

**GENERAL NOTES**

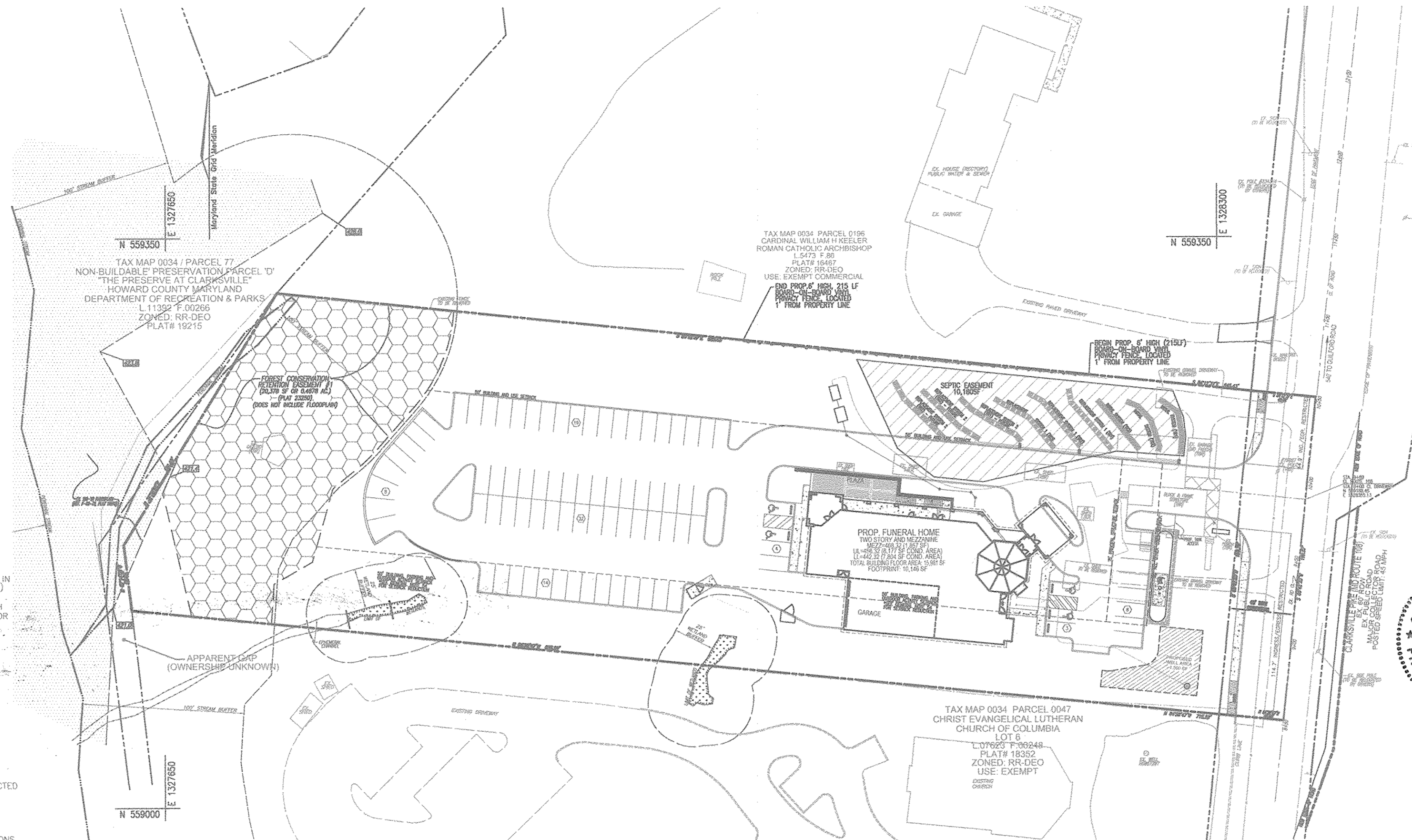
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY STANDARDS AND SPECIFICATIONS. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
  - MISS UTILITY: 1-800-257-7777
  - BUREAU OF UTILITIES: 410-313-4900
  - AT&T: 1-800-690-1113
  - B.G.A.E. (CONSTRUCTION SERVICES): 410-637-8713
  - B.G.A.E. (EMERGENCY): 410-685-0123
  - STATE HIGHWAY ADMINISTRATION: 410-311-5333
  - COLONIAL PIPELINE CO.: 410-795-1390
- SITE ANALYSIS:
  - TOTAL PARCEL AREA: 3.195 AC.
  - AREA OF ROW DEDICATION TO MSHA: 0.18 AC.
  - TOTAL PROJECT AREA: 2.100 AC.
  - PRESENT ZONING: RR-DEO
  - USE OF STRUCTURE: FUNERAL HOME
  - TOTAL BUILDING COVERAGE (FOOTPRINT AREA): 10,146 SF (0.23 AC. OR 7.28% OF GROSS AREA)
  - TOTAL BUILDING AREA: 10,146 SF
  - UPPER LEVEL CONDITIONED AREA: 8,177 SF
  - MEZZANINE: 1,857 SF
  - GREEN AREA REQUIREMENTS:
    - BUILDABLE ENVELOPE AREA: 64,159 SF
    - 20% BUILDABLE ENVELOPE AREA (GREEN AREA REQUIRED): 12,832 SF
    - PROVIDED ACTUAL GREEN AREA WITHIN BUILDABLE ENVELOPE AREA: 16,808 SF
    - PROVIDED ACTUAL PERCENTAGE GREEN AREA WITHIN BUILDABLE ENVELOPE AREA: 26.20%
    - PAVED PARKING AREA ON SITE: 440 SF (0.01 AC. OR 2.84% OF GROSS AREA)
    - AREA OF LANDSCAPE ISLAND: 4,914 SF (0.11 AC. OR 3.44% OF GROSS AREA)
    - AREA OF FLOODPLAIN (PER F-02-072/PLAT 19216): 0.05 AC.
    - LIMIT OF DISTURBED AREA: 2.72 AC.
    - CUT: 6486 CY
    - FILL: 2074 CY
- PROJECT BACKGROUND:
  - LOCATION: CLARKSVILLE, MD.; TAX MAP 34, BLOCK 12, PARCEL 45.
  - ZONING: RR-DEO
  - SUBDIVISION: CLARKSVILLE
  - SECTION: 134
  - PLAT: 23250
  - REF: L-1327/650
  - REF: L-4370/F.573, L-12109/F.78, PLAT 23250
  - REF: BA-10-001, WP-15-012, EOP-14-017, SDP-14-059/FC
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1850 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL REINFORCED CONCRETE STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 5,000 P.S.I.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL CONSTRUCTION REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST PRIOR TO CONSTRUCTION.
- COORDINATES AND ELEVATIONS ARE BASED ON MARYLAND COORDINATE SYSTEM - NAD83(1991) AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 34FB AND 34FE.
- THE PROPERTY LINES SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. DATED MARCH 20, 2010.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A FIELD RUN SURVEY BY ROBERT H. VOGEL ENGINEERING, INC., AND WAS PERFORMED ON SEPTEMBER 17, 2009 AND OCTOBER 7, 2013.
- GEOTECHNICAL REPORT PREPARED BY SPECIALIZED ENGINEERING, DATED OCTOBER 31, 2013. 17. TEST REPORT PREPARED BY ROBERT H. VOGEL ENGINEERING, DATED OCTOBER 31, 2013.
- THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION ALL PAVING TO BE PAVING PER GEOTECHNICAL RECOMMENDATIONS.
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL 3.01 UNLESS OTHERWISE NOTED.
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR RESPONSIBLE FOR CONSTRUCTING ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- PRIVATE WATER (WELL) AND PRIVATE SEWER (SEPTIC).
- TRAFFIC STUDY PREPARED BY TRAFFIC GROUP, DATED FEBRUARY 5, 2014; APPROVED 05/01/2014.
- THE SUBJECT PROPERTY IS ZONED RR-DEO IN ACCORDANCE WITH THE 10/06/13 COMPREHENSIVE ZONING PLAN.
- THERE ARE NO STEEP SLOPES ON SITE. THE 100-YEAR FLOODPLAIN SHOWN ON-SITE, PER F-06-72 AND PLAT 19216.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3500 P.S.I.
- ALL STORM DRAIN STRUCTURES TO BE CONSTRUCTED AS PER THE DESIGNER'S SPECIFICATIONS.
- THE PROPOSED BUILDING TO HAVE ROOF LEADERS WHICH EMPTY INTO STORM DRAIN SYSTEM.
- LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- FRANCHISE REQUIRED FOR FRANCHISED BUSINESS. THE DEVELOPER'S DESIGN SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY ZONING REGULATIONS. THE DEVELOPER SHALL PROVIDE A PERMITS PLAN IN THE AMOUNT OF \$12,650 FOR THE REQUIRED 30 SHADE TREES, 6 EVERGREEN TREES, 20 SHRUBS, AND 2150' PRIVACY FENCE. IN ADDITION, SURETY IN THE AMOUNT OF \$13,350 SHALL BE PROVIDED WITH THE GRADING PERMIT FOR 99 ADDITIONAL PERMETER EVERGREEN TREES.
- THE FOREST STAND DELINEATION WAS PREPARED BY ENVIRONMENTAL SYSTEMS ANALYSIS, DATED SEPTEMBER 2013.
- THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT HAVE BEEN SATISFIED BY THE RETENTION OF 0.47 ACRES OF FOREST IN A FOREST CONSERVATION RETENTION EASEMENT, AND BY A FEE-IN-LIEU PAYMENT IN THE AMOUNT OF \$16,553 (17,424 SF x 0.95) FOR THE REMAINING 0.40 ACRES OF FOREST RETENTION. REQUIREMENT FOR SURETY IS REQUIRED FOR THE ON-SITE RETENTION.
- THERE ARE 4 SPECIMEN CHAMPION TREES WITHIN THE LOT. THIS PLAN IS SUBJECT TO WMP-15-012, TO SECTION 16.1025(a)(7) WHICH REQUIRES THE RETENTION OF SPECIMEN TREES WITH A SIZE OF 30" OR MORE IN DIAMETER SO AS TO REMOVE FIVE SPECIMEN TREES FOR THE CONSTRUCTION OF A FUNERAL HOME, APPROVED 07/30/14.
- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- THIS PROJECT IS SUBJECT TO COMPLIANCE WITH THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS OR CONSTRUCTION ON THE PROPERTY MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS - IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION OR BUILDING PERMIT APPLICATION.
- EXISTING CLARKSVILLE PIKE (MD ROUTE 108) IS CLASSIFIED MAJOR COLLECTOR.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED GUNNISON GAUGE INSERTED INTO A 1-1/2" GALVANIZED STEEL POST. PERFORATED SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THE PROPOSED BUILDING WILL HAVE FIRE PROTECTION SPRINKLER SYSTEM.
- ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. (DETAILS ON SHEET 11). LIGHTING WILL BE DIRECTED DOWN AND AWAY FROM RESIDENTIAL PROPERTIES.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5" IN HEIGHT AND NO MORE THAN 6" LATERALLY FROM THE DOOR. ITS LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED. THE DOOR, ITS LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSED (INTEGRATED WITH THE FIRE ALARM SYSTEM).
- LANDSCAPING NOT PERMITTED WITHIN 7'-1/2" OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-11.1.4
- FIRE LINES SHOULD BE PROVIDED IN THIS SITE TO ALLOW EMERGENCY VEHICLE ACCESS. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND STENCILED TO IDENTIFY THE ROAD AS A FIRE LANE.
- STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A, A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
- TRASH COLLECTION AND RECYCLABLES TO BE PRIVATE.
- SIGNAGE SHALL BE PROVIDED ON THE BUILDING IDENTIFYING THE BUILDING ADDRESS.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION AREAS AND 100 YEAR FLOODPLAIN.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STORMWATER MANAGEMENT FOR THIS PROJECT IS BEING PROVIDED BY ENVIRONMENTAL SITE DESIGN UTILIZING MICRO-BIOTRETENTION (M-6) FACILITIES AND PERVIOUS PAVING (A-2) WITH ADDITIONAL STONE DEPTH) TO ACCOMMODATE THE TOTAL ESD VOLUME REQUIRED. SWM FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED.
- PER BA CASE NO. 10-010, THE 50' SETBACK PER SECTION 131.N.22.0 OF THE ZONING REGULATIONS HAS BEEN REDUCED TO 30' FROM CHRIST LUTHERAN CHURCH PROPERTY (SOUTH SIDE) ONLY.
- THIS PLAN IS SUBJECT TO BA-10-010, A PETITION TO A CONDITIONAL USE APPROVAL OF A FUNERAL HOME AND MORTUARY IN A RR-DEO ZONING FILED PURSUANT TO SECTION 131.N.22 OF THE HOWARD COUNTY ZONING REGULATIONS; APPROVED 07/03/13, SUBJECT TO THE FOLLOWING CONDITIONS:
  - A. THE CONDITIONAL USE SHALL APPLY ONLY TO THE PROPOSED FUNERAL HOME AND MORTUARY AS DESCRIBED IN THE PETITION AND AS DEPICTED ON THE AMENDED CONDITIONAL USE PLAN DATED AUGUST 15, 2012 AND NOT TO ANY OTHER ACTIVITIES, USES OR STRUCTURES ON THE PROPERTY.
  - B. THE PETITIONER SHALL UTILIZE A DOUBLE-WALLED HOLDING TANK FOR EMBSALMING FLUID WASTEWATER WITH DOUBLE-WALLED PIPES AND LEAK SENSORS FOR LEAK SYSTEMS.
  - C. THE PETITIONER SHALL CONSTRUCT (A) A DECELERATION LANE AT LEAST 250 LONG OF VEHICLES ENTERING THE PROPERTY FROM SOUTHBOWN MARYLAND ROUTE 108, (B) AN ACCELERATION LANE FOR VEHICLES EXITING THE PROPERTY IN THE SOUTHBOWN DIRECTION, AND (C) AN APPROPRIATE LEFT TURN LANE FOR NORTHBOWN MARYLAND ROUTE 108 IN THE VICINITY OF THE PROPOSED ACCESS POINT FOR THE PROPERTY.
  - D. THE PROPERTY SHALL NOT BE USED AS A CREMATORIUM WITHOUT SUBSEQUENT CONDITIONAL USE APPROVAL.
  - E. THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND COUNTY LAWS AND REGULATIONS.
  - F. PRIVATE SEWAGE DISPOSAL AREA SHOWN HEREON IN ACCORDANCE WITH APPROVED PERCOLATION TEST IN CONJUNCTION WITH PC 531091.
  - G. THE ZONING ADMINISTRATION HAS DETERMINED NO BOARD OF APPEALS HEARING IS REQUIRED FOR THE PROPOSED CHANGES AS SHOWN ON THIS REVISED SITE PLAN.
- BASED UPON ON-SITE INSPECTIONS WITH THE DEPARTMENT OF PLANNING AND ZONING AND PER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, LOCATED SPRINGHEAD HAS BEEN DETERMINED TO BE ONLY WETLANDS FOR APPLICATION OF REQUIRED BUFFERS.

# DONALDSON FUNERAL HOME

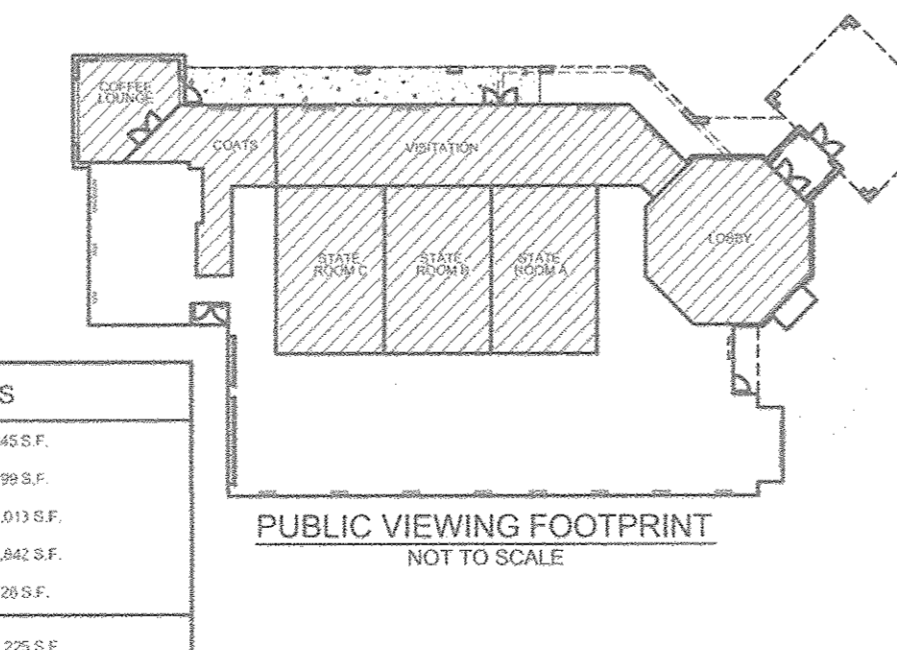
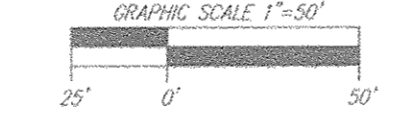
## 12540 CLARKSVILLE PIKE

### L.12109/F.78; PLAT 23250

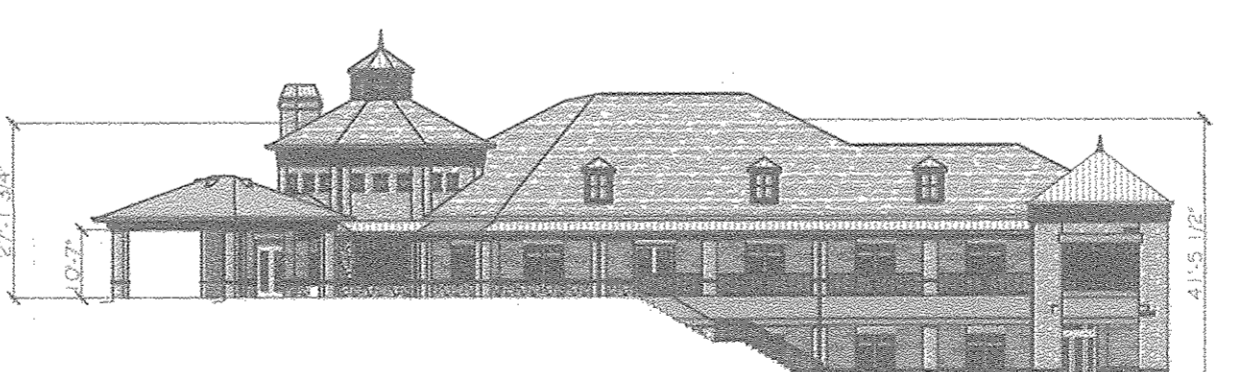
# SITE DEVELOPMENT PLAN



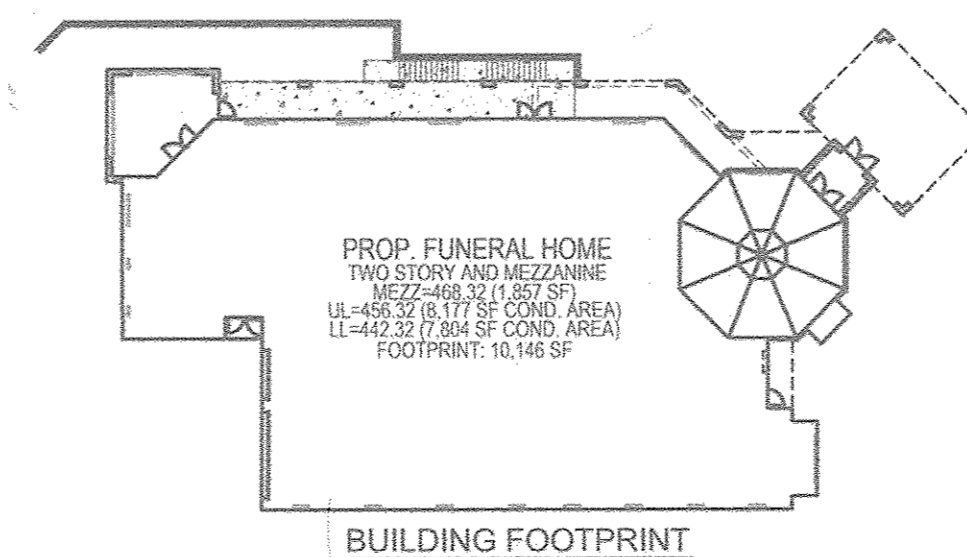
**LOCATION PLAN**  
SCALE: 1" = 50'



**PUBLIC VIEWING FOOTPRINT**  
NOT TO SCALE



**NORTH BUILDING ELEVATION**  
AVERAGE MEAN HEIGHT = 34'-3 5/8"  
NOT TO SCALE



**BUILDING FOOTPRINT**  
NOT TO SCALE

PUBLIC AREAS	
COFFEE LOUNGE 118	345 S.F.
COATS 111	299 S.F.
VISITATION 107	1,013 S.F.
STATE ROOM A 106, B112, & C114	1,842 S.F.
LOBBY 108	729 S.F.
<b>TOTAL AREA:</b>	<b>4,225 S.F.</b>

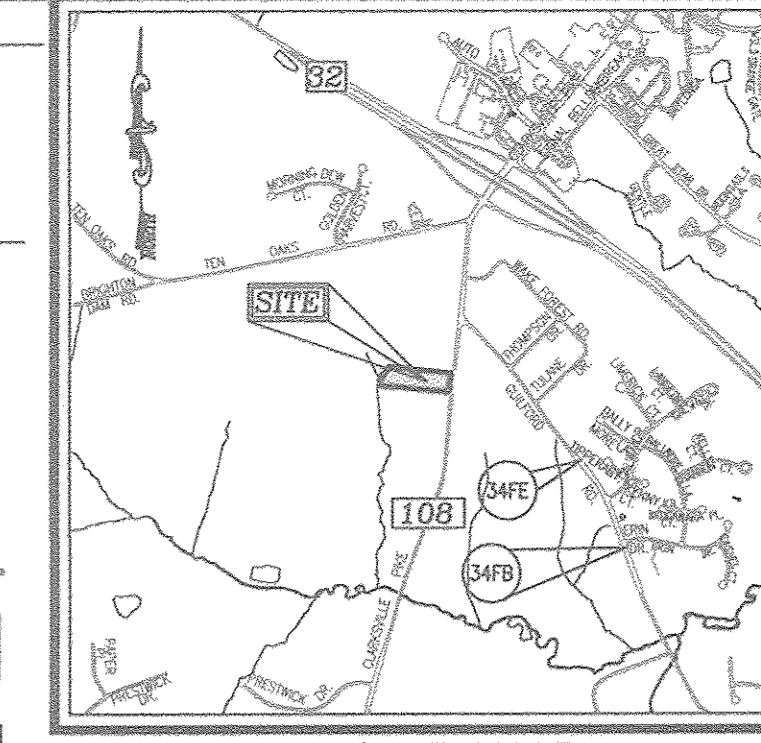
**PARKING REQUIREMENTS:**  
10 PARKING SPACES PER VIEWING ROOM OR 1 SPACE PER 50 SF OF FLOOR AREA IN PUBLIC ROOMS, WHICHEVER IS GREATER  
3 VIEWING ROOM x 10 SPACES 30 SPACES REQUIRED -OR-  
4,225 SF @ 1 SPACE/50SF 85 SPACES REQUIRED  
TOTAL SPACES REQUIRED 85 SPACES  
TOTAL SPACES PROVIDED 88 SPACES (INCLUDED 5 HANDICAP SPACES)  
DOES NOT INCLUDE 3 SPACES IN THE GARAGE, AND LOADING AREA WITHIN AND IN FRONT OF THE GARAGE.

**BENCHMARKS**

HOWARD COUNTY BENCHMARK 34FB	N 5557439.9130	E 13301991.3224	ELEV.: 406.148'
HOWARD COUNTY BENCHMARK 34FE	N 558339.6005	E 1329709.2045	ELEV.: 431.118'

**LEGEND**

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREES TO REMAIN
- LIGHT POLES
- SOIL TYPE
- CONCRETE
- SEPTIC EASEMENT



**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP COORDINATE: 14/E9

**SEPTIC NOTE:**  
THIS AREA DESIGNATES A MINIMUM 10,000 SQ FT PRIVATE SEWAGE EASEMENT REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE EASEMENTS SHALL BE NULL AND VOID UPON CONNECTION TO A PUBLIC SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDED OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.  
\* REFERENCE SHEET 10 FOR WELL AND SEPTIC DISPOSAL DETAILS.

