

ESD NARRATIVE

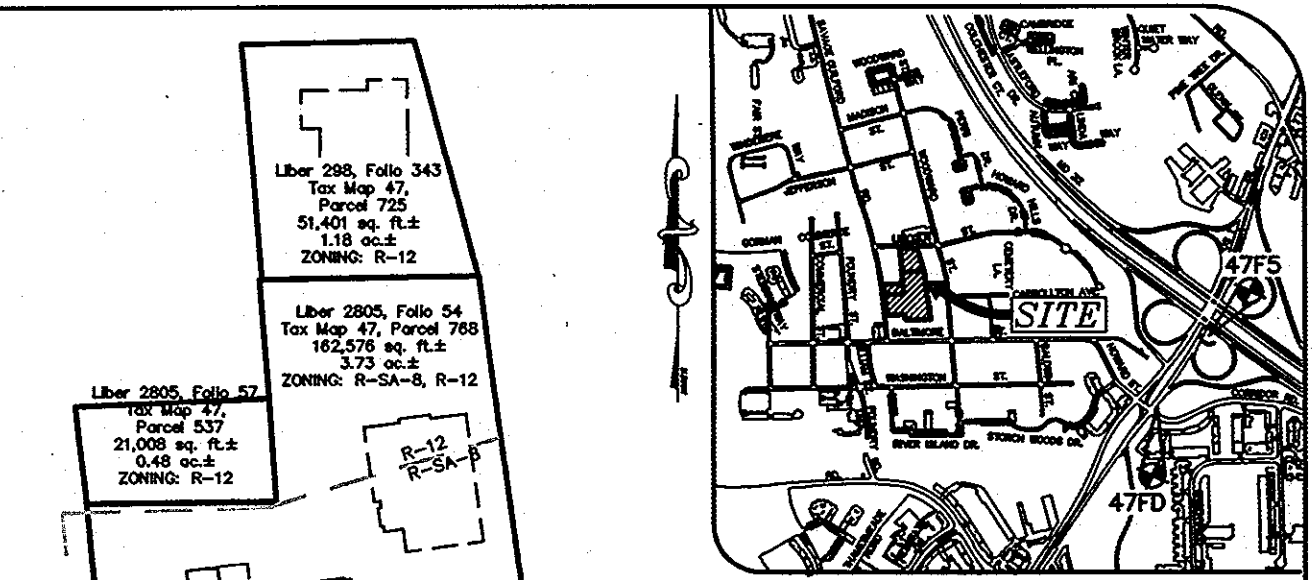
1. NO NATURAL RESOURCES SUCH AS STEEP SLOPES, FOREST CONSERVATION AREAS, WETLANDS, STREAMS OR THEIR ASSOCIATED BUFFERS EXIST ON-SITE. THE PROPOSED MICRO-BIORETENTION FACILITIES WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT AND A PORTION OF THE EXISTING DEVELOPMENT, WHICH WILL BE AN IMPROVEMENT OVER EXISTING CONDITIONS SINCE NO EXISTING TREATMENT EXISTS FOR THE SITE. THE DESIGN ACCOUNTS FOR PRESERVING THE EXISTING TREES WHERE POSSIBLE.
2. THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD ALTER ANY NATURAL FLOW PATTERNS.
3. THE USE OF NON-STRUCTURAL PRACTICES SUCH AS ROOFTOP AND NON-ROOFTOP DISCONNECTION WAS CONSIDERED AND REJECTED DUE TO THE TOPOGRAPHY OF THE SITE, THE EXISTING PLAYING FIELD, AND THE LARGE AMOUNT OF IMPERVIOUS SURFACES ON THE SITE. ALTERNATIVE SURFACES WERE CONSIDERED AND REJECTED DUE TO THE EXTENT OF TYPE 'D' SOILS THROUGHOUT THE SITE. IT WAS DETERMINED THAT THE BEST ESD METHODOLOGY WOULD BE TO TREAT THE PROPOSED IMPROVEMENTS AND EXISTING IMPERVIOUS SURFACES USING MICRO-BIORETENTION FACILITIES (M-6).
4. THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATED FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
5. TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WAS UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY MINIMIZING EARTH DISTURBANCE, REMOVING PORTIONS OF THE EXISTING PAVEMENT, AND UTILIZING GRASS PARKING INSTEAD OF ASPHALT PAVING.
6. IN DESIGNING THIS PROJECT, AND AFTER WE PLAN THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
 - A. MICRO-SCALE PRACTICES (M-6)

