

INDEX OF DRAWINGS

- ECP-1 - TITLE SHEET
- ECP-2 - STORMWATER MANAGEMENT PLAN
- ECP-3 - INTERMEDIATE SEDIMENT CONTROL PLAN
- ECP-4 - FINAL SEDIMENT & EROSION CONTROL PLAN
- ECP-5 - DRAINAGE AREA MAP

APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION, SITE DEVELOPMENT PLAN OR GRADING AND BUILDING PERMIT STAGES. BE ADVISED, FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLAN.

SITE NOTES

1. OWNER/APPLICANT: COMMERCIAL CONTRACTORS
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093
410-825-8400
2. SITE ADDRESS: RESORT ROAD
ELLCOTT CITY, MARYLAND 21043
3. SITE DATA:
TAX ID: 535524
TAX MAP/GRID: 17/13
PARCEL: 706
DEED: L1852 F.227
AREA: 41.33 ACRES BASED ON S-11-002
RAVENWOOD AT TURF VALLEY: 10 ACRES
ZONE: PGCC
4. THE BLUFFS AT TURF VALLEY (S-11-002) CONSTITUTED 114 UNITS WHICH MET THE SKETCH PLAN MILESTONE DATES OF 7/1/10 THRU 3/31/11 FOR 114 UNITS FOR YEAR 2013 ALLOCATION AS ESTABLISHED BY THE PHASING PLAN DATED 4/29/08. THIS PLAN PROPOSES 97 UNITS/LOTS. THE 17 REMAINING UNITS FROM S-11-002 ARE BEING TRANSFERRED TO VILLAGES AT TURF VALLEY PHASE 3 (F-08-085) TO REPLACE SOME OF THE 35 UNITS WHICH TRANSFERRED TO VILLAGES AT TURF VALLEY PHASE 5.
5. TOPOGRAPHY IS BASED ON WINGS AERIAL MAPPING CO., INC. ON OR ABOUT JANUARY, 2006.
6. BOUNDARY SURVEY PREPARED BY MILDENBERG, BOENDER & ASSOCIATES ON OR ABOUT MARCH, 2006.
7. PROPERTY SHOWN HEREON LIES WITHIN ZONE X, AN AREA OF MINIMAL FLOODING, PER FEMA COMMUNITY PANEL NO. 24027C0090D EFFECTIVE DATE NOVEMBER 6, 2013.
8. EXISTING UTILITY INFORMATION SHOWN HEREON IS EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION.
9. LIMIT OF DISTURBANCE (LOD): 8.12 AC.
10. PROPOSED LAND USES WITHIN THE LOD:
BUILDING: 1.44 AC.
PARKING: 0.49 AC.
ROAD: 1.53 AC.
OPEN SPACE: 4.66 AC.
11. EXISTING WETLAND AREA WITHIN LOD = 0 AC.
12. EXISTING WETLAND BUFFER AREA WITHIN THE LOD = 0.008 AC.
13. EXISTING FLOODPLAIN AREA WITHIN LOD = 0 AC.
14. EXISTING STREAM BUFFER AREA WITHIN LOD = 1,382 sqft.
15. FOREST CONSERVATION WITHIN LOD = 0 AC.
16. EXISTING STEEP SLOPE AREA (>20%) WITHIN LOD = 1.29 AC.
17. HIGHLY ERODIBLE SOILS WITHIN THE LOD = 2.08 AC.
18. ALL STORM DRAIN PIPE IS TO BE HDPE PIPES UNLESS OTHERWISE NOTED.
19. NO CEMETERIES OR HISTORIC STRUCTURES EXIST ON SITE.
20. NO EXISTING STRUCTURES EXIST ON SITE.
21. THERE IS NO FLOODPLAIN ON THE SITE.
22. FOREST CONSERVATION OBLIGATIONS FOR THIS SITE WILL BE SATISFIED THROUGH 17.4 ACRES OF ONSITE FOREST RETENTION.
23. THE STORMWATER MANAGEMENT SYSTEM SHOWN ON THESE PLANS IS AN APPROXIMATION OF THE SIZE, SHAPE AND LOCATION. IT IS UNDERSTOOD THAT THIS SYSTEM HAS NOT BEEN DESIGNED AND THE ACTUAL DESIGN MAY CHANGE, ALTERING THE NUMBER OF UNITS ALLOCATED FOR THIS DEVELOPMENT.
24. A NOISE STUDY WAS PREPARED FOR THIS PROJECT BY POLYSONIC DATED AUGUST 13, 2008. ALL BUILDINGS ARE PLACED OUTSIDE OF THE 65 DBA NOISE LINE, AS SHOWN ON THE PLAN.
25. IMPACTS TO THE WETLAND BUFFER RESULTING FROM INSTALLATION OF THE UNDERGROUND SANITARY SEWER AND CONSTRUCTION OF STORMWATER MANAGEMENT FACILITY OUTFALL STRUCTURES ARE CONSIDERED NECESSARY IN ACCORDANCE WITH SUBSECTION 16.116(C) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.

SITE DATA

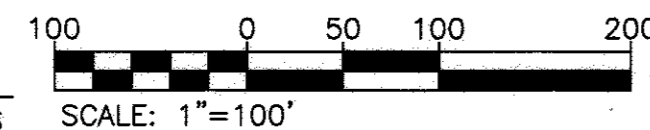
1. GENERAL SITE DATA
 - a. PRESENT ZONE: PGCC
 - b. LOCATION; TAX MAP: 17, GRID 13, PARCEL 706
 - c. APPLICABLE DPZ FILE REFERENCES: S-86-013; CONTR.#24-4350-D, CONTR.#20-1890-D; SP-16-011
 - d. PROPOSED USE OF SITE: RESIDENTIAL
 - e. PROPOSED WATER AND SEWER SYSTEMS: PUBLIC
2. AREA TABULATION

a. TOTAL AREA OF SITE	41.33 AC.
b. AREA OF SITE TO BE DEVELOPED	8.12 AC.
c. APPROXIMATE AREA OF 100 YEAR FLOODPLAIN WITHIN LOD	0.00 AC.
d. APPROX. AREA OF STEEP SLOPES (20% OR MORE) WITHIN LOD	1.29 AC.
e. AREA OF ERODIBLE SOILS WITHIN LOD	0.00 AC.
f. AREA OF FOREST WITHIN LOD	8.12 AC.
g. AREA OF PROPOSED BUILDINGS	1.44 AC.
h. AREA OF GREEN OPEN SPACE WITHIN LOD	0.0 AC.
i. APPROXIMATE AREA OF LIMIT OF DISTURBANCE	8.12 AC.
j. APPROXIMATE AREA OF WETLAND BOUNDARY WITHIN LOD	0.01 AC.
k. APPROXIMATE AREA OF WETLAND WITHIN LOD	0.00 AC.
l. APPROXIMATE AREA OF IMPERVIOUS COVER WITHIN LOD	3.46 AC.