**SHEET INDEX**

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PHOTOMETRIC PLAN	11 OF 11



**AS-BUILT CERTIFICATION FOR PSWMA**  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLANS WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND COMPARES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTIGUOUS DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.  
DATE: 2/10/18

NO AS-BUILT INFORMATION ON THIS SHEET

**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, L.L.C.  
C/O JAY DONALDSON  
113 TALBOT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

NO.	REVISION	DATE
1	REVISE PLAN TO REFLECT REVISED EMBALMING TANK AND REVISE SIDE OF FIRE LANE	11/21/16

**SITE DEVELOPMENT PLAN AND REVISED PERC CERTIFICATION PLAN**

**COVER SHEET**

**DONALDSON FUNERAL HOME**  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND

TAX MAP 34, BLOCK 12, 5TH ELECTION DISTRICT  
ZONED: RR-DEO  
L.12109/F.78  
PLAT 23250

PARCEL 45  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

**ADDRESS CHART**

LOT NO.	STREET ADDRESS
12540	12540 CLARKSVILLE PIKE

**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION/AREA	LOTS/PARCEL #
N/A	N/A	45

PLAT # OR L/F	BLOCK NO.	ZONE	TAX MAP NO.	ELECT. DIST.	CENSUS TR.
L.12109/F.78	12	RR-DEO	34	5TH	605101

WATER CODE: --- SEWER CODE: ---

**DESIGN BY:** RHV/DZE  
**DRAWN BY:** DZE  
**CHECKED BY:** RHV  
**DATE:** JANUARY 2018  
**SCALE:** AS SHOWN  
**W.O. NO.:** 08-24

**PROFESSIONAL CERTIFICATE**  
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. 16193, EXPIRES ON 02-27-2018.

1 SHEET OF 11

**APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING**

*Paul Chubb* 2-16-16  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*William J. Jaffe* 2-23-16  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*William Jaffe* 2-23-16  
DIRECTOR DATE

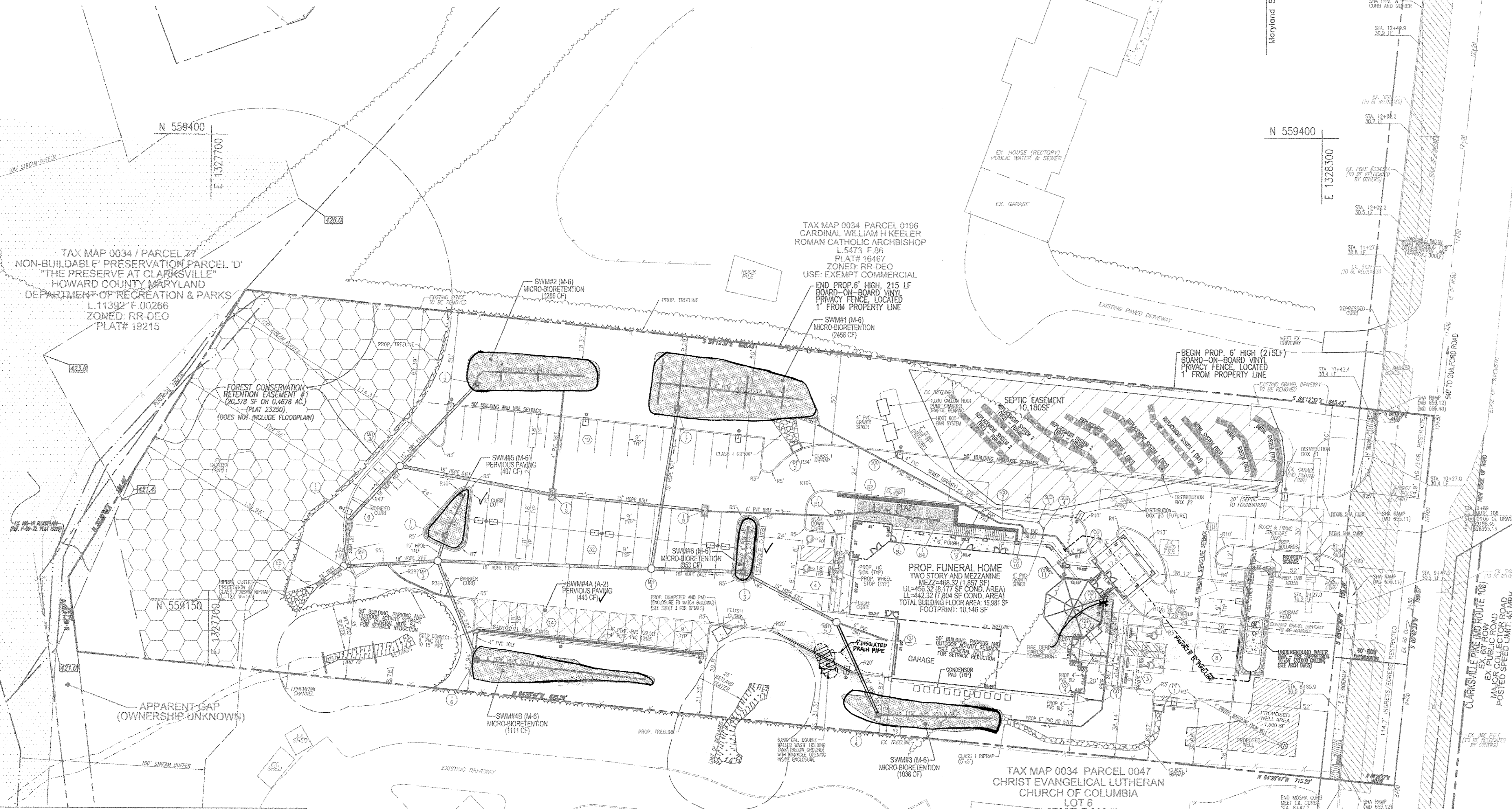
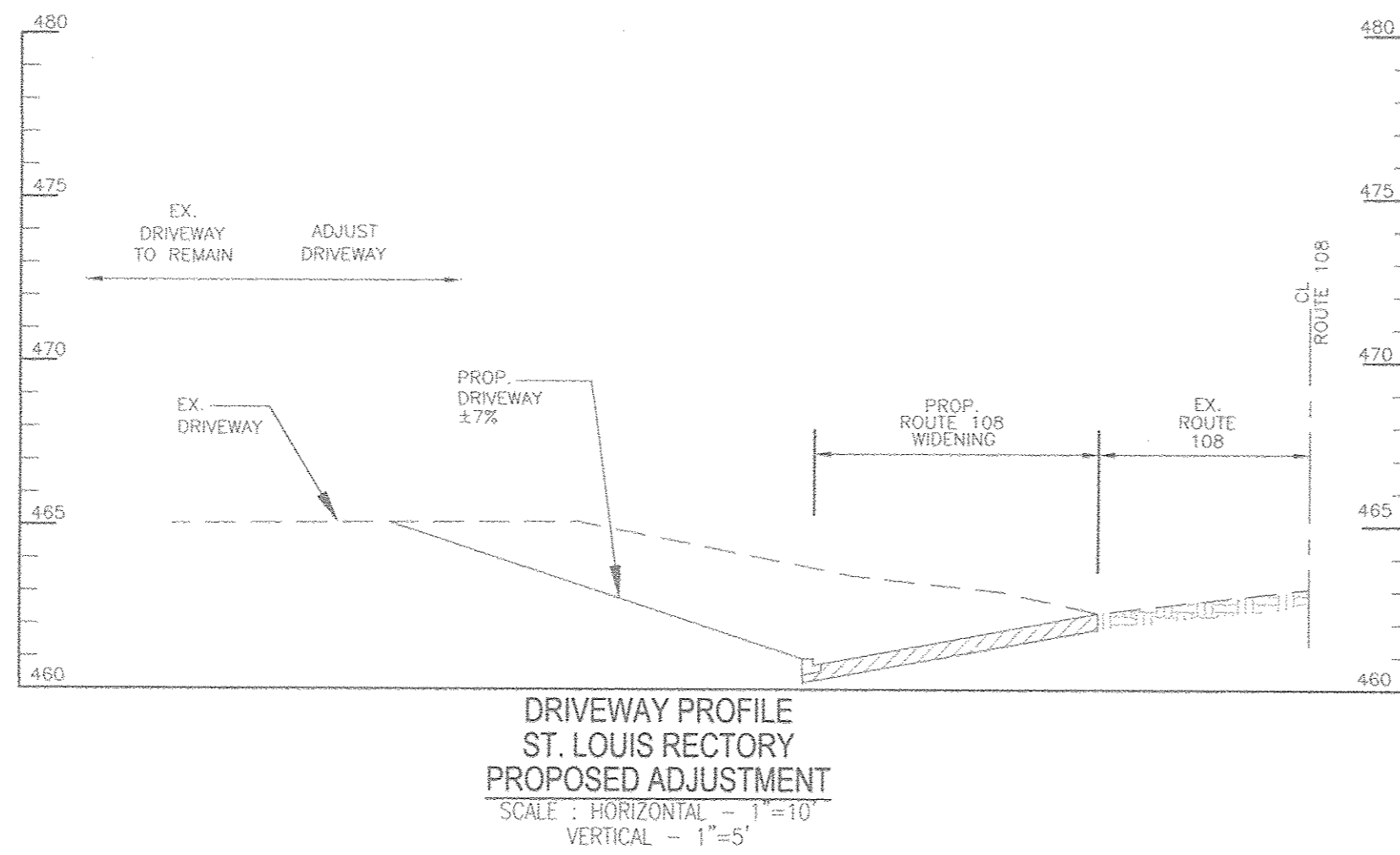
**APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS**

*Robert H. Vogel* 2/10/2018  
COUNTY HEALTH OFFICER DATE  
HOWARD COUNTY HEALTH DEPARTMENT

**PROPERTY SIGNAGE NOTE:**  
APPROVAL OF PROPERTY SIGNAGE REQUIRED FROM SIGN CODE ADMINISTRATOR PRIOR TO INSTALLATION OF SIGN.

**ENTRANCE NOTE:**  
A MINIMUM 60" PEDESTRIAN PATHWAY WITH A MAXIMUM 2% CROSS SLOPE MUST BE MAINTAINED ACROSS THE ENTIRE ENTRANCE.

STORMWATER MANAGEMENT FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED

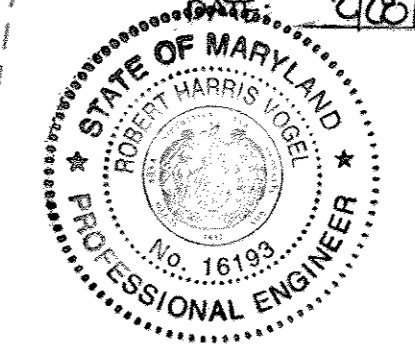


**LEGEND**

[Symbol]	EXISTING 10' CONTOUR
[Symbol]	EXISTING 2' CONTOUR
[Symbol]	PROPOSED 10' CONTOUR
[Symbol]	PROPOSED 2' CONTOUR
[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTER
[Symbol]	EXISTING UTILITY POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING SANITARY MANHOLE
[Symbol]	EXISTING SANITARY LINE
[Symbol]	EXISTING CLEANOUT
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING FENCE
[Symbol]	PROPOSED STORM DRAIN
[Symbol]	PROPOSED STORM DRAIN INLET
[Symbol]	PROPOSED CURB AND GUTTER
[Symbol]	PROPOSED SIDEWALK
[Symbol]	PROPOSED PRIVATE LIGHT POLES
[Symbol]	EXISTING TREELINE
[Symbol]	PROPOSED TREELINE
[Symbol]	EXISTING STREAM
[Symbol]	EXISTING STREAM BUFFER
[Symbol]	SOILS BOUNDARY
[Symbol]	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (RETENTION)
[Symbol]	PROPOSED PERMEABLE PAVEMENT (A-2)
[Symbol]	PROPOSED MICRO BIO-RETENTION (M-6)

**AS-BUILT CERTIFICATION FOR PSWM**  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLANS WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREAS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

Signature: [Signature]  
P.E. NO. 16193



**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, LLC.  
C/O JAY DONALDSON  
313 TALBOT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

1	REVISE PLAN TO REFLECT REVISED ENBRALMING TANK AND REVISE SIZE OF FIRE LINE	11/21/16
NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN  
SITE LAYOUT PLAN**

**DONALDSON FUNERAL HOME**  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND  
TAX MAP 34, BLOCK 12, 5TH ELECTION DISTRICT  
ZONED: RR-DEO  
L: 12109/F: 78  
PLAT: 23250  
PARCEL: 45  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.9961

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHV/DZE  
DRAWN BY: DZE  
CHECKED BY: RHV  
DATE: JANUARY 2016  
SCALE: AS SHOWN  
W.O. NO.: 09-24

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2016

2 SHEET OF 11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

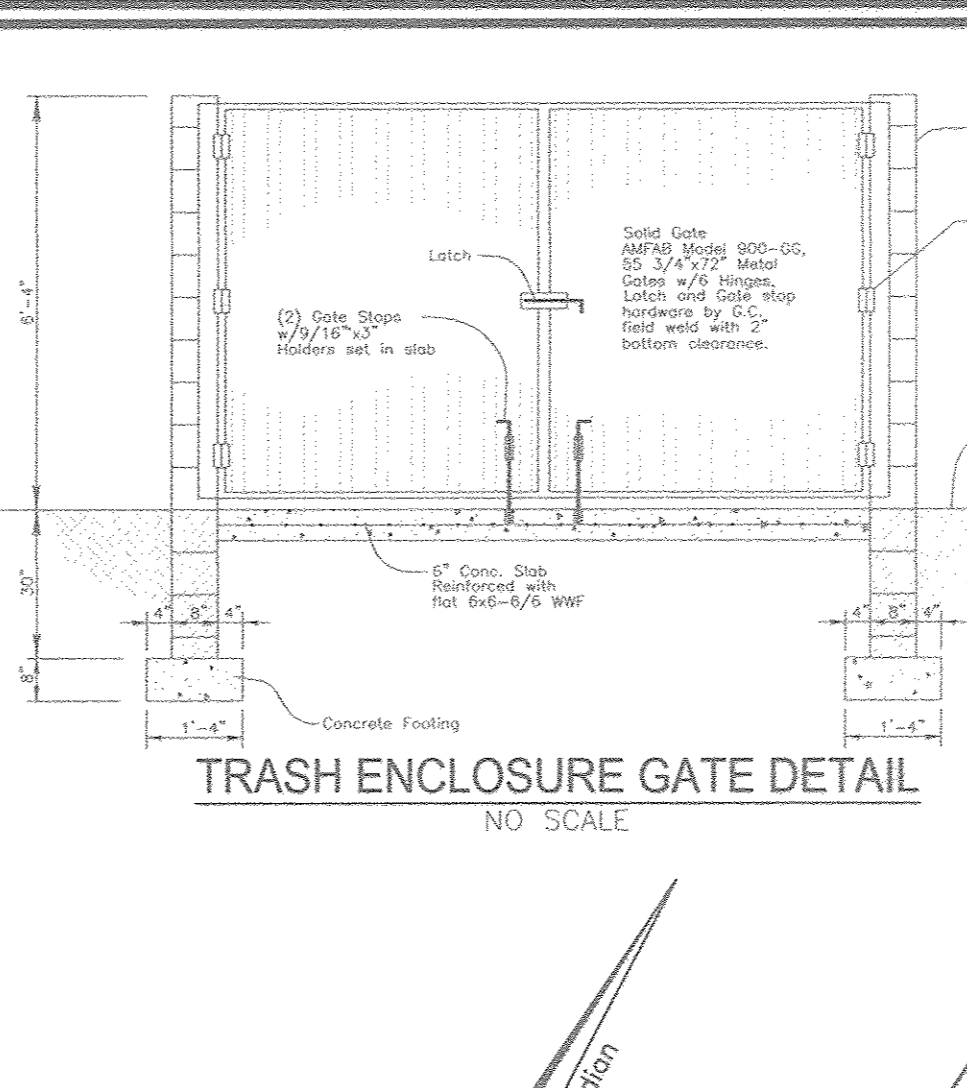
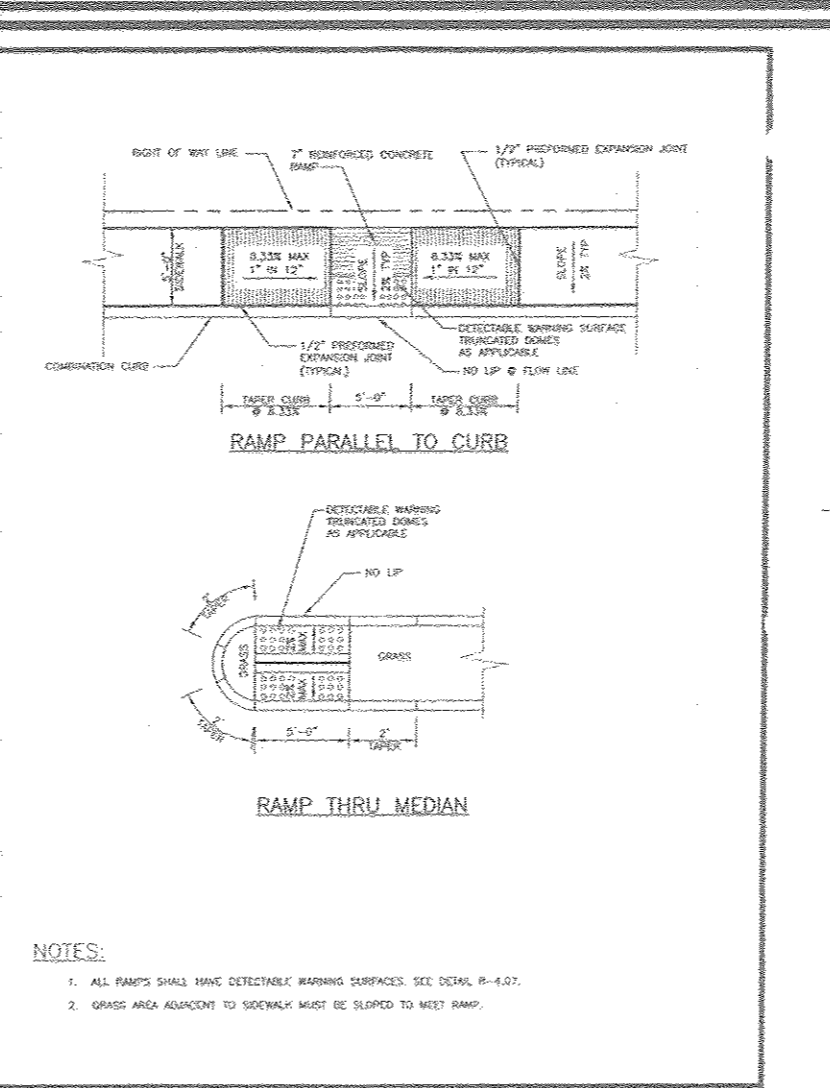
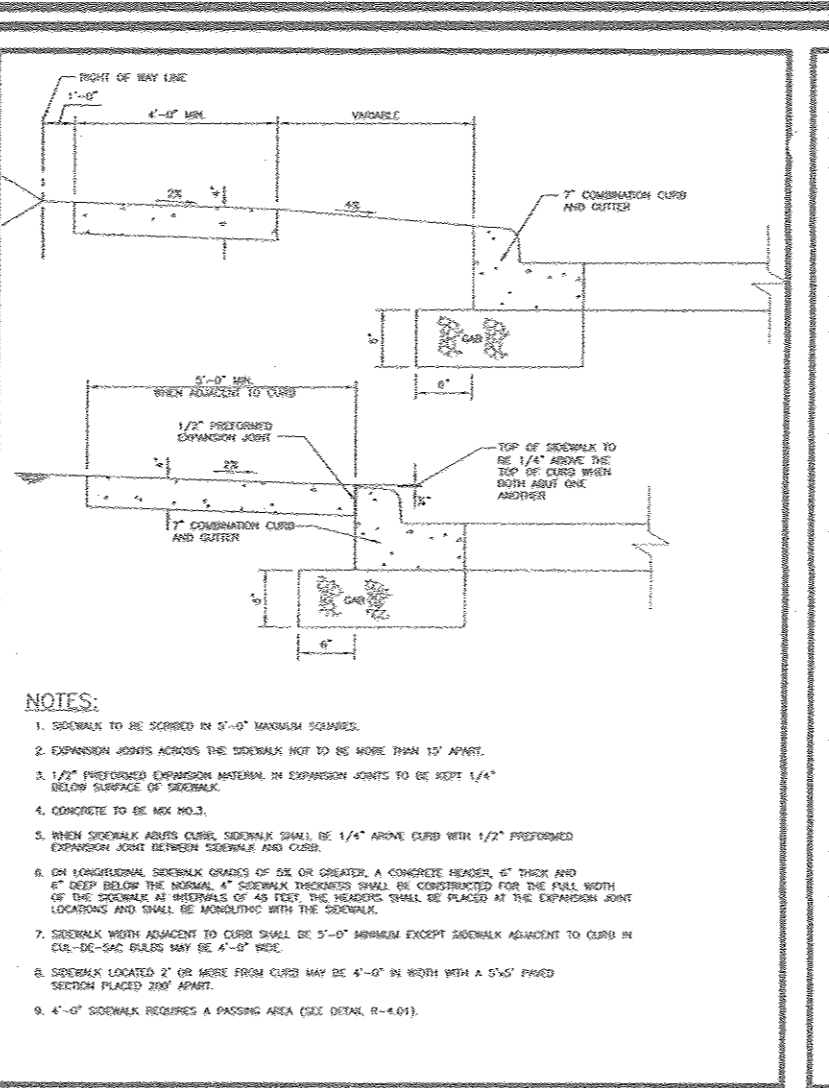
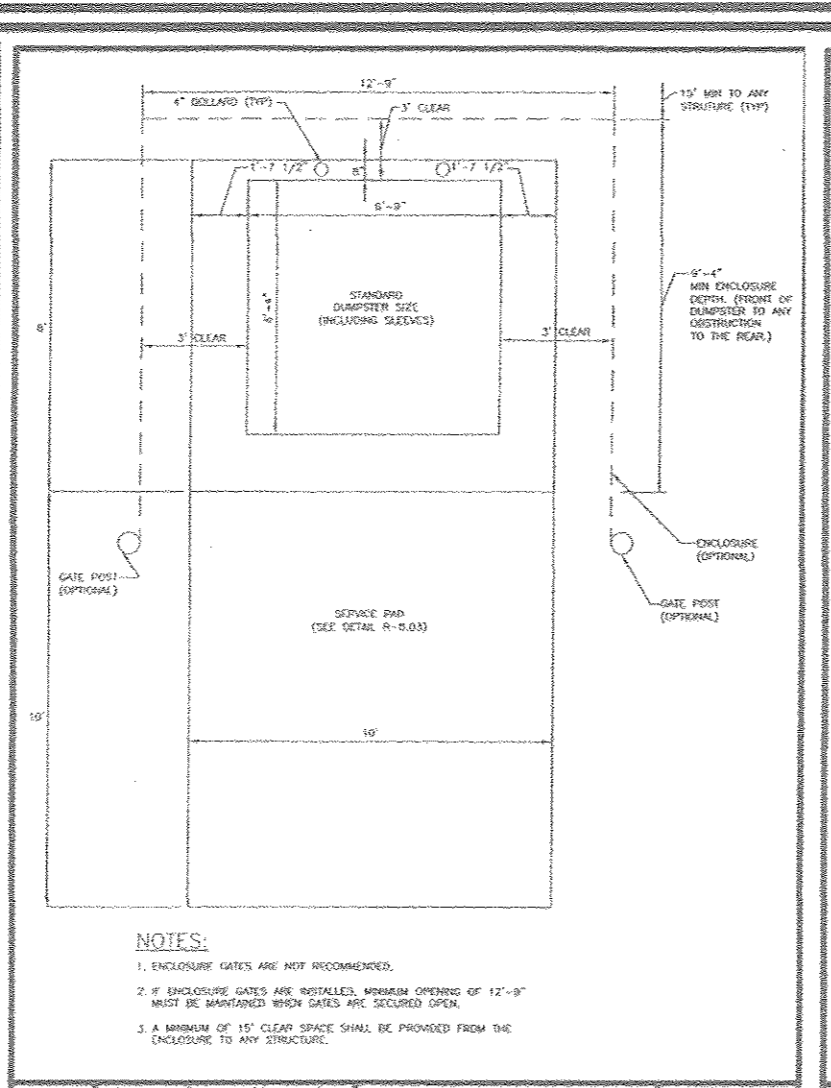
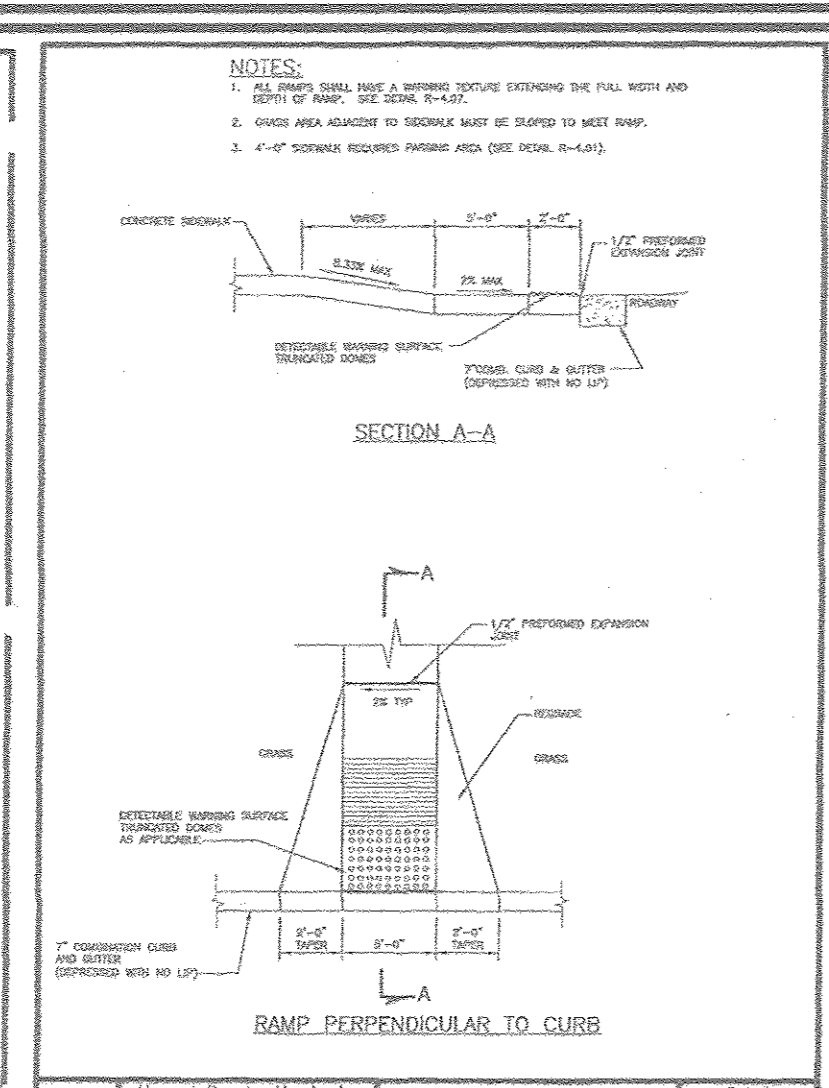
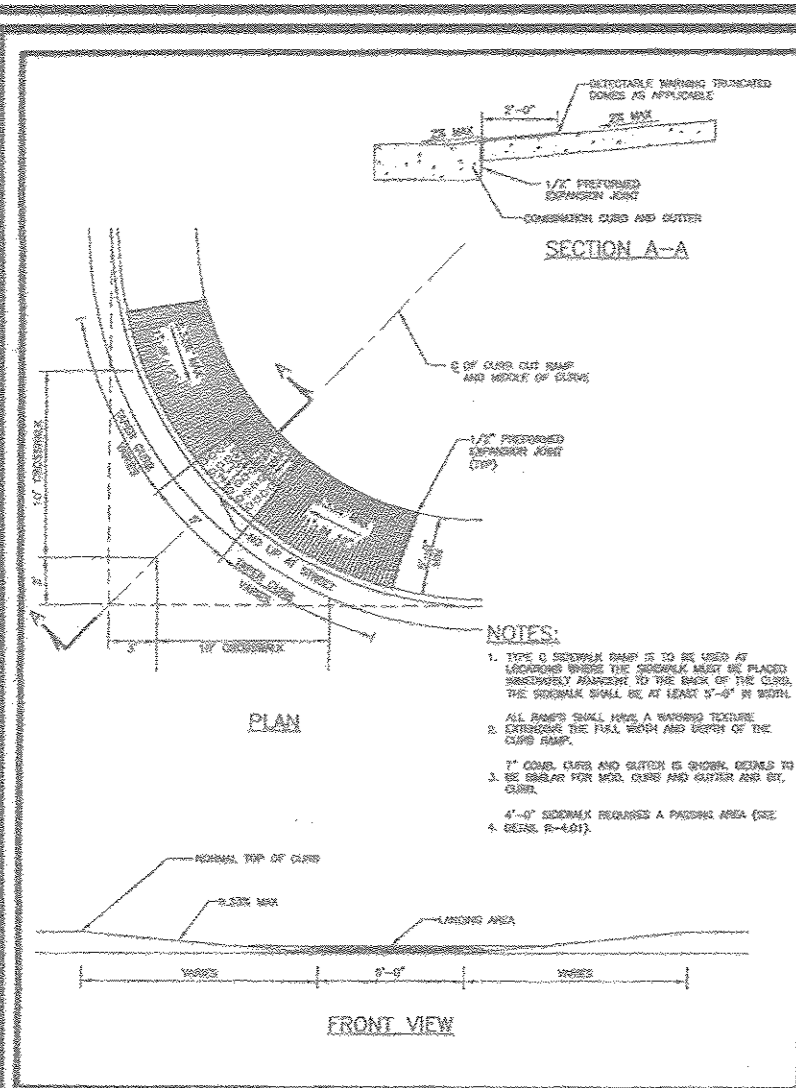
Chief, Development Engineering Division: [Signature] 2-16-16  
Chief, Division of Land Development: [Signature] 2-23-16  
Director: [Signature] 3-3-16

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

County Health Officer: [Signature] 2/10/2016  
Howard County Health Department

**LAYOUT PLAN**  
SCALE: 1" = 30'  
GRAPHIC SCALE 1" = 30'

TAX MAP 0034 PARCEL 0047  
CHRIST EVANGELICAL LUTHERAN CHURCH OF COLUMBIA  
LOT 6  
L: 07623 F: 00248  
PLAT# 18352  
ZONED: RR-DEO  
USE: EXEMPT



