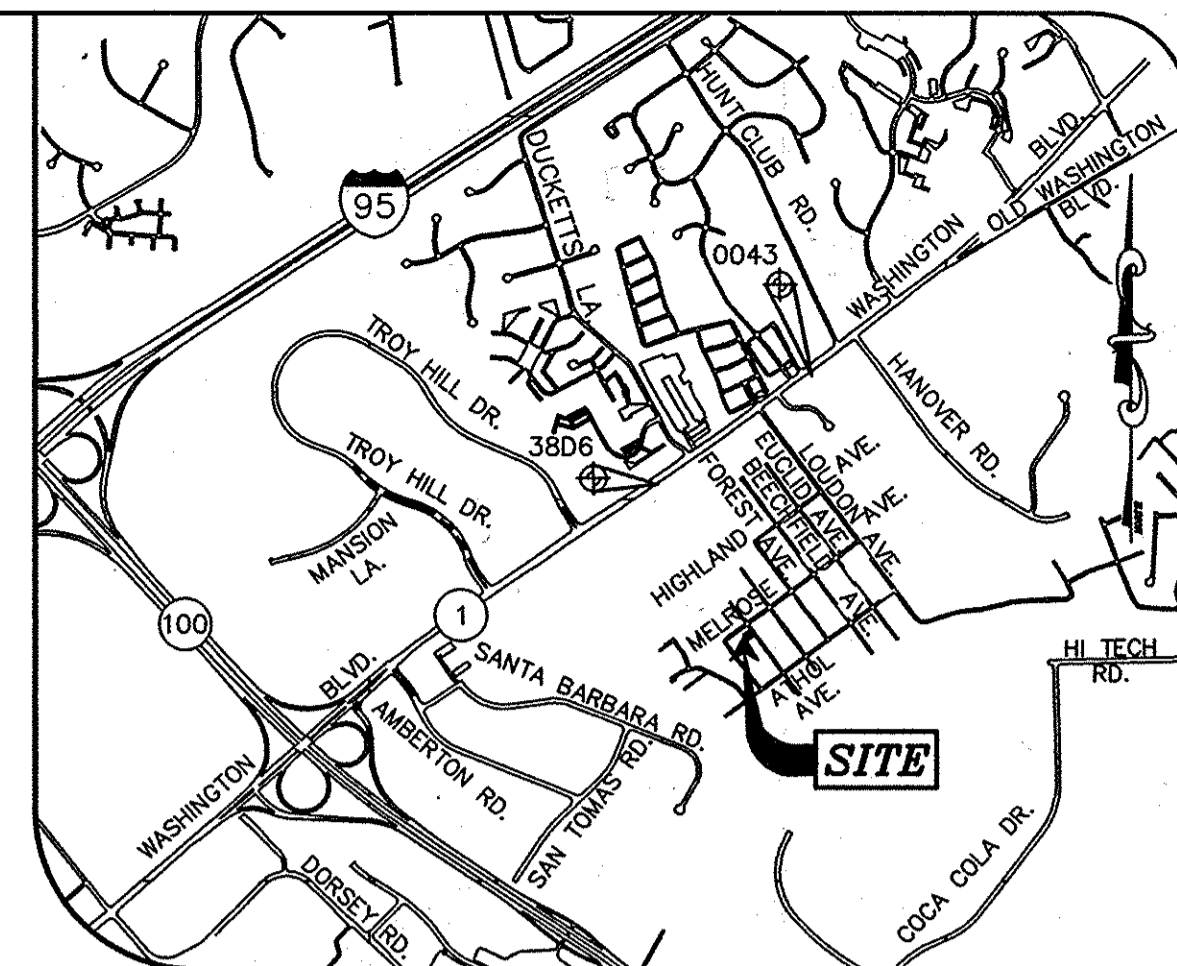


**SITE ANALYSIS DATA:**

1. AREA OF THE SITE = 0.275 AC ±  
LIMIT OF DISTURBANCE (LOD) = 0.28 AC ±
2. AREA OF ROAD DEDICATION = 0 AC
3. AREA OF WETLANDS AND ITS BUFFERS (WITHIN LOD) = 0 AC
4. AREA OF FLOODPLAIN (WITHIN LOD) = 0  
AREA OF 35' ENVIRONMENTAL SETBACK (FLOODPLAIN, WITHIN LOD) = 0
5. AREA OF STREAM BUFFER (WITHIN LOD) = 0 AC
6. AREA OF STEEP SLOPES (15% OR GREATER WITHIN LOD FOR A VERTICAL DISTANCE OF 10 FEET OR MORE) = 0 AC  
NO STEEP SLOPES WITH A CONTIGUOUS AREA OF 20,000 SF OR GREATER WILL BE DISTURBED.
7. AREA OF FOREST (WITHIN LOD) = 0 AC
8. TOTAL ENVIRONMENTAL SENSITIVE AREA\* (WITHIN LOD) = 0 AC
9. FOUR (4) SEMI-DETACHED RESIDENTIAL UNITS ARE PROPOSED.

