

INDEX OF DRAWINGS

- ECP-1 - ENVIRONMENTAL CONCEPT PLAN TITLE SHEET
- ECP-2 - EXISTING CONDITIONS PLAN
- ECP-3 - EROSION & SEDIMENT CONTROL CONCEPT PLAN
- ECP-4 - STORMWATER MANAGEMENT CONCEPT PLAN

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: LINDA L. ARMSTRONG
9309 WHISKEY BOTTOM ROAD
LAUREL, MARYLAND 20732
(301) 776-5600
2. SITE DATA:
TAX ID: 409768
TAX MAP/GRID: 47/22
PARCEL: 191
LIBER/FOLIO: 10802/351
AREA: 1.57 ACRES
ZONE: R-SC
ADC MAP/GRID: 40/D7
3. HORIZONTAL AND VERTICAL DATA SHOWN HEREON ARE BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY KCI TECHNOLOGIES, INC. ON OR ABOUT JULY 2012 AND REFLECT NATIONAL GEODETIC SURVEY NAD '83 (1991) AND NAVD '88 VALUES RESPECTIVELY.
4. PROPERTY SHOWN HEREON LIES WITHIN ZONE C, AN AREA OF MINIMAL FLOODING, PER FEMA COMMUNITY PANEL NO. 24027C0230D EFFECTIVE DATE NOVEMBER 11, 2013.
5. THERE ARE NO WETLANDS, BUFFERS, OR ANY OTHER ENVIRONMENTAL FEATURES ON THIS SITE.
6. THIS PROPERTY IS FORMERLY KNOWN AS THE "JOSEPH TRAVERS HOUSE" AND IS KNOWN TO THE MARYLAND HISTORICAL TRUST AS PROPERTY H0-801.
7. APPLICABLE DPZ FILE REFERENCES: ECP-14-011 & F-14-085
8. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION, WHICH INCLUDES A FIELD RUN SURVEY COMPLETED BY KCI TECHNOLOGIES, INC. ON OR ABOUT JULY 2012.
9. THE SUBJECT PROPERTY IS ZONED R-SC PER THE 10-6-13 HOWARD COUNTY COMPREHENSIVE ZONING PLAN.
10. LIMIT OF DISTURBANCE (LOD): 0.39 AC.
11. PROPOSED LAND USES WITHIN THE LOD:
BUILDING: 0.081 AC.
PARKING: 0 AC.
ROAD: 0.045 AC.
GREEN: 0.26 AC.
9. EXISTING WETLAND AREA WITHIN LOD = 0 AC.
EXISTING WETLAND BUFFER AREA WITHIN THE LOD = 0 AC.
10. EXISTING FLOODPLAIN AREA WITHIN LOD = 0 AC.
11. EXISTING STREAM BUFFER AREA WITHIN LOD = 0 AC.
12. FOREST CONSERVATION WITHIN LOD = 0 AC.
13. EXISTING STEEP SLOPE AREA (>15%) WITHIN LOD = 0 AC.
14. HIGHLY ERODIBLE SOILS WITHIN THE LOD = 0 AC.
15. FOREST CONSERVATION HAS BEEN ADDRESSED IN PHASE I, PLEASE SEE FILE F-14-085.

SITE DATA

1. GENERAL SITE DATA
 - a. PRESENT ZONE: R-SC
 - b. LOCATION; TAX MAP: 47, GRID 22, PARCEL 191
 - c. APPLICABLE DPZ FILE REFERENCES: N/A
 - d. PROPOSED USE OF SITE: SINGLE FAMILY DETACHED RESIDENTIAL
 - e. PROPOSED WATER AND SEWER SYSTEMS: PUBLIC
2. AREA TABULATION

