SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

MISS UTILITY	1-800-257-7777
C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	331-4900
A T & T CABLE LOCATION DIVERSION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533

3. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
4. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
5. PROJECT BACKGROUND:

LOCATION:	TAX MAP #35, GRID 18, Lots 1-2 (Parcel 459), a resubdivision of Lots 2-4 (Parcel 207) and Parcel 193.
ZONING:	R-20
ELECTION DISTRICT:	5TH
SITE AREA:	17.7964 AC.
REC. REF.:	PLAT NO. 13156

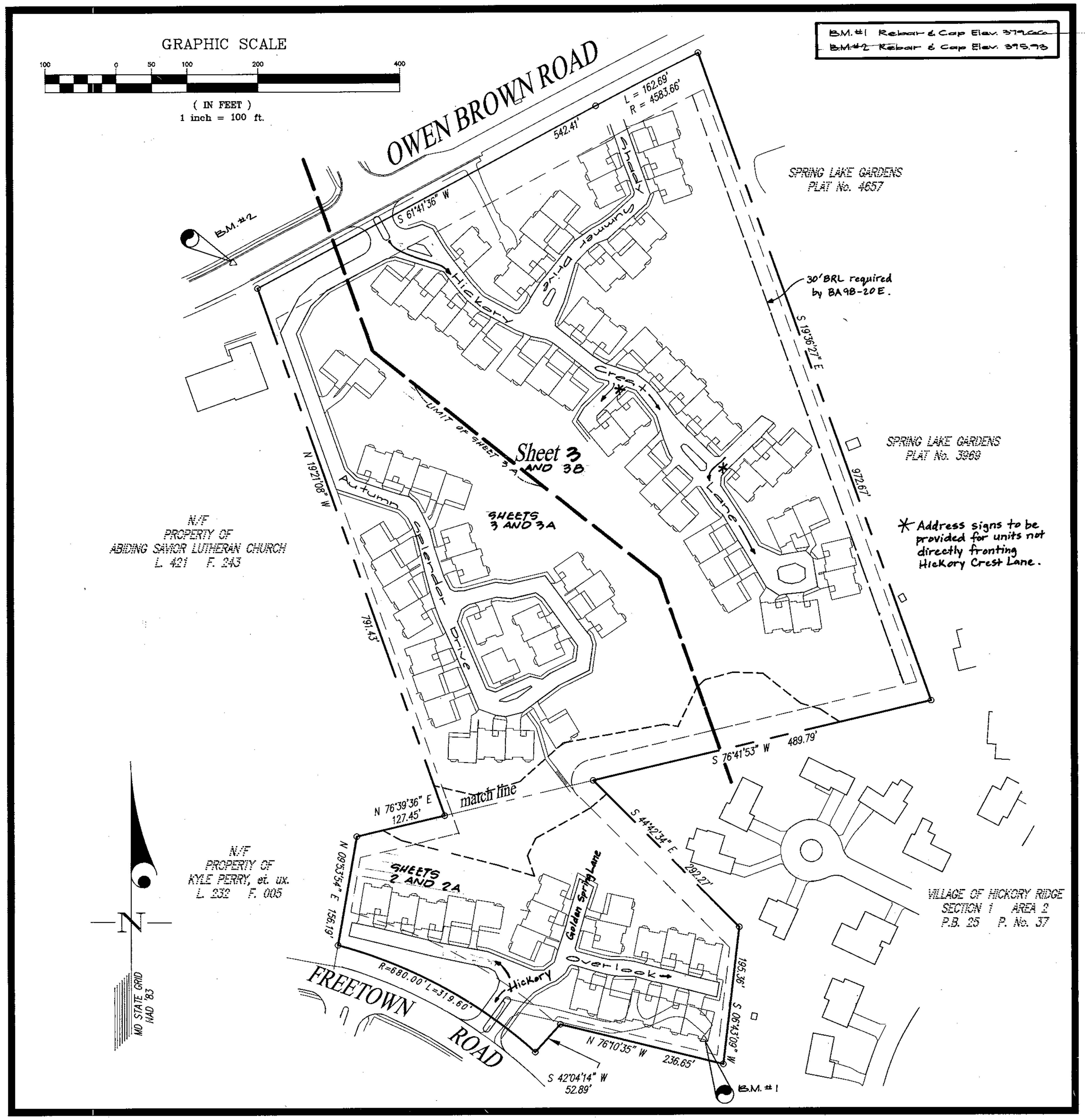
6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTC). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
8. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S., IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, PA.
9. COORDINATES ARE BASED ON NAD 27' MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 35C5 AND 0025
10. PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
11. STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH STORMCEPTORS. THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
12. ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
13. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
14. ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
15. ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
16. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
17. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
18. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
19. WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
20. ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
21. THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
22. ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
    - A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
    - B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
    - C. DOWNSPOUT CONNECTED TO STORM DRAIN.
23. WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
24. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2"-0" OF EXTERIOR MANHOLE WALLS.
25. ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
26. ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
27. OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
    BA - 95-60 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, **and WP99-101 (see note #30).**
28. FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
    - A. ON-SITE RETENTION ON NET TRACT OF 2.98 AC (SURETY =$13,068.00)
    - B. ON-SITE FOREST PLANTING OF 0.78 AC. (SURETY =$5,227.20)
    - C. FEE-IN-LIEU IN THE AMOUNT OF $22,215.60. (1.7 acres).
    - SURETY & FEE-IN-LIEU AMOUNT ARE BASED ON AREA ROUNDED TO 1/10 AC.
29. See sheet 2 for conditions of BA 98-20E.

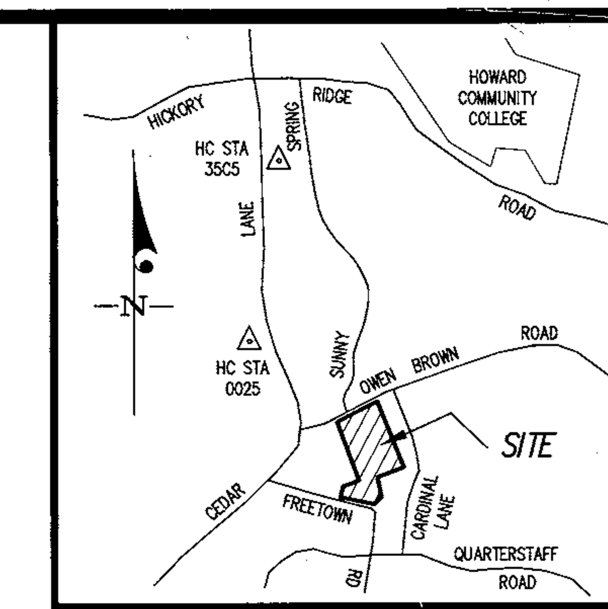
GENERAL NOTES (cont.)

30. WP-99-101, was approved on 5/28/99, and waived Section 16.115.c.2 to allow work to be done in the floodplain; Section 16.116.a.1 to allow disturbance in the 25' wetland buffer; and Section 16.116.a.2.i to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.

Site Analysis Data Chart

1. General Site Data.
   - a. Zoning: R-20
   - b. Proposed use: Single Family Attached units +1 community center
   - c. Building coverage = 18.2% (3.23 ac.±) open space = 51.3% (9.13 ac.±)
2. Density
   - a. 88 units allowed under BA 98-20E at a rate of 5 units per acre (5x 17.7297 = 88)
   - b. 88 units proposed.
3. Area Tabulation: R-20 Area = 17.7297 Ac.
   - NT Area = 0.0667 Ac.
   - Total = 17.7964 Ac.
4. Parking
   - a. Parking required: 35 spaces at a rate of 2 spaces for every 5 units (88/5) x 2 = 35
   - b. Parking provided: 53 - 2car garages = 106; 35 - 1car garages = 35; 1 space in front of each 1car garage = 35; 9 spaces @ comm. center (2 H.C.-van) = 9; 185 spaces





VICINITY MAP
SCALE: 1"=2000'

unit#	address	FF/slab elevation	basemnt. elevation	min. cellar/slab elev.	Optional Sunroom
1	10716 Shady Summer Drive	382.72	X		X
2	10714	381.39	X		X
3	10712	380.72	X		X
4	10713	382.90	373.98		•
5	10711	381.57	372.69		X
6	10708	380.49	X		•
7	10706	381.10	X		•
8	10704	382.49	X		X
9	10707	382.39	373.47		•
10	10705	382.39	373.47		•
11	10703	383.06	374.14		•
12	10701	383.79	374.81		•
13	10605 Hickory Crest Lane	390.83	381.91		•
14	10615	381.06	372.14		•
15	10617	379.06	370.14		•
16	10621	377.73	368.81		•
17	10623	374.99	366.07		•
18	10625	373.66	364.74		•
19	10627	372.99	364.07		•
20	10629	372.99	364.07		•
21	10633	373.96	365.04		•
22	10635	373.29	364.37		•
23	10637	373.29	364.37		•
24	10641	374.97	366.05		•
25	10643	374.30	365.38		•
26	10647	374.91	X		X
27	10649	374.91	X		•
28	10646	374.70	X		X
29	10644	373.63	X		X
30	10640	373.51	X		X
31	10638	373.51	X		•
32	10636	373.89	364.97		•
33	10632	373.89	364.97		•
34	10630	373.22	364.30		•
35	10628	373.22	364.30		•
36	10622	376.90	367.98		•
37	10624	376.90	367.98		X
38	10618	379.74	370.82		•
39	10616	381.74	372.82		•
40	10614	383.74	374.82		•
41	10610	385.71	376.79		X
42	10608	387.04	378.12		•
43	10606	389.04	380.12		•
44	10604	391.04	382.12		•
45	10602	392.37	383.45		•
46	10758 Autumn Splendor Drive	375.30	X		•
47	10756	373.97	X		•
48	10754	373.05	X		•
49	10755	373.78	364.86		X
50	10757	374.45	365.53		X
51	10745	378.67	369.79		X
52	10765	380.67	371.75		X
53	10727	385.42	376.50		•
54	10725	385.42	376.50		•
55	10721	385.24	376.32		•
56	10719	384.57	375.65		•
57	10717	383.90	374.98		•
58	10715	383.23	374.31		X
59	10707	387.12	378.20		•
60	10705	387.79	378.87		X
61	10720	384.96	376.04		X
62	10722	384.96	376.04		X
63	10724	384.96	376.04		•
64	10726	383.88	374.96		•
65	10730	381.20	372.28		•
66	10732	379.20	370.28		•
67	10734	377.20	368.28		•
68	10738	377.17	X		•
69	10740	377.17	X		•
70	10744	374.75	X		•
71	6428 Hickory Overlook	384.96	376.04		•
72	6426	384.96	376.04		•
73	6424	384.29	375.37		•
74	6422	384.27	375.37		•
75	6420	384.96	376.04		•
76	6509 Golden Spring Lane	380.04	X		•
77	6507	382.04	373.12		•
78	6505	382.71	373.79		•
79	6508	380.37	X		•
80	6506	381.04	X		•
81	6404 Hickory Overlook	380.12	X		•
82	6402	379.45	X		•
83	6400	378.78	X		•
84	6409	382.33	373.41		X
85	6407	381.83	372.91		X
86	6405	380.49	371.57		•
87	6403	379.82	370.90		•
88	6401	379.19	370.23		X
cc	10750 Autumn Splendor Drive	372.46	X		X

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

No Asbuilt Information Shown On This Sheet.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

Sheet Index

1 of 9	1. Cover Sheet		~~6. Sediment Control Plan~~	8 of 9	15. S.W.M. Details		~~22. Forest Conservation Plan~~
2 of 9	2. Site Development Plan		~~9. Drainage Area Map~~	9 of 9	16. S.W.M. Notes		~~23. Forest Conservation Notes~~
3 of 9	3. Site Development Plan		~~10. Road Grades~~		~~17. Landscape Edge Analysis~~		~~2a. 30 Scale Supplemental Site Plan~~
4 of 9	4. Utility Plan	5 of 9	11. Storm Drain Profiles		~~18. Sediment Control Notes/Details~~		~~3A. 30 SCALE SUPPLEMENTAL SITE PLAN~~
	~~5. Landscape Plan~~	6 of 9	12. Storm Drain Profiles		~~19. Wooden Walkway Details~~		~~3B. 30 SCALE SUPPLEMENTAL SITE PLAN~~
	~~6. Landscape Plan~~		~~13. Sewer Profiles~~		~~20. Forest Stand Delineation~~		
	~~7. Sediment Control Plan~~	7 of 9	14. S.W.M. Details		~~21. Forest Conservation Plan~~		

WATER CODE:	SEWER CODE:				
E-30	5324500				
SUBDIVISION NAME: HICKORY RIDGE ELDERLY CENTER			SECTION/AREA		Lots 1 and 2
PLAT 13156	ZONE R-20/NT	TAX MAP 35	BLOCK 18	ELEC. DIST. 5	CENSUS TRACT 6056

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\95053\95053COV.DWG | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.
5/21/01	~~ADD SHEET 3A/B TO SHEET INDEX, REVISE ADDRESS CHART & SITE MAP~~ (2)		
12/4/00	~~add sheet 2a to sheet index, rev. address chart for continuity~~	JAU/HGF	

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

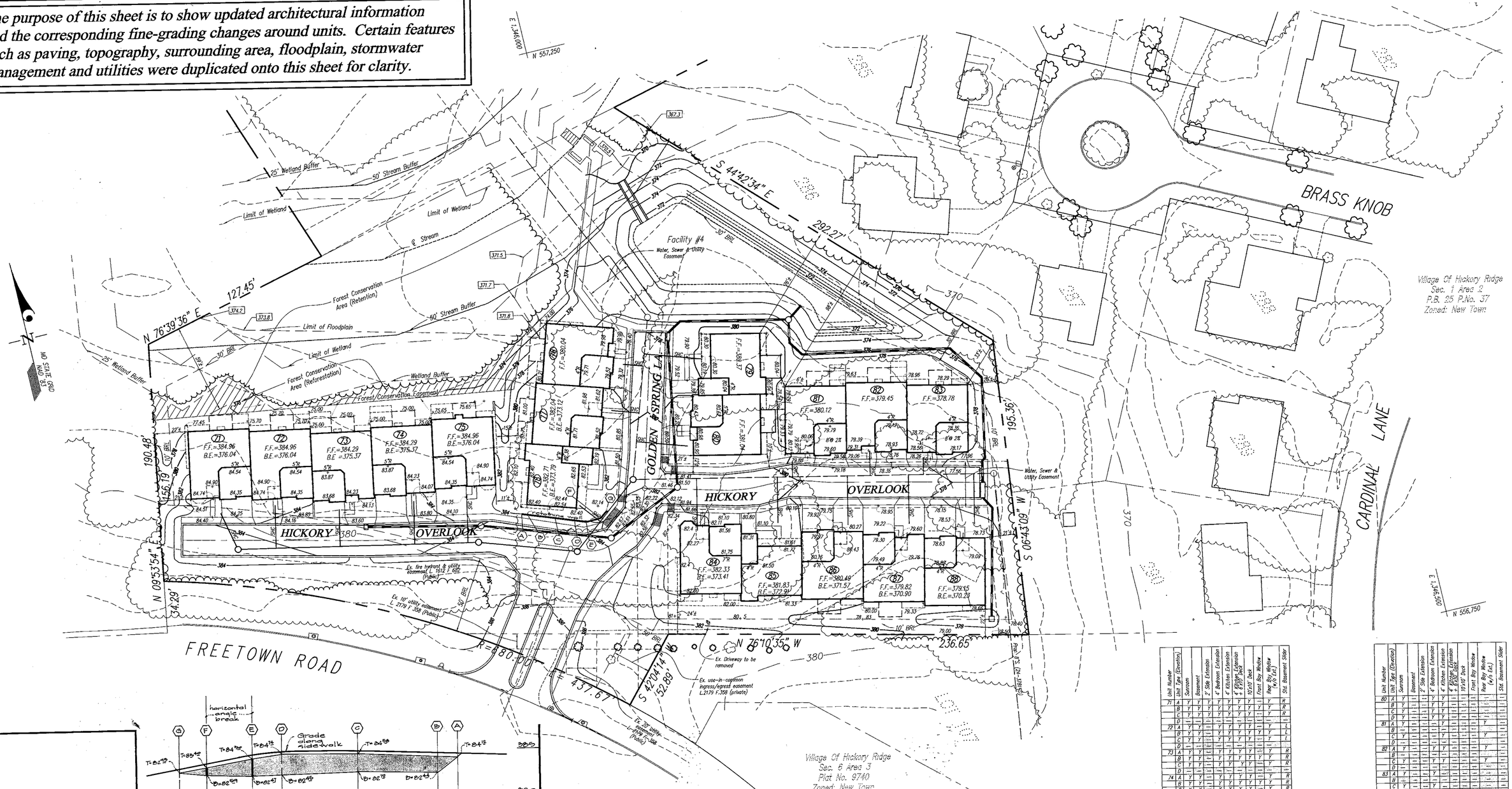
COVER SHEET
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

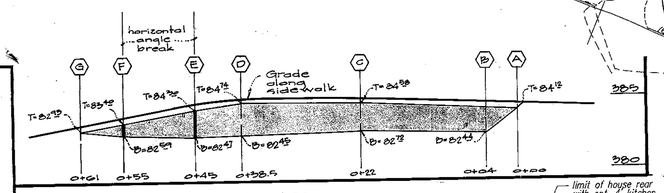
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

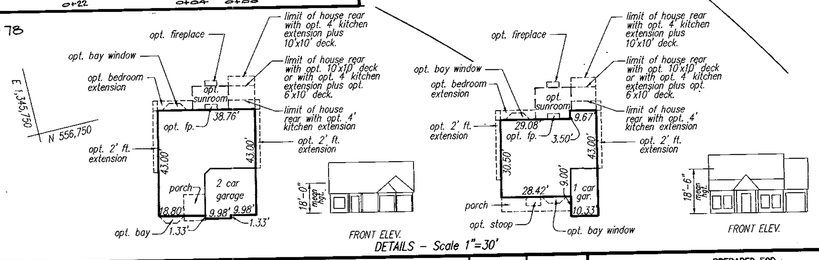
SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20/NT	95053
DATE Oct. 2002 ~~November, 1999~~	TAX MAP - GRID 35 - 18	SHEET 1

Asbuilt Sheet 1 of 9 SDP99-68

The purpose of this sheet is to show updated architectural information and the corresponding fine-grading changes around units. Certain features such as paving, topography, surrounding area, floodplain, stormwater management and utilities were duplicated onto this sheet for clarity.







Village Of Hickory Ridge
Sec. 6 Area 3
Plat No. 9740
Zoned: New Town

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Bedroom Extension & 4' Kitchen Extension	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Rear Bay Window (w/ Ext.)	Std. Basement Slider
71	A	Y	Y	Y	Y	Y	Y	—	Y	K		
	B	Y	Y	Y	Y	Y	Y	—	Y	K		
	C	Y	Y	Y	Y	Y	Y	—	Y	K		
	D	—	—	—	—	—	—	—	—	—		
72	A	Y	—	—	Y	Y	Y	—	Y	L		
	B	Y	Y	—	Y	Y	Y	—	Y	L		
	C	Y	Y	—	Y	Y	Y	—	Y	L		
	D	—	—	—	—	—	—	—	—	—		
73	A	Y	—	—	Y	Y	Y	—	Y	R		
	B	Y	Y	—	Y	Y	Y	—	Y	R		
	C	Y	Y	—	Y	Y	Y	—	Y	R		
	D	—	—	—	—	—	—	—	—	—		
74	A	Y	—	—	Y	Y	Y	—	Y	R		
	B	Y	Y	—	Y	Y	Y	—	Y	R		
	C	Y	Y	—	Y	Y	Y	—	Y	R		
	D	—	—	—	—	—	—	—	—	—		
75	A	Y	—	—	Y	Y	Y	—	Y	R		
	B	Y	Y	—	Y	Y	Y	—	Y	R		
	C	Y	Y	—	Y	Y	Y	—	Y	R		
	D	—	—	—	—	—	—	—	—	—		
76	A	Y	—	—	Y	Y	Y	—	Y	—		
	B	—	—	—	—	—	—	—	—	—		
	C	Y	—	—	Y	Y	Y	—	Y	—		
	D	—	—	—	—	—	—	—	—	—		
77	A	Y	—	—	Y	Y	Y	—	Y	—		
	B	Y	Y	—	Y	Y	Y	—	Y	—		
	C	Y	Y	—	Y	Y	Y	—	Y	—		
	D	—	—	—	—	—	—	—	—	—		
78	A	Y	—	—	Y	Y	Y	—	Y	—		
	B	Y	Y	—	Y	Y	Y	—	Y	—		
	C	Y	Y	—	Y	Y	Y	—	Y	—		
	D	—	—	—	—	—	—	—	—	—		
79	A	Y	—	—	Y	Y	—	—	Y	—		
	B	Y	—	—	Y	Y	—	—	Y	—		
	C	Y	—	—	Y	Y	—	—	Y	—		

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Bedroom Extension & 4' Kitchen Extension	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Rear Bay Window (w/ Ext.)	Std. Basement Slider
80	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	Y	—	—	Y	Y	Y	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
81	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
82	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
83	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
84	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
85	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
86	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
87	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—
88	A	Y	—	—	Y	Y	Y	—	—	—	—	—
	B	Y	—	—	Y	Y	Y	—	—	—	—	—
	C	Y	—	—	Y	Y	Y	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—	—

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 12/20/00

Chief, Division of Land Development — Date 12/18/00

Chief, Development Engineering Division — Date 12/13/00

GLW GUTSCHICK LITTLE & WEBER, P.A.
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\DRAWINGS\95053\DESIGN\COUNTY\95532a.DWG | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.
12/14/00	Supplemental sheet added to assist in permitting	JW	MCF
5-16-01	Add retaining wall and detail for lot 78		

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

REVISED SITE DEVELOPMENT PLAN

HICKORY RIDGE ELDERLY CENTER

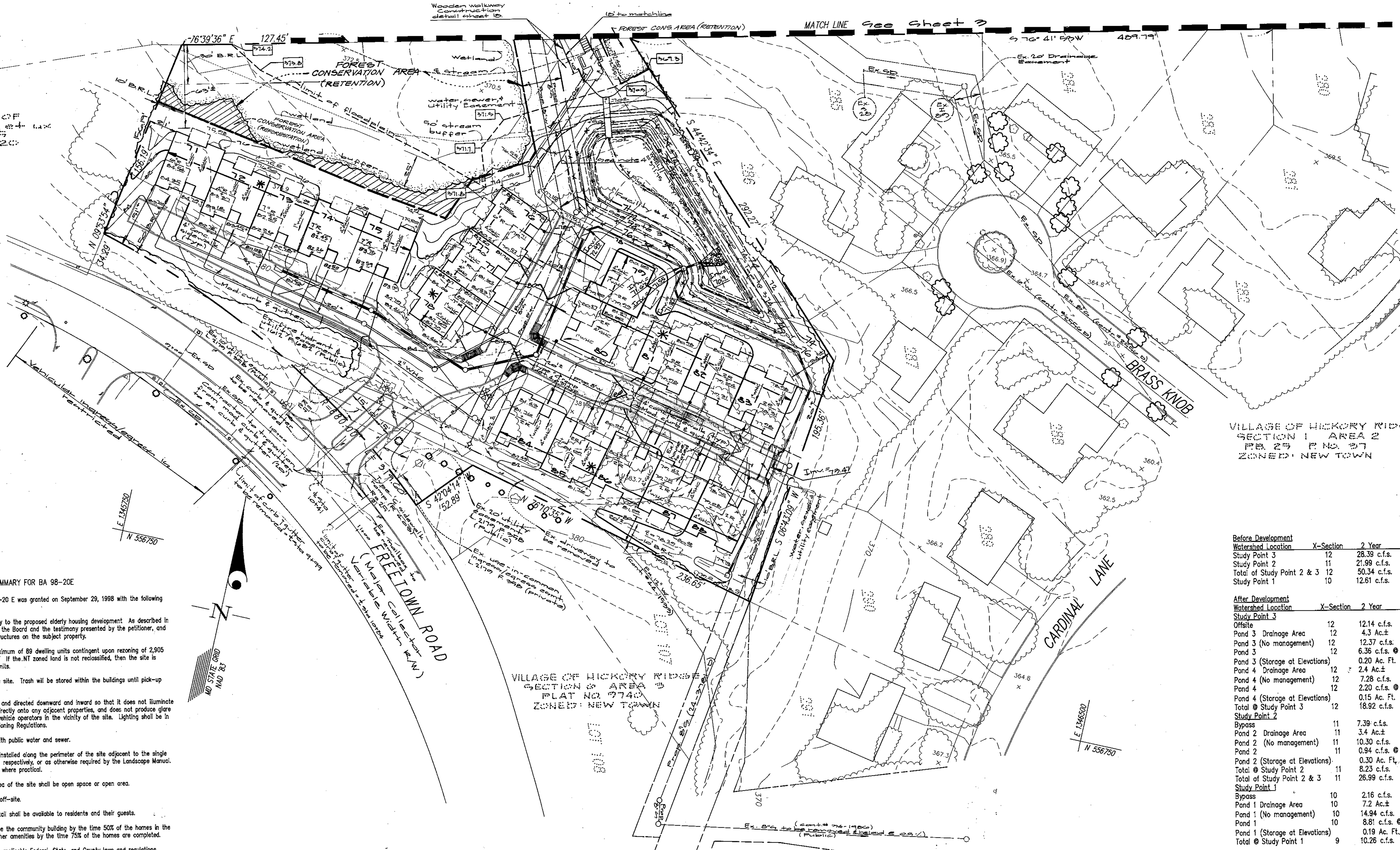
LOTS 1 AND 2
PLAT NO. 13156

CLARKSVILLE ELECTION DISTRICT NO. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	R-20/NT	95053
DATE	TAX MAP – GRID	SHEET
8/9/00	35-18	2a

SDP-99-68

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.



SUMMARY FOR BA 98-20E

The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:

1. The Special Exception shall apply only to the proposed elderly housing development As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.

2. The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a maximum of 88 dwelling units.

3. No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up days.

4. Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.

5. The development shall be served with public water and sewer.

6. Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.

7. A minimum of 50% of the gross area of the site shall be open space or open area.

8. No perceptible odors may emanate off-site.

9. The dining area and convenience retail shall be available to residents and their guests.

10. The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.

11. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development

Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.19 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.

After Development

Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3				
Offsite	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Pond 3 Drainage Area	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)		0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 Drainage Area	12	2.4 Ac.±		
Pond 4 (No management)	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Pond 4 (Storage at Elevations)		0.15 Ac. Ft.	0.26 Ac. Ft.	0.35 Ac. Ft.
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 Drainage Area	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)		0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 Drainage Area	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)		0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13
2. For additional information regarding stormwater management, see sheets 4 & 14-16.
3. Contractor to end macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path and begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowner's Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Signature	Date
Director	12/13/99
Chief, Division of Land Development	12/9/99
Chief, Development Engineering Division	11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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BURTONSVILLE, MARYLAND 20866
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\DRAWINGS\95053\BASESHTS\95053BS2.DWG. DES. DRN. SJG CHK.

DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		
~~5/21/01~~	~~2 Remove unit details.~~		
~~12/4/00~~	~~Notations added to reference 2a, remove sunroom from unit 88~~	~~JAJ/MCP~~	

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

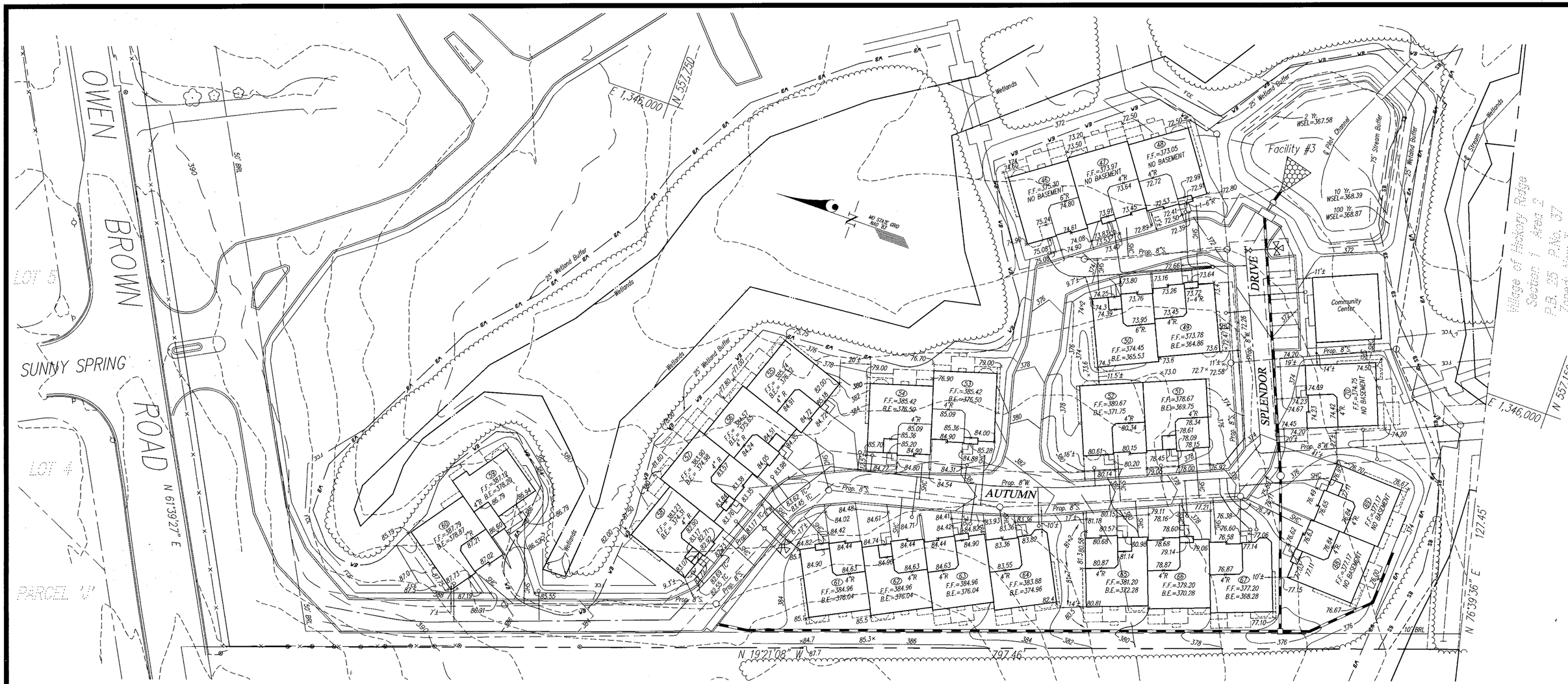
Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

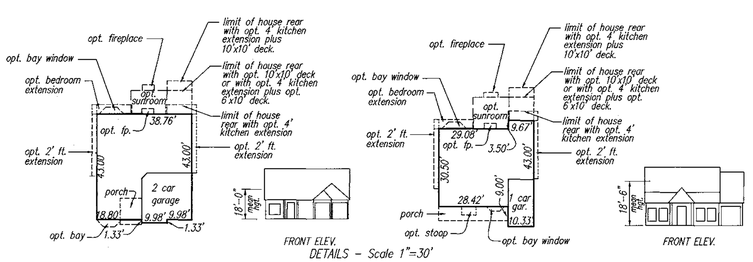
CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE: ~~October~~ ~~November,~~ ~~1999~~ 2002	TAX MAP – GRID: 35 – 18	SHEET: ~~2~~

Asbuilt Sheet 2 of 9

SDP99-68





Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Sunroom Extension & 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
46	A	Y	—	Y	Y	Y	Y	Y	—	Y	—
	B	Y	—	Y	Y	Y	Y	Y	—	Y	—
	C	Y	—	Y	Y	Y	Y	Y	—	Y	—
	D	Y	—	Y	Y	Y	Y	Y	—	Y	—
47	A	Y	—	Y	Y	Y	Y	Y	—	Y	—
	B	Y	—	Y	Y	Y	Y	Y	—	Y	—
	C	Y	—	Y	Y	Y	Y	Y	—	Y	—
	D	Y	—	Y	Y	Y	Y	Y	—	Y	—
48	A	Y	—	Y	Y	Y	—	—	—	Y	—
	B	Y	—	Y	Y	Y	—	—	—	Y	—
	C	Y	—	Y	Y	Y	—	—	—	Y	—
	D	Y	—	Y	Y	Y	—	—	—	Y	—
49	A	—	Y	Y	—	—	—	—	Y	Y	—
	B	—	Y	Y	—	—	—	—	Y	Y	—
	C	—	Y	Y	—	—	—	—	Y	Y	—
	D	—	Y	Y	—	—	—	—	Y	Y	—
50	A	—	Y	Y	—	—	—	—	Y	Y	—
	B	—	Y	Y	—	—	—	—	Y	Y	—
	C	—	Y	Y	—	—	—	—	Y	Y	—
	D	—	Y	Y	—	—	—	—	Y	Y	—
51	A	—	Y	Y	—	—	—	—	Y	Y	—
	B	—	Y	Y	—	—	—	—	Y	Y	—
	C	—	Y	Y	—	—	—	—	Y	Y	—
	D	—	Y	Y	—	—	—	—	Y	Y	—
52	A	—	Y	Y	—	—	—	—	Y	Y	—
	B	—	Y	Y	—	—	—	—	Y	Y	—
	C	—	Y	Y	—	—	—	—	Y	Y	—
	D	—	Y	Y	—	—	—	—	Y	Y	—
53	A	Y	Y	Y	Y	Y	—	—	—	Y	—
	B	Y	Y	Y	Y	Y	—	—	—	Y	—
	C	Y	Y	Y	Y	Y	—	—	—	Y	—
	D	Y	Y	Y	Y	Y	—	—	—	Y	—
54	A	Y	Y	Y	Y	Y	—	—	—	Y	—
	B	Y	Y	Y	Y	Y	—	—	—	Y	—
	C	Y	Y	Y	Y	Y	—	—	—	Y	—
	D	Y	Y	Y	Y	Y	—	—	—	Y	—

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Sunroom Extension & 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
55	A	Y	Y	Y	Y	Y	Y	Y	—	Y	Y
	B	Y	Y	Y	Y	Y	Y	Y	—	Y	Y
	C	Y	Y	Y	Y	Y	Y	Y	—	Y	Y
	D	Y	Y	Y	Y	Y	Y	Y	—	Y	Y
56	A	Y	—	Y	Y	Y	Y	Y	—	Y	—
	B	Y	—	Y	Y	Y	Y	Y	—	Y	—
	C	Y	—	Y	Y	Y	Y	Y	—	Y	—
	D	Y	—	Y	Y	Y	Y	Y	—	Y	—
57	A	Y	—	Y	Y	Y	Y	Y	—	Y	—
	B	Y	—	Y	Y	Y	Y	Y	—	Y	—
	C	Y	—	Y	Y	Y	Y	Y	—	Y	—
	D	Y	—	Y	Y	Y	Y	Y	—	Y	—
** 58	A	—	Y	—	—	—	—	—	—	—	Y
	B	—	Y	—	—	—	—	—	—	—	Y
	C	—	Y	—	—	—	—	—	—	—	Y
	D	—	Y	—	—	—	—	—	—	—	Y
59	A	Y	Y	Y	Y	Y	—	—	—	Y	—
	B	Y	Y	Y	Y	Y	—	—	—	Y	—
	C	Y	Y	Y	Y	Y	—	—	—	Y	—
	D	Y	—	Y	Y	Y	—	—	—	Y	—
60	A	—	Y	—	Y	Y	—	—	—	Y	—
	B	—	Y	—	Y	Y	—	—	—	Y	—
	C	—	Y	—	Y	Y	—	—	—	Y	—
	D	—	Y	—	Y	Y	—	—	—	Y	—
61	A	—	Y	—	Y	Y	—	—	—	Y	—
	B	—	Y	—	Y	Y	—	—	—	Y	—
	C	—	Y	—	Y	Y	—	—	—	Y	—
	D	—	Y	—	Y	Y	—	—	—	Y	—
62	A	—	Y	—	Y	Y	—	—	—	Y	—
	B	—	Y	—	Y	Y	—	—	—	Y	—
	C	—	Y	—	Y	Y	—	—	—	Y	—
	D	—	Y	—	Y	Y	—	—	—	Y	—
63	A	Y	Y	—	Y	Y	—	—	—	Y	—
	B	Y	Y	—	Y	Y	—	—	—	Y	—
	C	Y	Y	—	Y	Y	—	—	—	Y	—
	D	Y	Y	—	Y	Y	—	—	—	Y	—

*Left and/or Right established by front of buildings.
**Unit 58 can only be an 'A' unit due to handicap accessibility.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Sunroom Extension & 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
64	A	Y	Y	Y	Y	Y	Y	Y	—	Y	—
	B	Y	Y	Y	Y	Y	Y	Y	—	Y	—
	C	Y	Y	Y	Y	Y	Y	Y	—	Y	—
	D	Y	Y	Y	Y	Y	Y	Y	—	Y	—
65	A	Y	Y	Y	Y	Y	Y	Y	—	Y	—
	B	Y	Y	Y	Y	Y	Y	Y	—	Y	—
	C	Y	Y	Y	Y	Y	Y	Y	—	Y	—
	D	Y	Y	Y	Y	Y	Y	Y	—	Y	—
66	A	Y	Y	—	Y	Y	Y	Y	—	Y	—
	B	Y	Y	—	Y	Y	Y	Y	—	Y	—
	C	Y	Y	—	Y	Y	Y	Y	—	Y	—
	D	Y	Y	—	Y	Y	Y	Y	—	Y	—
67	A	Y	Y	—	Y	Y	Y	Y	—	Y	—
	B	Y	Y	—	Y	Y	Y	Y	—	Y	—
	C	Y	Y	—	Y	Y	Y	Y	—	Y	—
	D	Y	Y	—	Y	Y	Y	Y	—	Y	—
68	A	Y	—	Y	Y	Y	Y	Y	—	Y	—
	B	Y	—	Y	Y	Y	Y	Y	—	Y	—
	C	Y	—	Y	Y	Y	Y	Y	—	Y	—
	D	Y	—	Y	Y	Y	Y	Y	—	Y	—
69	A	Y	—	Y	Y	Y	—	—	—	Y	—
	B	Y	—	Y	Y	Y	—	—	—	Y	—
	C	Y	—	Y	Y	Y	—	—	—	Y	—
	D	Y	—	Y	Y	Y	—	—	—	Y	—
70	A	Y	—	Y	Y	Y	Y	Y	—	Y	—
	B	Y	—	Y	Y	Y	Y	Y	—	Y	—
	C	Y	—	Y	Y	Y	Y	Y	—	Y	—
	D	Y	—	Y	Y	Y	Y	Y	—	Y	—

*Left and/or Right established by front of buildings.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — 6/15/01

Chief, Division of Land Development — 6/13/01

Chief, Development Engineering Division — 6/6/01

The purpose of this sheet is to show updated architectural information and the corresponding fine-grading changes around units. Certain features such as paving, topography, surrounding area, floodplain, stormwater management and utilities were duplicated onto this sheet for clarity.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

95053\DESIGN\COUNTY\95533a.DWG | DES. MCF | DRN. JAU | CHK. DEV

DATE	REVISION	BY	APP'R.