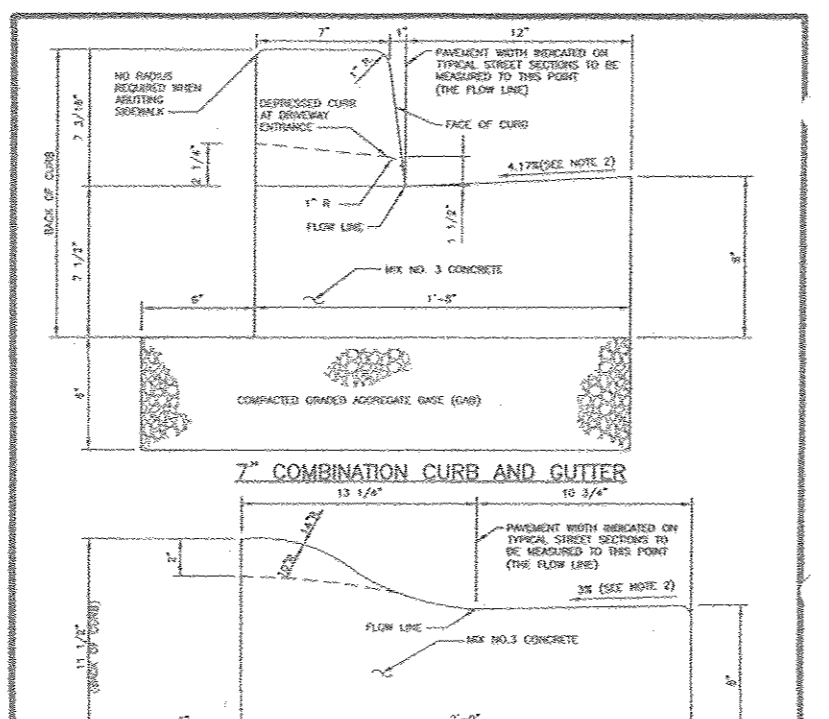
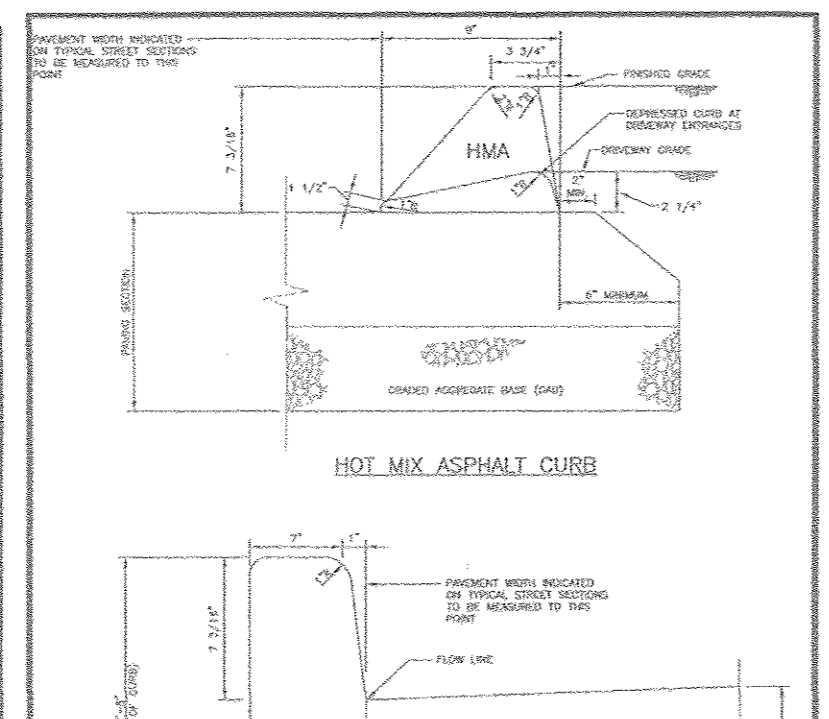
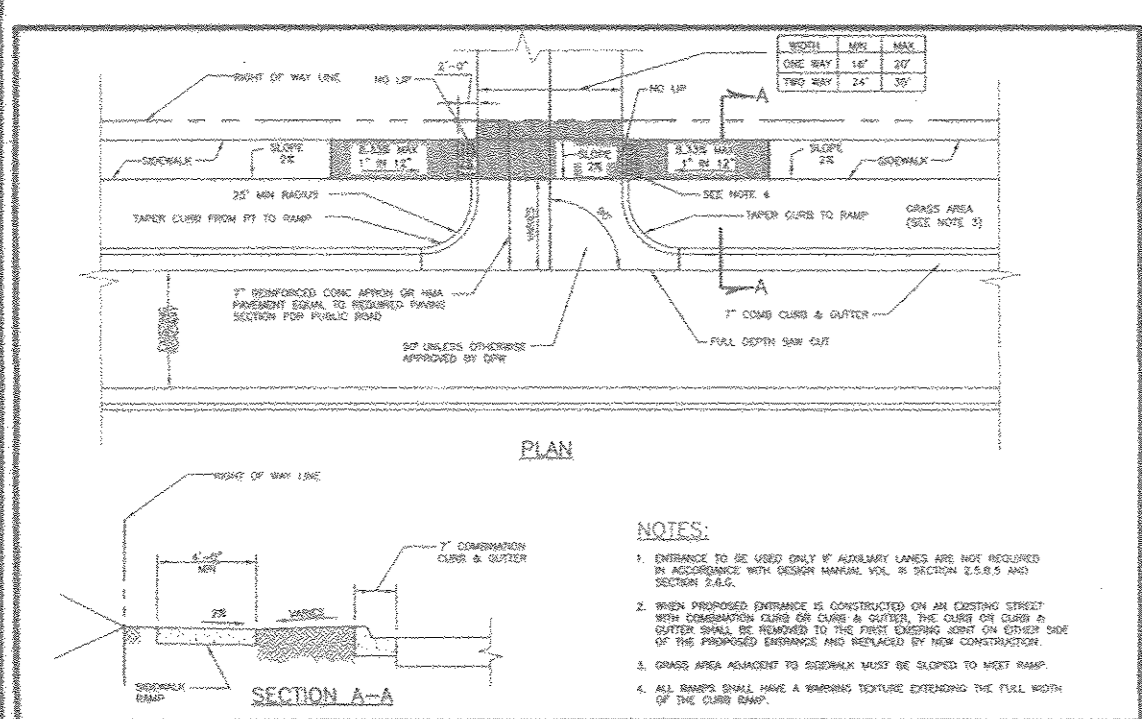
Howard County, Maryland  
Department of Public Works  
Sidewalk Ramp Type C  
Detail  
R-4.04

Howard County, Maryland  
Department of Public Works  
Sidewalk Ramp Layout & Grading Perpendicular to Curb  
Detail  
R-4.05

Howard County, Maryland  
Department of Public Works  
Solid Waste Single Container Enclosure  
Detail  
R-8.04

Howard County, Maryland  
Department of Public Works  
Concrete Sidewalk  
Detail  
R-3.05

Howard County, Maryland  
Department of Public Works  
Sidewalk Ramp Layout & Grading Parallel to Curb & Thru Median  
Detail  
R-4.06



PAVING SECTIONS  
(AS PER GEOTECHNICAL REPORT RECOMMENDATIONS PREPARED BY SPECIALIZED ENGINEERING, DATED OCTOBER 31, 2013)

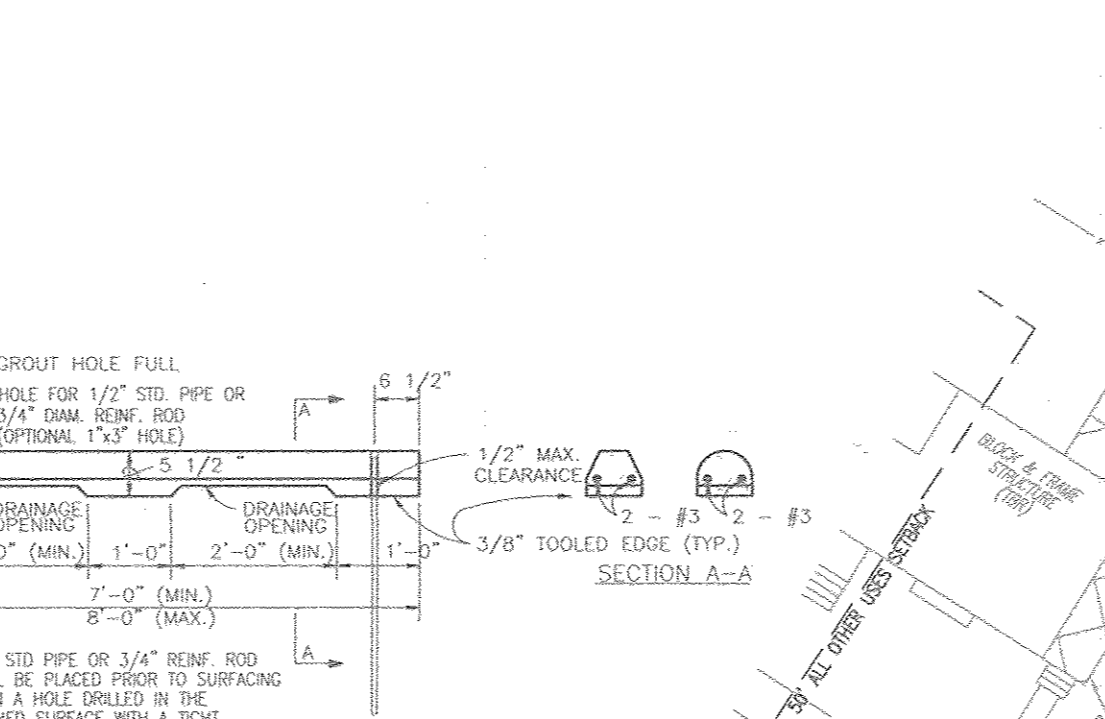
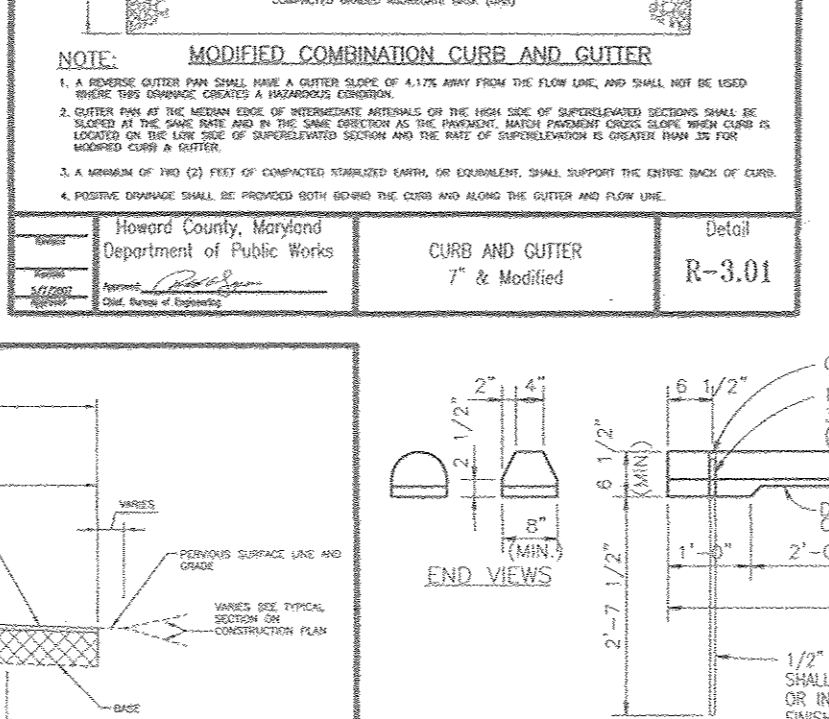
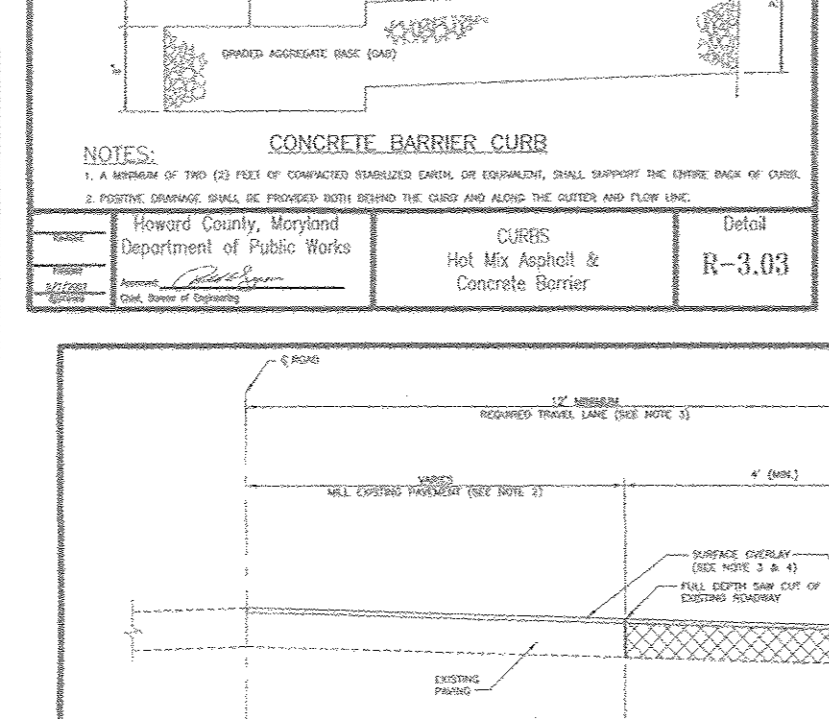
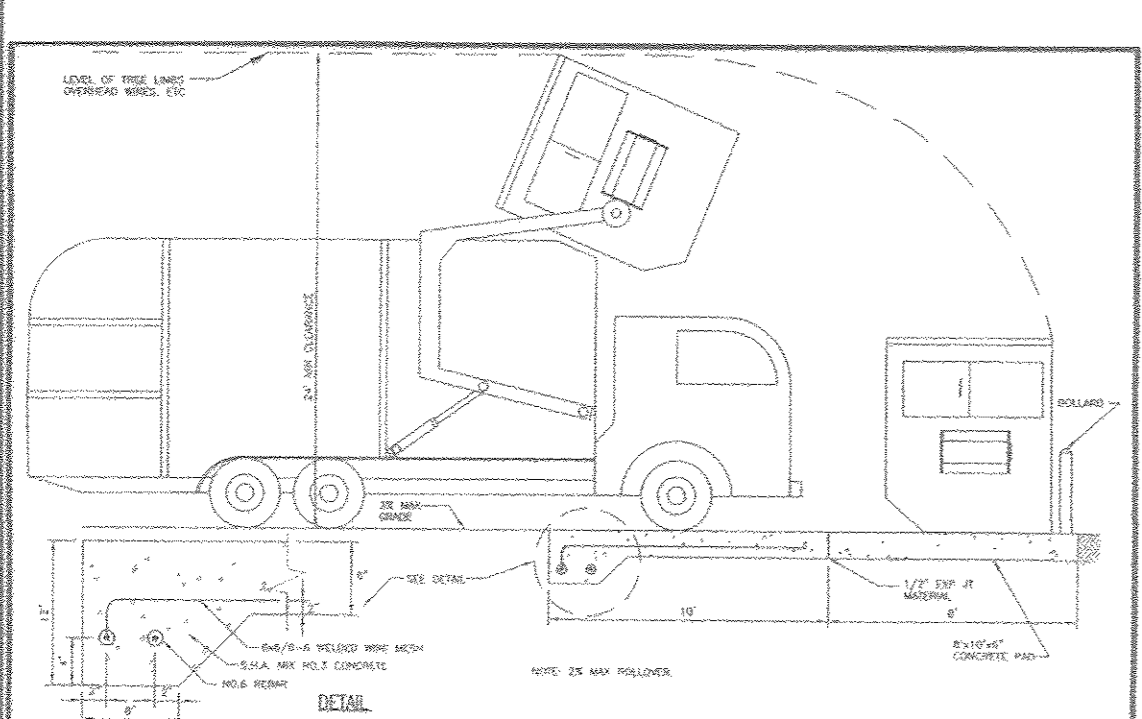
Pavement Layer	Parking and Drive Areas	Remarks
Asphaltic Concrete Surface Course (HMA-Superpave-9.5 mm; PG 64-22, Level 2)	1.5"	See Notes
Asphaltic Concrete Base Course (HMA-Superpave-19 mm; PG 64-22, Level 2)	3.5"	See Notes
Graded Aggregate Base Course (GAB)	6.0"	See Notes

NOTES: 1) Hot Mix Asphalt Surface and Base Course material should meet the specifications in Sections 901 and 904 of the most recent Maryland Department of Transportation Standard Specifications for Construction and Materials.  
2) Aggregate Base Course material should meet the specification in Section 901.01 of the most recent Maryland Department of Transportation Standard Specifications for Construction and Materials.  
3) Hot Mix Asphalt (HMA) Surface and Base Courses should be placed in accordance with Section 504 of the most recent Maryland Department of Transportation Standard Specifications for Construction and Materials.  
4) Aggregate Base Course should be placed in accordance with Section 501 of the most recent Maryland Department of Transportation Standard Specifications for Construction and Materials.  
5) Aggregate base course should be placed on a subgrade capable of obtaining a minimum CBR value of 4 when compacted to 100% of maximum dry density per Standard Proctor (ASTM D698).

Howard County, Maryland  
Department of Public Works  
Commercial-Industrial-Apartment Entrance on Closed Section Roadway (<200 V.P.H.)  
Detail  
R-6.09

Howard County, Maryland  
Department of Public Works  
Curb  
Hot Mix Asphalt & Concrete Barrier  
Detail  
R-3.03

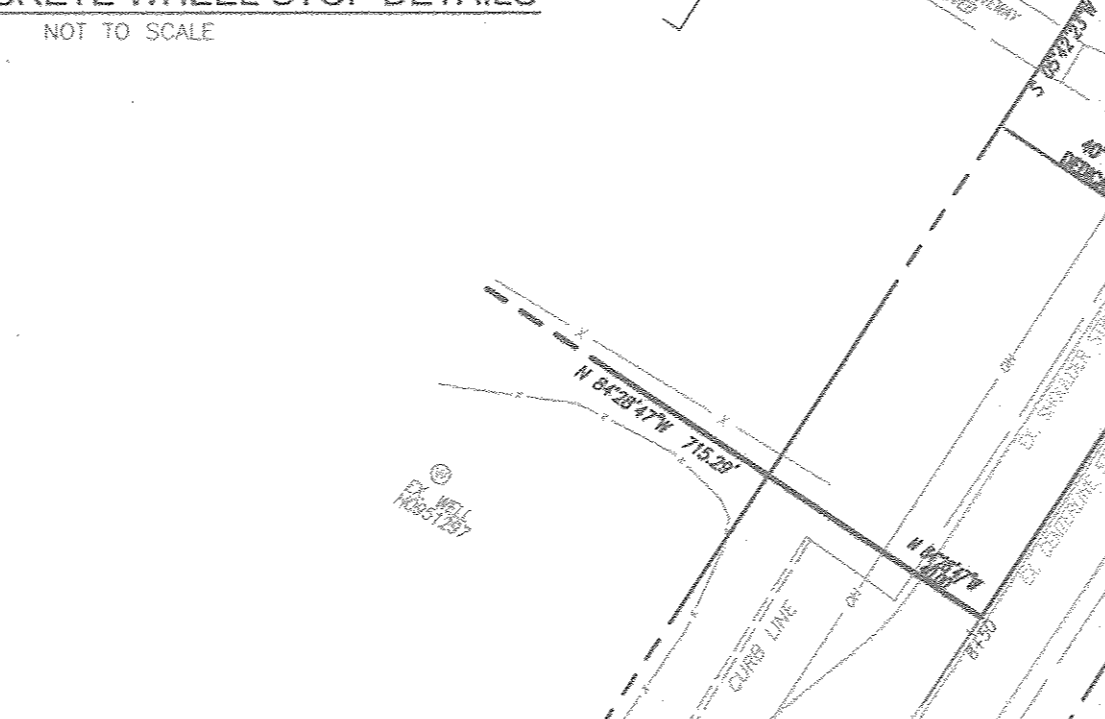
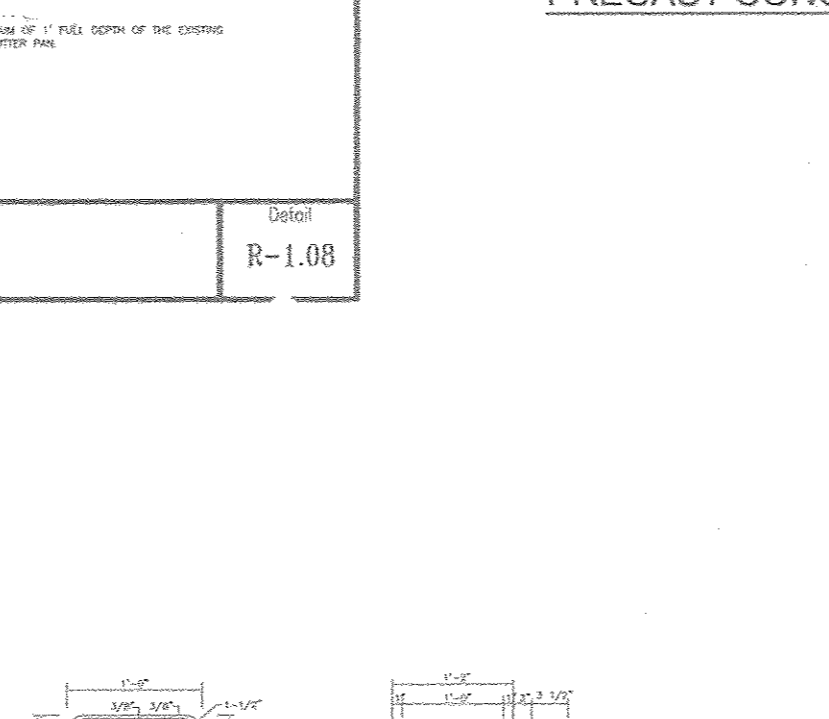
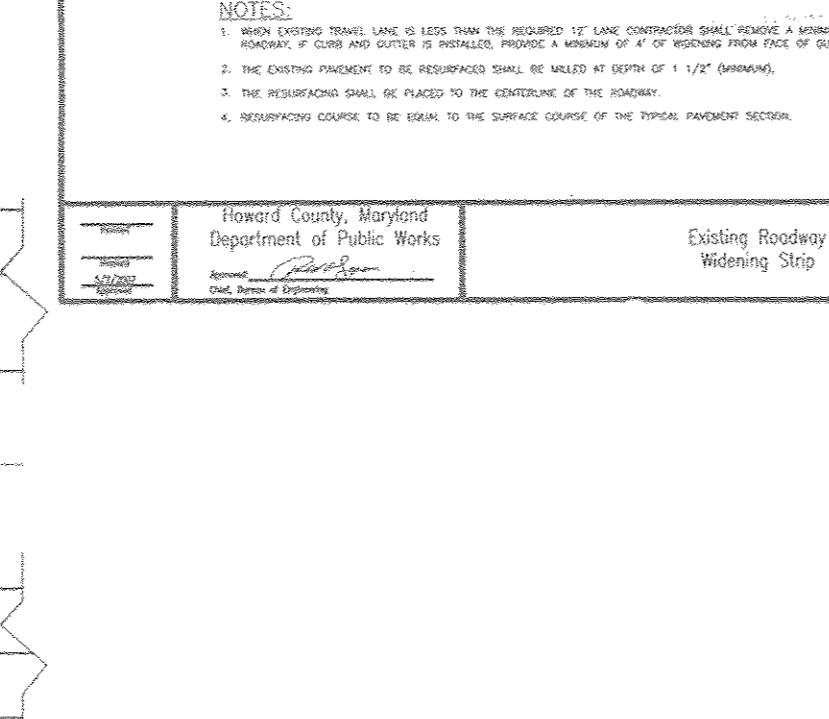
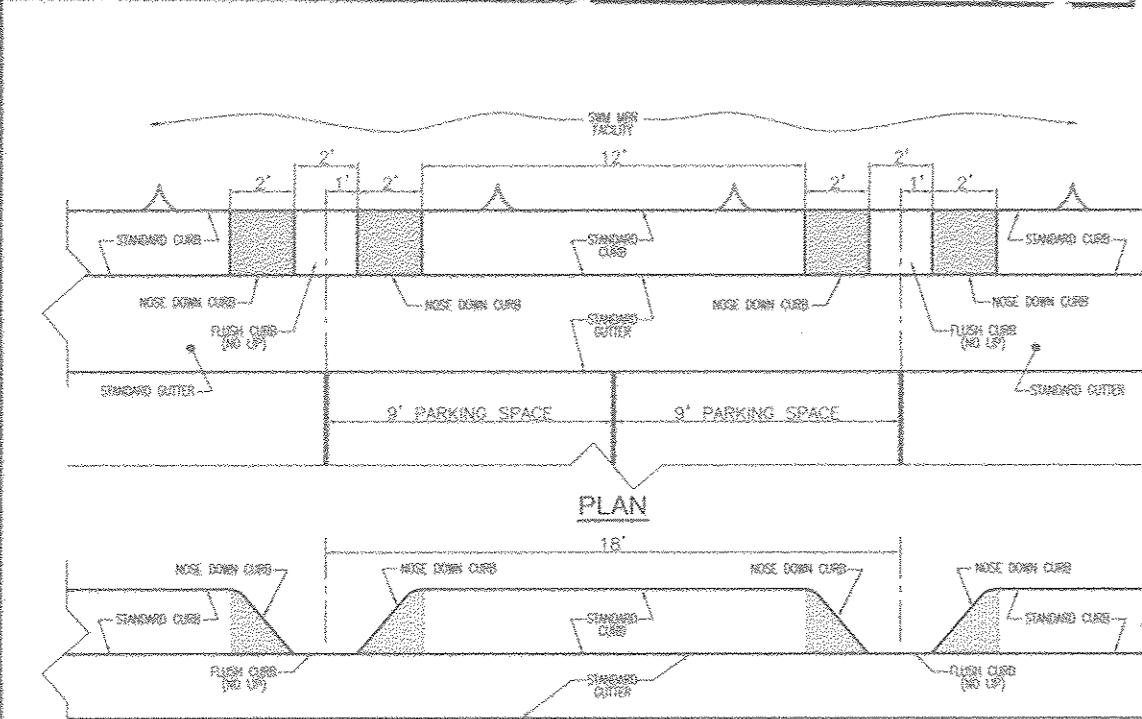
Howard County, Maryland  
Department of Public Works  
Curb and Gutter  
7\"/>



Howard County, Maryland  
Department of Public Works  
Solid Waste Service Pad  
Detail  
R-8.03

Howard County, Maryland  
Department of Public Works  
Existing Roadway Widening Stop  
Detail  
R-1.08

Howard County, Maryland  
Department of Public Works  
Precast Concrete Wheel Stop Details  
Detail  
R-3.01



Howard County, Maryland  
Department of Public Works  
Staggered SWM Curb Detail Adjacent to Micro-Bioretenention  
Detail  
R-1.08

Howard County, Maryland  
Department of Public Works  
Handicap Parking Signs  
Detail  
R-3.01

Howard County, Maryland  
Department of Public Works  
Handicap Parking Signs  
Detail  
R-3.01