PARKING TABULATION

REQUIRED	
2 SPACES PER UNIT:	90 UNITS X 2.3 SPACES = 207
2 SPACES PER TOWNHOUSE:	7 UNITS X 2.3 SPACES = 17
TOTAL REQUIRED:	224 SPACES
PROVIDED	
GARAGES IN BUILDING:	26 SPACES X 3 BLDGS. = 78
REGULAR PARKING SPACES:	140
HANDICAP SPACES:	8
TOTAL PROVIDED:	226 SPACES

GRAPHIC SCALE

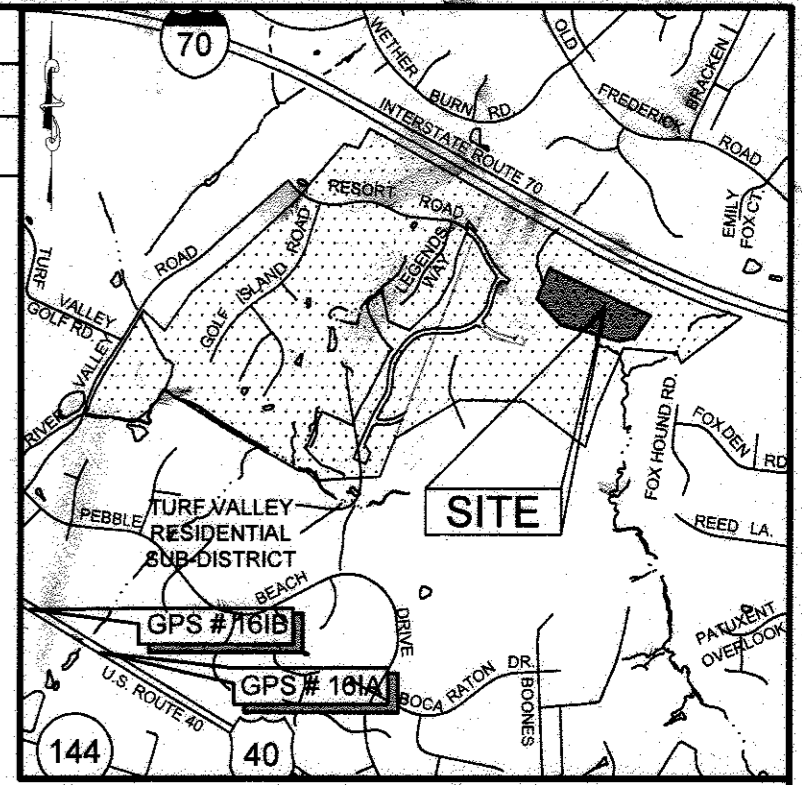


ENVIRONMENTAL CONCEPT PLAN

RAVENWOOD AT TURF VALLEY

SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

POINT	NORTHING	EASTING	ELEVATION
#161B	590,475.2538	1,344,753.9350	469.892
#161A	598,435,249	1,348,615.2482	508.469



VICINITY MAP

SCALE: 1" = 2000'
ADC MAP 20, GRID A4

LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- BUILDING OUTLINE
- 250' EXISTING CONTOUR
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- LOD LIMIT OF DISTURBANCE
- WB WETLAND BOUNDARY
- SB STREAM BOUNDARY
- GNB MaC SOILS LINE

STORMWATER MANAGEMENT APPROACH

THE "STORMWATER MANAGEMENT ACT OF 2007" REQUIRES THE IMPLEMENTATION OF AN ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICABLE. ENVIRONMENTAL SITE DESIGN TECHNIQUES PROMOTE GROUNDWATER RECHARGE BY TARGETING RUNOFF CHARACTERISTICS TO MIMIC WOODS IN A GOOD CONDITION AFTER DEVELOPMENT OF THE SITE.

