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# FINAL ROAD CONSTRUCTION PLAN WORTHINGTON FIELDS

## PHASE 3 LOTS 50-54 AND NON-BUILDABLE 'PARCEL B-2' A RESUBDIVISION OF NON-BUILDABLE PARCEL 'B-1' PHASE 2 HOWARD COUNTY, MARYLAND

DENSITY TABULATION						
PHASE	GROSS AREA	FLOODPLAIN	STEEP SLOPES	NET AREA	UNITS ALLOWED	TOTAL UNITS REMAINING
TOTAL	83.27 AC (R-ED) 4.42 AC (POR)**	1.62 AC 0.00 AC	8.36 AC 0.00 AC	73.29 AC 4.42 AC	146 D.U. N/A	144 D.U. N/A
1 (F-01-60)	50.46 AC (R-ED)***	1.62 AC	8.36 AC	40.48 AC	80 D.U.	102 D.U.
2 (F-01-206)	0.89 AC (R-ED)***	0.00 AC	0.00 AC	0.89 AC	1 D.U.	99 D.U.
3 (F-02-170)	2.06 AC (R-ED)***	0.00 AC	0.00 AC	2.06 AC	4 D.U.	94 D.U.
4						
5						
6						
7						
8						
9						

\*THE POR ZONED AREA RECORDED AS NON-BUILDABLE PARCEL 'A' (3.23 AC.) ON WORTHINGTON FIELDS PHASE 1 PLAT NO. 14946-14955, HAS SUBSEQUENTLY BEEN RESUBDIVIDED TO CREATE VILLAGE CREST PARCELS A-1, A-2 AND NON-BUILDABLE PARCEL A-3 AND RECORDED AS PLAT NO. 15359. THE REMAINING PORTION OF THE POR ZONED AREA (1.19 AC.) HAS BEEN DEDICATED TO HOWARD COUNTY, MARYLAND, FOR THE PURPOSE OF A PUBLIC ROAD AS PER WORTHINGTON FIELDS PHASE 1, PLAT NO. 14946-14955.  
\*\*MAXIMUM ALLOWABLE DENSITY OF 144 UNITS APPROVED UNDER S-98-18.  
\*\*\*DOES NOT INCLUDE RESIDUE PORTIONS OF NON-BUILDABLE PARCEL 'B'.

### SITE DATA

LOCATION: TAX MAPS 25 & 31, BLOCKS 20 & 2, P/O PARCEL 98  
2ND ELECTION DISTRICT  
EXISTING ZONING: R-ED  
TOTAL AREA OF SITE: 83.27 AC.(R-ED)  
AREA OF PHASE 3 PLAN SUBMISSION: 2,039.4 AC (R-ED)  
AREA OF PROPOSED BUILDABLE LOTS: 1,326.7 AC.  
AREA OF PROPOSED ROAD RIGHT OF WAY: 0.7127 AC  
OPEN SPACE TABULATIONS: 0.00 AC.  
AREA OF 100 YEAR FLOODPLAIN ON SITE: 0.00 AC.  
NUMBER OF LOTS/PARCELS PROPOSED: 5 BUILDABLE  
LIMIT OF DISTURBANCE FOR PHASE 3 PLAN SUBMISSION: 3.52 AC±