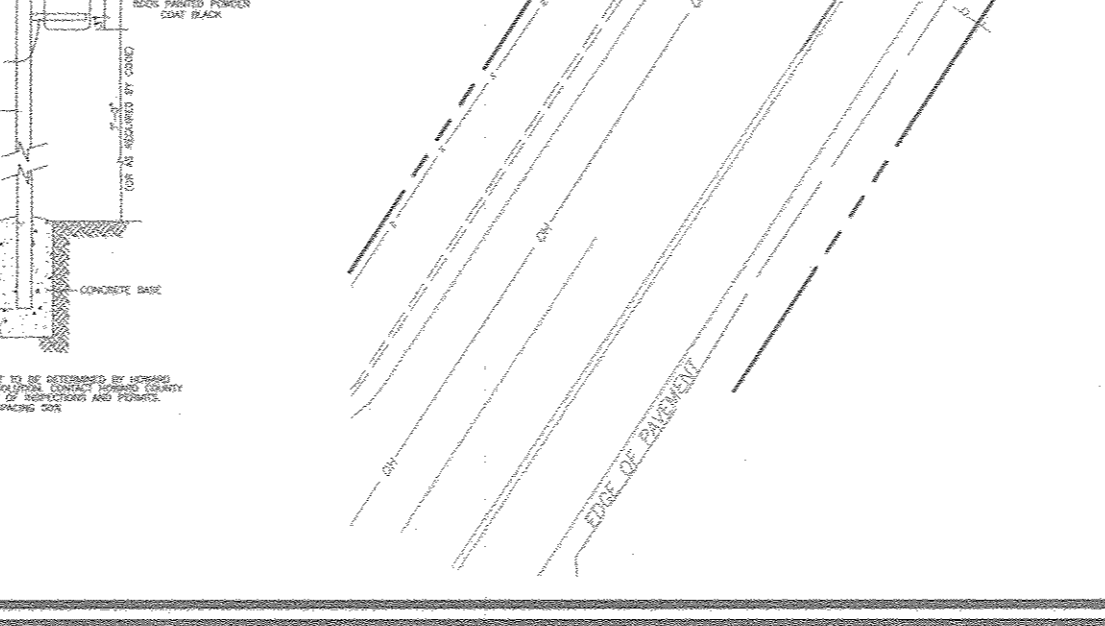
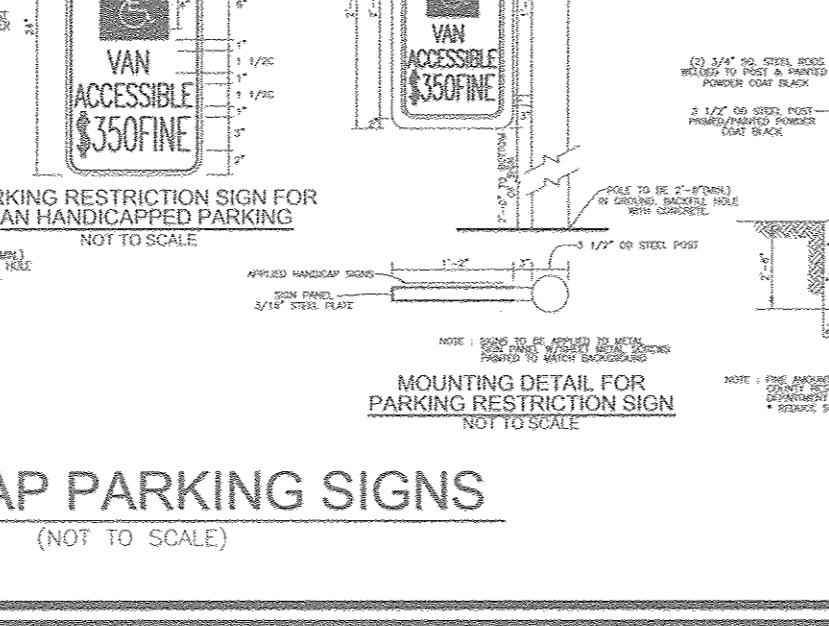
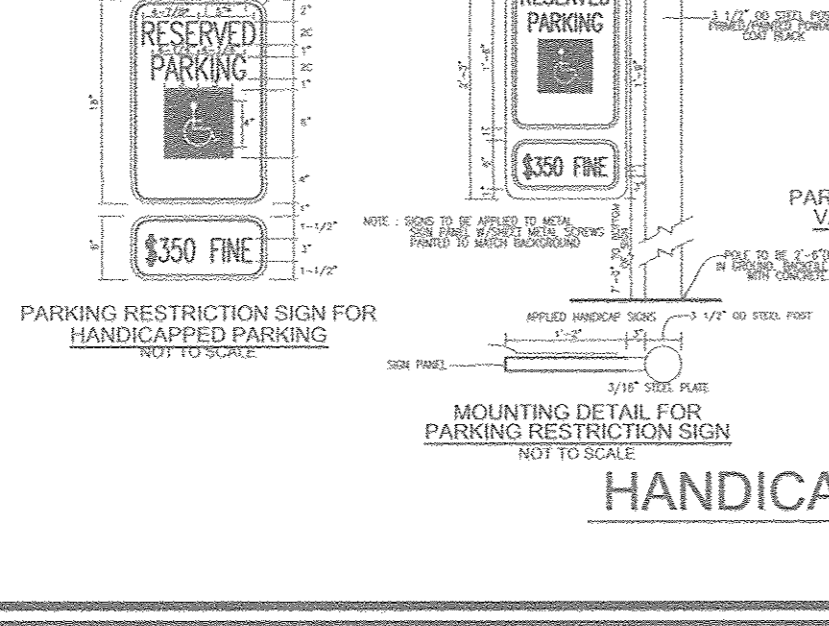
Howard County, Maryland  
Department of Public Works  
Handicap Parking Signs  
Detail  
R-3.01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief Development Engineering Division  
2-16-16  
DATE

Chief, Division of Land Development  
2-23-16  
DATE

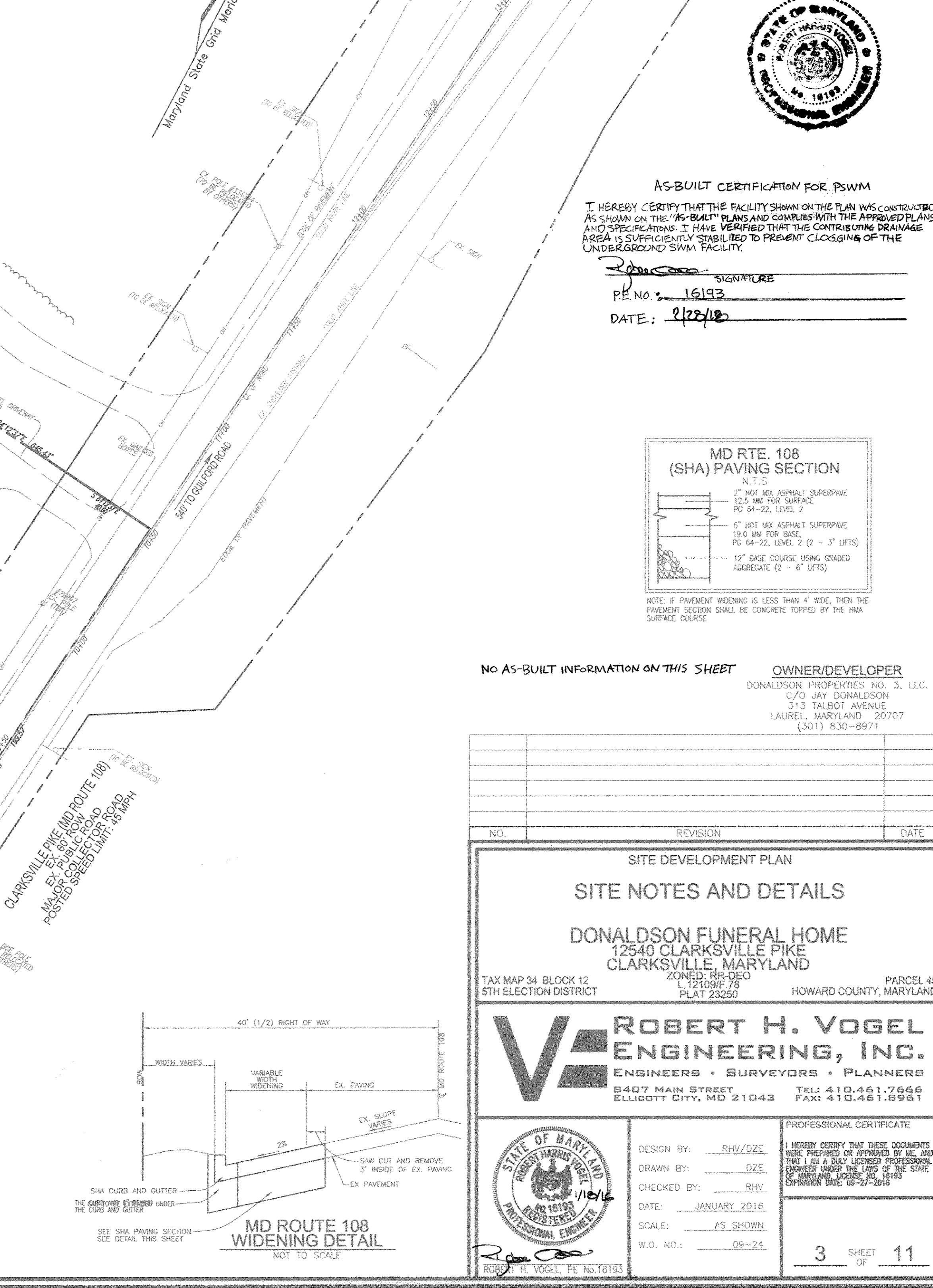
Director  
3-2-16  
DATE



Howard County, Maryland  
Department of Public Works  
Handicap Parking Signs  
Detail  
R-3.01

Howard County, Maryland  
Department of Public Works  
Handicap Parking Signs  
Detail  
R-3.01

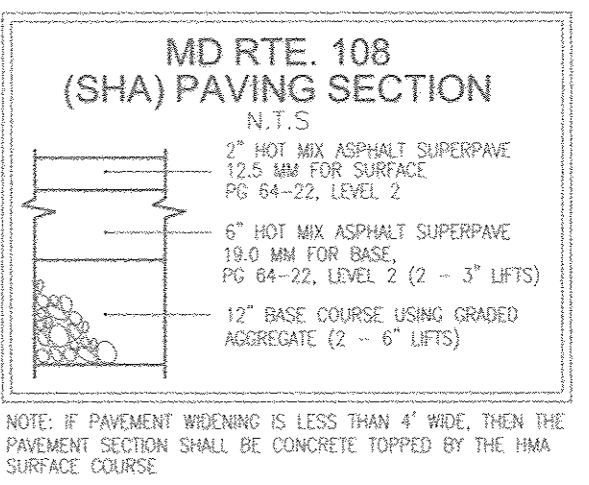
Howard County, Maryland  
Department of Public Works  
Handicap Parking Signs  
Detail  
R-3.01



AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

Signature: \_\_\_\_\_  
PE No. 16193  
DATE: 2/22/18



NOTE: IF PAVEMENT WIDENING IS LESS THAN 4' WIDE, THEN THE PAVEMENT SECTION SHALL BE CONCRETE TOPPED BY THE HMA SURFACE COURSE.

NO AS-BUILT INFORMATION ON THIS SHEET

OWNER/DEVELOPER  
DONALDSON PROPERTIES NO. 3, LLC.  
C/O JAY DONALDSON  
313 TALBOT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN  
SITE NOTES AND DETAILS

DONALDSON FUNERAL HOME  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND  
ZONED: RR-DEO  
L 12109/F 78  
PLAT 23250

TAX MAP 34 BLOCK 12  
5TH ELECTION DISTRICT

PARCEL 45  
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL  
ENGINEERING, INC.  
ENGINEERS • SURVEYORS • PLANNERS

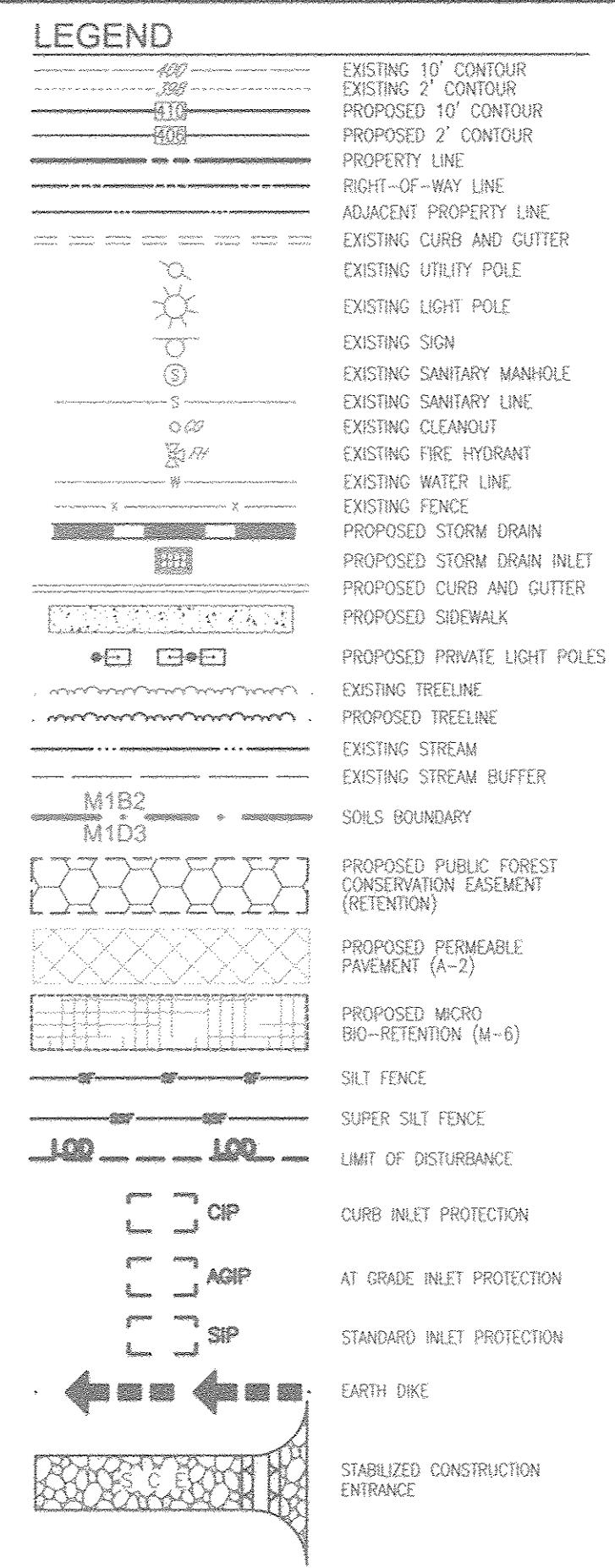
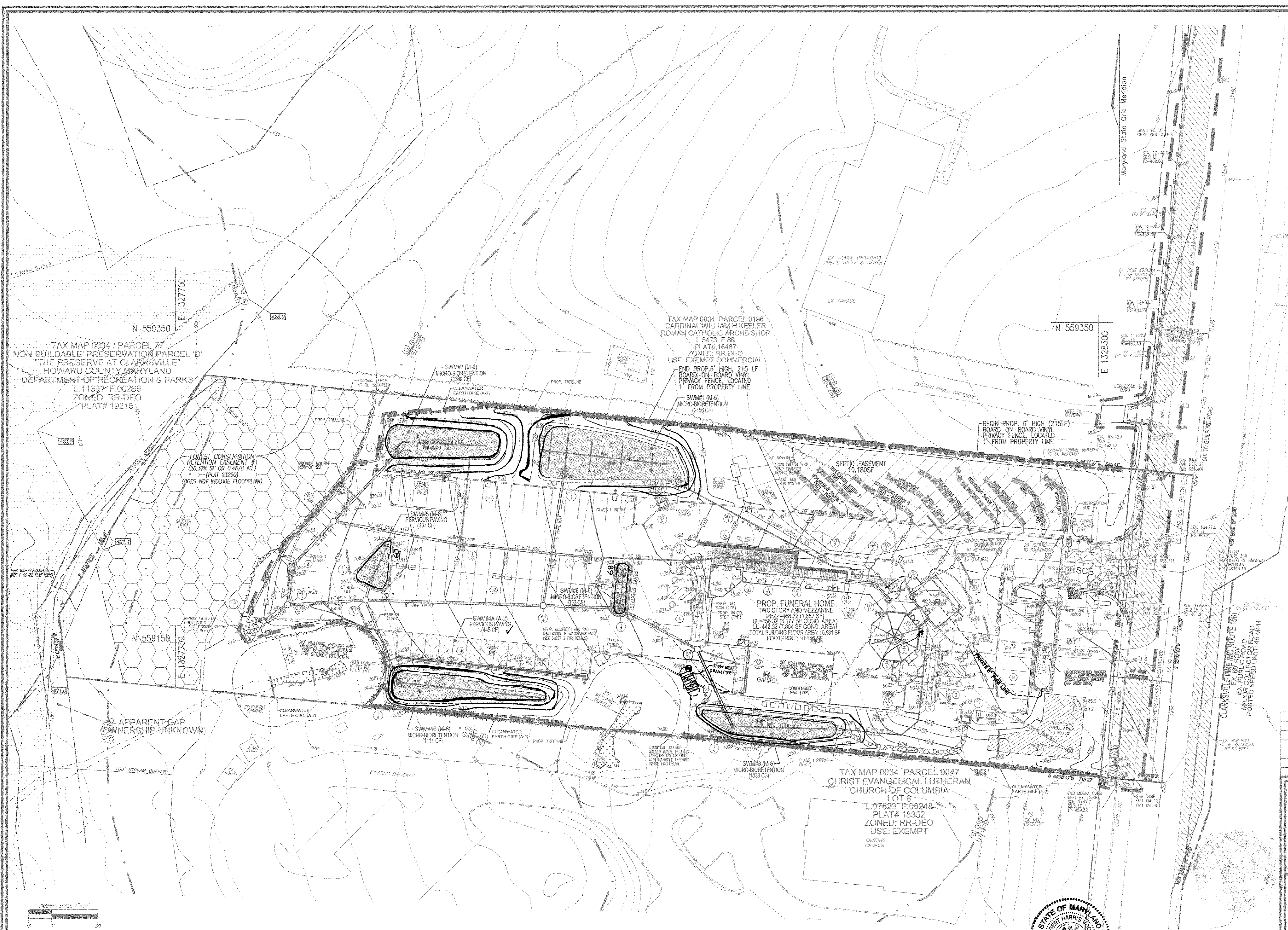
8407 MAIN STREET  
ELICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

DESIGN BY: RHV/DZE  
DRAWN BY: DZE  
CHECKED BY: RHV  
DATE: JANUARY 2016  
SCALE: AS SHOWN  
W.O. NO.: 09-24

PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018

3 SHEET OF 11

AS-BUILT JANUARY 2018



STORMWATER MANAGEMENT FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED

**SOILS LEGEND**  
HOWARD COUNTY SOILS MAP #16

SYMBOL	NAME / DESCRIPTION	GROUP	ERODIBLE
BGA	SMILE SILT LOAM, 0 TO 3 PERCENT SLOPES	A	YES
CB6	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	NO
GC6	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B	NO
GM6	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	YES

**ENTRANCE NOTE:**  
A MINIMUM 60" PEDESTRIAN PATHWAY WITH A MAXIMUM 2% CROSS SLOPE MUST BE MAINTAINED ACROSS THE ENTIRE ENTRANCE.

**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, LLC  
C/O JAY DONALDSON  
213 TALLENT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

1	REVISE PLAN TO REFLECT REVISED EMBANKMENT AND REVISE SIZE OF FIRE LINE	11/21/16
NO.	REVISION	DATE

**SITE DEVELOPMENT PLAN**  
**GRADING, SEDIMENT AND EROSION CONTROL PLAN; SOILS MAP**

**DONALDSON FUNERAL HOME**  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND

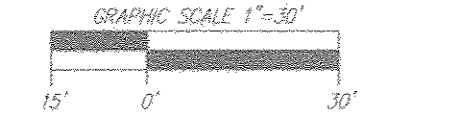
TAX MAP 34 BLOCK 12 5TH ELECTION DISTRICT  
L 12109/F 78 PLAT 23250  
PARCEL 45 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHY/DZE  
DRAWN BY: DZE  
CHECKED BY: RHY  
DATE: JANUARY 2016  
SCALE: AS SHOWN  
W.O. NO.: 08-24

4 SHEET OF 11



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Nathan Jaffe* 3-3-16  
DIRECTOR DATE

*Al Elshor* 2-16-16  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 30 & DATE

*Kate L. Jank* 2-23-16  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

BY THE DEVELOPER:

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Donaldson* 1-18-16  
SIGNATURE OF DEVELOPER DATE

BY THE ENGINEER:

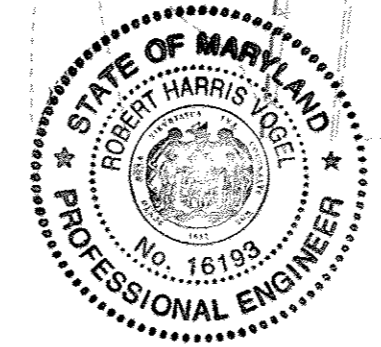
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*John K. Roberts* 1/18/16  
SIGNATURE OF ENGINEER DATE

**PLAN VIEW**  
SCALE: 1" = 30'

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*John K. Roberts* 2/12/16  
HOWARD S.C.D.



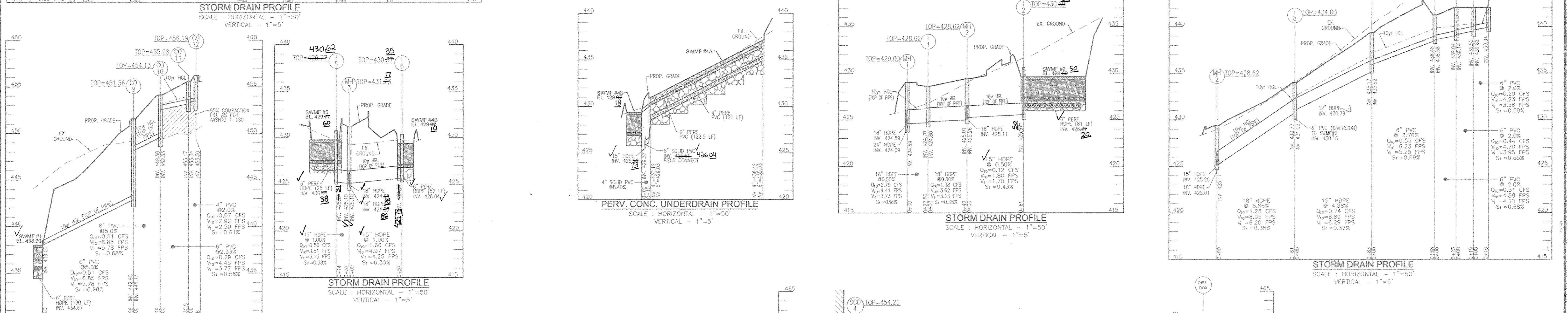
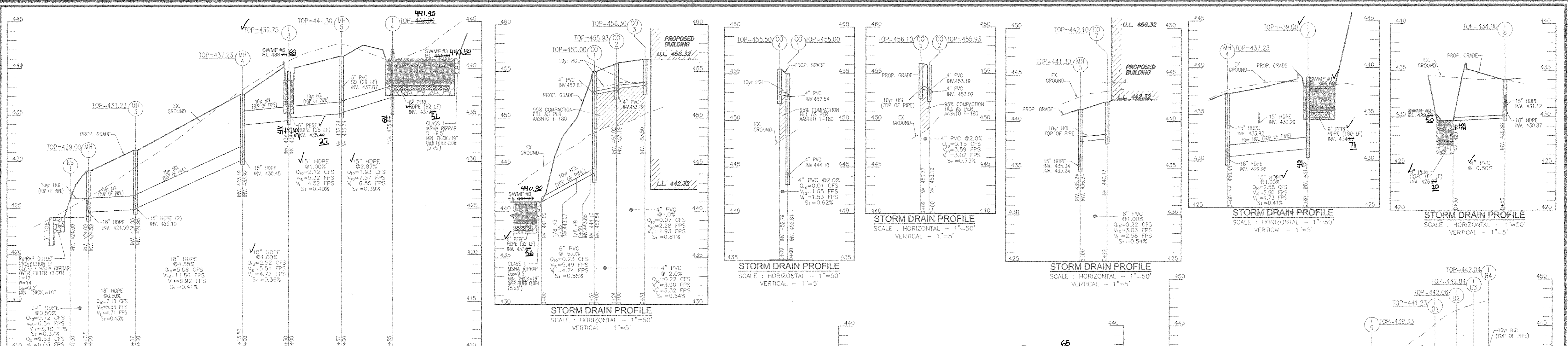
**AS-BUILT CERTIFICATION FOR PSMM**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONSTRUCTION BRANCHES ARE SUFFICIENTLY STABILIZED TO PREVENT CLOSING OF THE UNDERGROUND SWM FACILITY.

