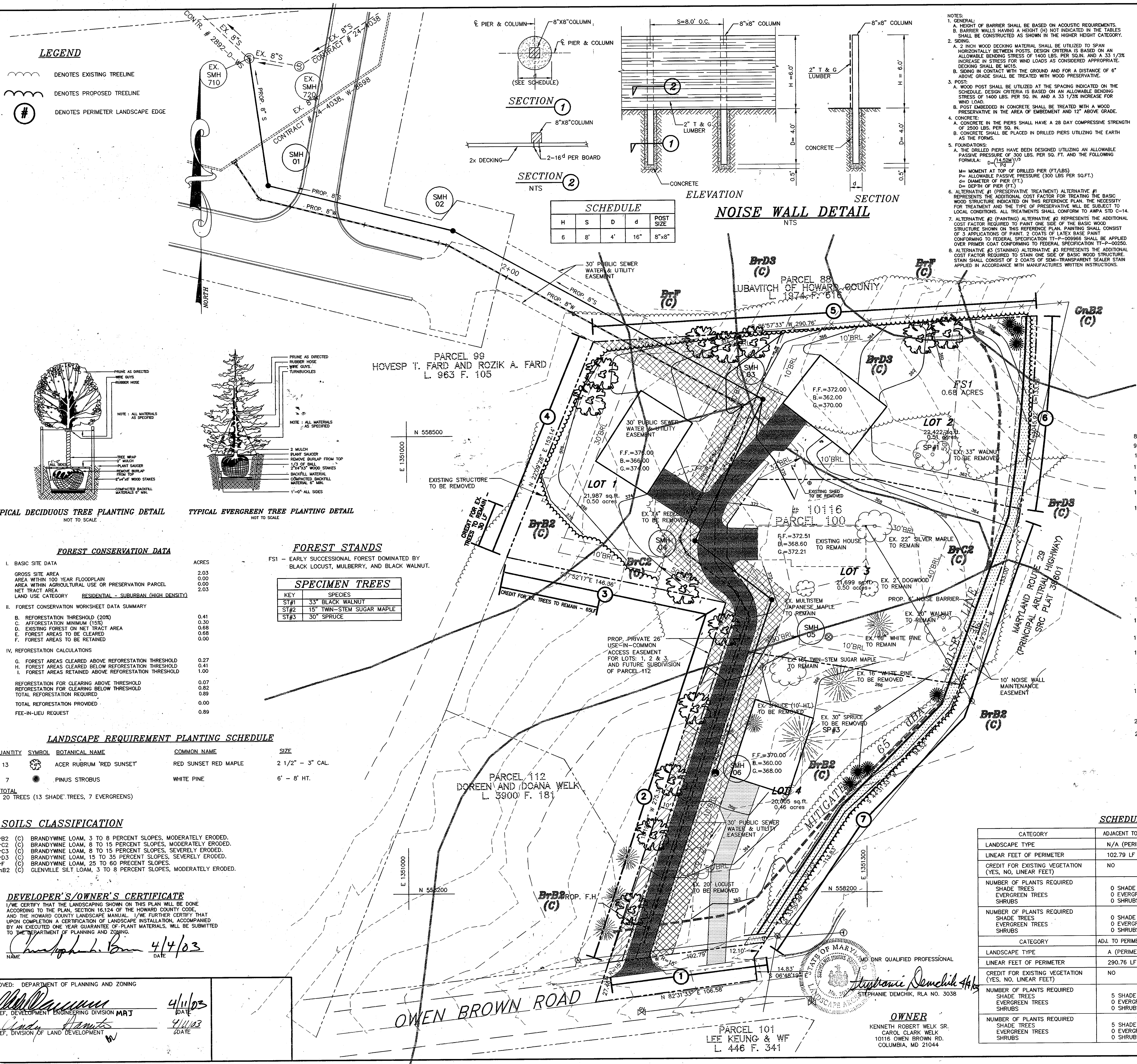


date	MARCH 03	description	approval
project	01-057	illustration	MMP
engineering		MMP	approval
scale	1"=30'		

