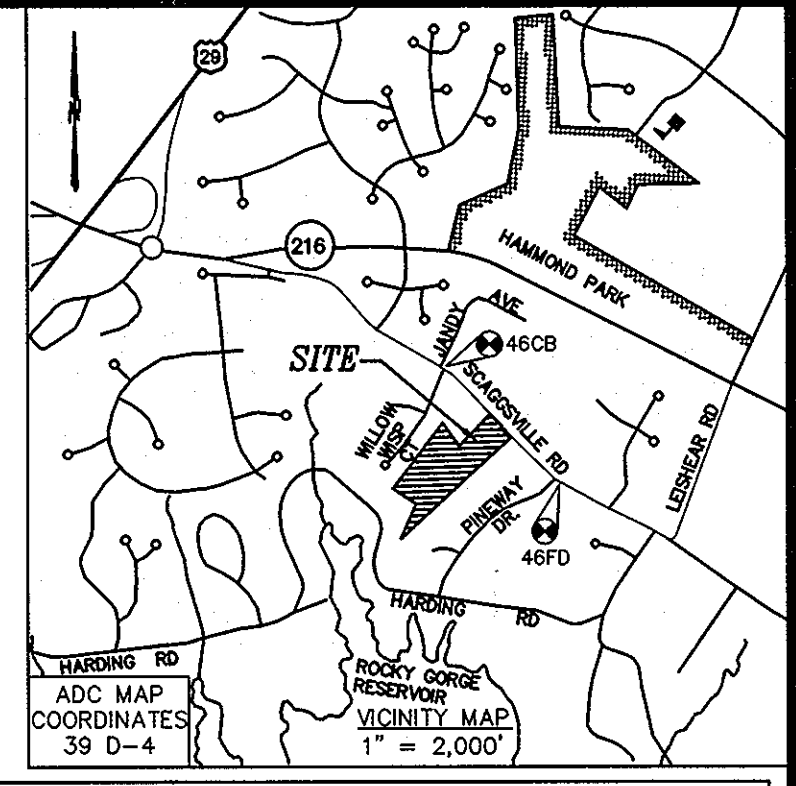
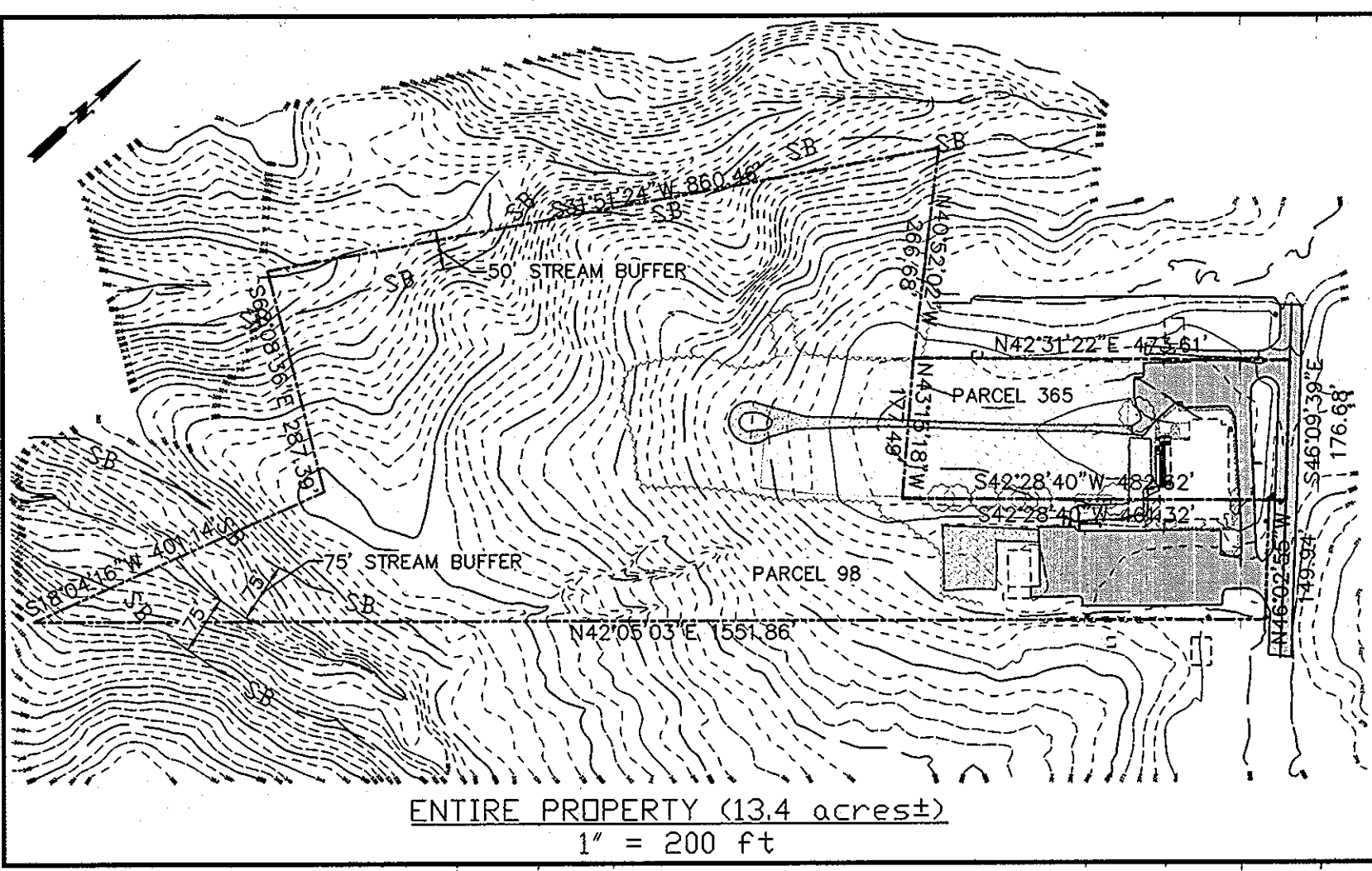