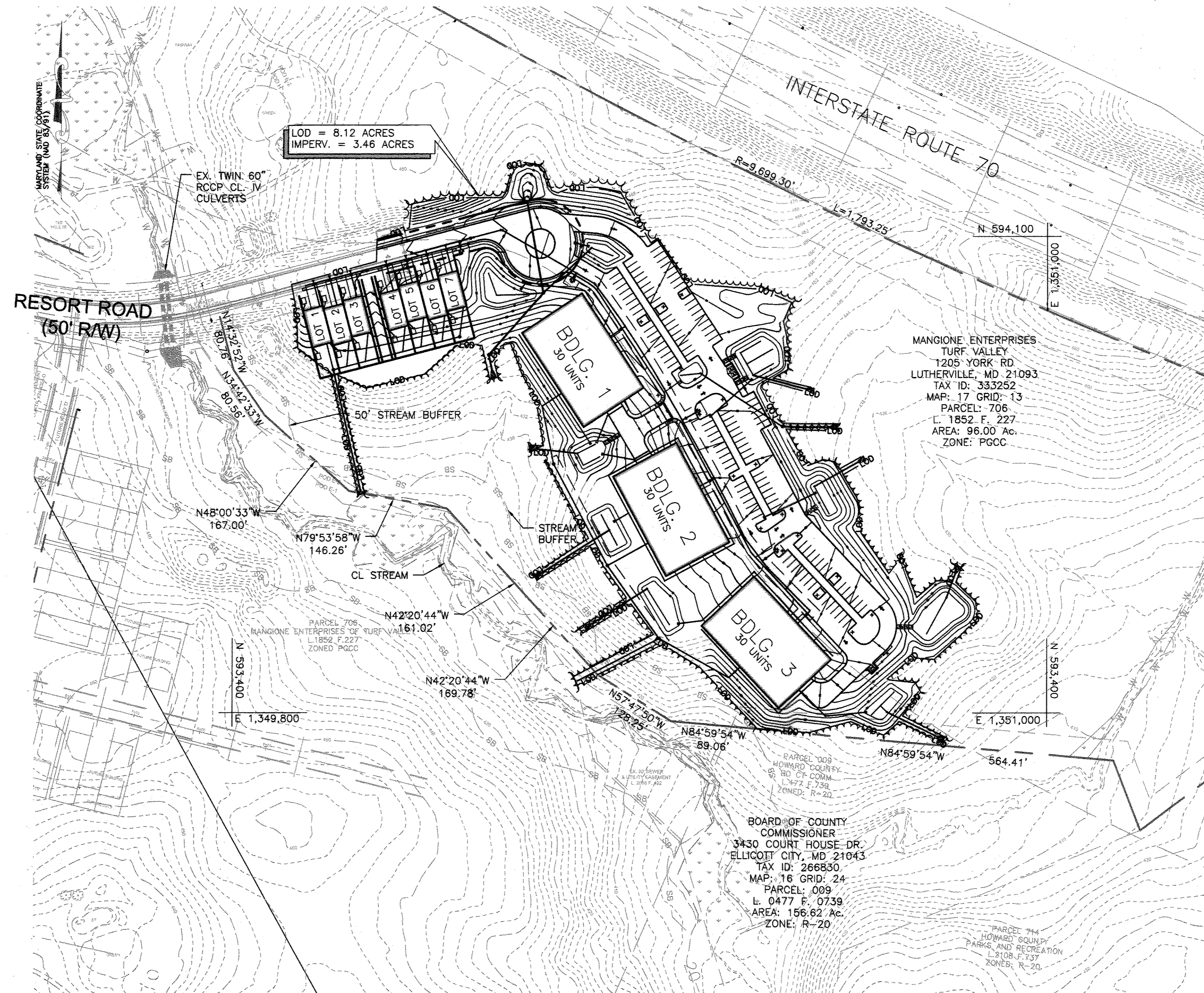
NATURAL RESOURCES: THERE ARE STEEP SLOPES, WETLANDS, AND STREAMS ON SITE. THE NEW DEVELOPMENT WAS DESIGNED TO LIMIT IMPACT ON THESE NATURAL RESOURCES AND MAINTAIN NATURAL STREAM PATTERNS. THERE WILL BE NO DEVELOPMENT ON EXISTING WETLANDS AND LIMITED DEVELOPMENT WILL OCCUR OVER EXISTING STEEP SLOPES.

NATURAL FLOW PATTERNS: IN GENERAL EXISTING DRAINAGE PATTERNS WILL REMAIN UNCHANGED IN THE PROPOSED CONDITION. THE SITE WILL CONTINUE TO DRAIN FROM THE NORTH TO SOUTH. THE INSTALLATION OF NEW STORMWATER MANAGEMENT FACILITIES WILL PROVIDE A STABLE NATURAL WATERCOURSE.

SITE DESIGN: THE SITE LAYOUT WAS DONE TO MAXIMIZE THE AMOUNT OF PROPOSED LIVING AREA WITHOUT DISTURBING THE STEEP SLOPES ON THE PROPERTY. THERE ARE SEVEN PROPOSED TOWNHOUSES AND THREE APARTMENT BUILDINGS WITH THIRTY UNITS PER BUILDING. TEN MICRO-BIORETENTION FACILITIES WILL BE USED AS WELL AS DRY WELLS IN THE FRONT AND BACK OF THE TOWNHOUSES TO TREAT THE REQUIRED ESD VOLUME. THE SITE LIES WITHIN THE LITTLE PATUXENT WATERSHED. BECAUSE OF THIS, 100-YEAR STORM MANAGEMENT IS NOT REQUIRED. PARKING WILL BE PROVIDED THROUGH FIRST FLOOR GARAGES, IN FRONT OF EACH OF THE TOWNHOUSES, AND STAND ALONE SPACES AROUND THE PROPERTY.

EROSION & SEDIMENT CONTROL: A CONCEPTUAL EROSION & SEDIMENT CONTROL PLAN IS INCLUDED TO DEMONSTRATE THAT SEDIMENT CONTROL PRACTICES WILL BE PROVIDED TO EFFECTIVELY TREAT SEDIMENT LADEN RUNOFF DURING CONSTRUCTION WITHOUT IMPACTING THE TREATMENT PRACTICES THAT ARE BEING PROPOSED FOR PERMANENT RUNOFF TREATMENT.

ESD PLANNING TECHNIQUES: NEW IMPERVIOUS AREA WILL BE TREATED BY DRY-WELLS AND MICRO-BIORETENTION FACILITIES. THESE FACILITIES COMBINED WILL STORE AND TREAT THE REQUIRED ESD VOLUME. THE DRY WELLS WILL TREAT THE RUNOFF FROM THE PROPOSED TOWNHOUSES. THE REST WILL BE TREATED WITH BIORETENTION. EXISTING FLOW THROUGH THE SITE WILL BE ROUTED UNDER THE PROPOSED CUL-DE-SAC. THE SOILS WITHIN THE LOD ARE HSG 'B' AND 'D'. A GEOTECHNICAL INVESTIGATION WAS COMPLETED AND WILL BE SUBMITTED ALONG WITH THE FINALIZED STORMWATER MANAGEMENT COMPUTATIONS.



LOCATION MAP

SCALE: 1"=100'

RAVENWOOD AT TURF VALLEY
ENVIRONMENTAL CONCEPT PLAN

ENVIRONMENTAL CONCEPT PLAN TITLE SHEET

ZONING: PGCC-1
TAX ACCOUNT # 535524
TAX MAP: 17 GRID: 13 PARCEL: 706
HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 33772 EXP. DATE: 06/16/2017

