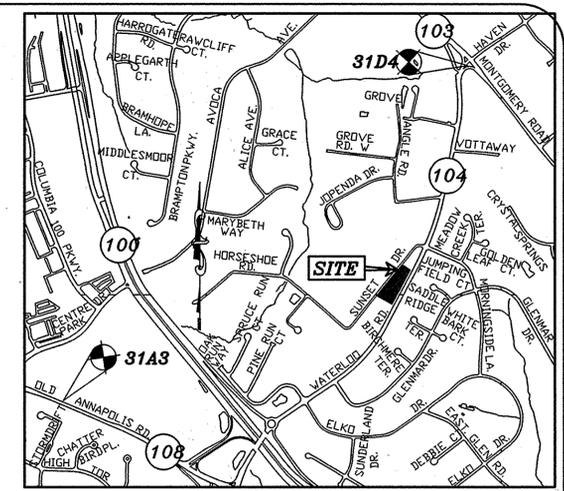
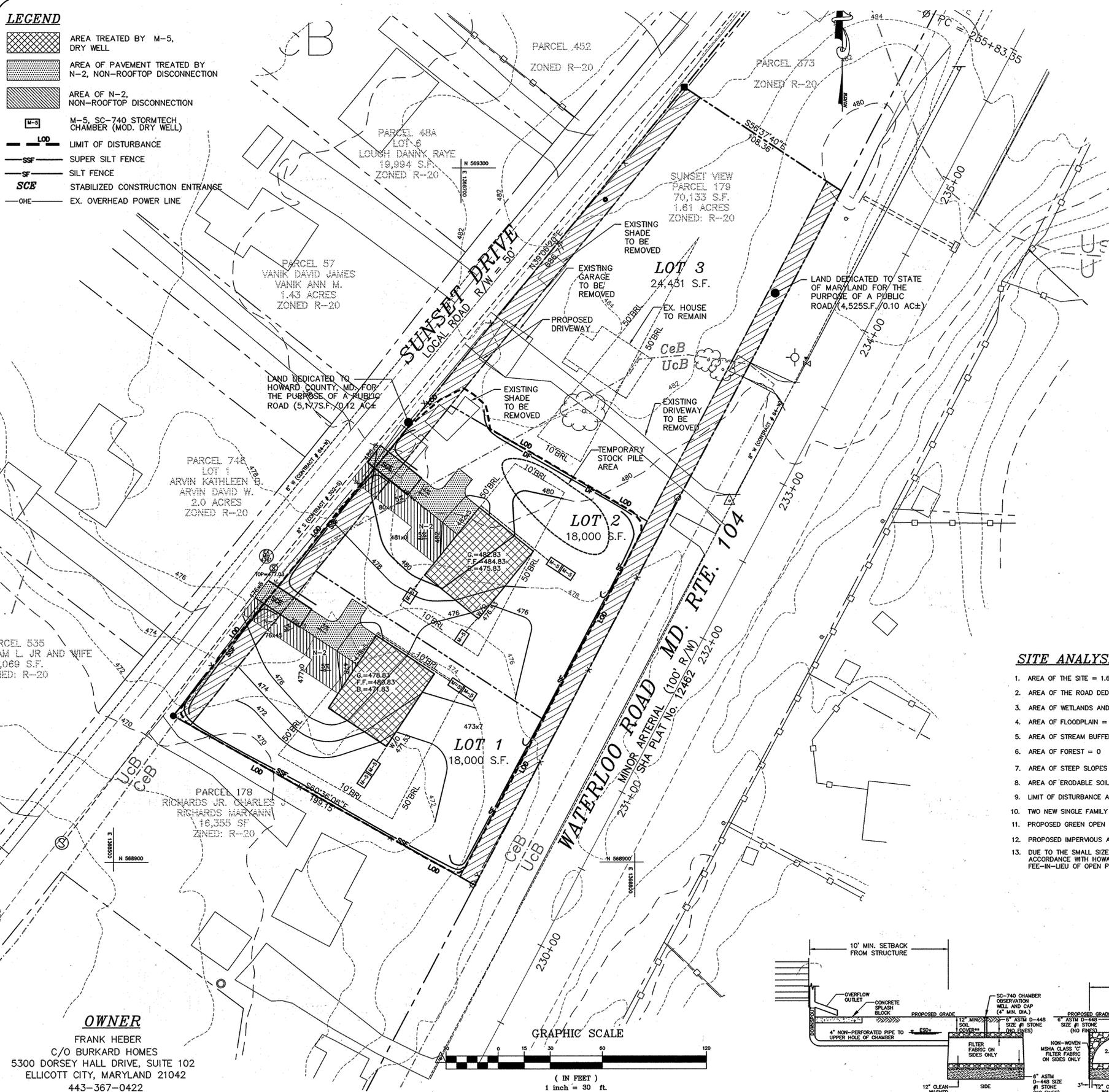