**SOILS TABLE**

SYMBOL	RATING	NAME	K FACTOR	SOIL MAP #
Fa	(D)	FALLSINGTON SANDY LOAM, 0-2% SLOPES.	.02	20

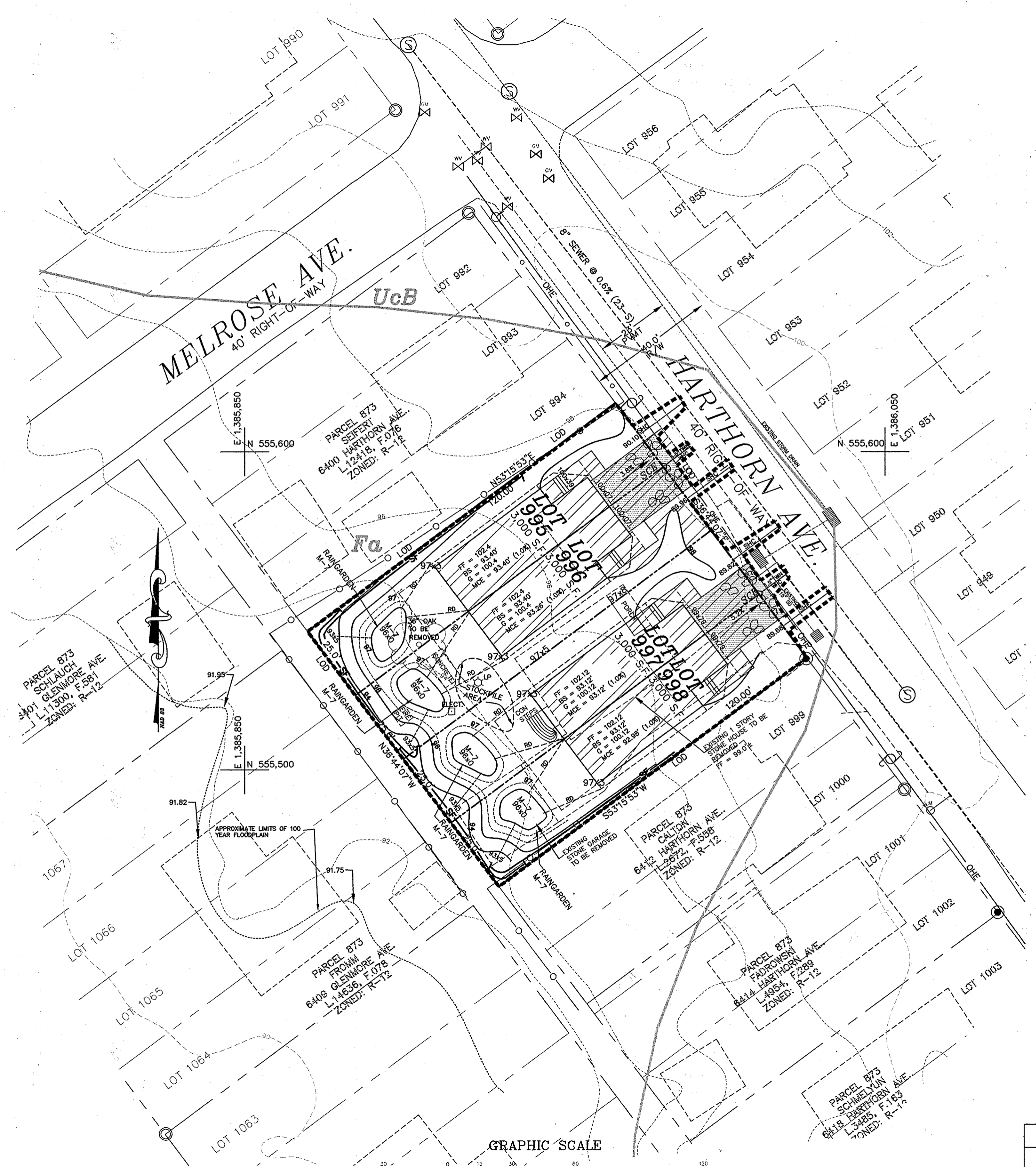


**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP: 35 C-4

**ESD NARRATIVE**

1. NO NATURAL RESOURCES SUCH AS STEEP SLOPES, WETLANDS, STREAMS, OR VALUABLE FOREST LAND EXIST ON-SITE. THE PROPOSED NON-ROOFTOP DISCONNECTION AND MICRO-BIORETENTION FACILITIES WILL PROVIDE STORMWATER QUALITY TREATMENT FOR THE NEW DEVELOPMENT, WHICH WILL BE AN IMPROVEMENT OVER EXISTING CONDITIONS. NO TREATMENT EXISTS FOR THE EXISTING FRAME GARAGE, WHICH WILL BE REMOVED AS PART OF THIS PROJECT.
2. THE IMPROVEMENTS AND DEVELOPED AREA WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS AS CLOSELY AS POSSIBLE. NO IMPACT IS PROPOSED THAT WOULD SIGNIFICANTLY ALTER ANY NATURAL FLOW PATTERNS.
3. NON-STRUCTURAL PRACTICES WERE USED TO THE MAXIMUM EXTENT POSSIBLE. RAIN GARDENS HAVE BEEN UTILIZED.
4. THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN ACCORDANCE WITH THE LATEST MDE STANDARDS AND SPECIFICATIONS UTILIZING SILT FENCES AND SUPER SILT FENCES. NO CONCENTRATION FLOW IS PROPOSED. NO SEDIMENT TRAPS OR BASINS ARE REQUIRED.
5. TABLE 5.2, SUMMARY OF SITE DEVELOPMENT STRATEGIES WERE UTILIZED TO THE EXTENT ALLOWABLE BY THE CURRENT HOWARD COUNTY ZONING AND LAND DEVELOPMENT REGULATIONS BY UTILIZING EXISTING ENTRANCE AND MINIMIZING EARTH DISTURBANCE.
6. IN DESIGNING THIS PROJECT, AND AFTER WE PLAN THE PROJECT TO MINIMIZE IMPERVIOUS AREAS, WE UTILIZED ESD MEASURES IN THE FOLLOWING ORDER OF PREFERENCE:
  - A. RAIN GARDENS (M-7).

ESDv REQUIRED FOR EACH RAIN GARDEN (M-7) IS DETERMINED TO BE 330 C.F.S., THE ESDv PROVIDED FOR EACH FACILITY IS 347.2 C.F.S.



