

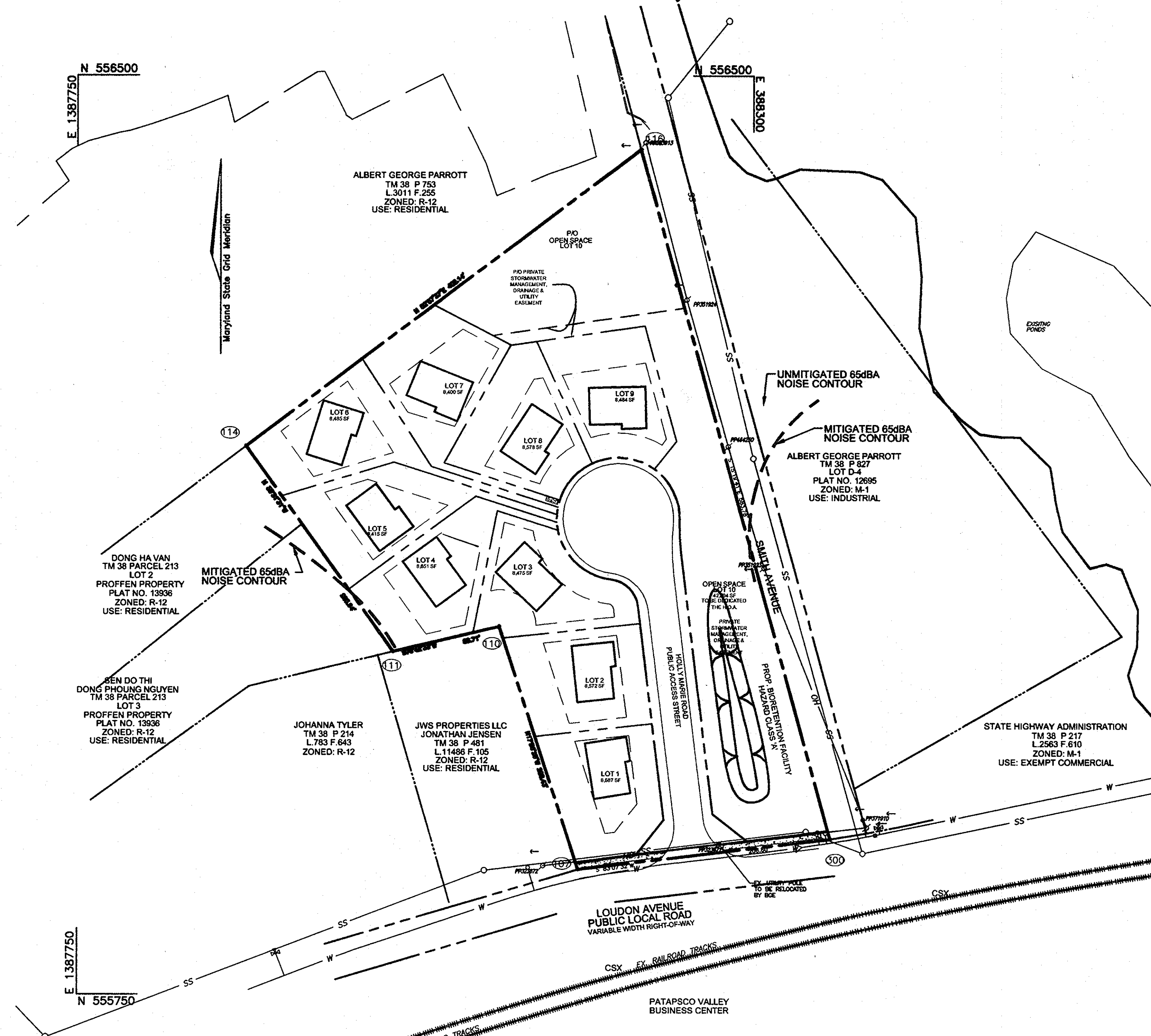
PRELIMINARY PLAN EAGLE VALLEY LOTS 1-9 AND OPEN SPACE LOT 10 HOWARD COUNTY, MARYLAND

GENERAL NOTES

1. THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. DEED REFERENCE: L 9363/F 299
3. THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JULY 2005.
4. THE TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHICAL SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JULY 2005.
5. WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC UNDER CONTRACT NO. 14-4638-D.
6. STORMWATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT. NOW AND Rvw ARE PROVIDED BY A BIORETENTION FACILITY AND RAINGARDENS. THE BIORETENTION FACILITY IS LOCATED ON HOA OPEN SPACE LOT 10 AND ARE TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION.
7. THERE ARE NO WETLANDS OR STREAMS ARE LOCATED ON-SITE.
8. NO 100-YR FLOODPLAIN IS LOCATED ON-SITE.
9. A FOREST STAND DELINEATION PLAN WAS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. DATED OCTOBER 2005. FOREST CONSERVATION REQUIREMENTS ARE COMPLIED WITH PER SECTION 16.1202 OF THE HOWARD COUNTY CODE. THE FOREST CONSERVATION OBLIGATIONS FOR THE REQUIRED 0.48 AC. OF AFFORESTATION WILL BE PROVIDED BY 0.35 AC. ON-SITE AND THE REMAINING 0.13 AC. IN AN AN OFF-SITE FOREST BANK, TRINITY HOMES AT CYPRESS SPRINGS PARCELS 42, 44, 45 AND 46, TAX MAP 38.
10. APFO TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, DATED SEPTEMBER 2005.
11. ALL LANDSCAPING REQUIREMENTS AS SET FORTH IN THE LANDSCAPE MANUAL SHALL BE COMPLIED WITH.
12. STREET LIGHTING IS REQUIRED AND SHALL BE COMPLIED WITH FOR THIS DEVELOPMENT.
13. SEDIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
14. THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
15. TO THE BEST OF THE OWNER'S KNOWLEDGE, THERE ARE NO BURIAL/CEMETARY LOCATIONS ON-SITE.
16. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH ARE BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 380A AND 380B WERE USED FOR THIS PROJECT.
17. OPEN SPACE LOT 10 TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOA.
18. A NOISE STUDY WAS PERFORMED BY ROBERT H. VOGEL ENGINEERING DATED JULY 2009. NOISE MITIGATION IS PROVIDED BY 2'-6" HIGH NOISE WALLS.
19. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION REGULATIONS AND TO THE FEBRUARY 2, 2004 ZONING REGULATIONS.
20. THIS SITE IS LOCATED WITHIN THE TWO FOUR MILE HEIGHT RESTRICTION ZONE REQUIRING APPROVAL FROM THE MARYLAND AVIATION ADMINISTRATION FOR NEW HOUSE CONSTRUCTION AND FOR STORMWATER MANAGEMENT DESIGN. AN APPROVAL LETTER FROM THE MAA WILL BE PROVIDED WITH THE FINAL PLANS AND SITE DEVELOPMENT PLAN.
21. REFUSE COLLECTION, SNOW REMOVAL AND MAINTENANCE FOR LOTS 4-7 SHALL BE PROVIDED AT THE JUNCTION OF THE PRIVATE USE-IN-COMMON ACCESS EASEMENT AND THE EXISTING ROAD RIGHT-OF-WAY.
22. ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE-3" LONG). A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
23. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. LANDSCAPE SURETY IN THE AMOUNT OF \$9,000.00 FOR THE REQUIRED 22 SHADE TREES, 15 EVERGREEN TREES AND 5 SHRUBS WILL BE PROVIDED WITH THE DEVELOPER'S AGREEMENT AT FINAL PLAN.
24. PREVIOUS COUNTY FILE NUMBERS: S-08-05
25. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
26. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS'/ OWNERS' EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES.

SITE DATA

LOCATION: TAX MAP 38, GRID 14, PARCEL 215
 EXISTING ZONING: R-12
 GROSS AREA OF PARCEL: 3.22 AC.
 AREA OF PROPOSED RIGHT-OF-WAY (HOLLY MARIE ROAD): 17,968 SF
 AREA OF PROPOSED RIGHT-OF-WAY DEDICATION (LOUDON AVENUE): 1,374 SF
 AREA OF 100-YR FLOODPLAIN: N/A
 AREA OF STEEP SLOPES: N/A
 NET AREA OF PROJECT: 3.22 AC.
 NUMBER OF PROPOSED RESIDENTIAL LOTS: 9
 AREA OF PROPOSED RESIDENTIAL LOTS: 1.74 AC. (75,600 SF)
 AREA OF SMALLEST BUILDABLE LOT PROPOSED: 8,400 SF - LOT 7
 NUMBER OF PROPOSED OPEN SPACE LOTS: 1 (LOT 10)
 AREA OF OPEN SPACE REQUIRED: 0.97 AC. (3.22 x 30%)
 AREA OF CREDITED OPEN SPACE PROVIDED: 0.97 AC. OR 30% (42,302 SF)
 AREA OF NON-CREDITED OPEN SPACE: 0.00 AC.
 TOTAL AREA OF OPEN SPACE: 0.97 AC.

