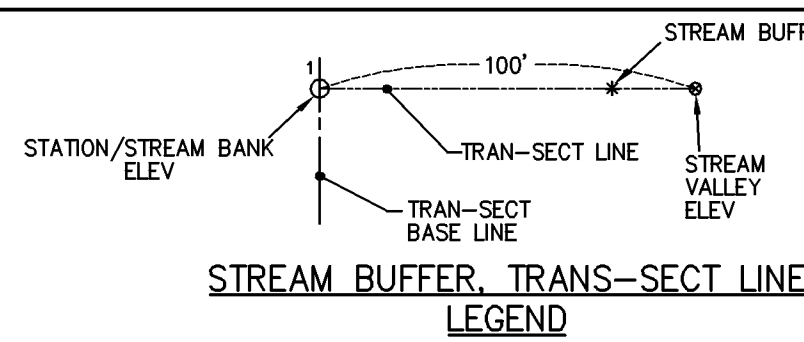


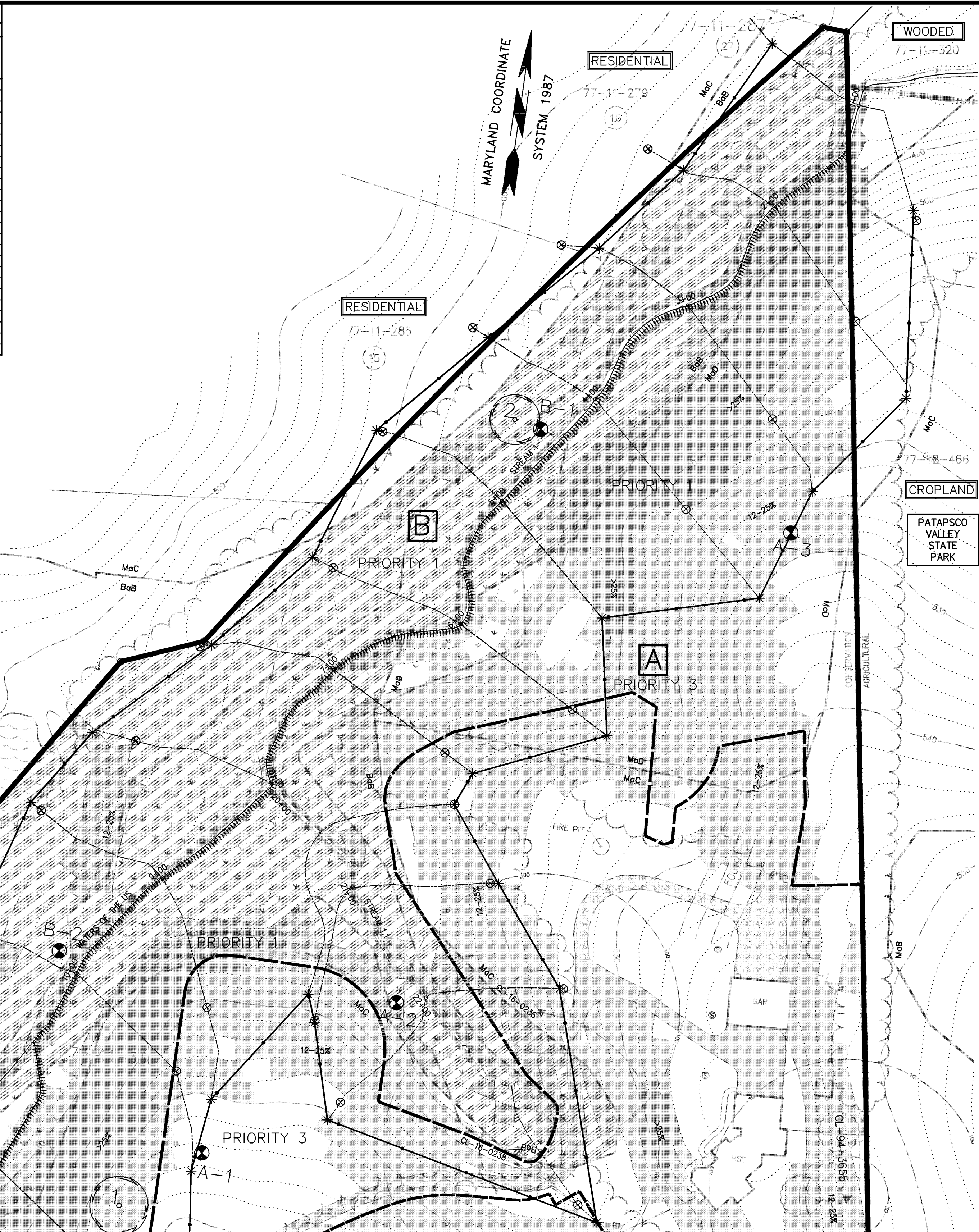
VARIABLE-WIDTH STREAM BUFFER CALCULATIONS																
STREAM #1 LEFT BANK								STATION	STREAM #1 RIGHT BANK							
STREAM BUFFER (Ft.)	SLOPES >25% (Ft.)	WETLANDS (Ft.)	ADDITIONAL STREAM VALLEY BUFFER (Ft.)	AVERAGE STREAM VALLEY SLOPE (Ft./100Ft.)	STREAM VALLEY ELEV (Ft.)	STREAM BANK ELEV (Ft.)	MINIMUM BUFFER (Ft.)		MINIMUM BUFFER (Ft.)	STREAM BANK ELEV (Ft.)	STREAM VALLEY ELEV (Ft.)	AVERAGE STREAM VALLEY SLOPE (Ft./100Ft.)	ADDITIONAL STREAM VALLEY BUFFER (Ft.)	WETLANDS (Ft.)	SLOPES >25% (Ft.)	STREAM BUFFER (Ft.)
92.34	0.00	0.00	42.34	21.17	502.67	481.50	50.00	Stream 1	50.00	481.50	494.15	12.65	25.30	0.00	0.00	75.30
168.81	66.49	0.00	52.32	26.16	509.89	483.73	50.00	2+00.00	50.00	483.73	493.71	9.98	19.96	0.00	0.00	69.96
161.60	57.74	0.00	53.86	26.93	511.87	484.94	50.00	3+00.00	50.00	484.94	496.18	11.24	22.48	0.00	0.00	72.48
183.48	72.70	0.00	60.78	30.39	517.34	486.95	50.00	4+00.00	50.00	486.95	498.19	11.24	22.48	14.27	0.00	86.75
109.39	0.00	28.07	31.32	15.66	504.10	488.44	50.00	5+00.00	50.00	488.44	500.74	12.30	24.60	30.18	0.00	104.78
131.53	5.15	34.30	42.08	21.04	511.23	490.19	50.00	6+00.00	50.00	490.19	498.64	8.45	16.90	49.70	0.00	116.60
125.03	0.00	42.83	32.20	16.10	510.24	494.14	50.00	7+00.00	50.00	494.14	503.46	9.32	18.64	22.96	0.00	91.60
167.88	28.85	47.19	41.84	20.92	520.89	499.97	50.00	8+00.00	50.00	497.95	505.85	7.90	15.80	67.34	0.00	133.12
174.76	43.23	32.93	48.60	24.30	526.86	502.56	50.00	9+00.00	50.00	499.97	510.40	10.43	20.86	38.73	0.00	109.59
								10+00.00	50.00	502.56	514.10	11.54	23.08	8.50	0.00	81.58
								11+00.00	50.00	505.79	517.69	11.90	23.80	9.19	0.00	82.99
								12+00.00	50.00	509.94	519.83	9.89	19.78	18.71	0.00	88.49