**NOTES:**

1. SITE ANALYSIS DATA:  
LOCATION: TAX MAP: 38 GRID: 13 PARCEL: 873  
ELECTION DISTRICT: SIXTH  
ZONING: R-12  
TOTAL AREA: 0.275 AC±  
LIMIT OF DISTURBED AREA: 0.28 AC±  
PROPOSED USE FOR SITE: RESIDENTIAL  
TOTAL NUMBER OF UNITS: 4  
TYPE OF PROPOSED UNIT: SINGLE FAMILY SEMI-DETACHED (DUPLX)  
DEED REFERENCE: L 225/F. 499
2. TOPOGRAPHIC AND BOUNDARY INFORMATION IS BASED ON MONUMENTED FIELD RUN SURVEY BY MILDENBERG, BOENDER & ASSOC. INC. PERFORMED IN OR ABOUT JANUARY 2015.
3. COORDINATES BASED ON NAD '83 (HORIZONTAL) AND NGVD '88 (VERTICAL) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO.3806 & 0043.  
STA. No. 3806: N 557,155.445 E 1,384,992.228 ELEV. 174.506  
STA. No. 0043: N 558,479.032 E 1,386,642.038 ELEV. 189.436
4. BOUNDARY SHOWN HEREON IS BASED ON FIELD RUN SURVEY BY MILDENBERG, BOENDER AND ASSOC. IN JANUARY, 2015.
5. NO WETLANDS, STREAMS, FLOODPLAIN EXIST ON-SITE.
6. NO STEEP SLOPES EXIST ON-SITE.
7. NO HISTORIC DISTRICTS, CEMETERIES EXIST OR ARE ADJACENT TO THIS SITE.
8. 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.
9. NO FOREST EXIST ON SITE AS CERTIFIED BY MILDENBERG BOENDER IN A LETTER DATED 3/16/2015.
10. THERE IS AN EXISTING HOUSE AND DETACHED GARAGE CONSTRUCTION ON THIS SITE WHICH WILL BE REMOVED.
11. APPROVAL OF THIS ECP BY THE HOWARD SOILS CONSERVATION DISTRICT DOES NOT PROVIDE APPROVAL OF THE SHOWN SEDIMENT CONTROL.
12. THERE IS A 36" OAK SPECIMEN TREE ON LOT 995 WHICH IS TO BE REMOVED. WAIVER PETITION APPROVAL IS REQUIRED FOR THE REMOVAL OF THIS SPECIMEN TREE PRIOR TO SDP APPROVAL.