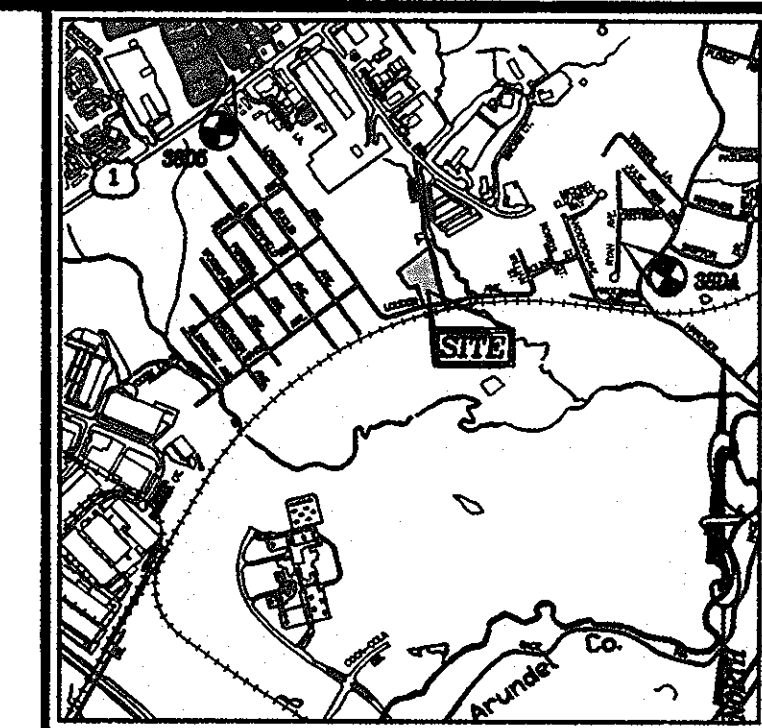


POINT	NORTH	EAST
107	555852.25983	1388157.65527
110	556050.55223	1388093.45122
111	556030.15750	1388007.11370
114	556197.76046	1387887.45207
116	556439.99824	1388208.45019
300	555876.98880	1388362.76996

LOCATION PLAN
SCALE: 1"=60'

LEGEND

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



VICINITY MAP

SCALE: 1"=2000'
 ADC MAP COORDINATE: 17 / F10

BENCHMARKS

HOWARD COUNTY BENCHMARK 38DA (CONCRETE MONUMENT)
 N 556796.292 E 1390721.486 ELEV. 126.075
 HOWARD COUNTY BENCHMARK 38DS (CONCRETE MONUMENT)
 N 558378.575 E 1386524.158 ELEV. 192.964

MINIMUM LOT SIZE CHART

LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
4	8,953 SF	302 SF	8,651 SF
5	8,824 SF	409 SF	8,415 SF
6	9,136 SF	651 SF	8,485 SF
7	8,992 SF	592 SF	8,400 SF

SHEET INDEX

SHEET NO.	TITLE
1	COVER SHEET
2	LAYOUT PLAN
3	ROAD PROFILES AND DETAILS
4	STORM DRAIN DRAINAGE AREA MAP
5	GRADING AND SEDIMENT EROSION CONTROL PLAN
6	LANDSCAPE AND FOREST CONSERVATION PLAN
7	FOREST CONSERVATION DETAILS

NO.	REVISION	DATE

PRELIMINARY PLAN
COVER SHEET
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10

TAX MAP 38 BLOCK 14 PARCEL 215
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

PROFESSIONAL CERTIFICATE

DESIGN BY: JCO
 DRAWN BY: KC
 CHECKED BY: RHV
 DATE: OCTOBER 2009
 SCALE: AS SHOWN
 W.O. NO.: 05-61

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, EXPIRATION DATE: 09-27-2010

1 SHEET OF 7

OWNER/DEVELOPER

MICHAEL L. PFAU
 3675 PARK AVENUE
 ELLICOTT CITY, MD 21043
 PHONE 410-480-0023

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Mona S. Butler 10/30/09
 PLANNING DIRECTOR DATE

LEGEND:

- ==== 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 CLEANOUT
- ⊕ EXISTING FIRE HYDRANT
- ⊕ EXISTING WATER LINE
- ==== PROPOSED STORM DRAIN
- ==== PROPOSED STORM DRAIN INLET
- ⊕ EXISTING TREES (FIELD LOCATED)
- ⊕ EXISTING TREELINE (FIELD LOCATED)
- ⊕ EXISTING VEGETATION (APPROXIMATE LOCATION)
- ⊕ EXISTING STREET TREES (F-04-...)
- ==== EXISTING FENCE
- ==== PROPERTY LINE
- ==== RIGHT-OF-WAY LINE
- ==== PROPOSED SIDEWALK
- B10 ⊕ PROPOSED BORING TEST



LAYOUT PLAN
SCALE: 1"=50'

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD LENGTH
C1	72.80	91.75	45°27'50"	38.44	N29°36'23"W	70.91

LIGHT LOCATIONS			
STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
HOLLY MARIA WAY	0+34	19' RIGHT	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
HOLLY MARIA WAY	LP2+22	3' LEFT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

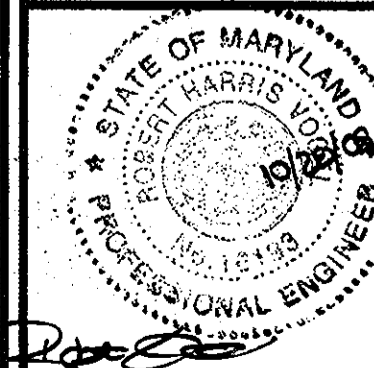
Thomas E. Butler
PLANNING DIRECTOR, DEP. 10/30/09 DATE

NO.	REVISION	DATE

PRELIMINARY PLAN
LAYOUT PLAN
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10