SEARCHED INDEXED
SERIALIZED FILED
MAY 11 2016
FBI - BALTIMORE

DRAWING NO. ECP-1
SHEET 1 OF 5
KCB JOB NUMBER 131600843

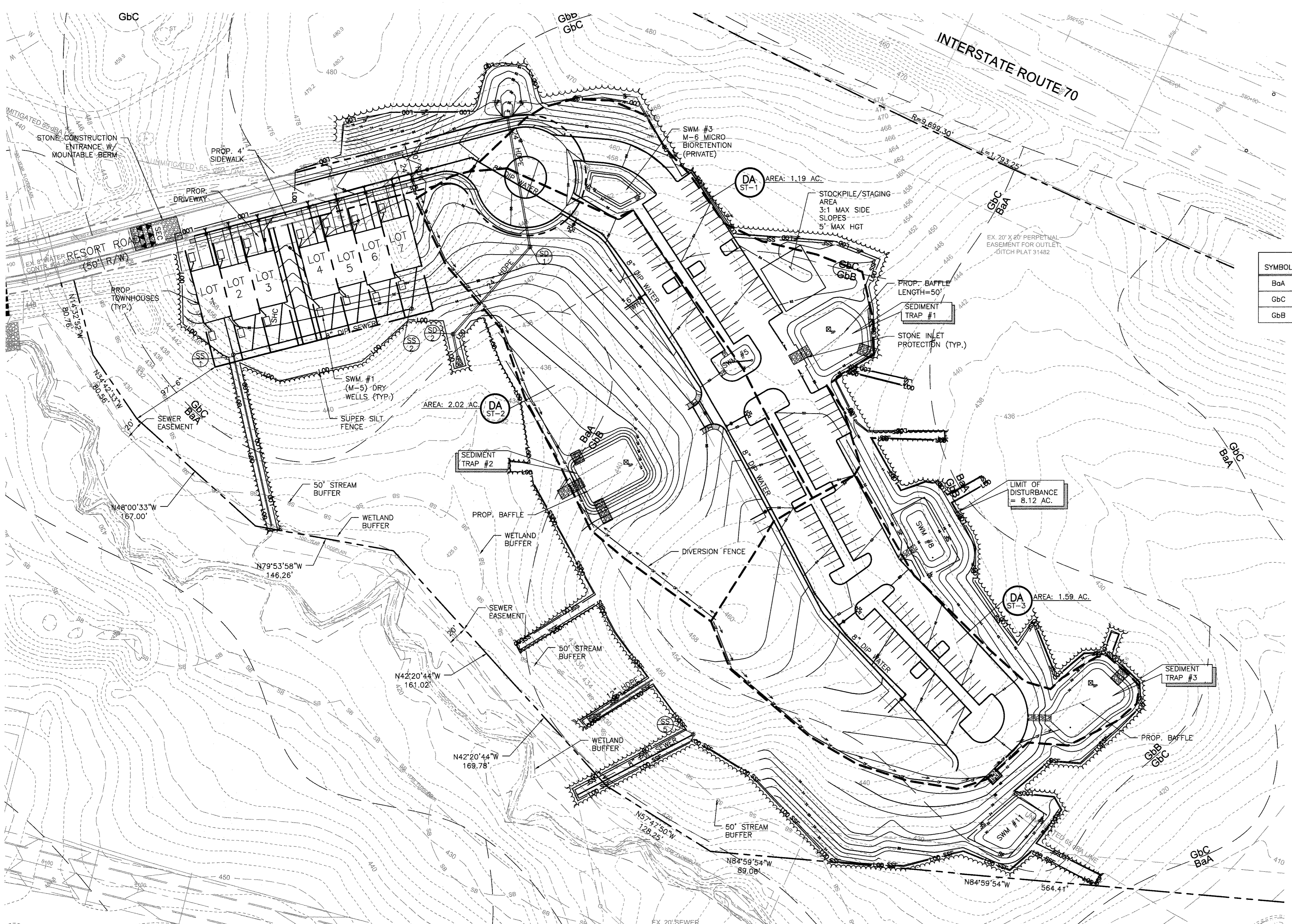
OWNER
COMMERCIAL CONTRACTORS INC.
1205 YORK ROAD
LUTHERVILLE-TIMONIUM,
MD 21093
(410)-825-8400

KCI TECHNOLOGIES
ENGINEERS PLANNERS ARCHITECTS SCIENTISTS CONSTRUCTION MANAGERS
11850 WEST MARKET PLACE, SUITE A
FULTON, MD 20779
TELEPHONE: (410) 792-8086
FAX: (410) 792-7419

APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
K. J. Johnson
CHIEF, DIVISION OF LAND DEVELOPMENT
11/17/16
DATE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DATE: 11-09-2016
SCALE: 1"=100'
DESIGNED BY: NAB
DRAWN BY: BRA



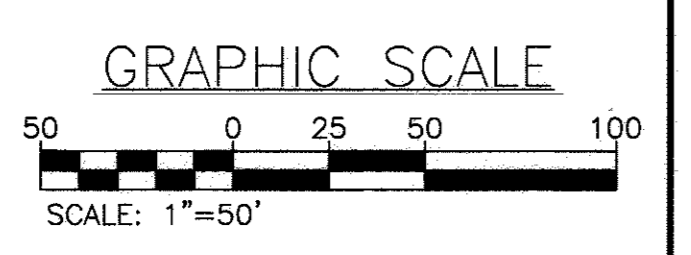
SOILS TABLE

SYMBOL	DESCRIPTION	HYDROLOGIC SOILS GROUP	K-VALUE
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	0.43
GbC	GLADESTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.28
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT	B	0.28

LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- PROPOSED BUILDING LINE
- EXISTING CONTOUR
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING TREE
- LOD --- LIMIT OF DISTURBANCE
- GnB --- SOILS LINE
- MaC --- AT GRADE INLET PROTECTION
- DF --- DIVERSION FENCE
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- CIP --- CURB INLET PROTECTION

INTERMEDIATE SEDIMENT & EROSION CONTROL PLAN
SCALE: 1"=50'