a. TOTAL AREA OF SITE.....	1.57 AC.
b. APPROXIMATE AREA OF 100 YEAR FLOODPLAIN.....	N/A
c. APPROX. AREA OF STEEP SLOPES (25% OR MORE).....	N/A
d. NET AREA OF SITE.....	1.57 AC.
e. AREA OF THIS PLAN SUBMISSION.....	1.57 AC.
f. AREA OF PROPOSED BUILDABLE LOTS.....	0.30 AC.
g. AREA OF PROPOSED PUBLIC ROAD RIGHT-OF-WAY.....	0.00 AC.
h. APPROXIMATE AREA OF LIMIT OF DISTURBANCE.....	0.39 AC.
i. AREA OF PROPOSED OPEN SPACE LOTS.....	0.00 AC.
j. AREA OF PROPOSED NON-CREDIT OPEN SPACE.....	0.00 AC.
3. DENSITY TABULATION

a. NET AREA OF THE SITE.....	1.57 AC.
b. TOTAL NUMBER OF BUILDABLE LOTS ALLOWED (4 D.U./NET AC.).....	11
c. TOTAL NUMBER OF BUILDABLE LOTS PROPOSED.....	2
4. UNIT/LOT TABULATION

a. TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION.....	2
b. TOTAL NUMBER OF OPEN SPACE LOTS PROPOSED.....	0
c. TOTAL NUMBER OF NON-BUILDABLE LOTS PROPOSED.....	N/A

BENCHMARK DATA			
No.	NORTHING	EASTING	ELEV
1	528883.65	1359074.54	261.13
2	528725.53	1359148.14	263.97
3	528534.23	1358816.57	257.48