TAX MAP 38 BLOCK 14 PARCEL 215
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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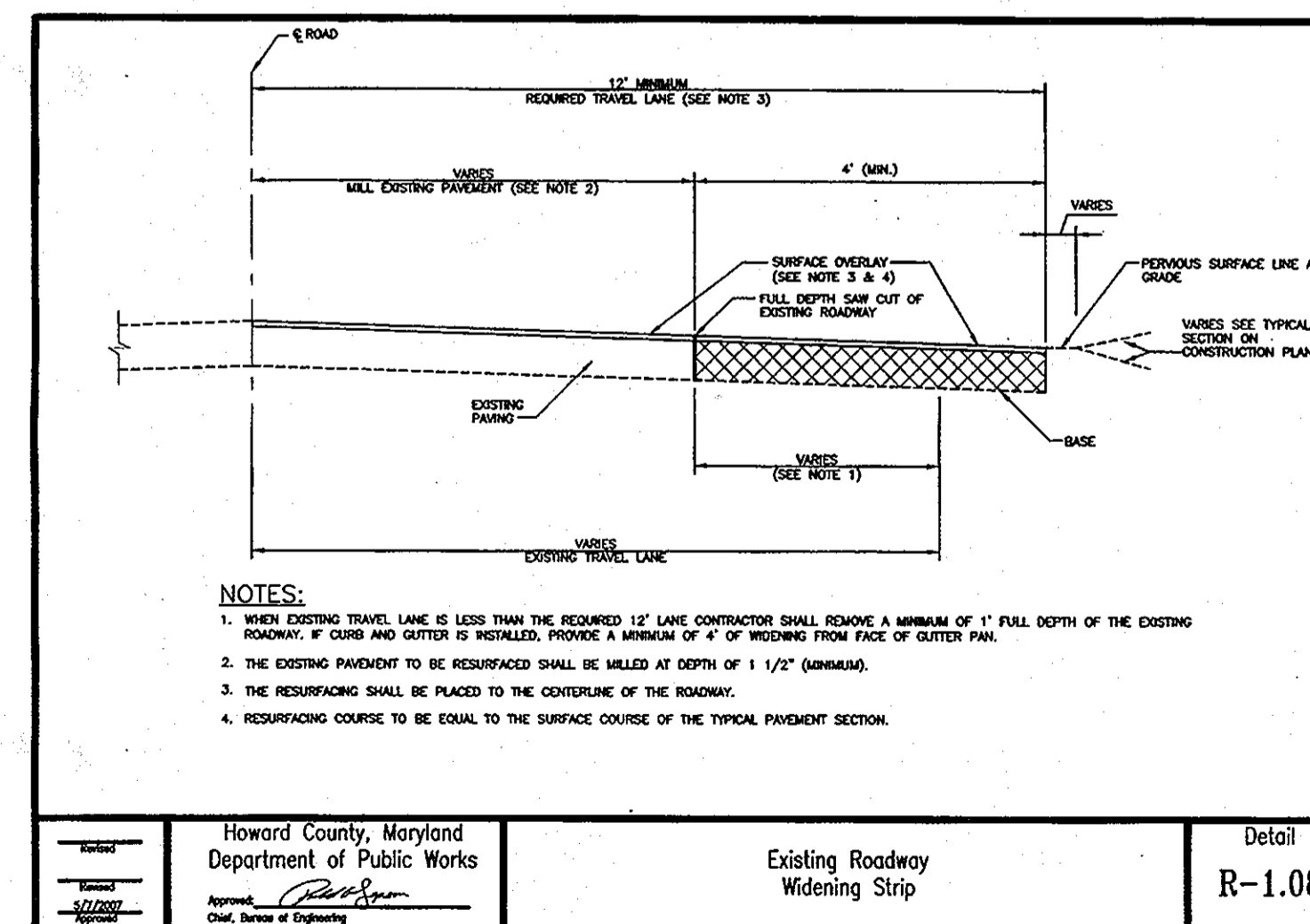
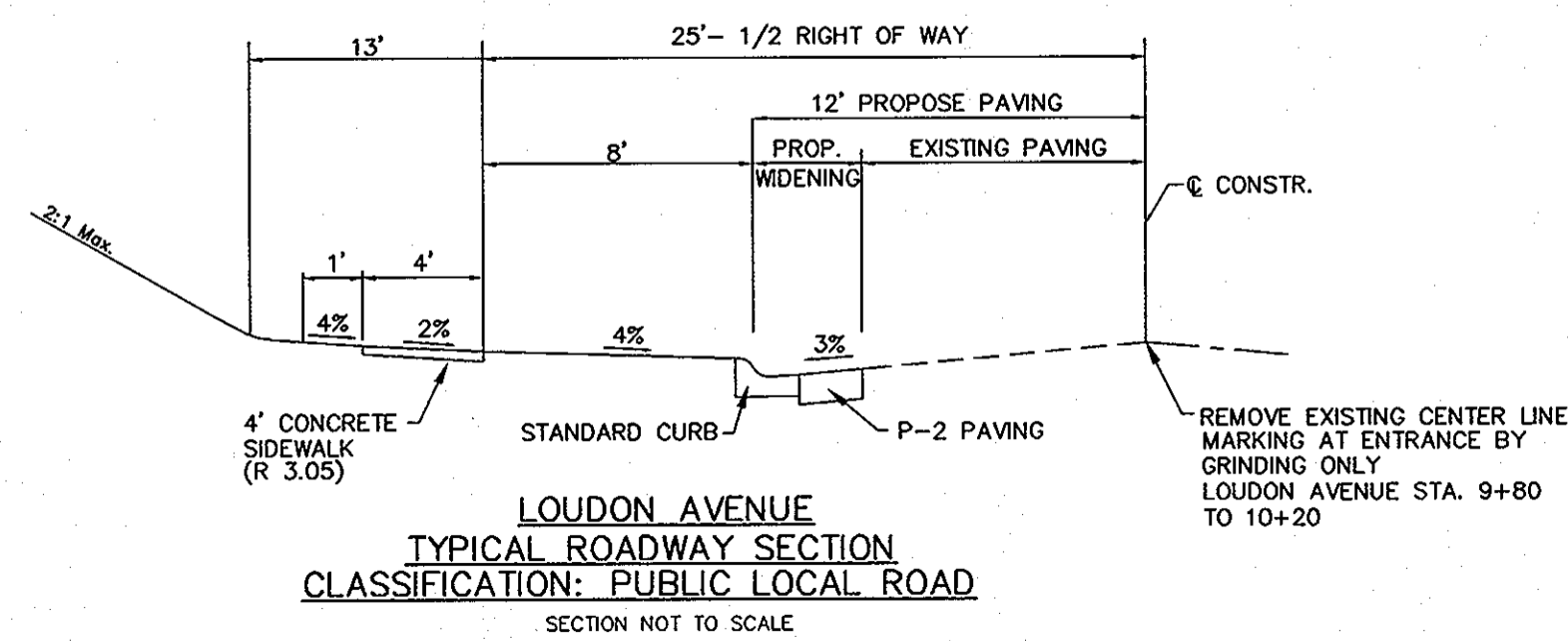