OWNER
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FAX: (410) 792-7419

APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
11-17-16
11/17/16

NO.	DATE	DESCRIPTION	BY

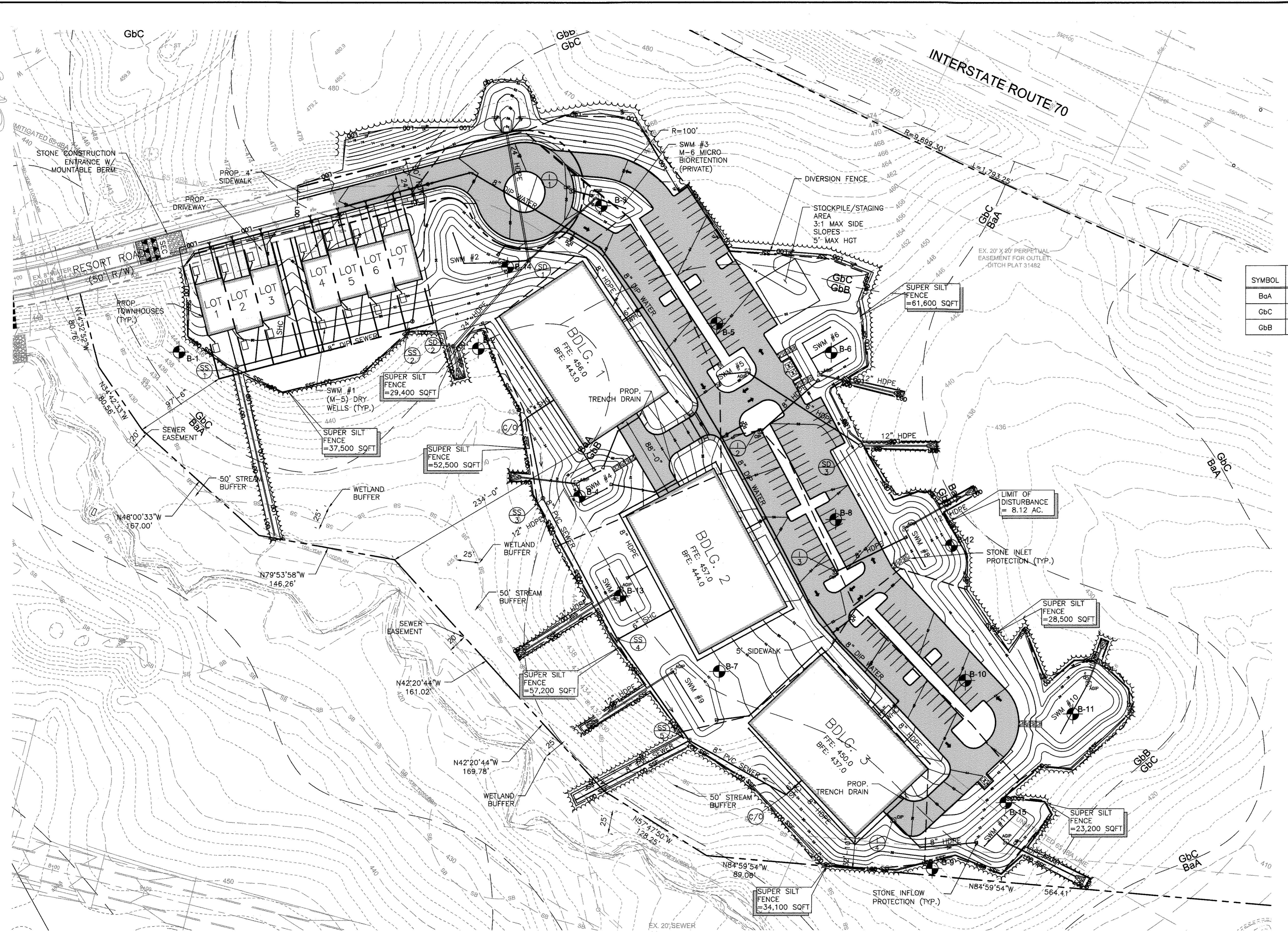
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DESIGNED BY: NAB
DRAWN BY: BRA

RAVENWOOD AT TURF VALLEY
ENVIRONMENTAL CONCEPT PLAN
INTERMEDIATE SEDIMENT EROSION CONTROL
CONCEPT PLAN
ZONING: PGCC-1
TAX ACCOUNT # 535524
TAX MAP: 17 GRID: 13 PARCEL: 706
HOWARD COUNTY, MARYLAND

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SEAL OF MARYLAND PROFESSIONAL ENGINEER

DRAWING NO. ECP-2
SHEET 2 OF 5
K0 JOB NUMBER 131600843



SOILS TABLE

SYMBOL	DESCRIPTION	HYDROLOGIC SOILS GROUP	K-VALUE
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	0.43
GbC	GLADESTONE LOAM, 8 TO 15 PERCENT SLOPES	B	0.28
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT	B	0.28

SOIL BORING INFORMATION

BORING	EXISTING GROUND ELEVATION	BORING DEPTH	IN-SUITU
B-1	442	12	
B-2	439	8	
B-3	453	10	YES
B-4	438	12	YES
B-5	449	6	YES
B-6	448	4	
B-7	456	13	YES
B-8	448	4	YES
B-9	427	9	YES
B-10	444	7	
B-11	437	10	YES
B-12	441	10	
B-13	448	11	
B-14	446	11	
B-15	434	11	

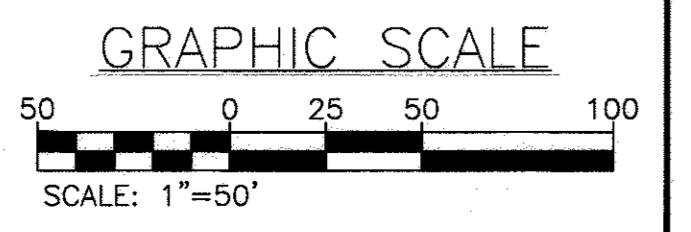
LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- PROPOSED BUILDING LINE
- 260 --- EXISTING CONTOUR
- EXISTING TRELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING TREE
- PROPOSED IMPERIOUS PAVEMENT
- LOD --- LIMIT OF DISTURBANCE
- GbB --- SOILS LINE
- MaC
- [] AGIP AT GRADE INLET PROTECTION
- DF --- DIVERSION FENCE
- SSF --- SUPER SILT FENCE
- [] CIP CURB INLET PROTECTION

SEDIMENT & EROSION CONTROL PLAN

SCALE: 1"=50'

NOTE:
 TOTAL AREA INSIDE LOD = 8.12 AC.
 TOTAL IMPERVIOUS AREA = 3.46 AC.
 TOTAL OPEN SPACE/PERVIOUS AREA = 4.66 AC.