SWM PRACTICES SCHEDULE

AREA	ESD METHOD	ESDV (TARGET / REQ)	ESDV (PROVIDED)
SITE	MICRO-BIORETENTION FACILITY MB-A (M-6)	303 CF	303 CF
	MICRO-BIORETENTION FACILITY MB-B (M-6)	1,155 CF	1,155 CF
	MICRO-BIORETENTION FACILITY MB-C (M-6)	766 CF	766 CF
TOTAL		1,793 CF (REQ)	2,224 CF

PERMANENT OR TEMPORARY STABILIZATION IS TO BE PERFORMED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR OR AT THE MINIMUM INTERVALS REQUIRED BY THE 2011 MARYLAND STANDARDS & SPECIFICATIONS, WHICHEVER IS MORE RESTRICTIVE.

CONSTRUCTION ACCESS TO THE SITE FOR LAND DISTURBANCE ACTIVITIES VIA LINCOLN STREET WILL NOT BE PERMITTED



- NOTES:**
1. SITE ANALYSIS DATA:
 - LOCATION: TAX MAP: 47 PARCELS 768, 725, AND 537
 - ADDRESS: 8925 LINCOLN STREET, SAVAGE, MARYLAND 20763
 - 8455 SAVAGE-GUILFORD ROAD, SAVAGE, MARYLAND 20763
 - 8445 SAVAGE-GUILFORD ROAD, SAVAGE, MARYLAND 20763
 - ELECTION DISTRICT: SIXTH
 - ZONING: R-12, R-SA-8
 - TOTAL AREA: 5.39 AC±
 - LIMIT OF DISTURBED AREA: 1.72 AC± (INCLUDING OFFSITE)
 - PROPOSED USE FOR SITE: INSTITUTIONAL (PRIVATE SCHOOL)
 - DEED REFERENCES: 2805 / 54, 298 / 343, 2805 / 57
 - PREVIOUS DPZ FILES: BA 12-028&V, TU 12-005, TU 11-002, BA 11-022, BA 98-039&V, BA 91-43E, BA 90-11E, BA 87-23E, 2B 822R, BA 85-12E, BA 84-10E, BA 83-025E
 2. HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 4775 & 4770.
 - STA. NO. 4775 N 535,985.0412 E 1,365,653.4555 EL. 235.00
 - STA. NO. 4770 N 535,277.4002 E 1,365,059.691 EL. 201.20
 3. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS (COUNCIL BILL 45-2003). DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION OR BUILDING/GRADING PERMIT.
 4. SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF BUILDINGS ON THIS PROPERTY.
 5. BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN SURVEY BY MILDENBERG, BOENDER AND ASSOCIATES, INC. IN APRIL, 2013.
 6. ON-SITE TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN SURVEY BY MILDENBERG, BOENDER AND ASSOCIATES, INC. IN APRIL, 2013.
 7. FOREST CONSERVATION OBLIGATIONS WILL BE MET BY EITHER OFF-SITE FOREST CONSERVATION OR PAYMENT OF A FEE-IN-LIEU AT THE SITE DEVELOPMENT PLAN (SDP) STAGE OF THE PROJECT.
 8. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
 9. FOREST STAND DELINEATION IS NOT REQUIRED AS THERE ARE NO FOREST STANDS WITH AN AREA WITH AN AREA 10,000 SQUARE FEET OR GREATER ON-SITE.
 10. 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 SITE DEVELOPMENT PLAN (SDP) STAGE.
 11. NO STREAMS, WETLANDS, THEIR ASSOCIATED BUFFERS, STEEP SLOPES, OR FLOODPLAIN AREAS EXIST ON-SITE.
 12. THE EXISTING STRUCTURE ON PARCEL 537 WILL BE REMOVED. ALL OTHER STRUCTURES WILL REMAIN.
 13. THE PROJECT WILL BE CONSTRUCTED IN PHASES AS FOLLOWS:
 - PHASE I: CONVERSION OF EXISTING FIRE STATION TO SCHOOL CLASSROOM ON PARCEL 725, CONSTRUCTION OF CONNECTION DRIVE BETWEEN PARCELS 725 AND 768, AND REMOVAL OF PAVEMENT ON PARCEL 725.
 - PHASE II: CONSTRUCTION OF GYMNASIUM ON PARCEL 768 AND REMOVAL OF EXISTING STRUCTURE AND CONSTRUCTION OF GRASS PARKING AREA ON PARCEL 537.
 - PHASE III: CONSTRUCTION OF LIBRARY ON PARCEL 768.
 14. THIS DEVELOPMENT IS SUBJECT TO A WAIVER TO SECTION 16.1205(o)(7) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS TO ALLOW FOR THE REMOVAL OF THE EXISTING 48" SPECIMEN TREE.
 15. BOARD OF ADJUSTMENT CASE BOA 12-028&V WAS APPROVED FOR THE CONDITIONAL USE FOR THE EXPANSION OF A PRIVATE SCHOOL LOCATED WITHIN THE R-12 AND R-SA-8 ZONING DESIGNATIONS ON JULY 22, 2013. THIS APPROVAL INCLUDES APPROVAL OF THE VARIANCES TO REDUCE THE 20' USE SETBACK TO 17' TO ACCOMMODATE THE EXISTING FIRE HOUSE BUILDING AND THE 20' USE SETBACK TO 2' TO ACCOMMODATE THE EXISTING PARKING ON THE WEST SIDE OF THE FIRE HOUSE. CONDITIONS OF THIS APPROVAL INCLUDE THE REMOVAL OF THE TEMPORARY CLASSROOMS, A DUMPSTER LOCATION ON THE INTERIOR OF THE SITE AND COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