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

REVISED SITE DEVELOPMENT PLAN

HICKORY RIDGE ELDERLY CENTER

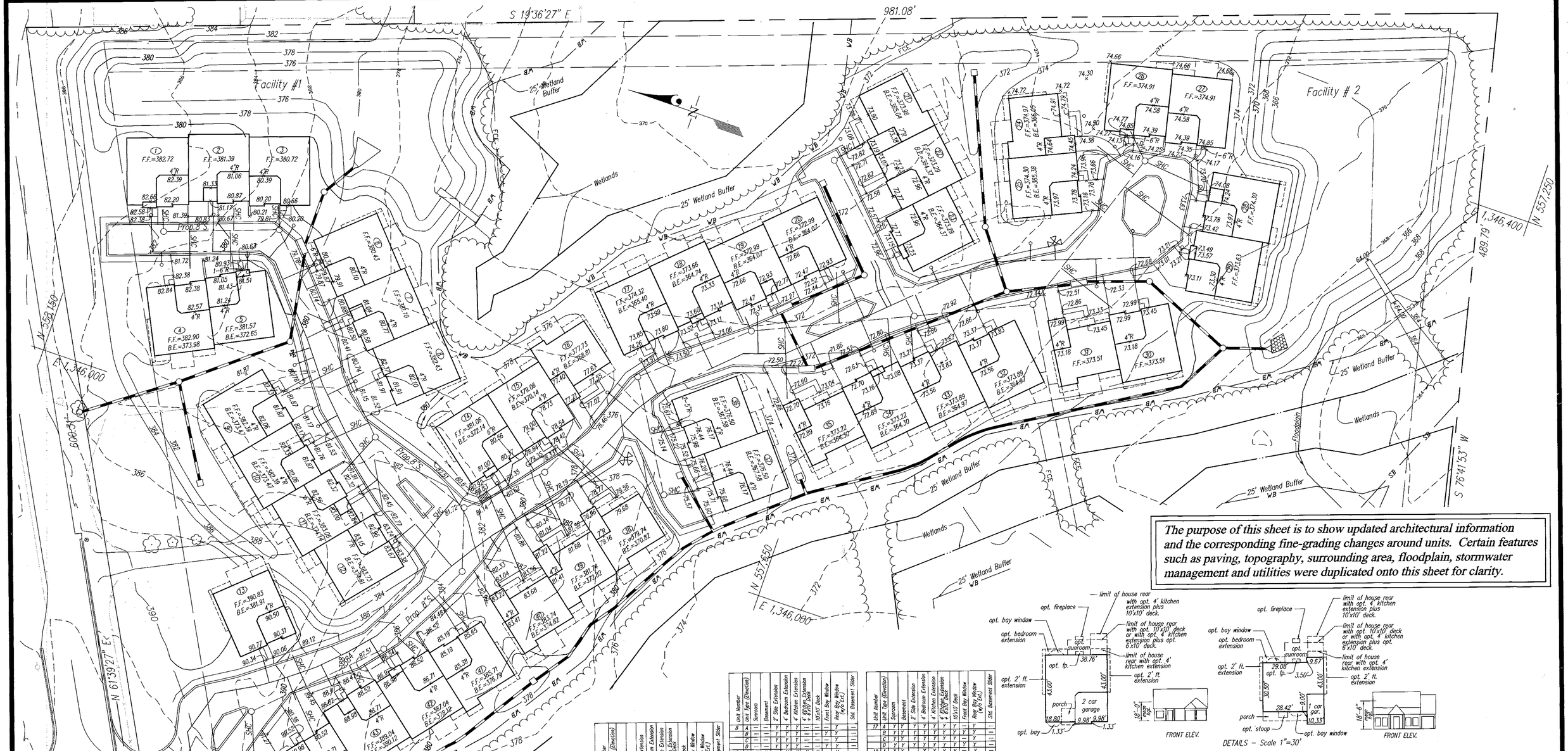
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	R-20	95053
DATE	TAX MAP – GRID	SHEET
3/20/01	35 – 18	3a

SDP-99-68

95533a.dwg 5-23-01 10:43:12 am EST



The purpose of this sheet is to show updated architectural information and the corresponding fine-grading changes around units. Certain features such as paving, topography, surrounding area, floodplain, stormwater management and utilities were duplicated onto this sheet for clarity.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Kitchen Extension + 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
1	A	–	–	–	–	–	–	–	–	Y	–
	B	–	–	–	–	–	–	–	–	Y	–
	C	–	–	–	–	–	–	–	–	Y	–
	D	–	–	–	–	–	–	–	–	Y	–
2	A	–	–	–	–	–	–	–	Y	–	–
	B	–	–	–	–	–	–	–	Y	–	–
	C	–	–	–	–	–	–	–	Y	–	–
	D	–	–	–	–	–	–	–	Y	–	–
3	A	–	–	–	–	–	–	–	–	Y	–
	B	–	–	–	–	–	–	–	–	Y	–
	C	–	–	–	–	–	–	–	–	Y	–
	D	–	–	–	–	–	–	–	–	Y	–
4	A	Y	Y	Y	Y	Y	Y	Y	Y	–	R
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	R
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	R
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	R
5	A	–	Y	–	–	–	–	–	Y	Y	–
	B	–	Y	–	–	–	–	–	Y	Y	–
	C	–	Y	–	–	–	–	–	Y	Y	–
	D	–	Y	–	–	–	–	–	Y	Y	–
6	A	Y	–	Y	Y	Y	–	–	Y	Y	–
	B	Y	–	Y	Y	Y	–	–	Y	Y	–
	C	Y	–	Y	Y	Y	–	–	Y	Y	–
	D	Y	–	Y	Y	Y	–	–	Y	Y	–
7	A	Y	–	–	Y	Y	–	–	Y	Y	–
	B	Y	–	–	Y	Y	–	–	Y	Y	–
	C	Y	–	–	Y	Y	–	–	Y	Y	–
	D	Y	–	–	Y	Y	–	–	Y	Y	–
8	A	–	–	–	Y	Y	–	–	Y	Y	–
	B	–	–	–	Y	Y	–	–	Y	Y	–
	C	–	–	–	Y	Y	–	–	Y	Y	–
	D	–	–	–	Y	Y	–	–	Y	Y	–
9	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
10	A	Y	Y	–	Y	Y	–	–	Y	Y	–
	B	Y	Y	–	Y	Y	–	–	Y	Y	–
	C	Y	Y	–	Y	Y	–	–	Y	Y	–
	D	Y	Y	–	Y	Y	–	–	Y	Y	–
11	A	Y	Y	–	–	Y	Y	–	Y	–	–
	B	Y	Y	–	–	Y	Y	–	Y	–	–
	C	Y	Y	–	–	Y	Y	–	Y	–	–
	D	Y	Y	–	–	Y	Y	–	Y	–	–
12	A	Y	Y	–	–	–	–	–	Y	Y	–
	B	Y	Y	–	–	–	–	–	Y	Y	–
	C	Y	Y	–	–	–	–	–	Y	Y	–
	D	Y	Y	–	–	–	–	–	Y	Y	–
13	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
14	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
15	A	Y	Y	–	Y	Y	–	–	Y	Y	–
	B	Y	Y	–	Y	Y	–	–	Y	Y	–
	C	Y	Y	–	Y	Y	–	–	Y	Y	–
	D	Y	Y	–	Y	Y	–	–	Y	Y	–
16	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	–	–	–	–	–	–	–	–	–	–

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Kitchen Extension + 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
17	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
18	A	Y	Y	–	Y	Y	–	–	Y	Y	–
	B	Y	Y	–	Y	Y	–	–	Y	Y	–
	C	Y	Y	–	Y	Y	–	–	Y	Y	–
	D	Y	Y	–	Y	Y	–	–	Y	Y	–
19	A	Y	Y	–	–	Y	Y	–	Y	–	–
	B	Y	Y	–	–	Y	Y	–	Y	–	–
	C	Y	Y	–	–	Y	Y	–	Y	–	–
	D	Y	Y	–	–	Y	Y	–	Y	–	–
20	A	–	–	–	–	–	–	–	–	Y	–
	B	Y	Y	–	Y	Y	–	–	Y	Y	–
	C	Y	Y	–	Y	Y	–	–	Y	Y	–
	D	Y	Y	–	Y	Y	–	–	Y	Y	–
21	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
22	A	Y	Y	–	–	–	–	–	Y	Y	–
	B	Y	Y	–	–	–	–	–	Y	Y	–
	C	Y	Y	–	–	–	–	–	Y	Y	–
	D	Y	Y	–	–	–	–	–	Y	Y	–
23	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
24	A	Y	Y	–	Y	Y	–	–	Y	Y	–
	B	Y	Y	–	Y	Y	–	–	Y	Y	–
	C	Y	Y	–	Y	Y	–	–	Y	Y	–
	D	–	–	–	–	–	–	–	–	–	–
25	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Kitchen Extension + 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
26	A	–	–	–	Y	–	–	–	Y	Y	–
	B	–	–	–	Y	–	–	–	Y	Y	–
	C	–	–	–	Y	–	–	–	Y	Y	–
	D	–	–	–	Y	–	–	–	Y	Y	–
27	A	Y	–	Y	Y	–	–	–	Y	Y	–
	B	Y	–	Y	Y	–	–	–	Y	Y	–
	C	Y	–	Y	Y	–	–	–	Y	Y	–
	D	Y	–	Y	Y	–	–	–	Y	Y	–
28	A	–	–	–	Y	Y	–	–	Y	Y	–
	B	–	–	–	Y	Y	–	–	Y	Y	–
	C	–	–	–	Y	Y	–	–	Y	Y	–
	D	–	–	–	Y	Y	–	–	Y	Y	–
29	A	–	–	–	Y	Y	–	–	Y	Y	–
	B	–	–	–	Y	Y	–	–	Y	Y	–
	C	–	–	–	Y	Y	–	–	Y	Y	–
	D	–	–	–	Y	Y	–	–	Y	Y	–
30	A	–	–	–	Y	Y	–	–	Y	Y	–
	B	–	–	–	Y	Y	–	–	Y	Y	–
	C	–	–	–	Y	Y	–	–	Y	Y	–
	D	–	–	–	Y	Y	–	–	Y	Y	–

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Kitchen Extension + 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
31	A	Y	–	Y	Y	Y	–	–	Y	Y	–
	B	Y	–	Y	Y	Y	–	–	Y	Y	–
	C	Y	–	Y	Y	Y	–	–	Y	Y	–
	D	Y	–	Y	Y	Y	–	–	Y	Y	–
32	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
33	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
34	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	Y	Y	Y	Y	Y	Y	Y	Y	–	–
35	A	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	B	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	C	Y	Y	Y	Y	Y	Y	Y	Y	–	–
	D	–	–	–	–	–	–	–	–	–	–

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Kitchen Extension + 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
36	A	Y	Y	–	Y	Y	Y	Y	–	Y	–
	B	Y	Y	–	Y	Y	Y	Y	–	Y	–
	C	Y	Y	–	Y	Y	Y	Y	–	Y	–
	D	Y	Y	–	Y	Y	Y	Y	–	Y	–
37	A	Y	Y	–	Y	Y	–	–	–	Y	–
	B	Y	Y	–	Y	Y	–	–	–	Y	–
	C	Y	Y	–	Y	Y	–	–	–	Y	–
	D	Y	Y	–	Y	Y	–	–	–	Y	–
38	A	Y	Y	Y	Y	Y	Y	Y	–	Y	–
	B	Y	Y	Y	Y	Y	Y	Y	–	Y	–
	C	Y	Y	Y	Y	Y	Y	Y	–	Y	–
	D	–	–	–	–	–	–	–	–	–	–
39	A	Y	Y	–	Y	Y	Y	Y	–	Y	–
	B	Y	Y	–	Y	Y	Y	Y	–	Y	–
	C	Y	Y	–	Y	Y	Y	Y	–	Y	–
	D	–	–	–	–	–	–	–	–	–	–
40	A	Y	Y	Y	Y	Y	Y	Y	–	Y	–
	B	Y	Y	Y	Y	Y	Y	Y	–	Y	–
	C	Y	Y	Y	Y	Y	Y	Y	–	Y	–
	D	–	–	–	–	–	–	–	–	–	–

*Left and/or Right established by front of buildings.

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Kitchen Extension + 6'x10' Deck	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
41	A	–	Y	Y	Y	Y	Y	–	Y	Y	–
	B	–	Y	Y	Y	Y	Y	–	Y	Y	–
	C	–	Y	Y	Y	Y	Y	–	Y	Y	–
	D	–	Y	Y	Y	Y	Y	–	Y	Y	–
42	A	–	Y	Y	Y	Y	Y	–	Y	Y	–
	B	–	Y	Y	Y	Y	Y	–	Y	Y	–
	C	–	Y	Y	Y	Y	Y	–	Y	Y	–
	D	–	Y	Y	Y	Y	Y	–	Y	Y	–
43	A	–	Y	Y	Y	Y	Y	–	Y	Y	–
	B	–	Y	Y	Y	Y	Y	–	Y	Y	–
	C	–	Y	Y	Y	Y	Y	–	Y	Y	–
	D	–	Y	Y	Y	Y	Y	–	Y	Y	–
44	A	–	Y	Y	Y	Y	Y	–	Y	Y	–
	B	–	Y	Y	Y	Y	Y	–	Y	Y	–
	C	–	Y	Y	Y	Y	Y	–	Y	Y	–
	D	–	Y	Y	Y	Y	Y	–	Y	Y	–
45	A	–	Y	Y	Y	Y	Y	–	Y	Y	–
	B	–	Y	Y	Y	Y	Y	–	Y	Y	–
	C	–	Y	Y	Y	Y	Y	–	Y	Y	–
	D	–	Y	Y	Y	Y	Y	–	Y	Y	–

*Left and/or Right established by front of buildings.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — 6/15/01

Chief, Division of Land Development — 6/13/01

Chief, Development Engineering Division — 6/6/01

STATE OF MARYLAND — TAYLOR K. GUTSCHICK — 12978 — PROFESSIONAL ENGINEER

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

95053\design\95534a.DWG | DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

REVISED SITE DEVELOPMENT PLAN

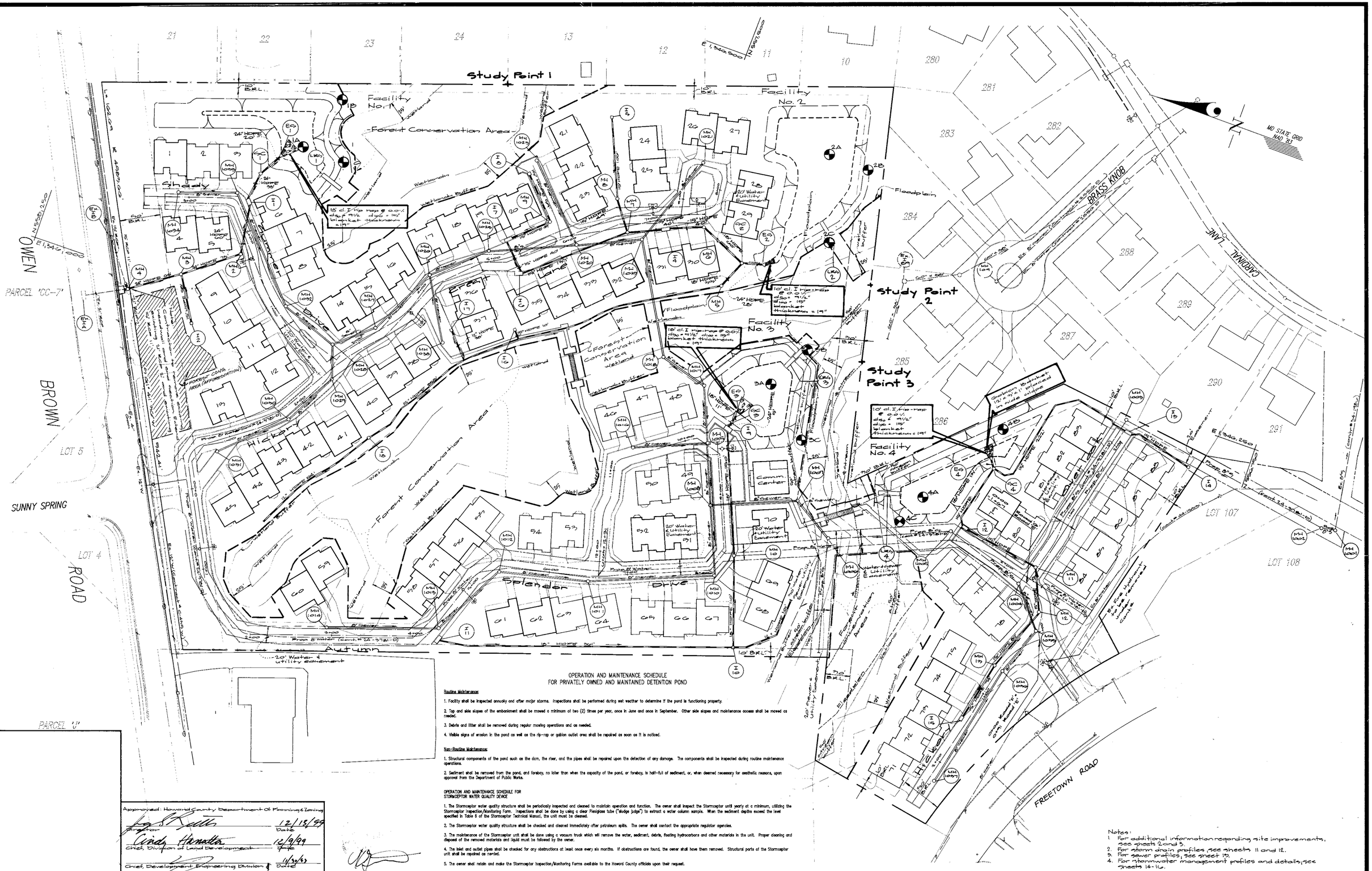
HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	R-20	95053
DATE	TAX MAP – GRID	SHEET
11/ /00	35 – 18	3b

SDP-00-



OPERATION AND MAINTENANCE SCHEDULE
FOR PRIVATELY OWNED AND MAINTAINED DETENTION POND

Routine Maintenance:

1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.

2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.

3. Debris and litter shall be removed during regular mowing operations and as needed.

4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

Non-Routine Maintenance:

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.

2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond, or forebay, is half-full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

OPERATION AND MAINTENANCE SCHEDULE FOR
STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor until yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done by using a clear Plexiglass tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table 5 of the Stormceptor Technical Manual, the unit must be cleaned.

2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulator agencies.

3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.

4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found, the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.

5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

Approved: Howard County Department of Planning & Zoning

Director — Date 12/15/99

Chief, Division of Land Development — Date 12/9/99

Chief, Development Engineering Division — Date 11/24/99

Notes:
1. For additional information regarding site improvements, see sheets 2 and 3.
2. For storm drain profiles, see sheets 11 and 12.
3. For sewer profiles, see sheet 13.
4. For stormwater management profiles and details, see sheets 14-16.

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DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.

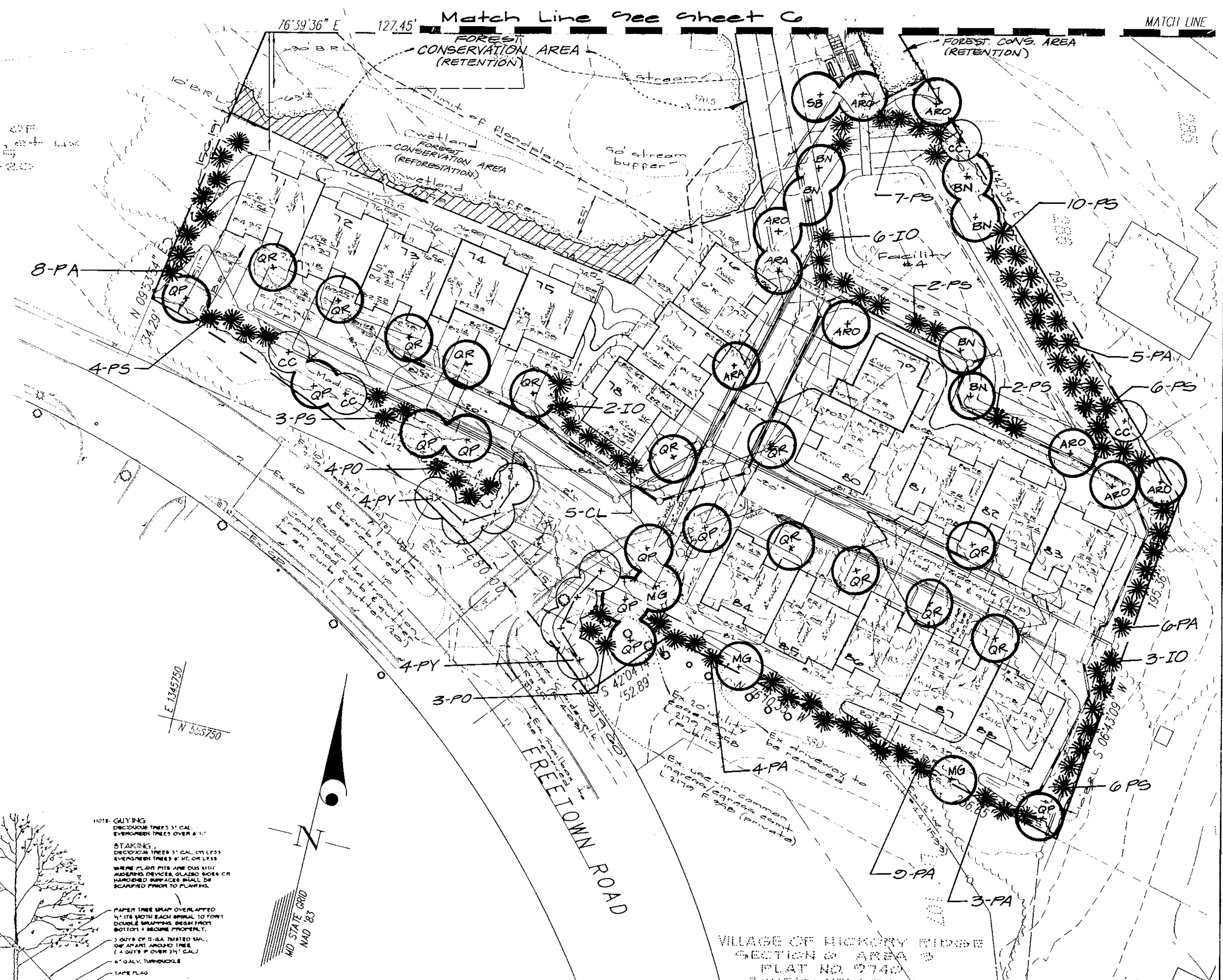
PREPARED FOR:
Orchard Development Corporation
5979 Old Columbia Pike
Ellicott City, Maryland
21043
(410) 750-1800

Utility Plan
Hickory Ridge Elderly Center
Lots 1 and 2
Plat 19156

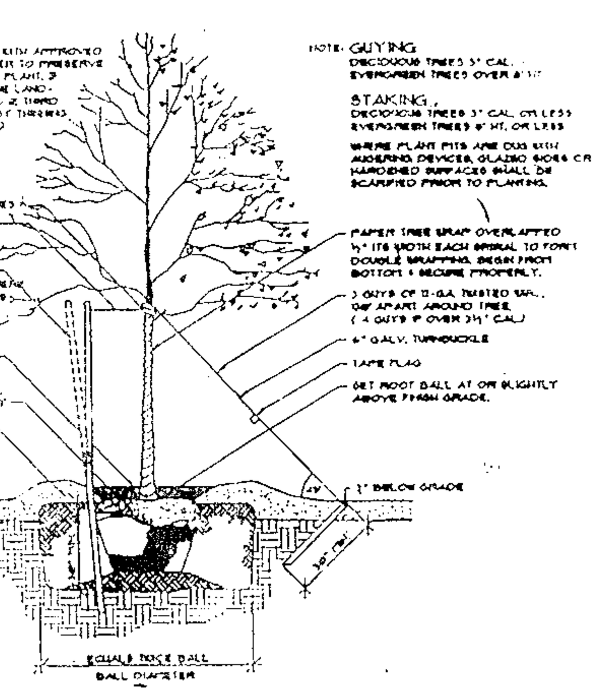
Clarksville Election District No. 5 — Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-20/NT	95053
DATE	TAX MAP – GRID	SHEET
November, 1999	35-18	4

SDP99-68

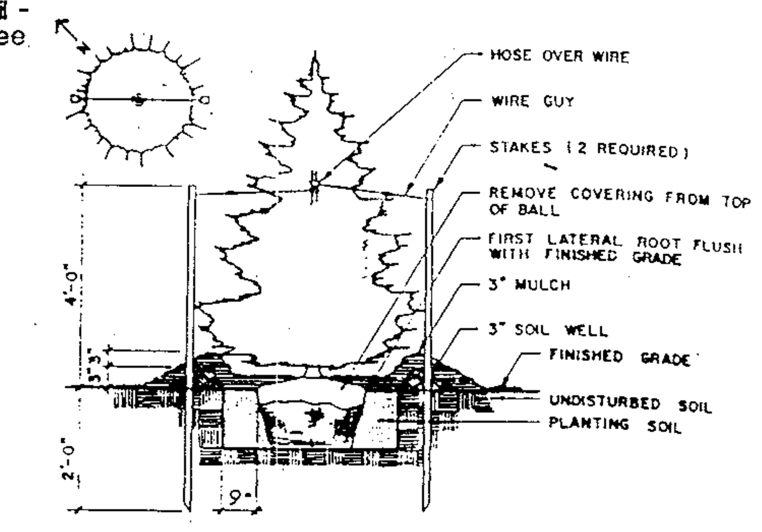


THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!



Detail - Deciduous Tree Planting
No Scale

Planting Detail - Evergreen Tree



PLANT LIST

SYMBOL	NAME (BOTANICAL/COMMON)	QUANT.	SIZE	COMMENTS
SHADE TREES				
ARA	Acer rubrum "Armstrong"/Armstrong Red Maple	27	2½-3" Cal.; 12-14' Ht.	B&B
ARO	Acer rubrum "October Glory"/Oct. Glory Red Maple	12	2½-3" Cal.; 12-14' Ht.	B&B
BN	Betula nigra "heritage"/Heritage Birch	15	12' Ht. min.	Single Stem B&B
MG	Magnolia grandiflora/Southern Magnolia	9	12' Ht. min.	Specimen B&B
QP	Quercus palustris/Pin Oak	32	2½-3" Cal.; 12-14' Ht.	B&B
QR	Quercus rubra/Red Oak	15	2½-3" Cal.; 12-14' Ht.	B&B
SB	Salix babylonica/Weeping Willow	3	2" Cal. min.; 10-12' Ht.	B&B
ZS	Zelkova serrata "Green Vase"/Green Vase Zelkova	60	2½-3" Cal.; 12-14' Ht.	B&B
EVERGREEN TREES				
CL	Cupressocyparis leylandii/Leyland Cypress	17	5-6' Ht.	B&B
IO	Ilex opaca/American Holly	14	5-6' Ht.	B&B*
PA	Picea abies/Norway Spruce	88	8' Ht. min.	B&B
PO	Picea omorika/Serbian Spruce	7	8' Ht. min.	B&B
PS	Pinus strobus/Eastern White Pine	150	8' Ht. min.	B&B
ORNAMENTAL TREES				
CC	Cercis canadensis/Eastern Redbud	16	1½-2" Cal.	B&B
PC	Prunus cerasifera "Thundercloud"/Purpleleaf Flowering Plum	6	1½-2" Cal.	B&B
PY	Prunus yedoensis/Yoshino Cherry	16	1½-2" Cal.	B&B

*can also use on-site transplants

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES		
PERIMETER No.	1	3	2	4	
LANDSCAPE TYPE	C	C	C	A	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	665'	55'	2240'	918'	156'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, ONE SPECIMEN SIZED OAK	NONE	YES, 539' OF EX. WOODLAND RETENTION AREA	YES, 188' OF EX. WOODLAND RETENTION AREA	YES, 40' OF EX. WOODLAND RETENTION AREA
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET)	NONE	NONE	NONE	NONE	NONE
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	FOR 665' AT 1:40=17 AT 1:20=33 NONE	FOR 55' AT 1:40=1 AT 1:20=3 NONE	FOR 1701' AT 1:40=43 AT 1:20=85 NONE	FOR 730' AT 1:60=12 NONE NONE	FOR 116' AT 1:40=3 AT 1:20=6 NONE
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUB.) SHRUBS (10:1 SUBSTITUTION)	17 33	1 3	27 145*	12 —	OVER 1 OVER 10*

*QUANTITY IN EXCESS OF REQUIRED AMOUNT IS APPLIED TOWARDS SHADE TREE REQUIREMENT AT 2:1 SUBSTITUTION. ADDITIONAL PLANTINGS SHOWN ARE VOLUNTARY.

SCHEDULE-A BOND CALCULATION FOR TREES REQUIRED
76 X 300 = 22,800
127 X 150 = 19,050
SCHEDULE-A TOTAL = $41,850

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	9
NUMBER OF TREES REQUIRED	1
NUMBER OF TREES PROVIDED SHADE TREES OTHER SHADE TREES (2:1 SUBSTITUTION)	1

TOTAL BONDING FOR SCHEDULE-B: 1 X 300 = $300

SCHEDULE C
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	88
NUMBER OF TREES REQUIRED (1:DU SFA)	88
NUMBER OF TREES PROVIDED SHADE TREES OTHER SHADE TREES (2:1 SUBSTITUTION)	94 52 = 26@ 2:1 SUB.

TOTAL BONDING FOR SCHEDULE-C: 88 X 300 = $26,400

SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	2,595 TOTAL (725,800,455,615)				
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	FOR 1,095' TOTAL OF "B" BUFFER AT 1:50=21 (5,6,3,7) AT 1:40=27 (7,7,4,9)				
CREDIT FOR RETAINED VEGETATION (NO, YES AND %)	YES, 24%, 620'				
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 33.9%, 880' OF "C" BUFFER SEE SCHEDULE "A"				
NUMBER OF TREES PROVIDED	FOR 1,095' OF "B" BUFFER				
	POND 1	POND 2	POND 3	POND 4	TOTAL
SHADE TREES	5	5	3	8	21
EVERGREEN TREES	10	10	9	13	42
OTHER TREES (2:1 SUBSTITUTION)	—	1	—	—	1

NOTE: Quantities in parentheses are for SWM pond in numerical order (pond #1,2,etc.). Also see sheet titled "Landscape Edge Analysis".

SCHEDULE-D BOND CALCULATION FOR TREES REQUIRED
21 X 300 = 6,300
27 X 150 = 4,050
SCHEDULE-D TOTAL = $10,350

LANDSCAPING NOTES

1. This plan has been prepared in accordance with Section 16.124 of the Howard County Code and of the Howard County Landscape Manual.
2. Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet C-1 shall apply.
3. Field verify underground utility locations and existing conditions before starting planting work. Contact landscape architect if any plant relocations are necessary.

   CAUTION: Storm drain lines in the vicinity of Units 3-9, 2[illegible] 5, 65-70 and 88 are shallow. See Utility Profiles.
4. Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
5. All plant material shall be full, heavy, well formed, and symmetrical and conform to the A.A.N. Specifications, and be installed in accordance with the Howard County Department of Public Works Standards and Specifications.
6. No substitution shall be made without written consent of the owner or his representative.
7. All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with the Sediment Control Plan.
8. The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
9. All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
10. Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of $ 78,900 .

DEVELOPER'S/BUILDERS CERTIFICATE

I/WE certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/WE further certify that upon completion, a Certification of Landscape Installation, accompanied by an executed one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

[signature] 11·15·99
Name (Developer's/Builder's) Date

STATE OF MARYLAND — CARLTON K. GUTSCHICK — 12971 — REGISTERED

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[signature] 12/13/99
Director Date

[signature] 12/9/99
Chief, Division of Land Development Date

[signature] 11/30/99
Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
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DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

LANDSCAPE PLAN, NOTES, DETAILS AND SCHEDULES

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20 NT	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	5

SDP99-68

⚠ **NOTES CONCERNING SUPPLEMENTAL SHEETS:**

1. SEE SHEET 3A/3B FOR UPDATED ARCHITECTURAL INFORMATION AND FINE GRADING AROUND UNITS 1 THROUGH 70. ALL OTHER INFORMATION ON THIS SHEET IS STILL APPLICABLE. ANY CONFLICTS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR POSSIBLE REDESIGN.

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13.
2. For additional information regarding stormwater management, see sheets 4, 14, & 15.
3. Contractor to end 4' wide macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path & begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the homeowners Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 12975 — REGISTERED PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[signature] Director	12/13/99 Date
Cindy Hamilton Chief, Division of Land Development	12/9/99 Date
[signature] Chief, Development Engineering Division	11/30/99 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
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DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		
5/21/01	~~ADD NOTE REFERRING TO SHEET 3A/3B FOR DETAILED INFORMATION~~ ⚠		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

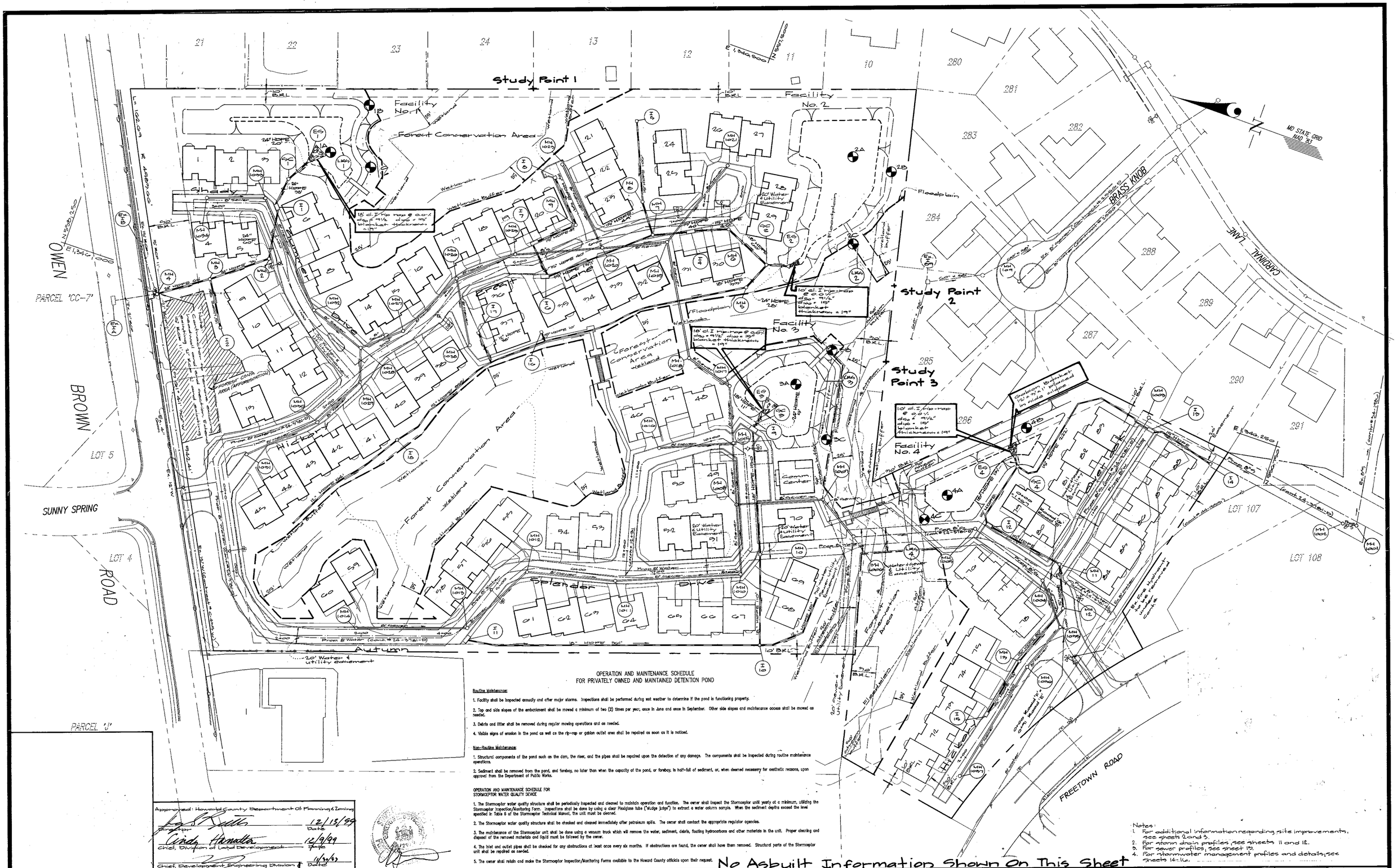
Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

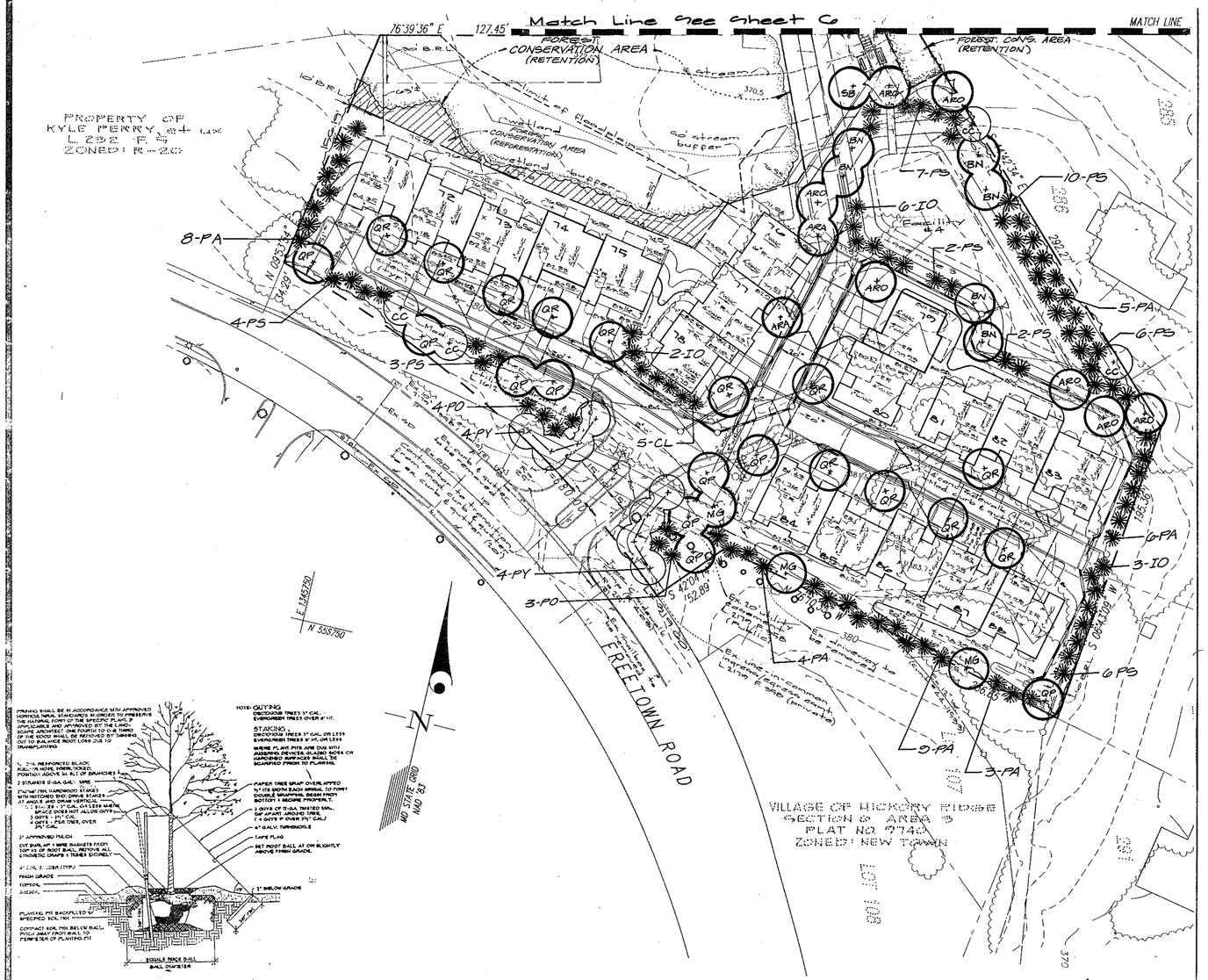
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE	TAX MAP – GRID	SHEET
~~November~~ October, ~~1999~~ 2002	35 – 18	3

Asbuilt Sheet 3 of 9

SDP99-68


Study Point 1
Study Point 2
Study Point 3
Facility No. 1
Facility No. 2
Facility No. 3
Facility No. 4
Forest Conservation Area
Wetlands
Wetlands Buffer
Floodplain
Gladly
Zachmeier
Hickory
Splendor
Autumn
Drive
Lane
Court
Circle
OWEN
BROWN
SUNNY SPRING
ROAD
LOT 5
LOT 4
LOT 107
LOT 108
PARCEL 'CC-7'
PARCEL 'B'
BRASS KNOB
CARDINAL LANE
FREETOWN ROAD
MD STATE GRID NAD '83
Comm. Center
Forest Conservation Area Wetland
Forest Conservation Area Buffer
20' Water & Utility Easement
10' Bk'L
18' cl. I rip-rap @ 0.0%
dbsp = 21½"
dlap = 15"
blanket thickness = 1'-7"
10' cl. I rip-rap @ 0.0%
dbsp = 21½"
dlap = 15"
blanket thickness = 1'-9"
Gradation 18 blanket: 12" x 7" x 1" splitspread ins inside dimensions
10' cl. I rip-rap @ 0.0%
dbsp = 21½"
dlap = 15"
blanket thickness = 1'-9"
Forest Conservation Area (Afforestation)
Proposed Inlet Protection Sediment Control
Proposed Silt Fence
Proposed Super Silt Fence
Proposed Temporary Construction Entrance
Proposed Temporary Sediment Trap
Proposed Temporary Sediment Basin
Proposed Temporary Diversion
Proposed Temporary Stockpile
Proposed Temporary Dewatering Basin
Proposed Temporary Concrete Washout
Proposed Temporary Inlet Protection
Proposed Temporary Stream Crossing
Proposed Temporary Culvert Crossing
Proposed Temporary Rock Outlet Protection
Proposed Temporary Tree Protection Fence
Proposed Temporary Gravel Construction Entrance
Proposed Temporary Gravel Construction Entrance Wash Rack
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Trap
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Trap
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing
Proposed Temporary Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection Tree Protection Fence Gravel Construction Entrance Wash Rack Sediment Basin Dewatering Basin Concrete Washout Inlet Protection Stream Crossing Culvert Crossing Rock Outlet Protection


Match Line see sheet 6
MATCH LINE
PROPERTY OF
KYLE PERRY et ux
L. 232 F. 5
ZONED: R-20
CONSERVATION AREA (RETENTION)
FOREST CONS. AREA (RETENTION)
limit of floodplain
wetland
wetland buffer
stream
100' B.R.L.
50' B.R.L.
25' B.R.L.
50' stream buffer
FOREST CONSERVATION AREA (REPRESENTATION)
8-PA
4-PS
3-PS
4-PO
4-PY
5-CL
2-IO
6-IO
7-PS
10-PS
2-PS
5-PA
6-PS
6-PA
3-IO
4-PA
3-PO
6 PO
5-PA
3-PA
N 08°53'12" E 134.29'
S 42°07'48" E 152.89'
S 08°42'02" W 195.36'
E 1340750
N 355750
FREETOWN ROAD
VILLAGE OF HICKORY RIDGE
SECTION 2 AREA 5
PLAT No. 7740
ZONED: NEW TOWN
Ex. underground electric line to be removed
Ex. underground electric line to remain
Ex. underground telephone line to be removed
Ex. underground telephone line to remain
Ex. driveway to be removed
Ex. driveway to remain
Ex. 20' Howard County Easement
Ex. 30' Howard County Easement
Ex. 10' Howard County Easement
Ex. 10' Howard County Easement (private)
Ex. 10' Howard County Easement (private)
Ex. 10' Howard County Easement (private)

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!

DEVELOPER'S/BUILDERS CERTIFICATE

I/WE certify that the landscaping shown on this plan will be done according to the plan, **Section 16.124** of the Howard County Code and the Howard County Landscape Manual. I/WE further certify that upon completion, a Certification of Landscape Installation, accompanies by an executed one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Name (Developer's/Builder's) — Date 11·15·99

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 12975 — REGISTERED PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\95053\BASESHTS\95053BS1.DWG	DES.	DRN. SJG	CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

LANDSAPE PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE	TAX MAP – GRID	SHEET
November 1999	35 – 18	6

SDP99-68

DELAY CONSTRUCTION OF PATH/BOARDWALK WETLAND BUFFER UNTIL PERMISSION TO REMOVE SEDIMENT CONTROL DEVICES IS GRANTED BY THE INSPECTOR.

FOREST CONSERVATION AREA (RETENTION)

MATCH LINE SEE SHEET 8

FOREST CONSERVATION AREA (RETENTION)

E.D. INSTALLED ALONG LIMITS OF WETLAND BUFFER. SSF IS L.O.D. ALONG THIS AREA.