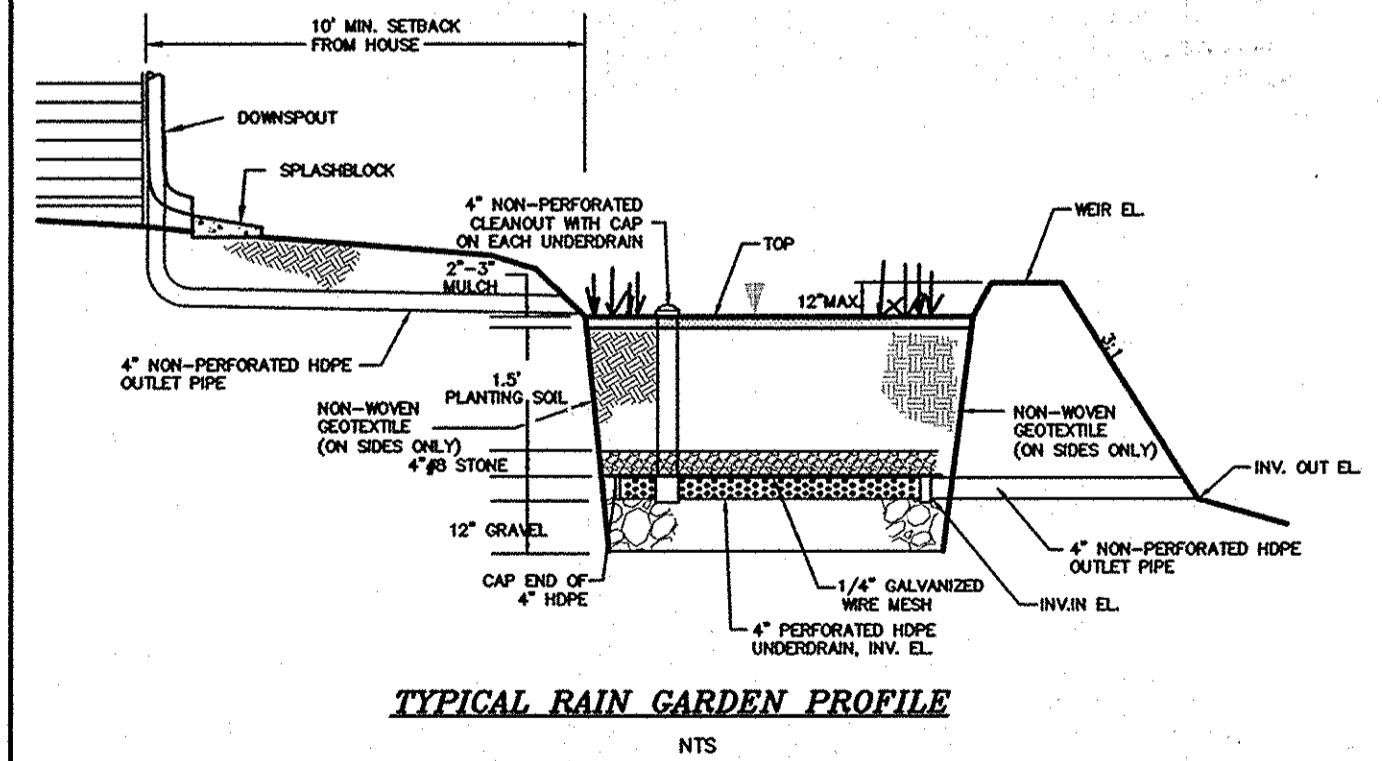
**LEGEND**

- IMPERVIOUS AREA TREATED BY M-7, RAIN GARDEN
- DA--- DRAINAGE AREA TO MICRO-BIORETENTION (M-6) WITH FACILITY LABEL
- LOD LIMIT OF DISTURBANCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- SF SILT FENCE
- RD ROOF DRAIN LEADER
- PROPOSED DRIVEWAY
- 4" SHC SEWER HOUSE CONNECTION
- 4" WWC WATER HOUSE CONNECTION
- EX SD EXISTING STORMDRAIN
- SPECIMEN TREE TO BE REMOVED

**SWM PRACTICES SCHEDULE**

AREA	PROPOSED PRACTICES	REQUIRED ESDv	PROVIDED ESDv
LOTS 995-996	M-7, RAIN GARDEN TWO RAIN GARDENS	330.0 C.F.	347.2 C.F.
LOTS 997-998	M-7, RAIN GARDEN TWO RAIN GARDENS	330.0 C.F.	347.2 C.F.

THERE ARE A TOTAL OF 4 RAIN GARDENS (M-7) ON SITE. ONE RAIN GARDEN ON EACH LOT.



**DEVELOPER** TEN OAKS REALTY, LLC  
P.O. BOX 257  
FALLSTON, MD 20717  
443-250-0511

**OWNER** NOBIA S. WHALEY  
2401 BEAVER HILL RD  