SITE ANALYSIS DATA:

1. AREA OF THE SITE = 5.39 AC
- EXISTING IMPERVIOUS WITHIN SITE = 3.61 AC
- 3.61 / 5.39 = 67% (>40% REDEVELOPMENT CRITERIA)
- LIMIT OF DISTURBANCE (LOD) = 1.72 AC (INCLUDING OFFSITE)
2. AREA OF WETLANDS AND BUFFERS = 0
3. AREA OF FLOODPLAIN = 0
4. AREA OF STREAM BUFFER = 0
5. AREA OF STEEP SLOPES (15% OR GREATER FOR A VERTICAL DISTANCE OF 10 FEET OR MORE) = 0
6. AREA OF FOREST = 0
7. TOTAL ENVIRONMENTAL SENSITIVE AREA* = 0
- *TOTAL AREA OF STREAM AND STREAM BUFFERS, WETLANDS AND WETLAND BUFFERS, 100-YEAR FLOODPLAIN AREAS, AND STEEP SLOPE AREAS (>=15% SLOPE ONLY), TAKING OVERLAPPING INTO ACCOUNT
8. THIS SITE CONTAINS Ucd SOILS WHICH ARE HIGHLY ERODIBLE.
9. NO SUBDIVISION OF THE PROPERTY IS PROPOSED.
10. TOTAL EXISTING IMPERVIOUS AREA (WITHIN LOD):

BUILDINGS:	0.36 Ac / 15,582 SF
PAVEMENT:	0.04 Ac / 1,572 SF
SIDEWALKS:	0.31 Ac / 13,674 SF
	0.01 Ac / 336 SF
- TOTAL PROPOSED IMPERVIOUS AREA (WITHIN LOD):