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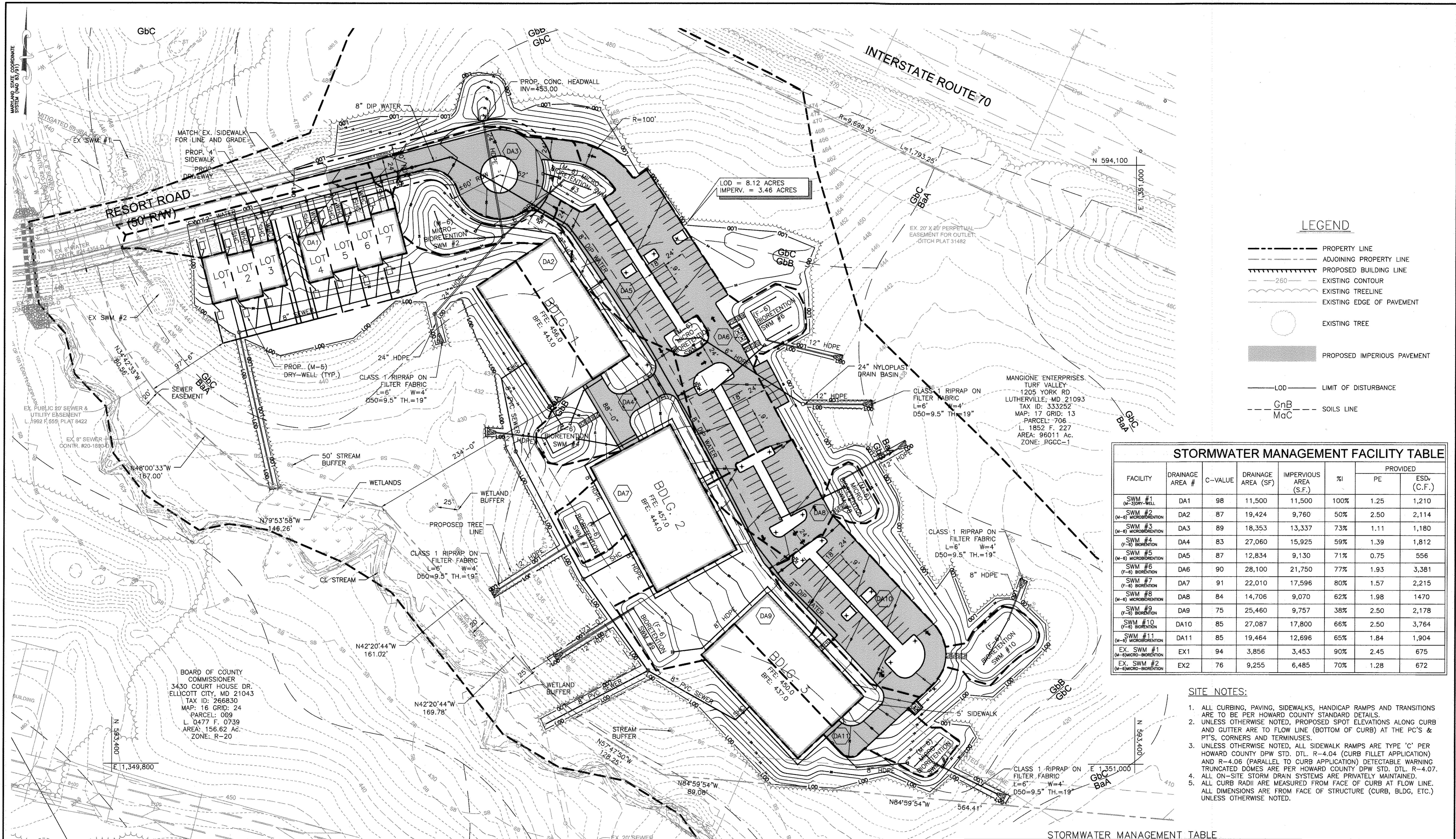
APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
Kat LaLonde 11-17-16
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 11/16/16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISIONS DESCRIPTION	BY

DATE: 11-09-2016
 SCALE: 1"=50'
 DESIGNED BY: NAB
 DRAWN BY: BRA

RAVENWOOD AT TURF VALLEY
 ENVIRONMENTAL CONCEPT PLAN
SEDIMENT EROSION CONTROL CONCEPT PLAN
 ZONING: PGCC-1
 TAX ACCOUNT # 535524
 TAX MAP: 17 GRID: 13 PARCEL: 706
 HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33772 EXP. DATE: 06/16/2017
ECP-3
 SHEET 3 OF 5
 KCI JOB NUMBER 131600843



LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- PROPOSED BUILDING LINE
- - - 260 --- EXISTING CONTOUR
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING TREE
- PROPOSED IMPERVIOUS PAVEMENT
- LOD --- LIMIT OF DISTURBANCE
- GnB --- SOILS LINE
- MaC --- SOILS LINE

STORMWATER MANAGEMENT FACILITY TABLE

FACILITY	DRAINAGE AREA #	C-VALUE	DRAINAGE AREA (SF)	IMPERVIOUS AREA (S.F.)	%	PROVIDED	
						PE	ESDv (C.F.)
SWM #1 (M-5) DRY-WELL	DA1	98	11,500	11,500	100%	1.25	1,210
SWM #2 (M-6) MICROBIOTENTION	DA2	87	19,424	9,760	50%	2.50	2,114
SWM #3 (M-6) MICROBIOTENTION	DA3	89	18,353	13,337	73%	1.11	1,180
SWM #4 (F-5) BIOTENTION	DA4	83	27,060	15,925	59%	1.39	1,812
SWM #5 (M-6) MICROBIOTENTION	DA5	87	12,834	9,130	71%	0.75	556
SWM #6 (F-6) BIOTENTION	DA6	90	28,100	21,750	77%	1.93	3,381
SWM #7 (F-6) BIOTENTION	DA7	91	22,010	17,596	80%	1.57	2,215
SWM #8 (M-6) MICROBIOTENTION	DA8	84	14,706	9,070	62%	1.98	1,470
SWM #9 (F-6) BIOTENTION	DA9	75	25,460	9,757	38%	2.50	2,178
SWM #10 (F-6) BIOTENTION	DA10	85	27,087	17,800	66%	2.50	3,764
SWM #11 (M-6) MICROBIOTENTION	DA11	85	19,464	12,696	65%	1.84	1,904
EX. SWM #1 (M-6) MICROBIOTENTION	EX1	94	3,856	3,453	90%	2.45	675
EX. SWM #2 (M-6) MICROBIOTENTION	EX2	76	9,255	6,485	70%	1.28	672

SITE NOTES:

- ALL CURBING, PAVING, SIDEWALKS, HANDICAP RAMPS AND TRANSITIONS ARE TO BE PER HOWARD COUNTY STANDARD DETAILS.
- UNLESS OTHERWISE NOTED, PROPOSED SPOT ELEVATIONS ALONG CURB AND GUTTER ARE TO FLOW LINE (BOTTOM OF CURB) AT THE PC'S & PT'S, CORNERS AND TERMINUSES.
- UNLESS OTHERWISE NOTED, ALL SIDEWALK RAMPS ARE TYPE 'C' PER HOWARD COUNTY DPW STD. DTL. R-4.04 (CURB FILLET APPLICATION) AND R-4.06 (PARALLEL TO CURB APPLICATION) DETECTABLE WARNING TRUNCATED DOMES ARE PER HOWARD COUNTY DPW STD. DTL. R-4.07.
- ALL ON-SITE STORM DRAIN SYSTEMS ARE PRIVATELY MAINTAINED.
- ALL CURB RADI ARE MEASURED FROM FACE OF CURB AT FLOW LINE. ALL DIMENSIONS ARE FROM FACE OF STRUCTURE (CURB, BLDG, ETC.) UNLESS OTHERWISE NOTED.