SOIL	NAME	CLASS
GhB	Glenelg-Urban lqnd complex, 0 to 8 percent slopes	B
MaC	Manor loam, 8 to 15 percent slopes	B

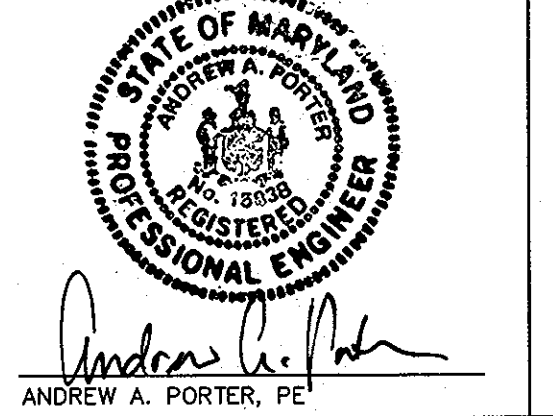


**OLD ADVISORY NOTE**  
Approval of this ECP does not constitute approval of any subsequent and associated subdivision plan/plot and/or site development plan and/or red-line revision plan. Review of this project for compliance with the Howard County Subdivision and Land Development Regulations shall occur at the subdivision plan/plot and/or site development plan stages and/or red-line revision process. The applicant and consultant should expect additional and detailed review comments (including comments that may alter the overall site design) as this plan is processed.

**PRELIMINARY E&SC REPORT**  
Standard sediment erosion control measures (e.g., super silt fence) will be constructed that will meet HSCD requirements and specifications. An E&SC plan will be submitted for approval to HSCD. Sheet flow will be maintained in keeping with ESD to the MEP practices. The earthwork is expected to balance, however, should there be excess cut or fill it will be taken to/from an HSCD-approved site. The concept E&SC controls are shown on this ECP.