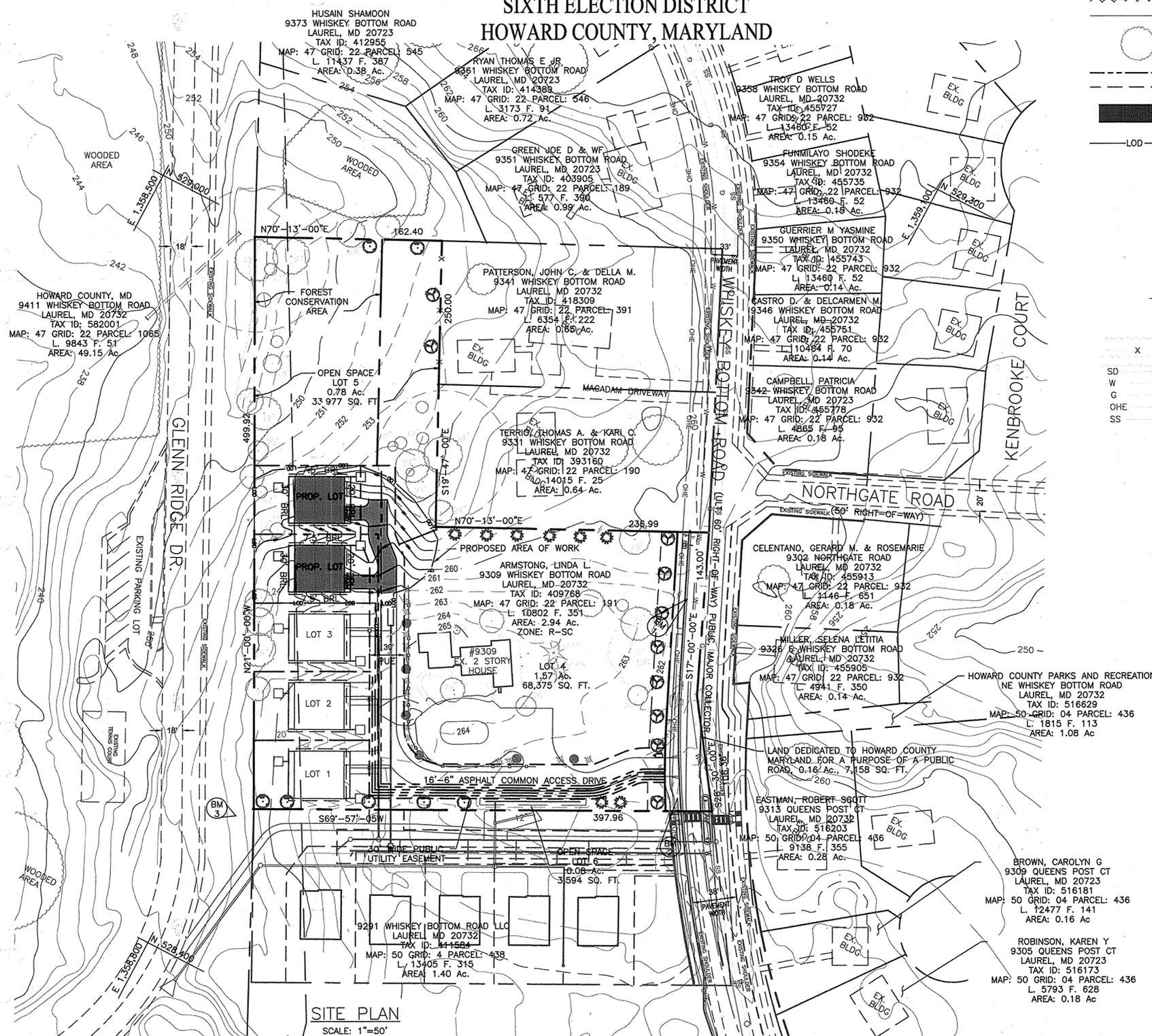
ENVIRONMENTAL CONCEPT PLAN

BUTTERFIELD GROVE

PHASE 2

SIXTH ELECTION DISTRICT

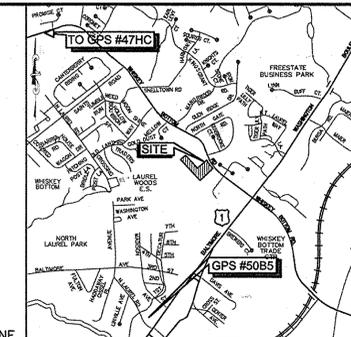
HOWARD COUNTY, MARYLAND



SITE PLAN
SCALE: 1"=50'

LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING CONTOUR
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING TREE
- PROPOSED LOT LINE
- PROPOSED BUILDING SETBACK LINE
- PROPOSED IMPERVIOUS AREA
- LOD LIMIT OF DISTURBANCE
- PIPE
- MANHOLE
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- FIRE HYDRANT
- RESIDENTIAL MAILBOX
- SIGN
- FLOOD LIGHT
- CONCRETE MONUMENT
- BUSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- EDGE OF WOODS
- FENCE
- HEDGE
- UNDERGROUND STORM DRAIN PIPE
- EXISTING WATER
- EXISTING GAS
- EXISTING OVERHEAD ELECTRIC
- EXISTING SANITARY SEWER



VICINITY MAP
SCALE: 1"=2000'
ADC MAP/GRID: 40/D7

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:

THE PROPOSED DEVELOPMENT DOES NOT IMPACT ANY STREAMS, WETLANDS, THEIR BUFFERS, 100 YEAR FLOODPLAIN, STEEP SLOPES, OR FOREST CONSERVATION EASEMENTS AS NONE EXIST ON SITE.

NATURAL FLOW PATTERNS:

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

SITE DESIGN:

THE EXISTING HOUSE IS HISTORIC, ALTHOUGH IT IS NOT LISTED ON THE NATIONAL HISTORIC REGISTER. THE LOT LAYOUT, AS SHOWN ON THIS PLAN, WAS DONE TO PREVENT TAKING AWAY FROM THE HISTORICAL NATURE AND ARCHITECTURE OF THE EXISTING RESIDENCE FROM THE STREET. THE PROPERTY OWNER DID NOT WANT TO OBSTRUCT THE VIEW OF THE EXISTING RESIDENCE FROM THE STREET. THE EXISTING COMMON USE DRIVEWAY WILL BE EXTENDED TO PROVIDE ACCESS FOR THE TWO PROPOSED LOTS. THE EXISTING SEWER AND WATER LINES LOCATED IN THE ACCESS DRIVE WILL BE USED TO SERVICE THE TWO PROPOSED LOTS. TWO SPECIMEN TREES (42" ASH AND 38" WHITE OAK) ARE LOCATED ON OR NEXT TO THE PROPERTY. THE CRITICAL ROOTS ZONES WILL NOT BE IMPACTED BY THE PROPOSED WORK.