### GENERAL NOTES

- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- DEED REFERENCE: L5611/F.318
- PROJECT BACKGROUND:  
LOCATION: TAX MAP 25, GRID 20 AND TAX MAP 31, GRID 2, P/O PARCEL 98  
2ND ELECTION DISTRICT  
ZONING: R-ED  
TOTAL PARCEL AREA: 83.67 AC± PHASE 3: 2,039.4 AC  
NUMBER OF PROPOSED LOTS: 5 BUILDABLE  
APPLICABLE DPZ FILE NUMBERS: S-98-18, PB-336 (APPROVED 6/16/99), P-00-07, F-01-60 (PHASE 1), F-01-206 (PHASE 2), F-02-09
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PERFORMED BY FISHER, COLLINS, & CARTER, INC., DATED OCTOBER, 1998.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL PHOTOGRAMMETRY BY WINGS AERIAL MAPPING COMPANY, INC. DATED MARCH, 1995.
- WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC. (CONTR. # 14-4026-D)
- STORMWATER MANAGEMENT (2 YR AND 10 YR) IS PROVIDED UNDER PHASE 1, F-01-60, BY A WET POND.
- THERE ARE NO WETLANDS OR STREAMS WITHIN THIS PHASE.
- THERE IS NO FLOODPLAIN LOCATED WITHIN THIS PHASE.
- FOREST CONSERVATION PLAN PREPARED BY EXPLORATION RESEARCH, INC., DATED OCTOBER, 1999, FOR THE ENTIRE SITE. FOREST STAND DELINEATION PLAN PREPARED BY CHESAPEAKE ENVIRONMENTAL, DATED MARCH 1995 AND APPROVED UNDER S-98-18. FOREST CONSERVATION OBLIGATIONS HAVE BEEN MET BY 5 FOREST CONSERVATION RETENTION EASEMENTS TOTALING 20.32 AC LOCATED IN OPEN SPACE LOTS 145 AND 147, PHASE 1 (F-01-60), AND A PLANNED FOREST CONSERVATION RETENTION EASEMENT OF 10.28 AC TO BE LOCATED IN FUTURE OPEN SPACE LOT 149, PHASE 7, TO MEET THE TOTAL RETENTION OBLIGATION OF 30.6 AC FOR THE ENTIRE SUBDIVISION.
- A TRAFFIC STUDY FOR WORTHINGTON FIELDS, PHASES 1-9, WAS PREPARED BY THE TRAFFIC GROUP, INC., DATED JUNE 8, 1998, AND APPROVED UNDER S-98-18 AND P-02-08, WORTHINGTON FIELDS, PHASE 3.
- THERE ARE NO EXISTING STEEP SLOPES WITHIN THIS PHASE.
- A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
- ALL LANDSCAPING REQUIREMENTS AS SET FORTH IN SECTION 16.124 OF THE SUBDIVISION REGULATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL WILL BE COMPLIED WITH. THE REQUIRED TYPE 'B' FOR LOTS 50 AND 53 WILL BE ADDRESSED ON THE FUTURE SITE DEVELOPMENT PLAN.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPE TREES ON FINEST HOUR COURT, A PRIVATE ACCESS PLACE, TO BE POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$5100.00 FOR 17 SHADE TREES. FINANCIAL SURETY FOR THE REQUIRED STREET TREES ON RIVERA SUN DRIVE, A PUBLIC ACCESS STREET, TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$9000.00 FOR 30 STREET TREES.
- THIS PROPERTY IS LOCATED IN THE WORTHINGTON SCHOOL DISTRICT.
- TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL/CEMETERY LOCATIONS ON SITE.
- REFERENCE PLANNING BOARD CASE PB-336 FOR APPROVAL OF THE DEVELOPMENT WITHIN THE R-ED DISTRICT ON JUNE 16, 1999, SUBJECT TO THE FOLLOWING CONDITIONS:  
SUBJECT TO THE FOLLOWING CONDITIONS:  
1. COMPLIANCE WITH THE SUBDIVISION REVIEW COMMITTEE COMMENTS FOR SKETCH PLAN S-98-19.  
2. THE DEVELOPERS SHALL PROVIDE PEDESTRIAN ACCESS FROM THIS SUBDIVISION TO THE ADJACENT WORTHINGTON ELEMENTARY SCHOOL SITE.
- AS A RESULT OF THIS PRELIMINARY PLAN BEING SUBMITTED TO THE COUNTY FOR REVIEW PRIOR TO 11/15/01, IT IS SUBJECT TO COMPLIANCE WITH THE FOURTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. IN ADDITION, BECAUSE THIS PHASE OF THE SUBDIVISION DID NOT OBTAIN SIGNATURE APPROVAL OF THIS PRELIMINARY PLAN FOR IT PRIOR TO 11/01/01, IT IS SUBJECT TO COMPLIANCE WITH COUNTY COUNCIL BILL 50-2001 WHICH AMENDS THE ZONING REGULATIONS, AND THE AMENDED ZONING REGULATIONS WHICH BECOME EFFECTIVE ON 01/08/02.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