BUILDINGS:	0.53 Ac / 22,962 SF
PAVEMENT:	0.38 Ac / 16,680 SF
SIDEWALKS:	0.13 Ac / 5,590 SF
	0.02 Ac / 692 SF
- PROPOSED GREEN SPACE (WITHIN LOD): 1.19 AC

LEGEND

	EXISTING PAVEMENT TO BE REMOVED		PROPOSED CONTOUR
	PROPOSED ASPHALT PAVEMENT		EXISTING CONTOUR
	PROPOSED SIDEWALK / CONCRETE		SPOT GRADE
	IMPERVIOUS AREA TREATED BY M-6, MICRO-BIORETENTION		
	DRAINAGE AREA TO M-6, MICRO-BIORETENTION		
	LIMIT OF DISTURBANCE		
	SUPER SILT FENCE		
	MICRO-BIORETENTION FACILITY (M-6) I.D.		
	STABILIZED CONSTRUCTION ENTRANCE		
	TRAFFIC FLOW		
	ROOF DRAIN LEADER		
	GUTTER FLOW DIRECTION		
	PARKING SPACE COUNT		
	SOIL TYPE BOUNDARY		

SOILS DESCRIPTION

SYMBOL	HYDROLOGICAL GROUP	K _w FACTOR	SOIL MAP DESCRIPTION
UBB	U	0.2	URBAN LAND, BELTSVILLE-CHILLUM COMPLEX 0-5% SLOPE
UGD	U	0.37	URBAN LAND, BELTSVILLE-CHILLUM COMPLEX 5-15% SLOPE