								spring hd	50.00	512.37	524.44	12.07	24.14	0.00	0.00	74.14
								Stream 1.1								
99.93	0.00	21.39	28.54	14.27	514.63	500.36	50.00	20+50.00	50.00	500.40	512.33	11.93	23.86	48.51	0.00	122.37
105.96	0.00	29.10	26.86	13.43	519.01	505.58	50.00	21+00.00	50.00	505.47	521.01	15.54	31.08	20.30	0.00	101.38
97.19	0.00	12.71	34.48	17.24	526.12	508.88	50.00	22+00.00	50.00	509.01	528.69	19.68	39.36	26.59	0.00	115.95
118.79	0.00	53.85	14.94	7.47	522.19	514.72	50.00	spring hd								
								Stream 1.2								
185.02	39.32	36.56	59.14	29.57	534.71	505.14	50.00	31+00.00								
123.30	0.00	43.52	29.78	14.89	522.65	507.76	50.00	32+00.00								

WATER RESOURCE MANAGEMENT AREAS LEGEND

AQUIFER RECHARGE AREAS.....	NONE
Municipal well existing.....	NONE
Municipal spring existing.....	NONE
Municipal well proposed.....	NONE
Municipal Wellhead Protection area.....	NONE
CARBONATE ROCK AREA.....	NONE
SURFACE WATERSHED AREA.....	NONE
SURFACE WATER MANAGEMENT ZONE.....	NONE
2500 Reservoir Buffer.....	NONE
5000 Upstream radius to water intake.....	NONE
3000 Upstream radius to water intake.....	NONE
Variable Stream Buffer.....	Ac



PM, js



SHEET INDEX

SHEET No	DESCRIPTION
1	TITLE SHEET
2	CONVENTIONAL PLAN
3	CLUSTER PLAN
4	FOREST STAND DELINEATION

VAN ALLER 2 CARROLL COUNTY FOREST STAND DELINEATION REPORT 1

OVERVIEW

This Forest Stand Delineation is prepared for the forested tracts included within the proposed area of development of the Cumberland property. This property is shown on Carroll County Tax Map 0077, Block 0017, Parcel 0336 and is known as Van Aller 2. The forest included in the proposed developed area is comprised of two stands and are shown on the Forest Stand Delineation map as Stand "A" and Stand "B".