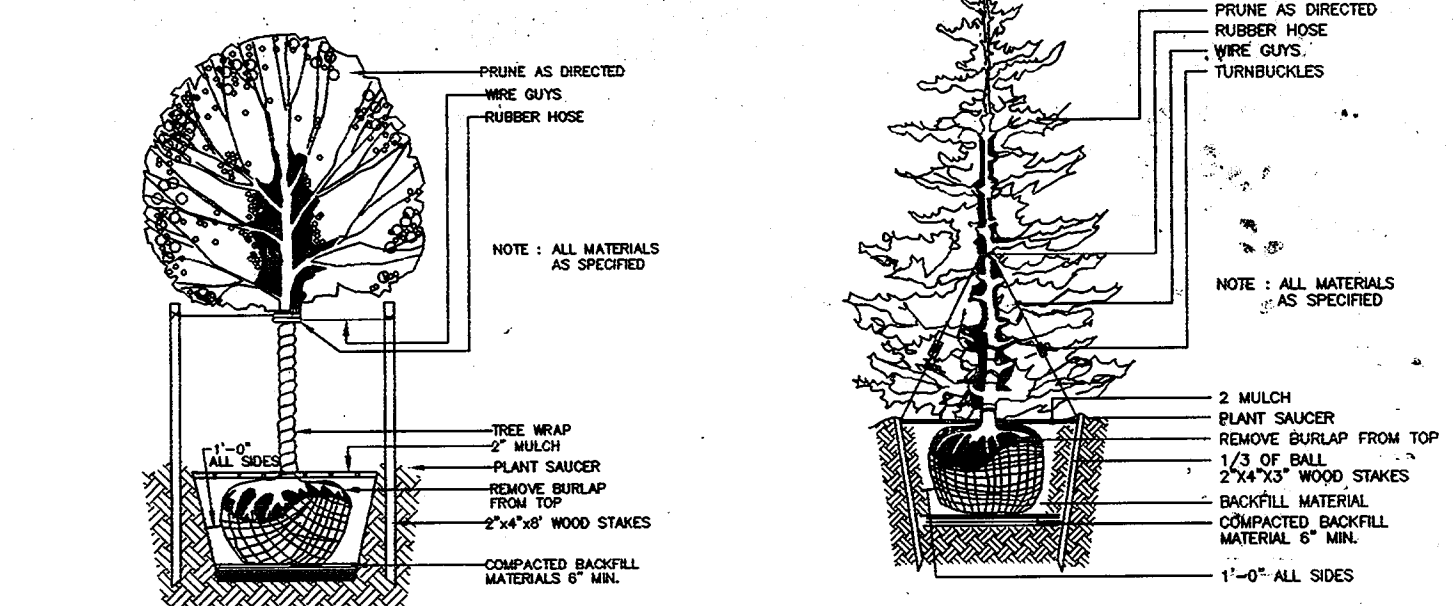
**WELK PROPERTY**  
 TAX MAP 36, BLOCK 13, PARCEL 100  
 HOWARD COUNTY, MARYLAND  
**SUPPLEMENTAL AND LANDSCAPE PLAN**  
 FIFTH ELECTION DISTRICT

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Surveyors  
 Engineers  
 5072 Drexel Hill Drive, Suite 202, Pikesville, Maryland 21042  
 (410) 997-0296 Fax: (301) 621-5621