- LEGEND**
- AREA TREATED BY M-5, DRY WELL
 - AREA OF PAVEMENT TREATED BY N-2, NON-ROOFTOP DISCONNECTION
 - AREA OF N-2, NON-ROOFTOP DISCONNECTION
 - M-5, SC-740 STORMTECH CHAMBER (MOD. DRY WELL)
 - LIMIT OF DISTURBANCE
 - SUPER SILT FENCE
 - SILT FENCE
 - STABILIZED CONSTRUCTION ENTRANCE
 - EX. OVERHEAD POWER LINE



NOTES:

- SITE ANALYSIS DATA:
 ADDRESS: 5154 WATERLOO ROAD, ELLICOTT CITY, MD 21043
 LOCATION: TAX MAP : 31 PARCEL: 179 GRID: 2
 ELECTION DISTRICT: SECOND
 ZONING: R-20
 TOTAL AREA: 1.61 AC±
 AREA OF ROAD DEDICATION: 0.22 AC±
 LIMIT OF DISTURBANCE AREA: 0.9 AC±
 PROPOSED USE FOR SITE: RESIDENTIAL
 TOTAL NUMBER OF UNITS: 3
 TYPE OF PROPOSED UNIT: SFD
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 301A AND 31D4
 STA. 31A3 N567750.955, E1364842.701 EL.499.821
 STA. 31D4 N571700.951, E1369606.399 EL.491.181
- 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.
- SITE DEVELOPMENT PLAN APPROVAL BY THE DEPARTMENT OF PLANNING AND ZONING IS REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED FOR THE CONSTRUCTION OF RESIDENTIAL DWELLINGS ON THESE LOTS.
- THIS DEVELOPMENT IS DESIGNED TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. THE DEVELOPERS OF THIS PROJECT SHALL CREATE COMPATIBILITY WITH EXISTING NEIGHBORHOOD THROUGH THE USE OF ENHANCED PERIMETER LANDSCAPING, BERRMS, FENCES, SIMILAR HOUSING UNIT TYPES AND THE DIRECTIONAL ORIENTATION OF THE PROPOSED HOUSES.
- NO WETLANDS, FLOODPLAIN, STREAMS OR THEIR BUFFERS OR STEEP SLOPES EXIST ON OR IMPACT THIS PARCEL. THE INVESTIGATION WAS PERFORMED BY MILDENBERG, BOENDER AND ASSOC. IN MARCH 2014.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE ANY APPROVAL OF SUBSEQUENT SUBDIVISION OR SITE DEVELOPMENT PLANS. FURTHER COMMENTS WILL BE GENERATED UPON REVIEW OF THE APPLICABLE DEVELOPMENT PLANS IN ACCORDANCE WITH THE SUBDIVISION AND ZONING REGULATIONS. THE APPLICANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT. NO BURIAL GROUNDS OR CEMETRIES EXIST ON SITE.
- HORIZONTAL GEOMETRY OF THE MICRO-BIOTENTATION MAY BE MODIFIED WHILE MAINTAINING SURFACE AREA.
- NO FOREST EXIST ON THIS PARCEL. FOREST STAND INVESTIGATION WAS PERFORMED BY MILDENBERG BOENDER AND ASSOC. IN MARCH 2014. NO SPECIMEN TREES EXIST ON SITE.
- FOREST CONSERVATION OBLIGATION FOR THIS SUBDIVISION WILL BE FULFILLED BY PAYMENT OF FEE-IN-LIEU.
- THE EXISTING DWELLING ON LOT 3 IS TO REMAIN.