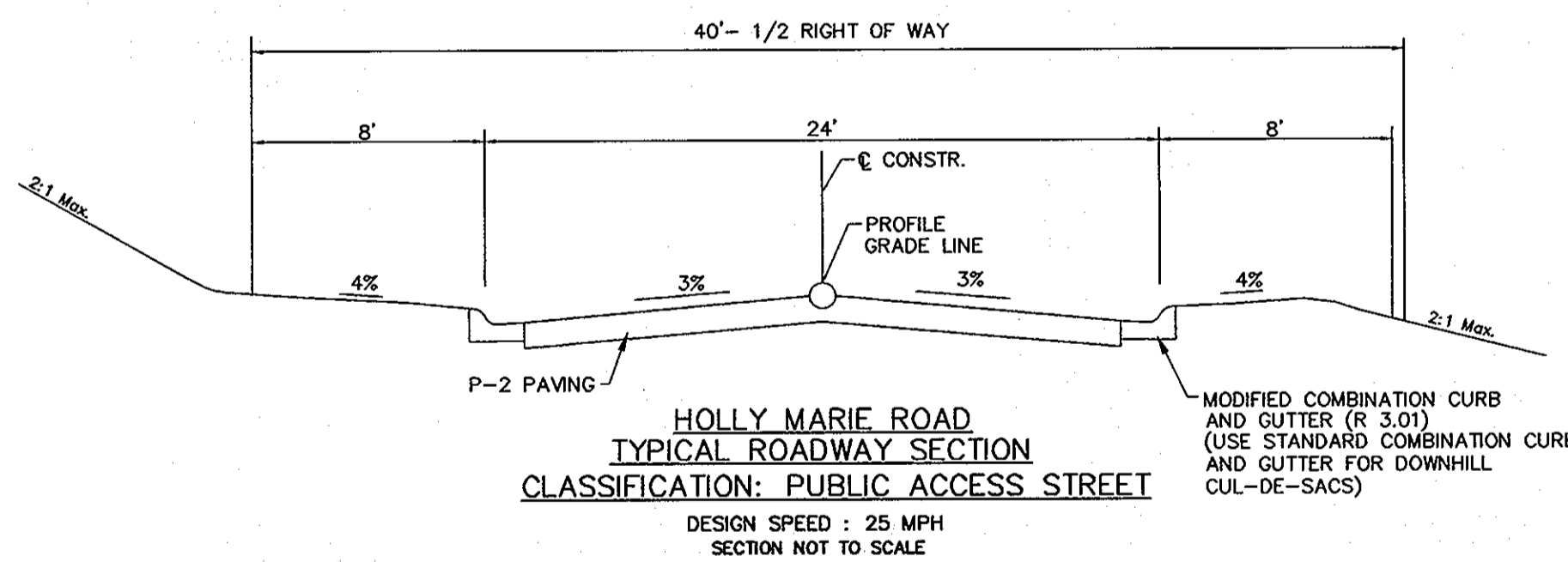
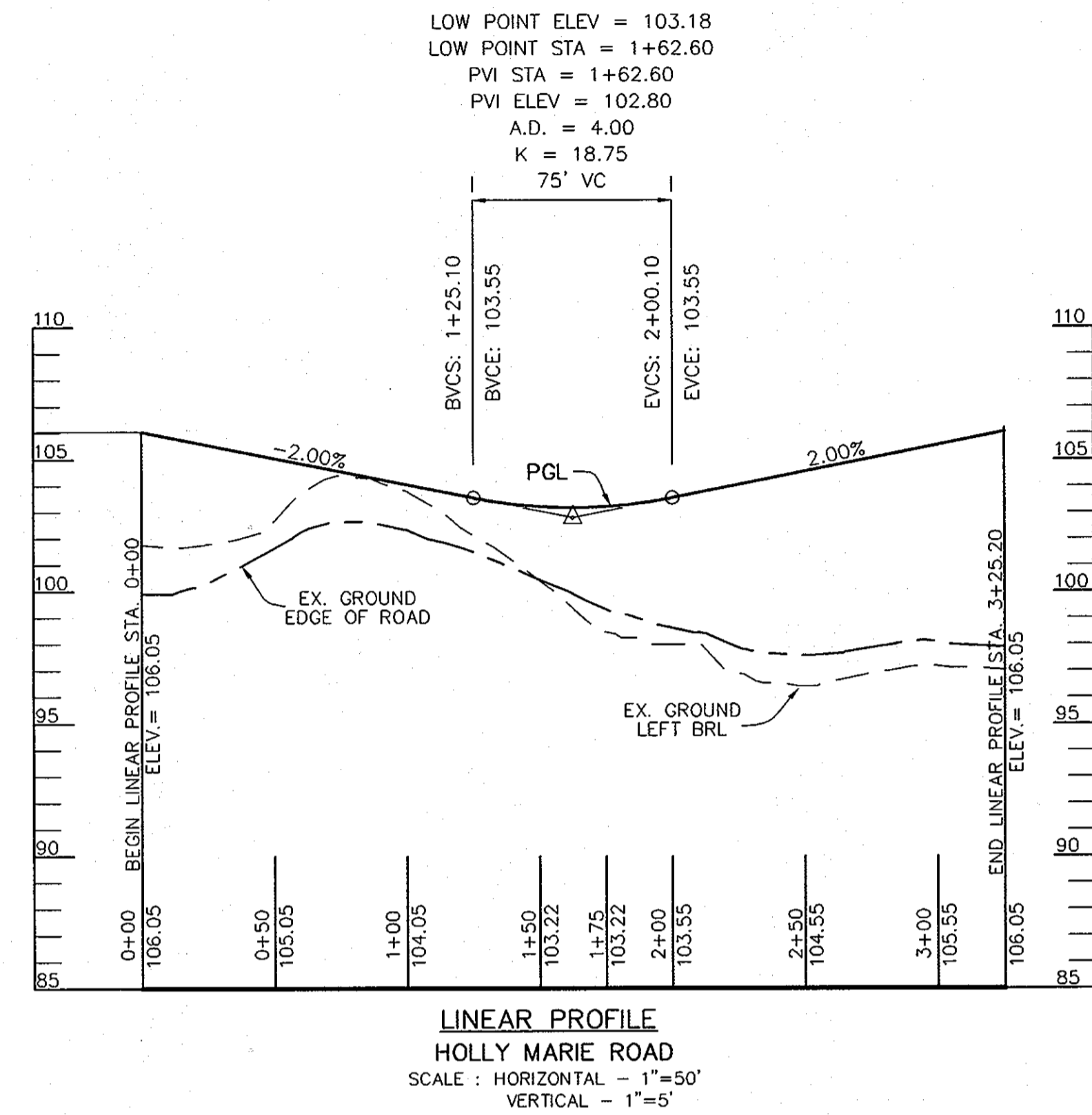
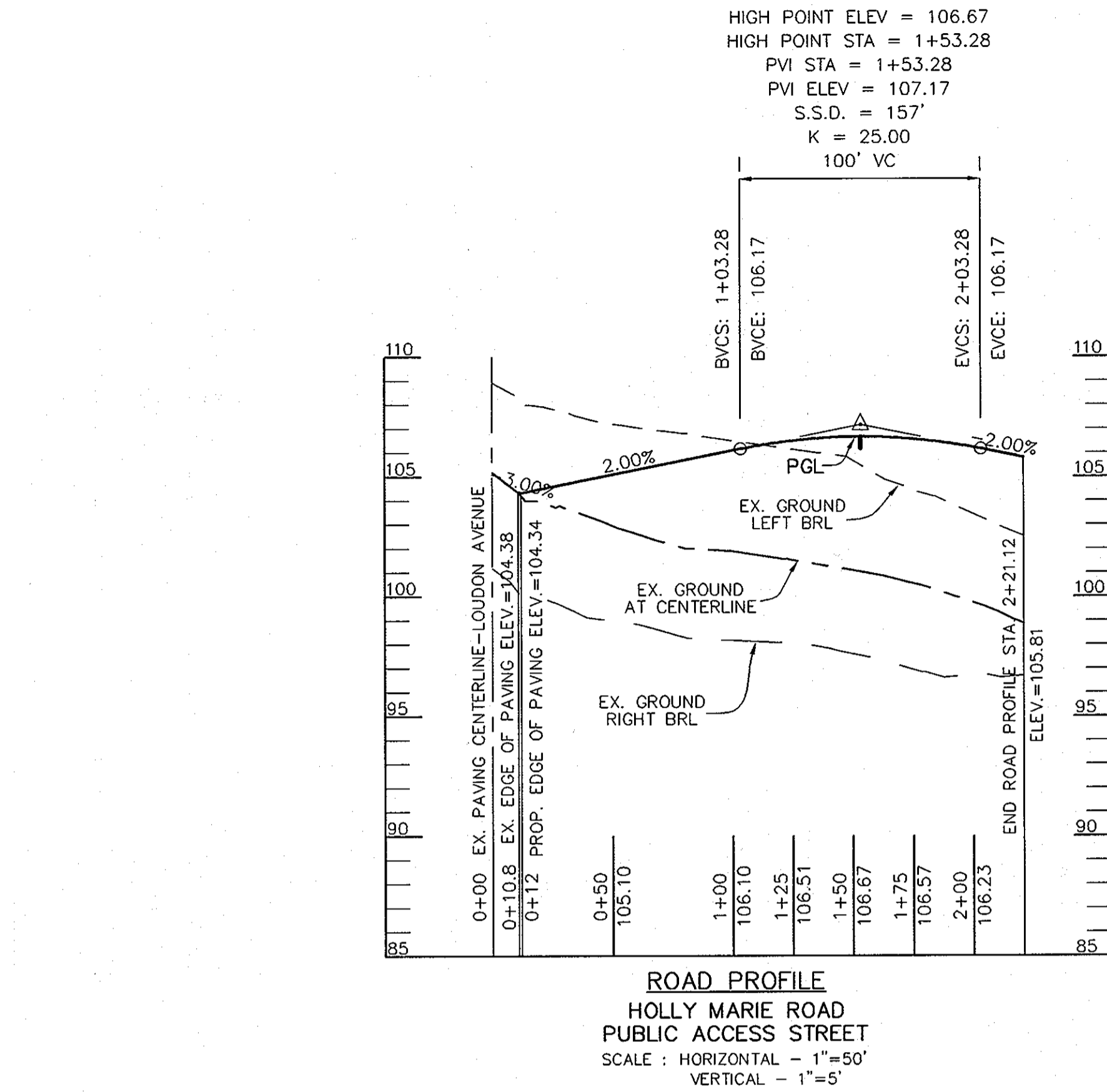
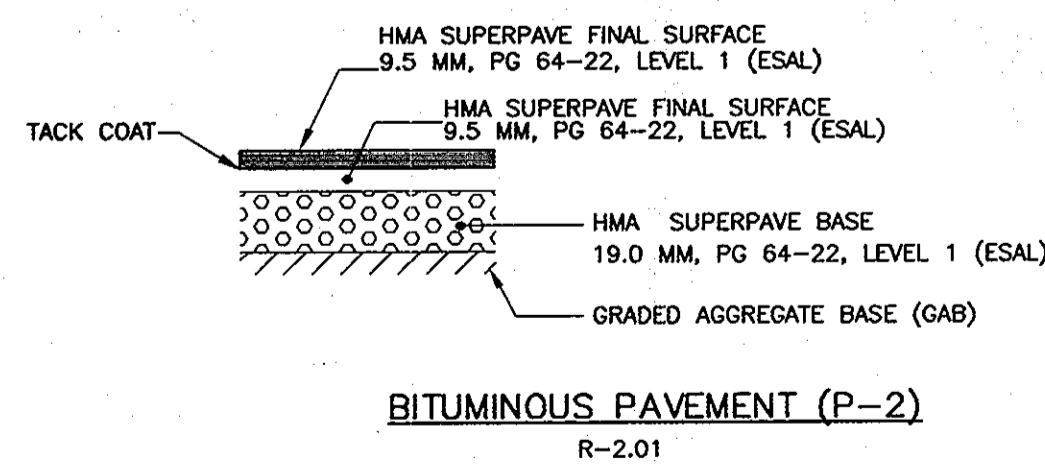
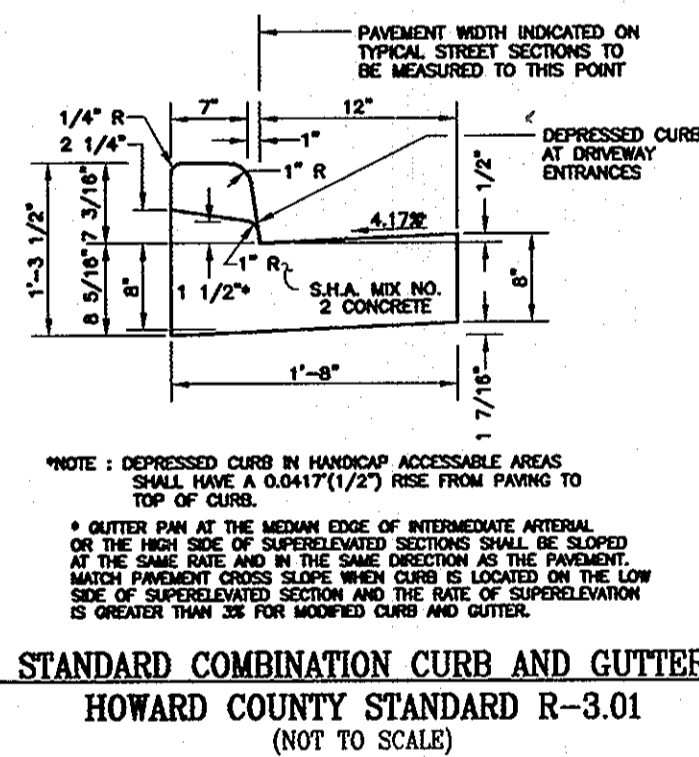
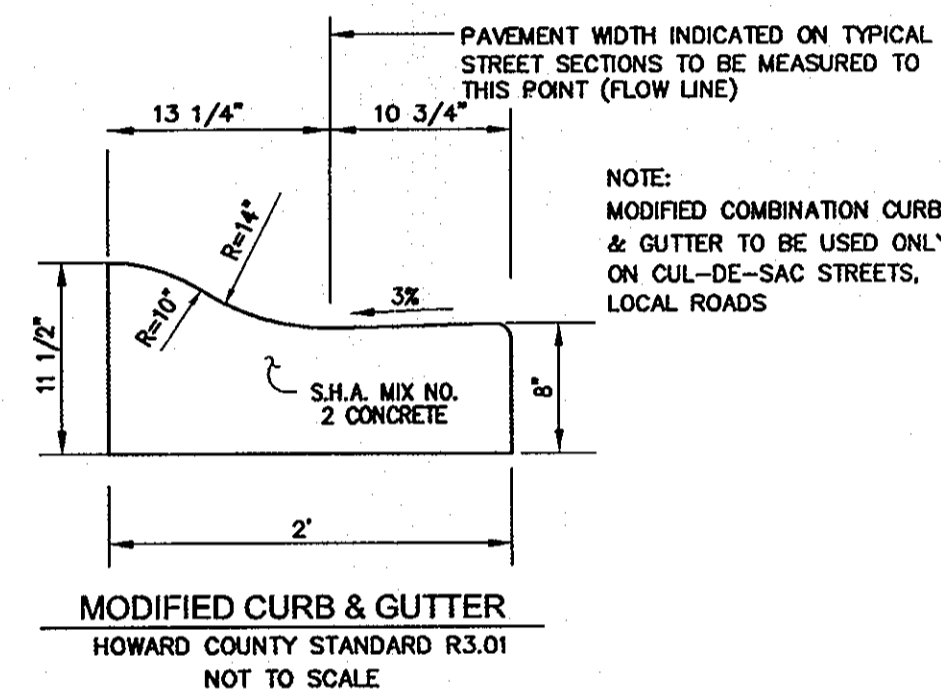