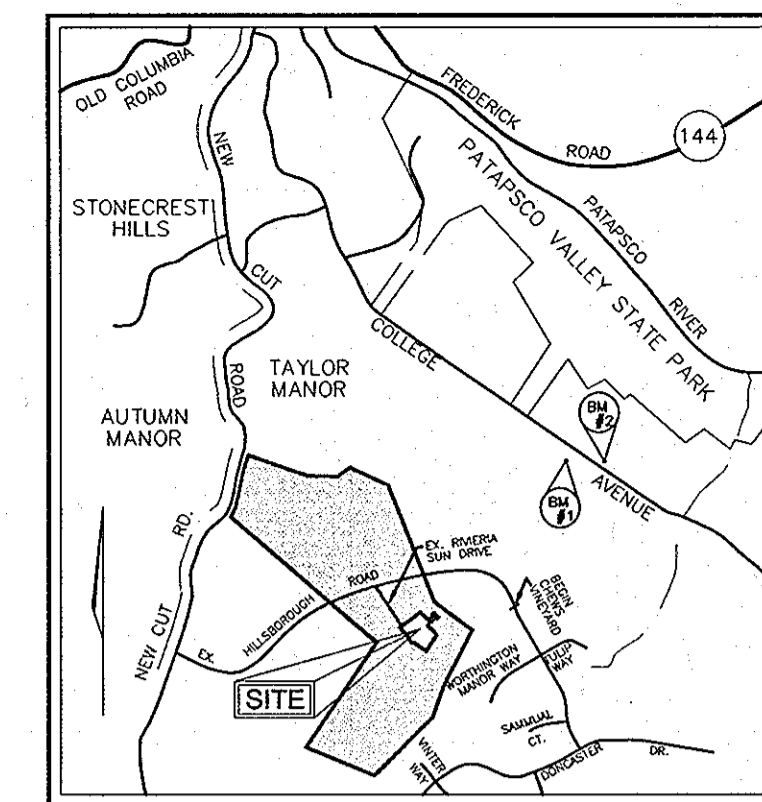
*Clayton M. Guehr* 12-17-02  
CHIEF, BUREAU OF HIGHWAYS DATE