OWNER

PARCEL 537, 768
BETHEL ASSEMBLY OF GOD
SAVAGE, MD
9001 VOLLMERHAUSEN ROAD
JESSUP, MARYLAND 20794
(301)498-3344

PARCEL 725
SAVAGE FIRE HOUSE
COLUMBIA GATEWAY DRIVE
SUITE 400
COLUMBIA, MARYLAND 21046-3141
(410)880-5803

DEVELOPER

BETHEL MINISTRIES, INC.
9001 VOLLMERHAUSEN ROAD
JESSUP, MARYLAND 20794
(301)498-3344

APPROVED: DEPARTMENT OF PLANNING AND ZONING

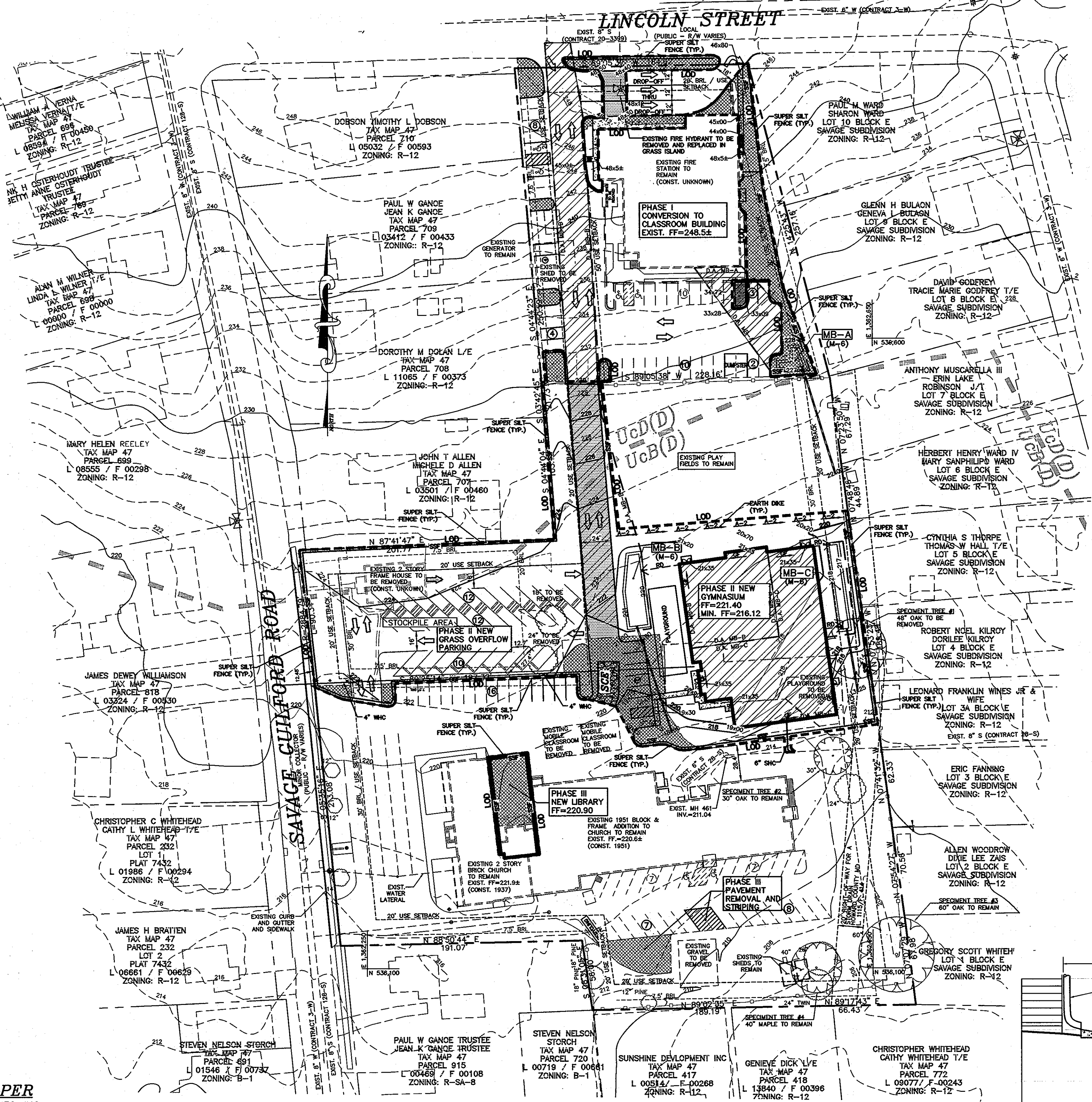
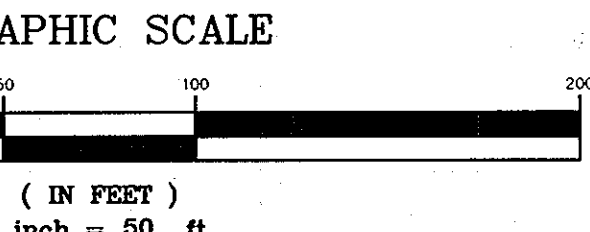
10/23/13 DATE

10/23/13 DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 40091, EXP DATE 2/13/15.