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DESIGN BY: JCO
DRAWN BY: KG
CHECKED BY: RHY
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 05-61

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MICHAEL L. PFAU
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ELLICOTT CITY, MD 21043
PHONE 410-480-0023

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NO.	REVISION	DATE

PRELIMINARY PLAN
ROAD RPROFILES AND DETAILS
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10

TAX MAP 38 BLOCK 14
1ST ELECTION DISTRICT

PARCEL 215
HOWARD COUNTY, MARYLAND

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STATE OF MARYLAND
ROBERT H. VOGEL
PE No. 16193

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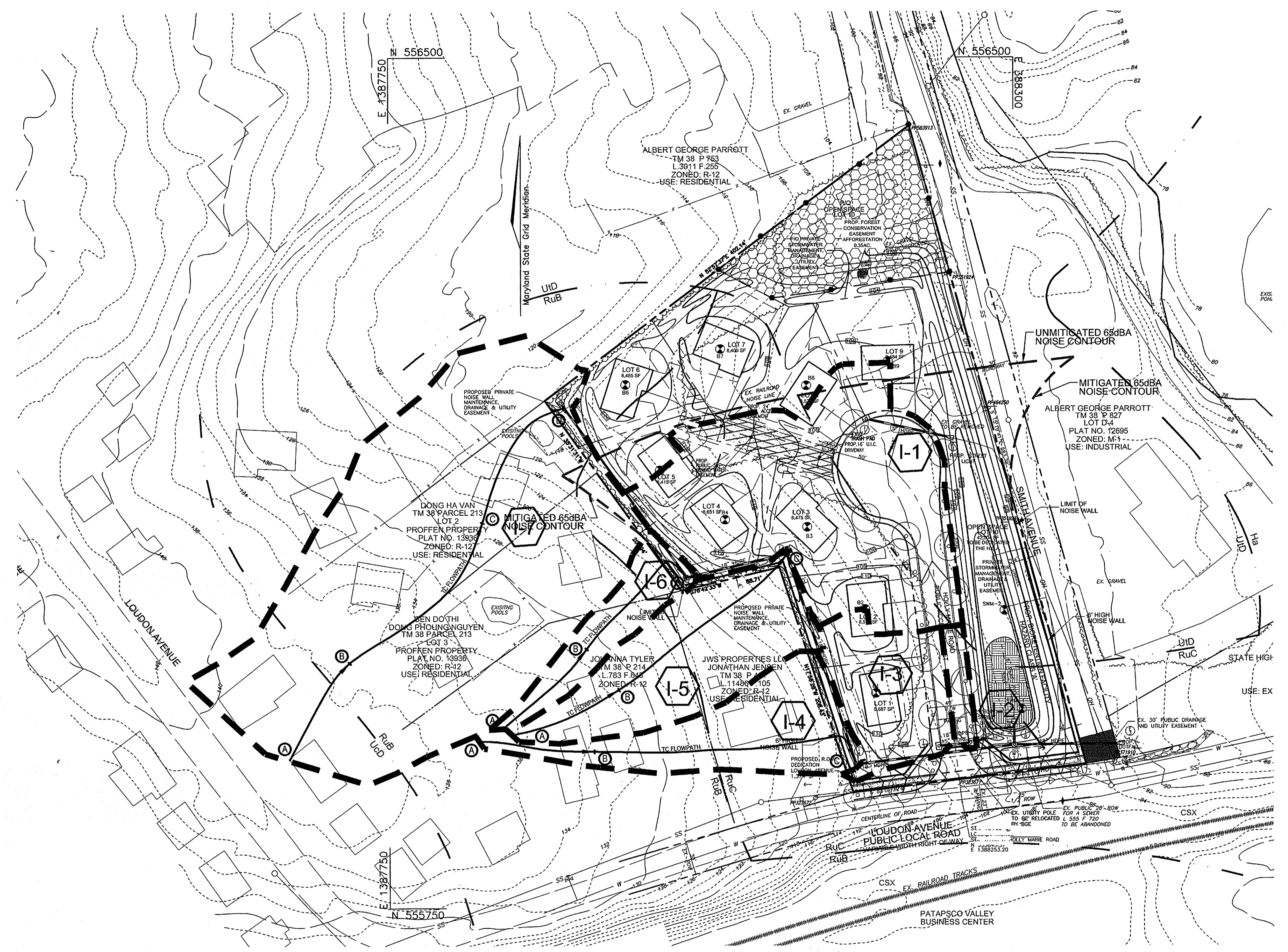
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3 SHEET OF 7

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Thomas S. Sullivan
PLANNING DIRECTOR
10/30/09
DATE

OWNER/DEVELOPER
MICHAEL L. PFAU
3675 PARK AVENUE
ELlicott CITY, MD 21043
PHONE 410-480-0023



PLAN
SCALE: 1"=50'

- LEGEND:**
- - - - - EXISTING CONTOUR
 - - - - - PROPOSED CONTOUR
 - + 402.88 PROPOSED SPOT ELEVATION
 - + 402.88 EXISTING SPOT ELEVATION
 - ==== EXISTING CURB AND GUTTER
 - ==== PROPOSED CURB AND GUTTER
 - ⊙ EXISTING UTILITY POLE
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 - ⊙ EXISTING FIRE HYDRANT
 - - - - - EXISTING WATER LINE
 - ==== PROPOSED STORM DRAIN
 - ==== PROPOSED STORM DRAIN INLET
 - ⊙ EXISTING TREES (FIELD LOCATED)
 - ⊙ EXISTING TREELINE (FIELD LOCATED)
 - ⊙ EXISTING VEGETATION (APPROXIMATE LOCATION)
 - ⊙ EXISTING STREET TREES (F-04-...)
 - - - - - EXISTING FENCE
 - - - - - PROPERTY LINE
 - - - - - RIGHT-OF-WAY LINE
 - MIB2 SOILS BOUNDARY
 - MID3
 - ==== PROPOSED SIDEWALK
 - SF SF SILT FENCE
 - SS SF SUPER SILT FENCE
 - LOD LOD LIMIT OF DISTURBANCE
 - CIP CURB INLET PROTECTION
 - AGIP AT GRADE INLET PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE

DRAINAGE AREA TABULATIONS

NO.	AREA	% C	% IMP.	SOIL TYPE	ZONE
I-1	0.99 AC.	0.38	-	C	R-12
I-2	0.05 AC.	0.59	-	C	R-12
I-3	0.28 AC.	0.35	-	C	R-12
I-4	0.36 AC.	0.29	-	C	R-12
I-5	0.48 AC.	0.29	-	C	R-12
I-6	0.17 AC.	0.29	-	C	R-12
I-7	1.86 AC.	0.29	-	C	R-12

NO.	REVISION	DATE

**PRELIMINARY PLAN
STORM DRAIN DRAINAGE
AREA MAP
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10**

TAX MAP 38 BLOCK 14 1ST ELECTION DISTRICT PARCEL 215 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
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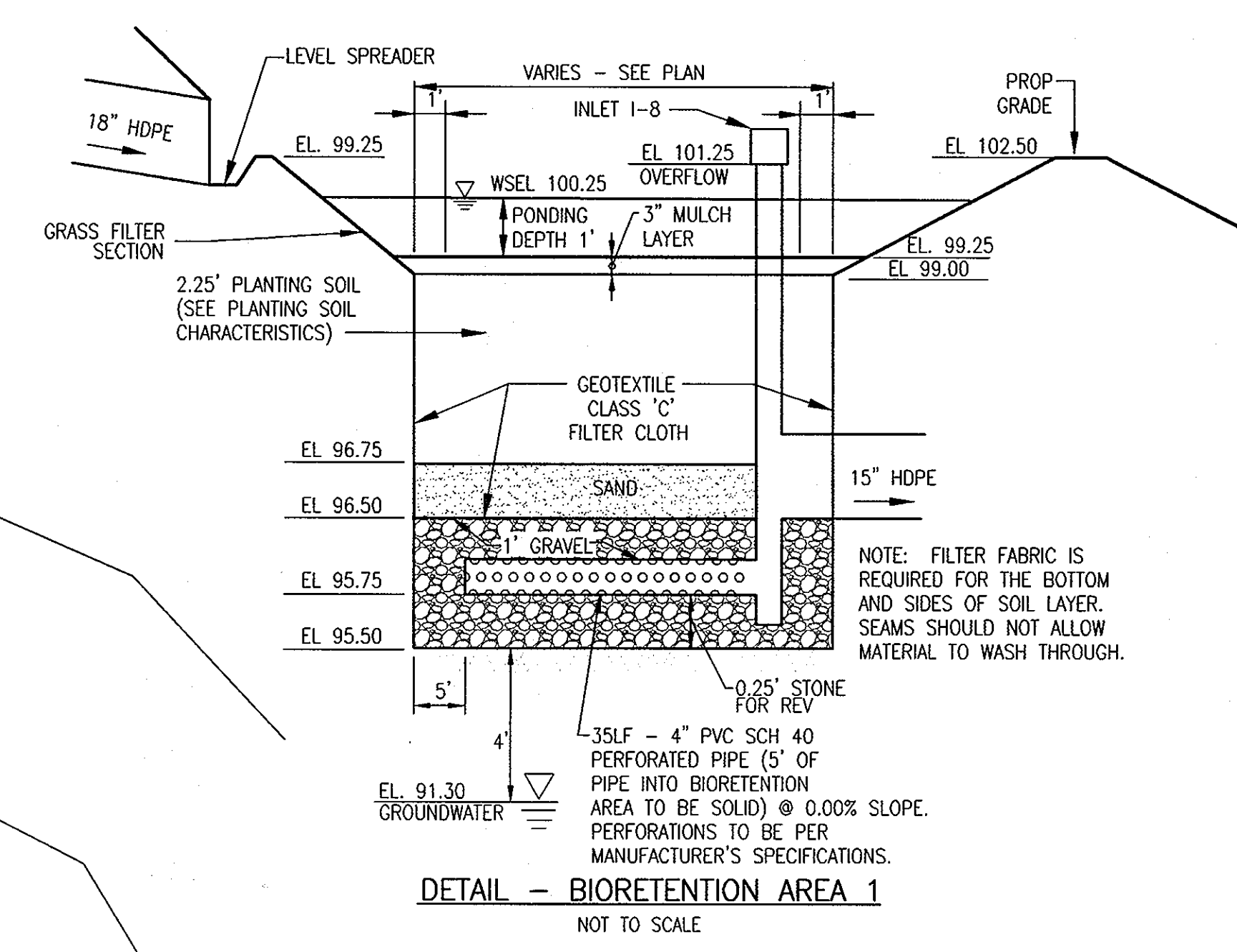
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4 SHEET OF 7

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Morgan E. Buttle
PLANNING DIRECTOR
11/20/09
DATE

OWNER/DEVELOPER
MICHAEL L. PFAU
3675 PARK AVENUE
ELLICOTT CITY, MD 21043
PHONE 410-480-0023



- LEGEND:**
- EXISTING CONTOUR
 - - - PROPOSED CONTOUR
 - + 40.00 PROPOSED SPOT ELEVATION
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 - CIP — CIP CURB INLET PROTECTION
 - AGIP — AGIP AT GRADE INLET PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - LOD — LOD LIMIT OF DISTURBANCE
 - EARTHSHAKE

PLAN VIEW
SCALE 1"=50'

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
RUC	RUSSETT AND BELTSVILLE SOILS, 5-10 PERCENT SLOPES	C
RUB	RUSSETT AND BELTSVILLE SOILS, 2-5 PERCENT SLOPES	D
UHD	URBAN LAND-UDORTHEMIS COMPLEX, 0-15 PERCENT SLOPES	D
UCD	URBAN LAND-CHILLUM-BELTSVILLE, 5-15 PERCENT SLOPES	D

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Thomas E. Butler
PLANNING DIRECTOR, DEP.