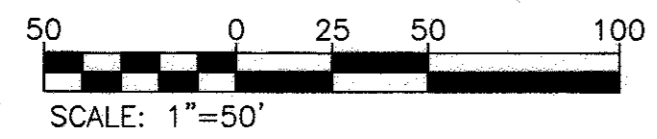
STORMWATER MANAGEMENT TABLE

AREA OF DISTURBANCE (AC.)	PROPOSED IMPERVIOUS (AC.)	%	PE	QE	ESDv REQUIRED (CF)	ESDv PROVIDED (CF)
8.12	3.46	55	1.80"	0.79"	22,035	23,374

10-YEAR MANAGEMENT TABLE

CONDITION	AREA AC.	Q	
		1-YEAR	10-YEAR
PRE-DEVELOPMENT	20.32	3.58	29.21
POST-DEVELOPED	20.32	2.53	27.76

GRAPHIC SCALE



STORMWATER MANAGEMENT CONCEPT PLAN

SCALE: 1"=50'

OWNER
COMMERCIAL CONTRACTORS INC.
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LUTHERVILLE-TIMONIUM, MD 21093
(410)-825-8400

ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
KCI TECHNOLOGIES
11850 WEST MARKET PLACE, SUITE A
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TELEPHONE: (410) 792-8086
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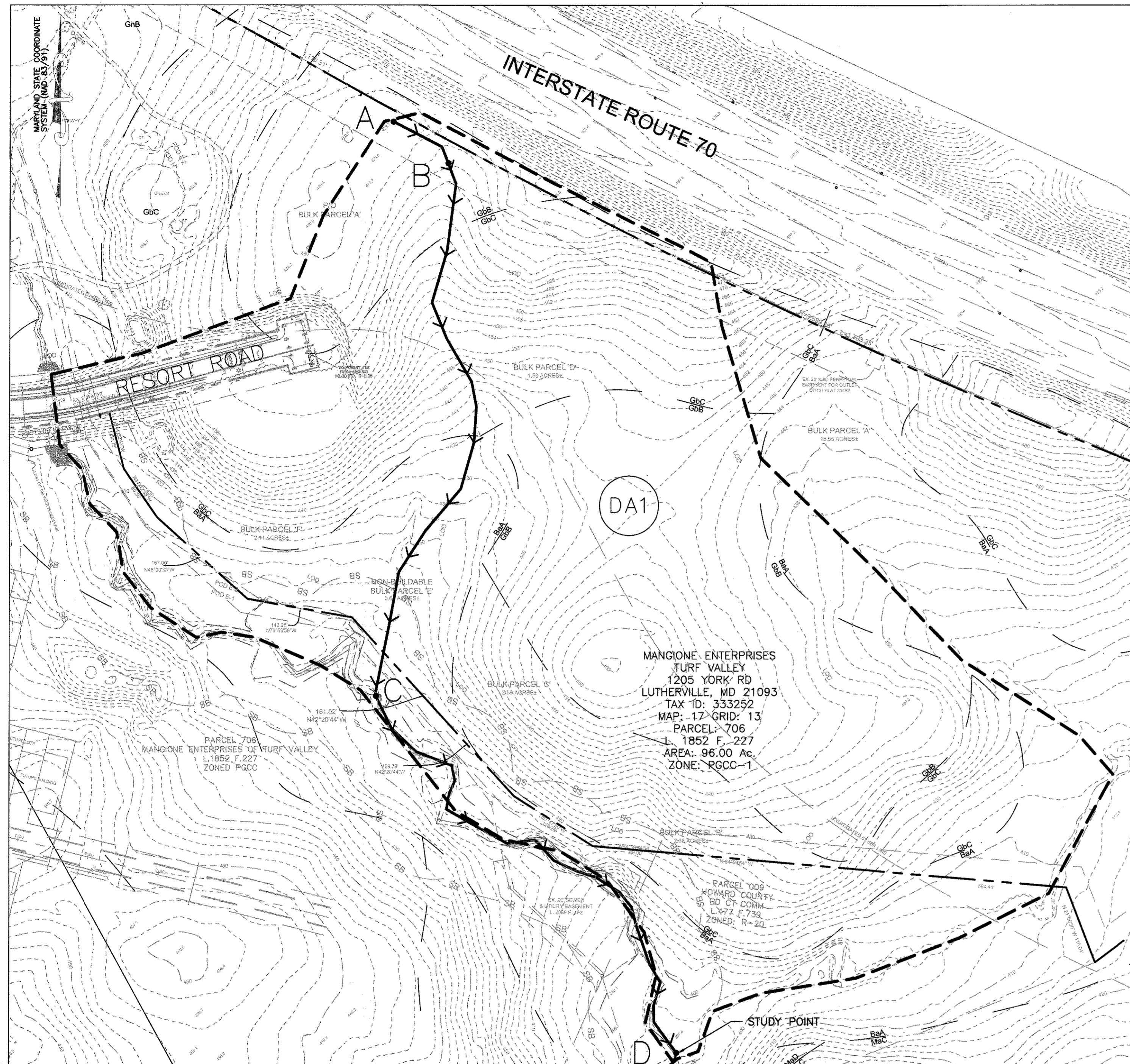
APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
Ke. Theodor
CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	DESCRIPTION	BY

DATE: 11-09-2016
SCALE: 1"=50'
DESIGNED BY: NAB
DRAWN BY: BRA

RAVENWOOD AT TURF VALLEY
ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT CONCEPT PLAN
ZONING: PGCC-1
TAX ACCOUNT # 535524
TAX MAP: 17 GRID: 13 PARCEL: 706
HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33772 EXP. DATE: 06/16/2017
[Signature]
DRAWING NO. ECP-4
SHEET 4 OF 5
KOT JOB NUMBER 131600843