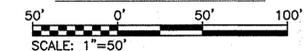
EROSION & SEDIMENT CONTROL:

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 AND EXISTING IMPERVIOUS AREAS WILL BE TREATED BY ESD PRACTICES. THESE FACILITIES COMBINED WILL STORE AND TREAT THE REQUIRED ESD VOLUME. PROPOSED SWALES WILL ALSO HELP TREAT ON SITE RUNOFF. THE SOILS WITHIN THE LOD ARE HSG 'D'. A GEOTECHNICAL INVESTIGATION WILL BE REQUIRED PRIOR TO DEVELOPMENT OF THE FINALIZED STORMWATER MANAGEMENT COMPUTATIONS.

GRAPHIC SCALE

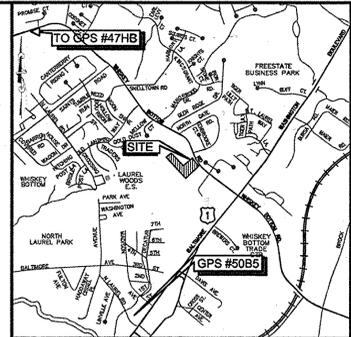


PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33772 EXP. DATE: 06/16/2017

OWNER LINDA L. ARMSTRONG 9309 WHISKEY BOTTOM RD LAUREL, MD 20732 PHONE: (301) 776-5600	 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 11850 West Market Place Suite A Reston, MD 20199 Telephone: (410) 792-8886 Fax: (410) 792-2419	APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING DATE: 3.22.16	REVISIONS NO. DATE DESCRIPTION BY	DATE: 03-15-2016 SCALE: 1"=50' DESIGNED BY: NAB DRAWN BY: BRA	BUTTERFIELD GROVE - PHASE 2 ENVIRONMENTAL CONCEPT PLAN SHEET ZONING: R-SC TAX ACCOUNT # 045868 TAX MAP: 47 GRID: 22 PARCEL: 191 HOWARD COUNTY, MARYLAND	 PROFESSIONAL ENGINEER STATE OF MARYLAND LICENSE NO. 33772	DRAWING NO. ECP-1 SHEET 1 OF 4 KCI JOB NUMBER 27121943
		APPROVED: [Signature] CHEF, DIVISION OF LAND DEVELOPMENT DATE: 5.10.16	DATE: 5.10.16	DATE: 5.10.16			



BENCHMARK DATA				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
1	528843.43	1358936.29	261	REBAR & CAP
2	528725.53	1359148.14	264	REBAR & CAP
3	528534.23	1358816.57	257.5	REBAR & CAP