**LEGEND**

- DENOTES EXISTING TREELINE
- - - DENOTES PROPOSED TREELINE
- # DENOTES PERIMETER LANDSCAPE EDGE



**FOREST CONSERVATION DATA**

ACRES	ACRES
I. BASIC SITE DATA	
GROSS SITE AREA	2.03
AREA WITHIN 100 YEAR FLOODPLAIN	0.00
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00
NET TRACT AREA	2.03
LAND USE CATEGORY	RESIDENTIAL - SUBURBAN (HIGH DENSITY)
II. FOREST CONSERVATION WORKSHEET DATA SUMMARY	
B. REFORESTATION THRESHOLD (20%)	0.41
C. AFForestation MINIMUM (15%)	0.30
D. EXISTING FOREST ON NET TRACT AREA	0.68
E. FOREST AREAS TO BE CLEARED	0.68
F. FOREST AREAS TO BE RETAINED	0.00
IV. REFORESTATION CALCULATIONS	
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	0.27
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.41
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	1.00
REFORESTATION FOR CLEARING ABOVE THRESHOLD	0.07
REFORESTATION FOR CLEARING BELOW THRESHOLD	0.82
TOTAL REFORESTATION REQUIRED	0.89
TOTAL REFORESTATION PROVIDED	0.00
FEE-IN-LIEU REQUEST	0.89

**FOREST STANDS**

FS1 - EARLY SUCCESSIONAL FOREST DOMINATED BY BLACK LOCUST, MULBERRY, AND BLACK WALNUT.

**SPECIMEN TREES**

KEY	SPECIES
ST#1	33' BLACK WALNUT
ST#2	15' TWIN-STEM SUGAR MAPLE
ST#3	30' SPRUCE

**LANDSCAPE REQUIREMENT PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
13	☉	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
7	●	PINUS STROBUS	WHITE PINE	6' - 8' HT.
TOTAL				
20 TREES (13 SHADE TREES, 7 EVERGREENS)				

**SOILS CLASSIFICATION**

BrB2 (C) BRANDYWINE LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.  
 BrC2 (C) BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED.  
 BrC3 (C) BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED.  
 BrD3 (C) BRANDYWINE LOAM, 15 TO 35 PERCENT SLOPES, SEVERELY ERODED.  
 BrF (C) BRANDYWINE LOAM, 25 TO 35 PERCENT SLOPES.  
 GsB2 (C) GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED.

**DEVELOPER'S OWNER'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 YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: *Stephanie Demchik* DATE: 4/14/03