10/20/09
DATE

NO.	REVISION	DATE

PRELIMINARY PLAN
GRADING AND SEDIMENT EROSION
CONTROL PLAN
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10

TAX MAP 38 BLOCK 14
1ST ELECTION DISTRICT

PARCEL 215
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
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5 SHEET OF 7

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ROBERT H. VOGEL, PE No.16193

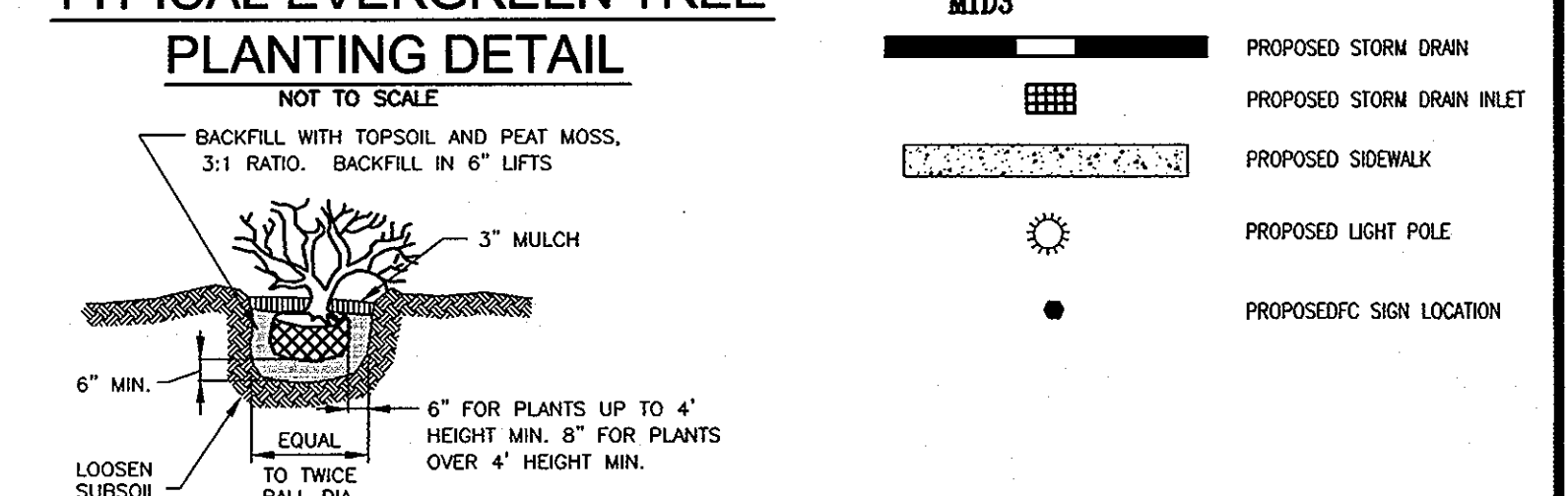
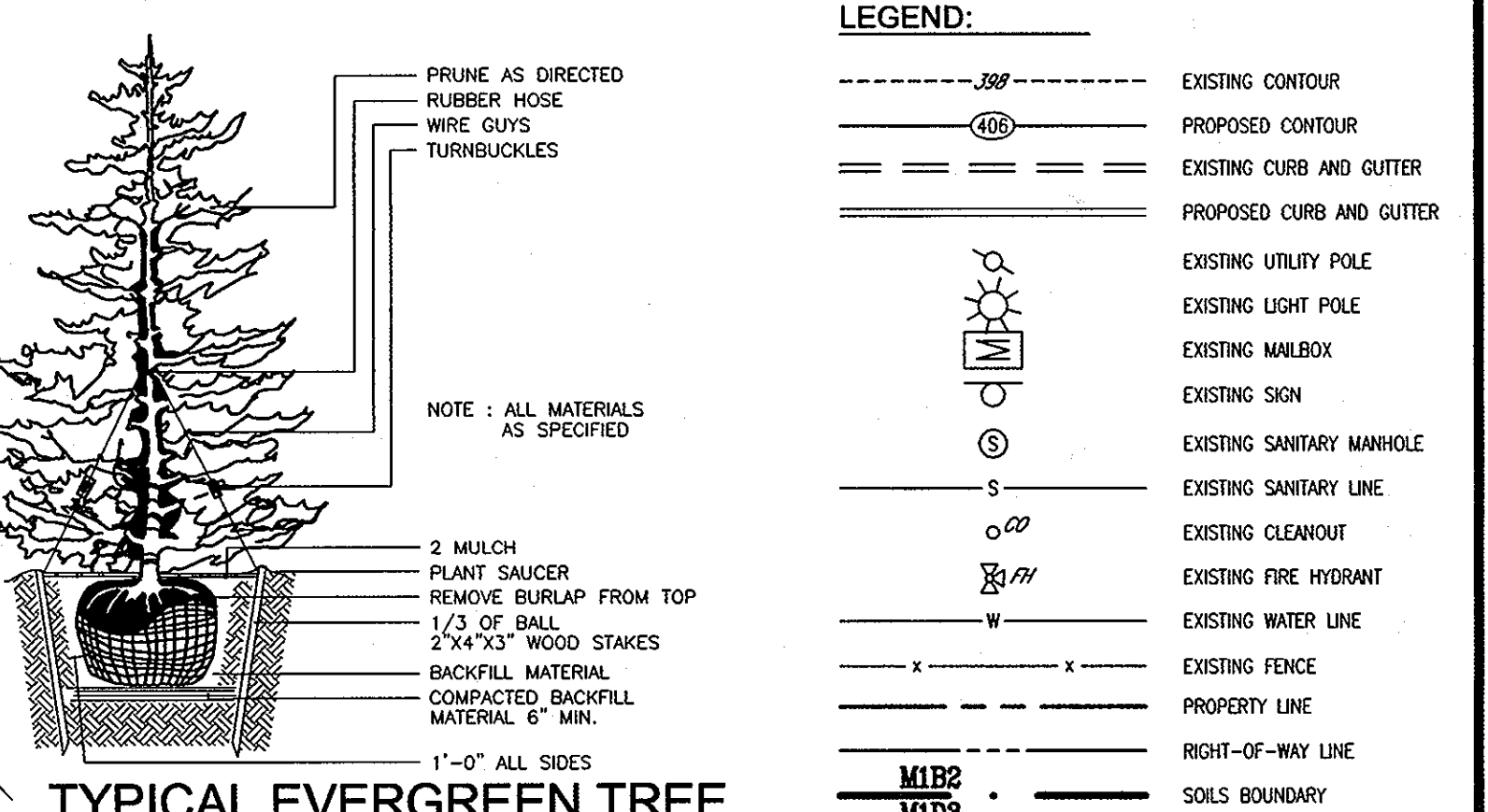
LANDSCAPE NOTES

AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

NO LANDSCAPING TO BE INSTALLED WITHIN ANY PUBLIC EASEMENT FOR WATER, SEWER OR STORM DRAIN.

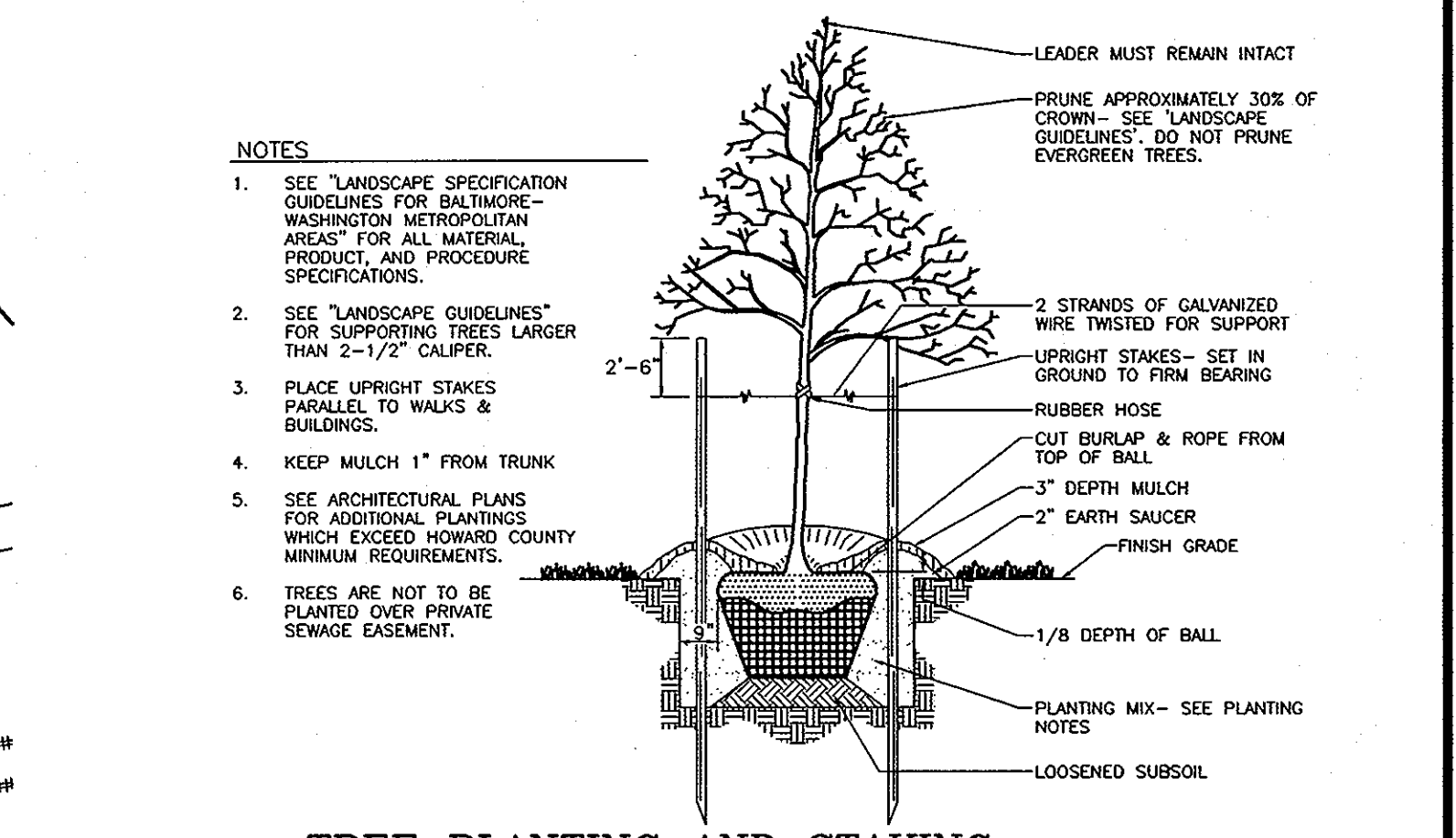
STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(c)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR TOTAL REQUIRED 20 PUBLIC STREET TREES.

FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING PROVIDED PER THE LANDSCAPE MANUAL TO BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 22 SHADE TREES, 15 EVERGREEN TREES AND 5 SHRUBS IN THE AMOUNT OF \$8,000.00. THE UNIT PRICES TO BE USED FOR ESTABLISHING REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE ADOPTED COUNTY FEE SCHEDULE WHICH IS \$300.00 PER SHADE TREE, \$150.00 PER EVERGREEN/ORNAMENTAL TREE AND \$30.00 PER SHRUB.



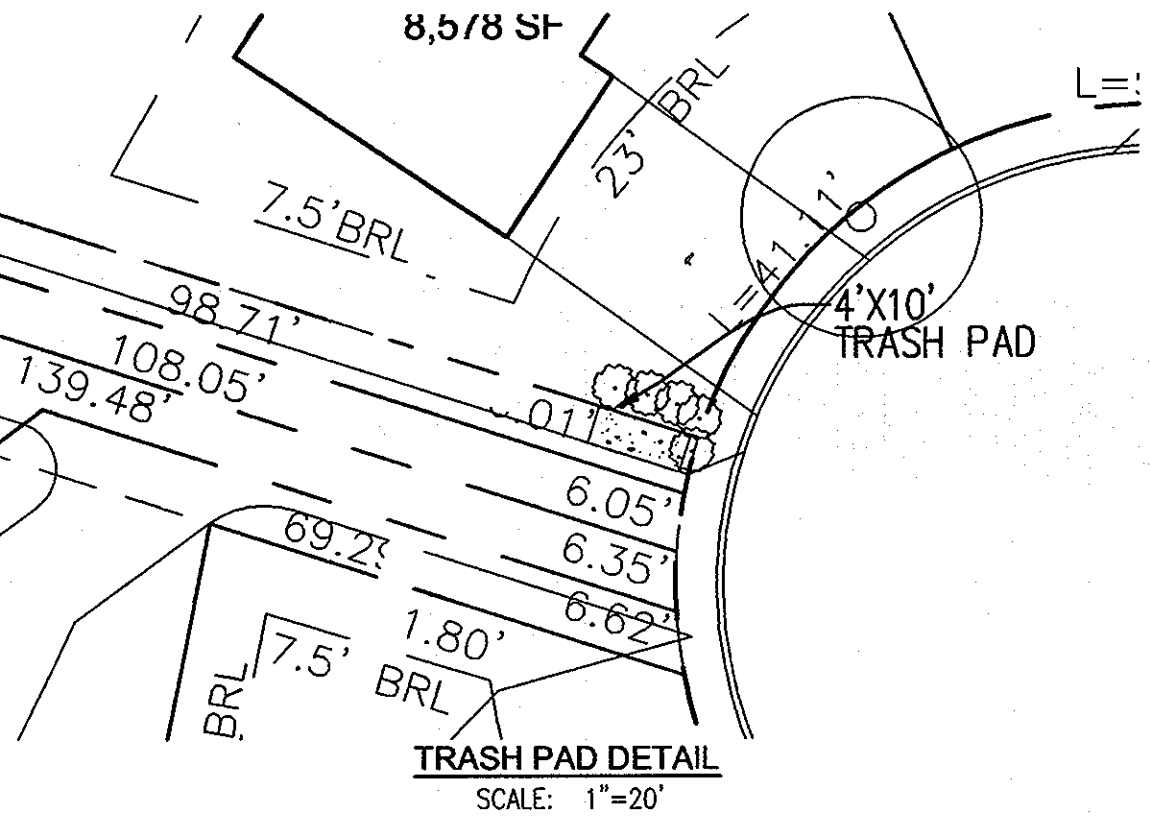
TRASH PAD LANDSCAPING

SYM.	QTY.	DESCRIPTION	SIZE	REM.
⊙	5	DWARF JAPANESE YEW	3'-4\"/>	



TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2\"/>

NO.	REVISION	DATE



STREET TREES CHART

NUMBER OF STREET TREES REQUIRED	NUMBER OF TREES PROVIDED
HOLLY MARIE ROAD-15(600LF/40)	15
LOUDON AVENUE-5(200LF/40)	5

STREET TREES ALONG LOUDON AVENUE SHALL BE SMALL TREES (25\"/>

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES					TRASH PAD SCREENING	TOTAL
	1	2	3	4	5		
PERIMETER/FRONTAGE DESIGNATION	1	2	3	4	5	-	-
LANDSCAPE TYPE	A	A	A	A	B	-	-
LINEAR FEET OF ROADWAY, PERIMETER/FRONTAGE	209	89	206	402	584	-	-
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	209*	89*	-	-	240*	-	-
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	-	-	-	-	-	-	-
NUMBER OF PLANTS REQUIRED (LF REMAINING)	0	0	206	402	584	-	REQUIRED
SHADE TREES	N/A	N/A	1:60 3	1:60 7	1:50 12	-	22
EVERGREEN TREES	-	-	-	-	1:40 15	-	15
SHRUBS	-	-	-	-	-	5	5
NUMBER OF PLANTS PROVIDED	0	0	3	7	12	-	22
SHADE TREES	-	-	-	-	-	-	15
EVERGREEN TREES	-	-	-	-	-	-	15
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	-	15
SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	-	-	-	-	-	5	5

*CREDIT FOR 6\"/>

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
RuC	RUSSETT AND BELTSVILLE SOILS, 5-10 PERCENT SLOPES	C
UD	URBAN LAND-UDORTHERMS COMPLEX, 0-15 PERCENT SLOPES	D

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

M. E. Sutler
PLANNING DIRECTOR

10/30/09
DATE

J. O. Ogle
DNR, QUALIFIED FOREST PROFESSIONAL
J. CHRIS OGLE

OWNER/DEVELOPER
MICHAEL L. PFAU
3675 PARK AVENUE
ELLCOTT CITY, MD 21043
PHONE 410-480-0023

PRELIMINARY PLAN
LANDSCAPE AND FOREST
CONSERVATION PLAN
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10

TAX MAP 38 BLOCK 14
1ST ELECTION DISTRICT

PARCEL 215
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
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FAX: 410.461.8961

DESIGN BY: JCO
DRAWN BY: KG
CHECKED BY: RHV
DATE: OCTOBER 2009
SCALE: AS SHOWN
W.O. NO.: 05-61

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 EXPIRATION DATE: 09-27-2010

6 SHEET OF 7

HOWARD COUNTY
FOREST CONSERVATION WORKSHEET

ZONED R-ED	
NET TRACT AREA:	
A. TOTAL TRACT AREA	3.23 AC
B. AREA WITHIN 100 YEAR FLOODPLAIN	0.00 AC
C. NET TRACT AREA	3.23 AC
LAND USE CATEGORY	
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-12.	
ARA MDR IDA HDR MPD CIA	
0 0 0 0 1 0 0	
E. AFFORESTATION THRESHOLD	15% X D = 0.48 AC.
F. CONSERVATION THRESHOLD	20% X D = 0.65 AC.
EXISTING FOREST COVER:	
G. EXISTING FOREST COVER	0.00 AC.
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD	0.00 AC.
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD	0.00 AC.
BREAK EVEN POINT:	
J. BREAK EVEN POINT	0.00 AC.
K. CLEARING PERMITTED WITHOUT MITIGATION	0.00 AC.
PROPOSED FOREST COVER:	
L. TOTAL AREA OF FOREST TO BE CLEARED	0.00 AC.
M. TOTAL AREA OF FOREST TO BE RETAINED	0.00 AC.
N. AFFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0.00 AC.
O. AFFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	0.00 AC.
P. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0.00 AC.
Q. TOTAL AFFORESTATION REQUIRED (N+P-O)	0.00 AC.
R. TOTAL AFFORESTATION REQUIRED (N+P-O)	0.48 AC.
S. TOTAL AFFORESTATION REQUIRED	0.48 AC.
T. TOTAL AFFORESTATION AND AFFORESTATION REQUIRED	0.48 AC.