76°39'36" E 127.45'
N 03°51'54" E 54.29'
S 44°42'36" E 239.27'
S 42°04'14" E 152.89'
S 06°43'09" W 195.36'
N 38°16'56" W 380'
236.65'
E.D. A-1
E.D. A-1
Temp. Sediment Trap No. 4
Temporary Slope
Retaining Wall
Perforated Pipe
Storm Drain
Inlet
Manhole
Existing Inlet
Existing Manhole
Existing Pipe
Proposed Pipe
Proposed Inlet
Proposed Manhole
Proposed Endwall
Proposed Flared End Section
Proposed Rip-Rap
Proposed Concrete Apron
Proposed Concrete Flume
Proposed Concrete Swale
Proposed Concrete Curb
Proposed Concrete Gutter
Proposed Concrete Sidewalk
Proposed Concrete Ramp
Proposed Concrete Driveway
Proposed Concrete Pad
Proposed Concrete Wall
Proposed Concrete Steps
Proposed Concrete Handicap Ramp
Proposed Concrete Handicap Pad
Proposed Concrete Handicap Steps
Proposed Concrete Handicap Wall
Proposed Concrete Handicap Curb
Proposed Concrete Handicap Gutter
Proposed Concrete Handicap Sidewalk
Proposed Concrete Handicap Ramp
Proposed Concrete Handicap Driveway

MD STATE GRID NAD '83

LEGEND

- 374 — EXISTING CONTOUR
- 374 — PROPOSED CONTOUR
- SF — SF — SILT FENCE
- SSF — SSF — SUPER SILT FENCE
- EXISTING TREELINE
- PROPOSED TREELINE
- TPF — TPF — TREE PROTECTION FENCE
- FOREST CONSERVATION AREA
- SDF — SDF — Super Diversion Fence
- S.C.E. — STABILIZED CONSTRUCTION ENTRANCE
- LIMIT OF DISTURBANCE
- RPS — REMOVABLE PUMPING STATION
- FOREST CONSERVATION SIGN

Note: In areas where limit of disturbance is not indicated by the symbol shown in the legend (●●●), the sediment control/tree protection devices indicate the limit of disturbance.

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction ~~and provide the Howard Soil Conservation District with an "as built" plan of the pond within 30 days of completion~~. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer/Builder — 11.15.99 Date

E 1345750 N 550230

ENGINEER'S CERTIFICATE

"I certify that this plan for ~~pond construction~~, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction ~~and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion~~."

1-8-99 Date

These Plans for ~~small pond construction~~, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

11/22/99
Howard Soil Conservation District Date

STATE OF MARYLAND — CARLTON K. GUTSCHICK — 1973 — REGISTERED ENGINEER

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements ~~for small pond construction~~, soil erosion and sediment control.

11-18-99
Natural Resources Conservation Service Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

- Director — 12/13/99 Date
- Chief, Division of Land Development — 12/9/99 Date
- Chief, Development Engineering Division — 11/30/99 Date

E 1346250 N 550230 — E 1346500 N 551000 — E 1345750 N 550230

S 19°36'27" E 712.67'

S 78°41'33" W 1144.41'

N 19°21'08" W 1914.43'

TRAP #1 — FOREST CONSERVATION AREA (RETENTION)

TRAP #2

TRAP #3

FOREST CONSERVATION AREA (REFORESTATION)

FOREST CONSERVATION AREA (RETENTION)

E.D.A-1

E.D.A-2

E.D.A-3

E.D.A-4

DELAY CONSTRUCTION OF PATH/BOARDWALK WETLAND BUFFER UNTIL PERMISSION TO REMOVE SEDIMENT CONTROL DEVICES IS GRANTED BY THE INSPECTOR. LIMIT DISTURBANCE TO 5' MAX. FROM EDGE OF TRAIL/BOARDWALK.

DELAY CONSTRUCTION OF PATH/BOARDWALK WETLAND BUFFER UNTIL PERMISSION TO REMOVE SEDIMENT CONTROL DEVICES IS GRANTED BY THE INSPECTOR.

INSTALL TPF UNDER DRIP LINE OF OAK TREES TO BE SAVED

OWEN BROWN PARCEL '00-7'

SUNNY SPRING ROAD

LOT 5 LOT 4

SEE SHEET 7

MATCH LINE

THIS PLAN IS FOR LOCATION OF SEDIMENT CONTROL DEVICES AND TRAP GRADING ONLY. FOR SITE IMPROVEMENTS SEE SHEETS 2 - 6 AND 9-10.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\95053\BASESHTS\95053BS1.DWG | DES. | DRN. SJC | CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Grading & Sediment Control Plan

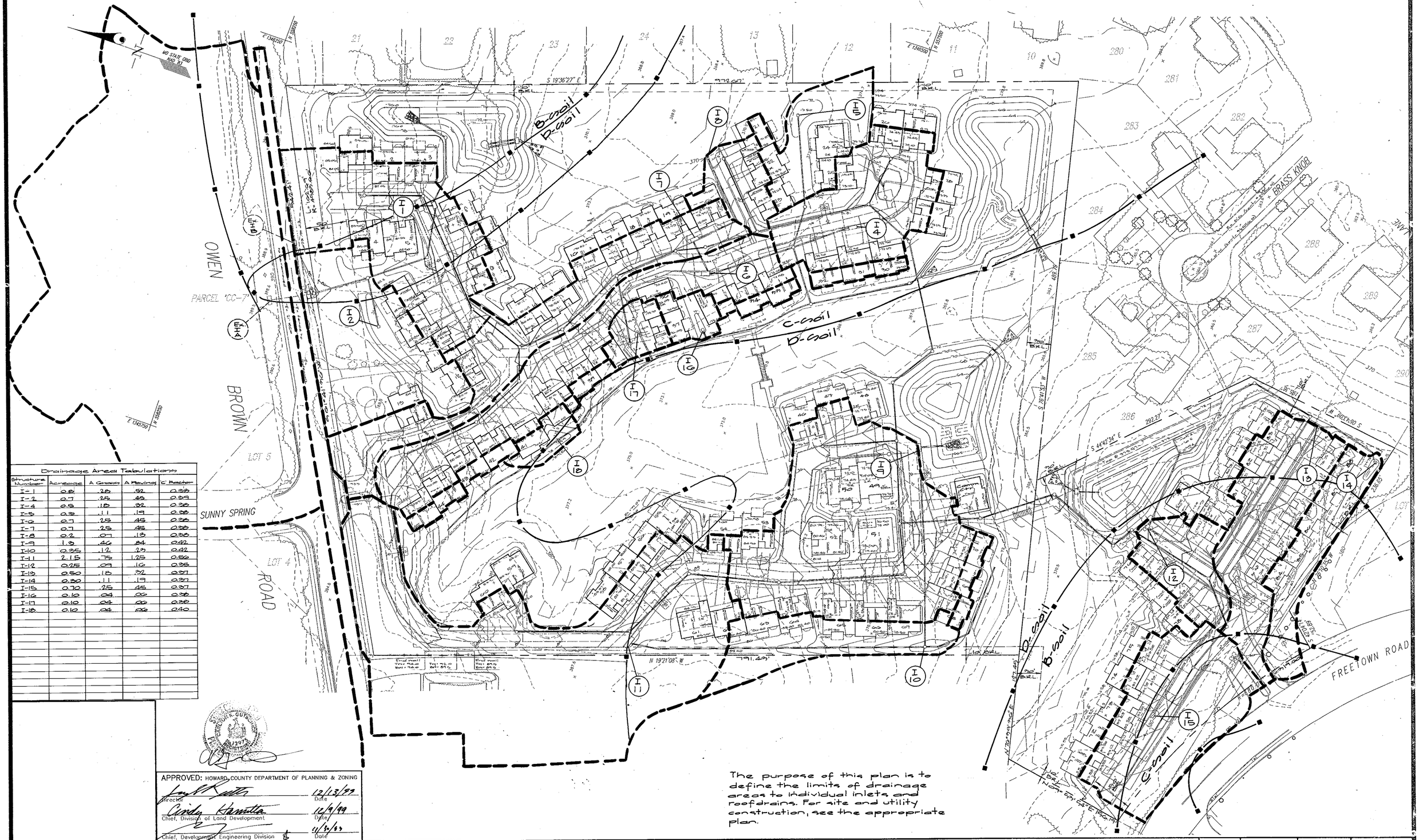
HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/ .NT	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	8

SDP99-68



Drainage Area Tabulations				
Structure Number	Acreage	A. Grass	A. Pavings	'C' Factor
I-1	0.6	.28	.52	0.38
I-2	0.7	.25	.45	0.39
I-4	0.5	.18	.32	0.38
I-5	0.3	.11	.19	0.38
I-6	0.7	.25	.45	0.38
I-7	0.7	.25	.45	0.38
I-8	0.2	.07	.13	0.38
I-9	1.3	.46	.84	0.42
I-10	0.35	.12	.23	0.42
I-11	2.15	.75	1.25	0.56
I-12	0.25	.09	.16	0.38
I-13	0.50	.18	.32	0.37
I-14	0.30	.11	.19	0.37
I-15	0.70	.25	.45	0.37
I-16	0.10	.04	.06	0.38
I-17	0.10	.04	.06	0.38
I-18	0.10	.04	.06	0.40

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/3/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/24/99

The purpose of this plan is to define the limits of drainage areas to individual inlets and roofdrains. For site and utility construction, see the appropriate plan.

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Drainage Area Map

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

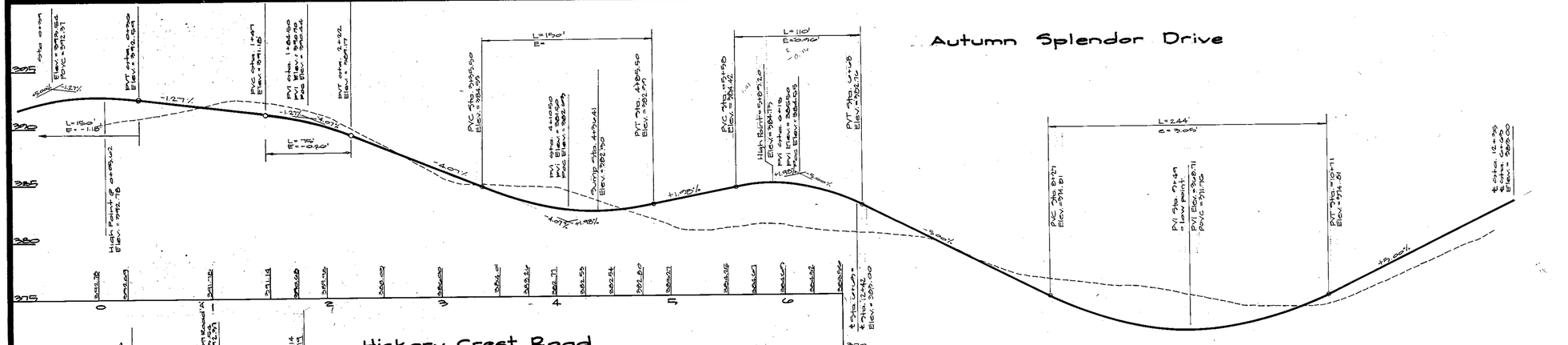
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
lwl/dev	1"=50'	R-20 / NT	95053
DRN.: fmm.	DATE	TAX MAP No.	SHEET
CHK.: dev	November 1999	35 - 18	9

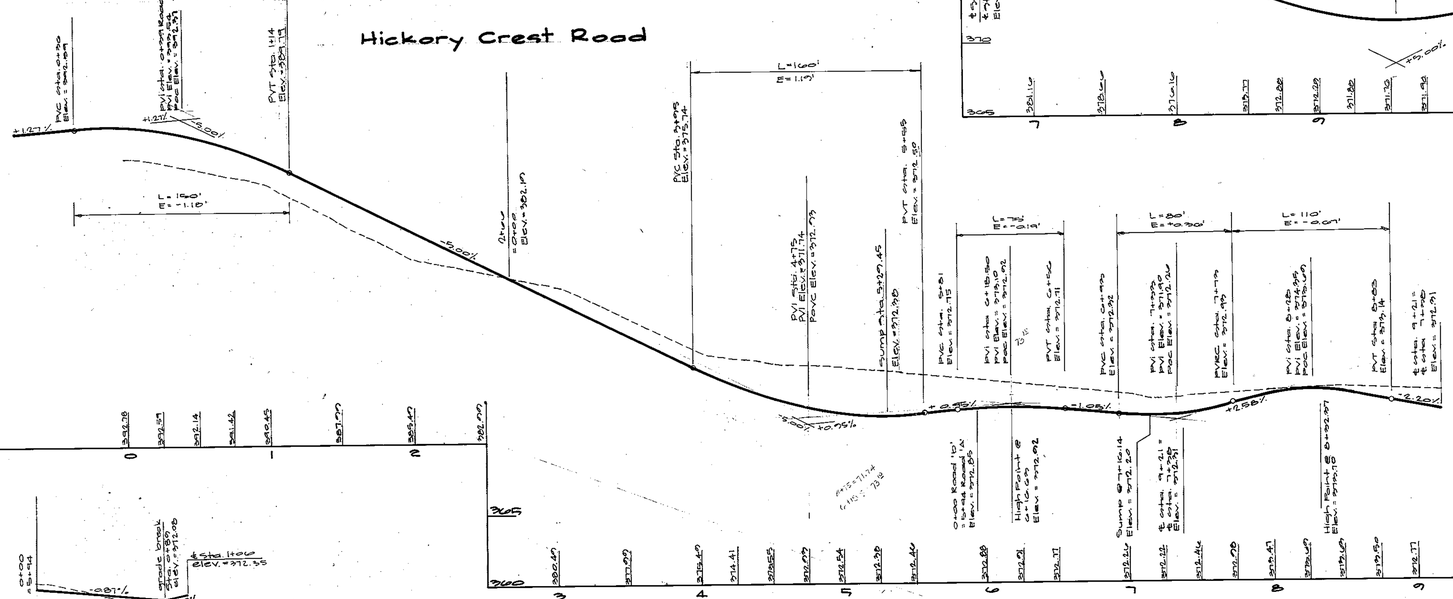
SDP99-68

Road Grades

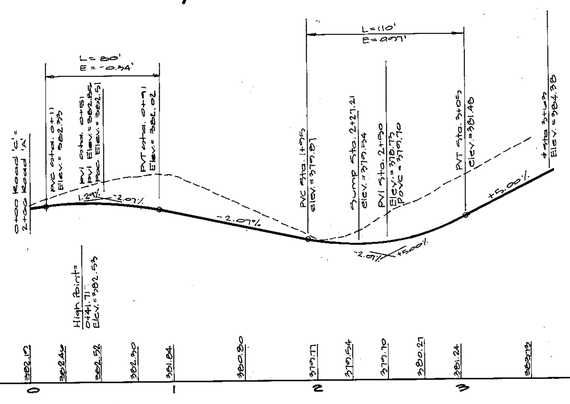
Autumn Splendor Drive



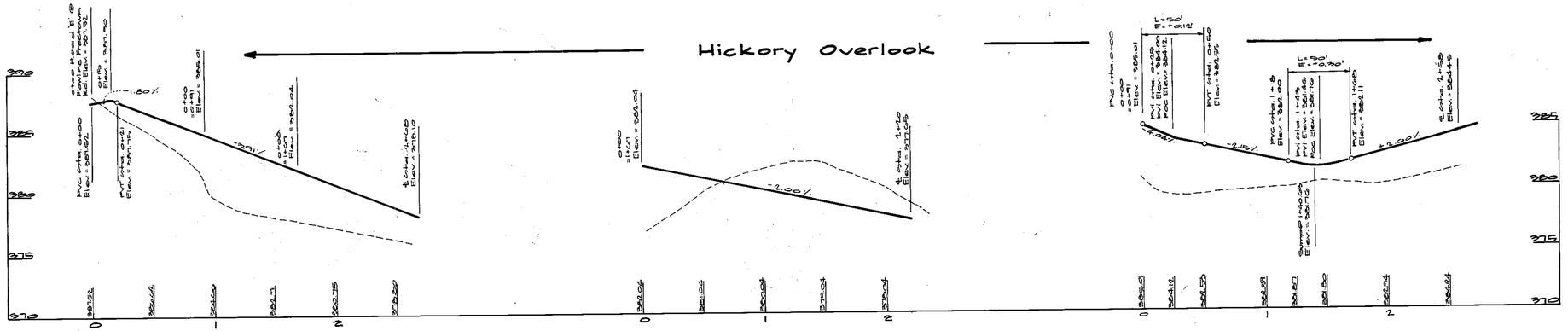
Hickory Crest Road



Shady Summer Drive



Hickory Overlook



APPROVED: Howard County Dept. of Planning & Zoning

Director — Date 12/13/99

Chief, Division of Land Development — Date 12/9/99

Chief, Development Engineering Division — Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866

TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:

Orchard Development Corp.
3979 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

Hickory Ridge Elderly Center

Lots 1 & 2

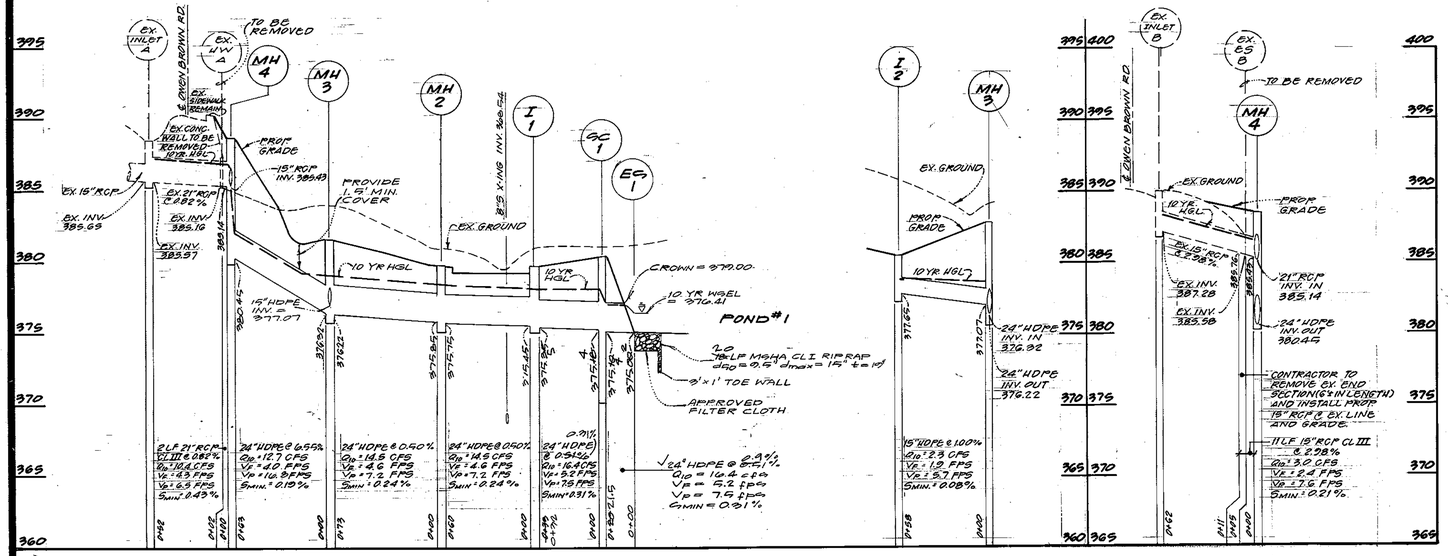
Being in part a resubdivision of Lots E-4, block 'D', "Edwin Raesler, South Section" as shown in plat book 6 at plat No. 29

Howard County, Maryland

Election District No. 5

DES.: D.E.V.	SCALE	ZONING	G.L.W. FILE No.
	as shown	R-20/NT	95053
DRN.: F.M.M.	DATE	TAX MAP No.	SHEET
CHK.: D.E.V.	November 1999	35	10

SDP99-68



STRUCTURE SCHEDULE

NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION UPPER	TOP ELEVATION LOWER	INVERT ELEVATION UPPER	INVERT ELEVATION LOWER	STD. DETAIL	LOCATIONS ◆ N	LOCATIONS ◆ E	REMARKS
I-1	A-10 INLET	4'-0"	379.70	—	376.45	376.34	SD 4.32	558,911	1,346,140	
I-2	TYPE S INLET	2'-7⅝"	380.50	—	377.69	—	SD 4.22	558,816	1,345,957	
I-4	A-10 INLET	2'-0"	372.22	—	366.60	366.25	SD 4.32	557,518	1,346,265	
I-5	TYPE S INLET	2'-7⅝"	371.50	—	368.60	—	SD 4.22	557,617	1,346,371	
I-6	A-10 INLET	2'-0"	372.19	—	367.69	367.50	SD 4.41	557,669	1,346,152	
I-7	" " "	" "	372.19	—	367.79	367.89	" "	557,696	1,346,186	
I-8	TYPE B COMB. INLET	3'-5"	372.45	—	368.04	—	SD 4.32	557,679	1,346,271	
I-16	TYPE S INLET	2'-7⅝"	371.60	—	369.00	—	SD 4.22	557,650	1,346,085	
I-17	TYPE S COMB. INLET	3'-5"	374.80	—	371.90	—	SD 4.32	557,714	1,346,057	
I-18	TYPE S INLET	2'-7⅝"	375.90	—	373.25	373.00	SD 4.22	557,774	1,345,898	
MH 2	SHALLOW PRECAST MANHOLE	4'-0"	378.00	—	375.84	375.75	G 5.12	557,998	1,346,057	
MH 3	STD. PRECAST MANHOLE	4'-0"	381.60	—	377.07	376.19	" "	558,059	1,346,008	
MH 4	" " "	4'-0"	388.60	—	383.43	380.45	" "	558,114	1,346,009	
MH 5	" " "	4'-0"	370.00	—	366.00	365.50	" "	557,490	1,346,222	
MH 6	" " "	4'-0"	378.00	—	365.84	365.74	" "	557,475	1,346,383	
MH 7	" " "	5'-0"	372.50	—	367.05	366.80	" "	557,561	1,346,245	
MH 8	" " "	4'-0"	373.20	—	367.54	367.44	" "	557,587	1,346,279	
MH 9	" " "	4'-0"	372.82	—	368.34	368.24	" "	557,655	1,346,224	
SC 1	STORMCEPTOR	—	380.60	—	376.18	376.10	STC-1500	558,009	1,346,158	
SC 2	STORMCEPTOR	—	370.00	—	364.74	364.49	STC-3600	557,416	1,346,257	
ES-1	24" HDPE END SECTION	2.0'	377.00	—	—	376.00	* *	557,994	1,346,186	
ES 2	18" HDPE END SECTION	1.5'	365.89			364.35	* *	557,891	1,346,264	

PRECAST ALTERNATES ARE ACCEPTABLE
** PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE

◆ The coordinates shown are for plan purposes and must be verified prior to stakeout / construction

PROFILES

SCALES: 1" = 5' VERTICAL
1" = 50' HORIZONTAL

PIPE SCHEDULE

SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	RCP CL III	11	
21"	RCP CL III	2	
4"	HDPE *	224	(1) ROOF DRAINS
12"	HDPE *	212	
15"	HDPE *	1047	
18"	HDPE *	193	
24"	HDPE *	277	

* HDPE = HIGH DENSITY POLYETHELENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC. (ADS) OR HI-Q BY HANCOR LANDMAX PIPE SYSTEMS

(1) LENGTH DOES NOT INCLUDE VERTICLE LENGTH OF PIPE

Approved: Howard County Dept of Planning & Zoning

Director	12/13/99 Date
Chief, Division of Land Development	12/9/99 Date
Chief, Development Engineering Division	11/24/99 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
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TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		

PREPARED FOR:
Orchard Development Corporation
3979 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

Storm Drain Profiles & Details

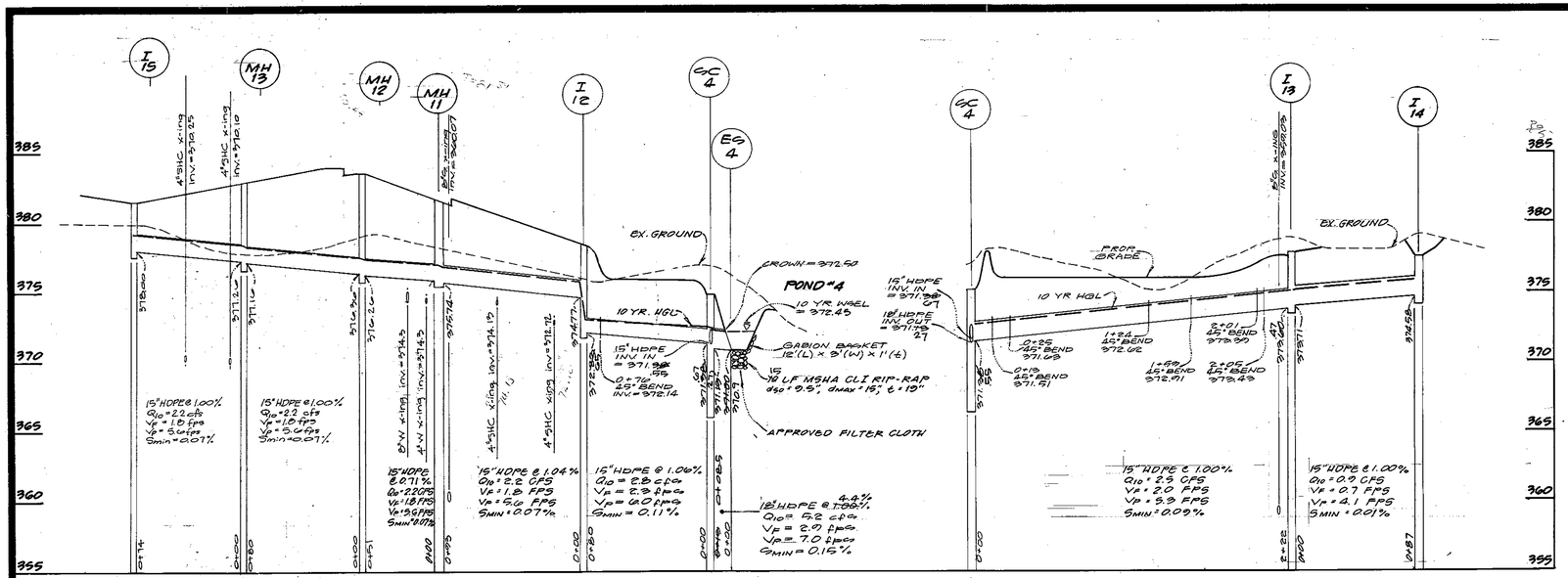
Hickory Ridge Elderly
Lotes 1 and 2

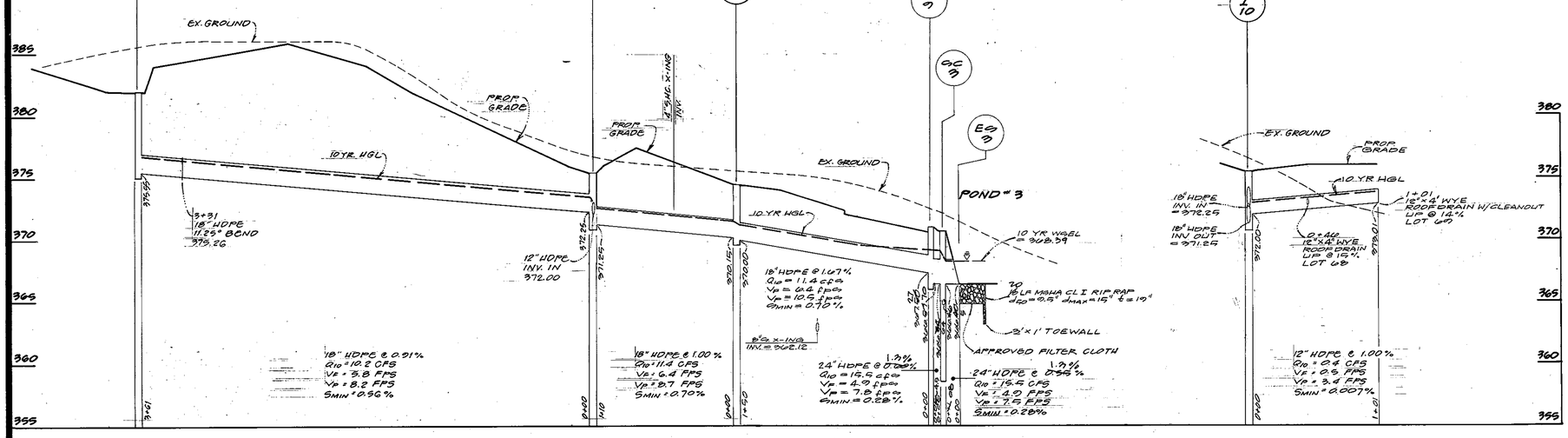
Being In Part A Resubdivision Of Lotes 2-4, Block D, Edwin Bateman, South Section As Shown In Plat Book 6 At Plat No. 29
5th Election District — Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE No.
B.S.L.	AS SHOWN	R-20 / NT	95-053
DRN.: BC/KLP	DATE October 1999 Nov. 2002	TAX MAP No. 39-18	SHEET 11
CHK.: B.S.L.			

Asbuilt Sheet 5 of 9

SDP99-68





STRUCTURE SCHEDULE

NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION UPPER	TOP ELEVATION LOWER	INVERT ELEVATION UPPER	INVERT ELEVATION LOWER	STD. DETAIL	LOCATIONS ◆ N	LOCATIONS ◆ E	REMARKS
I-9	A-10 INLET	2'-6"	371.12	—	367.50	366.97	SD 4.41	557,300	1,346,004	
I-10	TYPE S INLET	2'-7⅝"	376.40	—	372.25	371.26	SD 4.22	557,268	1,345,810	
I-11	COS-15	4'-0"	381.82	—	375.55	—	MD 374.63	557,609	1,345,694	
I-12	A-5 INLET	2'-6"	378.50	378.15	370.63	369.88	SD 4.40	557,067	1,346,045	
I-13	A-10 INLET	3'-0"	377.80	—	373.71	373.60	SD 4.32	556,899	1,346,124	
I-14	TYPE S INLET	3'-6"	377.90	—	374.58	—	SD 4.22	556,816	1,346,209	
I-15	TYPE S CONT. INLET	3'-5"	381.70	—	378.00	—	SD 4.32	556,972	1,345,813	
MH 10	STD PRECAST MANHOLE	4'-0"	374.60	—	370.15	370.00	G-5.12	557,307	1,345,916	
MH 11	" "	"	381.54	[illegible]	375.90	375.74	"	556,949	1,346,029	
MH 12	" "	"	380.45	—	376.36	376.26	"	556,947	1,345,979	
MH 13	" "	"	382.90	—	377.26	377.16	"	556,956	1,345,898	
ES 3	24" HDPE END SECTION	2.0'	378.40	—	—	376.40	**	557,358	1,346,079	
ES 4	18" HDPE END SECTION	1.5'	374.50	—	—	371.00	**	557,262	1,346,176	
SC 3	STORMCEPTOR	—	378.50	—	376.54	376.46	STC-1200	557,361	1,346,069	
SC 4	STORMCEPTOR	—	376.00	—	371.58	371.13	STC-1800	557,079	1,346,176	

PRECAST ALTERNATES ARE ACCEPTABLE

** PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE

◆ The coordinates shown are for plan purposes and must be verified prior to takeout / construction.

PROFILES
SCALES: 1" = 5' VERTICAL
1" = 50' HORIZONTAL

PIPE SCHEDULE

SIZE	TYPE	QUANTITY (L.F.)	REMARKS
4"	HDPE	18	(1) ROOF DRAINS
12"	HDPE	101	
15"	HDPE	686	
18"	HDPE	679	
24"	HDPE	125	
30"	HDPE	46	

*HDPE = HIGH DENSITY POLYTHYLENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC. (ADS) OR N-12 BY HANCOR LANDMAX PIPE SYSTEMS

(1) LENGTH DOES NOT INCLUDE VERTICLE LENGTH OF PIPE

STATE OF MARYLAND — CARLTON S. GUTSCHICK — 12973 — REGISTERED PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 12/3/99

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 12/6/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/4/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

STORM DRAIN PROFILES

HICKORY RIDGE ELDERLY
LOTS 1 AND 2
BEING IN PART A RESUBDIVISION OF LOTS 2-4, BLOCK Q, EDWIN BASSLER, SOUTH SECTION AS SHOWN IN PLAT BOOK G AT PLAT No. 29
5TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
BSL	AS SHOWN	R-20/NT	95-053
DRN.: RC/KLP			
DATE October November 2002	TAX MAP No. 35-18	SHEET 12	
CHK.: B.S.L.			

As-built Sheet 6 of 9

SDP99-68

Approved: Howard County Dept. of Planning & Zoning

Director — Date 12/13/99

Chief, Division of Land Development — Date 12/9/99

Chief, Development Engineering Division — Date 11/30/99

GLW Gutschick Little & Weber, P.A.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS

3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866

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DATE	REVISION	BY	APP'R.

PREPARED FOR:

Orchard Development Corporation
3979 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

Sewer Profiles & Details

Hickory Ridge Elderly

Lots 1 and 2

Being In Part Resubdivision of Lots 2-4, Block D Edwin Bassler, South Section, As Shown In Plat Book 6, At Plat No 29
5th Election District — Howard County, Maryland

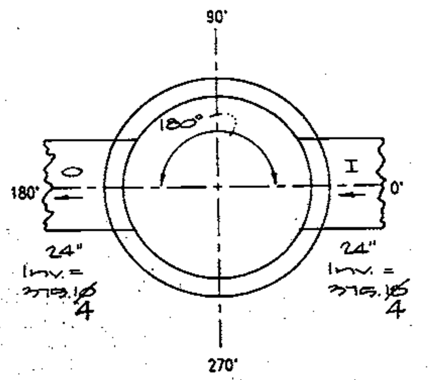
DES.:	SCALE	ZONING	G.L.W. FILE No.
B.S.L.	AS SHOWN	R-20/NT	95-053
DRN.: B.CUSTIS	DATE	TAX MAP No.	SHEET
CHK.: B.S.L.	November 1999	35-18	13

SDP99-68

Precast Concrete Stormceptor® Order Request Form
* TO BE INCLUDED ON SWM PLAN BY DESIGNER

CONTRACTOR INFORMATION
Name: to be determined
Address:
City:
State:
Zip Code:
Contact:
Phone:
Fax:

OWNER INFORMATION
Name: Orchard Development
Phone: (410) 750-1800
Fax: (410) 750-1805



Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in). and invert elevation (ft). Clearly mark inlet pipes with an "I" and oulet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT 1.24 ac.±

Stormceptor® Model			
STC			
900	☐	3600	☐
1200	☐	4800	☐
1800	☒	6000	☐
2400	☐	7200	☐

Insert Size	
DISC	☐
22"	☐
32"	☐
44"	☐
CUSTOM	

Manhole Number	SC 1
Top Elevation (ft)	380.50
Inlet Pipe Invert (ft)	375.16
Outlet Pipe Invert (ft)	375.10
Pipe Type	H.D.P.E. *
Inlet Pipe Inside Diameter (ID)	24"
Inlet Pipe Outside Diameter (OD)	
Outlet Pipe Inside Diameter (ID)	24"
Outlet Pipe Outside Diameter (OD)	

Project Name: Hickory Ridge Elderly Center
Approximate time frame of delivery (weeks): June 1, 1999
Delivery Address: Street 10641 Owen Brown Road
City: Columbia State: Maryland Zip Code 21044
Designer Company: Gutschick, Little & Weber, P.A.
Designer Contact: Doug Vande Kyt Phone (410)880-1820 Fax (301) 421-4186

Precast Concrete Stormceptor® Order Request Form
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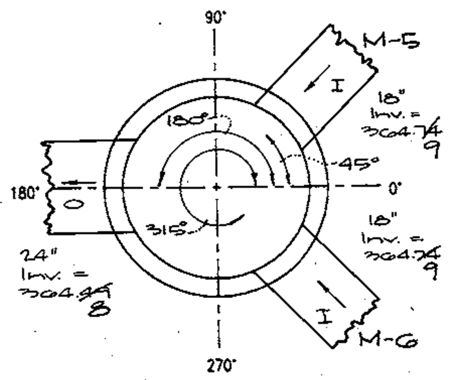
CONTRACTOR INFORMATION
Name: to be determined
Address:
City:
State:
Zip Code:
Contact:
Phone:
Fax:

OWNER INFORMATION
Name: Orchard Development
Phone: (410) 750-1800
Fax: (410) 750-1805



Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in). and invert elevation (ft). Clearly mark inlet pipes with an "I" and oulet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT 1.92 ac.±

Stormceptor® Model			
STC			
900	☐	3600	☒
1200	☐	4800	☐
1800	☐	6000	☐
2400	☐	7200	☐

Insert Size	
DISC	☐
22"	☐
32"	☐
44"	☐
CUSTOM	

Manhole Number	SC 2
Top Elevation (ft)	370.00
Inlet Pipe Invert (ft)	364.74
Outlet Pipe Invert (ft)	364.49
Pipe Type	H.D.P.E. *
Inlet Pipe Inside Diameter (ID)	2-18"
Inlet Pipe Outside Diameter (OD)	
Outlet Pipe Inside Diameter (ID)	24"
Outlet Pipe Outside Diameter (OD)	

Project Name: Hickory Ridge Elderly Center
Approximate time frame of delivery (weeks): June 1, 1999
Delivery Address: Street 10641 Owen Brown Road
City: Columbia State: Maryland Zip Code 21044
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State:
Zip Code:
Contact:
Phone:
Fax:

OWNER INFORMATION
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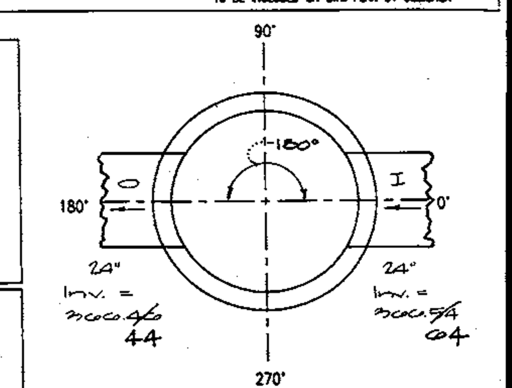

Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in). and invert elevation (ft). Clearly mark inlet pipes with an "I" and oulet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT 0.72 ac.±

Stormceptor® Model			
STC			
900	☐	3600	☐
1200	☒	4800	☐
1800	☐	6000	☐
2400	☐	7200	☐

Insert Size	
DISC	☐
22"	☐
32"	☐
44"	☐
CUSTOM	

Manhole Number	SC 3
Top Elevation (ft)	370.50
Inlet Pipe Invert (ft)	366.54
Outlet Pipe Invert (ft)	366.46
Pipe Type	H.D.P.E. *
Inlet Pipe Inside Diameter (ID)	24"
Inlet Pipe Outside Diameter (OD)	
Outlet Pipe Inside Diameter (ID)	24"
Outlet Pipe Outside Diameter (OD)	

Project Name: Hickory Ridge Elderly Center
Approximate time frame of delivery (weeks): June 1, 1999
Delivery Address: Street 10641 Owen Brown Road
City: Columbia State: Maryland Zip Code 21044
Designer Company: Gutschick, Little & Weber, P.A.
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Precast Concrete Stormceptor® Order Request Form
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Name: to be determined
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Fax:

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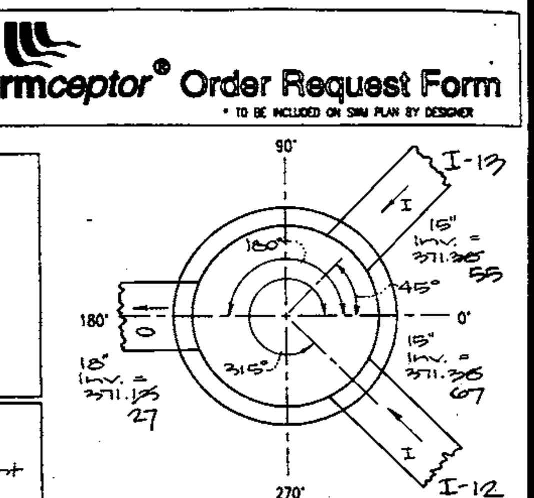
Fax: (410) 750-1805



Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in). and invert elevation (ft). Clearly mark inlet pipes with an "I" and oulet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT 1.14 ac.±

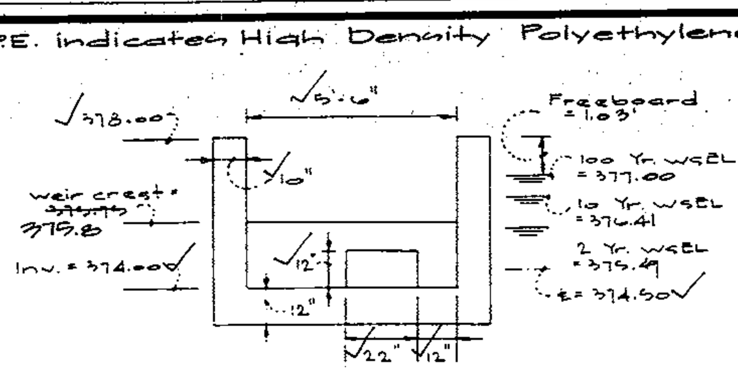
Stormceptor® Model			
STC			
900	☐	3600	☐
1200	☐	4800	☐
1800	☒	6000	☐
2400	☐	7200	☐

Insert Size	
DISC	☐
22"	☐
32"	☐
44"	☐
CUSTOM	

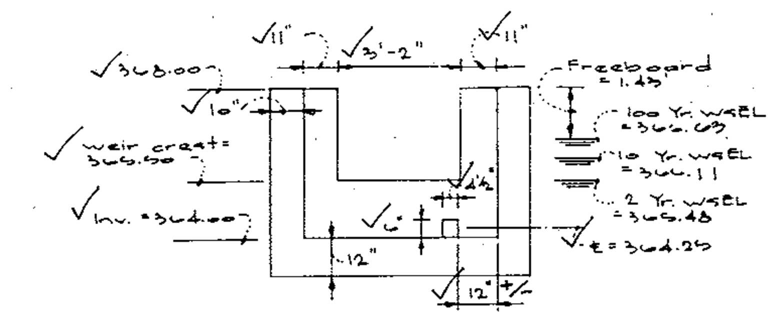
Manhole Number	SC 4
Top Elevation (ft)	375.00
Inlet Pipe Invert (ft)	371.38
Outlet Pipe Invert (ft)	371.13
Pipe Type	H.D.P.E. *
Inlet Pipe Inside Diameter (ID)	2-15"
Inlet Pipe Outside Diameter (OD)	
Outlet Pipe Inside Diameter (ID)	18"
Outlet Pipe Outside Diameter (OD)	

Project Name: Hickory Ridge Elderly Center
Approximate time frame of delivery (weeks): June 1, 1999
Delivery Address: Street 10641 Owen Brown Road
City: Columbia State: Maryland Zip Code 21044
Designer Company: Gutschick, Little & Weber, P.A.
Designer Contact: Doug Vande Kyt Phone (410)880-1820 Fax (301) 421-4186

*H.D.P.E. indicates High Density Polyethylene such as HiQ by Hancor, N.12 by ADS, or an approved equal.