*Robert H. Vogel*  
SIGNATURE  
P.E. NO.: 16193  
DATE: 2/28/16

**STOCKPILE NOTE:**  
SHOULD THE SHOWN STOCKPILE EXCEED 15 FT. IN HEIGHT, IT MUST BE BENCHED





**PIPE SCHEDULE**

SIZE	TYPE	LENGTH
2"	WATER	134 LF
6"	WATER	87 LF
4"	PVC (SEWER)	110 LF
2"	SEWER SDR 21 (PRESSURE)	256 LF
4"	PERF. PVC (SWM)	121 LF
6"	PERF. PVC (SWM)	122.5 LF
5"	PERF. HDPE (SWM)	425 LF
14"	PVC	147 LF
6"	PVC	374.5 LF
10"	HDPE	414 LF
18"	HDPE	365 LF
24"	HDPE	17.50 LF

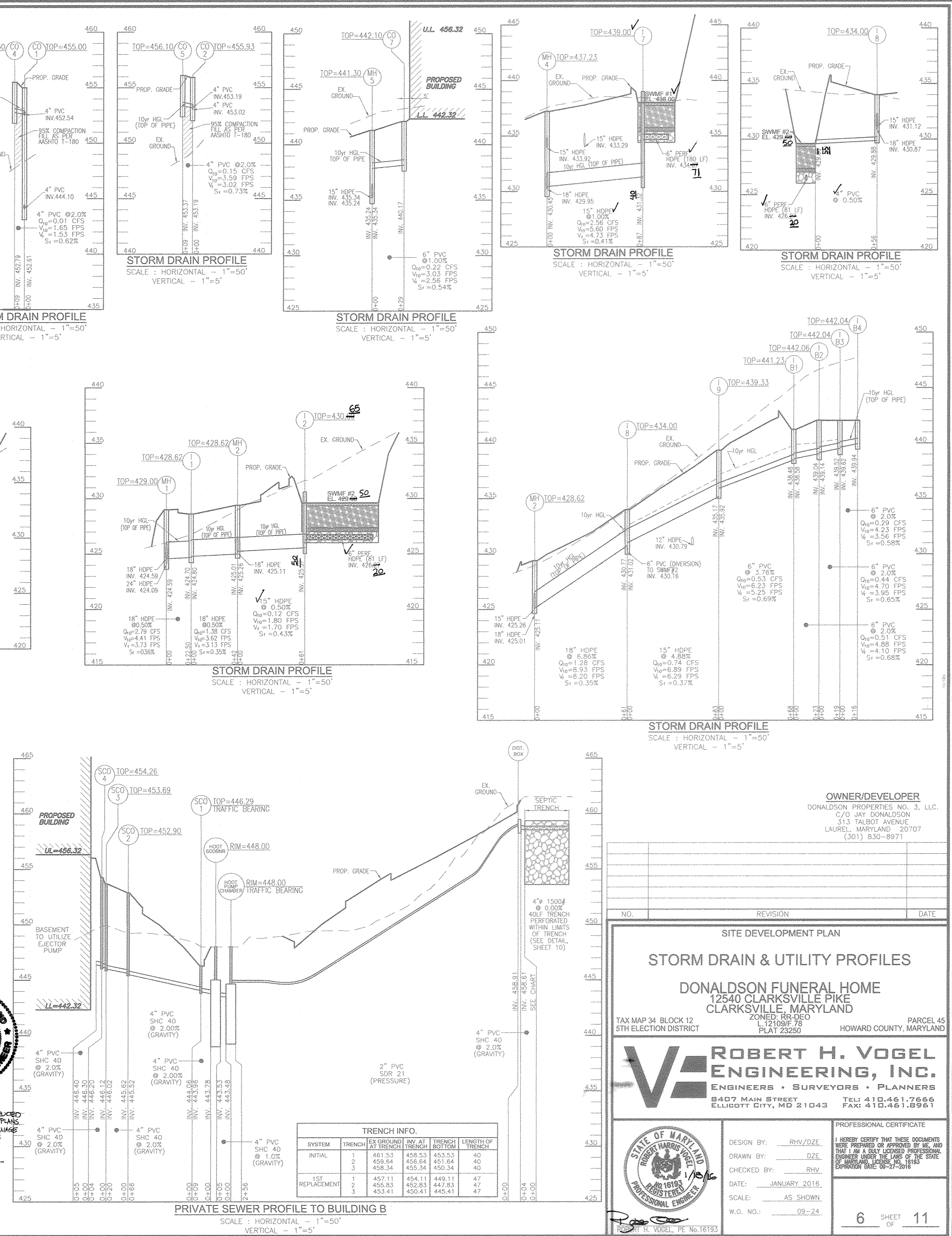
**STRUCTURE SCHEDULE**

NO.	TYPE	LOCATION	TOP ELEV.	THROAT IN.	INVERT ELEV.	OUTLET IN.	COMMENTS
I-1	TYPE DOUBLE 'S' INLET	N 559190.2 E 1327775.5	428.62	424.80	424.70	HO. CO. STD. D-4.23	
I-2	YARD INLET	N 559266.3 E 1327844.4	430.60	426.27	425.57	HO. CO. STD. D-4.14	
I-3	YARD INLET	N 559165.7 E 1327988.8	439.75	435.25	434.42	HO. CO. STD. D-4.14	
I-4	YARD INLET	N 559089.4 E 1328062.2	442.00	437.67	436.92	HO. CO. STD. D-4.14	
I-5	YARD INLET	N 559184.9 E 1327827.6	429.77	426.44	425.24	HO. CO. STD. D-4.14	
I-6	YARD INLET	N 559177.9 E 1327845.1	430.37	426.04	425.87	HO. CO. STD. D-4.14	
I-7	YARD INLET	N 559253.7 E 1327952.7	439.00	434.67	433.32	HO. CO. STD. D-4.14	
I-8	TYPE DOUBLE 'S' INLET	N 559207.1 E 1327885.5	434.00	431.32	429.88	HO. CO. STD. D-4.23	
I-9	TYPE DOUBLE 'S' INLET	N 559198.7 E 1327968.0	439.33	435.92	435.17	HO. CO. STD. D-4.23	
I-B1	ADS-15CATCHBASIN	N 559196.4 E 1328036.3	441.23	438.58	438.48	ADS 2815AG	
I-B2	ADS-15CATCHBASIN	N 559198.7 E 1328059.4	442.06	439.14	439.04	ADS 2815AG	
I-B3	ADS-15CATCHBASIN	N 559195.8 E 1328077.7	442.04	439.62	439.52	ADS 2815AG	
I-B4	ADS-15CATCHBASIN	N 559194.2 E 1328094.1	442.04	439.94	439.84	ADS 2815AG	
MH-1	4'-0" STANDARD PRECAST MANHOLE	N 559167.8 E 1327772.9	429.00	424.99	424.09	HO. CO. STD. G-5.12	
MH-2	4'-0" STANDARD PRECAST MANHOLE	N 559108.4 E 1327878.2	429.40	425.01	425.01	HO. CO. STD. G-5.12	
MH-3	4'-0" STANDARD PRECAST MANHOLE	N 559171.1 E 1327823.7	431.23	426.84	426.85	HO. CO. STD. G-5.12	
MH-4	4'-0" STANDARD PRECAST MANHOLE	N 559167.5 E 1327939.2	437.23	433.28	433.20	HO. CO. STD. G-5.12	
MH-5	4'-0" STANDARD PRECAST MANHOLE	N 559198.1 E 1328039.4	441.30	435.24	435.24	HO. CO. STD. G-5.12	
PT-1	PASS THRU	N 559095.8 E 1328213.9	455.25	455.25	455.25	MD SHA STD. 374.68	
PT-2	PASS THRU	N 559230.9 E 1328018.1	442.92	442.92	442.92	MD SHA STD. 374.68	
ES-1	24" END SECTION	N 559125.4 E 1327738.5	422.50	424.00	424.00	HO. CO. STD. G-5.12	
CO-1	CLEANOUT	N 559097.5 E 1328183.5	455.00	455.00	455.00	HO. CO. STD. S-2.22	
CO-2	CLEANOUT	N 559121.4 E 1328180.8	455.93	455.02	455.02	HO. CO. STD. S-2.22	
CO-3	CLEANOUT	N 559151.9 E 1328198.8	456.30	453.50	453.50	HO. CO. STD. S-2.22	
CO-4	CLEANOUT	N 559098.3 E 1328174.9	454.50	452.79	452.79	HO. CO. STD. S-2.22	
CO-5	CLEANOUT	N 559122.2 E 1328177.2	456.10	453.37	453.37	HO. CO. STD. S-2.22	
CO-7	CLEANOUT	N 559129.7 E 1328066.3	452.10	438.10	438.10	HO. CO. STD. S-2.22	
CO-9	CLEANOUT	N 559198.6 E 1328116.1	451.56	448.13	448.90	HO. CO. STD. S-2.22	
CO-10	CLEANOUT	N 559187.6 E 1328139.8	454.13	452.53	449.58	HO. CO. STD. S-2.22	
CO-11	CLEANOUT	N 559176.1 E 1328165.5	455.28	453.34	453.17	HO. CO. STD. S-2.22	
CO-12	CLEANOUT	N 559177.4 E 1328173.5	456.19	453.50	453.50	HO. CO. STD. S-2.22	

**AS-BUILT CERTIFICATION FOR PSWM**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND COMPLIES WITH THE APPLIED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

DATE: 2/10/16



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 2-16-16

DATE: 2-23-16

DATE: 3-3-16

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

DATE: 2/10/2016

**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, LLC  
C/O JAY DONALDSON  
313 TALBOT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

**SITE DEVELOPMENT PLAN**  
**STORM DRAIN & UTILITY PROFILES**

TAX MAP 34 BLOCK 12  
5TH ELECTION DISTRICT

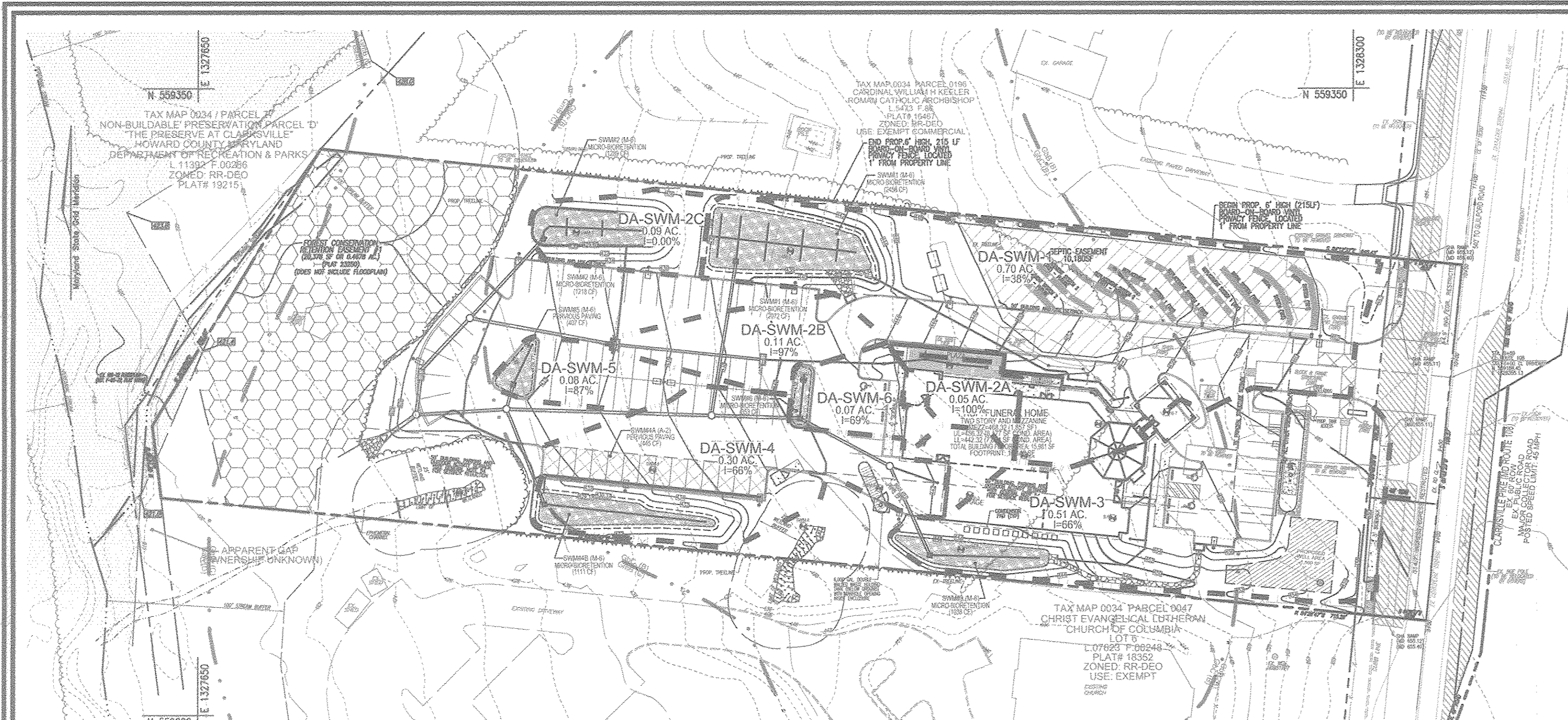
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND  
ZONED: RR-DEO  
L 12109/F 78  
PLAT 23250

PARCEL 45  
HOWARD COUNTY, MARYLAND

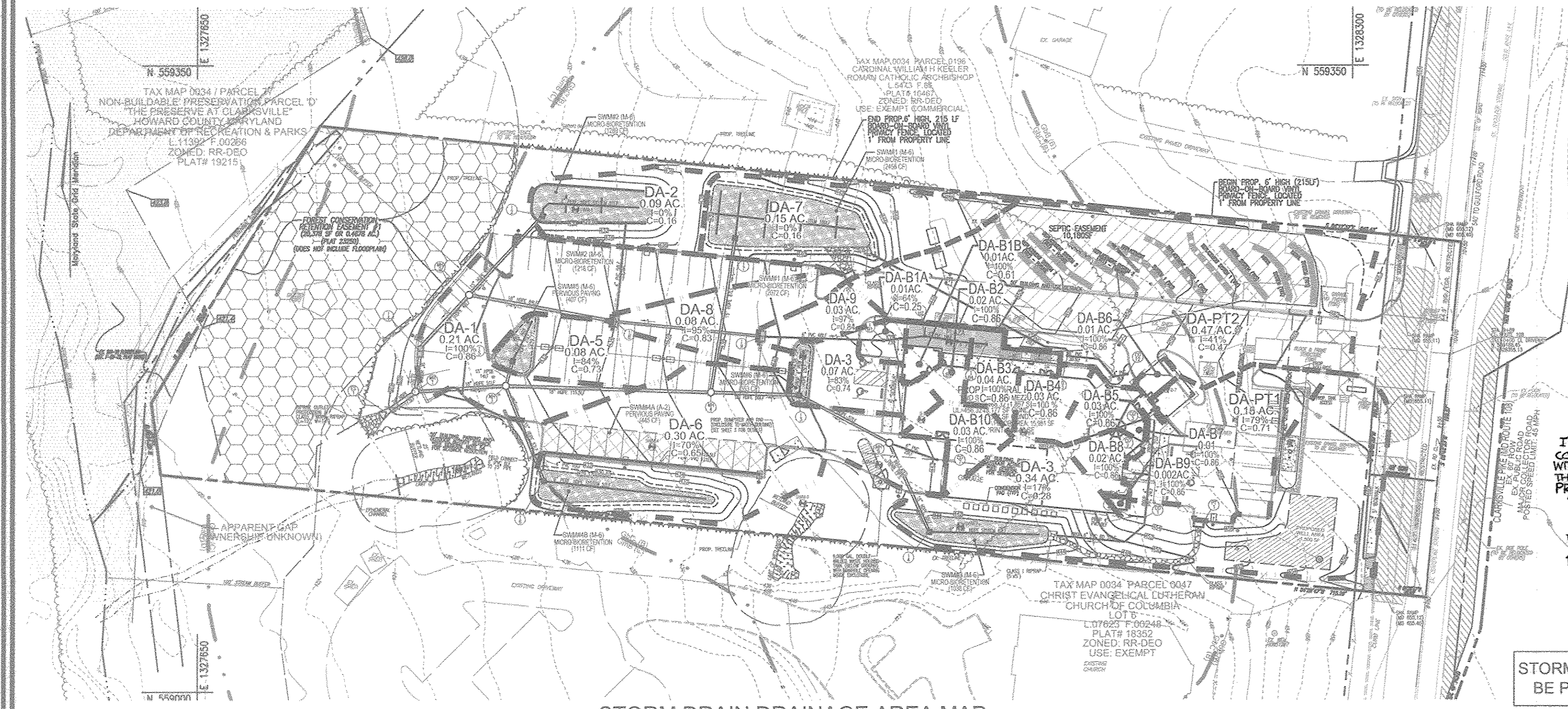
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DRAWN BY: DZE  
CHECKED BY: RHV  
DATE: JANUARY 2016  
SCALE: AS SHOWN  
W.O. NO.: 09-24

6 SHEET OF 11

AS-BUILT JANUARY 2018



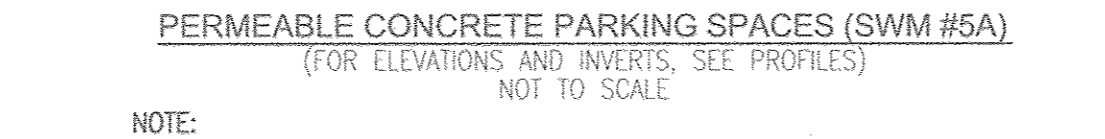
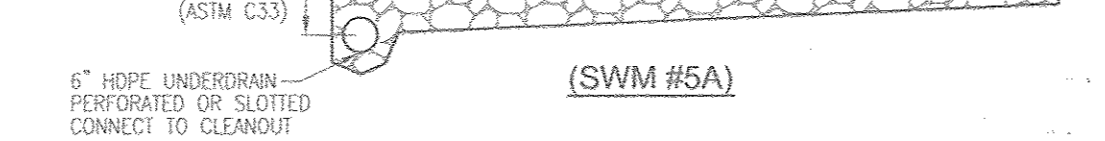
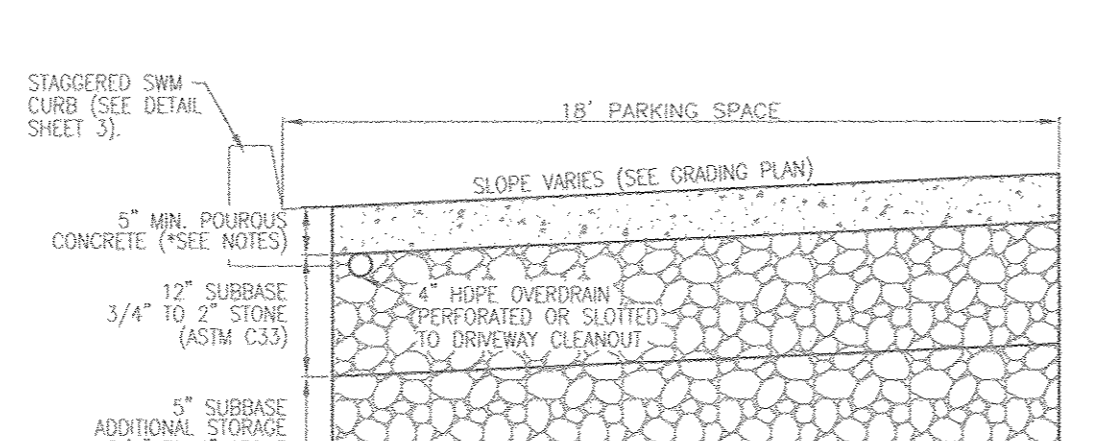
**SWM DRAINAGE AREA MAP**  
SCALE: 1" = 50'



**STORM DRAIN DRAINAGE AREA MAP**  
SCALE: 1" = 50'

DONALDSON FUNERAL HOME  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MD 21031

DRAINAGE AREA #	AREA (SQ FT)	FACILITY NUMBER	PERMEABLE PAVEMENT	ADDITIONAL PERMEABLE PAVEMENT	LANDSCAPE INFILTRATION	PERVIOUS CONCRETE	UNDERDRAIN	STAGGERED SWM	NO. OF STAGGERED SWM	NO. OF PERVIOUS CONCRETE	NO. OF UNDERDRAINS	TOTAL ESDV PROVIDED
2AAB	630	1	0	0	0	0	0	0	0	0	0	2072
1	2127	1	0	0	0	0	0	0	0	0	0	1215
2	568	1	0	0	0	0	0	0	0	0	0	983
3	568	1	0	0	0	0	0	0	0	0	0	983
4	568	1	0	0	0	0	0	0	0	0	0	983
5	568	1	0	0	0	0	0	0	0	0	0	983
6	568	1	0	0	0	0	0	0	0	0	0	983
7	568	1	0	0	0	0	0	0	0	0	0	983
8	568	1	0	0	0	0	0	0	0	0	0	983
9	568	1	0	0	0	0	0	0	0	0	0	983
10	568	1	0	0	0	0	0	0	0	0	0	983



**PERMEABLE CONCRETE PARKING SPACES (SWM #5A)**  
NOT TO SCALE

NOTE:  
1. PAVEMENT CROSS SECTION TO BE CONFIRMED BY GEOTECHNICAL ENGINEER  
2. PERVIOUS CONCRETE SECTION TO CONFORM TO APPENDIX B.4.B (SPECIFICATIONS FOR PERMEABLE PAVEMENTS) AND DESIGNED BY THE PROJECT GEOTECHNICAL ENGINEER  
3. UNDERDRAINS/OVERDRAINS SHALL CONNECT INTO A TRAFFIC BEARING UNDERLAY AS SHOWN ON THE PLANS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chad Edwards*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 2-16-16

*Kat Shalinski*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 2-23-16

*William Jaffari*  
DIRECTOR  
DATE: 3-3-16

**APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS**

1. **MATERIAL SPECIFICATIONS**  
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. **FILTERING MEDIA OR PLANTING SOIL**  
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MAILED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE AN OBSTACLE TO THE OPERATION OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

3. **COMPACTION**  
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TIRE TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

4. **PLANT MATERIAL**  
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. **PLANT INSTALLATION**  
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE. ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

6. **UNDERDRAINS**  
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:  
\* PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F758, TYPE PS 28, OR AASHTO M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED 4" RIGID PIPE (E.G. PVC OF HDPE).  
\* PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 44) GALVANIZED HARDWARE CLOTH.  
\* GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.  
\* THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.2% SLOPE.  
\* A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE UNDERDRAIN.  
\* A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT IMBIBITION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".  
THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5% OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. **MISCELLANEOUS**  
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

**OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6), RAIN GARDENS (M-7), BIOTENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)**

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.

2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.

3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.

4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED PERMEABLE PAVEMENT (A-2)**

1. THE OWNER SHALL PERIODICALLY SWEEP (OR VACUUM POROUS CONCRETE PAVEMENT) THE PAVEMENT SURFACES TO REDUCE SEDIMENT ACCUMULATION AND ENSURE CONTINUED SURFACE POROSITY. SWEEPING SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY WITH A COMMERCIAL CLEANING UNIT. WASHING OR COMPRESSED AIR UNITS SHOULD NOT BE USED TO PERFORM SURFACE CLEANING.

2. THE OWNER SHALL PERIODICALLY CLEAN DRAINAGE PIPES, INLETS, STONE EDGE DRAINS AND OTHER STRUCTURES WITHIN OR DRAINING TO THE UNDERDRAIN.

3. THE OWNER SHALL USE DEICERS IN CALORIM, DEICERS SHOULD BE NON-TOXIC AND BE APPLIED EITHER AS CALCIUM MAGNESIUM ACETATE OR AS PRETREATED SALT.

4. THE OWNER SHALL ENSURE SNOW PLOWING IS PERFORMED CAREFULLY WITH BLADES SET ONE INCH ABOVE THE SURFACE. PLOWED SNOW PILES AND SNOWMELT SHOULD NOT BE DIRECTED TO PERMEABLE PAVEMENT.

**B.4.B SPECIFICATIONS FOR PERMEABLE PAVEMENTS & REINFORCED TURF**

THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS AND ARE NOT EXCLUSIVE OR LIMITING. THE DESIGNER IS RESPONSIBLE FOR DEVELOPING SPECIFICATIONS FOR INDIVIDUAL PROJECTS AND SPECIFIC CONDITIONS.

1. **PERVIOUS CONCRETE SPECIFICATIONS**  
DESIGN THICKNESS - PERVIOUS CONCRETE APPLICATIONS SHALL BE DESIGNED SO THAT THE THICKNESS OF THE CONCRETE SLAB SHALL SUPPORT THE TRAFFIC AND VEHICLE TYPES THAT WILL BE CARRIED. APPLICATIONS MAY BE DESIGNED USING EITHER STANDARD PAVEMENT PROCEDURES (E.G., AASHTO, ACI 325.9R, ACI 330R) OR USING STRUCTURAL VALUES DERIVED FROM PERMEABLE PAVEMENT DESIGN PROCEDURES.

MIX & INSTALLATION - TRADITIONAL PORTLAND CEMENTS (ASTM C 150, C 1157) MAY BE USED IN PERVIOUS CONCRETE APPLICATIONS. PHOSPHORUS ADMIXTURES MAY ALSO BE USED. MATERIALS SHOULD BE TESTED (E.G., TRIAL BATCHING) PRIOR TO CONSTRUCTION SO THAT CRITICAL PROPERTIES (E.G., SETTLING TIME, RATE OF STRENGTH DEVELOPMENT, POROSITY, PERMEABILITY) CAN BE DETERMINED.

AGGREGATE - PERVIOUS CONCRETE CONTAINS A LIMITED FINE AGGREGATE CONTENT. COMMONLY USED GRADATIONS INCLUDE ASTM C 33 NO. 67 (3/4 IN. TO NO. 4), NO. 8 (3/8 IN. TO NO. 16) AND NO. 89 (3/8 IN. TO NO. 50) SIEVES. SINGLE-SIZED AGGREGATE (UP TO 1 INCH) MAY ALSO BE USED.

WATER CONTENT - WATER-TO-CEMENT RATIOS BETWEEN 0.27 AND 0.30 ARE USED ROUTINELY WITH PROPER INCLUSION OF CHEMICAL ADMIXTURES. WATER QUALITY SHOULD MEET ACI 308.4 AS A GENERAL RULE. POTABLE WATER SHOULD BE USED ALTHOUGH RECYCLED CONCRETE PRODUCTION WATER MEETING ASTM C 94 OR AASHTO M 157 MAY ALSO BE USED.

ADMIXTURES - CHEMICAL ADMIXTURES (E.G., RETARDERS OR HYDRATION-STABILIZERS) ARE USED TO OBTAIN SPECIAL PROPERTIES IN PERVIOUS CONCRETE. USE OF ADMIXTURES SHOULD MEET ASTM C 494 (CHEMICAL ADMIXTURES) AND ASTM C 260 (AIR ENTRAINING ADMIXTURES) AND CLOSELY FOLLOW MANUFACTURER'S RECOMMENDATIONS. BASE COURSE - THE BASE COURSE SHALL BE AASHTO NO. 3 OR 4 COURSE AGGREGATE WITH AN ASSUMED OPEN PORE SPACE OF 50% (n=0.50).

2. **PERMEABLE INTERLOCKING CONCRETE PAVEMENTS (PICP)**  
PAPER BLOCKS - BLOCKS SHOULD BE EITHER 3/4 IN. OR 4 IN. THICK, AND MEET ASTM C 936 OR CSA A231.2 REQUIREMENTS. APPLICATIONS SHOULD HAVE 20% OR MORE (40% PREFERRED) OF THE SURFACE AREA OPEN. INSTALLATION SHOULD FOLLOW MANUFACTURER'S INSTRUCTIONS, EXCEPT THAT INFILL AND BASE COURSE MATERIALS AND DIMENSIONS SPECIFIED IN THIS APPENDIX SHALL BE FOLLOWED.

INFILL MATERIALS AND LEVELING COURSE - OPENINGS SHALL BE FILLED WITH ASTM C-33 GRADED SAND OR SANDY LOAM. PICP BLOCKS SHALL BE PLACED ON A ONE-INCH THICK LEVELING COURSE OF ASTM C-33 SAND.

BASE COURSE - THE BASE COURSE SHALL BE AASHTO NO. 3 OR 4 COURSE AGGREGATE WITH AN ASSUMED OPEN PORE SPACE OF 50% (n=0.50).