SITE ANALYSIS DATA:

- AREA OF THE SITE = 1.61 AC ±
- AREA OF THE ROAD DEDICATION = 0.22 AC±
- AREA OF WETLANDS AND ITS BUFFERS = 0
- AREA OF FLOODPLAIN = 0
- AREA OF STREAM BUFFER = 0
- AREA OF FOREST = 0
- AREA OF STEEP SLOPES = 0
- AREA OF ESTURABLE SOILS = 0
- LIMIT OF DISTURBANCE AREA = 0.9 AC ±
- TWO NEW SINGLE FAMILY DETACHED LOTS ARE PROPOSED.
- PROPOSED GREEN OPEN SPACE AREA = 1.45 AC±
- PROPOSED IMPERVIOUS AREA = 0.14 AC±
- DUE TO THE SMALL SIZE OF THE PROJECT, AND IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS, FEE-IN-LIEU OF OPEN SPACE IS PROPOSED.

ESD NARRATIVE

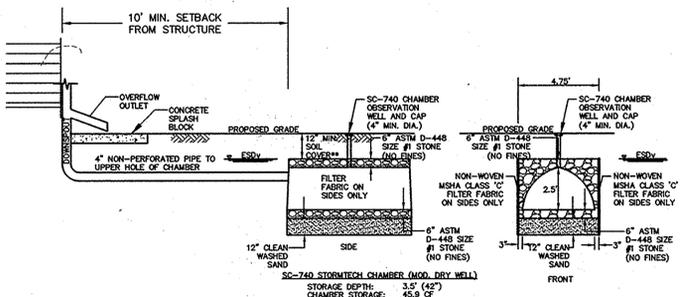
- NO NATURAL RESOURCES SUCH AS STEEP SLOPES, WETLANDS, STREAMS, OR REGULATED FOREST LAND OR FLOODPLAIN EXIST ON-SITE. THE PROPOSED DISCONNECTIONS AND MICRO BIO-RETENTION FACILITIES WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT, WHICH WILL BE AN IMPROVEMENT OVER EXISTING CONDITIONS. NO TREATMENT EXISTS FOR THE EXISTING STRUCTURES AND DRIVEWAY.
- 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.
- NON-STRUCTURAL PRACTICES WERE USED TO THE MAXIMUM EXTENT POSSIBLE. ROOFTOP DISCONNECTION AND NON-ROOFTOP DISCONNECTION WAS UTILIZED WHERE FEASIBLE. DUE TO THE LIMITED SIZE OF THE PROPOSED LOTS, NON-STRUCTURAL PRACTICES WERE NOT FEASIBLE ON EVERY LOT.
- 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 CONCENTRATION FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
- TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WERE UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS.
- IN DESIGNING THIS PROJECT, AND AFTER WE PLANNED THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
 A. ROOFTOP DISCONNECTION (N-1)
 B. DISCONNECTION OF NON-ROOFTOP (N-2)
 C. MICRO-SCALE PRACTICES (M-5)

SOILS TABLE

SYMBOL	RATING	NAME	K FACTOR	SOIL MAP #
CeB	(B)	CHILLUM LOAM, 2-5% SLOPES	37	19
UcB	(D)	URBAN LAND-CHILLUM BELTSVILLE COMPLEX, 0-5% SLOPES	37	19

SWM PRACTICES SCHEDULE

LOT #	PROPOSED PRACTICES	REQUIRED ESDv	PROVIDED ESDv
1	NON-ROOFTOP DISCONNECTION (N-2) DRY WELLS (M-5)	358.2 C.F.	378.8 C.F.
2	NON-ROOFTOP DISCONNECTION (N-2) DRY WELLS (M-5)	358.2 C.F.	378.8 C.F.



MODIFIED DRY WELL (M-5) DETAIL
NOT TO SCALE

OWNER
FRANK HEBER
C/O BURKARD HOMES
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MARYLAND 21042
443-367-0422

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division HSP
 Chief, Division of Land Development



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. 17942, EXP DATE 09/10/14
 R. JACOB HIKMAT P.E. DATE: 7/23/14

Project	14-001	date	FEB. 2014
Illustration	MMM	engineering	MMM
Scale	1"=90'	approval	RJH

no.	description	date

SUNSET VIEW
 LOTS 1 THRU 3, SINGLE FAMILY DETACHED DWELLING
 ADDRESS: 5154 WATERLOO ROAD, ELLICOTT CITY, MD 21043
 2ND ELECTION DISTRICT, TAX MAP 31, PARCEL 179, HOWARD COUNTY, MD
ENVIRONMENTAL CONCEPT PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 7850-B Grace Drive, Columbia, Maryland 21044
 (410) 997-0266 Fax: (410) 997-0269 Fax