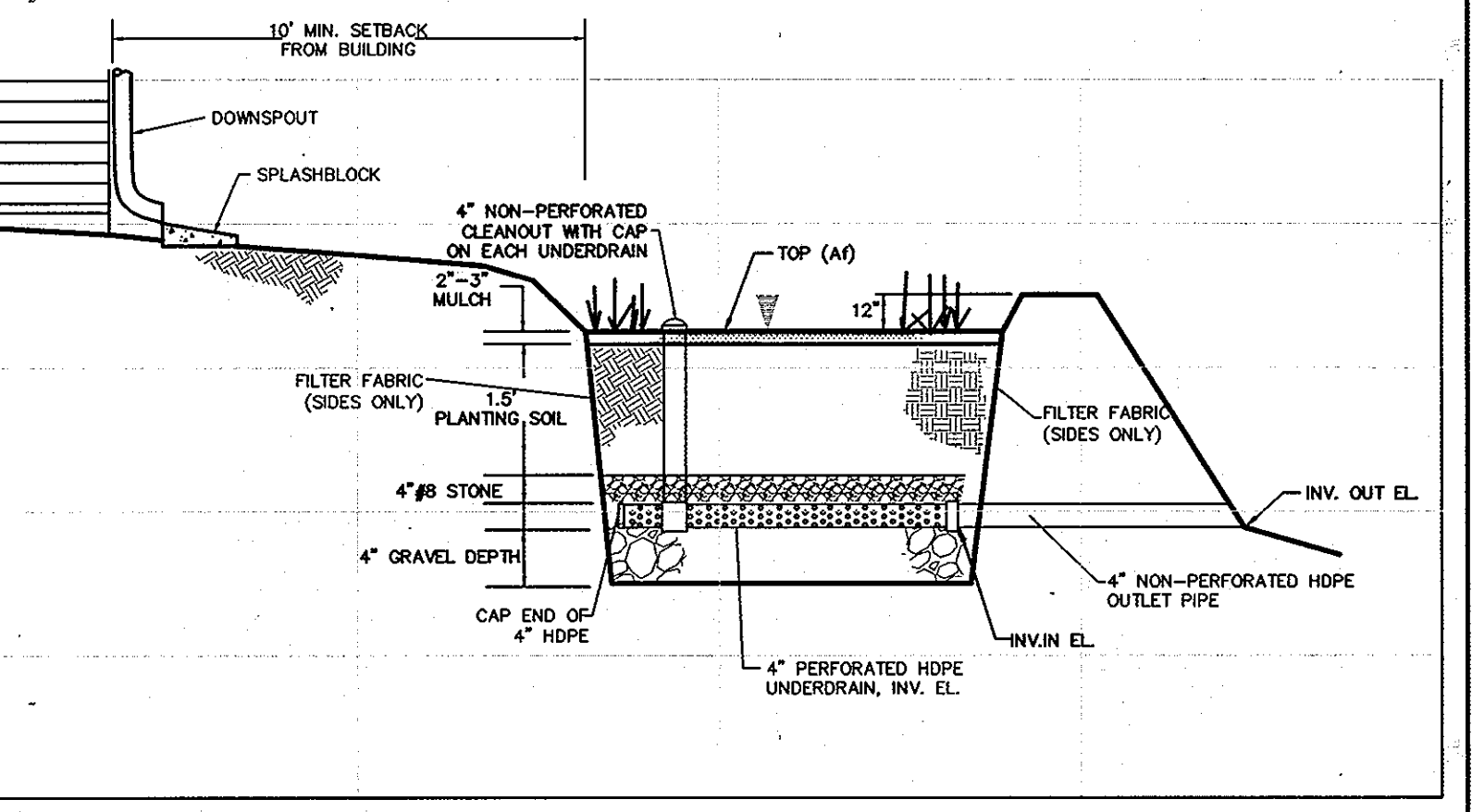
10/31/13 DATE

JEFFREY L. SLOMAN, P.E.



SPECIMEN TREE CHART

SPECIMEN TREE NO.	SPECIES	SIZE	CONDITION	TO REMAIN / TO BE REMOVED
1	OAK	48" DBH	FAIR	TO BE REMOVED
2	OAK	30" DBH	POOR	TO REMAIN
3	OAK	60" DBH	GOOD	TO REMAIN
4	MAPLE	40" DBH	GOOD	TO REMAIN



MICRO-BIORETENTION (M-6) DETAIL

NOT TO SCALE

project 12-018
date JUL 2013
illustration engineering
scale 1"=60'
approval JLS
description
revisions

project 12-018
date
description
revisions

BETHEL CHRISTIAN ACADEMY
TAX MAP 47, PARCEL 768, 725, 537
HOWARD COUNTY, MARYLAND
SIXTH ELECTION DISTRICT
ENVIRONMENTAL CONCEPT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Surveyors
Planners
Engineers
6800 Deerpath Road, Suite 150, Ellicott City, Maryland 21075
(410) 997-0298 Fax: (410) 997-0298

1 OF 1
ECP-14-007