The property is triangular in shape with access being provided along the south property line from Old Washington Road. The topography of the property slopes downward in a northerly direction from a high point of 546.0 in the southeast corner to 486.0 along the stream close to the north corner. The stream running in a northeasterly direction across property separates Stands A and B and is an unnamed tributary to Piney Branch which is located in the South Branch Patapsco watershed designation 02130908. Stand A has a stream buffer that would be considered Priority 1 (High Priority), for forest retention, outside the remaining portion of the forest would be Priority 3 (Low Priority) because the stand exhibits poor structural diversity. Stand B is all or mostly within a stream buffer so the entire stand has been given Priority 1 (High Priority) status for forest retention. There is one existing home on the property, with proposed development of two additional single family residences.

The surrounding land uses include residential lots along the northwest property line, agricultural fields to the east and southeast portion of the property and a wooded property along the south in which the current driveway comes through. To sample the woodland three 0.20 acre plots were located on Stand A and two 0.20 acre lots on Stand B. Additionally, two specimen trees were identified on the property which have been shown on the Forest Stand Delineation map. Finally, no rare or endangered species or historic structures were found on the site. These findings are awaiting confirmation by Maryland Department of Natural Resources and the Carroll County Historic Structures Database (www.ccgovernment.com.org) did not show any historic structures.

VAN ALLER 2 CARROLL COUNTY FOREST STAND DELINEATION REPORT 1

STAND DESCRIPTIONS

Stand "A" is a roughly triangular shaped woodland which covers the area proposed to be developed and contains 5.56 acres. This stand is an upland early/moderate hardwood stand bordered by a stream on the northwest. This stand is dominated by Black Oaks, Red Oaks and Yellow Poplar which accounts for 60 % of the stand. The main co-dominant species is Hickory with some American Hornbeam and locust, which accounts for roughly 31% of the stand. Currently the stand contains a basal area of 83 square feet with an average of 213 trees per acres. The stand composition is as follows:

2" - 5.9" dbh size class	41%
6" - 11.9" dbh size class	34%
12" - 19.9" dbh size class	22%
20" - 29.9" dbh size class	3%
>30" dbh size class	0%

The understorey layer only covers 5% with some Poplar saplings. Herbaceous layer is also sparse with some grasses and an unidentified vine, while 46% of the stand is covered with briars and Multiflora Rose.

Stand "B" is a roughly rectangular shape on the west side of the stream containing 3.10 acres. The stand is in bottom land with some areas of wetlands. There are residential lots to the northwest and a wooded lot to the south where the stream is feeding in. The dominant trees in this stand are Red Oaks, Black Oaks and Poplars. The main co-dominant species is Red Maple with some American Hornbeam and an understorey layer of Arrowwood. Currently the stand contains a basal area of 75 square feet with an average of 200 trees per acres. The stand composition is as follows:

2" - 5.9" dbh size class	40%
6" - 11.9" dbh size class	25%
12" - 19.9" dbh size class	30%
20" - 29.9" dbh size class	0%
>30" dbh size class	5%

There is some herbaceous cover, approximately 12.5% comprised of grasses, vines, some ferns and moss. Invasive plants such as green briars cover 15% of the understorey.

CANDIDATE SPECIMEN TREE LEGEND

TREE #	SIZE AND SPECIES OF TREE	COMMENTS
1	42" White Oak	Poor
2	36" Poplar	Fair Condition

LEGEND

Land Use	LAND USE	Slopes 12%-25%	12%-25%
Hydric Soils or Soils with a K value >0.35 on slopes >15%		Slopes >25%	>25%
		Wetlands	

REV.No.	DATE	BY	DESCRIPTION
1	2018-03-09	DRS/jfs	PER CCBRM 2017-04-18, CCBRM 2017-04-21, CCBRM/mc 2017-05-15, CCBRM/mm 2017-04-17
2	2018-08-28	DRS/ebp	PER CCBRM/mc 2020-05-11
3	2020-01-28	DRS/jfs	PER CCBRM/mm 2020-01-08
4	2021-11-24	DRS/jfs	PER CCBRM/mc 2021-11-19