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 4/11/03

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 4/11/03

**NOTES:**

- GENERAL:
  - HEIGHT OF BARRIER SHALL BE BASED ON ACOUSTIC REQUIREMENTS.
  - BARRIER WALLS HAVING A HEIGHT (H) NOT INDICATED IN THE TABLES SHALL BE CONSTRUCTED AS SHOWN IN THE HIGHER HEIGHT CATEGORY.
- SIDING:
  - 2" HIGH WOOD DECKING MATERIAL SHALL BE UTILIZED TO SPAN HORIZONTALLY BETWEEN POSTS. DESIGN CRITERIA IS BASED ON AN ALLOWABLE BENDING STRESS OF 1400 LBS. PER SQ. IN. AND A 33 1/3% INCREASE IN STRESS FOR WIND LOADS AS CONSIDERED APPROPRIATE. DECKING SHALL BE N.C.S.
  - SIDING IN CONTACT WITH THE GROUND AND FOR A DISTANCE OF 6" ABOVE GRADE SHALL BE TREATED WITH WOOD PRESERVATIVE.
- POSTS:
  - WOOD POST SHALL BE UTILIZED AT THE SPACING INDICATED ON THE SCHEDULE. DESIGN CRITERIA IS BASED ON AN ALLOWABLE BENDING STRESS OF 2500 LBS. PER SQ. IN. AND A 33 1/3% INCREASE FOR WIND LOAD.
  - POST EMBEDDED IN CONCRETE SHALL BE TREATED WITH A WOOD PRESERVATIVE IN THE AREA OF EMBEDMENT AND 12" ABOVE GRADE.
- CONCRETE:
  - CONCRETE IN THE PIERS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 2500 LBS. PER SQ. IN.
  - CONCRETE SHALL BE PLACED IN DRILLED PIERS UTILIZING THE EARTH AS THE FORMS.
- FOUNDATIONS:
  - THE DRILLED PIERS HAVE BEEN DESIGNED UTILIZING AN ALLOWABLE PASSIVE PRESSURE OF 300 LBS. PER SQ. FT. AND THE FOLLOWING FORMULA:  $D = \sqrt{\frac{M \times 1.5}{P}}$
  - M = MOMENT AT TOP OF DRILLED PIER (FT.LBS)
  - P = ALLOWABLE PASSIVE PRESSURE (300 LBS PER SQ.FT.)
  - d = DIAMETER OF PIER (FT.)
  - D = DEPTH OF PIER (FT.)
- ALTERNATIVE #1 (PRESERVATIVE TREATMENT) ALTERNATIVE #1 REPRESENTS THE ADDITIONAL COST FACTOR FOR TREATING THE BASIC WOOD STRUCTURE INDICATED ON THIS REFERENCE PLAN. THE NECESSITY FOR TREATMENT AND THE TYPE OF PRESERVATIVE WILL BE SUBJECT TO LOCAL CONDITIONS. ALL TREATMENTS SHALL CONFORM TO AWPA STD. C-14.
- ALTERNATIVE #2 (PAINTING) ALTERNATIVE #2 REPRESENTS THE ADDITIONAL COST FACTOR REQUIRED TO PAINT ONE SIDE OF THE BASIC WOOD STRUCTURE SHOWN ON THIS REFERENCE PLAN. PAINTING SHALL BE CONSIST OF 3 APPLICATIONS OF PAINT. 2 COATS OF LATEX BASE PAINT CONFORMING TO FEDERAL SPECIFICATION TT-P-009698 SHALL BE APPLIED OVER PRIMER COAT CONFORMING TO FEDERAL SPECIFICATION TT-P-00250.
- ALTERNATIVE #3 (STAINING) ALTERNATIVE #3 REPRESENTS THE ADDITIONAL COST FACTOR REQUIRED TO STAIN ONE SIDE OF BASIC WOOD STRUCTURE. STAIN SHALL CONSIST OF 2 COATS OF SEMI-TRANSPARENT SEALER STAIN APPLIED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