FOREST CONSERVATION OBLIGATIONS FOR THE REQUIRED 0.48 AC. of Afforestation in ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL SHALL BE FULFILLED BY PLACEMENT OF 0.35 ACRES OF AFFORESTATION ON-SITE AND THE REMAINING 0.13 ACRES IN AN OFF-SITE FOREST BANK LOCATED ON THE TRINITY HOMES AT CYPRESS SPRINGS PROPERTY, TAX MAP 38, PARCELS 42, 44, 45 AND 46.

AFFORESTATION PLANTING NOTES

- AFFORESTATION AREAS MAY BE PLANTED AS SOON AS REASONABLE TO DO SO. LATE WINTER-EARLY SPRING PLANTINGS ARE PREFERRED. EARLIEST PLANTING DATES WILL VARY FROM YEAR TO YEAR BUT PLANTING MAY GENERALLY BEGIN AS SOON AS THE GROUND IS NO LONGER FROZEN. ALTERNATE PLANTING DATES MAY BE CONSIDERED AS CONDITION WARRANTS.
- SOIL AMENDMENTS AND FERTILIZATION RECOMMENDATIONS WILL BE MADE BASED UPON THE RESULTS OF SOIL ANALYSIS FOR NITROGEN, PHOSPHORUS, POTASSIUM, ORGANIC MATTER CONTENT AND PH. IF REQUIRED, FERTILIZER WILL BE PROVIDED USING A SLOW RELEASE, SOLUBLE 16-8-16 ANALYSIS DESIGNED TO LAST 5-8 YEARS CONTAINED IN POLYETHYLENE PERFORATED BAGS SUCH AS MANUFACTURED BY ADCO WORKS, P.O. BOX 310 HOLLIS, N.Y. 11423 OR APPROVED EQUAL.
- PLANT MATERIALS WILL BE PLANTED IN ACCORDANCE WITH THE PLANTING DETAILS AND PLANT SCHEDULE.
- PLANT MATERIAL SHALL BE NURSERY GROWN AND INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO THE AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATIONS FOR SIZE, FORM, VIGOR, OR ROOTS, OR DUE TO TRUNK WOUNDS, BREAKAGE, DESICCATION, INSECT OR DISEASE MUST BE REPLACED.
- PLANTING STOCK MUST BE PROTECTED FROM DESICCATION AT ALL TIMES PRIOR TO PLANTING. MATERIALS HELD FOR PLANTING SHALL BE MOISTENED AND PLACED IN COOL SHADED AREAS UNTIL READY FOR PLACEMENT.
- NEWLY PLANTED TREES MAY REQUIRE WATERING AS LEAST ONCE PER WEEK DURING THE FIRST GROWING SEASON DEPENDING ON RAINFALL IN ORDER TO GET ESTABLISHED. THE INITIAL PLANTING OPERATION SHOULD ALLOW FOR WATERING DURING INSTALLATION TO COMPLETELY SOAK BACKFILL MATERIAL.
- MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE DIAGRAM PROVIDED AND SHALL CONSIST OF COMPOSTED, SHREDDED HARDWOOD BARK MULCH, FREE OF WOOD ALCOHOL.
- ALL NURSERY STOCK TO BE SPRAYED WITH DEER REPELLENT CONTAINING BITREX, SUCH AS REPELLEX. ALL NURSERY STOCK TO BE GROWN WITH DEER REPELLENT TABLETS IN GROWING MEDIUM, SUCH AS REPELLEX TABLETS.

AFFORESTATION AREA MONITORING NOTES

- MONTHLY VISITS DURING THE FIRST GROWING SEASON ARE TO ASSESS THE SUCCESS OF THE PLANTINGS AND TO DETERMINE IF SUPPLEMENTAL WATERING, PEST CONTROL OR OTHER ACTIONS ARE NECESSARY. EARLY SPRING VISITS WILL DOCUMENT WINTER KILL AND AUTUMN VISITS WILL DOCUMENT SUMMER KILL.
- THE MINIMUM SURVIVAL RATE SHALL BE 75% OF THE TOTAL NUMBER OF TREES PLANTED PER ACRE AT THE END OF THE TWO YEAR MAINTENANCE PERIOD. WILD TREE SEEDLINGS FROM NATURAL REGENERATION ON THE PLANTING SITE MAY BE COUNTED UP TO 50% TOWARD THE TOTAL SURVIVAL NUMBER IF THE ARE HEALTHY NATIVE SPECIES AT LEAST 12 INCHES TALL.
- SURVIVAL WILL BE DETERMINED BY A STRATIFIED RANDOM SAMPLING OF THE PLANTINGS. THE SPECIES COMPOSITION OF THE SAMPLE POPULATION SHOULD BE PROPORTIONATE TO THE AMOUNT OF EACH SPECIES IN THE ENTIRE PLANTING TO BE SAMPLED.
- EFFECTIVE MONITORING WILL ASSESS PLANT SURVIVABILITY DURING THE FIRST GROWING SEASON AND MAKE RECOMMENDATIONS FOR REINFORCEMENT PLANTINGS IF REQUIRED AT THAT TIME.

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

- PRECONSTRUCTION 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 PLANNING AND ZONING.
- PROCEED WITH TREE REMOVAL AND SITE IMPROVEMENTS AS PER APPROVED SEDIMENT CONTROL PLAN - TO BE INSPECTED BY HOWARD COUNTY PLANNING AND ZONING.
- 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.

Size	Number Required per Acre	Approximate Spacing feet on center	Survivability Requirement At the end of the third growing season	
Bare Root Seedlings or Whips	700	8 x 8	55%	385
Container Grown Seedling Tubes (Minimum Cavity Width 1.5")	450	10 x 10	85%	260
Container Grown 1, 2, 3 Gallon Seedlings or Whips w/ Tree Shelters	350	11 x 11	75%	260
Container Grown 5, 7 Gallon or 1" Caliper B & B	200	15 x 15	75%	170
Container Grown 15, 25 Gallon or 2" Caliper B & B	100	20 x 20	100%	100

Notes:

- These stocking and survival requirements are the minimum numbers estimated to meet the definition of forest from bare land.
- In certain circumstances, any combination of the above mentioned stocking options, dry seeding, tree shelters, transplants, and/or natural regeneration may be appropriate strategies to fulfill the requirements of an approved FCD. They will be evaluated on a case-by-case basis by the approving authority.
- Spacing does not imply that trees or shrubs must be planted in a grid pattern.

Site Stocking Figure A:18

Typical Forest Tree Distribution Patterns

Random Positive Association Nonrandom Negative Association Clumped

Aggregate Distribution Drift

Mixing Transplant Stock

Planting Distribution Patterns Figure A:19

Undisturbed Soil

Disturbed Soil

Planting on Slope

Container Grown and B&B Planting Techniques Figure D:16

PLANT SCHEDULE			
QUANTITIES FOR AFFORESTATION AREAS			
BOTANICAL NAME	AREA 1	SIZE	SPACING (FT)
Acer rubrum	15	1" Cal.	15 X 15
Red Maple			
Liquidambar styraciflua	15	1" Cal.	15 X 15
American Sweetgum			
Platanus occidentalis	15	1" Cal.	15 X 15
Sycamore			
Prunus serotina	15	1" Cal.	15 X 15
Black Cherry			
Quercus palustris	10	1" Cal.	15 X 15
Pin Oak			

AFFORESTATION PROVIDED - AREA-1

0.35 ACRES 1" CALIPER TREES
70 TREES @ 200 TREES PER ACRE

NO.	REVISION	DATE

PRELIMINARY PLAN
FOREST CONSERVATION DETAILS
EAGLE VALLEY
LOTS 1-9 AND OPEN SPACE LOT 10

TAX MAP 38 BLOCK 14 PARCEL 215
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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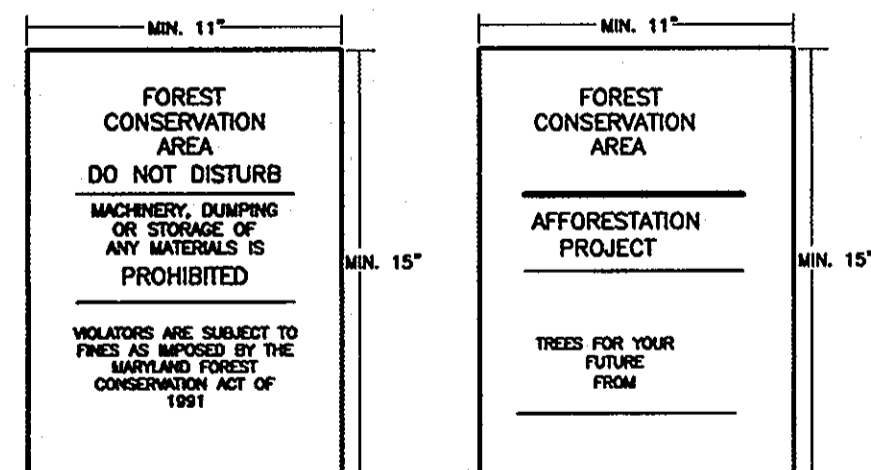
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7 SHEET OF 7

CONTAINER PLANTING NOT TO SCALE

PLANTING PROCEDURE FOR CONTAINER GROWN PLANTS

- REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
- USE A KNIFE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL
- PLANT SHOULD BE 4" ABOVE THE EXISTING GRADE WITH HIGH WATER TABLE CONDITIONS EXIST, OTHERWISE PLANT FLUSH WITH EXISTING GRADE
- PLANTING HOLE TO BE THREE TIMES THE DIAMETER OF THE CONTAINER



- 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.

SIGNAGE DETAIL
NOT TO SCALE

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR *Donna J. Buttle* 10/30/09 DATE

J. Chris Ogle
DNR/QUALIFIED FOREST PROFESSIONAL
J. CHRIS OGLE

OWNER/DEVELOPER
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