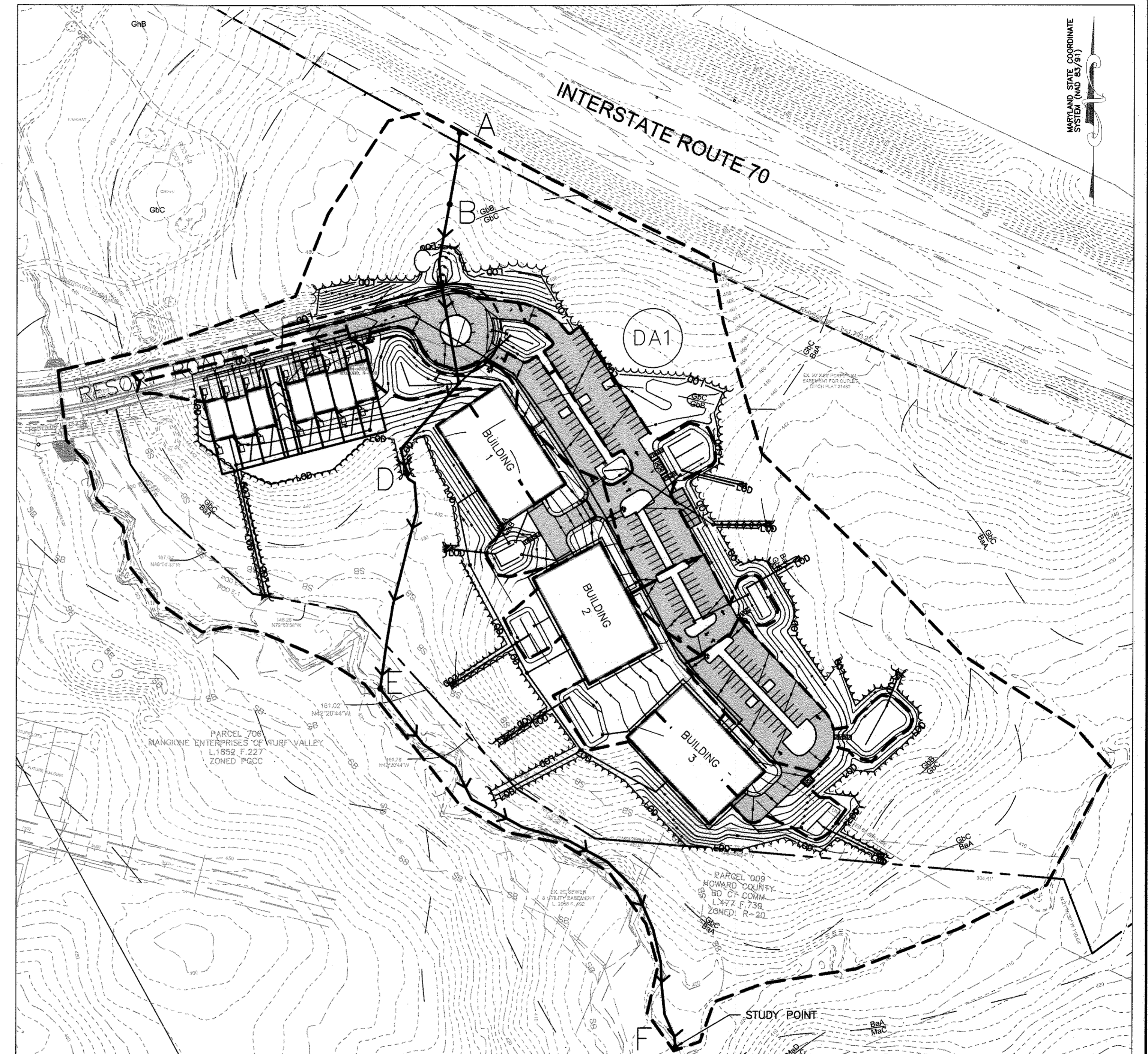


EXISTING DRAINAGE AREA

SCALE: 1"=100'

EXISTING DRAINAGE AREA SUMMARY TABLE

DRAINAGE AREA	AREA (AC.)	IMP. AREA (AC.)	RCN	TC (HR.)	1-YR Q (cfs)	10-YR Q (cfs)
DA1	20.32	0.32	63	0.360	3.58	29.21



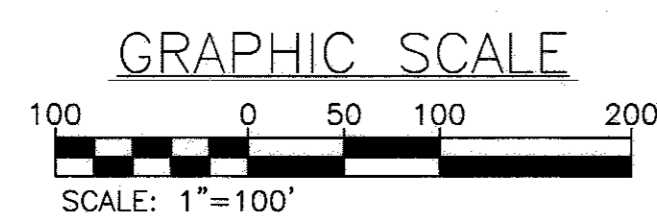
PROPOSED DRAINAGE AREA

SCALE: 1"=100'

PROPOSED DRAINAGE AREA SUMMARY TABLE

DRAINAGE AREA	AREA (AC.)	IMP. AREA (AC.)	RCN	TC (HR.)	1-YR Q (cfs)	10-YR Q (cfs)
DA1	20.32	3.47	---	---	2.53	27.76

NOTE: THIS DATA IS FROM THE ROUTED TR-20



OWNER
COMMERCIAL CONTRACTORS INC.
1205 YORK ROAD
LUTHERVILLE-TIMONIUM,
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(410)-825-8400

ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
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11850 WEST MARKET PLACE, SUITE A
FULTON, MD 20785
TELEPHONE: (410) 792-8086
FAX: (410) 792-7419

APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
K. J. [Signature] 11-17-16
CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] DATE

REVISIONS		DATE
NO.	DESCRIPTION	BY

DATE: 11-09-2016
SCALE: 1"=100'
DESIGNED BY: NAB
DRAWN BY: BRA

RAVENWOOD AT TURF VALLEY
ENVIRONMENTAL CONCEPT PLAN
DRAINAGE AREA MAPS
ZONING: PGCC-1
TAX ACCOUNT # 535524
SECOND ELECTION DISTRICT TAX MAP: 17 GRID: 13 PARCEL: 706 HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33772 EXP. DATE: 06/16/2017

SEAL OF PROFESSIONAL ENGINEER
[Signature]
DRAWING NO. ECP-5
SHEET 5 OF 5
KCI JOB NUMBER 131600843