**GENERAL NOTES**

- SITE DATA:
  - TAX MAP : 36, PARCEL : 100, BLOCK : 13.
  - DEED REFERENCE : 1996/262.
  - AREA OF SITE : 2.03 ACRES.
  - ZONING : R-20.
  - AREA OF POTENTIAL WETLANDS : N/A.
  - AREA IN ROW DEDICATION : 0.06 ACRES.
  - MINIMUM LOT SIZE : 20,000 SQ. FT.
  - NUMBER OF PROPOSED LOTS : 4.
  - AREA OF PROPOSED LOTS : 1.97 ACRES.
- TOPOGRAPHIC DATA SHOWN HEREON IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY CONDUCTED IN AUGUST 2002 BY MILDENBERG, BOENDER & ASSOCIATES, INC.
- BOUNDARY SHOWN HEREON BASED ON FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED ON OR ABOUT AUGUST 2002 BY MILDENBERG, BOENDER & ASSOCIATES, INC.
- NO WETLANDS, STREAMS, FLOODPLAIN, OR STEEP SLOPES EXIST ON-SITE.
- THIS PROJECT IS EXEMPT FROM APFO ROAD TEST REQUIREMENTS. NO AT GRADE INTERSECTIONS OF MAJOR - MAJOR COLLECTOR OR HIGHER CLASSIFICATION ROADS EXISTS WITHIN A MILE AND A HALF OF THE SITE.
- NO WETLANDS EXIST ON-SITE PER FIELD INVESTIGATION BY MILDENBERG, BOENDER AND ASSOC. INC IN OCTOBER 2002.
- THE FOREST CONSERVATION OBLIGATION OF 0.89 ACRES (39,768.4 SQ. FT.) OF REFORESTATION WILL BE MET VIA PAYMENT OF A FEE-IN-LIEU OF REFORESTATION IN THE AMOUNT OF \$4,500.00 FOR LOTS 1, 2 AND 4. PER THE REQUIREMENTS OF SECTION 16.120 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- THIS SUBDIVISION IS IN THE METROPOLITAN DISTRICT.
- STORMWATER MANAGEMENT REQUIREMENTS WILL BE SATISFIED VIA ON-SITE NON-STRUCTURAL PRACTICES.
- DENOTES WATER, SEWER & UTILITY EASEMENT.
- DENOTES USE-IN-COMMON ACCESS EASEMENT
- DENOTES NOISE WALL MAINTENANCE EASEMENT
- THE OPEN SPACE REQUIREMENT, BASED ON THE CREATION OF THREE NEW LOTS, WILL BE SATISFIED BY PAYMENT OF A FEE-IN-LIEU OF REFORESTATION IN THE AMOUNT OF \$4,500.00 FOR LOTS 1, 2 AND 4.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENT).
  - SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - STRUCTURE CLEARANCES - MINIMUM 12 FEET
  - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- FOR FLAG OR PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT TO THE PIPESTEM LOT DRIVEWAY.
- PUBLIC WATER AND SEWER SYSTEMS WILL BE UTILIZED VIA WATER AND SEWER CONTRACT # 24-416-D
- A SITE DEVELOPMENT PLAN IS REQUIRED FOR LOTS 1, 2, AND 4.
- LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL HAS BEEN PROVIDED IN ACCORDANCE WITH THIS CERTIFIED LANDSCAPE PLAN. LOT 3 IS EXEMPT FROM LANDSCAPING SINCE IT CONTAINS AN EXISTING HOUSE. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING (13 SHADE TREES) HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$3,900.00.
- THERE IS AN EXISTING DWELLING LOCATED ON LOT 3 TO REMAIN, KNOWN AS 10116 OWEN BROWN ROAD, COLUMBIA, MARYLAND 21044. NO NEW BUILDINGS, EXTENSIONS, OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE.
- NOISE WALL WILL BE MAINTAINED BY HOMEOWNERS OF LOTS 1 THRU 4.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTING HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTING MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. DEVIATION FROM THIS 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 APPLICABLE PLANS AND CERTIFICATES.

**SCHEDULE A : PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES		
	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	
LANDSCAPE TYPE	N/A (PERIMETER 1)				
LINEAR FEET OF PERIMETER	102.79 LF	247.93 LF	146.36 LF	152.14 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	YES, 65 LF OF EXISTING TREES	YES, 30 LF OF EXISTING TREES	
NUMBER OF PLANTS REQUIRED					
SHADE TREES	0	5	1	2	
EVERGREEN TREES	0	5	0	0	
SHRUBS	0	0	0	0	
NUMBER OF PLANTS REQUIRED					
SHADE TREES	0	5	1	2	
EVERGREEN TREES	0	5	0	0	
SHRUBS	0	0	0	0	
CATEGORY	ADJ. TO PERIMETER PROPERTIES		ADJACENT TO ROADWAYS		TOTAL
LANDSCAPE TYPE	A (PERIMETER 5)	B (PERIMETER 6)	B (PERIMETER 7)		
LINEAR FEET OF PERIMETER	290.76 LF	128.26 LF	213.83 LF		
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	CREDIT FOR PROPOSED 6' WALL	CREDIT FOR PROPOSED 6' WALL		
NUMBER OF PLANTS REQUIRED					
SHADE TREES	5	0	0	13	
EVERGREEN TREES	0	0	0	0	
SHRUBS	0	0	0	0	
NUMBER OF PLANTS REQUIRED					
SHADE TREES	5	0	0	13	
EVERGREEN TREES	0	0	0	0	
SHRUBS	0	0	0	0	

STEPHANIE DEMCHIK, RLA No. 3038  
 LANDSCAPE ARCHITECT

**OWNER**  
 KENNETH ROBERT WELK SR.  
 CAROL CLARK WELK  
 10116 OWEN BROWN RD.  
 COLUMBIA, MD 21044