*Windy Hamer* 12/26/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NO.	NORTHING	EASTING
244	577,606.1340	1,369,487.53
616	577,736.5191	1,369,549.543
621	578,062.2368	1,369,621.369
622	578,124.7592	1,370,077.658
623	577,927.7562	1,370,009.379
596	578,042.0039	1,370,316.428
608	578,023.6744	1,370,634.400
609	578,002.6822	1,370,830.207
610	578,032.1616	1,370,870.344
618	578,081.1422	1,371,146.920
242	577,955.5100	1,371,620.920
243	576,754.7600	1,372,055.889
529	576,482.7908	1,371,730.762
530	575,844.1251	1,371,730.762
130	575,623.8142	1,371,654.758
125	574,948.0467	1,371,033.450
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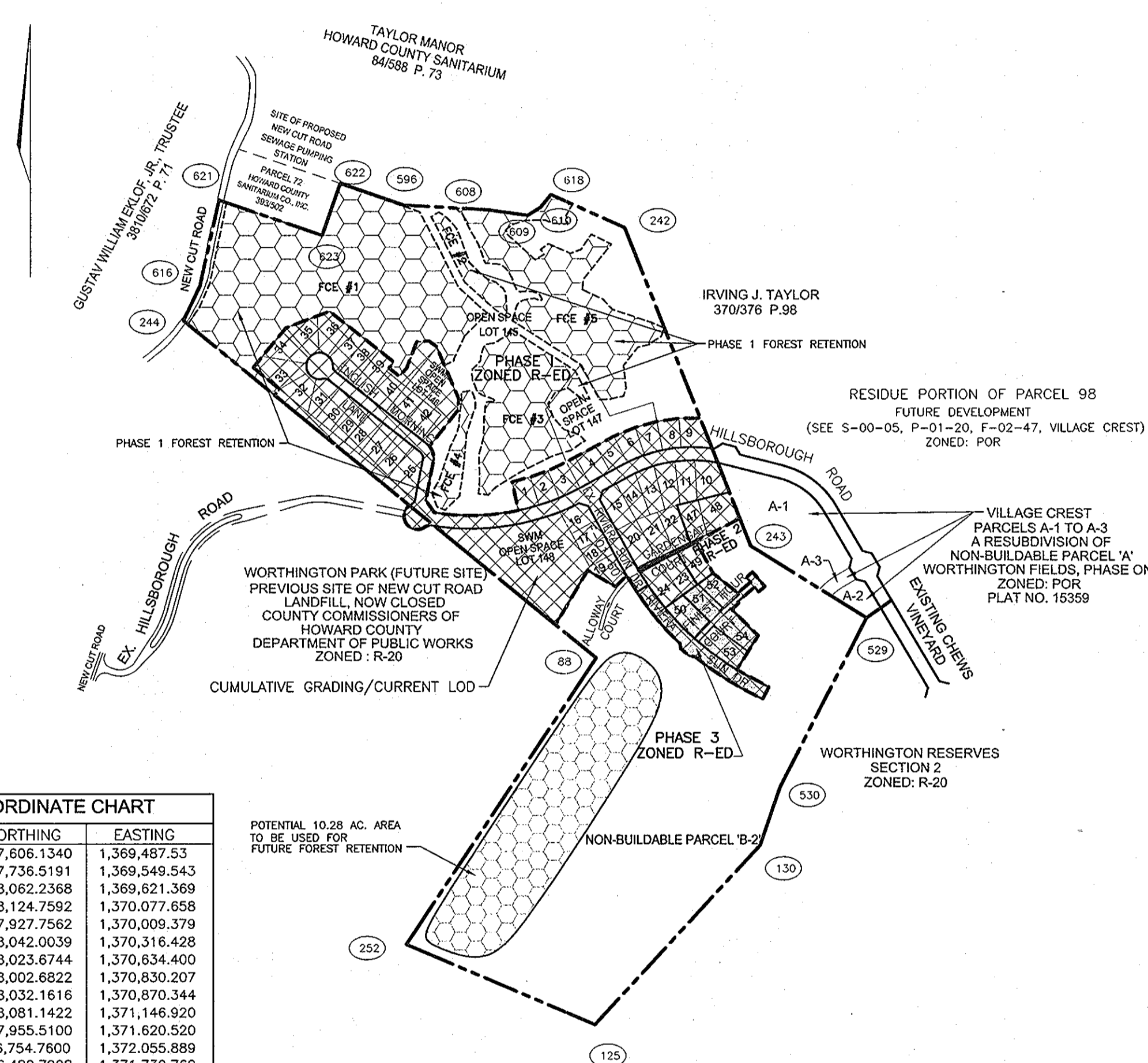
FOREST CONSERVATION TABULATION (LAND USE: HDR)										
PHASES	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9	ENTIRE SITE
TOTAL TRACT AREA	47.22 AC	0.89 AC	2.04 AC							83.27 AC
FLOODPLAIN	1.62 AC	0.00 AC	0.00 AC							1.62 AC
NET TRACT AREA	45.60 AC	0.89 AC	2.04 AC							81.65 AC
AFFORESTATION -15%	6.84 AC	0.13 AC	0.31 AC							7.28 AC
REFORESTATION -20%	9.12 AC	0.18 AC	0.41 AC							9.71 AC
EX. FOREST LESS FLOODPLAIN	31.37 AC	0.00 AC	0.00 AC							51.10 AC
FOREST ABOVE AFF. THRESHOLD	24.61 AC	0.00 AC	0.00 AC							38.85 AC
FOREST ABOVE REF. THRESHOLD	22.25 AC	0.00 AC	0.00 AC							34.75 AC
BREAK EVEN POINT	13.57 AC	N/A	N/A							23.29 AC
RET. W. NO MITIGATION REQUIRED	13.57 AC	N/A	N/A							23.29 AC
CLEARING W. NO MITIGATION REQUIRED	17.80 AC	N/A	N/A							27.81 AC
FOREST AREA CLEARED	11.05 AC	0.00 AC	0.00 AC							27.50 AC
FOREST AREA RETAINED	20.32 AC	0.00 AC	0.00 AC				10.28 AC			30.60 AC
REFOREST FOR AREA ABOVE CON.THRESH.	2.76 AC	0.00 AC	0.00 AC							6.95 AC
REFOREST FOR AREA BELOW CON.THRESH.	0.00 AC	0.00 AC	0.00 AC							0.00 AC
CREDIT FOR RETENTION ABOVE CON.THRESH.	11.20 AC	0.00 AC	0.00 AC							6.95 AC
TOTAL REFORESTATION REQUIRED	0.00 AC	0.00 AC	0.00 AC							0.00 AC
TOTAL AFFORESTATION REQUIRED	0.00 AC	N/A	N/A							0.00 AC
TOTAL RE AND AFFORESTATION REQUIRED	0.00 AC	0.00 AC	0.00 AC							0.00 AC
RE/AFFORESTATION PROVIDED	0.00 AC	0.00 AC	0.00 AC							0.00 AC