VICINITY MAP
SCALE: 1"=2000'
ADC MAP/GRID: 40/D7

GENERAL / DEMOLITION NOTES

1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-257-7777) AT LEAST FIVE WORKING DAYS PRIOR TO STARTING ANY WORK.
2. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR SHALL VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH INFORMATION OUTLINED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT PRIOR TO STARTING ANY WORK.
3. CONTRACTOR SHALL REMOVE PAVEMENT, CURB AND GUTTER, AND CONCRETE WALK TO LIMITS INDICATED ON THE DRAWING.
4. CONTRACTOR SHALL NOT PROCEED WITH ANY DEMOLITION WORK UNTIL ALL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED AND VERIFIED IN WRITING BY UTILITY COMPANY, AND/OR OWNER.
5. BURNING OF COMBUSTIBLE MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED ON-SITE.
6. EXISTING CURB AND GUTTER & CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
7. ALL DEMOLITION MATERIAL TO REMAIN WITH THE LIMIT OF DISTURBANCE. ALL STOCKPILED MATERIALS ARE TO REMAIN WITHIN THE STOCKPILE/STAGING AREA AS SHOWN ON THE APPROVED SEDIMENT & EROSION CONTROL PLAN. ALL SEDIMENT CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO BEGINNING DEMOLITION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAUL ALL DEMOLITION MATERIAL OFFSITE TO AN APPROVED FACILITY.
8. CONTRACTOR TO SUBMIT A DEMOLITION/CONSTRUCTION STAGING PLAN TO THE OWNER AND ARCHITECT FOR APPROVAL, PRIOR TO BEGINNING AND CONSTRUCTION.
9. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREON BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN. CONTRACTOR TO NOTIFY THE ENGINEER ONCE TEST PITS HAVE BEEN COMPLETED.
10. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
11. CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADES AS REQUIRED.
12. CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND SHALL MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION & CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH ALL APPLICABLE STATE & COUNTY REQUIREMENTS.
13. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT WILL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
14. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. SOIL BORINGS WERE COMPLETED BY HERBST BENSON & ASSOCIATES & LETTER REPORT DATED JANUARY 2014. A COPY OF THE GEOTECHNICAL REPORT HAS BEEN INCLUDED WITH THE PROJECT MANUAL.
16. THE DEMOLITION INFORMATION SHOWN ON THIS DRAWING IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS PRIOR TO BEGINNING WORK.
17. THE EXISTING STRUCTURES THAT ARE PROPOSED TO BE REMOVED, WILL BE DEMOLISHED PRIOR TO THE RECORDATION OF THE SUBDIVISION PLAT.

EXISTING CONDITION / DEMOLITION PLAN
SCALE: 1"=50'

TREES TO BE REMOVED

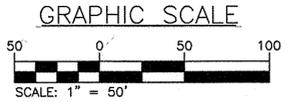
SIZE	TYPE	CONDITION
12"	ASH (FRAXINUS ORNUS)	GOOD
15"	WHITE OAK (QUERCUS ALBA)	GOOD
12"	WHITE OAK (QUERCUS ALBA)	GOOD

LEGEND

	PROPERTY LINE
	ADJOINER LINE
	EDGE OF ROAD
	EX. BUILDING
	EX. CONTOUR
	EX. SPOT GRADE
	EX. FENCE
	EX. WALK
	EX. WATER LINE
	EX. WATER VALVE
	EX. FIRE HYDRANT
	EX. SEWER LINE
	EX. SEWER MANHOLE
	EX. GAS LINE
	EX. LIGHT POLE
	EX. TREE
	SOILS LINE

SOILS TABLE		
SYMBOL	DESCRIPTION	HYDROLOGIC SOILS GROUP
UsB	URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 0 TO 5 PERCENTS SLOPES	D
RcC	URBAN LAND-WOODSTOWN-SASSAFRAS COMPLEX, 5 TO 10 PERCENT SLOPES	C

SPECIMEN TREE TABLE		
SIZE	TYPE	CONDITION
42"	ASH (FRAXINUS ORNUS)	GOOD
38"	WHITE OAK (QUERCUS ALBA)	GOOD



OWNER
LINDA L. ARMSTRONG
9309 WHISKEY BOTTOM RD
LAUREL, MD 20732
PHONE: (301) 776-5600

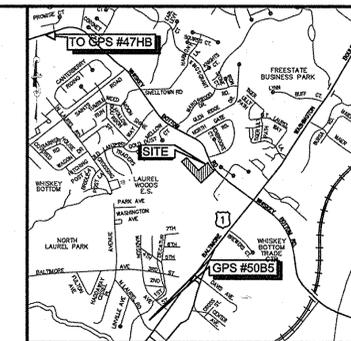
ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
KCI TECHNOLOGIES
11859 West Market Place
Suite A
Ft. Belvoir, MD 20739
Telephone: (410) 792-8886
Fax: (410) 792-7419

APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
KCI
3-22-16
5-10-16

REVISIONS			
NO.	DATE	DESCRIPTION	BY

BUTTERFIELD GROVE - PHASE 2
ENVIRONMENTAL CONCEPT PLAN
EXISTING CONDITIONS
ZONING: R-SC
TAX ACCOUNT # 545868
TAX MAP: 47 GRID: 22 PARCEL: 191
SIXTH ELECTION DISTRICT 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
DRAWING NO. **ECP-2**
SHEET 2 OF 4
KCI JOB NUMBER 27121943



VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 40, GRID D7

SITE NOTES

- OWNER/APPLICANT: LINDA L. ARMSTRONG
9309 WHISKEY BOTTOM ROAD
LAUREL, MARYLAND 20732
- SITE DATA:
TAX ID: 409768
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- PROPERTY SHOWN HEREON LIES WITHIN ZONE C, AN AREA OF MINIMAL FLOODING, PER FEMA COMMUNITY PANEL NO. 2400440045B EFFECTIVE DATE DECEMBER 4, 1986.
- THERE ARE NO WETLANDS, BUFFERS, OR ANY OTHER ENVIRONMENTAL FEATURES ON THIS SITE.
- THIS PROPERTY IS FORMERLY KNOWN AS THE "JOSEPH TRAVERS HOUSE" AND IS KNOWN TO THE MARYLAND HISTORICAL TRUST AS PROPERTY HO-801.
- EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION, WHICH INCLUDES A FIELD RUN SURVEY COMPLETED BY KCI TECHNOLOGIES, INC. ON OR ABOUT JULY 2012.
- LIMIT OF DISTURBANCE (LOD): 0.39 AC.

SOILS TABLE

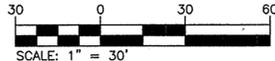
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Rsc	URBAN LAND-WOODSTOWN-SASSAFRAS COMPLEX, 5 TO 10 PERCENT SLOPES	C

LEGEND

- PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING BUILDING LINE
- 260--- EXISTING CONTOUR
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING TREE
- PROPOSED LOT LINE
- PROPOSED BUILDING SETBACK LINE
- PROPOSED IMPERVIOUS AREA
- LOD --- LIMIT OF DISTURBANCE
- SF --- SILT FENCE
- UsB --- SOILS LINE
- Rsc --- SOILS LINE
- PIPE
- MANHOLE
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- FIRE HYDRANT
- RESIDENTIAL MAILBOX
- SIGN
- FLOOD LIGHT
- CONCRETE MONUMENT
- BUSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- EDGE OF WOODS
- FENCE
- HEDGE
- UNDERGROUND STORM DRAIN PIPE
- EXISTING WATER
- EXISTING GAS
- EXISTING OVERHEAD ELECTRIC
- PROPOSED SEWER
- PROPOSED WATER

EROSION AND SEDIMENT CONTROL PLAN
SCALE: 1"=30'

GRAPHIC SCALE



OWNER LINDA L. ARMSTRONG 9309 WHISKEY BOTTOM RD LAUREL, MD 20732 PHONE: (301) 776-5600	 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 11850 West Market Place Suite A Fulton, MD 20719 Telephone: (410) 792-8886 Fax: (410) 792-7419	APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 3-22-16	REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	BY					DATE: 03-10-2016 SCALE: 1"=30' DESIGNED BY: NAB DRAWN BY: BRA	BUTTERFIELD GROVE - PHASE 2 ENVIRONMENTAL CONCEPT PLAN EROSION AND SEDIMENT CONTROL PLAN ZONING: R-SC TAX ACCOUNT # 045868 TAX MAP: 47 GRID: 22 PARCEL: 191 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 DRAWING NO. ECP-3 SHEET 3 OF 4 KCI JOB NUMBER 27121943
		NO.	DATE	DESCRIPTION	BY									
PHONE: (301) 776-5600	CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5-10-16	SIXTH ELECTION DISTRICT												