L.R.S. 1



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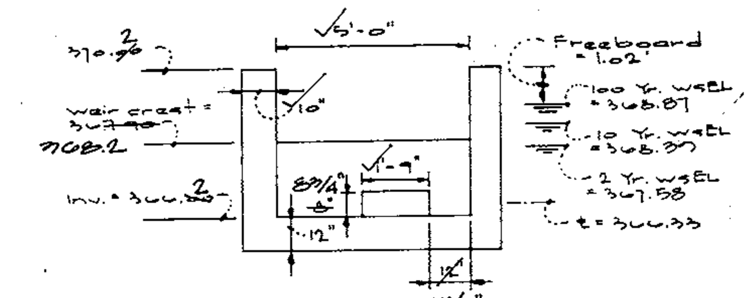

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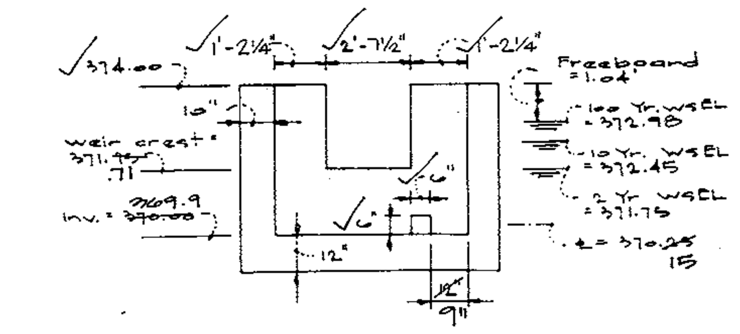

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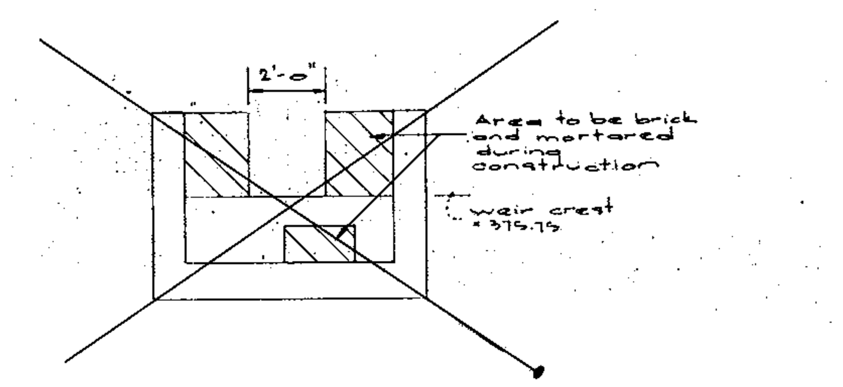
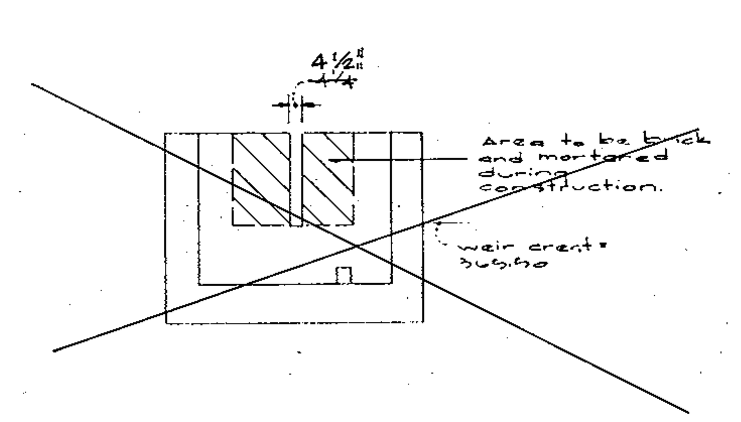
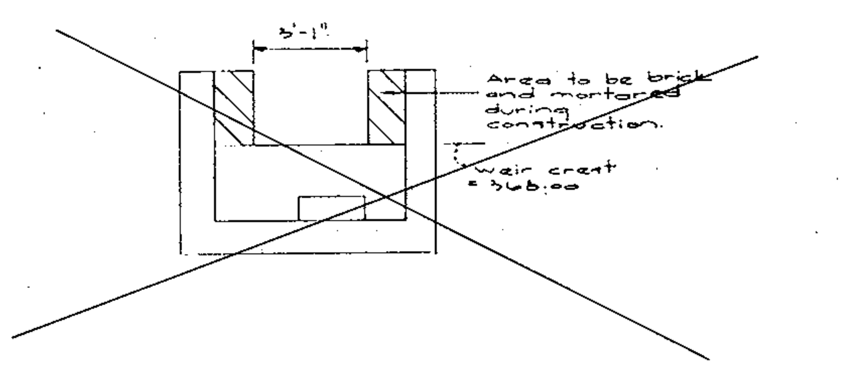
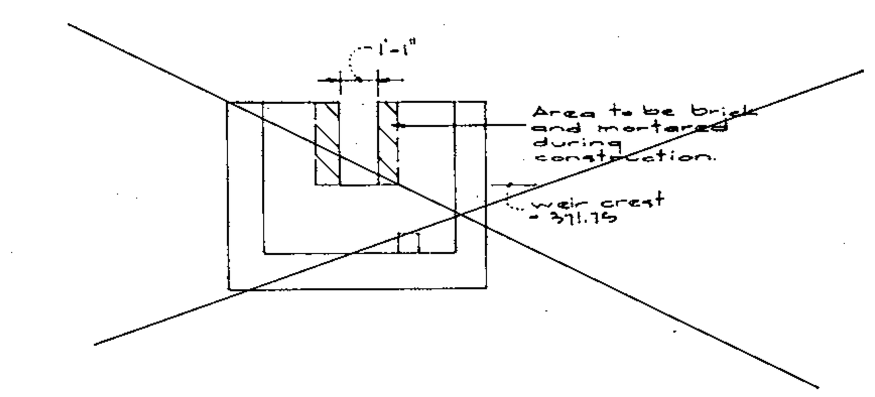
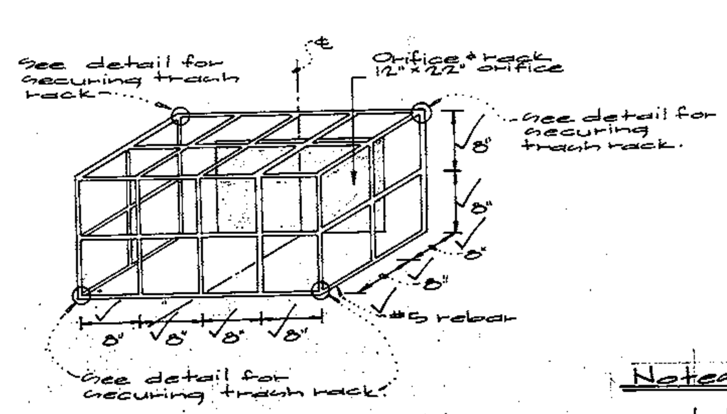


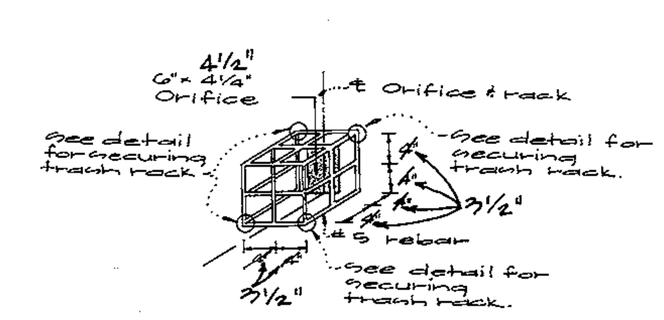




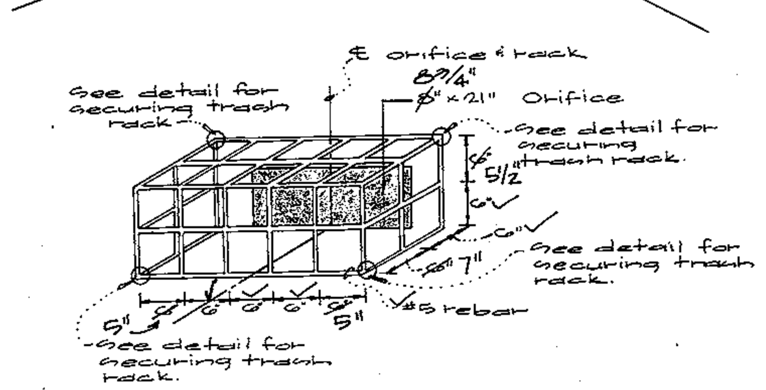




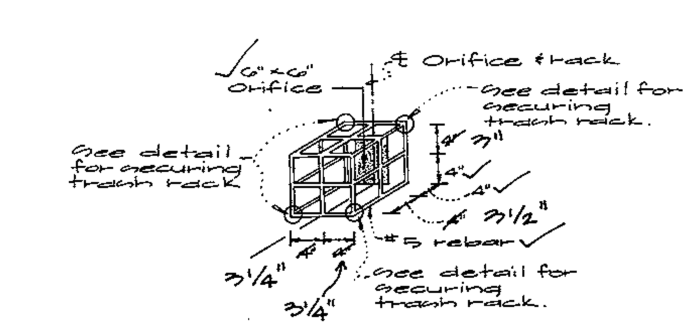
Trash Rack Facility No. 1



Trash Rack Facility No. 2



Trash Rack Facility No. 3



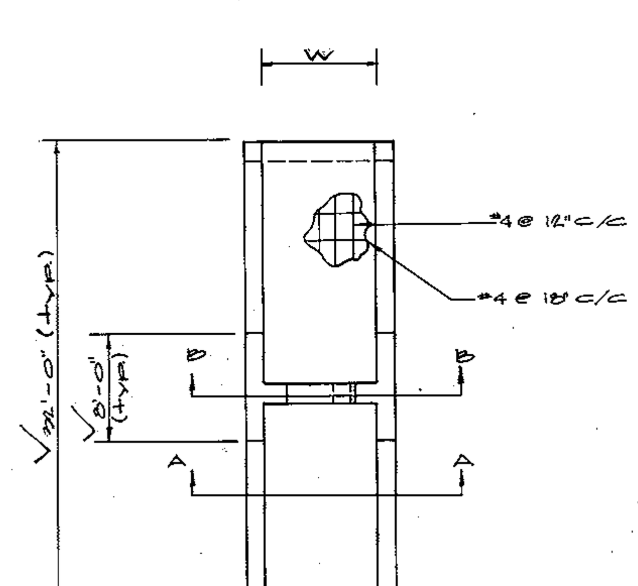
Trash Rack Facility No. 4

Notes For Trash Rack Facility

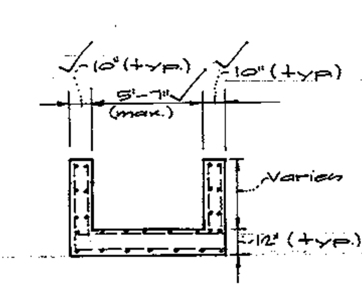
1. Bars will not be required against the floor or weir wall of the riser structure.
2. Bolts to be placed into a concrete anchor.
3. All exposed metal surfaces are to be galvanized after fabrication and painted with two (2) coats of battleship grey paint.

Notes:

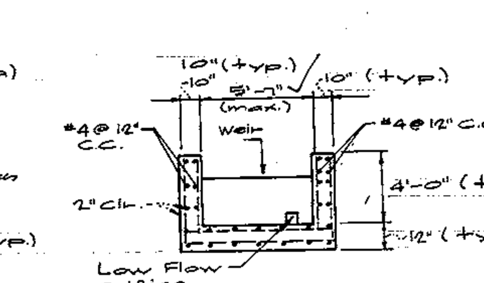
1. All exposed edges to have ¾" x ¾" chamfer as directed.
2. Concrete shall be SHA mix no. 3 (fc' = 3500 psi @ 28 days)
3. Reinforcing steel shall be ASTM A-615 grade 60.
4. Reinforcement shown is typical to all facilities.
5. 'W' shown in plan view, sect. A-A and sect. B-B equals 5'-0" at facilities 2-4 and 5'-6" at facility 1.
6. For weir configuration, both temporary and ultimate, see details this sheet.
7. For low flow orifice dimensions, see details this sheet.



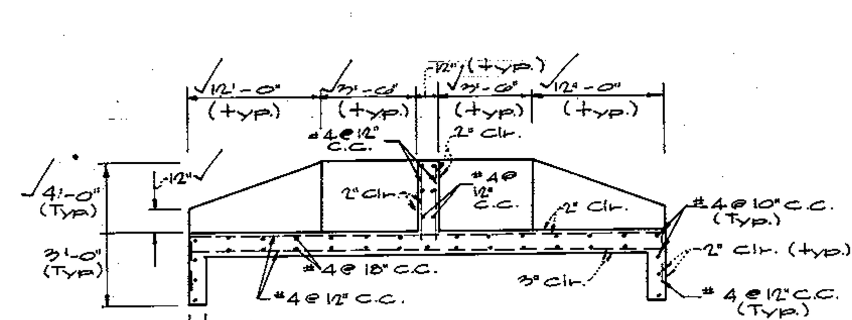
Plan



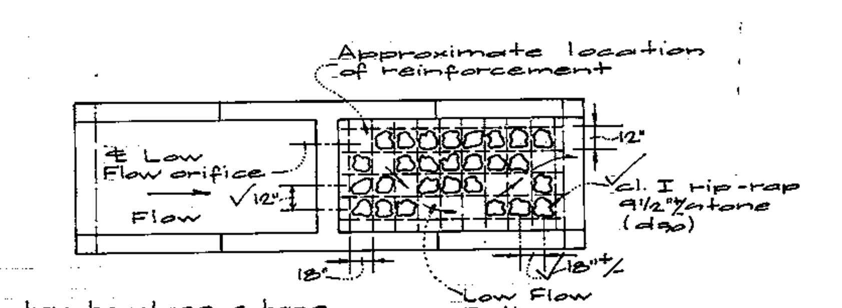
Section A-A



Section B-B

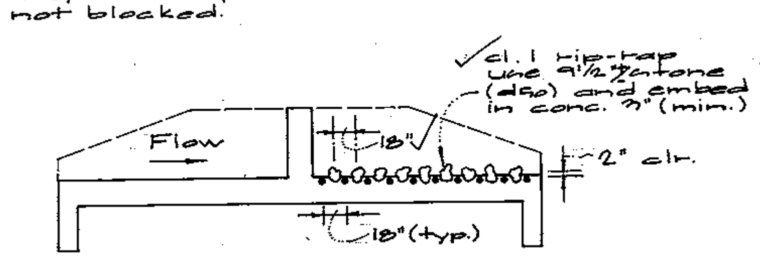


Section C-C

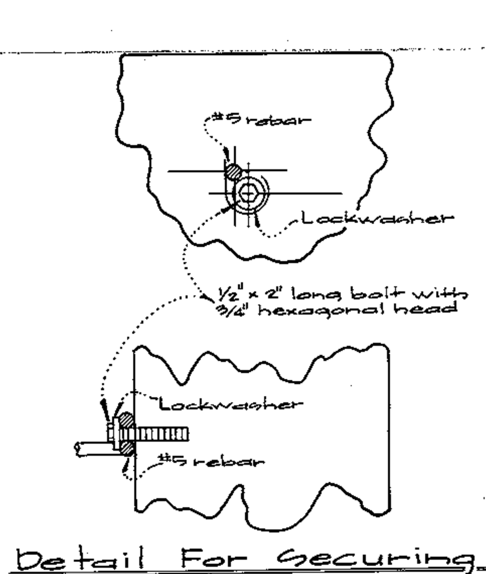


Notes:

1. Contractor to place stone in pattern similar to plan view, insuring the low flow orifice is not blocked.



Outlet Protection Detail
No Scale



Detail For Securing Trash Rack
N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[signature] Director	12/13/99 Date
[signature] Chief, Division of Land Development	12/9/99 Date
[signature] Chief, Development Engineering Division	11/30/99 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
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608130

DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

SWM Notes and Details
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
d.e.v.	N/A	R-20/ NT	95053
DRN.:	DATE	TAX MAP No.	SHEET
f.m.m.	October ~~November~~ ~~1999~~ 2002	35-18	~~14~~
CHK.: d.e.v.			

Asbuilt Sheet 7 of 9

SDP99-68

SPECIFICATIONS

Even though facilities 1 through 4, as shown on these plans, have not been classified as MD-378 facilities, the contractor must adhere to these specifications.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable locations for use on the embankment and other designated areas.

Earth Fill

Material – The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement – Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

Compaction – The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2 % of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench – The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe – All of the following criteria shall apply for corrugated metal pipe:

1. Materials – (Steel Pipe) – This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexan, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

   Materials – (Aluminum Coated Steel Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

   Material – (Aluminum Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections – All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

   All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

   Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. Bedding – The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe – All of the following criteria shall apply for reinforced concrete pipe:

1. Materials – Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

2. Bedding – All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

3. Laying pipe – Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. the first joint must be located within 2 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe – All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials – PVC pipe shall be PVC – 1120 or PVC – 1220 conforming to ASTM D-1785 or ASTM D-2241.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding – The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock of soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standards Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The rip rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

B-1A

Elev.	Soil Description	Depth
	8" topsoil	
	Orange brown, very dense, slight to non-plastic, silty, fine to coarse SAND (SM)	
367.0		10.0
	Refusal at 10.0'	

B-1B

Elev.	Soil Description	Depth
	Light to medium brown, moist, very stiff, silty CLAY trace fine sand (CL)	
374.0		2.0
	Medium brown, moist, slightly plastic, silty, fine to medium SAND (SM)	
372.5		4.5
	Light medium brown, dry, stiff, fine to coarse, sandy CLAY (CL)	
369.0		7.0
	Medium orange brown to dark brown, moist, dense to very dense, micaceous, silty, fine to coarse SAND (SM)	
367.0		10.0
	Bottom of hole at 10.0'	

B-1C

Elev.	Soil Description	Depth
	Medium brown, dry to moist, fine to medium, sandy SILT (ML)	
374.6		2.0
	Light gray, brown, dry, dense, slightly plastic, silty, fine to medium SAND (SM)	
372.1		4.5
	Medium orange, brown, moist, micaceous, medium plastic, silty fine to medium SAND (SM)	
370.1		6.5
	Bottom of hole at 6.5'	

B-2A

Elev.	Soil Description	Depth
	8" topsoil	
	Yellow brown, dry to moist, stiff to hard, medium plastic, silty CLAY (CL)	
363.0		7.0
	Yellow & green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprolite)	
357.0		13.0
	Bottom of hole at 13.0'	

B-2B

Elev.	Soil Description	Depth
	2" topsoil	
	Yellow brown to white, soft to stiff, medium plastic, micaceous, silty CLAY (CH)	
362.1		6.0
	White to yellow brown to green & white, moist to wet, medium dense, loose, slightly plastic, silty SAND (SM) saprolite	
357.6		10.5
	Bottom of hole at 10.5	

B-2C

Elev.	Soil Description	Depth
	4" topsoil	
	Pale brown to white, dry, moist, stiff, silty CLAY (CL)	
361.8		4.5
	Yellow, green, pink, moist, dense, silty SAND (SM) (saprolite)	
357.8		8.5
	Bottom of hole at 8.5'	

B-3A

Elev.	Soil Description	Depth
	4" topsoil	
	Yellow brown, dry to moist, stiff to hard, medium plastic, sandy CLAY	
367.1		2.9
	Gray to orange brown to pale brown, dense, plastic, silty SAND (SM) (saprolite)	
355.6		13.0
	Bottom of hole at 13.0'	

B-3B

Elev.	Soil Description	Depth
	3" topsoil	
	Light gray, light brown, moist, dense, medium plastic, clayey, fine SAND SC-SM	
363.3		6.5'
	White to green to orange brown, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprolite)	
355.8		11.0'
	Bottom of hole at 11.0'	

B-3C

Elev.	Soil Description	Depth
	4" topsoil	
	Gray brown, moist, medium stiff, slightly plastic, sandy SILT (ML)	
367.0		1.2
	Gray, very dense, medium plastic, clayey SAND (SC)	
363.0		4.5
	Orange, green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprolite)	
358.0		10.0
	Green & white, moist to wet, very dense, non-plastic, silty SAND	
357.0		11.2
	Bottom of hole at 11.2'	

B-4A

Elev.	Soil Description	Depth
	8" topsoil	
	Yellow brown, loose, slight to medium plastic, silty SAND (SM) (saprolite)	
364.0		5.0
	Refusal at 5.0'	

B-4B

Elev.	Soil Description	Depth
	4" topsoil	
	Yellow brown, medium dense, slight to medium plasticity, silty SAND (SM)	
371.6		1.5
	Yellow brown, green, pink, plastic silty SAND (SM) (saprolite)	
360.0		10.0'
	Refusal at 10.0'	

B-4C

Elev.	Soil Description	Depth
	8" topsoil	
	Yellow brown, white, green, pink, medium dense to very dense, slight to non-plastic, silty SAND (SM) (saprolite)	
369.0		8.0
	Refusal at 8.0'	

APPROVED: Howard County Dept. of Planning & Zoning

Director — Date 12/10/99

Chief, Division of Land Development — Date 12/9/99

Chief, Development Engineering Division — Date 11/30/99

The construction of the 4 stormwater management facilities shall be supervised by a qualified geotechnical firm throughout their construction. Although there is no requirement per an asbuilt submission to HSCD, there will be 1 to HCDPW involving the same level of documentation.

No Asbuilt Information Shown On This Sheet

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK – BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.
Nov 2002	Asbuilt Information Added		

PREPARED FOR:
Orchard Development Corporation
3979 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

SWM Notes and Details

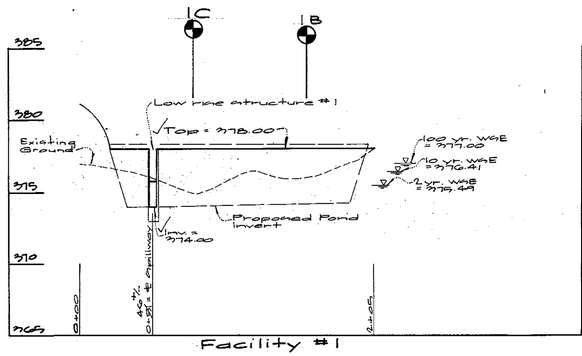
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
—	R-20/NT	95053
DATE: October ~~November 1999~~ 2002	TAX MAP No. 35-18	SHEET ~~19~~

Asbuilt Sheet 8 of 9

SDP99-68



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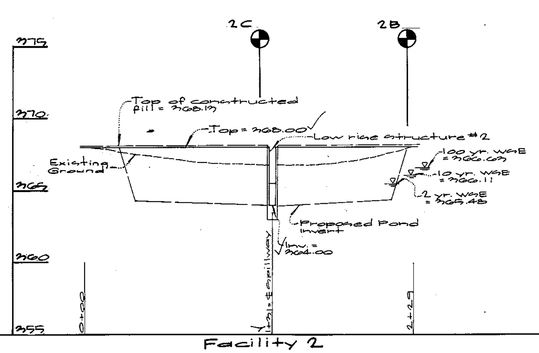

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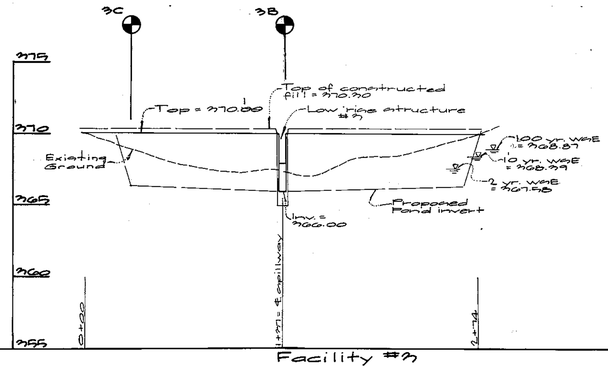

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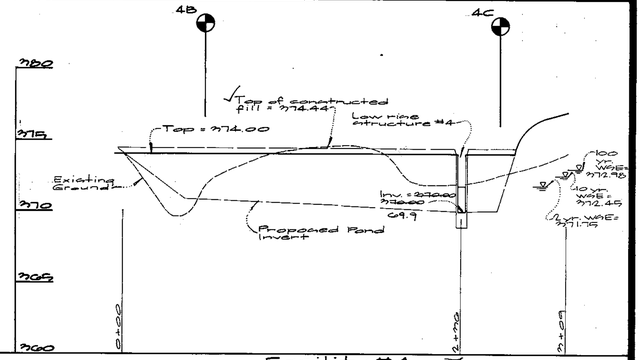

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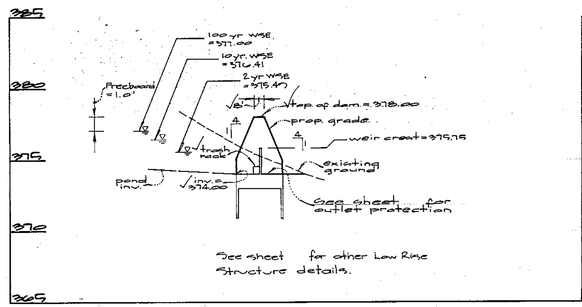
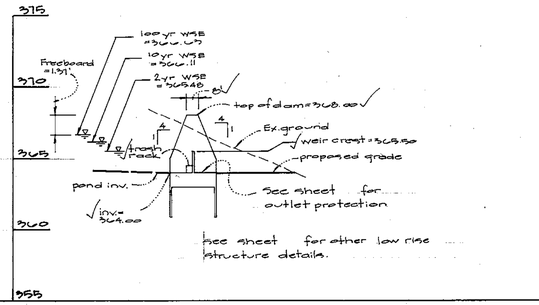
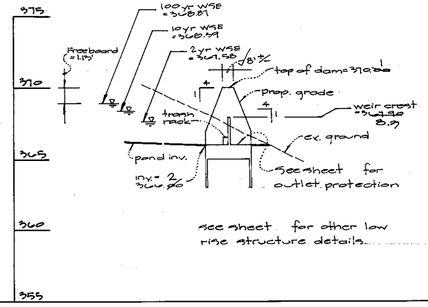


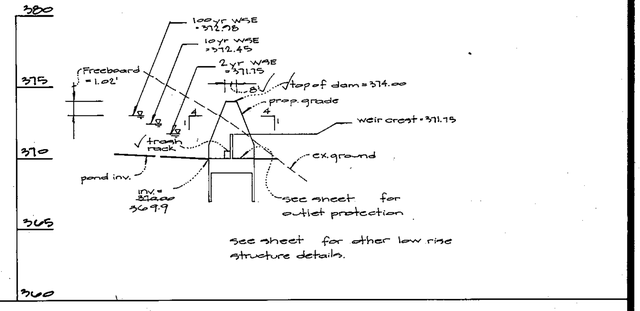
See sheet for other Low Rise structure details.



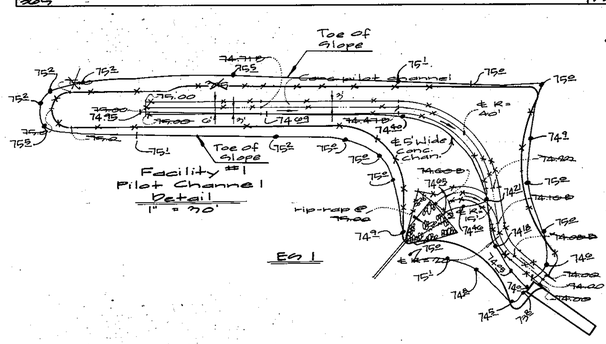
See sheet for other low rise structure details.

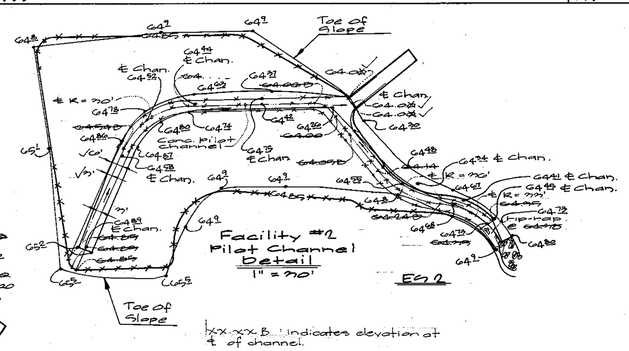


See sheet for other low rise structure details.

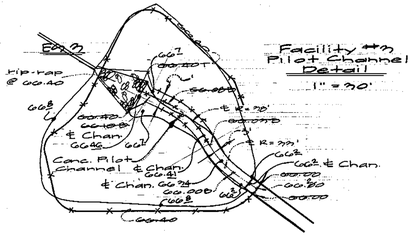


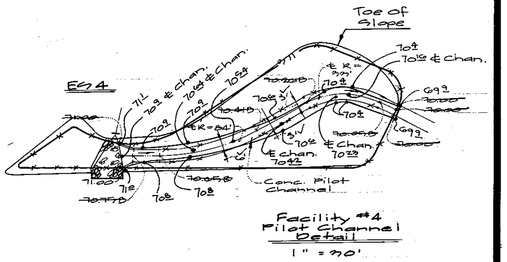
See sheet for other low rise structure details.

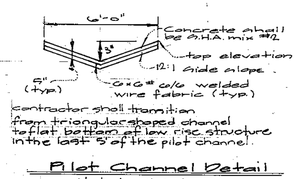




XX.XX.B. Indicates elevation at ℄ of channel.







Contractor shall transition from triangular shaped channel to flat bottom of low rise structure in the last 5' of the pilot channel.

Pilot Channel Detail
Not to Scale

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/3/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
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DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

SWM Notes and Details

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
DEV	As Shown	R-20/NT	95053
DRN.:	DATE	TAX MAP No.	SHEET
CHK.:	October November (asp) 2002	35-18	10

Asbuilt Sheet 9 of 9

SDP99-68

SWM AREA LANDSCAPE PERIMETER ANALYSIS

SWM #	PERIMETER	"C" BUFFER*	CREDIT FOR RETAINED VEGETATION	"B" BUFFER
1	725'	285'	175'	265'
2	800'	345'	165'	290'
3	455'	-0-	280'	175'
4	615'	250'	-0-	365'
TOTAL	2,595'	880'	620'	1,095'

* PROJECT PERIMETER "C" BUFFER SUPERSEDES SWM "B" BUFFER.

Approved: Howard County Department Of Planning & Zoning
Director — 12/13/99 Date
Chief, Division of Land Development — 12/9/99 Date
Chief, Development Engineering Division — 11/30/99 Date

State of Maryland — Carlton K. Gutschick — No. 12975 — Registered Professional Engineer

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DES.	DRN.	CHK.	DATE	REVISION	BY	APP'R.

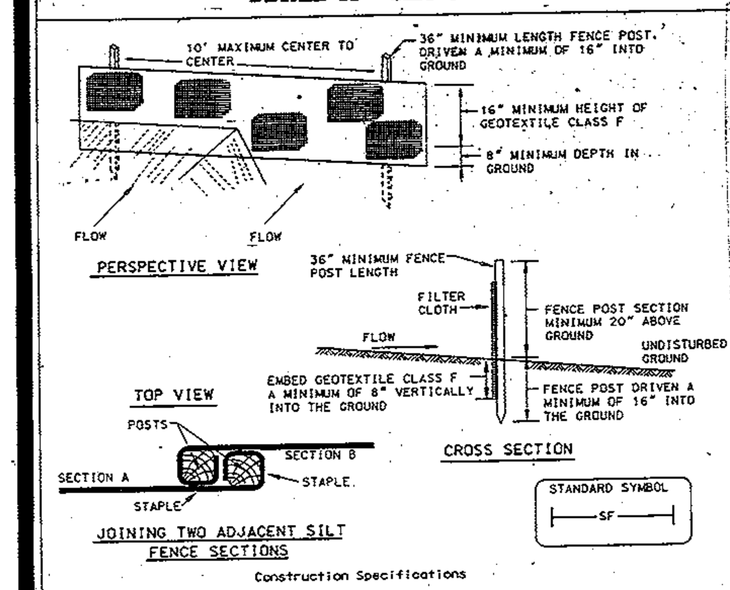
PREPARED FOR:
Orchard Development Corporation
3979 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

Landscape Edge Analysis
Hickory Ridge Elderly Center
Lots 1 and 2
Plat 13156
Clarksville Election District No.5 — Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-20/NT	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35-18	17

SDP99-68

DETAIL 22 – SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1½" x 1½" square (minimum) cut, or 1¾" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

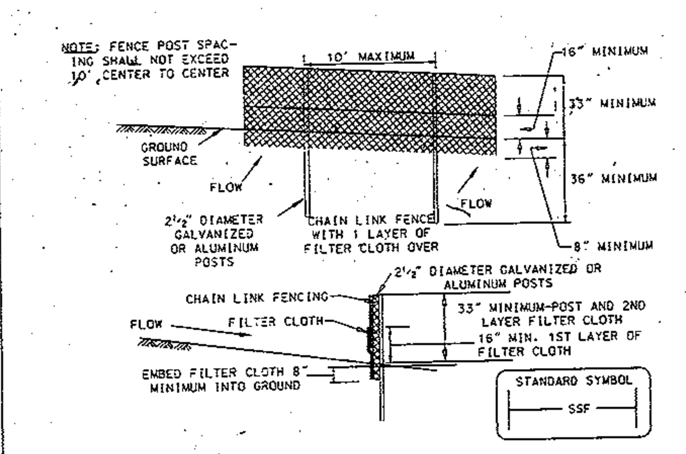
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 15 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 33 - SUPER SILT FENCE



Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

1. The poles do not need to set in concrete.

2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

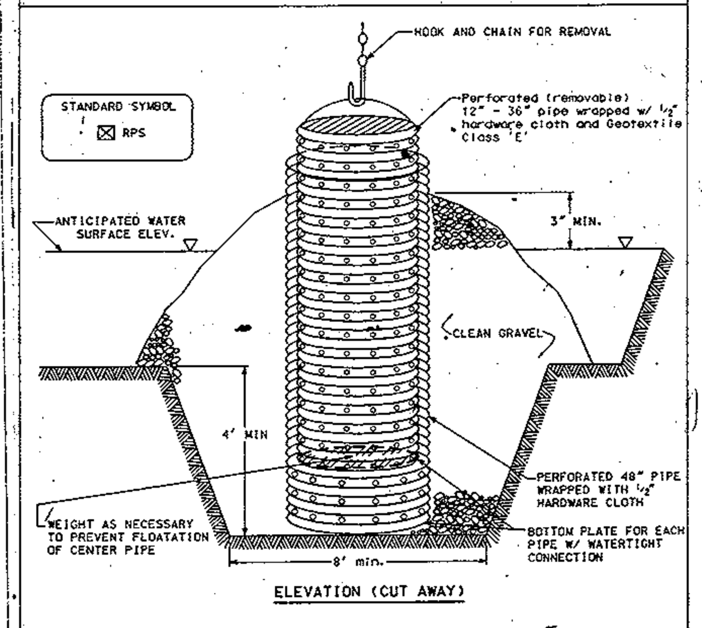
4. Filter cloth shall be embedded a minimum of 8" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 26 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 20A – REMOVABLE PUMPING STATION



Construction Specifications

1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with ½" hardware cloth to prevent backfill material from entering the perforations.

2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.

3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be ½" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with ½" hardware cloth first, then wrapped again with Geotextile Class E.

4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

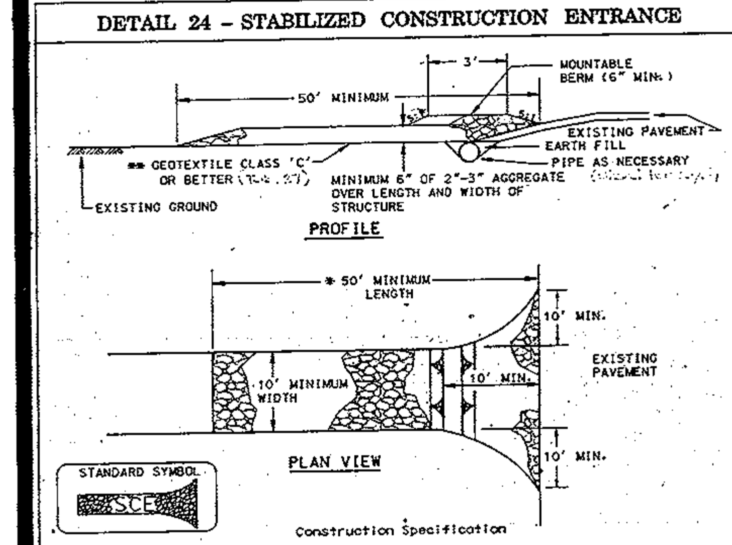
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE D - 12 - 5	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

CONSTRUCTION SEQUENCE

		DURATION
1.	Obtain permits: grading, razing, and M.D.E.	
2.	Review sediment control implementation with Inspector at on-site pre-construction meeting.	
3.	Stake limits of disturbance (L.O.D.) especially where it abuts a property boundary of a wetland buffer. (This can be done concurrently with Steps 1 and 2).	
4.	Install stabilized construction entrances (S.C.E.)	1 day
5.	Install forest conservation signs, tree protection fence (TPF), silt fence (SF) and super silt fence (SSF) along L.O.D. NOTE: Where TPF and SF are together, install the silt fence on the side abutting the construction activity and the TPF toward the forest conservation side.	3-7 days
6.	Excavate and construct Sediment Trap No. 1-4. CAUTION: The construction of Trap No. 1 must be completed during a 4-day period when no rain events are forecasted for the vicinity.	1-3 days each
7.	Raze existing buildings and structures to be removed.	3-4 days
8.	Clear and grade site to appropriate subgrade for roadways and building pads.	1-2 weeks
9.	Install stormdrain systems and utilities. Initiate stormdrain installation at sediment trap outfall and work up. ~~Install diversions around storm cepters.~~ NOTE: Any sediment control devices disturbed by the installation of utilities and stormdrains shall be repaired and corrected immediately.	2-3 weeks
10.	Stabilize all disturbed areas (in accordance with the Temporary Seeding Notes) that are not: a. to be base paved. b. undergoing building construction.	1 day
11.	Install concrete curb and gutter (can be done concurrently with #10).	1-2 weeks
12.	Install base paving and fill the center island at the two entrances and all interior islands with a minimum of 8" of topsoil.	1 week
13.	Obtain building permits and construct buildings and install individual driveway where applicable (can be done concurrently with Step Nos. 9-12). NOTE: Brick point unit building Nos. 7, 16, 59 and 69 as necessary.	6-9 months
14.	Install sidewalks and landscaping.	1-2 weeks
15.	All remaining areas disturbed by construction activity but not otherwise planted, paved or mulch shall be stabilized in accordance with Permanent Seeding Notes.	1 day
16.	Flush stormdrain system of any accumulated sediments. ~~connect stormdrain system to stormcepters~~	1-2 days
17.	Once permission has been granted by the Sediment Control Inspector:	
	a. Remove the applicable sediment control device.	2-3 days
	b. Convert the sediment traps to SWM facilities in accordance with Conversion Notes.	1-2 days
18.	Install surface course paving.	1-2 days
19.	Check forest conservation signs (done in #5) and repair or replace as necessary. Initiate 2-year post-construction management program.	

Sediment Trap Conversion:
After the areas draining to the sediment traps have been stabilized and permission has been granted by the Sediment Control inspector, begin converting traps 1-4 to permanent stormwater management facilities as follows:
1. Pump out impounded water from traps through the R.P.S.
2. Remove all sediment from the traps and place it per the direction of the Sediment Control Inspector.
3. Regrade the areas in order to conform with the final grading shown on sheets 2 and 3.
4. Stabilize the remaining disturbed areas in accordance with the Permanent Seeding Notes.

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

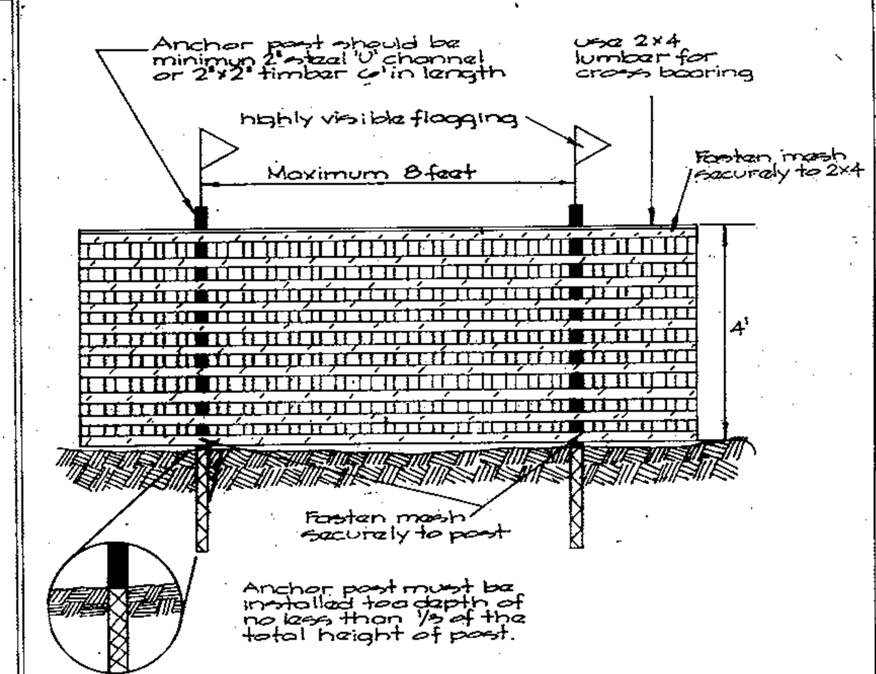
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

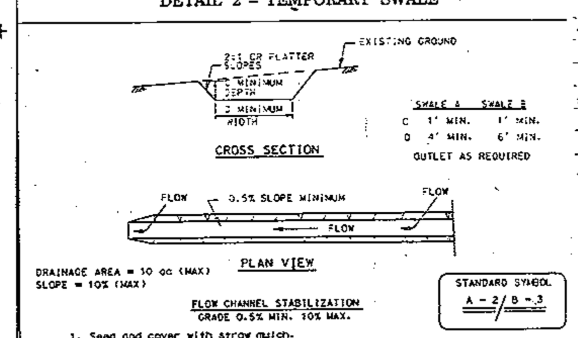
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



Notes:
1. Boundaries of retension area should be staked and flaged prior to installing device.
2. Root damage should be avoided.
3. Device should be maintained throughout construction.

Tree Protection Fence

DETAIL 2 – TEMPORARY SWALE



DRAINAGE AREA = 10 ac (MAX)
SLOPE = 10% (MAX)

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4"-7" stone or recycled concrete equivalent pressed into soil in a minimum 7" layer.