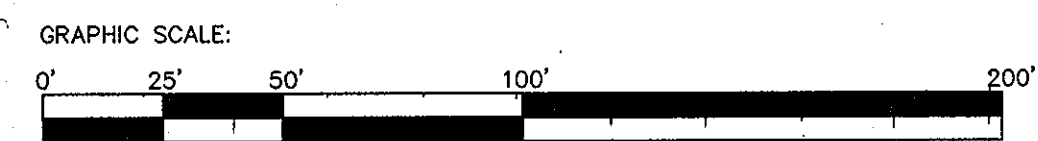
**SITE ANALYSIS DATA**  
Site Area: 13.4± acres  
Area of Plan Submission: 1.6 Acres  
LOD Area: 1.2 acres (excludes parking lot maintenance repaving area)  
Wetlands and Wetland Buffers: None  
Floodplain Area: None  
Forest Area within Area of Plan Submission: 0.45 acres (8.5± acres whole site)  
Steep Slope Area within Area of Plan Submission: 0.0 acres  
Erodible Soil Area within Area of Plan Submission: 0.0 acres  
Existing Site Uses: Church, School, Cemetery, and Parking Lot  
Proposed Site Uses: Church, School, Cemetery, and Parking Lot  
Proposed Impervious Area: 0.4 acres  
File References: BA 10-034C&V, BA 90-66E&V  
Green Open Area within LOD: 0.0 acres  
Environmental Waivers for Necessary Disturbance: None

I hereby certify that I prepared these documents and that this seal signifies that I am a licensed professional engineer under State of MD laws. License No. 15,838 w/expiration Dec. 17, 2013



**CIVIL DESIGN SERVICES, LC**  
6123 Holly Ridge Court, Columbia, Maryland 21044  
410.531.0572 phone/fax  
civildesign@comcast.net

22,880 sf (0.51 A) DA R-20  
81 1 I = 53.1%



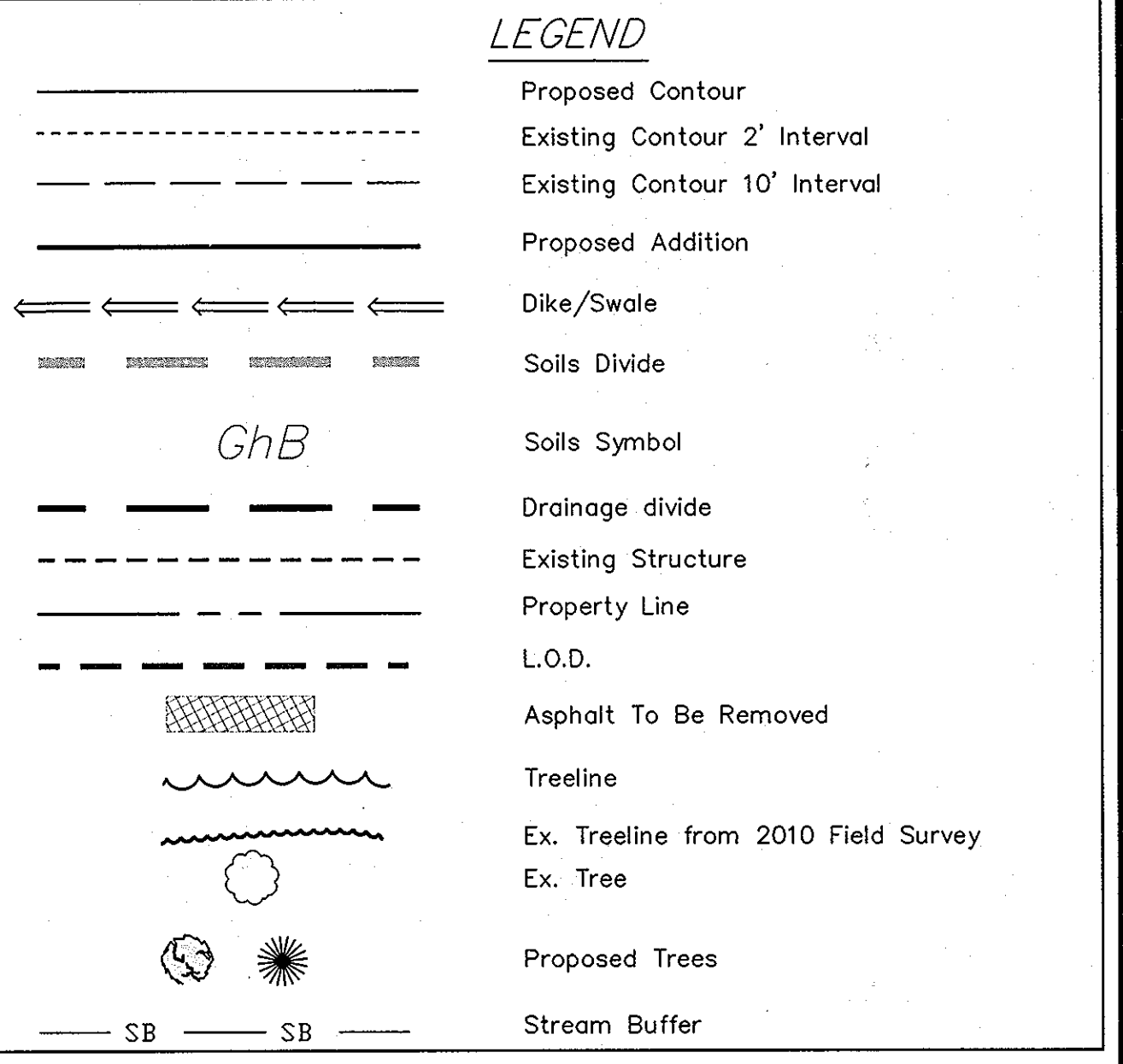
EMMANUEL UNITED METHODIST CHURCH ENVIRONMENTAL CONCEPT PLAN PRELIMINARY STORMWATER MANAGEMENT SUMMARY TABLE		
DRAINAGE AREA	REQUIRED ESDv*	PROVIDED ESDv
DA #1	1,369 cf	1,935 cf (BMP #1)
DA #2	719 cf	744 cf (BMP #2)
DA #3	370 cf	(provided in BMP #1 in DA #1)
<b>TOTAL</b>	<b>2,448 cf</b>	<b>2,679 cf</b>