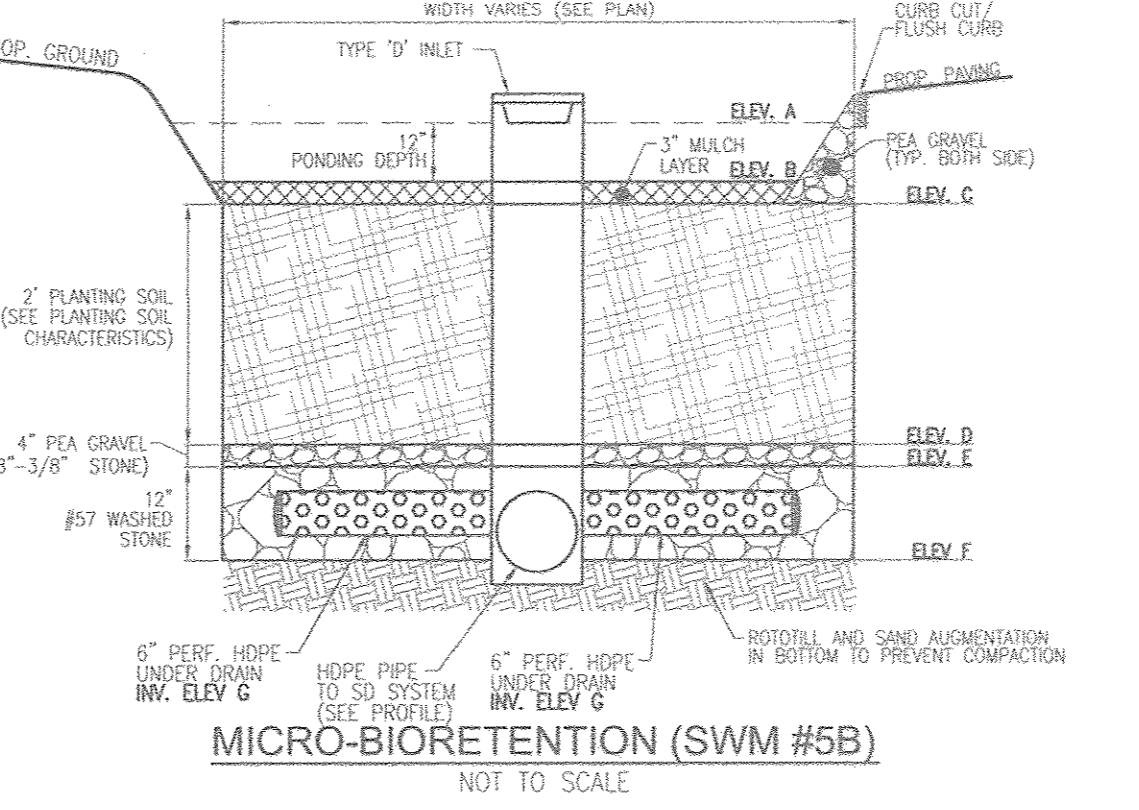
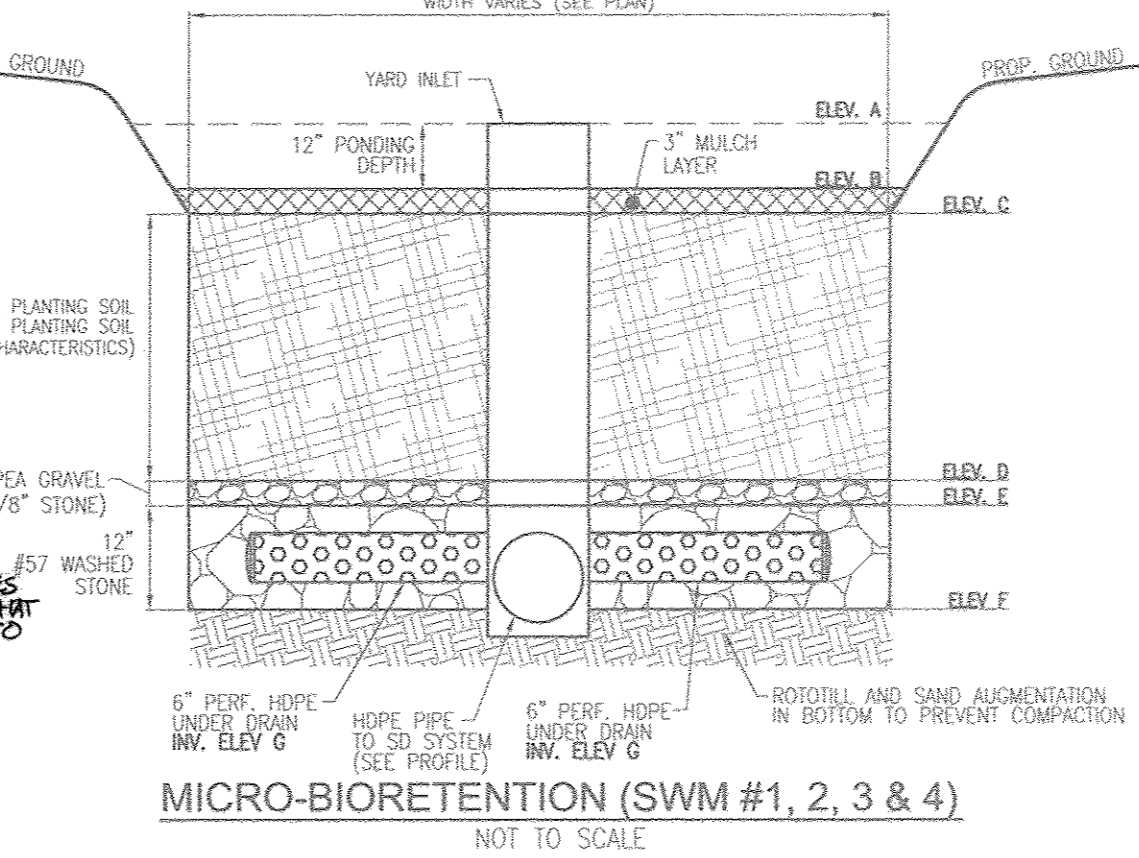
3. **REINFORCED TURF**  
REINFORCED GRASS PAVEMENT (RGP) - WHETHER USED WITH GRASS OR GRAVEL, THE RGP THICKNESS SHALL BE AT LEAST 1-1/4" THICK WITH A LOAD CAPACITY CAPABLE OF SUPPORTING THE TRAFFIC AND VEHICLE TYPES THAT WILL BE CARRIED.

**AS-BUILT CERTIFICATION FOR PSWMM**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPLICABLE PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERLAIN SWMA FACILITY.

PE NO: 16193  
DATE: 8/28/18

**STORMWATER MANAGEMENT FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED**



**MICROBIORETENTION NOTES:**

1. ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MEDIA TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.

2. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.

MBR Facility	Ponding Elevation	Top of Mulch ELEV. A	Bottom of Mulch ELEV. B	Bottom of Plant Mix ELEV. C	Bottom of Pea Gravel ELEV. D	Height of Stone (ft.) ELEV. E	Bottom of Stone ELEV. F	Invert of Underdrain (INV. ELEV. G)
1	430.00	438.00	437.75	436.75	435.42	1.00	434.42	434.20
2	430.00	429.00	428.75	427.35	427.02	1.00	426.02	426.20
3	441.35	444.00	443.75	443.75	438.42	1.00	437.42	437.51
4	436.00	437.00	436.75	436.75	436.26	1.00	435.26	435.40
5B								
10	430.35	429.10	428.80				425.39	436.04
11	430.62	424.80	424.25				426.10	436.48
12	434.75	438.00	438.33				435.00	435.21

**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, LLC  
C/O JAY DONALDSON  
113 TALBOT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

**SITE DEVELOPMENT PLAN**  
**STORM DRAIN & SWM DRAINAGE AREA MAP; SWM NOTES AND DETAILS; SOILS MAP**  
**DONALDSON FUNERAL HOME**  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND  
ZONED RR-DEO  
L 12109/F 78  
PLAT 23250  
PARCEL 45  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
Engineers • Surveyors • Planners  
8407 MAIN STREET  
ELICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

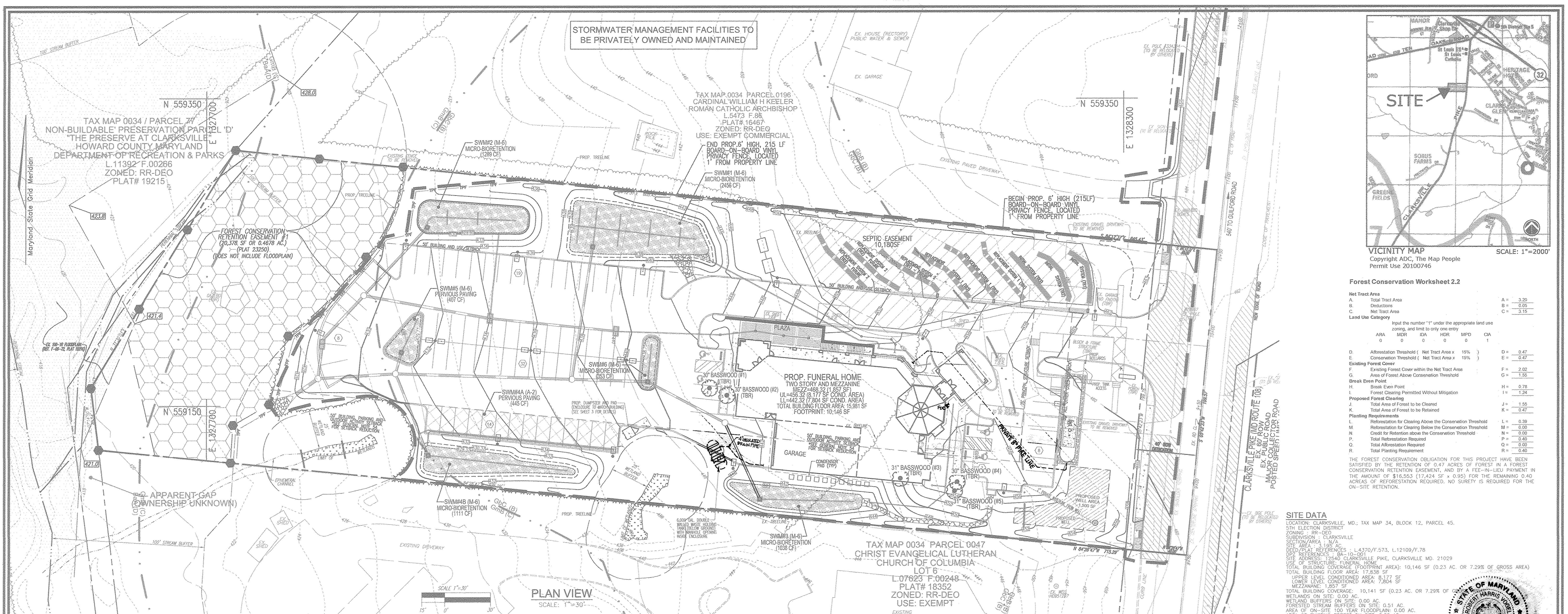
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DATE: JANUARY 2016  
SCALE: AS SHOWN  
W.D. NO.: 08-24

PROFESSIONAL CERTIFICATE  
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.  
EXPIRATION DATE: 08-27-2018

7 SHEET OF 11







STORMWATER MANAGEMENT FACILITIES TO BE PRIVATELY OWNED AND MAINTAINED

TAX MAP 0034 PARCEL 0196  
CARDINAL WILLIAM H KEELER  
ROMAN CATHOLIC ARCHBISHOP  
L 5473 F.86  
PLATS 16467  
ZONED: RR-DEO  
USE: EXEMPT COMMERCIAL  
END PROP. 6' HIGH 215LF  
BOARD-ON-BOARD VINYL  
PRIVACY FENCE, LOCATED  
1' FROM PROPERTY LINE

TAX MAP 0034 / PARCEL 77  
NON-BUILDABLE PRESERVATION PARCEL 'D'  
"THE PRESERVE AT CLARKSVILLE"  
HOWARD COUNTY MARYLAND  
DEPARTMENT OF RECREATION & PARKS  
L 11392 F.00286  
ZONED: RR-DEO  
PLAT# 19215

TAX MAP 0034 PARCEL 0047  
CHRIST EVANGELICAL LUTHERAN  
CHURCH OF COLUMBIA  
LOT 6  
L 07623 F.00248  
PLAT# 18352  
ZONED: RR-DEO  
USE: EXEMPT

VICINITY MAP  
Copyright ADC, The Map People  
Permit Use 20100746  
SCALE: 1"=200'

**Forest Conservation Worksheet 2.2**

Net Tract Area  
A. Total Tract Area  
B. Deductions  
C. Net Tract Area

Land Use Category  
Input the number "1" under the appropriate land use zoning, and limit to only one entry

ARA	MCR	GA	HR	MPD	CA
0	0	0	0	0	1

D. Afforestation Threshold ( Net Tract Area x 15% )  
E. Conservation Threshold ( Net Tract Area x 15% )  
F. Existing Forest Cover  
G. Area of Forest Above Conservation Threshold  
H. Break Even Point  
I. Forest Clearing Permitted Without Mitigation  
J. Total Area of Forest to be Cleared  
K. Total Area of Forest to be Retained  
L. Proposed Forest Clearing  
M. Total Area of Forest to be Retained  
N. Credits for Retention Above the Conservation Threshold  
O. Total Reforestation Required  
P. Total Afforestation Required  
R. Total Planting Requirement

D = 0.47  
E = 0.47  
F = 2.02  
G = 1.55  
H = 0.78  
I = 1.24  
J = 1.55  
K = 0.47  
L = 0.39  
M = 0.00  
N = 0.00  
O = 0.00  
P = 0.40  
R = 0.40

THE FOREST CONSERVATION OBLIGATION FOR THIS PROJECT HAVE BEEN SATISFIED BY THE RETENTION OF 0.47 ACRES OF FOREST IN A FOREST CONSERVATION EASEMENT, AND BY A FEE-IN-LIEU PAYMENT IN THE AMOUNT OF \$18,553 (17,424 SF x 0.95) FOR THE REMAINING 0.40 ACRES OF REFORESTATION REQUIRED. NO SURETY IS REQUIRED FOR THE ON-SITE RETENTION.

**SITE DATA**  
LOCATION: CLARKSVILLE, MD; TAX MAP 34, BLOCK 12, PARCEL 45.  
5TH ELECTION DISTRICT  
SUBDIVISION: CLARKSVILLE  
ZONING: RR-DEO  
SITE AREA: 1.95 AC  
NET RETENTION: 0.47 AC  
NET AFFORESTATION: 0.40 AC  
NET TOTAL: 0.87 AC  
NET LOSS: 1.08 AC  
NET GAIN: 0.00 AC  
NET CHANGE: 0.00 AC  
NET TOTAL: 0.87 AC

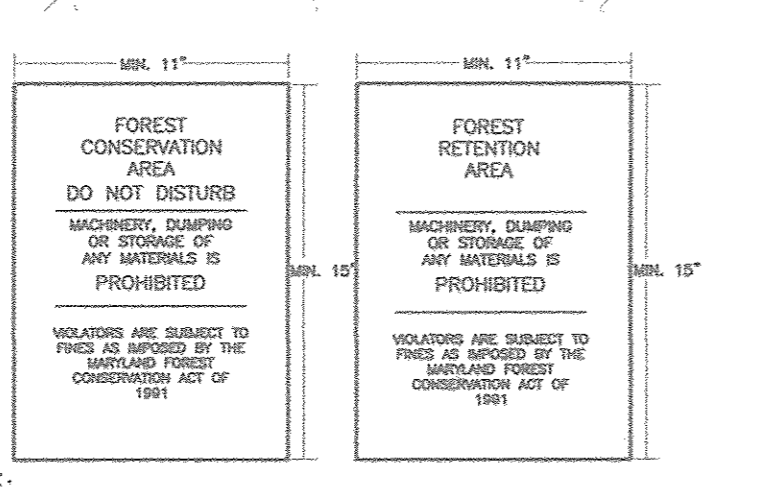
**AS-BUILT CERTIFICATION FOR PSWM**  
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFIC DETAILS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT LOGGING OF THE UNDERGROUND SWM FACILITY.

**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, L.L.C.  
C/O JAY DONALDSON  
313 TULLOCH AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

**PROFESSIONAL ENGINEER**  
ROBERT H. VOGEL  
No. 16195

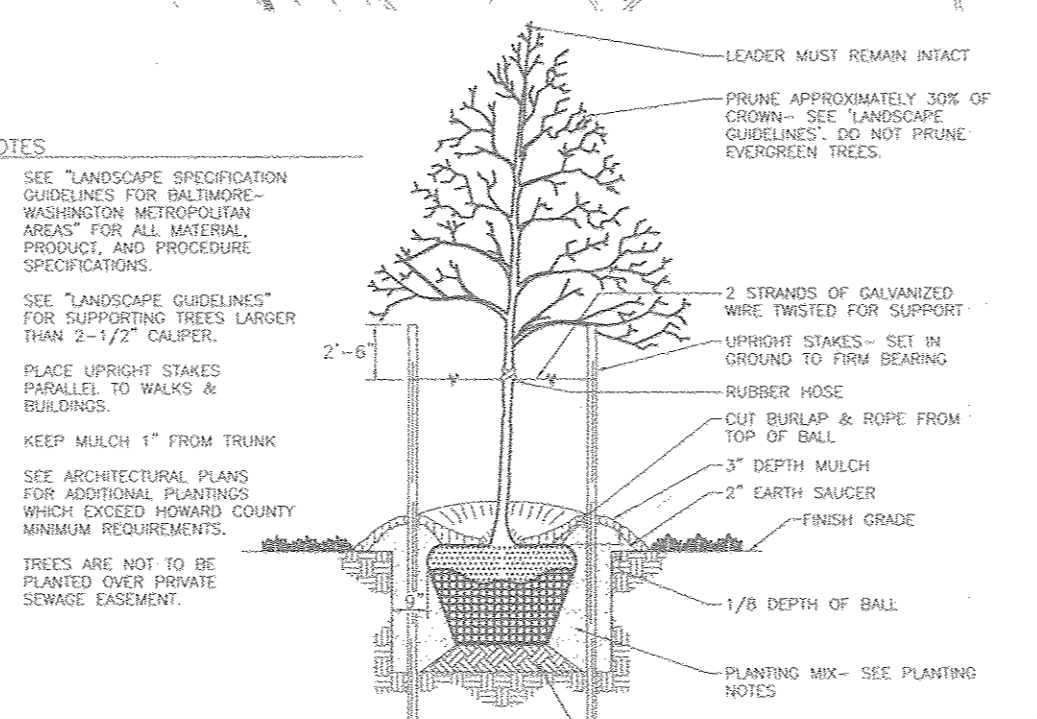
**LEGEND**

427.0	EXISTING 10' CONTOUR	PROPOSED STORM DRAIN
410	EXISTING 2' CONTOUR	PROPOSED STORM DRAIN INLET
400	PROPOSED 10' CONTOUR	PROPOSED CURB AND GUTTER
390	PROPOSED 2' CONTOUR	PROPOSED SIDEWALK
---	PROPERTY LINE	PROPOSED PRIVATE LIGHT POLES
---	RIGHT-OF-WAY LINE	EXISTING TREELINE
---	ADJACENT PROPERTY LINE	EXISTING STREAM
---	EXISTING CURB AND GUTTER	EXISTING STREAM BUFFER
---	EXISTING UTILITY POLE	SOILS BOUNDARY
---	EXISTING LIGHT POLE	M1B2
---	EXISTING SIGN	M1D3
---	EXISTING SANITARY MANHOLE	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (RETENTION)
---	EXISTING SANITARY LINE	PROPOSED PERMEABLE PAVEMENT (A-2)
---	EXISTING CLEANOUT	PROPOSED MICRO BIO-RETENTION (M-6)
---	EXISTING FIRE HYDRANT	TREE PROTECTION FENCE
---	EXISTING WATER LINE	
---	EXISTING FENCE	
---	LIMIT OF DISTURBANCE	
---	FOREST CONSERVATION SIGN	



**NOTE:**

- BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
- SIGNS TO BE PLACED AT A MAXIMUM SPACING OF 50-100 FEET. CONDITIONS ON-SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
- ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
- SIGN LOCATION SYMBOL.



**FOREST CONSERVATION NOTES:**

**PRE-CONSTRUCTION ACTIVITIES**

- PRIOR TO THE START OF ANY CONSTRUCTION DEFINE THE LIMITS OF DISTURBANCE AND THE SOIL PROTECTION ZONE (CRITICAL ROOT AREA) FOR THE FOREST RETENTION AREAS. (SEE APPENDIX 'C' OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL).
- PRIOR TO THE START OF ANY CONSTRUCTION (INCLUDING CLEARING) ADJACENT TO THE SOIL PROTECTION ZONE, INSTALL BLAZE ORANGE FENCE.
- INSTALL ALL FOREST CONSERVATION AREA SIGNS AS SHOWN ON THIS SHEET AND/OR FCP.
- ALL SEDIMENT CONTROL DEVICES SHALL BE IN PLACE PRIOR TO CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING THE FOREST CONSERVATION AREAS. SUPER SILT FENCE SHALL BE INSTALLED ON THE UPHILL SIDE OF ALL FOREST RETENTION AREAS, AND ALSO IF THE LOG IS WITH 50 FEET OR LESS OF RETENTION AREA.
- ALL FENCING, BLAZE-ORANGE OR "SUPER" SILT, SHALL BE CLEANED AND MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS SITUATION WARRANTS ON A REGULAR BASIS THROUGHOUT THE CONSTRUCTION PERIOD.
- A QUALIFIED TREE CARE EXPERT SHALL DETERMINE IF ROOT PRUNING IS REQUIRED ALONG THE LIMIT OF DISTURBANCE. ROOT PRUNE TREES AS REQUIRED. WATER ANY ROOT-PRUNED TREES IMMEDIATELY AFTER ROOT-PRUNING AND MONITOR FOR SIGNS OF STRESS DURING CONSTRUCTION.

**CONSTRUCTION PHASE**

- DURING CONSTRUCTION, MONITOR ANY UNAUTHORIZED USE OF FOREST RETENTION AREAS. ANY USE OF FOREST RETENTION AREAS FOR THE FOLLOWING ACTIVITIES OR OTHER INTRUSIONS SHALL BE A VIOLATION OF THE APPROVED FOREST CONSERVATION PLAN:
  - STORAGE OF EQUIPMENT AND MATERIALS
  - DISPOSAL OF CONSTRUCTION MATERIALS
  - WASHING OF EQUIPMENT, DISPOSAL OF WASTEWATER FROM CONCRETE OPERATIONS, ETC.
  - EMPLOYEE PARKING
  - TEMPORARY STRUCTURES SUCH AS TRAILERS, SANITARY FACILITIES, ETC.
  - SOIL COMPACTION
  - ROOT INJURY
  - FLOODED CONDITIONS
  - DROUGHT CONDITIONS
- DURING CONSTRUCTION, INSPECT AND ENFORCE THE LIMITS OF DISTURBANCE AND REQUIRED PROTECTION MEASURES.
- IN THE EVENT OF DROUGHT, THE PROTECTED TREES SHALL BE MONITORED FOR SIGNS OF STRESS AND WATERED AS NEEDED.
- IF DAMAGED OR RETAINED TREES DUE TO CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT THE DIRECTION OF THE QUALIFIED PROFESSIONAL.
- FOREST CONSERVATION AREAS SHALL BE INSPECTED AND CERTIFIED FOR COMPLETION OF THE FOREST CONSERVATION PLAN REQUIREMENTS BY A QUALIFIED PROFESSIONAL.

**POST CONSTRUCTION**

- POST CONSTRUCTION ACTIVITIES TO BE PROVIDED FOR A MINIMUM OF 2 YEARS.
- INSPECTIONS SHALL BE CARRIED OUT AT THE BEGINNING AND END OF THE GROWING SEASON TO PINPOINT ANY PROBLEMS, MONITOR SURVIVAL RATES, AND SPECIFY REMEDIAL ACTIONS NEEDED TO CORRECT EXISTING PROBLEMS.
- POST CONSTRUCTION MANAGEMENT PROGRAMS OF FOREST CONSERVATION AREAS MUST BE ESTABLISHED AND INCLUDE MAINTENANCE OF ALL FENCES, SIGNS AND OTHER DEVICES DELINEATING FOREST CONSERVATION AREAS, AS WELL AS THE FOLLOWING OTHER MEASURES:
  - ROOT PRUNING - CROWN REDUCTION OR PRUNING
  - WATERING
  - FERTILIZATION
  - SOIL COMPACTION
  - ROOT INJURY
  - FLOODED CONDITIONS
  - DROUGHT CONDITIONS
  - PEST CONTROL
  - CONTROL OF UNDESIRABLE COMPETING SPECIES
  - THINNING AND PRUNING TO ENCOURAGE PROPER GROWTH
  - REPAIR OF TREE DAMAGES:
    - ROOT REPAIR
    - REMOVAL OF DEAD OR DAMAGED MATERIAL/LIMBS
    - SOIL AERATION
    - REMOVAL OF DEAD OR DYING TREES POSING AN IMMEDIATE SAFETY HAZARD
- AS PER THE SEDIMENT CONTROL PLAN, AND UNDER THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE TEMPORARY SEDIMENT CONTROL MEASURES AND FENCING. FOREST CONSERVATION SIGNS SHALL NOT BE REMOVED.
- AN INSPECTOR SHALL TAKE PLACE AT THE END OF YEAR ONE OR BEFORE THE SECOND GROWING SEASON TO EVALUATE SURVIVAL RATES AND APPROPRIATE ACTIONS TAKEN TO ACHIEVE REQUIRED SURVIVAL RATES.
- AT THE CONCLUSION OF THE POST-CONSTRUCTION PERIOD, THE QUALIFIED PROFESSIONAL SHALL CERTIFY ALL FOREST CONSERVATION AREAS, SURVIVAL SURVIVAL RATE DATA, AND VERIFY PERTINENT PROTECTION MEASURES ARE IN PLACE. UPON INSPECTION BY LOCAL STATE PROJECT INSPECTOR APPROVAL, THE DEVELOPER SHALL BE RELEASED OF ALL SURETIES AND FUTURE OBLIGATIONS.
- EDUCATION MATERIAL MUST BE PROVIDED TO OWNERS AND/OR OCCUPANTS ABOUT PROPER USE OF FOREST CONSERVATION AREAS. SUCH EDUCATION MATERIAL SHOULD INCLUDE A PLAN LOCATING ALL PROTECTED AREAS ON-SITE AND A DESCRIPTION OF PERMITTED AND PROHIBITED ACTIVITIES WITHIN OR AFFECTING SUCH AREAS.

**FOREST CONSERVATION NARRATIVE:**

THIS PLAN PROPOSES CLEARING OF FOREST FOR THE CONSTRUCTION OF THE PROPOSED FUNERAL HOME AND ASSOCIATED PARKING. THIS PLAN PROPOSES RETENTION OF FOREST WITHIN FOREST CONSERVATION EASEMENT. THE FOREST RETENTION PROPOSED ARE IN PRIORITIES AREAS FOR PROTECTION OF THE SITE'S STREAM BUFFERS, AND FORESTED AREAS OF AT LEAST 10,000 SF. THE REMAINING FOREST CONSERVATION REQUIREMENTS WILL BE FULFILL BY A FEE-IN-LIEU PAYMENT.

**NO AS-BUILT INFORMATION ON THIS SHEET**

**GENERAL NOTES:**

- TAX ACCOUNT NUMBER: 1405341868
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- THIS PLAN IS SUBJECT TO WP-15-021; FOR THE REMOVAL OF SPECIMEN TREES.
- THE PROPERTY LINES SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. DATED MARCH 20, 2010.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A FIELD RUN SURVEY BY ROBERT H. VOGEL ENGINEERING, INC. AND WAS PERFORMED ON SEPTEMBER 17, 2009 AND OCTOBER 7, 2013.
- THERE ARE 5 SPECIMEN TREES 30" OR LARGER LOCATED ON THE PROPERTY. THESE TREES WERE SURVEYED USING A GPS TRIMBLE BY ESA AND ARE NOT PLACED.
- THERE ARE NO WETLANDS ON SITE AS PER THE WETLAND DELINEATION PERFORMED BY ESA, INC. SEPTEMBER 13, 2013.
- NO BARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED DURING THE FIELD VISIT PERFORMED BY ESA, INC. ON SEPTEMBER 13, 2013.
- THERE ARE HYDRO SOILS ON SITE. BAA BAILE SILT LOAM, 0 TO 3% SLOPES IS HIGHLY SUSCEPTIBLE TO PONDING AND SATURATION IN THE FIRST 10 INCHES.
- THE GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES IS CONSIDERED TO BE A HIGHLY ERODIBLE SOIL.
- THE 100-YEAR FLOODPLAIN SHOWN ON-SITE, PER F-06-72 AND PLAT 19216.
- THERE ARE FIVE SOILS ON SITE, BAA BAILE SILT LOAM, 0 TO 3% SLOPES IS HIGHLY SUSCEPTIBLE TO PONDING AND SATURATION IN THE FIRST 10 INCHES.
- THERE ARE NO STEEP SLOPES WITHIN THE STUDY AREA.
- ACCORDING TO ENR MERLIN ONLINE, THERE ARE NO HISTORIC OR ARCHAEOLOGICAL AREAS ON SITE.
- AN ENVIRONMENTAL REVIEW HAS BEEN REQUESTED TO DNR FOR ANY RARE, THREATENED OR ENDANGERED SPECIES.
- FOR SUPER SILT FENCE DETAIL, SEE SHEET 5.

**SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION:**

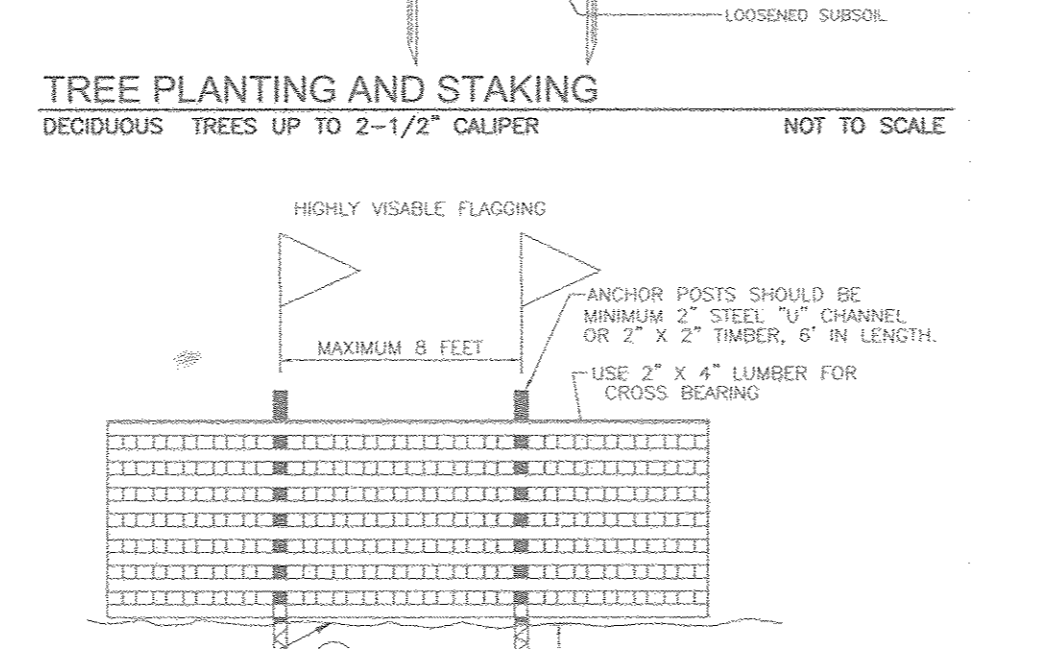
- PRE-CONSTRUCTION MEETING/SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.
- STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS.
- INSTALL TREE PROTECTION FENCING, FENCING TO BE INSPECTED BY THE PROJECT ENGINEER OR THE PROJECT ECOLOGIST AND HOWARD COUNTY CID AND/OR DRP.
- PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY CID AND/OR DRP.
- TEMPORARY TREE PROTECTION DEVICES SHALL BE REMOVED AFTER ALL FINISHED GRADING AND UTILITY CONSTRUCTION HAS OCCURRED AND WITH APPROVAL FROM THE HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

**Donaldson Funeral Home  
Forest Stand Summary Analysis  
Tulip Poplar Forest Association**

Stand Number or ID	Aerial Extent In Acres	Estimated Trees per Acre	Average Diameter (d.b.h.)	Basal Area per Acre	Stand Formation Type	Dominant Indicator Species	Dominant # Species per Acre	Dominant Mean d.b.h.	Dominant % Frequency of Occurrence	Approximate Age of the Stand
PH	2.02	85	12.8"	96	Mature Mixed Hardwoods	White Pine	36.0	19.2	27.8	35.0 (1945)

**SPECIMEN TREE TABLE (TO BE REMOVED)**

ID	Species	DBH	Height	Condition
1	Basswood	30"	30'	Lost main stem, fair condition
2	Basswood	30"	50'	Fair condition, multiple dead branches
3	Tilia americana	31"	40'	Multiple dead branches, covered in English ivy & Bittersweet, fair condition
4	Basswood	30"	50'	Fair to poor condition, multiple dead branches
5	Tilia americana	31"	50'	Fair to poor condition, multiple dead branches



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chief, Development Engineering Division*  
DATE: 2-16-16

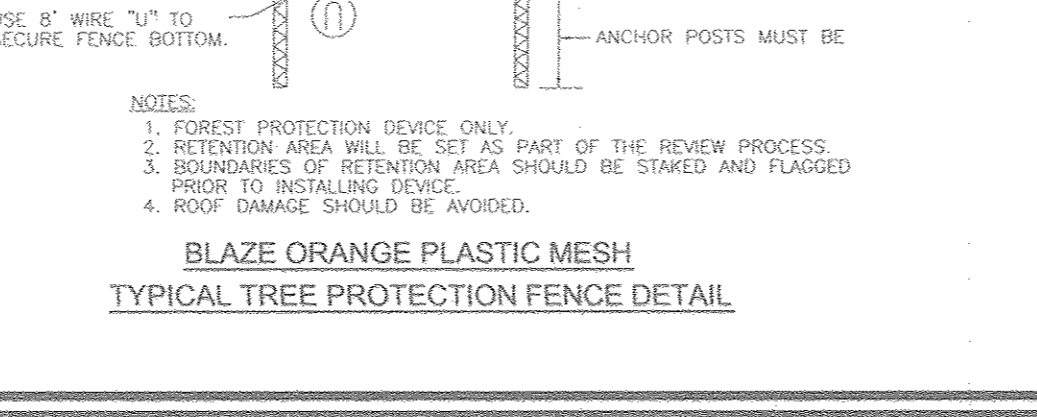
*Chief, Division of Land Development*  
DATE: 2-23-16

*Director*  
DATE: 3-3-16

**DEVELOPER'S/BUILDER'S 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 (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*Signature of Developer*  
DATE: 1-18-16



**POST CONSTRUCTION**

- POST CONSTRUCTION ACTIVITIES TO BE PROVIDED FOR A MINIMUM OF 2 YEARS.
- INSPECTIONS SHALL BE CARRIED OUT AT THE BEGINNING AND END OF THE GROWING SEASON TO PINPOINT ANY PROBLEMS, MONITOR SURVIVAL RATES, AND SPECIFY REMEDIAL ACTIONS NEEDED TO CORRECT EXISTING PROBLEMS.
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  - WATERING
  - FERTILIZATION
  - SOIL COMPACTION
  - ROOT INJURY
  - FLOODED CONDITIONS
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  - PEST CONTROL
  - CONTROL OF UNDESIRABLE COMPETING SPECIES
  - THINNING AND PRUNING TO ENCOURAGE PROPER GROWTH
  - REPAIR OF TREE DAMAGES:
    - ROOT REPAIR
    - REMOVAL OF DEAD OR DAMAGED MATERIAL/LIMBS
    - SOIL AERATION
    - REMOVAL OF DEAD OR DYING TREES POSING AN IMMEDIATE SAFETY HAZARD
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Prepared by:  
**Environmental Analysis, Inc.**  
Natural Resources Management  
Ecological Restoration  
162 West Street  
Annapolis, MD 21401

**SITE DEVELOPMENT PLAN**

**FOREST CONSERVATION PLAN**

**DONALDSON FUNERAL HOME**  
12540 CLARKSVILLE PIKE  
CLARKSVILLE, MARYLAND  
ZONED: RR-DEO  
L 12109/F 78  
PLAT 23250

TAX MAP 34 BLOCK 12  
5TH ELECTION DISTRICT

PARCEL 45  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLIOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

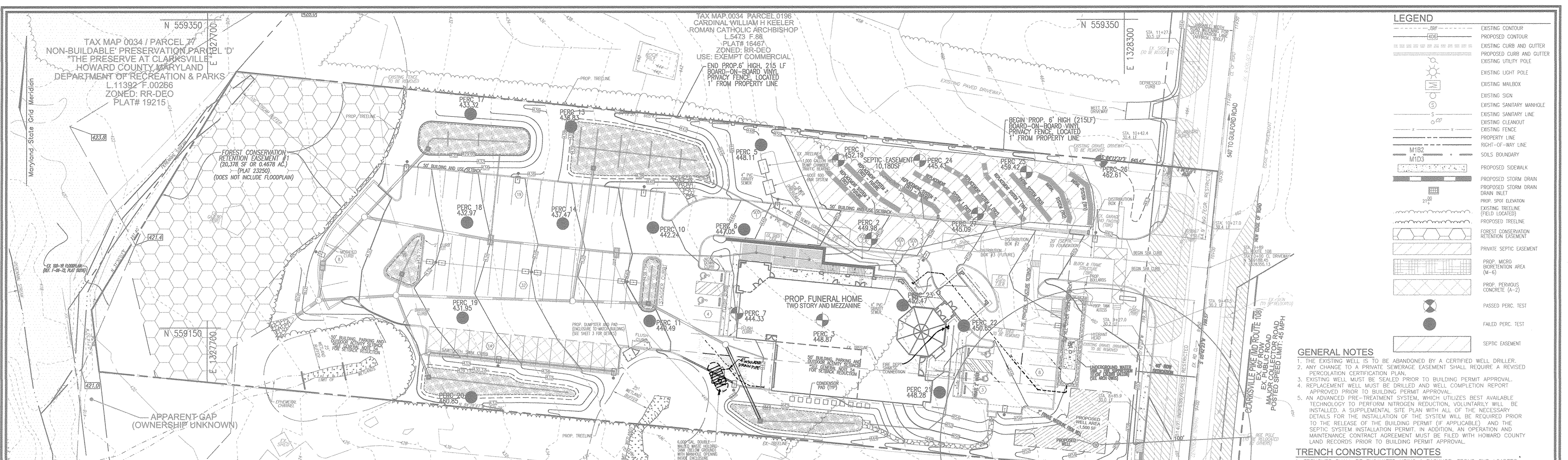
**PROFESSIONAL CERTIFICATE**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. EXPIRATION DATE: 11-30-2018

DESIGN BY: RHW/OZE  
DRAWN BY: OZE  
CHECKED BY: SP  
DATE: JANUARY 2016  
SCALE: AS SHOWN  
W.O. NO.: 09-24

STEPHANIE PRIETT  
NO. 3705

9 SHEET OF 11



LEGEND	
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	M182 SOILS BOUNDARY
	M103 SOILS BOUNDARY
	PROPOSED SIDEWALK
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	PROP. SPOT ELEVATION
	EXISTING TREE LINE
	PROPOSED TREE LINE
	FOREST CONSERVATION RETENTION EASEMENT
	PRIVATE SEPTIC EASEMENT
	PROP. MICRO RETENTION AREA (A-6)
	PROP. PERVIOUS CONCRETE (A-2)
	PASSED PERC. TEST
	FAILED PERC. TEST
	SEPTIC EASEMENT

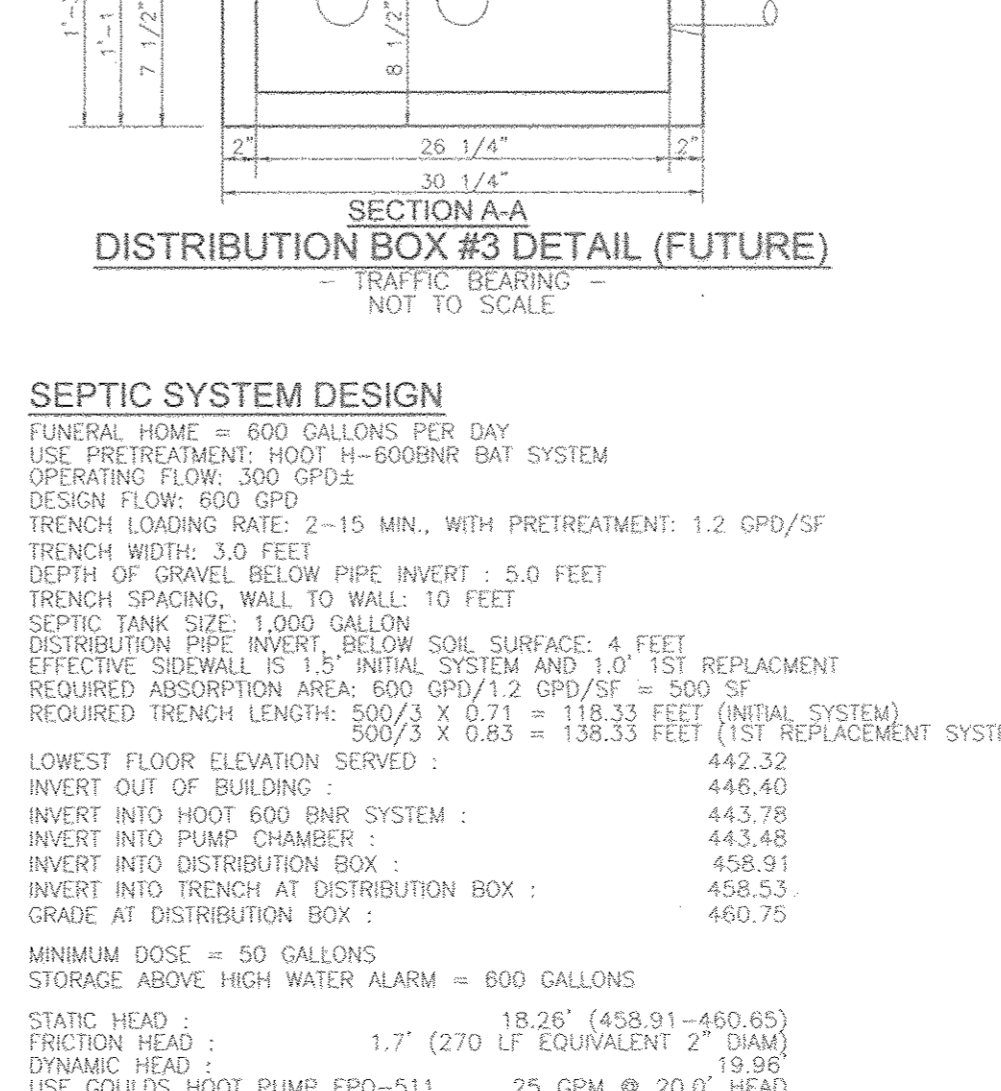
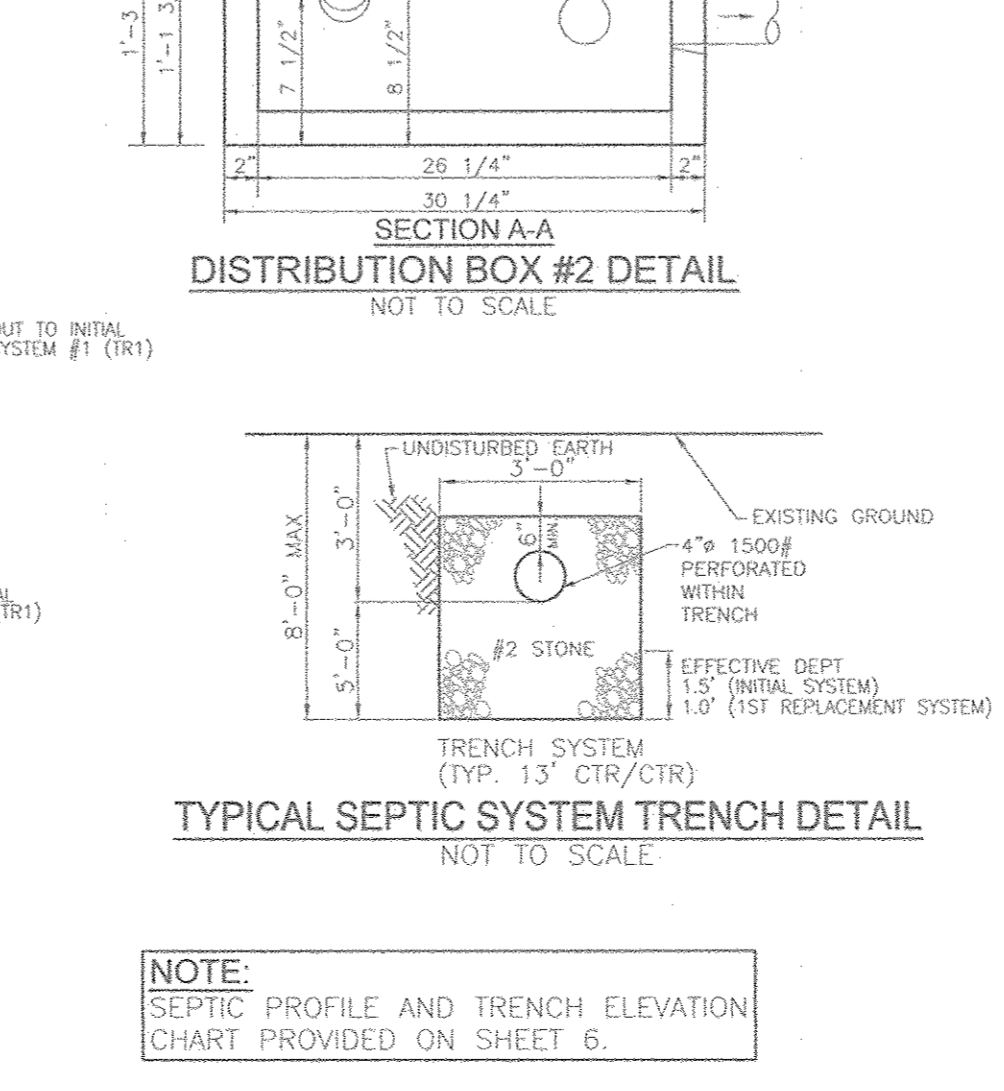
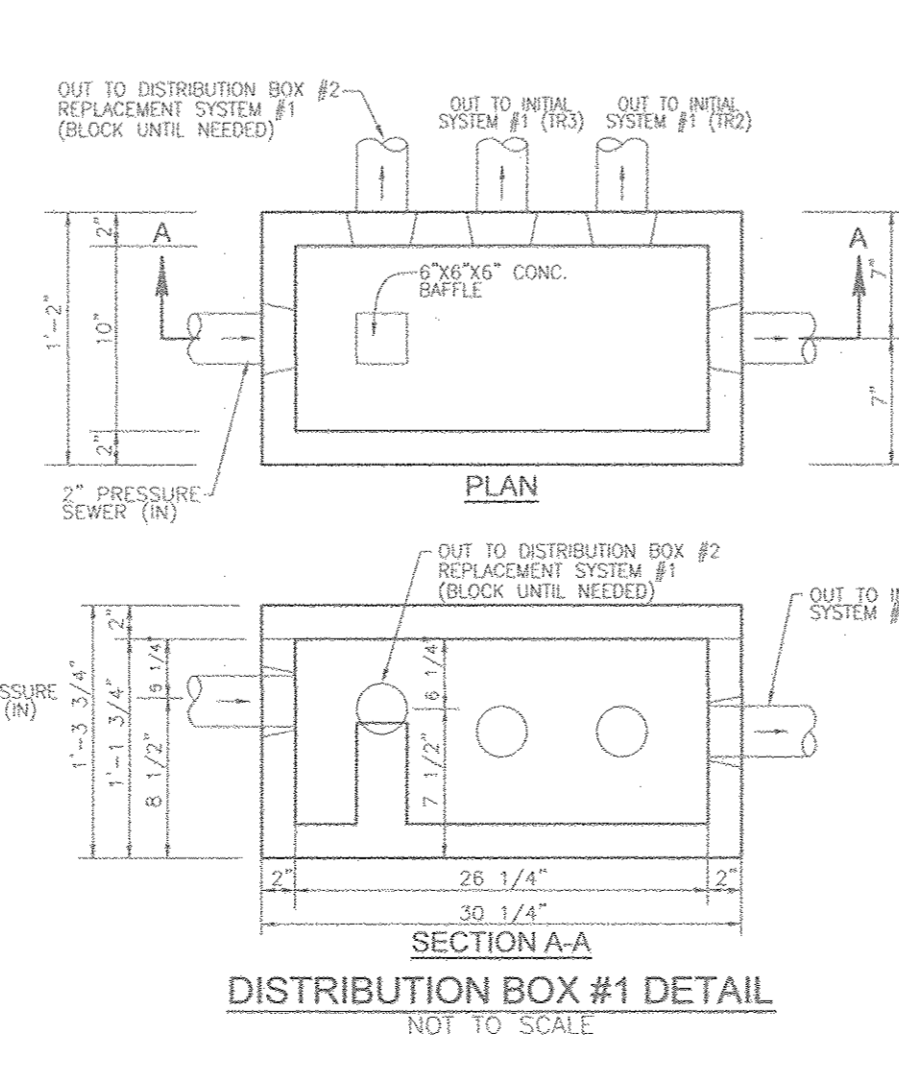
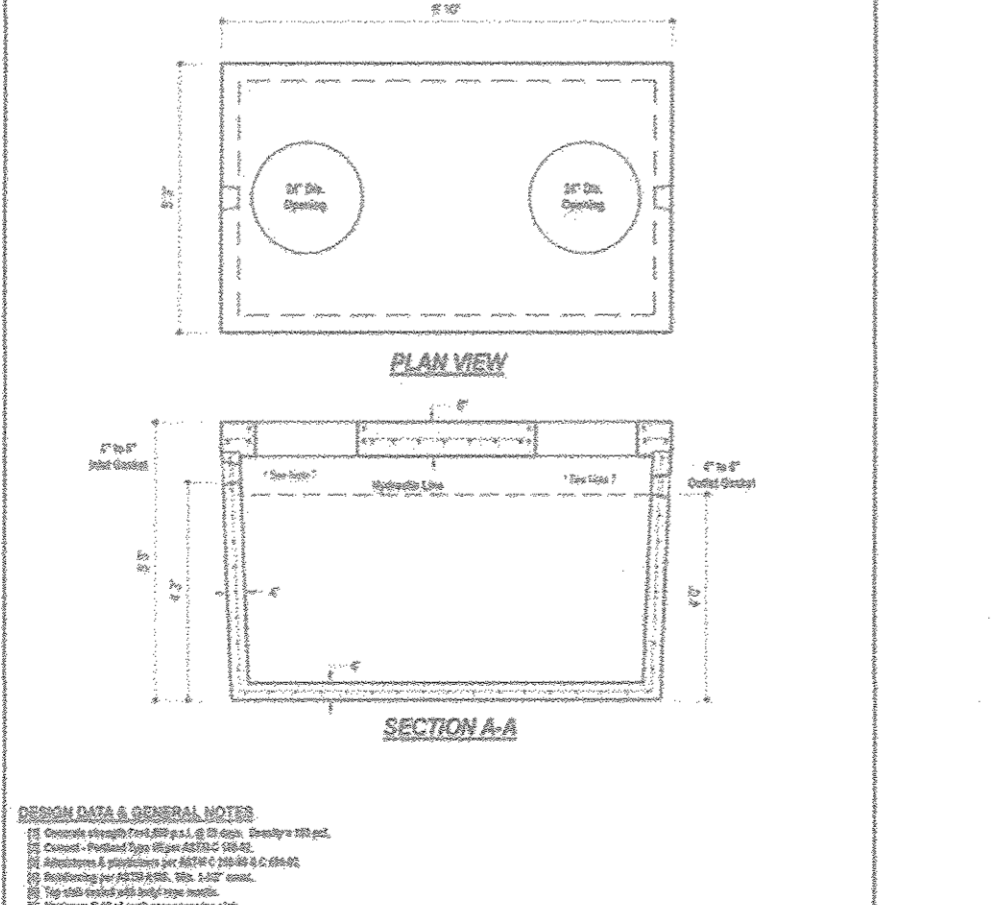
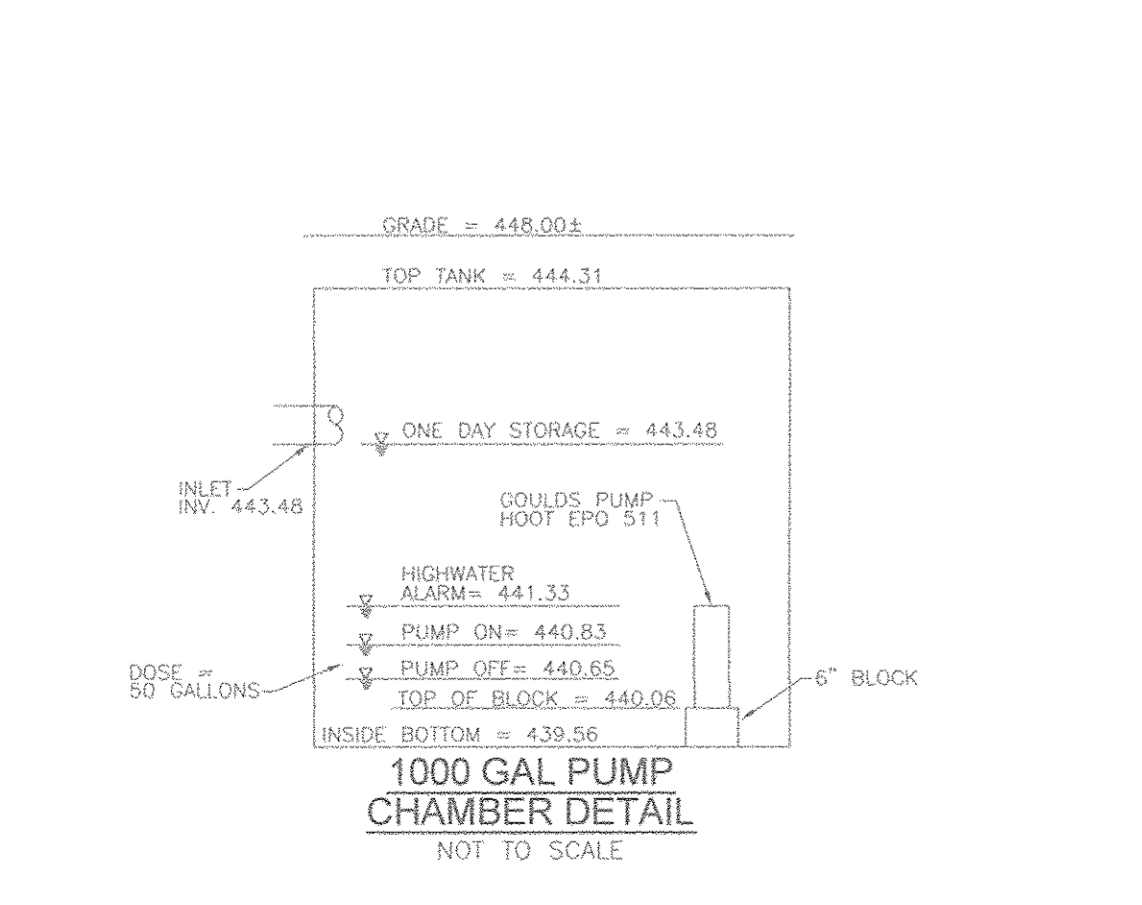
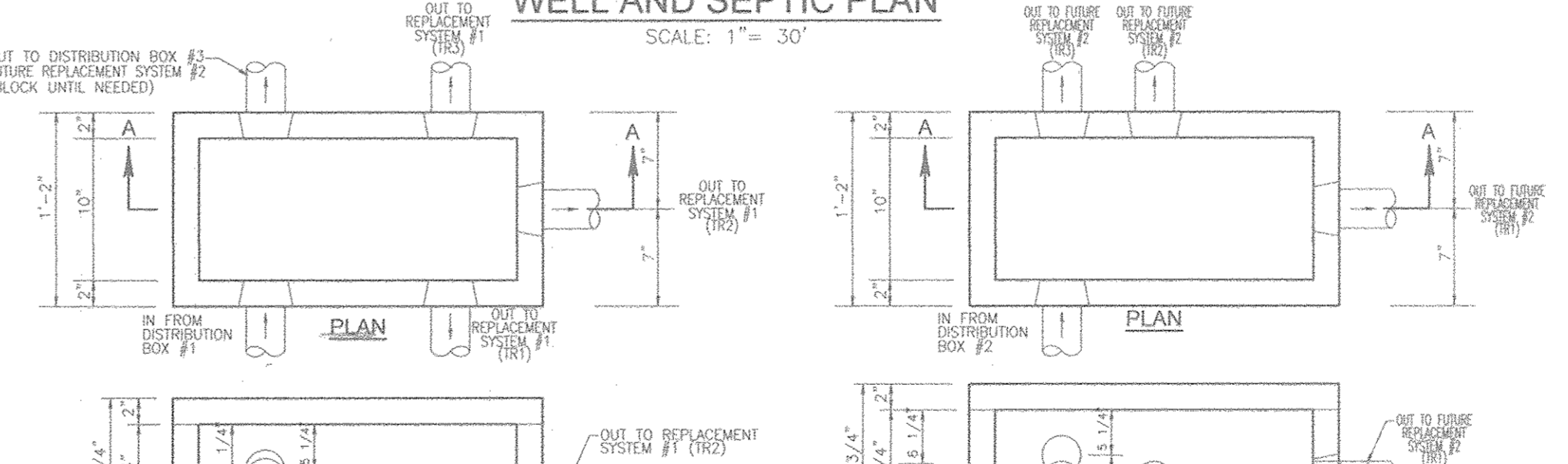
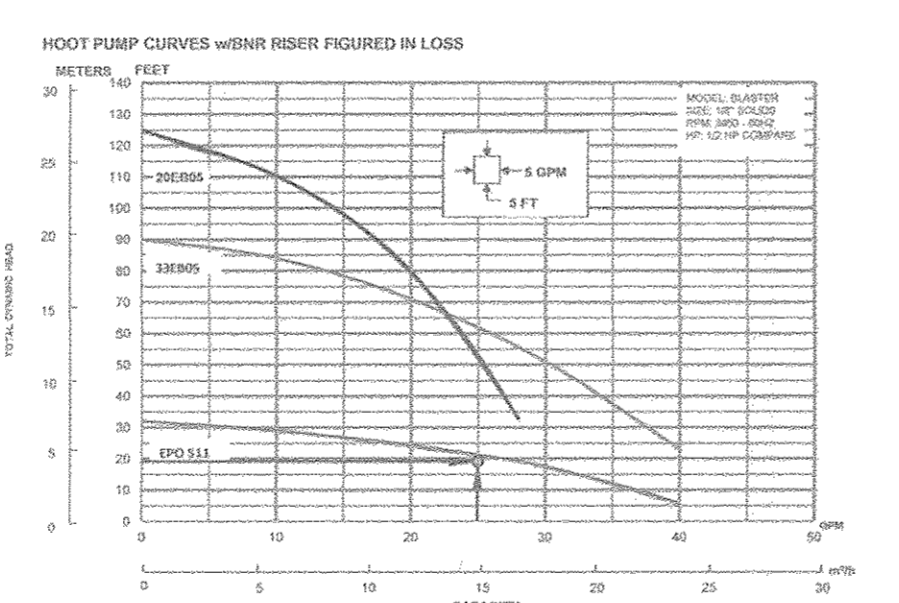
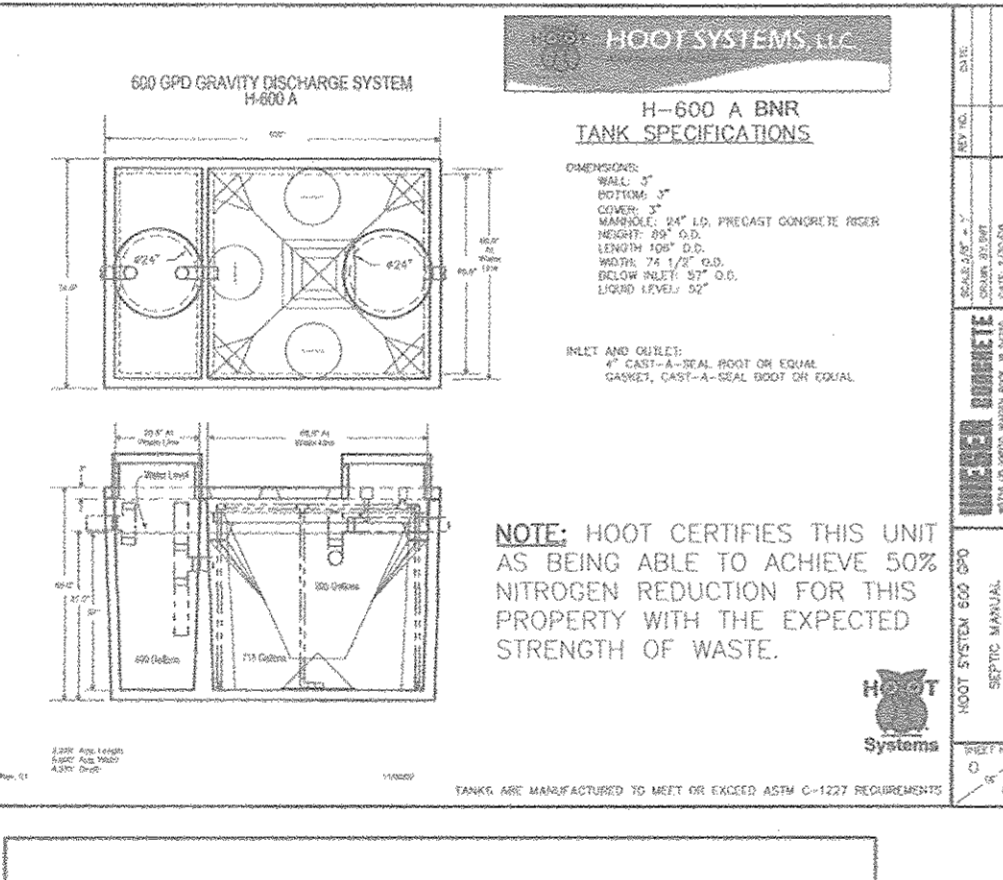
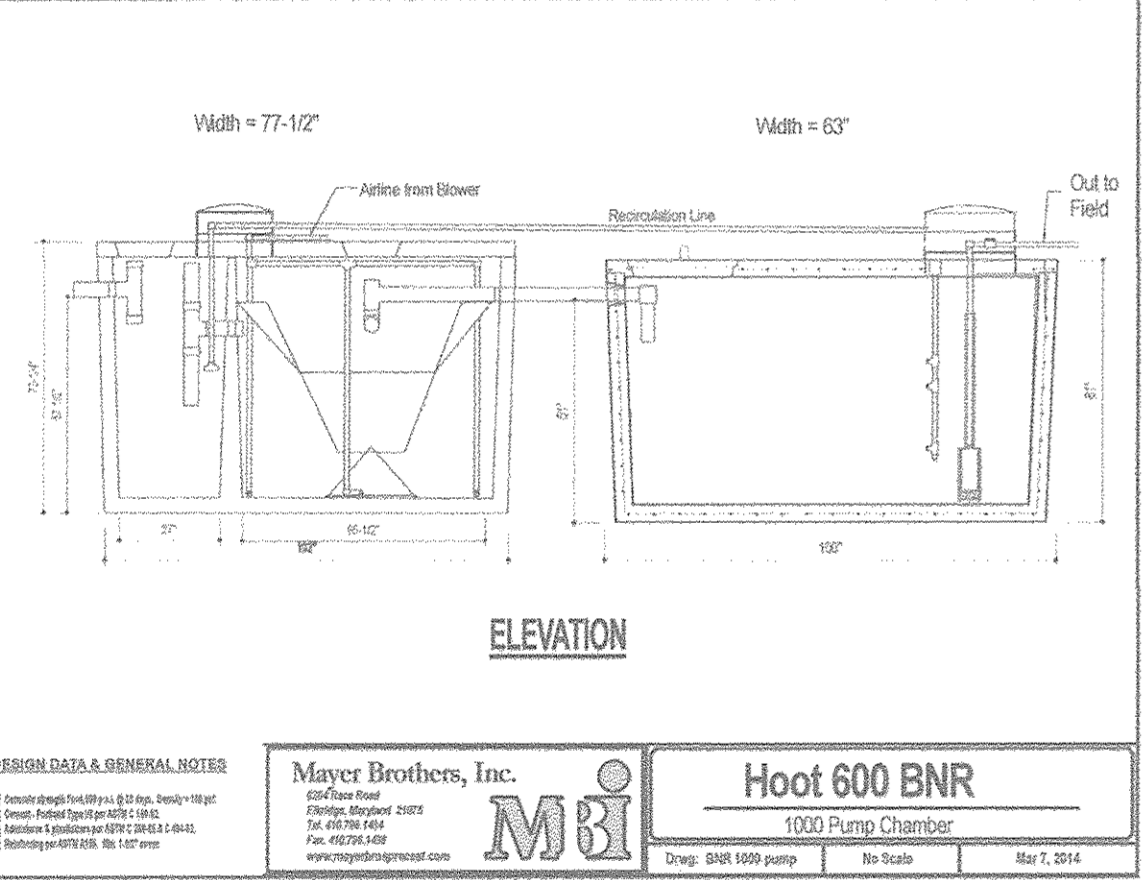
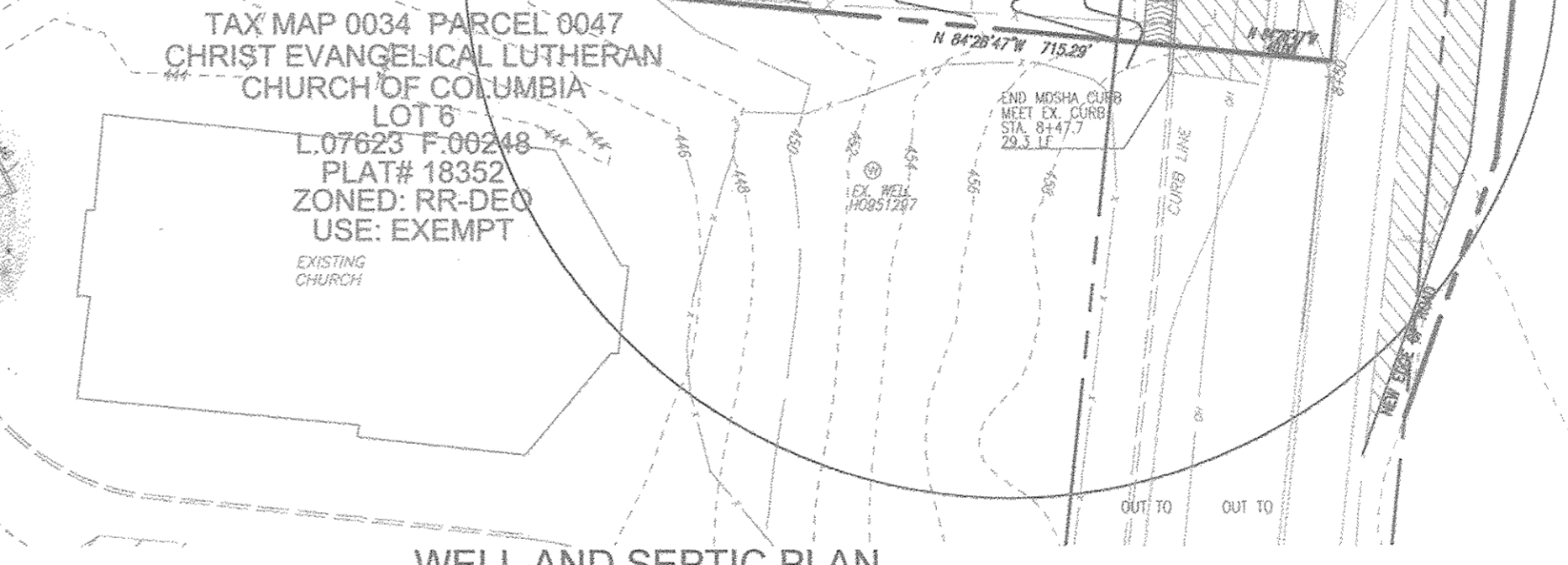
- GENERAL NOTES**
1. THE EXISTING WELL IS TO BE ABANDONED BY A CERTIFIED WELL DRILLER.
  2. ANY CHANGE TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
  3. EXISTING WELLS MUST BE SEALED PRIOR TO BUILDING PERMIT APPROVAL.
  4. REPLACEMENT WELL MUST BE DRILLED AND WELL COMPLETION REPORT APPROVED PRIOR TO BUILDING PERMIT APPROVAL.
  5. AN ADVANCED PRE-TREATMENT SYSTEM, WHICH UTILIZES BEST AVAILABLE TECHNOLOGY TO PERFORM NITROGEN REDUCTION, VOLUNTARILY WILL BE INSTALLED. A SUPPLEMENTAL SITE PLAN WITH ALL OF THE NECESSARY DETAILS FOR THE INSTALLATION OF THE SYSTEM WILL BE REQUIRED PRIOR TO THE RELEASE OF THE BUILDING PERMIT (IF APPLICABLE) AND THE SEPTIC SYSTEM INSTALLATION PERMIT. IN ADDITION, AN OPERATION AND MAINTENANCE CONTRACT AGREEMENT MUST BE FILED WITH HOWARD COUNTY LAND RECORDS PRIOR TO BUILDING PERMIT APPROVAL.
- TRENCH CONSTRUCTION NOTES**
1. TRENCHES SHALL BE EXCAVATED USING A BACKHOE. FRONT-END LOADERS OR BULLDOZERS SHOULD NOT BE USED FOR TRENCH EXCAVATIONS.
  2. EXCAVATED MATERIALS FROM THE TRENCHES SHALL BE PLACED AT A SUFFICIENT DISTANCE DOWNSLOPE OF THE TRENCHES TO AVOID MIGRATION OF SOILS BACK INTO THE TRENCH.
  3. WORK SHALL BE SCHEDULED SUCH THAT THE TRENCHES CAN BE COVERED IN ONE DAY TO PREVENT WINDBLOWN OR WATERBORNE SEDIMENT FROM ENTERING THE TRENCH. HEALTH DEPARTMENT TO BE NOTIFIED FOR INSPECTION PRIOR TO STONE PLACEMENT IN TRENCH.
  4. THE FIELD ENGINEER SHALL VERIFY THE CONSTRUCTED ELEVATIONS OF THE TRENCHES TO ENSURE A MINIMUM 4" COVER IS PROVIDED BELOW PAVEMENT BASE GRADE.
  5. UPON COMPLETION OF THE TRENCH EXCAVATION AND PRIOR TO PLACEMENT OF PAVING, HEAVY CONSTRUCTION EQUIPMENT TRAFFIC SHALL BE PERMANENTLY DIVERTED FROM THE TRENCHES AND ADJACENT AREA.
  6. THE INITIAL AND 1ST REPLACEMENT SYSTEM TO BE CONSTRUCTED INITIALLY.
- NOTE: CONTRACTOR TO PROVIDE ALTERNATING ELECTRIC SUBMERSIBLE PUMPS IN SEPARATE PUMP CHAMBER. PUMP TO HAVE ELECTRONIC LEVEL WITH REMOTE ALARM LOCATED INSIDE BUILDING. PUMP TO BE GOULDS WEGO3 OR EQUIVALENT. SEE ARCHITECTURAL DRAWINGS FOR ELECTRIC DETAILS. ANY PROPOSED MODIFICATIONS TO THE SEPTIC SYSTEM DETAILS WILL BE SUBMITTED TO THE HEALTH DEPARTMENT THROUGH THE PROJECT ENGINEER.