Construction Specifications

1. All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.

5. The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

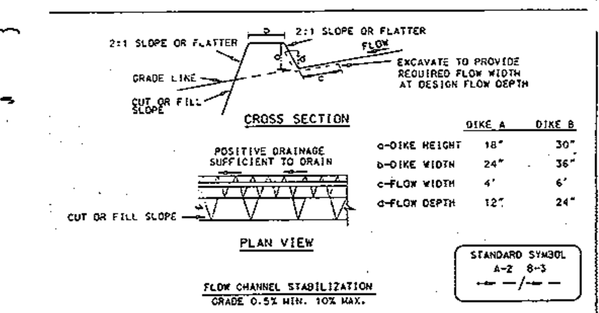
6. Fill, if necessary, shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 2 - 4	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 1 – EARTH DIKE



FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A - 1 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 313-1855.

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G).
Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. Site Analysis:

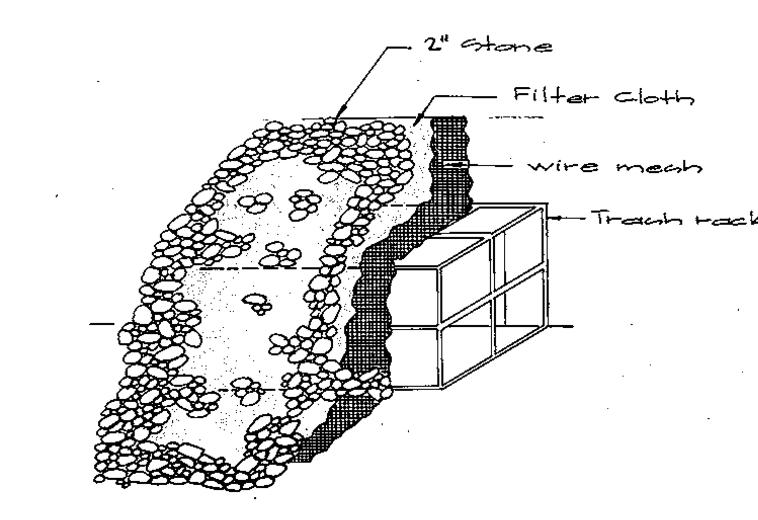
Total Area of Site	:	17.8	Acres
Area Disturbed	:	13.1	Acres
Area to be roofed or paved	:	5.6	Acres
Area to be vegetatively stabilized	:	7.5	Acres
Total Cut	:	21685	Cu. Yds.
Total Fill	:	21685	Cu. Yds.
Off-site waste/borrow area location:			

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

11. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.



Dewatering Device
@Traps 2-4

PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 unreaform fertilizer (9 lbs/1000 sq ft).

2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

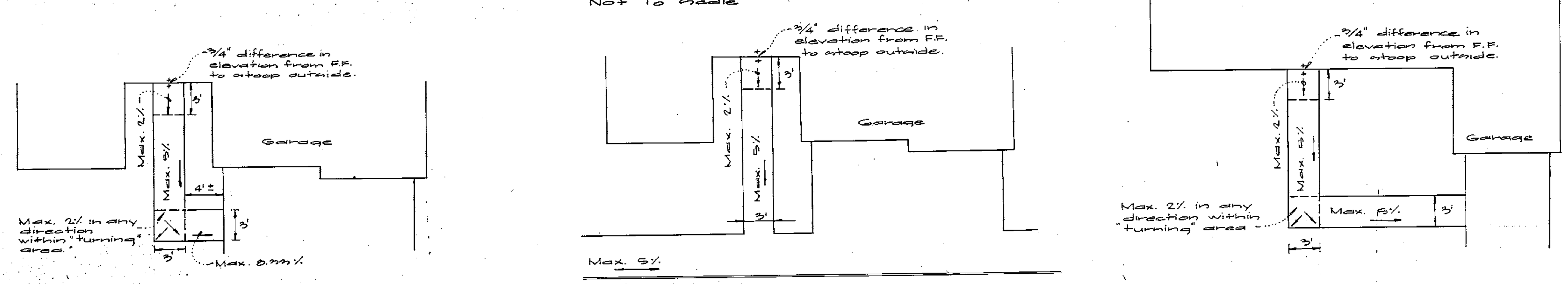
Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

Typical Leadwalk Illustrations

Not To Scale



APPROVED: Howard County Dept. of Planning & Zoning

Director — 12/13/99 Date

Chief, Division of Land Development — 12/9/99 Date

Chief, Development Engineering Division — 11/30/99 Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction ~~and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.~~ I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer/Builder — 11.15.99 Date

STATE OF MARYLAND — CARLTON K. GUTSCHICK — 2975

ENGINEER'S CERTIFICATE

"I certify that this plan for ~~pond construction,~~ erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction ~~and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."~~

1-8-99 Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for ~~small pond construction,~~ soil erosion and sediment control.

Natural Resources Conservation Service — 11/22/99 Date

These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Howard Soil Conservation District — 11/22/99 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK – BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APP'R.

PREPARED FOR:
Orchard Development Corporation
3070 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

Sediment Control Notes & Details

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
—	R-20/NT	95053
DATE	TAX MAP No.	SHEET
November 1999	35	18

SDP99-68

GENERAL STRUCTURAL NOTES

I. DESIGN DATA:

A. CODES AND STANDARDS:

1. BOCA BASIC BUILDING CODE, 1996.
2. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 1991, (WITH SUPPLEMENT), NATIONAL FOREST PRODUCTS ASSOCIATION.

B. DESIGN LOADS:

1. DECK LIVE LOAD — 50 PSF
2. TOP OF HANDRAILS - 50 LBS/FT SIMULTANEOUS HORIZONTAL & VERTICAL LOAD
   200 POUND POINTLOAD APPLIED IN ANY DIRECTION, ANY POINT

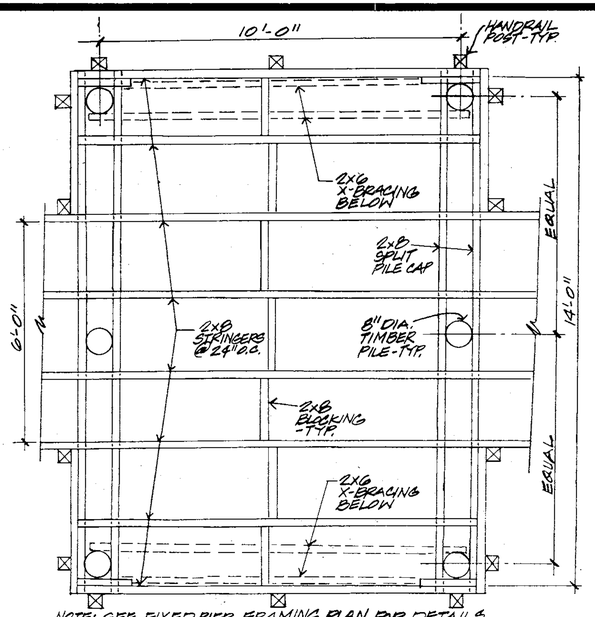
C. MATERIALS:

1. GALVANIZED STEEL FRAMING HARDWARE:
   a. EXCEPT AS DETAILED, ALL CONNECTIONS SHALL UTILIZE SIMPSON "STRONG-TIE" CONNECTORS OR ALTERNATIVE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
   b. NAILS SHALL CONFORM TO ASTM A153 WITH 20 OUNCES OF ZINC PER SQUARE FOOT.
2. TIMBER:
   a. MOISTURE CONTENT FOR ALL SAWN LUMBER - 19% MAX.
   b. STRUCTURAL LUMBER - SOUTHERN PINE
      1) SPLIT PILE CAPS, CROSS BRACING — NO.1 DENSE
      2) STRINGERS, HANDRAILS — NO. 1
      3) DECKING — PREMIUM NO. 1
   c. PRESERVATIVE TREAT ALL MEMBERS
      1) COMPLY WITH APPLICABLE REQUIREMENTS OF THE AMERICAN WOOD PRESERVERS ASSOCIATION STANDARDS.
      2) AFTER TREATMENT, KILN-DRY LUMBER TO A MAXIMUM MOISTURE CONTENT OF 10 PERCENT.
3. PILING:
   a. ROUND PILING SHALL CONFORM TO ASTM D25.

II. CONSTRUCTION:

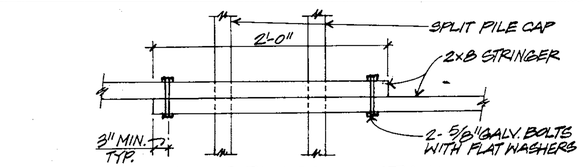
A. GENERAL:

1. THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC.
2. WORK NOT INCLUDED ON THE DRAWINGS BUT IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES ELSEWHERE ON THE DRAWINGS SHALL BE REPEATED.

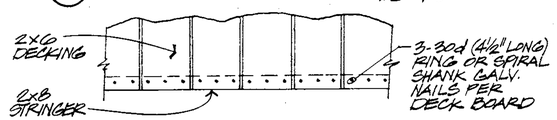


NOTE: SEE FIXED PIER FRAMING PLAN FOR DETAILS.

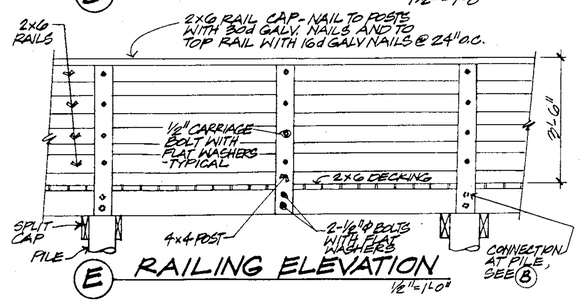
FIXED PIER - BENCH AREA FRAMING 1/2"=1'-0"



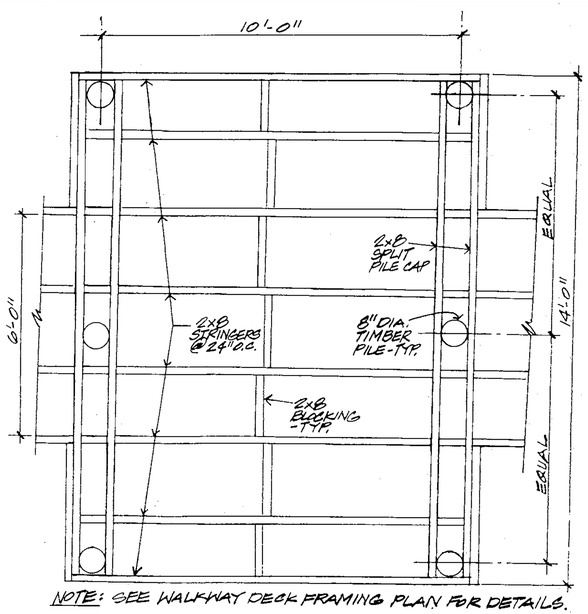
C LAP SPLICE DETAIL 1/2"=1'-0"



D DECK NAILING DETAIL 1/2"=1'-0"

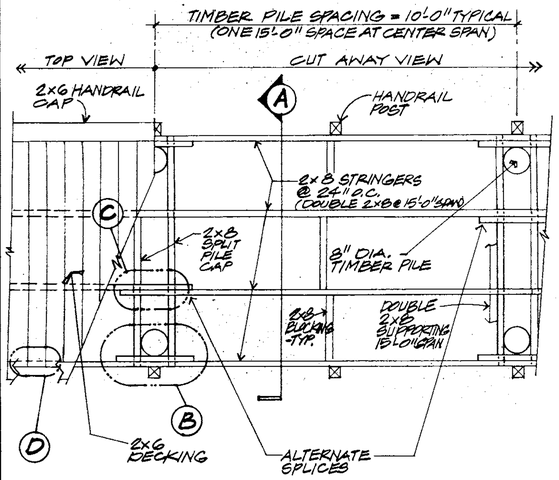


E RAILING ELEVATION 1/2"=1'-0"

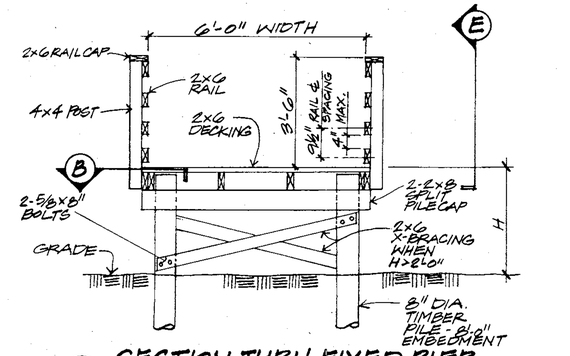


NOTE: SEE WALKWAY DECK FRAMING PLAN FOR DETAILS.

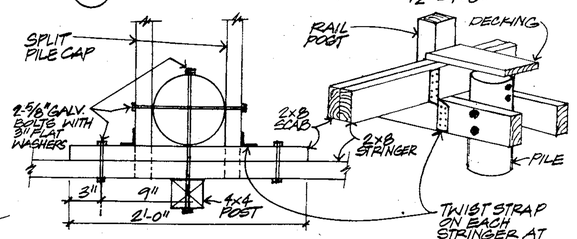
WALKWAY DECK - BENCH AREA FRAMING 1/2"=1'-0"



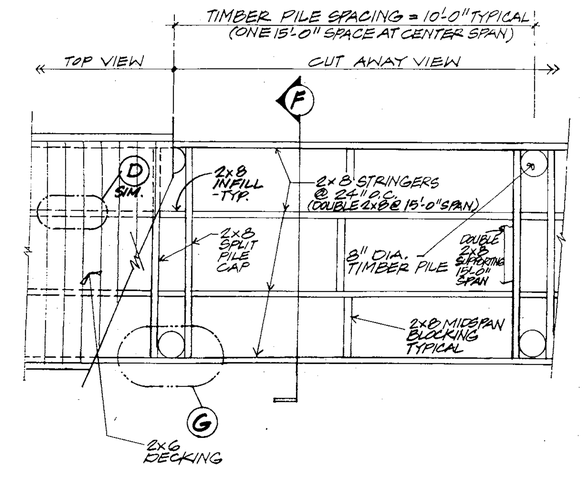
FIXED PIER FRAMING PLAN 1/2"=1'-0"



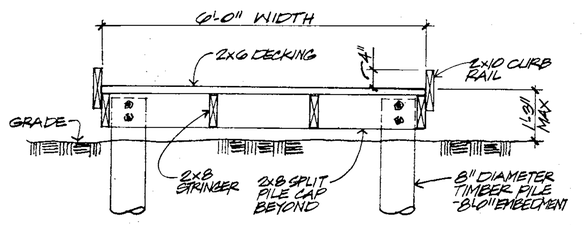
A SECTION THRU FIXED PIER 1/2"=1'-0"



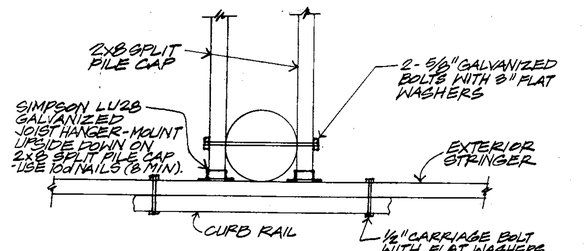
B CONNECTION TO PILE 1 1/2"=1'-0"



WALKWAY DECK FRAMING PLAN 1/2"=1'-0"



F SECTION THRU WALKWAY DECK 3/4"=1'-0"



G CONNECTION TO PILE 1 1/2"=1'-0"

RATHGEBER/GOSS ASSOCIATES
Consulting Structural Engineers
15807 Crabbs Branch Way, Rockville, Maryland 20855
301/590-0071 Fax: 301/590-0073

REGISTERED PROFESSIONAL ENGINEER 12928 MICHAEL J. GOSS STATE OF MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA.:(301)989-2524 BALTO: (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Details For Wooden Walkway

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
d.e.v.	As shown	R-20/ NT	95053
DRN.: f.m.m.	DATE	TAX MAP No.	SHEET
CHK.: d.e.v.	November 1999	39-16	19

SDP99-68

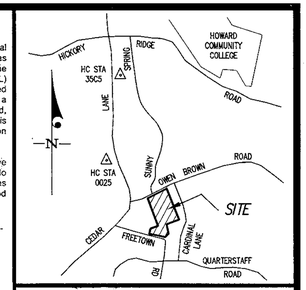
NARRATIVE

The site is made up of two lots. Each lot has a main house and some incidental structures. The site is over 50% wooded. The woods cover all the environmental areas (wetlands, stream and 100-year floodplain) on the site. Besides the wooded area, the site also contains several isolated tree groupings (T) which are growing on a lawn (L) or an open meadow (M). The wooded area (F) is a mixed hardwood forest dominated by oaks, tulip poplars, maples and a few hickories and locust. These trees create a canopy closure that is almost 100%. The understory consist of dogwood, ironwood, small beech, american holly and samplings produced from the mature trees. There is a thick forest litter; therefore, the herd layer is sparse except for the bramble and poison ivy found mainly along the forest edge.

The intermittent stream, 100-year floodplain and wetlands are sensitive environmental features; therefore, forest retention in these areas is a high priority. No rare, threatened or endangered species were observed on-site. A few trees show signs of insect damage; however, the majority of the tree forest resources are in good condition.

Outside the floodplain area, there are several tree with a diameter (DBH) of 30-inches or greater. They are:

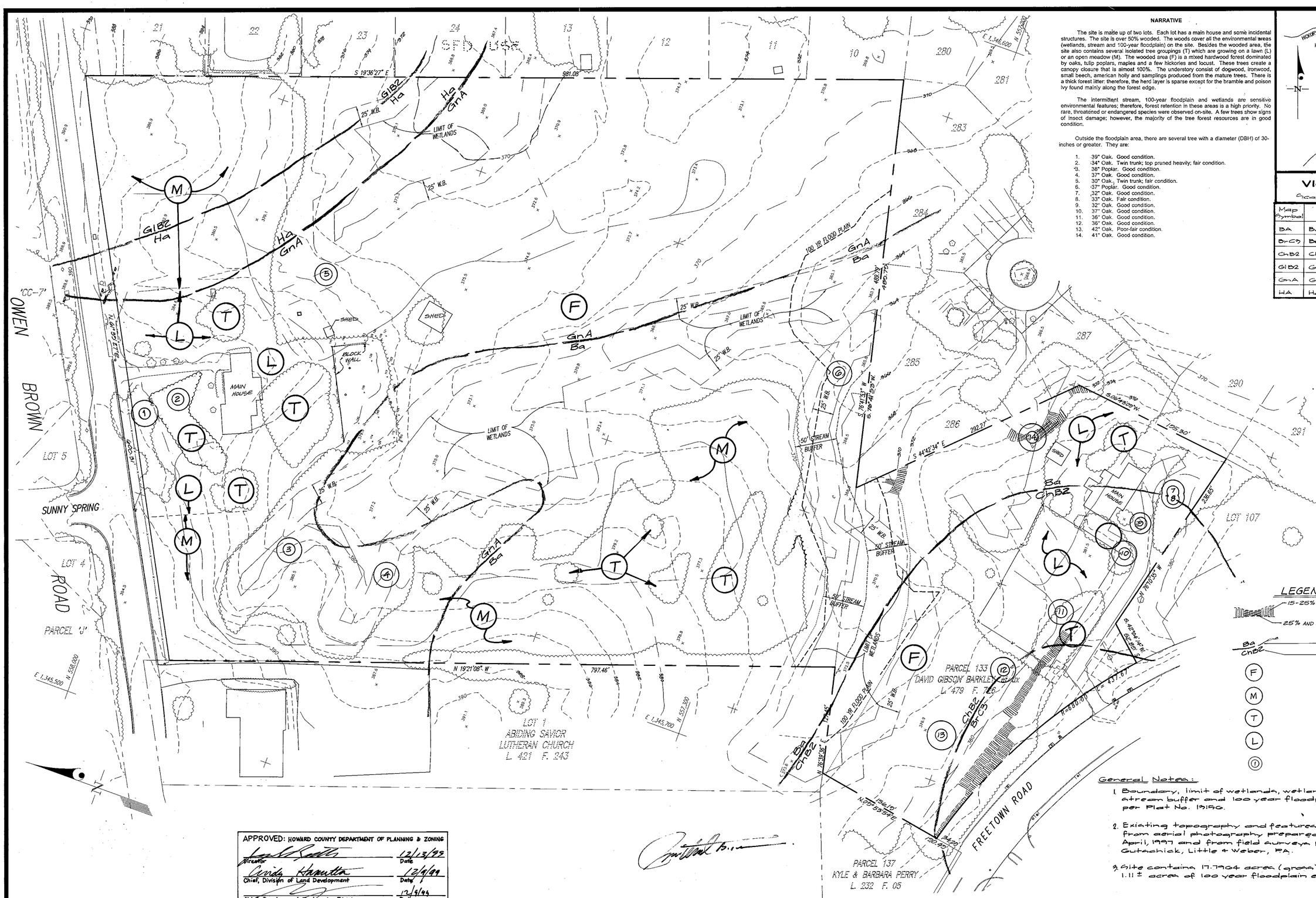
1. 39" Oak. Good condition.
2. 34" Oak. Twin trunk; top pruned heavily; fair condition.
3. 36" Poplar. Good condition.
4. 37" Oak. Good condition.
5. 30" Oak, Twin trunk; fair condition.
6. 37" Poplar. Good condition.
7. 32" Oak. Good condition.
8. 33" Oak. Fair condition.
9. 32" Oak. Good condition.
10. 37" Oak. Good condition.
11. 35" Oak. Good condition.
12. 36" Oak. Good condition.
13. 42" Oak. Poor-fair condition.
14. 41" Oak. Good condition.



VICINITY MAP

Scale: 1" = 2000'

Map Symbol	Soil Type	Soil Group
BA	Baile Silt Loam	D
BrC3	Brandywine Loam	C
ChB2	Chester Silt Loam	B
GlB2	Glenelg Loam	B
GnA	Glenville Silt Loam	C
HA	Hatboro Silt Loam	D



LEGEND

- 15-25% STEEP SLOPES
- 25% AND GREATER
- Ba / ChB2 — SOIL BOUNDARY
- SOIL SYMBOL
- (F) FOREST STAND
- (M) MEADOW
- (T) TREE GROUP
- (L) LAWN
- (1) TREE W/DBH ≥ 30"

General Notes:

1. Boundary, limit of wetlands, wetland buffer (W.B.), stream buffer and 100 year floodplain shown is per Plat No. 13156.
2. Existing topography and features were derived from aerial photography prepared by PSG, in April, 1997 and from field surveys prepared by Gutschick, Little & Weber, PA.
3. Site contains 17.7904 acres (gross) which includes 1.11 ± acres of 100 year floodplain easement.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 12/6/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\959053\BASESHTS\95053BS | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:

ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST STAND DELINEATION

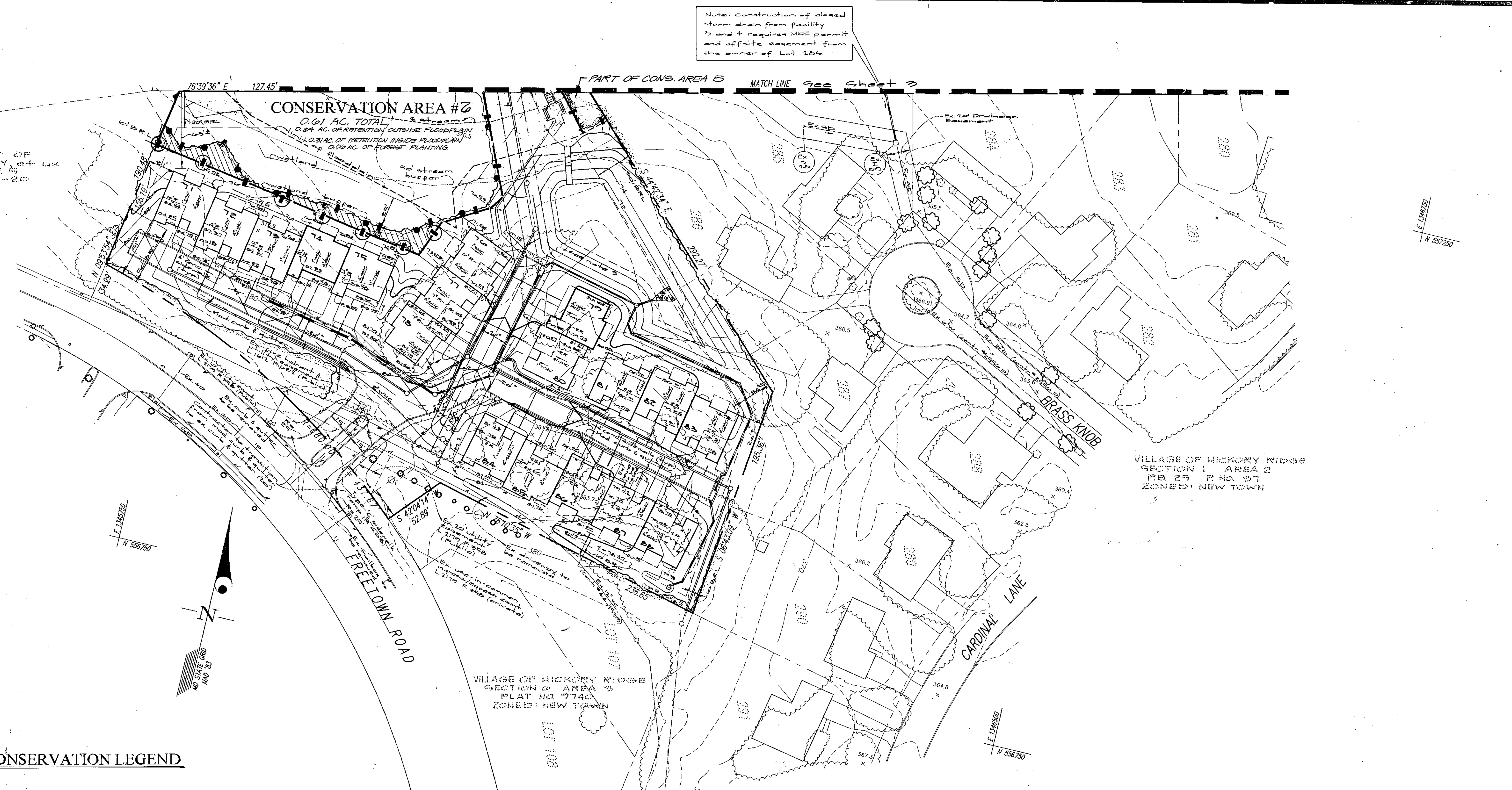
HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13256

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-20	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35	20

SDP99-68



FOREST CONSERVATION LEGEND

- Forest Retention to be In Conservation Easement
- Forest to be cleared
- Reforestation
- Conservation Easement
- Existing Treeline
- Proposed Treeline
- Conservation Sign (location @ L.O.D. Prior to grading)
- Conservation Sign (Final location after Forest Planting)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 12/8/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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\DRAWINGS\95053\BASESHTS\95053BS2.DWG | DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST CONSERVATION PLAN

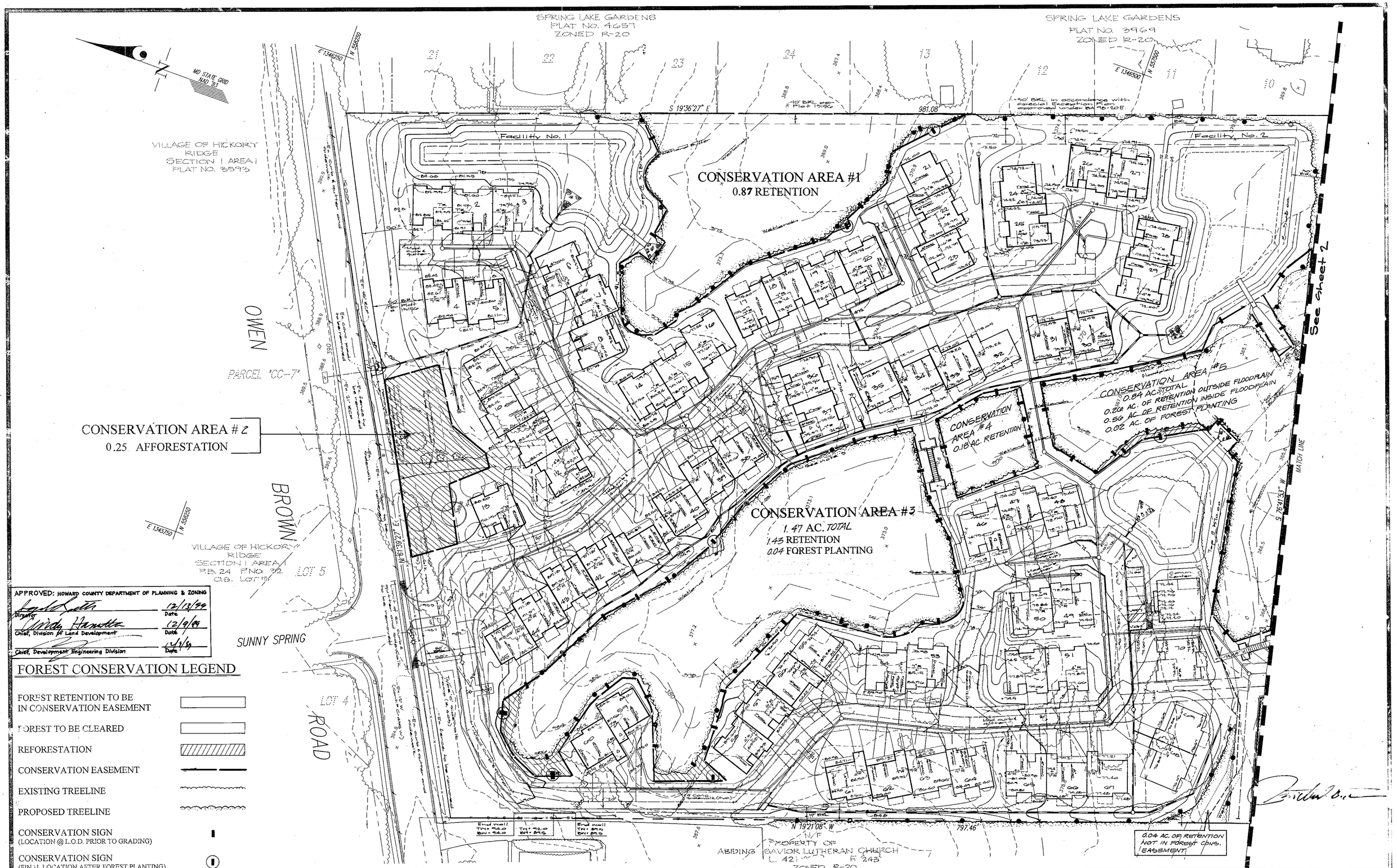
HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20	95053
DATE	TAX MAP – GRID	SHEET
November 1999	35 – 18	21

SDP99-68



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 12/3/99

FOREST CONSERVATION LEGEND

- FOREST RETENTION TO BE IN CONSERVATION EASEMENT
- FOREST TO BE CLEARED
- REFORESTATION
- CONSERVATION EASEMENT
- EXISTING TREELINE
- PROPOSED TREELINE
- CONSERVATION SIGN (LOCATION @ L.O.D. PRIOR TO GRADING)
- CONSERVATION SIGN (FINAL LOCATION AFTER FOREST PLANTING)

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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\DRAWINGS\95053\BASESHTS\95053DSI.DWG | DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST CONSERVATION PLAN

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/ NT	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	22

SDP99-68

GENERAL NOTES

1. This reforestation plan is provided in accordance with the requirements of Subtitle 12 "Forest Conservation" of the Howard County Code. This plan is to be updated at subsequent plan stages (especially to address any off-site reforestation).

2. Implementation of this plan must be performed by a contractor that is knowledgeable and experienced in afforestation/reforestation techniques and practices.

3. The developer is responsible for a 2-year post-construction maintenance period which involves activities necessary to ensure survival and growth of the conservation area.

   Two inspection per year by a qualified professional at beginning and end of the growing season, are recommended in order to take remedial steps as necessary. If, after one year, the possibility exists that the original planting will not meet survival standards, the applicant may choose to establish reinforcement plantings.

   If plant mortality of reforestation or reforestation exceeds 10% of planting materials at the end of the first growing season, such material should be replaced to bring the total number of trees to 90% of the original total. Such material shall be installed by the beginning of the second growing season. If at the end of the second growing season, survival rate drops below 75%, such material as needed to guarantee a 75% survival rate by the end of the subsequent year shall be installed.

   At the end of the post-construction management and protection period, the designated responsible professional shall convey to the administrator of Howard County Forest Conservation Program Certification that all forest conservation areas have remained intact or have been restored to the appropriate condition, and that the stipulated rates have been achieved, and that any permanent protection measures required by the plan are in place.

4. To minimize soil erosion, all reforestation planting areas shall be in a stabilized condition.

5. The contractor is responsible for the location of any existing utilities. The repair of any utilities damaged by the contractor shall be at the contractor's expense.

CONSTRUCTION PERIOD PROTECTION PROGRAM

1. The limit of forest retention and reforestation shall be staked and flagged. Field adjustments of the edge of surviving forest stand shall be done by the detail labeled "Field Edge Determination".

2. A pre-construction meeting at the site should be held to verify the limits of clearing specified. The meeting should include the owner or the owner's representative, the on-site foreman in charge of land disturbance, the environmental consultant and the appropriate Howard County inspectors.

3. Forest protection devises and signs (see details) shall be installed prior to any clearing or grading. The protection devises and signs shall be maintained during the entire construction period. None of the devices shall be in any way anchored or attached to the trees to be saved.

4. Equipment, vehicles and building materials shall not be allowed within the protected area. Activities strictly to implement any reforestation planting and maintenance (i.e. watering, fertilizing thinning, pruning, removal of dead and diseased trees etc.) of the conservation area are permitted. Clearing for the purpose of sodding or planting grass is not permitted within the forest conservation area.

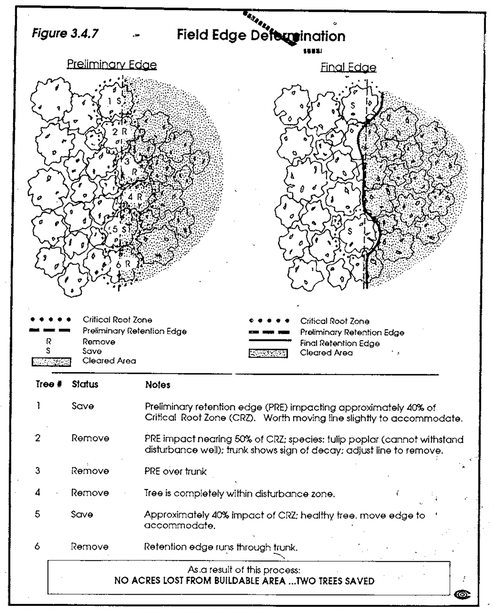
5. At the end of the construction period, the designated qualified professional shall convey to the administrator of the Howard County Forest Conservation Program certification that all forest retention areas have been preserved, all reforestation and/or afforestation plantings (where required) have been installed as required by the forest conservation plan, and that all protection measures required for the post-construction period have been put in place.

   Upon review of the final certification document for completeness and accuracy, the program coordinator will notify the developer of release from all construction period obligations.

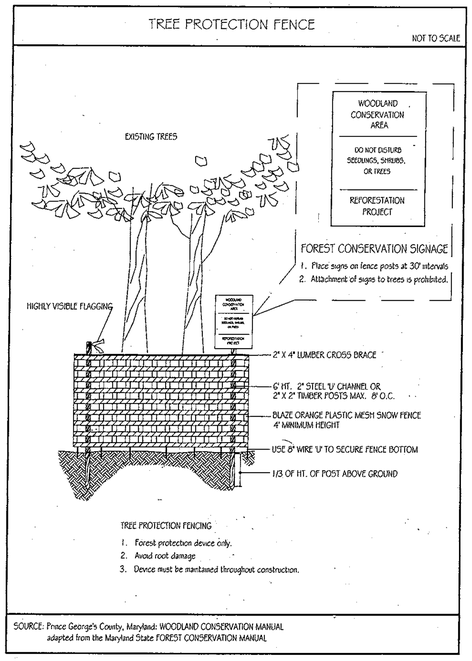
PLANT LIST FOR REFORESTATION

NAME (COMMON/BOTANICAL)	SIZE	QUANTITY	COMMENTS
Tulip Poplar/Liriodendion tulipifera	18-24" Seedlings	76	Container
Red Oaks/Quercus rubra	18-24" Seedlings	100	Container
Pin Oak/Quercus palustris	18-24" Seedlings	76	Container

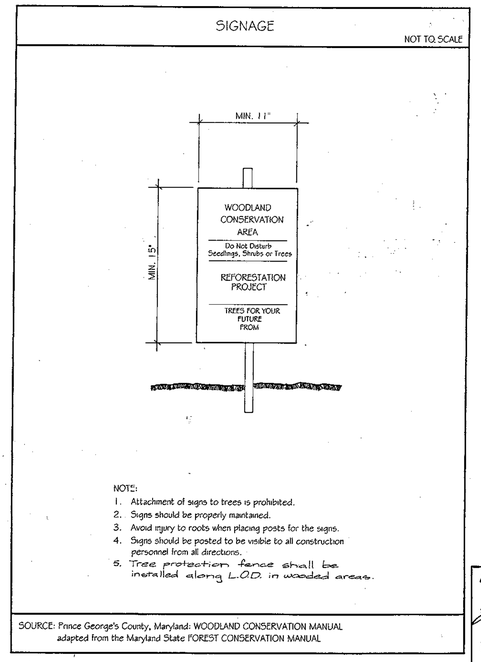
Note: Each shall be evenly distributed. Spacing between plants shall be 8 feet more or less.



Staking Retention Edges in the field requires tree-by-tree decisions. The above example demonstrates the use of the Critical Root Zone, tree health, and tree species in laying out a final, healthy, retention line.



SOURCE: Prince George's County, Maryland: WOODLAND CONSERVATION MANUAL adapted from the Maryland State FOREST CONSERVATION MANUAL



SOURCE: Prince George's County, Maryland: WOODLAND CONSERVATION MANUAL adapted from the Maryland State FOREST CONSERVATION MANUAL

FOREST CONSERVATION WORKSHEET

	ACRES (1/10 acre)
BASIC SITE DATA	
GROSS SITE AREA	17.59
AREA WITHIN 100 YEAR FLOODPLAIN	1.11
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	N/A
NET TRACT AREA	16.48
LAND USE CATEGORY:	R-S
INFORMATION FOR CALCULATIONS	
A. NET TRACT AREA	16.48
B. REFORESTATION THRESHOLD (20% X A)	3.30
C. AFFORESTATION MINIMUM (15% X A)	2.47
D. EXISTING FOREST ON NET TRACT AREA	9.09
E. FOREST AREAS TO BE CLEARED	6.07
F. FOREST AREAS TO BE RETAINED	3.02
REFORESTATION CALCULATIONS	
A. NET TRACT AREA	16.48
B. REFORESTATION THRESHOLD (20% X A)	3.30
D. EXISTING FOREST ON NET TRACT AREA	9.09
E. FOREST AREAS TO BE CLEARED	6.11
F. FOREST AREAS TO BE RETAINED	2.98
G. FOREST AREAS CLEARED **ABOVE** REFORESTATION THRESHOLD	5.79
H. FOREST AREAS CLEARED **BELOW** REFORESTATION THRESHOLD	0.32
I. FOREST AREAS RETAINED **ABOVE** REFORESTATION THRESHOLD (F-B, Retention Credit, if applicable)	0±
FOR CLEARING BELOW THE THRESHOLD	
REFORESTATION FOR CLEARING ABOVE THRESHOLD (G x .25)	1.45
REFORESTATION FOR CLEARING BELOW THRESHOLD (H x 2)	0.64
TOTAL REFORESTATION REQUIRED (G x 1/4) - I	2.09
REQUIRED FOREST CONSERVATION EASEMENT AREA	
(RETENTION AREA + REFORESTATION AREA)	5.07

PROPOSED METHOD OF SATISFYING FOREST CONSERVATION OBLIGATIONS

RETENTION AREA: *ON NET TRACT TO BE IN F.C. EASEMENT*	2.98 AC.
ON-SITE PLANTING: *TO BE IN F.C. EASEMENT*	0.38 AC.
TOTAL	3.36 AC

THE BALANCE OF THE FOREST CONSERVATION OBLIGATION (1.7 AC.) SHALL BE MET BY FEE-IN-LIEU PAYMENT.

FEE AMOUNT: *1.7 AC X $13,068/AC. = $ 22,215.00

*- ROUNDED TO NEAREST 1/10 AC.

NARRATIVE/JUSTIFICATION

The proposed development shown is a result of a prolonged, highly detailed work effort, involving two Special Exception cases (BA 95-60E and BA 98-20E), the local citizens, Howard County Agencies, the developer and various consultants.

Applying forest conservation to the proposed development layout reveals the following:

- Virtually all of the wooded environmental features (floodplain, wetland, etc.) are retained. In some cases; however, there is minor impact to these features due to:
  - necessary vehicular crossing (in the vicinity of Units 58 and 59) and gravity utility systems (SD, sanitary sewer) which normally flow through low areas on a site where floodplains and wetlands are also located.
  - SWM outfalls typically must discharge into lowlands (usually floodplains and/or wetlands) for stabilization purposes as required by HSCD. For a practical and functional pond geometry, minor grading along the fringe of the buffer was necessary.
  - The two pedestrian bridges in the environmental areas are desired and needed features to serve this elderly community. They complete the pedestrian system by providing access to the shopping center (Hickory Ridge Village Center on Freetown Road) which is in walking distance from all the units. The pedestrian bridges are located at narrow portions of the environmental areas and are to be raised boardwalks to minimize any environmental impact. They also will be used for enjoying the environmental areas.
- For the development's density and layout shown, clearing below the reforestation threshold is unavoidable and mitigation planting will be required. On-site planting is proposed as:
  - supplemental planting and reforestation of pockets adjacent to the wetland buffer (in the vicinity of Units #20, 45, 60, 53, 58 and 71-75) and along the pedestrian bridge (the intent is to have trees grow up to the edge of the pedestrian path within the environmental areas). Areas (within the floodplains and wetlands) to be cleared for private utilities will be allowed to regenerate; however, theses utility corridors will not be in a forest conservation easement since there is a remote chance that access for repairs and maintenance is required.
  - Afforestation of an area large enough (35' and greater plus at least 10,000 sf in areas) behind Units 9-11 and 13. This afforestation area contains an existing 39" oak to be retained.
- Additional on-site planting (and retention) is not possible without affecting the number of units and layout concept approved under BA98-20E. An off-site planting location within the same drainage area as this development has not been secured by the developer; therefore, fee-in-lieu payment is requested for the balance of forest conservation obligation indicated in the worksheet.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

1) No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
2) Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
3) Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance. If additional backfill is required, use clean material free of waste metal products, unsightly debris, toxic material, or any other deleterious substance.
4) Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
5) Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
6) Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
7) All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (Lolium multiflorum), Millet (Setaria italica), Barley (Hordeum sp.), Oats (Unicla sp.), and/or Rye (Secale cereale). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. **Kentucky 31 fescue shall not be utilized in wetland or buffer areas.** The area should be seeded and mulched to reduce erosion after construction activities have been completed.
8) After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
9) To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:

   Use I waters: In-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.

10) Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
11) Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 12/13/99

Chief, Division of Land Development — Date 12/9/99

Chief, Development Engineering Division — Date 12/8/99

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA.(301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

FOREST CONSERVATION NOTES & TABULATIONS

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20	95053
DATE	TAX MAP - GRID	SHEET
November 1999	35 - 18	29

SDP 99-68

SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

MISS UTILITY	1-800-257-7777
C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	331-4900
A T & T CABLE LOCATION DIVERSION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533

3. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
4. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
5. PROJECT BACKGROUND:

LOCATION:	TAX MAP #35, GRID 18, Lots 1-2 (Parcel 459), a resubdivision of Lots 2-4 (Parcel 207) and Parcel 133.
ZONING:	R-20
ELECTION DISTRICT:	5TH
SITE AREA:	17.7964 AC.
REC. REF.:	PLAT NO. 13156

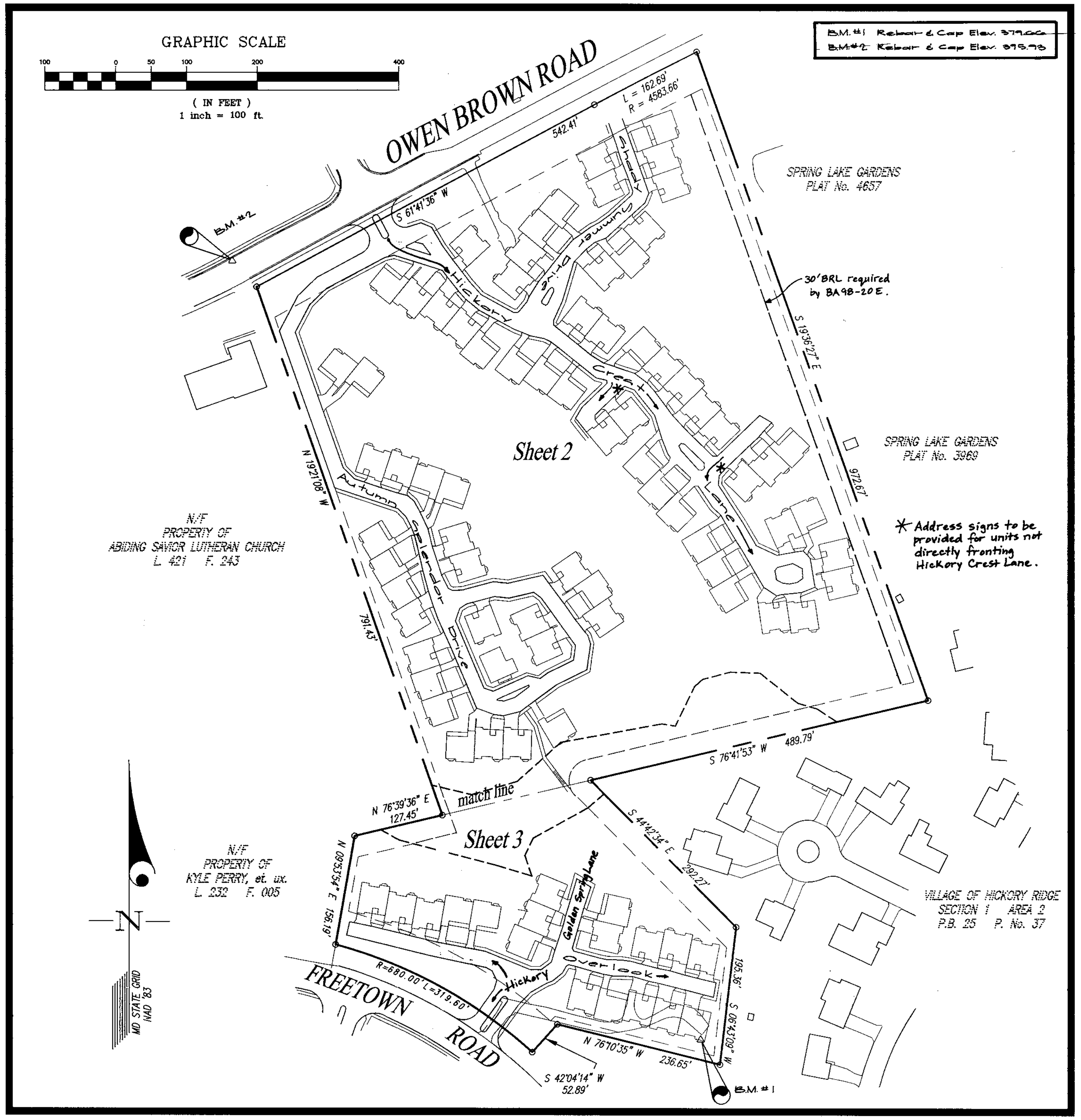
6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTC). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
8. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S., IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, PA.
9. COORDINATES ARE BASED ON NAD 27' MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 35C5 AND 0025
10. PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C-- 435 W, AND 44 -- 1533
11. STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH STORMCEPTORS. THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
12. ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
13. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
14. ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
15. ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
16. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
17. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
18. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
19. WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
20. ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
21. THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
22. ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
    A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
    B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
    C. DOWNSPOUT CONNECTED TO STORM DRAIN.
23. WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
24. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2"-0" OF EXTERIOR MANHOLE WALLS.
25. ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
26. ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
27. OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
    BA - 95-60 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, **and WP99-101 (see note #30).**
28. FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
    A. ON-SITE RETENTION ON NET TRACT OF ______ 2.98 AC (SURETY =$13,068.00)
    B. ON-SITE FOREST PLANTING OF ______ 0.78 AC. (SURETY =$5,227.20)
    C. FEE-IN-LIEU IN THE AMOUNT OF $22,215.60. (1.7 acres).
    SURETY & FEE-IN-LIEU AMOUNT ARE BASED ON AREA ROUNDED TO 1/10 AC.
29. See sheet 2 for conditions of BA 98-20E.

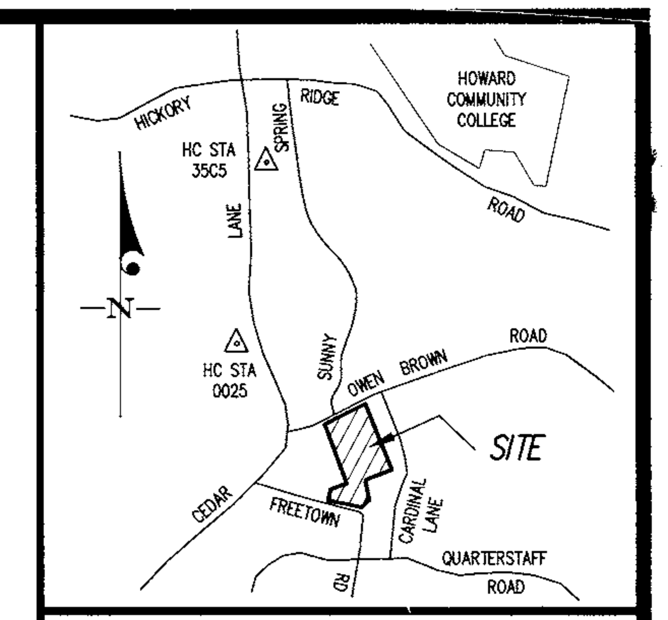
GENERAL NOTES (cont.)

30. *WP-99-101, was approved on 5/28/99, and waived Section 16.115.c.2 to allow work to be done in the floodplain; Section 16.116.a.1 to allow disturbance in the 25' wetland buffer; and Section 16.116.a.2.i to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.*

Site Analysis Data Chart

1. General Site Data.
   a. Zoning: R-20
   b. Proposed use: Single Family Attached units +1 community center
   c. Building coverage = 18.2% (3.23 ac.±) open space = 51.3% (9.13 ac±)
2. Density
   a. 88 units allowed under BA 98-20E at a rate of 5 units per acre (5× 17.7297 = 88)
   b. 88 units proposed.
3. Area Tabulation: R-20 Area = 17.7297 Ac.
   NT Area = 0.0667 Ac.
   Total = 17.7964 Ac.
4. Parking
   a. Parking required: 35 spaces at a rate of 2 spaces for every 5 units (88/5) x 2 = 35
   b. Parking provided: 53 - 2 car garages = 106
   35 - 1 car garages = 35
   1 space in front of each 1 car garage = 35
   9 spaces @ comm. center (2 H.c.-van) = 9
   185 spaces





VICINITY MAP
SCALE: 1"=2000'

unit#	address	FF/slab elevation	basemnt. elevation	min. cellar/ slab elev.	Optional Sunroom
1	10716 Shady Summer Drive	382.03	×		×
2	10714	381.60	×		×
3	10712	380.27	×		×
4	10713	383.19	374.27		•
5	10711	381.19	372.27		•
6	10708	380.52	×		•
7	10706	381.85	×		×
8	10704	382.52	×		×
9	10707	382.37	373.45		•
10	10705	383.04	374.12		•
11	10703	383.04	374.12		•
12	10701	383.04	374.12		•
13	10605 Hickory Crest Lane	390.77	381.85		•
14	10615	380.82	371.90		•
15	10617	379.49	370.57		•
16	10621	377.49	368.57		•
17	10623	375.65	366.73		•
18	10625	374.33	365.41		•
19	10627	372.99	364.07		•
20	10629	372.99	364.07		•
21	10633	373.96	365.04		•
22	10635	373.29	364.37		•
23	10637	373.29	364.37		•
24	10641	374.97	366.05		•
25	10643	374.30	365.38		•
26	10647	375.16	×		×
27	10649	375.16	×		•
28	10646	374.60	×		•
29	10644	373.93	×		•
30	10640	373.51	×		•
31	10638	373.51	×		•
32	10636	373.89	×		•
33	10632	373.89	364.97		•
34	10630	373.22	364.30		•
35	10628	373.22	364.30		•
36	10622	376.14	367.22		•
37	10624	376.14	367.22		•
38	10618	379.74	370.82		•
39	10616	381.74	372.82		•
40	10614	383.74	374.82		•
41	10610	386.37	377.45		×
42	10608	387.70	378.78		•
43	10606	389.70	380.78		•
44	10604	391.70	382.78		•
45	10602	392.37	383.45		•
46	10758 Autumn Splendor Drive	375.48	×		•
47	10756	374.81	×		•
48	10754	373.48	×		•
49	10755	373.75	364.83		×
50	10757	374.42	365.50		•
51	10745	378.18	369.26		•
52	10765	380.18	367.26		×
53	10727	385.73	376.81		•
54	10725	385.73	376.81		•
55	10721	385.86	376.94		•
56	10719	385.19	376.27		•
57	10717	384.52	375.60		•
58	10715	383.85	374.93		×
59	10707	387.14	378.22		×
60	10705	387.14	378.22		×
61	10720	385.23	376.31		•
62	10722	385.90	376.98		•
63	10724	385.90	376.98		•
64	10726	384.57	375.65		•
65	10730	381.31	372.39		•
66	10732	379.98	371.06		•
67	10734	377.98	369.06		•
68	10738	377.17	×		•
69	10740	377.17	×		•
70	10744	374.75	×		•
71	6428 Hickory Overlook	384.96	376.04		•
72	6426	384.96	376.04		•
73	6424	384.29	375.37		•
74	6422	384.29	375.37		•
75	6420	384.96	376.04		•
76	6509 Golden Spring Lane	380.04	×		•
77	6507	382.04	373.12		•
78	6505	382.71	373.79		•
79	6508	380.37	×		•
80	6506	381.04	×		•
81	6404 Hickory Overlook	380.12	×		•
82	6402	379.45	×		•
83	6400	378.78	×		•
84	6409	382.33	373.41		×
85	6407	381.83	372.91		×
86	6405	380.49	371.57		•
87	6403	379.82	370.90		•
88	6401	379.19	370.23		×
cc	10750 Autumn Splendor Drive	372.46	×		×

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development HB	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

Sheet Index

1.	Cover Sheet	8.	Sediment Control Plan	15.	S.W.M. Details	22.	Forest Conservation Plan
2.	Site Development Plan	9.	Drainage Area Map	16.	S.W.M. Notes	23.	Forest Conservation Notes
3.	Site Development Plan	10.	Road Grades	17.	Landscape Edge Analysis	2a.	30 Scale Supplemental Site Plan
4.	Utility Plan	11.	Storm Drain Profiles	18.	Sediment Control Notes/Details		
5.	Landscape Plan	12.	Storm Drain Profiles	19.	Wooden Walkway Details		
6.	Landscape Plan	13.	Sewer Profiles	20.	Forest Stand Delineation		
7.	Sediment Control Plan	14.	S.W.M. Details	21.	Forest Conservation Plan		

WATER CODE:	SEWER CODE:
E-90	5924500

SUBDIVISION NAME:				SECTION/AREA	
HICKORY RIDGE ELDERLY CENTER				Lots 1 and 2	
PLAT	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
13156	R-20/ NT	35	18	5	6056

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\95053\95053COV.DWG | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.
12/4/00	add sheet 2a to sheet index, rev. address chart for continuity	JAU/MCF	

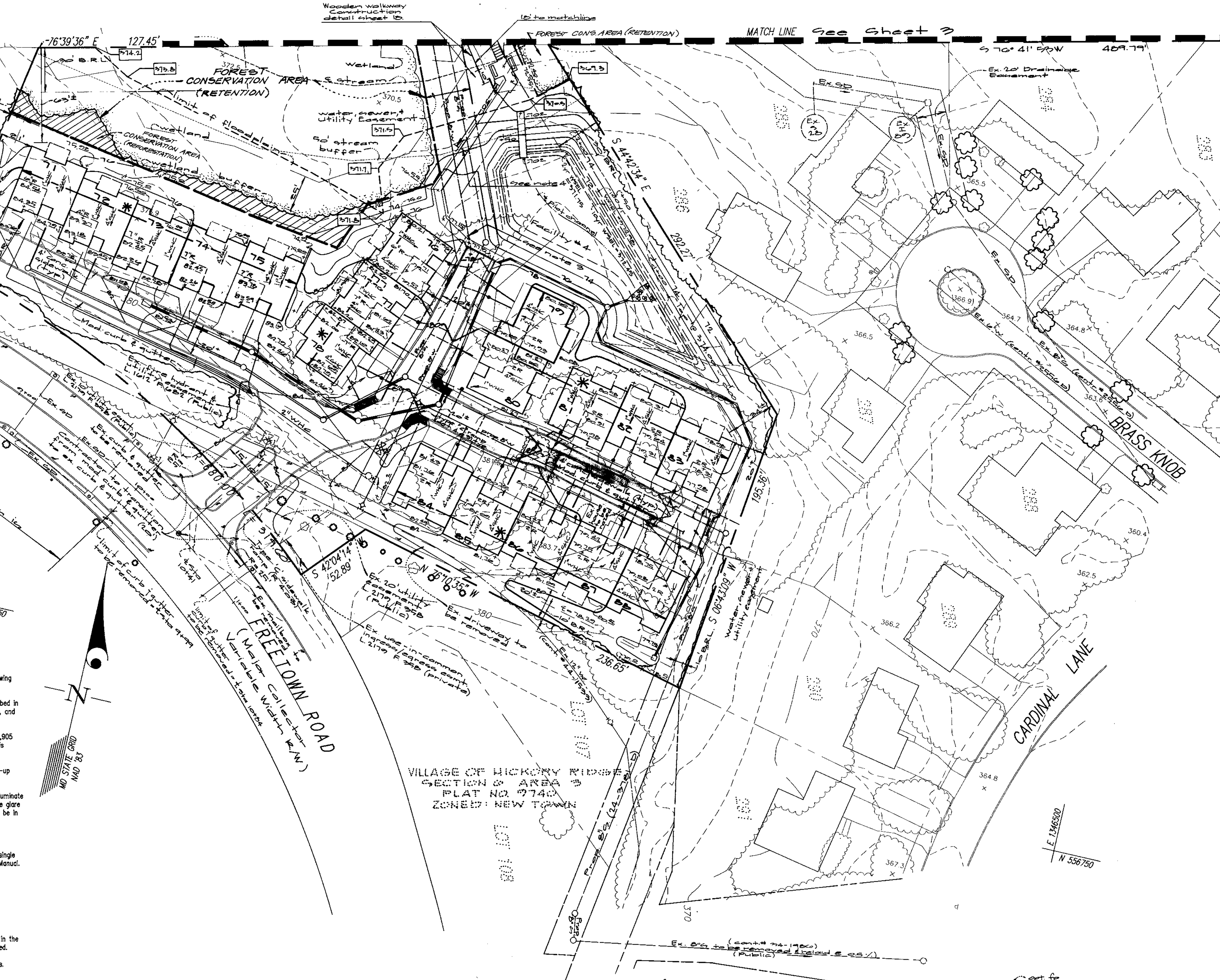
PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

COVER SHEET
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20/ NT	95053
DATE	TAX MAP - GRID	SHEET
November, 1999	35 - 18	1 OF 23

SDP99-68

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.



VILLAGE OF HICKORY RIDGE
SECTION 1 AREA 2
P.B. 25 P. NO. 57
ZONED: NEW TOWN

E 1346750
N 557250

E 1346500
N 556750

SUMMARY FOR BA 98-20E

The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:

1. The Special Exception shall apply only to the proposed elderly housing development As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.

2. The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a maximum of 88 dwelling units.

3. No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up days.

4. Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.

5. The development shall be served with public water and sewer.

6. Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.

7. A minimum of 50% of the gross area of the site shall be open space or open area.

8. No perceptible odors may emanate off-site.

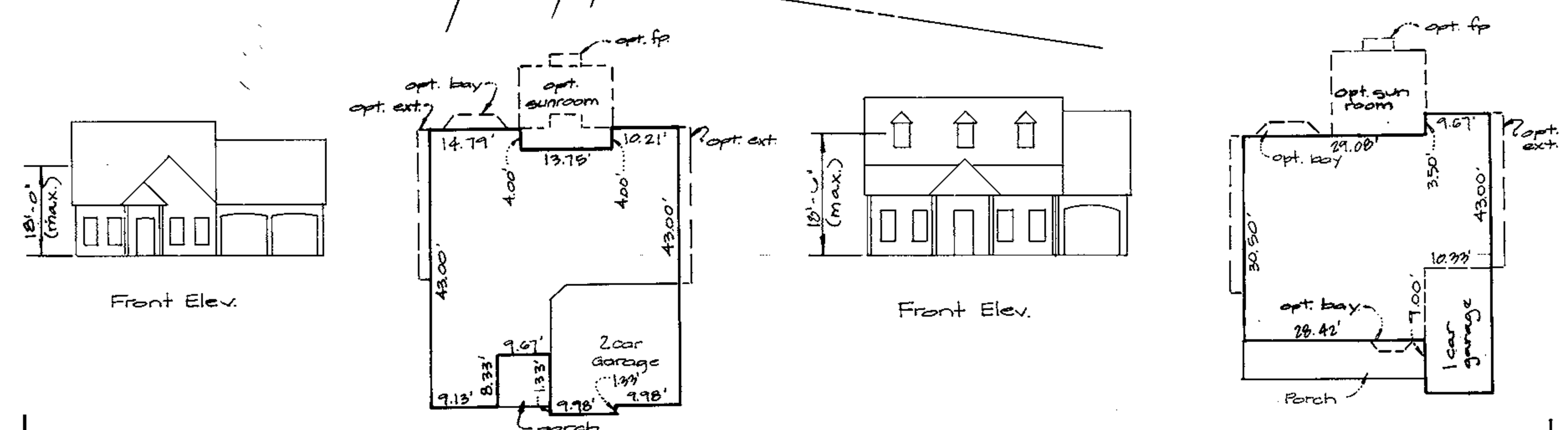
9. The dining area and convenience retail shall be available to residents and their guests.

10. The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.

11. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.19 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.

After Development				
Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3				
Offsite	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Pond 3 Drainage Area	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)		0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 Drainage Area	12	2.4 Ac.±		
Pond 4 (No management)	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Pond 4 (Storage at Elevations)		0.15 Ac. Ft.	0.26 Ac. Ft.	0.35 Ac. Ft.
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 Drainage Area	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)		0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 Drainage Area	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)		0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.



These details applicable to units 1-70

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13
2. For additional information regarding stormwater management, see sheets 4 & 14-16.
3. Contractor to end macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path and begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowner's Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director [signature]	Date 12/13/99
Chief, Division of Land Development [signature]	Date 12/9/99
Chief, Development Engineering Division [signature]	Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
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\DRAWINGS\95053\BASESHTS\95053BS2.DWG	DES.	DRN. SJG	CHK.

DATE	REVISION	BY	APP'R.
12/4/00	Notations added to reference 2a, remove sunroom from unit 88	JAJ/MCF	

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan

HICKORY RIDGE ELDERLY CENTER

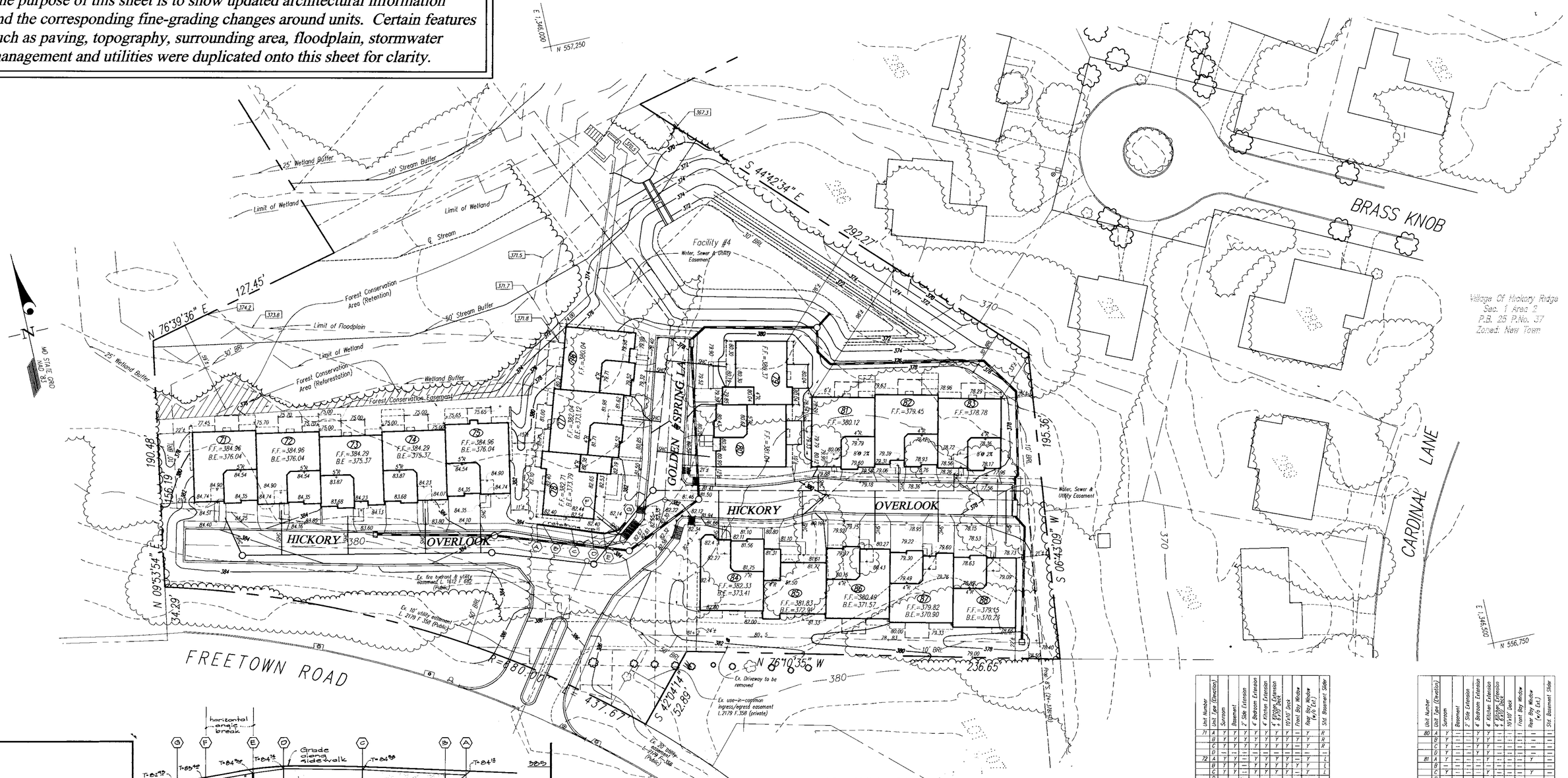
LOTS 1 AND 2
PLAT No. 13156

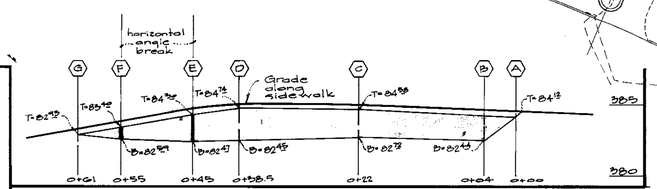
CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE	TAX MAP - GRID	SHEET
November, 1999	35 - 18	2 of 23

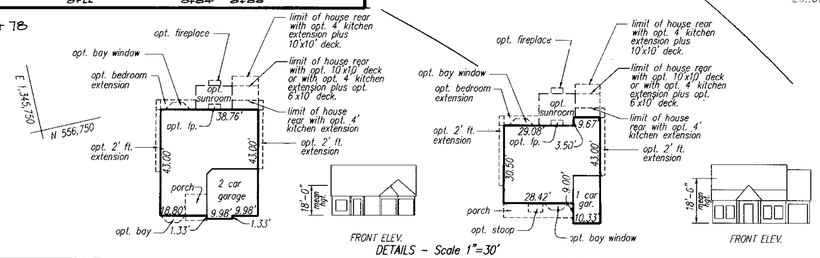
SDP99-68

The purpose of this sheet is to show updated architectural information and the corresponding fine-grading changes around units. Certain features such as paving, topography, surrounding area, floodplain, stormwater management and utilities were duplicated onto this sheet for clarity.





Retaining Wall Detail - Lot 78
scale: 1"=5' Vert.
1"=50' Horz.



Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Bedroom Extension	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
71	A	Y	Y	Y	Y	Y	Y	—	Y	R	—
	B	Y	Y	Y	Y	Y	Y	—	Y	R	—
	C	Y	Y	Y	Y	Y	Y	—	Y	R	—
	D	—	—	—	—	—	—	—	—	—	—
72	A	Y	Y	—	Y	Y	Y	—	Y	L	—
	B	Y	Y	—	Y	Y	Y	—	Y	L	—
	C	Y	Y	—	Y	Y	Y	—	Y	L	—
	D	—	—	—	—	—	—	—	—	—	—
73	A	Y	Y	—	Y	Y	Y	—	Y	R	—
	B	Y	Y	—	Y	Y	Y	—	Y	R	—
	C	Y	Y	—	Y	Y	Y	—	Y	R	—
	D	—	—	—	—	—	—	—	—	—	—
74	A	Y	Y	—	Y	Y	Y	—	Y	R	—
	B	Y	Y	—	Y	Y	Y	—	Y	R	—
	C	Y	Y	—	Y	Y	Y	—	Y	R	—
	D	Y	—	—	Y	Y	Y	—	Y	R	—
75	A	Y	Y	—	Y	Y	Y	—	Y	R	—
	B	Y	Y	—	Y	Y	Y	—	Y	R	—
	C	Y	Y	—	Y	Y	Y	—	Y	R	—
	D	Y	Y	—	Y	Y	Y	—	Y	R	—
76	A	Y	—	—	Y	Y	—	—	Y	—	—
	B	—	—	—	—	—	—	—	—	—	—
	C	Y	Y	—	Y	Y	—	—	Y	—	—
	D	—	—	—	—	—	—	—	—	—	—
77	A	Y	Y	—	Y	Y	—	—	Y	—	—
	B	Y	Y	—	Y	—	—	—	Y	—	—
	C	Y	Y	—	Y	—	—	—	Y	—	—
	D	—	—	—	—	—	—	—	—	—	—
78	A	Y	—	—	Y	Y	—	—	Y	—	—
	B	Y	Y	—	Y	Y	—	—	Y	—	—
	C	Y	Y	—	Y	Y	—	—	Y	—	—
	D	—	—	—	—	—	—	—	—	—	—
79	A	Y	—	—	Y	Y	—	—	Y	—	—
	B	Y	Y	—	Y	Y	—	—	Y	—	—
	C	Y	Y	—	Y	Y	—	—	Y	—	—
	D	—	—	—	—	—	—	—	—	—	—

Unit Number	Unit Type (Elevation)	Sunroom	Basement	2' Side Extension	4' Bedroom Extension	4' Kitchen Extension	4' Bedroom Extension	10'x10' Deck	Front Bay Window	Rear Bay Window (w/o Ext.)	Std. Basement Slider
80	A	Y	—	—	Y	Y	—	—	—	—	—
	B	Y	—	—	Y	Y	—	—	—	—	—
	C	Y	—	—	Y	—	—	—	—	Y	—
	D	Y	—	—	Y	Y	—	—	—	—	—
81	A	Y	—	—	—	—	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	—	—	—	—	Y	—
	D	—	—	—	—	—	—	—	—	—	—
82	A	Y	—	—	Y	Y	—	—	—	Y	—
	B	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	—	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—
83	A	Y	—	—	Y	—	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—
	C	Y	—	—	Y	—	—	—	—	—	—
	D	—	—	—	—	—	—	—	—	—	—
84	A	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	Y	Y	—	—	—	—	—	—
	C	—	—	Y	Y	—	—	—	—	—	—
	D	—	—	Y	Y	—	—	—	—	—	—
85	A	—	—	Y	—	Y	—	—	—	Y	—
	B	—	—	Y	—	—	—	—	—	—	—
	C	—	—	Y	—	Y	—	—	—	Y	—
	D	—	—	—	—	—	—	—	—	—	—
86	A	—	—	Y	Y	—	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—
	C	—	—	Y	Y	Y	—	—	—	Y	—
	D	—	—	—	—	—	—	—	—	—	—
87	A	—	—	Y	Y	Y	—	—	—	—	—
	B	—	—	—	—	—	—	—	—	—	—
	C	—	—	Y	—	Y	—	—	—	Y	—
	D	—	—	—	—	—	—	—	—	—	—
88	A	—	—	Y	—	Y	—	—	—	Y	—
	B	—	—	—	—	—	—	—	—	—	—
	C	—	—	—	—	Y	—	—	—	Y	—
	D	—	—	—	—	—	—	—	—	—	—

*Left and/or Right established by front of buildings.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 12/20/00

Chief, Division of Land Development — Date 12/15/00

Chief, Development Engineering Division — Date 12/13/00

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
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\DRAWINGS\95053\DESIGN\COUNTY\95532a.DWG | DES. | DRN. | CHK.

DATE	REVISION	BY	APP'R.
12/18/00	Add retaining wall and detail for lot 78	MCF	
12/04/00	Supplemental sheet added to assist in permitting	JAU	

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

REVISED SITE DEVELOPMENT PLAN

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT NO. 13156

CLARKSVILLE ELECTION DISTRICT NO. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	R-20/NT	95053
DATE	TAX MAP – GRID	SHEET
8/9/00	35-18	2a

SDP-99-68

SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

MISS UTILITY	1-800-257-7777
C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	331-4900
A T & T CABLE LOCATION DIVERSION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533

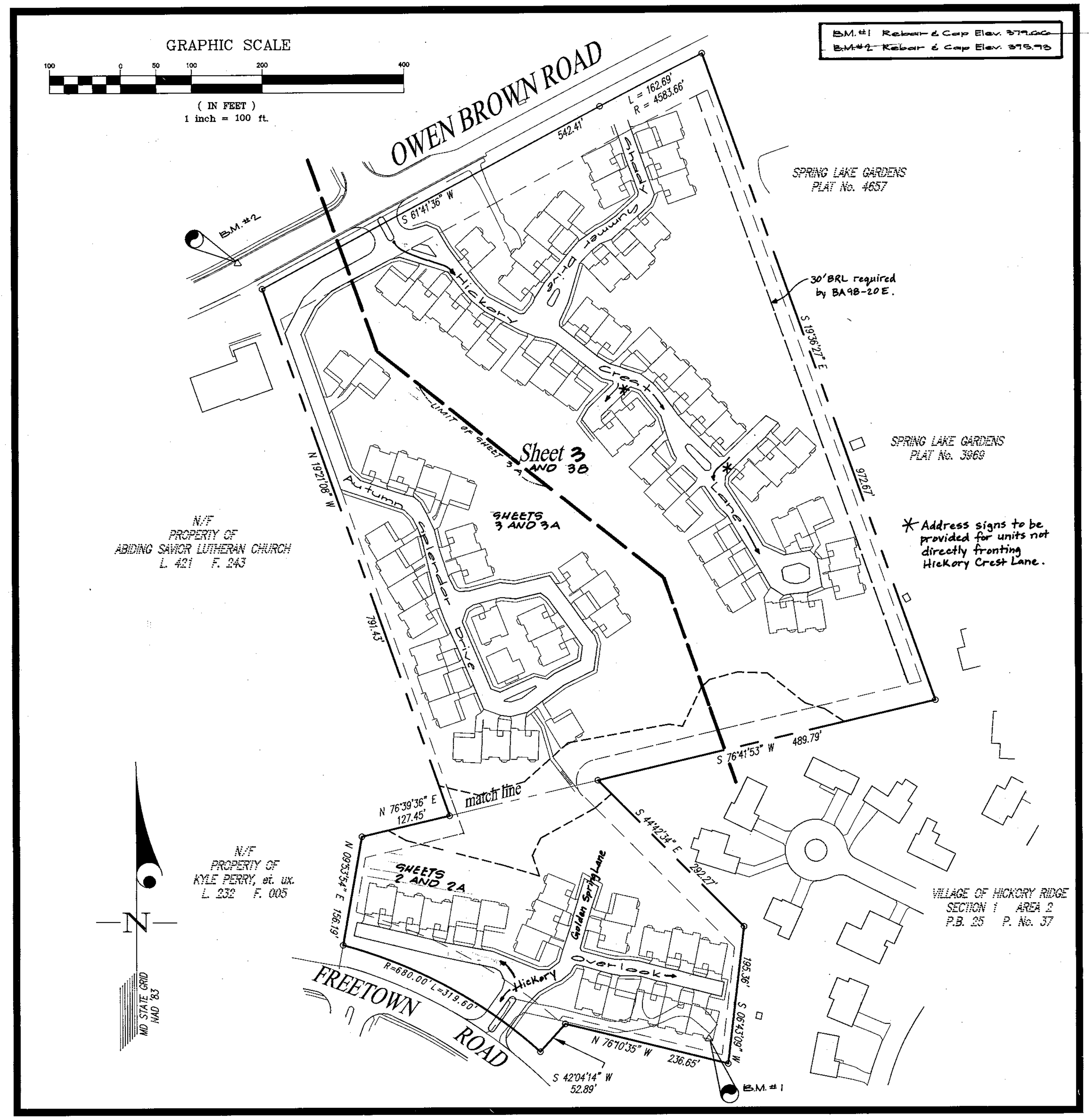
3. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
4. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
5. PROJECT BACKGROUND:

LOCATION:	TAX MAP #35, GRID 18, Lots 1-2 (Parcel 459), a resubdivision of Lots 2-4 (Parcel 207) and Parcel 193.
ZONING:	R-20
ELECTION DISTRICT:	5TH
SITE AREA:	17.7964 AC.
REC. REF.:	PLAT NO. 13156

6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTC). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
8. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S., IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, PA.
9. COORDINATES ARE BASED ON NAD 27' MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 35C5 AND 0025
10. PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
11. STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH STORMCEPTORS.THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
12. ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
13. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
14. ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
15. ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
16. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
17. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
18. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
19. WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
20. ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
21. THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
22. ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
    A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
    B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
    C. DOWNSPOUT CONNECTED TO STORM DRAIN.
23. WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
24. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2"-0" OF EXTERIOR MANHOLE WALLS.
25. ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
26. ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
27. OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:
    BA - 95-60 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, **and WP99-101 (see note #30).**
28. FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
    A. ON-SITE RETENTION ON NET TRACT OF ______ 2.98 AC (SURETY =$13,068.00)
    B. ON-SITE FOREST PLANTING OF ______ 0.78 AC. (SURETY =$5,227.20)
    C. FEE-IN-LIEU IN THE AMOUNT OF $22,215.60. (1.7 acres).
    SURETY & FEE-IN-LIEU AMOUNT ARE BASED ON AREA ROUNDED TO 1/10 AC.
29. See sheet 2 for conditions of BA 98-20E.

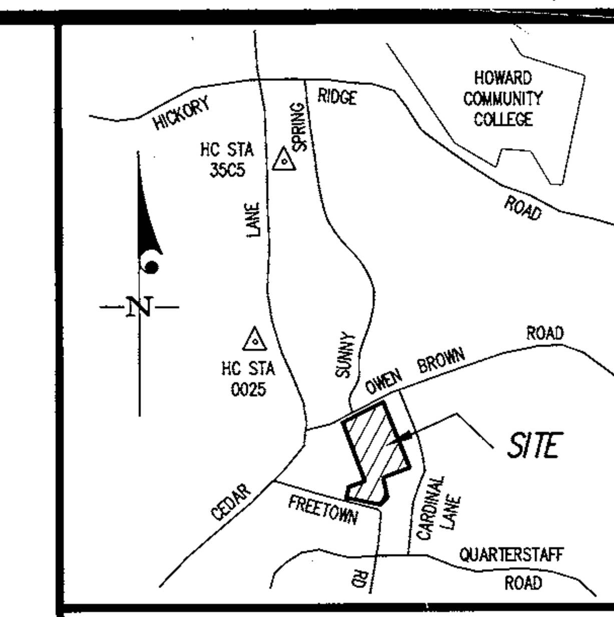
Site Analysis Data Chart

1. General Site Data.
   a. Zoning: R-20
   b. Proposed use: Single Family Attached units +1 community center
   c. Building coverage = 18.2% (3.23 ac.±) open space = 51.3% (9.13 ac±)
2. Density
   a. 88 units allowed under BA 98-20E at a rate of 5 units per acre (5x 17.7297 = 88)
   b. 88 units proposed.
3. Area Tabulation: R-20 Area = 17.7297 Ac.
   NT Area = 0.0667 Ac.
   Total = 17.7964 Ac.
4. Parking
   a. Parking required: 35 spaces at a rate of 2 spaces for every 5 units (88/5) x 2 = 35
   b. Parking provided: 53 - 2 car garages = 106
   35 - 1 car garages = 35
   1 space in front of each 1 car garage = 35
   9 spaces @ comm. center (2 H.C.-van) = 9
   185 spaces



GENERAL NOTES (cont.)

30. WP-99-101, was approved on 5/28/99, and waived Section 16.115.c.2 to allow work to be done in the floodplain; Section 16.116.a.1 to allow disturbance in the 25' wetland buffer; and Section 16.116.a.2.i to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.