PIKEVILLE, TN 37361

APPROVED: DEPARTMENT OF PLANNING AND ZONING

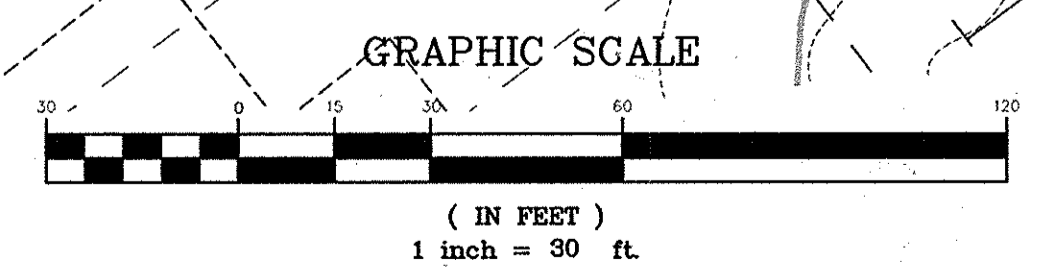
*Shel Edwards* 5/28/15  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Michael Deane* 6/18/15  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP. DATE 9/03/16.

*H. Jacob Hikmat* 5/28/15  
R. JACOB HIKMAT, P.E. DATE



Project	date	approval
14-005	MAY 2015	MMX
Illustration	engineering	
MMT/MMM	MMT	
scale	1"=30'	

description	date
revisions	

**HARWOOD PARK LOTS 995-998**  
SINGLE FAMILY SEMI-DETACHED DWELLING  
TAX MAP 38, PARCEL 873, GRID 13, (PLAT NO. 60/115), 6406 HARTHORN AVE.  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**ENVIRONMENTAL CONCEPT PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
Engineers Planners Surveyors  
7350-B Grace Drive, Columbia, Maryland 21044  
(410) 997-0298 Fax. (410) 997-0296