**AS-BUILT CERTIFICATION FOR TSMVA**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOSING OF THE UNDERGROUND SWM FACILITY.

Signature: *[Signature]*  
 P.E. No: 16193  
 DATE: 2/28/16

STATE OF MARYLAND  
 ROBERT HARRIS VOGEL  
 PROFESSIONAL ENGINEER  
 No. 16193



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 2/16/16  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 2-23-16  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 3-3-16  
 DIRECTOR DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

*[Signature]* 2/16/2016  
 COUNTY HEALTH OFFICER DATE

HOWARD COUNTY HEALTH DEPARTMENT

**HOLDING TANK (FOR EMBALMING)**

1. PROVIDE 6,000 GALLON DOUBLE WALL FIBERGLASS UNDERGROUND STORAGE TANK. PROVIDE MONITORING DEVICE IN THE INTERSTITIAL SPACE TO DETECT ANY LEAKAGE OF FLUID FROM THE INNER/PRIMARY TANK. WITHIN THE SECONDARY CONTAINMENT THERE WILL BE A CORRESPONDING ALARM MOUNTED INSIDE THE BUILDING.
2. A FLOAT SWITCH WILL BE INCLUDED WITHIN THE PRIMARY TANK WITH A CORRESPONDING ALARM INSIDE THE BUILDING. THE ALARM WILL BE SET TO 75% CAPACITY.
3. EACH EMBALMING GENERATES 10-12 GALLONS OF FLUID. THE TANK WILL BE EMPTIED PERIODICALLY AS NEEDED. THE FLUID WILL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS.

OWNER/DEVELOPER  
 DONALDSON PROPERTIES NO. 3, LLC  
 C/O JAY DONALDSON  
 315 TALBOT AVENUE  
 LAUREL, MARYLAND 20707  
 (301) 830-8971

REVISE PLAN TO REFLECT REVISED EMBALMING TANK AND REVISE SIZE OF PIPE LINE 11/21/16

NO. REVISION DATE

**SITE DEVELOPMENT PLAN  
 WELL AND SEPTIC  
 PLAN AND DETAILS**

**DONALDSON FUNERAL HOME**  
 12540 CLARKSVILLE PIKE  
 CLARKSVILLE, MARYLAND  
 ZONED RR-DEO  
 L 12109/F 78  
 PLAT 23250 PARCEL 45  
 HOWARD COUNTY, MARYLAND

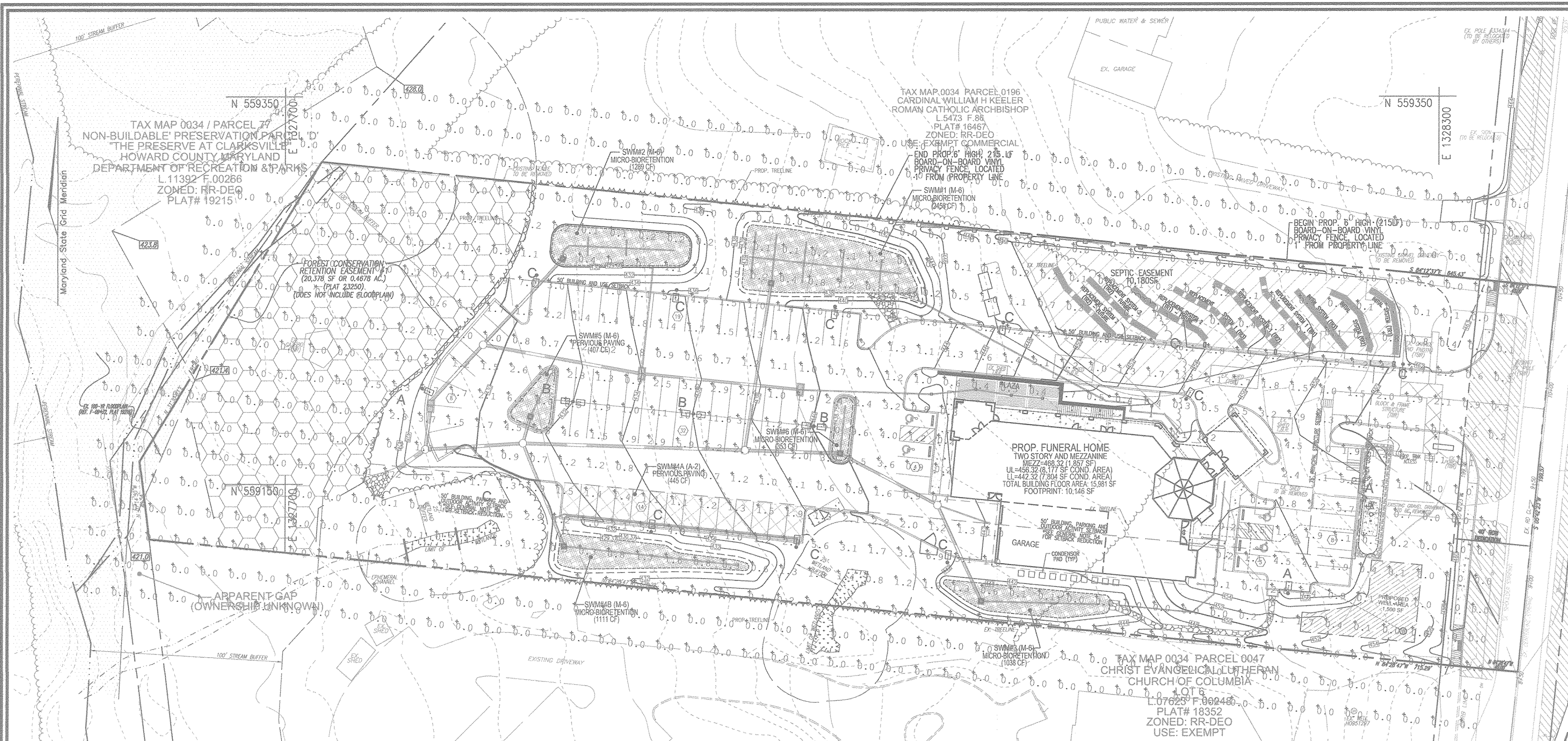
TAX MAP 34 BLOCK 12  
 5TH ELECTION DISTRICT

**ROBERT H. VOGEL  
 ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 8407 MAIN STREET  
 ELLICOTT CITY, MD 21043 TEL: 410.461.7666  
 FAX: 410.461.8961

DESIGN BY: RHV/DZE  
 DRAWN BY: DZE  
 CHECKED BY: RHV  
 DATE: JANUARY 2016  
 SCALE: AS SHOWN  
 W.O. NO.: 09-24

PROFESSIONAL CERTIFICATE  
 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.  
 EXPIRATION DATE: 09-27-2018

10 SHEET OF 11



**LEGEND**

---	EXISTING 10' CONTOUR
---	EXISTING 2' CONTOUR
---	PROPOSED 10' CONTOUR
---	PROPOSED 2' CONTOUR
---	PROPERTY LINE
---	RIGHT-OF-WAY LINE
---	ADJACENT PROPERTY LINE
---	EXISTING CURB AND GUTTER
---	EXISTING UTILITY POLE
---	EXISTING LIGHT POLE
---	EXISTING SIGN
---	EXISTING SANITARY MANHOLE
---	EXISTING SANITARY LINE
---	EXISTING CLEANDRY LINE
---	EXISTING FIRE HYDRANT
---	EXISTING WATER LINE
---	EXISTING FENCE
---	PROPOSED STORM DRAIN
---	PROPOSED STORM DRAIN INLET
---	PROPOSED CURB AND GUTTER
---	PROPOSED SIDEWALK
---	PROPOSED PRIVATE LIGHT POLES
---	EXISTING TREELINE
---	PROPOSED TREELINE
---	EXISTING STREAM
---	EXISTING STREAM BUFFER
---	PROPOSED PUBLIC FOREST CONSERVATION EASEMENT (RETENTION)
---	PROPOSED PERMEABLE PAVEMENT (A-2)
---	PROPOSED MICRO BIO-RETENTION (M-6)
---	PROPOSED SEPTIC EASEMENT



AS-BUILT CERTIFICATION FOR PSMM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOSING OF THE UNDERGROUND SWMA FACILITY.

REVISION: 16193  
DATE: 1/21/18

PLAN VIEW  
SCALE: 1" = 30'  
TOTAL PROJECT WATTS  
TOTAL WATTS = 3760

NO AS-BUILT INFORMATION ON THIS SHEET

**OWNER/DEVELOPER**  
DONALDSON PROPERTIES NO. 3, LLC.  
C/O JAY DONALDSON  
315 TALBOT AVENUE  
LAUREL, MARYLAND 20707  
(301) 830-8971

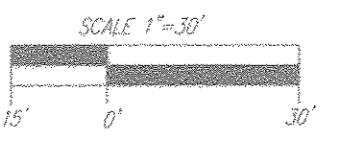
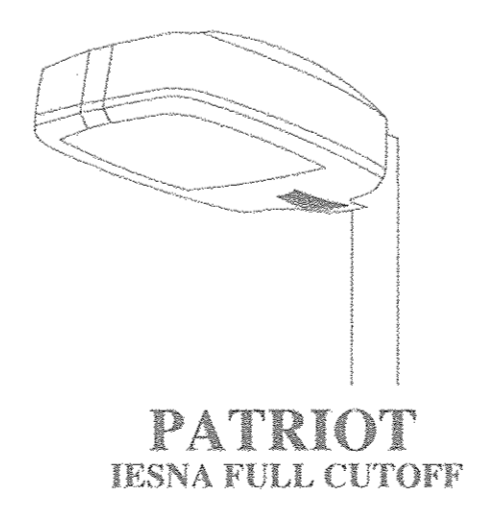
**NOTE:**  
1. THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS. CALCULATIONS DO NOT INCLUDE OBSTRUCTIONS SUCH AS BUILDINGS, CURBS, LANDSCAPING, OR ANY OTHER ARCHITECTURAL ELEMENTS UNLESS NOTED.  
2. ALL EXTERIOR LIGHTING TO COMPLY WITH THE REQUIREMENTS FOUND IN ZONING SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. LIGHTING WILL BE DIRECTED DOWN AND AWAY FROM RESIDENTIAL PROPERTIES.

**MAINTAINED FOOTCANDLE LEVELS**

CALCULATION SUMMARY							
LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CALCPTS	ILLUMINANCE	FC	0.72	11.6	0.0	N.A.	N.A.
LOT SUMMARY	ILLUMINANCE	FC	2.12	11.6	0.1	21.20	116.00

**LUMINAIRE SCHEDULE**

SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION	LLF	LUMENS/LAMP	ARR. LUM. LUMENS	ARR. WATTS
⊠	3	A	SINGLE	PTHS-FT-150-CMH-F-14" MTG HT	0.750	13000	9117	185
⊠	3	B	D180	PTHS-FT-150-CMH-F-14" MTG HT	0.750	13000	18234	370
⊠	11	C	SINGLE	PTHS-3-150-CMH-F-14" MTG HT	0.750	13000	9443	185

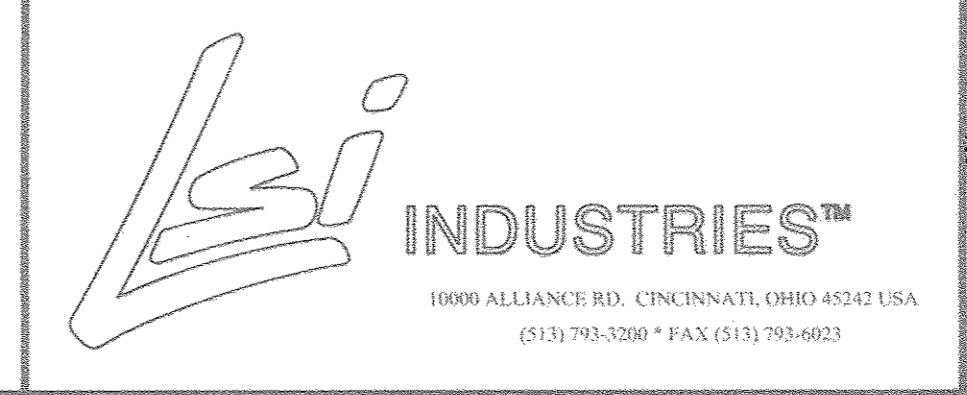


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 2-16-16  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 2-23-16  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 3-3-16  
DIRECTOR DATE



**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHV/DZE  
DRAWN BY: DZE  
CHECKED BY: RHV  
DATE: JANUARY 2018  
SCALE: AS SHOWN  
W.O. NO.: 09-24

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 08-27-2018

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