VICINITY MAP
SCALE: 1"=2000'

unit#	address	FF/slab elevation	basemnt. elevation	min. cellar/ slab elev.	Optional Sunroom
1	10716 Shady Summer Drive	382.72	X		X
2	10714	381.39	X		X
3	10712	380.72	X		X
4	10713	382.90	373.90		•
5	10711	381.57	372.69		X
6	10708	380.49	X		•
7	10706	381.10	X		•
8	10704	382.43	X		X
9	10707	382.39	373.47		•
10	10705	382.39	373.47		•
11	10703	383.06	374.14		•
12	10701	383.73	374.81		•
13	10605 Hickory Crest Lane	390.83	381.91		•
14	10615	381.06	372.14		•
15	10617	379.06	370.14		•
16	10621	377.73	368.81		•
17	10623	374.99	366.07		•
18	10625	373.66	364.74		•
19	10627	372.99	364.07		•
20	10629	372.99	364.07		•
21	10633	373.96	365.04		•
22	10635	373.29	364.37		•
23	10637	373.29	364.37		•
24	10641	374.97	366.05		•
25	10643	374.30	365.38		•
26	10647	374.91	X		X
27	10649	374.91	X		•
28	10646	374.70	X		X
29	10644	373.63	X		X
30	10640	373.51	X		X
31	10638	373.51	X		•
32	10636	373.89	364.97		•
33	10632	373.89	364.97		•
34	10630	373.22	364.30		•
35	10628	373.22	364.30		•
36	10622	376.50	367.58		•
37	10624	376.50	367.58		X
38	10618	379.74	370.82		•
39	10616	381.74	372.82		•
40	10614	383.74	374.82		•
41	10610	385.71	376.79		X
42	10608	387.04	378.12		•
43	10606	389.04	380.12		•
44	10604	391.04	382.12		•
45	10602	392.37	383.45		•
46	10758 Autumn Splendor Drive	375.30	X		•
47	10756	373.97	X		•
48	10754	373.05	X		•
49	10755	373.78	364.86		X
50	10757	374.45	365.53		X
51	10745	378.67	369.79		X
52	10765	380.67	371.79		X
53	10727	385.42	376.50		•
54	10725	385.42	376.50		•
55	10721	385.24	376.32		•
56	10719	384.57	375.65		•
57	10717	383.90	374.98		•
58	10715	383.23	374.31		X
59	10707	387.12	378.20		•
60	10705	387.79	378.87		X
61	10720	384.96	376.04		X
62	10722	384.96	376.04		X
63	10724	384.96	376.04		•
64	10726	383.88	374.96		•
65	10730	381.20	372.28		•
66	10732	379.20	370.28		•
67	10734	377.20	368.28		•
68	10738	377.17	X		•
69	10740	377.17	X		•
70	10744	374.75	X		•
71	6428 Hickory Overlook	384.96	376.04		•
72	6426	384.96	376.04		•
73	6424	384.29	375.37		•
74	6422	384.29	375.37		•
75	6420	384.96	376.04		•
76	6509 Golden Spring Lane	380.04	X		•
77	6507	382.04	373.12		•
78	6505	382.71	373.79		•
79	6508	380.37	X		•
80	6506	381.04	X		•
81	6404 Hickory Overlook	380.12	X		•
82	6402	379.45	X		•
83	6400	378.78	X		•
84	6409	382.33	373.41		X
85	6407	381.83	372.91		X
86	6405	380.49	371.57		•
87	6403	379.82	370.90		•
88	6401	379.19	370.23		X
CC	10750 Autumn Splendor Drive	372.46	X		X

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

No Asbuilt Information Shown On This Sheet.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development HB	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

Sheet Index

1 of 9	1.	Cover Sheet	8.	~~Sediment Control Plan~~	8 of 9 15.	S.W.M. Details	22.	~~Forest Conservation Plan~~
2 of 9	2.	Site Development Plan	9.	~~Drainage Area Map~~	9 of 9 16.	S.W.M. Notes	23.	~~Forest Conservation Notes~~
3 of 9	3.	Site Development Plan	10.	~~Road Grades~~	17.	~~Landscape Edge Analysis~~	2a.	~~30 Scale Supplemental Site Plan~~
4 of 9	4.	Utility Plan	5 of 9 11.	Storm Drain Profiles	18.	~~Sediment Control Notes/Details~~	3A	~~30 SCALE SUPPLEMENTAL SITE PLAN~~
	5.	~~Landscape Plan~~	6 of 9 12.	Storm Drain Profiles	19.	~~Wooden Walkway Details~~	3B	~~30 SCALE SUPPLEMENTAL SITE PLAN~~
	6.	~~Landscape Plan~~	13.	~~Sewer Profiles~~	20.	~~Forest Stand Delineation~~		
	7.	~~Sediment Control Plan~~	7 of 9 14.	S.W.M. Details	21.	~~Forest Conservation Plan~~		

WATER CODE:	SEWER CODE:
E-20	5324500

SUBDIVISION NAME:				SECTION/AREA	Lots 1 and 2
HICKORY RIDGE ELDERLY CENTER					
PLAT	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
13156	R-20/ NT	35	18	5	6056

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\95053\95053COV.DWG	DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.
~~5/21/01~~	~~ADD SHEET 3A/B TO SHEET INDEX, REVISE ADDRESS CHART & SITE MAP~~		
~~12/4/00~~	~~add sheet 2a to sheet index, rev. address chart for continuity~~	JAU/MOF	

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

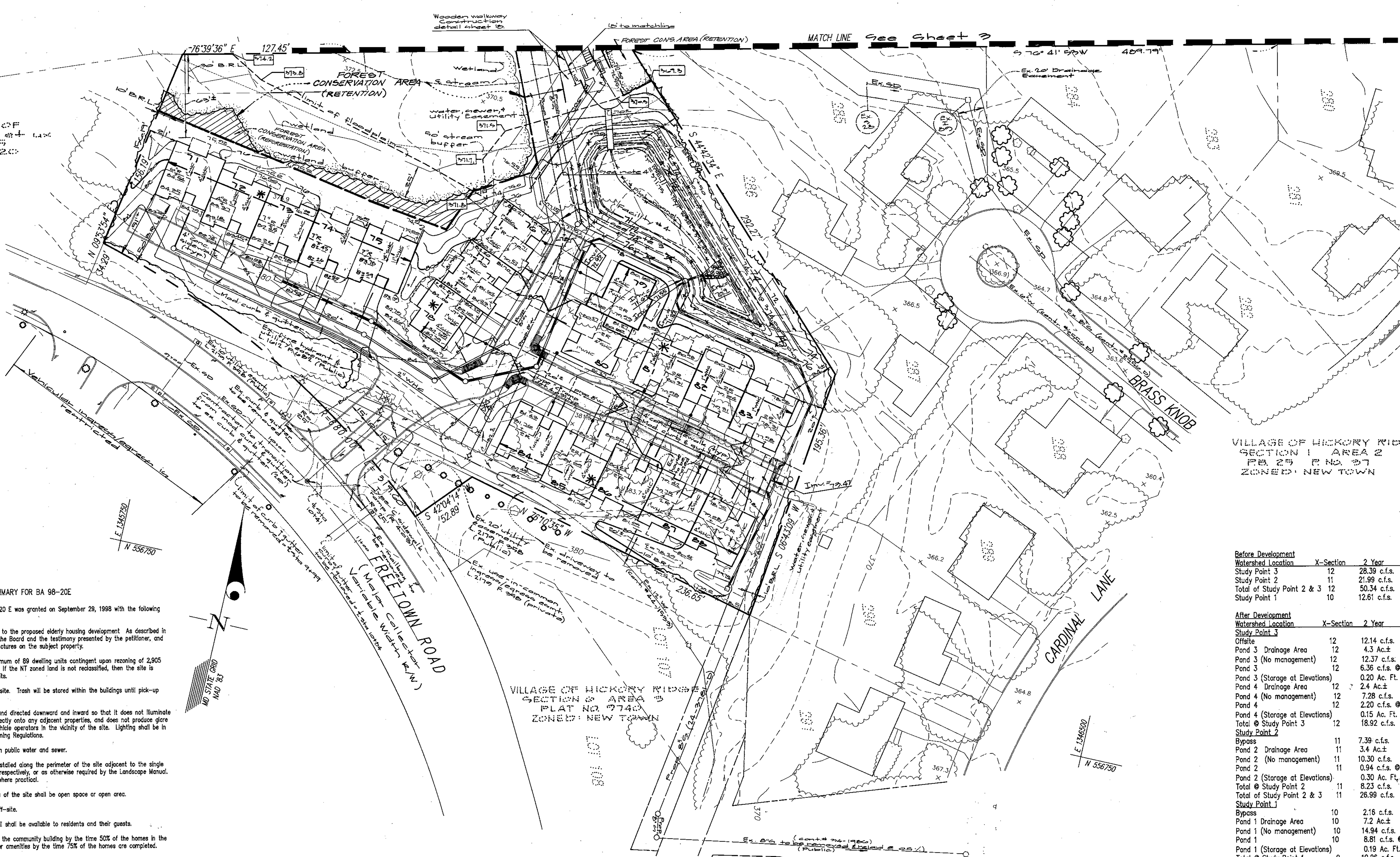
COVER SHEET
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20/ NT	95053
DATE Oct. 2002 ~~November, 1999~~	TAX MAP - GRID 35 - 18	SHEET 1

Asbuilt Sheet 1 of 9

SDP99-68

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.



SUMMARY FOR BA 98–20E

The Board of Appeals Case BA 98–20 E was granted on September 29, 1998 with the following conditions:

1. The Special Exception shall apply only to the proposed elderly housing development As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.

2. The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R–20. If the NT zoned land is not reclassified, then the site is limited to a maximum of 88 dwelling units.

3. No dumpsters will be located on the site. Trash will be stored within the buildings until pick–up days.

4. Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.

5. The development shall be served with public water and sewer.

6. Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.

7. A minimum of 50% of the gross area of the site shall be open space or open area.

8. No perceptible odors may emanate off–site.

9. The dining area and convenience retail shall be available to residents and their guests.

10. The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.

11. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development

Watershed Location	X–Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.19 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.

After Development

Watershed Location	X–Section	2 Year	10 Year	100 Year
Study Point 3				
Offsite	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Pond 3 Drainage Area	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)		0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 Drainage Area	12	2.4 Ac.±		
Pond 4 (No management)	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Pond 4 (Storage at Elevations)		0.15 Ac. Ft.	0.26 Ac. Ft.	0.35 Ac. Ft.
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 Drainage Area	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)		0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 Drainage Area	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)		0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11–13
2. For additional information regarding stormwater management, see sheets 4 & 14–16.
3. Contractor to end macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path and begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowner's Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
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\DRAWINGS\95053\BASESHTS\95053BS2.DWG | DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.
Nov.2002	Asbuilt Information Added		
~~5/21/01~~	~~2 Remove unit details~~		
~~12/4/00~~	~~Notations added to reference 2a, remove sunroom from unit 88~~	~~JAS/MCP~~	

PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750–1800

Site Development Plan

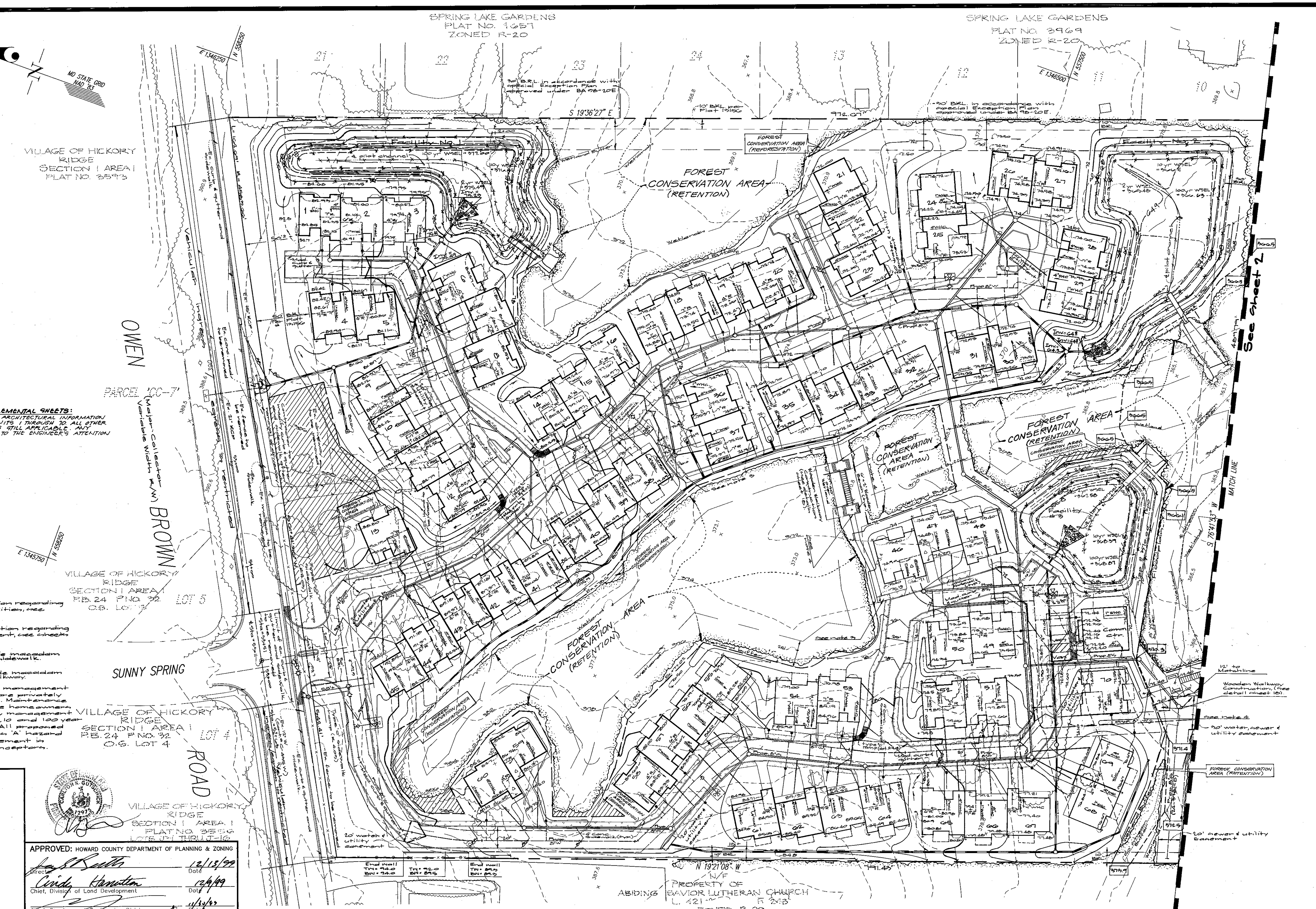
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE: ~~October~~ ~~November, 1999~~ 2002	TAX MAP – GRID: 35 – 18	SHEET: 2

Asbuilt Sheet 2 of 9

SDP99-68



⚠ **NOTES CONCERNING SUPPLEMENTAL SHEETS:**

1. SEE SHEET 3A/3B FOR UPDATED ARCHITECTURAL INFORMATION AND FINE GRADING AROUND UNITS 1 THROUGH 70. ALL OTHER INFORMATION ON THIS SHEET IS STILL APPLICABLE. ANY CONFLICTS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR POSSIBLE REDESIGN.

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13.
2. For additional information regarding stormwater management, see sheets 4, 14, & 15.
3. Contractor to end 4' wide macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path & begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the homeowners Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

STATE OF MARYLAND — CARLTON K. GUTSCHICK — No. 12975 — REGISTERED PROFESSIONAL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
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\DRAWINGS\95053\BASESHTS\95053BS1.DWG | DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		
5/21/01	~~ADD NOTE REFERRING TO SHEET 3A/3B FOR DETAILED INFORMATION~~ ⚠		

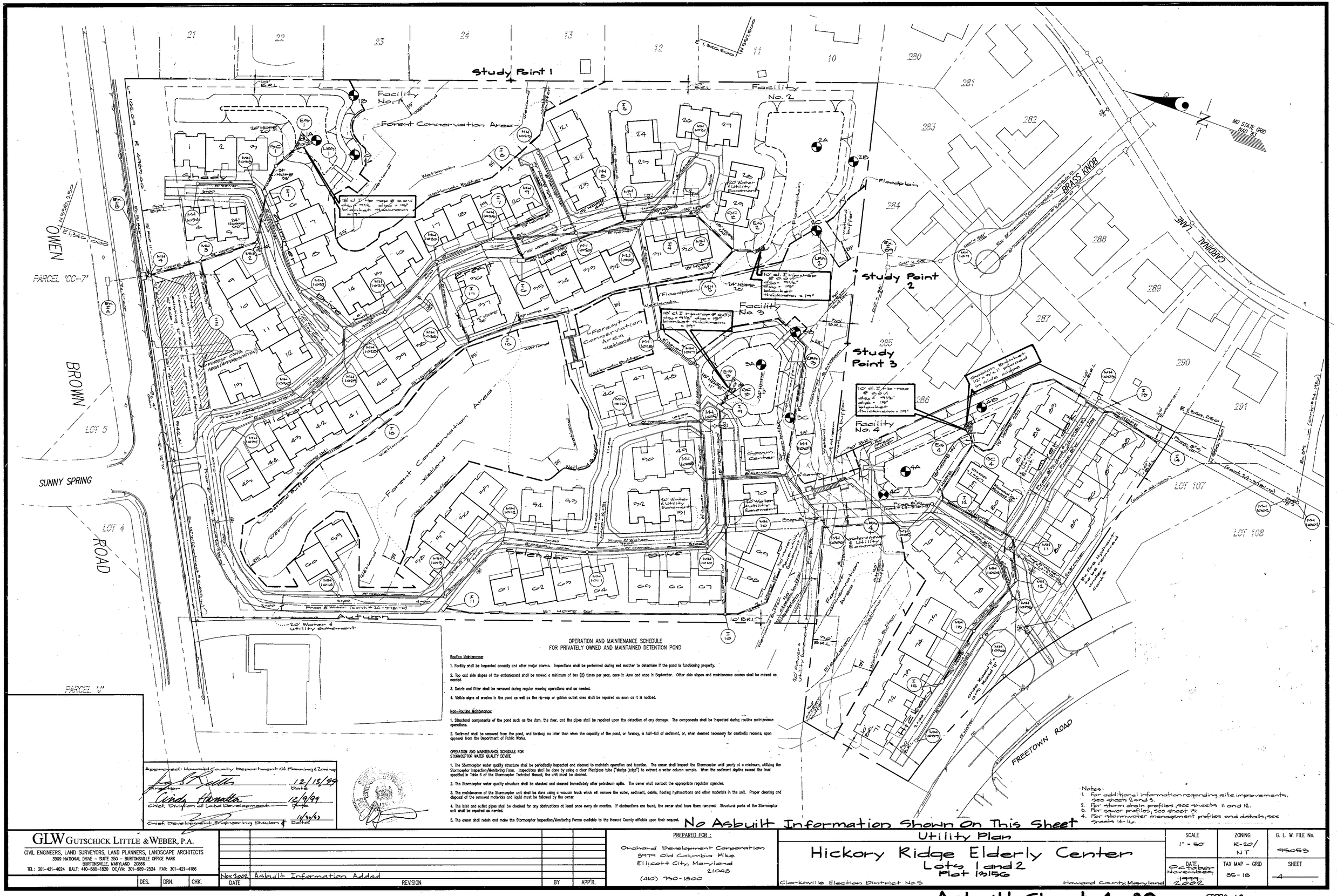
PREPARED FOR :
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/NT	95053
DATE ~~November, 1999~~ October 2002	TAX MAP – GRID 35 – 18	SHEET ~~3~~

Asbuilt Sheet 3 of 9

SDP99-68



OPERATION AND MAINTENANCE SCHEDULE
FOR PRIVATELY OWNED AND MAINTAINED DETENTION POND

Routine Maintenance:

1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.

2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.

3. Debris and litter shall be removed during regular mowing operations and as needed.

4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

Non-Routine Maintenance:

1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.

2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond, or forebay, is half-full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

OPERATION AND MAINTENANCE SCHEDULE FOR
STORMCEPTOR WATER QUALITY DEVICE

1. The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor until yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done by using a clear Plexiglass tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.

2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulator agencies.

3. The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.

4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found, the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.

5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

Approved: Howard County Department of Planning & Zoning

Director — Date 12/15/99

Chief, Division of Land Development — Date 12/9/99

Chief, Development Engineering Division — Date 11/30/99

No Asbuilt Information Shown On This Sheet

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.
Nov 2002	Asbuilt Information Added		

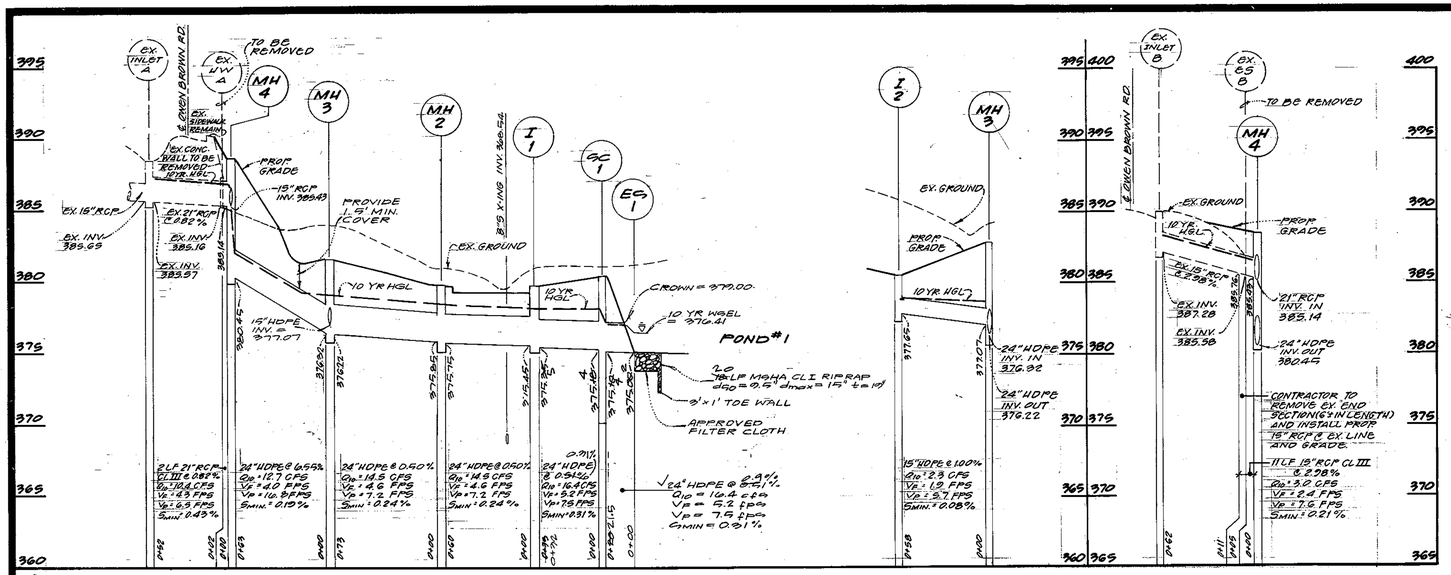
PREPARED FOR :
Orchard Development Corporation
8979 Old Columbia Pike
Ellicott City, Maryland
21043
(410) 750-1800

Utility Plan
Hickory Ridge Elderly Center
Lots 1 and 2
Plat 19156
Clarksville Election District No. 5 — Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 50'	R-20/ NT	95053
DATE	TAX MAP – GRID	SHEET
October 1999 November 2002	35 - 18	4

Asbuilt Sheet 4 of 9

SDP99-68



STRUCTURE SCHEDULE

NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION UPPER	TOP ELEVATION LOWER	INVERT ELEVATION UPPER	INVERT ELEVATION LOWER	STD. DETAIL	LOCATIONS ◆ N	LOCATIONS ◆ E	REMARKS
I-1	A-10 INLET	4'-0"	379.70	—	375.45	374.94	SD 4.32	558,011	1,346,140	
I-2	TYPE S INLET	2'-7⅞"	380.90	—	377.65	—	SD 4.22	558,026	1,345,957	
I-4	A-10 INLET	2'-0"	372.22	—	366.60	366.25	SD 4.32	557,918	1,346,165	
I-5	TYPE S INLET	2'-7⅞"	371.50	—	368.60	—	SD 4.22	557,647	1,346,271	
I-6	A-10 INLET	2'-0"	372.19	—	367.69	367.59	SD 4.41	557,609	1,346,152	
I-7	" " "	" "	372.19	—	367.79	367.89	" "	557,696	1,346,186	
I-8	TYPE S COMB. INLET	3'-5"	372.45	—	368.04	—	SD 4.32	557,699	1,346,271	
I-16	TYPE S INLET	2'-7⅞"	371.60	—	369.00	—	SD 4.22	557,650	1,346,085	
I-17	TYPE S COMB. INLET	3'-5"	374.80	—	371.50	370.90	SD 4.32	557,704	1,346,059	
I-18	TYPE S INLET	2'-7⅞"	379.90	—	373.25	373.00	SD 4.22	557,774	1,345,898	
MH2	SHALLOW PRECAST MANHOLE	4'-0"	378.00	—	376.85	375.75	G 5.12	557,798	1,346,257	
MH3	STD. PRECAST MANHOLE	4'-0"	381.60	—	377.07	376.15	" "	558,059	1,346,008	
MH4	" " "	4'-0"	388.60	—	385.43	380.25	" "	558,114	1,346,209	
MH5	" " "	4'-0"	370.00	—	366.00	365.50	" "	557,670	1,346,222	
MH6	" " "	4'-0"	378.00	—	365.85	365.74	" "	557,675	1,346,387	
MH7	" " "	5'-0"	372.50	—	367.05	366.80	" "	557,561	1,346,245	
MH8	" " "	4'-0"	373.20	—	367.54	367.44	" "	557,587	1,346,279	
MH9	" " "	4'-0"	372.92	—	368.34	368.24	" "	557,655	1,346,224	
GC 1	STORMCEPTOR	—	380.50	—	375.18	375.10	STC-1300	558,009	1,346,158	
GC 2	STORMCEPTOR	—	370.00	—	364.74	364.49	STC-3600	557,416	1,346,257	
ES-1	24" HDPE END SECTION	2.0'	377.00	—	—	375.00	* *	557,994	1,346,186	
ES 2	18" HDPE END SECTION	1.5'	365.83	—	—	364.35	* *	557,991	1,346,264	

PRECAST ALTERNATES ARE ACCEPTABLE
* * PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE

◆ The coordinates shown are for plan purposes and must be verified prior to stakeout / construction

PROFILES

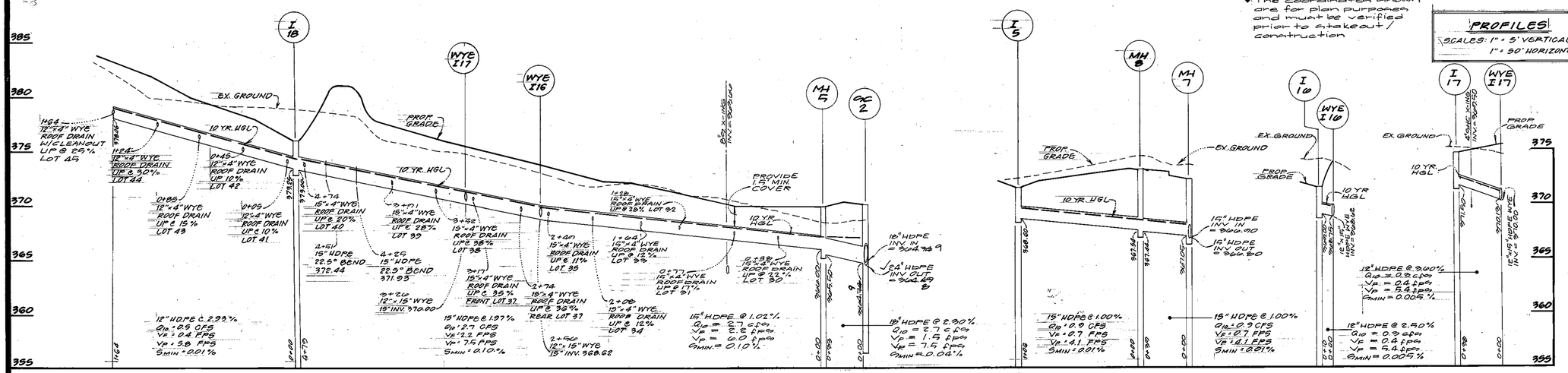
SCALES: 1" = 5' VERTICAL
1" = 50' HORIZONTAL

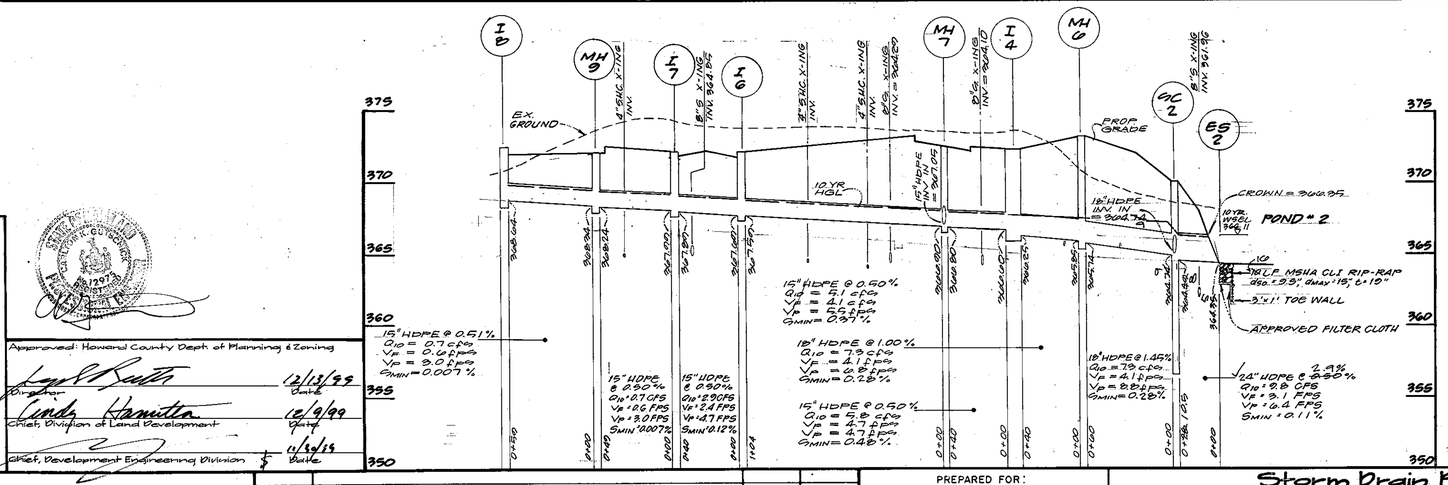
PIPE SCHEDULE

SIZE	TYPE	QUANTITY (LF)	REMARKS
15"	RCP CL III	11	
21"	RCP CL III	2	
4"	HDPE *	224	(1) ROOF DRAINS
12"	HDPE *	212	
15"	HDPE *	1047	
18"	HDPE *	198	
24"	HDPE *	277	

* HDPE = HIGH DENSITY POLYETHELENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC. (ADS) OR HI-Q BY HANCOR LANDMAX PIPE SYSTEMS

(1) LENGTH DOES NOT INCLUDE VERTICLE LENGTH OF PIPE





Approved: Howard County Dept. of Planning & Zoning

Director — 12/13/99 Date

Chief, Division of Land Development — 12/9/99 Date

Chief, Development Engineering Division — 11/24/99 Date

GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
Nov 2002	Asbuilt Information Added		

PREPARED FOR:
Orchard Development Corporation
3979 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

Storm Drain Profiles & Details

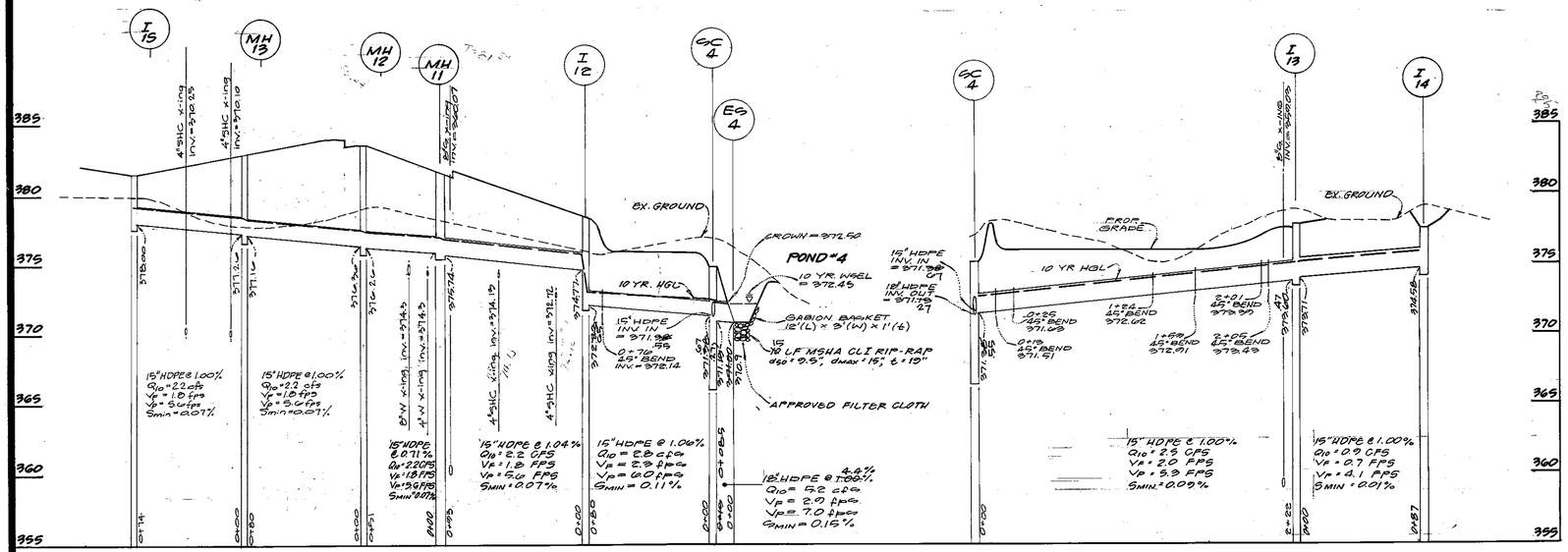
Hickory Ridge Elderly
Lots 1 and 2

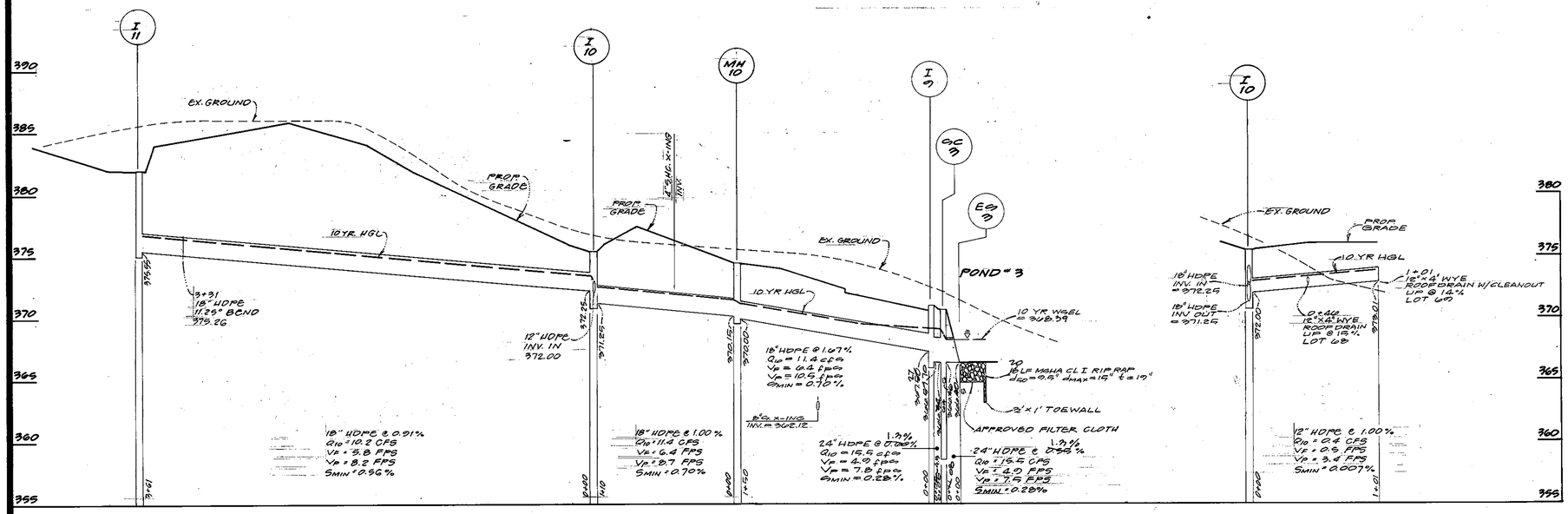
Being In Part A Resubdivision of Lots 2-4, Block D, Edwin Brewster, South Section, as shown in Plat Book G at Plat No. 21
5th Election District — Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE No.
BSL.	AS SHOWN	R-20/NT	99-033
DRN.:	DATE	TAX MAP No.	SHEET
BC/KLP	October 1999 November 2002	33-18	11
CHK.:			
BSL.			

SDP99-68

Asbuilt Sheet 5 of 9





STRUCTURE SCHEDULE

NO.	TYPE	WIDTH (DIA.)	TOP ELEVATION UPPER	TOP ELEVATION LOWER	INVERT ELEVATION UPPER	INVERT ELEVATION LOWER	STD DETAIL	LOCATIONS ◆ N	LOCATIONS ◆ E	REMARKS
I-9	A-10 INLET	2'-6"	371.12	—	367.50	366.97	SD 4.41	557,307	1,346,006	
I-10	TYPE S INLET	2'-7½"	375.40	—	372.25	371.25	SD 4.22	557,208	1,345,810	
I-11	COS-15	4'-0"	381.82	—	375.55	—	MD 374.63	557,609	1,345,694	
I-12	A-5 INLET	2'-6"	378.50	378.10	372.63	369.88	SD 4.40	557,067	1,346,045	
I-13	A-10 INLET	3'-0"	377.80	—	373.71	373.60	SD 4.32	556,899	1,346,124	
I-14	TYPE S INLET	3'-6"	377.90	—	374.58	—	SD 4.22	556,816	1,346,209	
I-15	TYPE S CONTR. INLET	3'-5"	381.70	—	378.00	—	SD 4.32	556,972	1,345,843	
MH 10	STD. PRECAST MANHOLE	4'-0"	374.60	—	370.18	370.00	G-5.12	557,307	1,345,916	
MH 11	" "	"	381.54	—	375.90	375.74	"	556,949	1,346,029	
MH 12	" "	"	380.45	—	376.36	376.26	"	556,917	1,345,979	
MH 13	" "	"	382.90	—	377.26	377.16	"	556,956	1,345,898	
ES 5	24" HDPE END SECTION	2.0'	380.40	—	—	376.40	* *	557,358	1,346,079	
ES 3	18" HDPE END SECTION	1.5'	374.50	—	—	371.00	* *	557,242	1,346,176	
GC 3	STORMCEPTOR	—	380.50	—	376.64	376.46	STC-1200	557,361	1,346,069	
GC 4	STORMCEPTOR	—	376.00	—	371.58	371.13	STC-1800	557,079	1,346,176	

*PRECAST ALTERNATES ARE ACCEPTABLE

** PIPE MANUFACTURE TO PROVIDE HDPE END SECTIONS FOR HDPE PIPE

◆ The coordinates shown are for plan purposes and must be verified prior to stakeout / construction.

PROFILES
SCALES: 1" = 5' VERTICAL
1" = 50' HORIZONTAL

PIPE SCHEDULE

SIZE	TYPE	QUANTITY (L.F.)	REMARKS
4"	HDPE	18	(1) ROOF DRAINS
12"	HDPE	101	
15"	HDPE	686	
18"	HDPE	679	
24"	HDPE	125	
30"	HDPE	40	

*HDPE = HIGH DENSITY POLYETHYLENE N-12 BY ADVANCED DRAINAGE SYSTEMS INC. (ADS) OR N-12 BY HANCOR LANDMAX PIPE SYSTEMS

(1) LENGTH DOES NOT INCLUDE VERTICLE LENGTH OF PIPE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 12/13/99

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 12/9/99

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 11/24/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO.VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.
Nov 2002	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
5979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410)750-1800

STORM DRAIN PROFILES

HICKORY RIDGE ELDERLY

LOTS 1 AND 2

BEING IN PART A RESUBDIVISION OF LOTS 2-4, BLOCK Q, EDWIN BASSLER, SOUTH SECTION AS SHOWN IN PLAT BOOK G AT PLAT No. 29

6TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
BSL	AS SHOWN	R-20 / NT	95-053
DRN.: EC/KLP	DATE October November 2002	TAX MAP No. 35-18	SHEET 12
CHK.: BSL			

Asbuilt Sheet 6 of 9

SDP99-68

Precast Concrete Stormceptor® Order Request Form

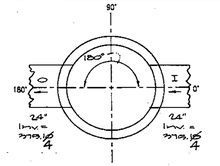
* TO BE INCLUDED ON SWM PLAN BY DESIGNER

CONTRACTOR INFORMATION

Name: to be determined
Address:
City:
State:
Zip Code:
Contact:
Phone:
Fax:

OWNER INFORMATION

Name: Orchard Development
Phone: (410) 750-1800
Fax: (410) 750-1805



Please draw orientation of inlet and outlet pipes on diagram along with the pipe inside diameter (in), and invert elevation (ft). Clearly mark inlet pipes with an "I" and outlet pipes with an "O". Please provide the inlet/outlet pipe angle in degrees.

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT 1.24ac.±

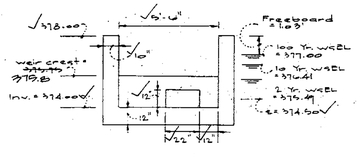
Stormceptor® Model			
STC			
900	☐	3600	☐
1200	☐	4800	☐
1800	☒	6000	☐
2400	☐	7200	☐

Insert Size	
DISC	☐
22"	☐
32"	☐
44"	☐
CUSTOM	___

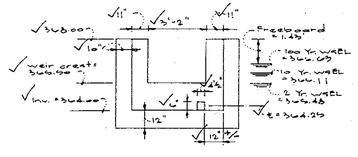
Manhole Number	SC 1
Top Elevation (ft)	380.82
Inlet Pipe Invert (ft)	375.16
Outlet Pipe Invert (ft)	375.16
Pipe Type	H.D.P.E.*
Inlet Pipe Inside Diameter (ID)	24"
Inlet Pipe Outside Diameter (OD)	
Outlet Pipe Inside Diameter (ID)	24"
Outlet Pipe Outside Diameter (OD)	

Project Name: Hickory Kidge Elderly Center
Approximate time frame of delivery-(weeks): June 1, 1999
Delivery Address: Street: 10041 Owen Brown Road
City: Columbia State: Maryland Zip Code: 21044
Designer Company: Gutschick, Little & Weber, P.A.
Designer Contact: Baug Vande Kar Phone: (410)880-1820 Fax: (301)421-4186

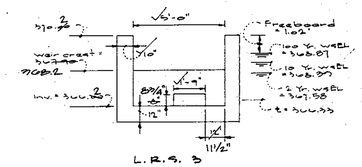
*H.D.P.E. indicates High Density Polyethylene such as HI-Q by Hancor, N.12 by ADS, or an approved equal.



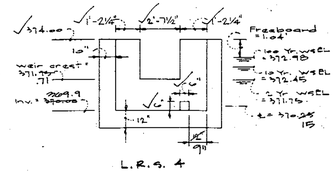
L.R.S. 1



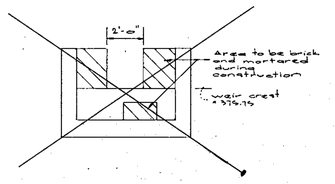
L.R.S. 2

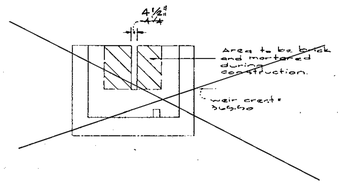


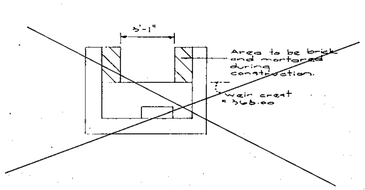
L.R.S. 3

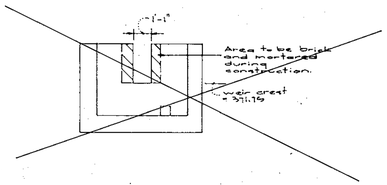


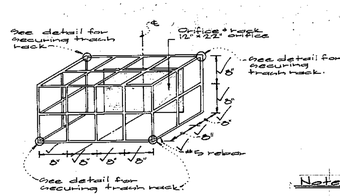
L.R.S. 4



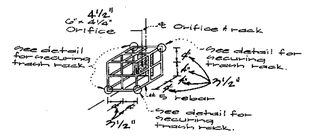




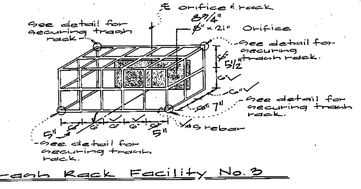




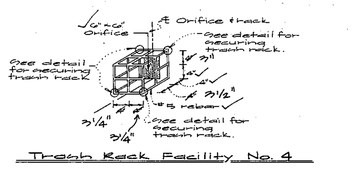
Trash Rack Facility No. 1



Trash Rack Facility No. 2



Trash Rack Facility No. 3



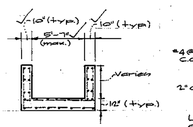
Trash Rack Facility No. 4

Trash Rack Facility Notes:

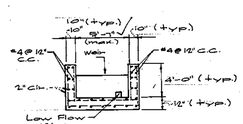
1. Bars will not be required against the floor or wall of the riser structure.
2. Bolts to be placed into a concrete anchor.
3. All exposed metal surfaces are to be galvanized after fabrication and painted with two (2) coats of battleship grey paint.