\*The required volume is based on 75% of the calculated required ESDv (except for DA #3 which is 100% of the calculated ESDv).

**OWNER & DEVELOPER**  
Emmanuel United Methodist Church  
10755 Scaggsville Road  
Laurel, MD 20723  
Contact: Stephanie Vader  
301.725.5200  
revvader@comcast.net

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING					
K. S. ... Chief, Division of Land Development			5/15/16 Date		
C. ... Chief, Development Engineering Division			5-16-13 Date		
PROJECT	SECTION	PARCEL/LOT NO.s			
EMMANUEL UNITED METHODIST CHURCH BUILDING ADDITION	N/A	98 & 365			
LIBER/FOLIO	GRID	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
L. 02569 F. 219	11	R-20	46	6 <sup>th</sup>	6068.02

**ENVIRONMENTAL CONCEPT PLAN**  
EMMANUEL UNITED METHODIST CHURCH  
A Religious Institution  
10755 Scaggsville Rd  
Laurel, MD 20723  
Parcels 98 & 365, Tax Map 46, Grid 11  
6th ELECTION DISTRICT, HOWARD COUNTY, MD  
SCALE: 1" = 40' DATE: APRIL 17, 2013  
SHEET 1 of 1



**Design Narrative:**  
The ESDv for DA #3 is provided via overcompensation in BMP #1 (in DA #1) because there is no practical room for a BMP in this drainage area. DA #3 is almost ¾ impervious with the grass area in the cemetery located at the top of the drainage area. DAs #1 and #2 contain micro-bioretenation facilities that will treat the total impervious area. Clean water from the cemetery will be diverted around DAs #1 and #2 and therefore, will not "mix" with the impervious area run-off.

- Natural Resources Protection Enhancement:** The new development does not impact steep slopes. In addition, a significant portion of the proposed construction will be located on existing developed/impervious area. Therefore, this reduces SWM impacts by design. There are no wetlands, wetland buffers, or floodplain on the property.
- Maintenance of Natural Flow Patterns:** Flow patterns will not change after development. DAs #1 and #2 will flow to an on-site defined drainage channel and DA#3 will continue to flow off the site in a sheet flow condition.
- Reduction of impervious areas through better site design, alternative surfaces, non-structural practices:** Proposed improvements are located on existing developed area as much as practical. The proposed SWM will include two (2) micro-bioretenation non-structural practices.
- Integration of E&SC into SWM strategy:** The E&SC design will clearly follow HSCD standards & specifications and will meet the goal of keeping sediment from leaving the site. The practices will be integrated in SWM strategy by embracing sheet flow patterns where practical and is the preferred practice with ESD.
- Implementation of ESD planning techniques and practices:** ESD practices will be implemented where practicable and have avoided structural SWM BMPs.