BENCHMARK DATA				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
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SOILS TABLE		
SYMBOL	DESCRIPTION	HYDROLOGIC SOILS GROUP
UsB	URBAN LAND-SASSAFRAS-BELTSVILLE COMPLEX, 0 TO 5 PERCENTS SLOPES	D
RaC	URBAN LAND-WOODSTOWN-SASSAFRAS COMPLEX, 5 TO 10 PERCENT SLOPES	C

STORMWATER MANAGEMENT FACILITY TABLE						
FACILITY	DRAINAGE AREA (AC.)	DRAINAGE AREA (S.F.)	%	TARGET PE	PROVIDED	
					PE	ESD, (C.F.)
SWM-1 (M-5) DRY WELL	0.02	888	100%	1.2	1.34	99
SWM-2 (M-5) DRY WELL	0.02	888	100%	1.2	1.34	99
SWM-3 (M-5) DRY WELL	0.02	888	100%	1.2	1.34	99
SWM-4 (M-5) DRY WELL	0.02	888	100%	1.2	1.34	99
NON-ROOFTOP DISCONNECT	0.05	2,245	100%	1.0	1.00	178

STORMWATER MANAGEMENT SUMMARY TABLE						
AREA OF DISTURBANCE (AC.)	IMP. AREA (AC.)	PE		ESD VOLUME (CF)		BMP
		REQUIRED	PROVIDED	REQUIRED	PROVIDED	
0.39	0.13	1.20	1.27	574	574	(M-5) DRYWELLS (N-2) NON-ROOF DISCONNECTION

LEGEND	
---	PROPERTY LINE
---	ADJOINING PROPERTY LINE
---	EXISTING BUILDING LINE
---	EXISTING CONTOUR
---	EXISTING TREELINE
---	EXISTING EDGE OF PAVEMENT
○	EXISTING TREE
---	PROPOSED LOT LINE
---	PROPOSED BUILDING SETBACK LINE
■	PROPOSED IMPERVIOUS AREA
---	LOD - LIMIT OF DISTURBANCE
---	SSF - SUPER SILT FENCE
UsB RsC	SOILS LINE
○	PIPE MANHOLE
○	UTILITY POLE
○	GUY WIRE
○	LIGHT POLE
○	FIRE HYDRANT
○	RESIDENTIAL MAILBOX
○	SIGN
○	FLOOD LIGHT
○	CONCRETE MONUMENT
○	BUSH
○	CONIFEROUS TREE
○	DECIDUOUS TREE
---	EDGE OF WOODS
---	FENCE
---	HEDGE
---	UNDERGROUND STORM DRAIN PIPE
---	EXISTING WATER
---	EXISTING GAS
---	EXISTING OVERHEAD ELECTRIC
---	PROPOSED SEWER
---	PROPOSED WATER

MISS UTILITY

CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

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

BUTTERFIELD GROVE - PHASE 2
 ENVIRONMENTAL CONCEPT PLAN
SITE PLAN/STORMWATER MANAGEMENT PLAN
 ZONING: R-SC
 TAX ACCOUNT # 045888
 TAX MAP: 47 GRID: 22 PARCEL: 191
 HOWARD COUNTY, MARYLAND

DRAWING NO. **ECP-4**
 SHEET 4 OF 4
 KCI JOB NUMBER 2711943
 DATE: 5/5/16

OWNER
 LINDA L. ARMSTRONG
 9309 WHISKEY BOTTOM RD
 LAUREL, MD 20732
 PHONE: (301) 776-5600

ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
KCI TECHNOLOGIES
 11850 Water Market Place
 Suite A
 Potomac, MD 20709
 Telephone: (410) 792-8886
 Fax: (410) 792-9418

APPROVED: HOWARD COUNTY DEPARTMENT PLANNING AND ZONING
 DATE: 5-16-16
 CHIEF, DIVISION OF LAND DEVELOPMENT
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

REVISIONS		DATE
NO.	DESCRIPTION	BY

DATE: 04-11-2016
 SCALE: 1"=30'
 DESIGNED BY: NAB
 DRAWN BY: BRA