Notes:

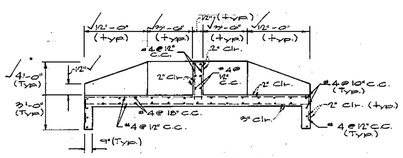
1. All exposed edges to have 3/4" x 3/4" chamfer as directed.
2. Concrete shall be SHA mix no. 3 (f'c = 3500 psi @ 28 days).
3. Reinforcing steel shall be ASTM A-615 grade 60.
4. Reinforcement shown is typical to all facilities.
5. 'W' shown in plan view, sect. A-A and sect. B-B equals 5'-0" at facilities 2-4 and 5'-6" at facility 1.
6. For weir configuration, both temporary and ultimate, see details this sheet.
7. For low flow orifice dimensions, see details this sheet.



Section A-A

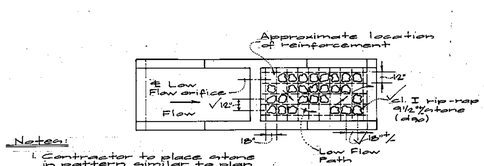


Section B-B



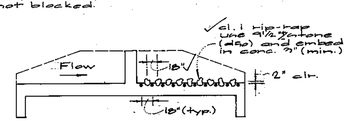
Plan

Section C-C

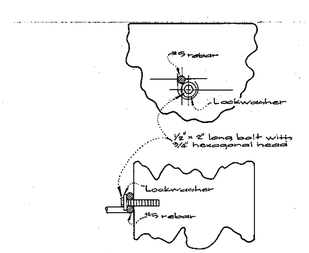


Notes:

1. Contractor to place stone in pattern similar to plan view, insuring the low flow orifice is not blocked.



Outlet Protection Detail
No Scale



Detail For Securing Trash Rack
N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 12/13/99
Chief, Division of Land Development — Date 12/9/99
Chief, Development Engineering Division — Date 11/30/99

GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
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DATE	REVISION	BY	APP'R.
Nov. 2000	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

SWM Notes and Details

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
d.e.v.	N/A	R-20/NT	99053
DRN.:			
f.m.m.	DATE	TAX MAP No.	SHEET
CHK.:	October Nov. 2000 1999 2002	35 - 18	14
d.e.v.			

Asbuilt Sheet 7 of 9

SDP99-68

SPECIFICATIONS

Even though facilities 1 through 4, as shown on these plans, have not been classified as MD-378 facilities, the contractor must adhere to these specifications.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable locations for use on the embankment and other designated areas.

Earth Fill

Material – The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement – Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

Compaction – The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2 % of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench – The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe – All of the following criteria shall apply for corrugated metal pipe:

1. Materials – (Steel Pipe) – This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

   Materials – (Aluminum Coated Steel Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

   Material – (Aluminum Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections – All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

   All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

   Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. Bedding – The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe – All of the following criteria shall apply for reinforced concrete pipe:

1. Materials – Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

2. Bedding – All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.

3. Laying pipe – Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. the first joint must be located within 2 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe – All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials – PVC pipe shall be PVC – 1120 or PVC – 1220 conforming to ASTM D-1785 or ASTM D-2241.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding – The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock of soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standards Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The rip rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

B-1A

Elev.	Soil Description	Depth
	9" topsoil	
367.9	Orange brown, very dense, slight to non-plastic, silty, fine to coarse SAND (SM)	10.0
	Refusal at 10.0'	

B-1B

Elev.	Soil Description	Depth
374.9	Light to medium brown, moist, very stiff, silty CLAY trace fine sand (CL)	2.0
372.4	Medium brown, moist, slightly plastic, silty, fine to medium SAND (SM)	4.5
369.9	Light medium brown, dry, stiff, fine to coarse, sandy CLAY (CL)	7.0
366.9	Medium orange brown to dark brown, moist, dense to very dense, micaceous, silty, fine to coarse SAND (SM)	10.0
	Bottom of hole at 10.0'	

B-1C

Elev.	Soil Description	Depth
374.6	Medium brown, dry to moist, fine to medium, sandy SILT (ML)	2.0
372.1	Light gray, brown, dry, dense, slightly plastic, silty, fine to medium SAND (SM)	4.5
370.1	Medium orange, brown, moist, micaceous, medium plastic, silty fine to medium SAND (SM)	6.5
	Bottom of hole at 6.5'	

B-2A

Elev.	Soil Description	Depth
	2" topsoil	
362.9	Yellow brown, dry to moist, stiff to hard, medium plastic, silty CLAY (CL)	7.0
357.9	Yellow & green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprolite)	12.0
	Bottom of hole at 12.0'	

B-2B

Elev.	Soil Description	Depth
	2" topsoil	
362.1	Yellow brown to white, soft to stiff, medium plastic, micaceous, silty CLAY (CH)	6.0
357.6	White to yellow brown to green & white, moist to wet, medium dense, loose, slightly plastic, silty SAND (SM) saprolite	10.5
	Bottom of hole at 10.5	

B-2C

Elev.	Soil Description	Depth
	4" topsoil	
361.8	Pale brown to white, dry, moist, stiff, silty CLAY (CL)	4.5
357.8	Yellow, green, pink, moist, dense, silty SAND (SM) (saprolite)	8.5
	Bottom of hole at 8.5'	

B-3A

Elev.	Soil Description	Depth
	4" topsoil	
367.1	Yellow brown, dry to moist, stiff to hard, medium plastic, sandy CLAY	2.0
355.6	Gray to orange brown to pale brown, dense, plastic silty SAND (SM) (saprolite)	13.0
	Bottom of hole at 13.0'	

B-3B

Elev.	Soil Description	Depth
	3" topsoil	
362.3	Light gray, light brown, moist, dense, medium plastic, clayey, fine SAND SC-SM	4.5'
355.8	White to green to orange brown, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprolite)	11.0'
	Bottom of hole at 11.0'	

B-3C

Elev.	Soil Description	Depth
	4" topsoil	
367.6	Gray brown, moist, medium stiff, slightly plastic, sandy Silt (ML)	1.2
364.3	Gray, very dense, medium plastic, clayey SAND (SC)	4.5
358.8	Orange, green, moist to wet, medium dense, slightly plastic, silty SAND (SM) (saprolite)	10.0
357.0	Green & white, moist to wet, very dense, non-plastic, silty SAND	11.8
	Bottom of hole at 11.8'	

B-4A

Elev.	Soil Description	Depth
	3" topsoil	
360.0	Yellow brown, loose, slight to medium plastic, silty SAND (SM) (saprolite)	5.0'
	Refusal at 5.0'	

B-4B

Elev.	Soil Description	Depth
	4" topsoil	
371.2	Yellow brown, medium dense, slight to medium plastic, silty SAND (SM)	1.5
362.7	Yellow brown, green, pink, plastic silty SAND (SM) (saprolite)	10.0'
	Refusal at 10.0'	

B-4C

Elev.	Soil Description	Depth
	6" topsoil	
360.4	Yellow brown, white, green, pink, medium dense to very dense, slight to non-plastic, silty SAND (SM) (saprolite)	3.0
	Refusal at 3.0'	

The construction of the 4 stormwater management facilities shall be supervised by a qualified geotechnical firm throughout their construction. Although there is no requirement for an as-built submission to HSCD, there will be 1 to HCDPW involving the same level of documentation.

STATE OF MARYLAND – CARLTON K. GUTSCHICK – No. 12975 – REGISTERED PROFESSIONAL ENGINEER

APPROVED: Howard County Dept. of Planning & Zoning

Signature	Title	Date
[signature]	Director	12/13/99
[signature]	Chief, Division of Land Development	12/9/99
[signature]	Chief, Development Engineering Division	11/30/99

No Asbuilt Information Shown On This Sheet

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE – SUITE 250 – BURTONSVILLE OFFICE PARK – BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186

DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		

PREPARED FOR:
Orchard Development Corporation
3079 Old Columbia Pike
Ellicott City, Maryland 21043
(410) 750-1800

SWM Notes and Details

HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
—	R-20/NT	95053
DATE	**TAX MAP No.**	**SHEET**
October ~~November 1999~~ 2002	35-18	~~15~~

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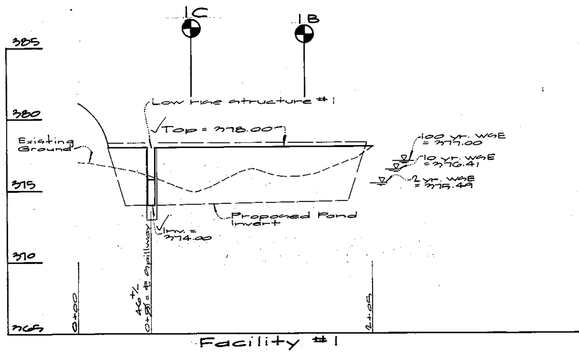

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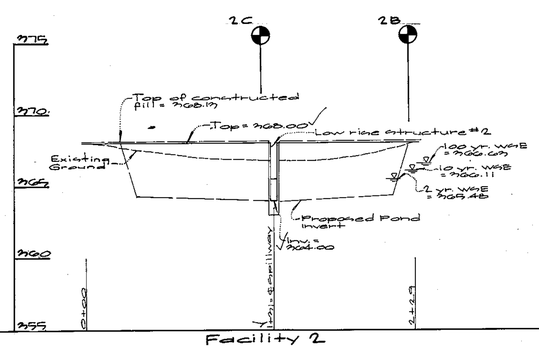

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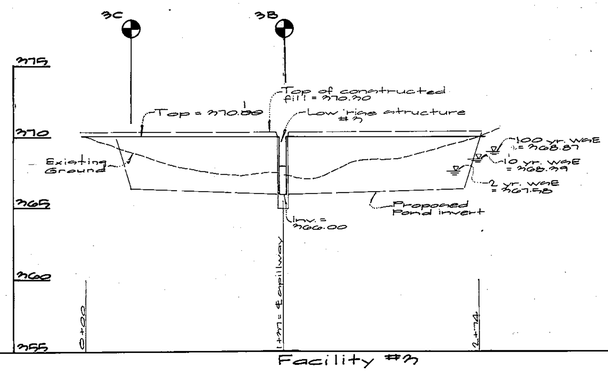

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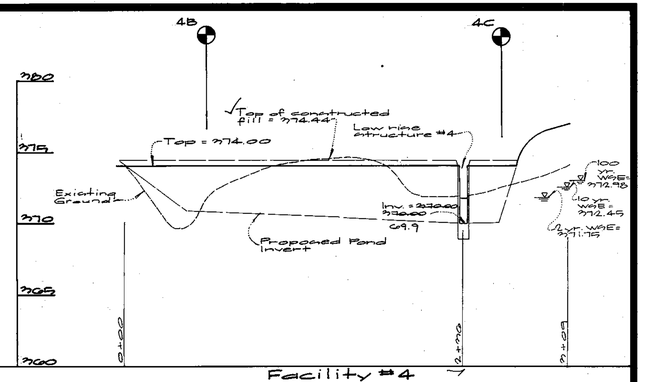

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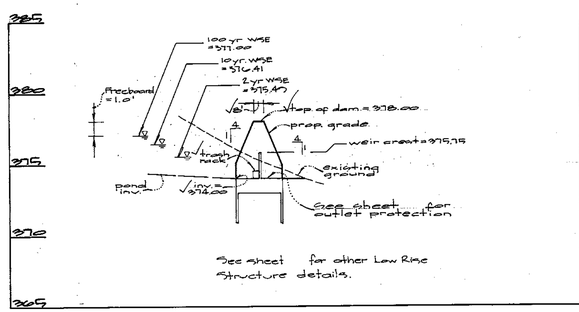
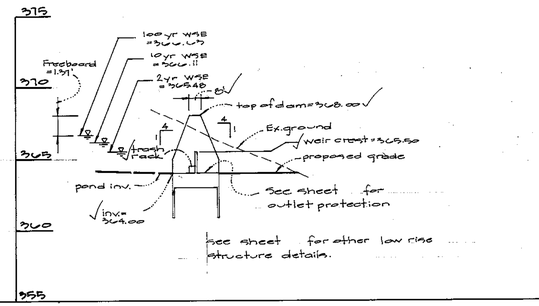
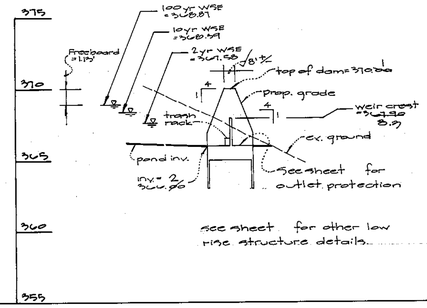


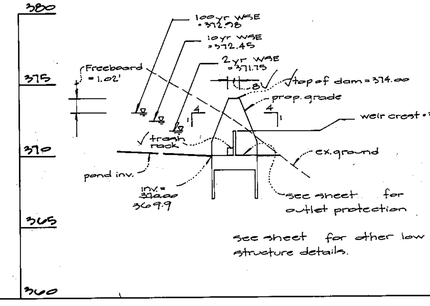
See sheet for other Low Rise structure details.



See sheet for other low rise structure details.



See sheet for other low rise structure details.



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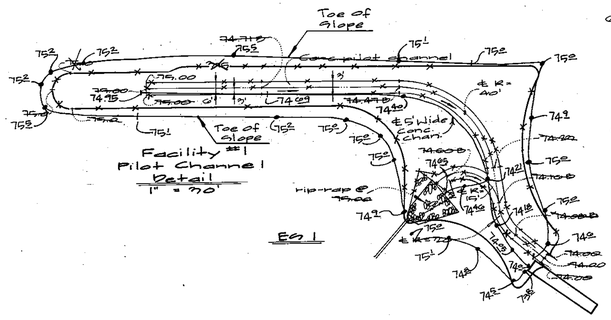

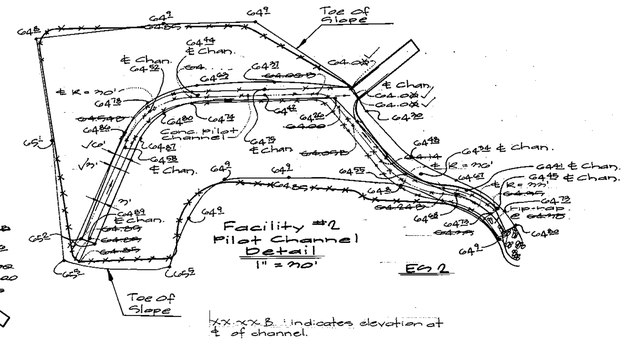

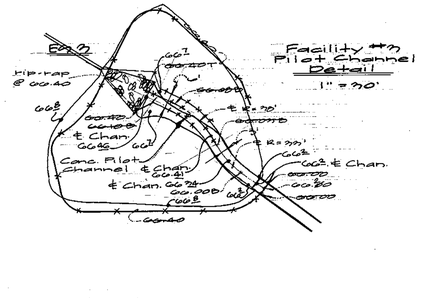

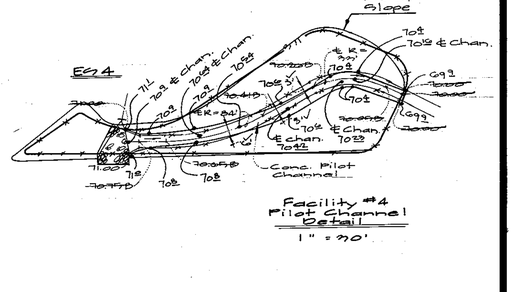

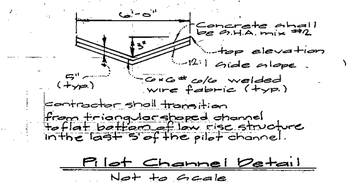

Contractor shall transition from triangular shaped channel to flat bottom of low rise structure in the last 5' of the pilot channel.

Pilot Channel Detail
Not to Scale

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/7/99
Chief, Division of Land Development	Date 12/9/99
Chief, Development Engineering Division	Date 11/24/99

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE · SUITE 250 · BURTONSVILLE OFFICE PARK · BURTONSVILLE, MD. 20866
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DATE	REVISION	BY	APP'R.
Nov. 2002	Asbuilt Information Added		

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

SWM Notes and Details

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

DES.:	SCALE	ZONING	G.L.W. FILE No.
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DRN.:	DATE	TAX MAP No.	SHEET
CHK.:	October Nov. 2002	35-18	10

Asbuilt Sheet 9 of 9 SDP99-68

SITE DEVELOPMENT PLAN
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARD AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

MISS UTILITY	1-800-257-7777
C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	331-4900
A T & T CABLE LOCATION DIVERSION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533

3. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF UTILITIES AT (410) 313-4900 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WORK.
4. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT (410) 313-1880.
5. PROJECT BACKGROUND:

LOCATION:	TAX MAP #35, GRID 18, Lots 1-2 (Parcel 469), a resubdivision of Lots 2-A (Parcel 207) and Parcel 1977.
ZONING:	R-20
ELECTION DISTRICT:	5TH
SITE AREA:	17.7964 AC.
REC. REF.:	PLAT NO. 13156

6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTC). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED. DIMENSIONS ARE MEASURED PERPENDICULAR OR RADIALLY BETWEEN ITEMS UNLESS OTHERWISE NOTED.
8. EXISTING TOPOGRAPHY AND FEATURES WERE DERIVED FROM AERIAL PHOTOGRAPHY BY P.D.S., IN 4/97 AND FROM FIELD SURVEYS BY GUTSCHICK, LITTLE & WEBER, P.A.
9. COORDINATES ARE BASED ON NAD 27' MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NOS. 35C5 AND 0025
10. PUBLIC WATER AND SEWER IS TO BE UTILIZED. CONTRACT NOS 2556-B, C- 435 W, AND 44 - 1533
11. STORMWATER MANAGEMENT IS BEING PROVIDED ON SITE UNDER THIS SUBMISSION. QUANTITY AND QUALITY MANAGEMENT WILL BE PROVIDED BY DETENTION WITH ~~STORMCEPTORS~~. THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
12. ALL STORM DRAINS PROPOSED UNDER THIS SDP ARE PRIVATE.
13. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF CONSTRUCTION.
14. ALL PROPOSED RAMPS SHALL BE IN ACCORDANCE WITH CURRENT A.D.A. STANDARDS. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE (2%) TWO PERCENT. PROVIDE A (5'X5') FIVE FOOT BY FIVE FOOT LEVEL (2% MAX.) LANDING AT THE TOP AND BOTTOM OF ALL RAMPS.
15. ALL DRIVEWAYS AND PARKING TO BE PRIVATELY OWNED AND MAINTAINED.
16. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
17. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01. CLASS "C" BEDDING, UNLESS OTHERWISE NOTED.
18. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS FOR ASPHALT PAVING.
19. WATER METERS ARE LOCATED INSIDE EACH UNIT FOR A COMBINATION OF DOMESTIC AND FIRE SERVICES. EACH UNIT IS EQUIPPED WITH AN AUTOMATIC FIRE PREVENTION SPRINKLER SYSTEM.
20. ALL CURB FILLETS ARE 5' RADIUS UNLESS NOTED OTHERWISE. CURB SPOT ELEVATIONS ARE AT THE FLOW LINE, UNLESS NOTED OTHERWISE.
21. THERE ARE NO KNOWN GRAVE SITES OR CEMETERIES ON THIS SITE.
22. ALL DOWNSPOUT DRAINS SHALL BE HANDLED BY ONE OF THESE METHODS:
    - A. DOWNSPOUT TO SPLASH AND DISCHARGE ONTO GROUND HAVING GOOD PERCOLATION.
    - B. DOWNSPOUT IN FRONT OF UNITS PIPED TO CURB.
    - C. DOWNSPOUT CONNECTED TO STORM DRAIN.
23. WETLAND DELINEATION WAS PERFORMED BY EXPLORATION RESEARCH, AND VERIFIED BY ARMY CORPS OF ENGINEERS. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLAND BUFFER EXCEPT AREAS PERMITTED FOR DISTURBANCE BY THE DEPARTMENT OF NATURAL RESOURCES AND THE HCDPZ.
24. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
25. ALL WATER HOUSE CONNECTIONS SHALL BE BUILT WITH 48" OF MIN. COVER TO PROPOSED GRADES.
26. ALL OUTDOOR LIGHTING SHALL COMPLY WITH ZONING SECTION 134.
27. OTHER HOWARD COUNTY FILES RELATED TO THIS SITE:

    BA - 95-60 E, BA-98-20E, S-97-09, WP 98-20 (WHICH ON 8/28/97 ALLOWED PREPARATION OF A MASS GRADING PLAN FOR A GRADING PERMIT), F 98 - 26 AND FDP - 205-A-1, Part 1, **and WP99-101 (see note #30).**

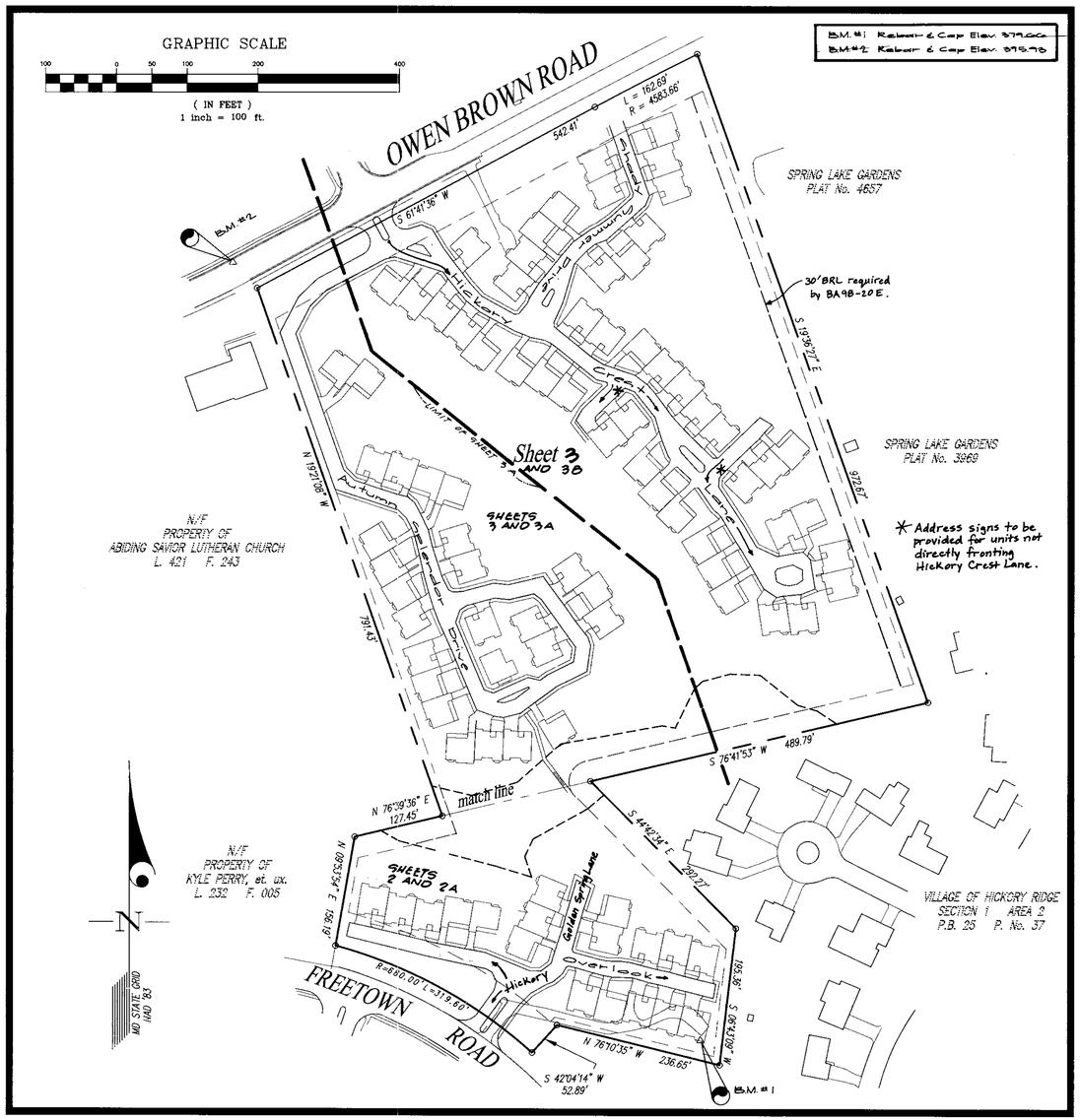
28. FOREST CONSERVATION FOR THIS SITE IS PROVIDED BY:
    - A. ON-SITE RETENTION ON NET TRACT OF 2.98 AC. (SURETY = $13,068.00)
    - B. ON-SITE FOREST PLANTING OF 0.98 AC (SURETY = $ 5,227.20)
    - C. FEE-IN-LIEU IN THE AMOUNT OF $22,215.00 (17 acres)

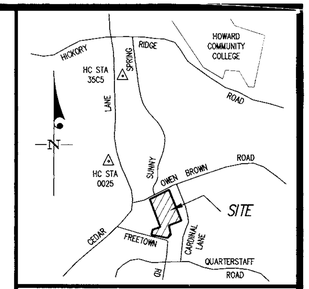
    SURETY & FEE-IN-LIEU AMOUNT ARE BASED ON AREA ROUNDED TO ½ AC.
29. See sheet 2 for conditions of BA 98-20E.

Curbside trash collection shall be provided by a private contractor and is not the responsibility of Howard County.

Site Analysis Data Chart

1. General Site Data.
   a. Zoning: R-20
   b. Proposed use: Single family attached units, 1 community center
   c. Building coverage = 18.2% (3.23 ac±) open space = 51.3% (7.13 ac±)
2. Density
   a. 88 units allowed under BA 98-20E at a rate of 5 units per acre (5x 17.7297 = 88)
   b. 88 units proposed.
3. Area Tabulation: R-20 Area = 17.7297 Ac.
   NT Area = 0.0667 Ac.
   Total = 17.7964 Ac.
4. Parking
   a. Parking required: 178 spaces at a rate of 2 spaces for every 5 units (88/5) x 2 = 178
   b. Parking provided: 89 - 2 car garages = 178
   89 - 1 car garages = 89
   1 space in front of each 1 car garage = 89
   9 spaces @ comm. center (2 H.C.-van) = 9
   365 spaces





VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES (cont.)

30. WP-99-101, was approved on 5/28/99, and waived Section 16.115.c.2 to allow work to be done in the floodplain; Section 16.116.a.2 to allow disturbance in the 25' wetland buffer; and Section 16.116.a.2.i to allow disturbance to the 50' stream buffer. Approval is subject to five conditions of approval, as specified in the application file.

unit#	address	FF/slab elevation	basemnt elevation	min cellar/slab elev.	Optional Concession
1	10716 Shady Summer Drive	382.78	X		X
2	10714	381.39	X		X
3	10712	380.78	X		X
4	10713	382.98	379.98		•
5	10711	381.67	378.69		X
6	10708	380.49	X		•
7	10706	381.10	X		•
8	10704	380.49	X		X
9	10707	382.39	379.47		•
10	10705	382.39	379.47		•
11	10703	382.06	378.14		•
12	10701	382.79	378.81		•
13	10605 Hickory Crest Lane	379.85	381.91		•
14	10615	381.06	378.14		•
15	10617	379.86	380.14		•
16	10621	377.79	380.81		•
17	10623	378.99	380.47		•
18	10625	379.66	380.74		•
19	10627	378.99	380.07		•
20	10629	378.99	380.07		•
21	10633	379.96	380.08		•
22	10635	379.29	380.97		•
23	10637	378.29	380.97		•
24	10641	378.97	380.08		•
25	10643	378.30	380.30		•
26	10647	378.91	X		X
27	10649	378.91	X		•
28	10641	378.70	X		X
29	10644	379.69	X		X
30	10640	379.51	X		X
31	10638	379.51	X		•
32	10636	379.89	380.97		•
33	10632	379.89	380.97		•
34	10630	379.49	380.30		•
35	10628	379.49	380.00		•
36	10622	379.49	380.78		•
37	10624	379.49	380.68		X
38	10618	379.74	380.82		•
39	10616	381.74	382.82		•
40	10614	380.74	382.82		•
41	10610	380.71	382.79		X
42	10608	380.84	382.12		•
43	10606	380.84	380.12		•
44	10604	381.84	382.12		•
45	10602	379.97	380.45		•
46	10758 Autumn Splendor Drive	378.50	X		•
47	10756	378.97	X		•
48	10754	378.69	X		•
49	10756	378.78	380.06		X
50	10757	378.45	380.53		X
51	10746	378.67	380.75		X
52	10745	380.97	381.79		X
53	10727	380.48	382.90		•
54	10725	380.48	382.90		•
55	10721	380.84	382.32		•
56	10719	380.67	382.69		•
57	10717	380.00	382.98		•
58	10715	380.29	382.31		X
59	10707	380.12	382.32		•
60	10705	381.79	382.87		X
61	10720	380.96	382.04		X
62	10722	380.96	382.81		X
63	10724	380.96	382.64		•
64	10726	380.80	382.96		•
65	10730	381.20	382.88		•
66	10732	379.80	382.88		•
67	10734	379.80	380.88		•
68	10738	381.13	X		•
69	10740	381.13	X		•
70	10744	382.78	X		•
71	6428 Hickory Overlook	380.96	382.04		•
72	6424	380.96	382.04		•
73	6424	380.29	382.97		•
74	6422	380.29	382.57		•
75	6420	380.96	382.04		•
76	6509 Golden Spring Lane	380.04	X		•
77	6507	380.04	382.12		•
78	6505	380.71	382.79		•
79	6503	380.37	X		•
80	6506	381.04	X		•
81	6404 Hickory Overlook	380.12	X		•
82	6402	379.46	X		•
83	6400	378.78	X		•
84	6409	380.98	383.61		X
85	6407	381.85	382.91		X
86	6405	380.49	381.57		•
87	6403	379.82	382.90		•
88	6401	379.19	382.23		X
00	10750 Autumn Splendor Drive	379.46	X		X

WATER CODE:	SEWER CODE:
E-90	5712400

SUBDIVISION NAME:	SECTION/AREA	Lots 1 and 2
HICKORY RIDGE ELDERLY CENTER		

PLAT	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
13156	R-20/NT	35	18	5	6050

Sheet Index

1.	Cover Sheet	8.	Sediment Control Plan	15.	S.W.M. Details
2.	Site Development Plan	9.	Drainage Area Map	16.	S.W.M. Notes
3.	Site Development Plan	10.	Road Grades	17.	Landscape Edge Analysis
4.	Utility Plan	11.	Storm Drain Profiles	18.	Sediment Control Notes/Details
5.	Landscape Plan	12.	Storm Drain Profiles	19.	Wooden Walkway Details
6.	Landscape Plan	13.	Sewer Profiles	20.	Forest Stand Delineation
7.	Sediment Control Plan	14.	S.W.M. Details	21.	Forest Conservation Plan
				22.	Forest Conservation Plan
				23.	Forest Conservation Notes
				23a.	30 Scale Supplemental Site Plan
				9A	30 SCALE SUPPLEMENTAL SITE PLAN
				30	30 SCALE SUPPLEMENTAL SITE PLAN

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 12/13/99
Chief, Division of Land Development HB	Date 12/9/99
Chief, Development Engineering Division	Date 11/3/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

\DRAWINGS\95053\95053COV.DWG	DES.	DRN.	CHK.

DATE	REVISION	BY	APP'R.
5/21/01	ADD SHEET 3A/D TO SHEET INDEX, REVISE ADDRESS CHART & SITE MAP	JAM/MCF	
12/4/00	add sheet 2a to sheet index, rev address chart for continuity		

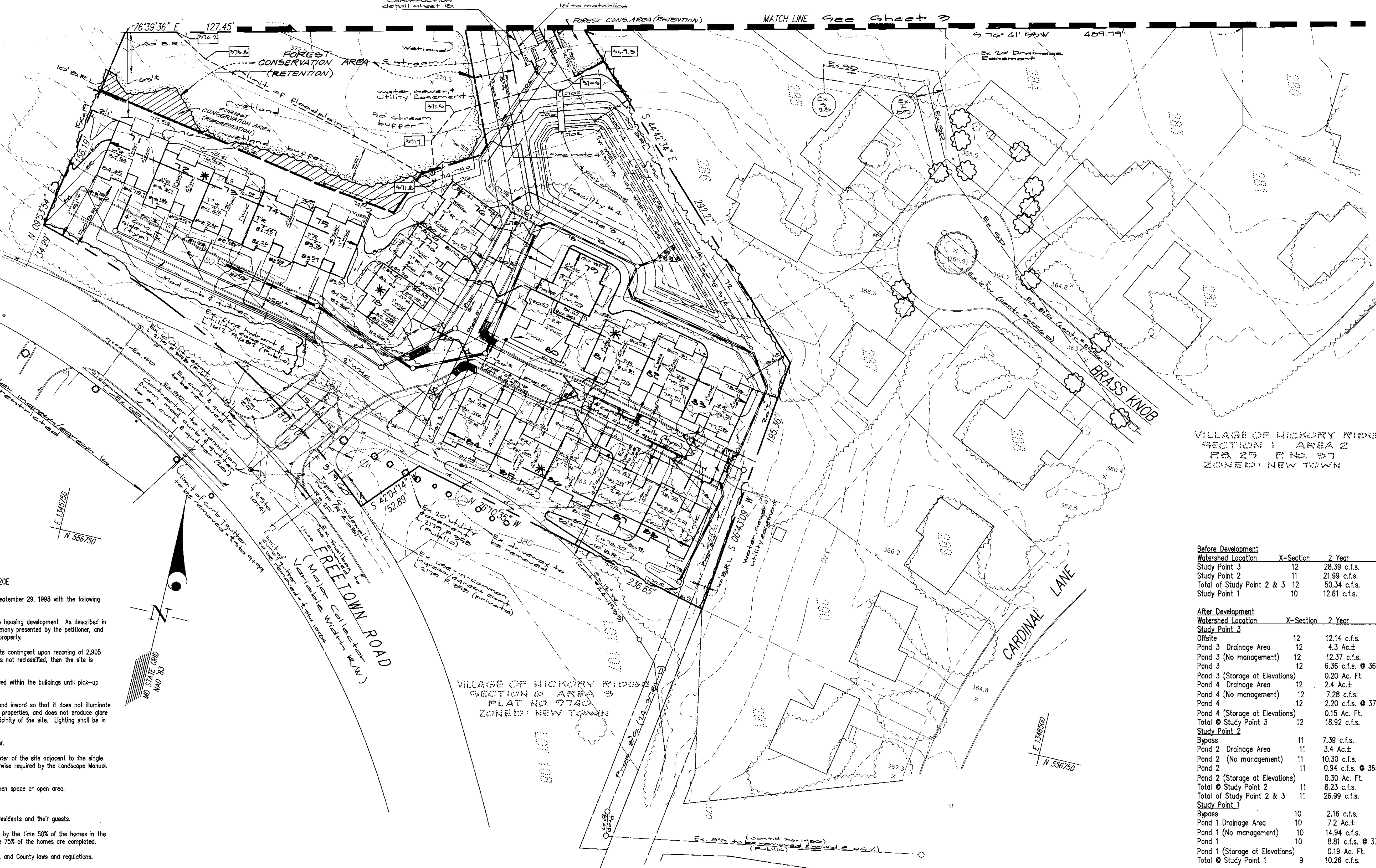
PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

COVER SHEET
HICKORY RIDGE ELDERLY CENTER
LOTS 1 AND 2
PLAT No. 13156
CLARKSVILLE ELECTION DISTRICT No. 5 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20/NT	95053
DATE	TAX MAP - GRID	SHEET
November, 1999	35 - 18	1

SDP99-68

* See sheet 2a for updated architectural information and fine grading around units. All other information on this sheet is still applicable.



SUMMARY FOR BA 98-20E

The Board of Appeals Case BA 98-20 E was granted on September 29, 1998 with the following conditions:

1. The Special Exception shall apply only to the proposed elderly housing development As described in the petition and the plan submitted to the Board and the testimony presented by the petitioner, and not to any other activities, uses, or structures on the subject property.

2. The development is limited to a maximum of 89 dwelling units contingent upon rezoning of 2,905 square feet of NT zoned land to R-20. If the NT zoned land is not reclassified, then the site is limited to a maximum of 88 dwelling units.

3. No dumpsters will be located on the site. Trash will be stored within the buildings until pick-up days.

4. Any exterior lighting will be shielded and directed downward and inward so that it does not illuminate residential properties, does not shine directly onto any adjacent properties, and does not produce glare that would cause a hazard for motor vehicle operators in the vicinity of the site. Lighting shall be in conformance with Section 134 of the Zoning Regulations.

5. The development shall be served with public water and sewer.

6. Landscape edges C and A shall be installed along the perimeter of the site adjacent to the single family houses and the church property, respectively, or as otherwise required by the Landscape Manual. Existing vegetation shall be maintained where practical.

7. A minimum of 50% of the gross area of the site shall be open space or open area.

8. No perceptible odors may emanate off-site.

9. The dining area and convenience retail shall be available to residents and their guests.

10. The Petitioner proposes to complete the community building by the time 50% of the homes in the development are completed, and all other amenities by the time 75% of the homes are completed.

11. The Petitioner shall comply with all applicable Federal, State, and County laws and regulations.

Before Development

Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3	12	28.39 c.f.s.	67.45 c.f.s.	132.28 c.f.s.
Study Point 2	11	21.99 c.f.s.	43.46 c.f.s.	67.65 c.f.s.
Total of Study Point 2 & 3	12	50.34 c.f.s.	110.81 c.f.s.	199.19 c.f.s.
Study Point 1	10	12.61 c.f.s.	30.37 c.f.s.	51.95 c.f.s.

After Development

Watershed Location	X-Section	2 Year	10 Year	100 Year
Study Point 3				
Offsite	12	12.14 c.f.s.	39.12 c.f.s.	93.40 c.f.s.
Pond 3 Drainage Area	12	4.3 Ac.±		
Pond 3 (No management)	12	12.37 c.f.s.	21.28 c.f.s.	31.00 c.f.s.
Pond 3	12	6.36 c.f.s. @ 367.58	15.24 c.f.s. @ 368.39	24.62 c.f.s. @ 368.87
Pond 3 (Storage at Elevations)		0.20 Ac. Ft.	0.33 Ac. Ft.	0.42 Ac. Ft.
Pond 4 Drainage Area	12	2.4 Ac.±		
Pond 4 (No management)	12	7.28 c.f.s.	13.02 c.f.s.	19.30 c.f.s.
Pond 4	12	2.20 c.f.s. @ 371.75	5.05 c.f.s. @ 372.45	11.11 c.f.s. @ 372.98
Pond 4 (Storage at Elevations)		0.15 Ac. Ft.	0.26 Ac. Ft.	0.35 Ac. Ft.
Total @ Study Point 3	12	18.92 c.f.s.	52.38 c.f.s.	124.95 c.f.s.
Study Point 2				
Bypass	11	7.39 c.f.s.	15.51 c.f.s.	24.86 c.f.s.
Pond 2 Drainage Area	11	3.4 Ac.±		
Pond 2 (No management)	11	10.30 c.f.s.	18.17 c.f.s.	26.78 c.f.s.
Pond 2	11	0.94 c.f.s. @ 365.48	4.89 c.f.s. @ 366.11	11.29 c.f.s. @ 366.63
Pond 2 (Storage at Elevations)		0.30 Ac. Ft.	0.48 Ac. Ft.	0.67 Ac. Ft.
Total @ Study Point 2	11	8.23 c.f.s.	18.09 c.f.s.	33.24 c.f.s.
Total of Study Point 2 & 3	11	26.99 c.f.s.	70.35 c.f.s.	157.84 c.f.s.
Study Point 1				
Bypass	10	2.16 c.f.s.	5 c.f.s.	8.27 c.f.s.
Pond 1 Drainage Area	10	7.2 Ac.±		
Pond 1 (No management)	10	14.94 c.f.s.	30.31 c.f.s.	47.79 c.f.s.
Pond 1	10	8.81 c.f.s. @ 375.49	21.39 c.f.s. @ 376.41	37.67 c.f.s. @ 377.00
Pond 1 (Storage at Elevations)		0.19 Ac. Ft.	0.36 Ac. Ft.	0.51 Ac. Ft.
Total @ Study Point 1	9	10.26 c.f.s.	24.91 c.f.s.	44.05 c.f.s.

1. For additional information regarding existing & proposed utilities, see sheets 4 & 11-13
2. For additional information regarding stormwater management, see sheets 4 & 14-16.
3. Contractor to end macadam path & begin concrete sidewalk.
4. Contractor to end 4' wide macadam path and begin wooden walkway.
5. All of the stormwater management facilities on the site are privately owned and maintained. Maintenance will be provided by the Homeowner's Association. Quantity management is provided for the 2, 10 and 100 year storm by detention. All proposed facilities have a class 'A' hazard level. Quality management is provided using stormceptors.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director [signature]	Date 12/13/99
Chief, Division of Land Development [signature]	Date 12/9/99
Chief, Development Engineering Division [signature]	Date 11/30/99

GLW GUTSCHICK LITTLE & WEBER, P.A.
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\DRAWINGS\95053\BASESHTS\95053BS2.DWG | DES. | DRN. SJG | CHK.

DATE	REVISION	BY	APP'R.
5/21/01	2 Remove unit details.		
12/4/00	Notations added to reference 2a, remove sunroom from unit 88	JAJ/MCF	

PREPARED FOR:
ORCHARD DEVELOPMENT CORPORATION
3979 OLD COLUMBIA PIKE
ELLICOTT CITY, MARYLAND 21043
(410) 750-1800

Site Development Plan

HICKORY RIDGE ELDERLY CENTER

LOTS 1 AND 2
PLAT No. 13156

CLARKSVILLE ELECTION DISTRICT No. 5 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20/ NT	95053
DATE	TAX MAP – GRID	SHEET
November, 1999	35 – 18	2

SDP99-68