well (off line)	<u>0.000 mgd</u>
Total System Production Capacity (TSPC)	6.340 mgd

85% of TSPC $6.340 \times .85 = 5.389$ mgd

95% of TSPC $6.340 \times .95 = 6.023$ mgd

Chapter 156 states that maximum day demand is calculated by multiplying the annual average day demand for water by 1.75. For the purpose of determining the annual average day demand for water, the Bureau of Utilities reviews the annual average daily flows from the five preceding years and uses the five-year average or the preceding year, whichever is higher.

2017 Annual Average Day Demand	1.942 mgd
Five-Year Average Day Demand	2.017 mgd
Projected Annual Average Day Demand	2.017 mgd
Calculated Maximum Day Demand (1.75 x 2.017)	3.530 mgd
Calculated % of TSPC ($3.530 \div 6.340$)	56%

The projected maximum daily demand for the Freedom Water System is less than 85% of the total system production capacity. The service meets the adequate threshold standard.

Freedom Sewer

Design Capacity	3.500 mgd
Permitted Capacity	3.500 mgd

85% Permitted Flow ($3.50 \times .85$) = 2.975 mgd

95% Permitted Flow ($3.50 \times .95$) = 3.325 mgd

2015 Average Daily Flow	2.038 mgd
2016 Average Daily Flow	2.104 mgd
2017 Average Daily Flow	1.934 mgd
Three-Year Average	2.025 mgd

Projected Annual Average Daily Flow 2.025 mgd

The standard for sewer in Chapter 156 is based on the projected annual average daily flow. For the purpose of determining the projected annual average daily flow for sewer, the higher of the three-year average or the preceding year is used. The County and state share the use of the wastewater treatment facility. Of the 3.5 mgd capacity, the County can allocate 2.74 mgd and the state can allocate 0.76 mgd.

Measuring the 2.025 mgd average daily flow with total capacity, the Freedom Sewer Plant is operating at 58% of total capacity. Measuring the 2.025 mgd average daily flow with the County's allocation (2.74 mgd) the percentage is at 73.9%.

Hampstead Sewer

Design Capacity	0.900 mgd
Permitted Capacity	0.900 mgd
85% Permitted Flow (0.9 x .85) =	.765 mgd
95% Permitted Flow (0.9 x .95) =	.855 mgd
2015 Average Daily Flow	0.575 mgd
2016 Average Daily Flow	0.542 mgd
2017 Average Daily Flow	0.474 mgd
Three-Year Average	0.530 mgd
Projected Annual Average Daily Flow	0.530 mgd

The Hampstead Sewer Plant is operating at 59% of permitted capacity and thus meets the adequate threshold standard, which is less than 85%.

Bark Hill Water

Bark Hill Water Plant (TSPC)

Water Appropriation and Use Permit = 20,000 gpd daily average on yearly basis.

85% of TSPC 20,000 x .85 = 17,000 gpd

95% of TSPC 20,000 x .95 = 19,000 gpd

2017 Annual Average Day Demand	14,983 gpd
Five-Year Average Day Demand	16,866 gpd
Projected Annual Average Day Demand	16,866 gpd
Percent of total capacity	84.3%
Percent of remaining capacity	15.7%

Pleasant Valley Water

Pleasant Valley Water Plant (TSPC)

Water Appropriation and Use Permit = 10,100 GPD daily average on yearly basis.

85% of TSPC 10,100 x .85 = 8,585 gpd

95% of TSPC 10,100 x .95 = 9,595 gpd

2013 Annual Average Day Demand	6,668 gpd
Five-Year Average Day Demand	6,732 gpd
Projected Annual Average Day Demand	6,732 gpd
Percent of Total Capacity	66.7%
Percent of Remaining Capacity	33.3%

Pleasant Valley Sewer

State Discharge Permit = 19,000 gpd Annual Average

85% Permitted Flow (19,000 x .85) = 16,150 gpd

95% Permitted Flow (19,000 x .95) = 18,050 gpd

Three-Year Average 4,581 gpd

Projected Annual Average Daily Flow 4,581 gpd

Percent of Total Capacity = 24.1%

Percent of Remaining Capacity = 75.9%

CHAPTER EIGHT AVAILABLE THRESHOLD CAPACITY RECOMMENDATIONS

The ATC is reviewed and adopted each year for the six-year planning cycle, and it is based on the yearly Concurrency Management Report. Facility capacity, level of service information, and adopted thresholds are balanced with fiscal considerations in setting the ATC. Growth is timed and phased through the setting of ATC limits to reduce the impact on the facility, which is inadequate, while providing other needed infrastructure.

Recommended Capital Improvements (§156.07(B))

Schools: No capital improvements are recommended.

Roads: No capital improvements are recommended.

Fire and Emergency Medical Services: The adopted CIP includes a replacement of bridge CL269 on Babylon Road over Silver Run. Bridge CL363, Stone Chapel over Little Pipe Creek, is included in the CIP request.

Police Services: No capital improvements are recommended. The funding for officer positions occurs through the operating budget and not the capital budget.

Water and Sewer Services: No capital improvements are recommended.

Recommended Building Permit Caps (§156.07(B))

Schools: No building permit cap is recommended although the Commission could phase any residential developments located in the Freedom elementary school attendance area.

Roads: No building caps are recommended.

Fire and Emergency Medical Services: No building caps are recommended although appropriate discussion should occur upon receipt of updated data from the Office of Public Safety.

Police Services: No building caps are recommended.

Water and Sewer Services: No building caps are recommended.

Proposed Changes to the Boundaries of Impact Areas (§156.07(B)(11))

Schools: No changes are recommended. The review of development proposals uses the enrollment districts for each school as established by the Carroll County Board of Education.

Roads: No changes are recommended.

Fire and Emergency Medical Services: No changes are recommended. The review of development proposals uses the first-due district as established by the fire/emergency medical stations.

Police Services: No changes are recommended.

Water and Sewer Services: No changes are recommended.

Proposed Changes to Existing or Adopted Threshold Standards (§156.07(B)(12))

Schools: No changes are recommended.

Roads: No changes are recommended.

Fire and Emergency Medical Services: No changes are recommended; however CCVESA should continue discussion on recognizing the presence of automatic sprinklers, the utilization of staffing, paid personnel, and response time measurements.

Police Services: The threshold standard used to measure development projects is officer positions. Routine vacancies do occur throughout the year resulting in month to month fluctuations. Recognizing authorized positions instead of sworn positions may be a better measurement of adequacy.

Water and Sewer Services: No changes are recommended.

Proposed Changes in Concurrence Analysis Methodology (§156.07(B)(13))

Schools: No changes are recommended.

Roads: No changes are recommended.

Fire and Emergency Medical Services: No changes are recommended.

Police Services: No changes are recommended.

Water and Sewer Services: No changes are recommended.

Proposed Amendments to Chapter 156 (§156.07(B)(14))

Schools: No changes are recommended.

Roads: No changes are recommended.

Fire and Emergency Medical Services: No changes are recommended.

Police Services: No changes are recommended.

Water and Sewer Services: No changes are recommended.

On January 15, 2019, the Carroll County Planning and Zoning Commission voted to forward the Concurrence Management Report to the Board of County Commissioners with a favorable recommendation for Adoption and including a letter from the Department of Public Safety noting approval of projects in the absence of sufficient data and a discussion with Mr. Caine regarding school data.