- THIS PLAN IS IN ACCORDANCE WITH APPROVED SKETCH PLAN S-98-18. NOTE THAT THE 4.42 AC (3.23 AC. AFTER DEDICATION TO ROADS) POR ZONED NON-BUILDABLE PARCEL A IS NOW PART OF VILLAGE CREST SUBDIVISION. FOREST CONSERVATION FOR THAT PARCEL IS PROVIDED IN VILLAGE CREST F-02-47.
- IN ACCORDANCE WITH APPROVED PB-366 AND S-98-18, A MINIMUM OF 30.60 AC. OF FOREST RETENTION IS REQUIRED FOR THE ENTIRE WORTHINGTON FIELDS SUBDIVISION AREA. THIS INCLUDES A STATEMENT THAT FOREST CONSERVATION OBLIGATIONS CAN BE MET BY RETENTION OF FOREST STANDS EQUAL TO OR ABOVE THE BREAK-EVEN-POINT. ANY CHANGES TO THE PLAN WHICH ARE NOT IN ACCORDANCE WITH THE SKETCH PLAN EXHIBIT THAT WAS SUBMITTED AT PLANNING BOARD WILL REQUIRE ANOTHER PLANNING BOARD HEARING.



VICINITY MAP  
SCALE: 1"=2000'

BENCHMARK NO. 1: COUNTY CONTROL #3044005R  
3/4" REBAR 0.8' BELOW SURFACE  
N. 578233.92, E. 1373142.33  
ELEV. = 374.389  
BENCHMARK NO. 2: COUNTY CONTROL #3044004R  
3/4" REBAR 0.6' BELOW SURFACE  
N. 578128.03, E. 1373460.71  
ELEV. = 362.575



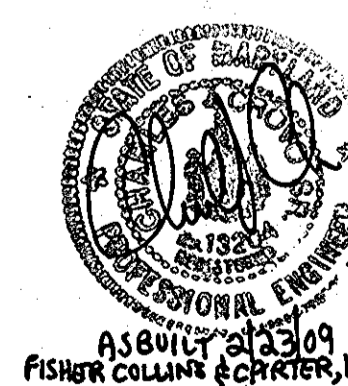
LOCATION MAP

SCALE: 1"=200'

OPEN SPACE TABULATION										
PHASE	TOTAL AREA	REQUIRED OPEN SPACE*	PROVIDED CREDITED OPEN SPACE	PROVIDED NON-CREDITED OPEN SPACE	TOTAL PROVIDED OPEN SPACE	OPEN SPACE IN RESERVE	REQ. REC. OPEN SPACE	PROV. REC. OPEN SPACE	REC. O.S. IN RESERVE	
TOTAL SUBDIVISION	83.27 AC.	20.82 AC.	-	-	0.83 AC.	-	-	-	-	
1 (F-01-60)	50.46 AC***	12.62 AC.	32.49 AC. (39%)	0.54 AC.	33.03 AC.	19.87 AC.	0.24 AC.	1.01 AC.	0.77 AC.	
2 (F-01-206)	0.89 AC***	0.22 AC.	0.00 AC.	0.00 AC.	0.00 AC.**	19.85 AC.	0.02 AC.	0.00** AC.	0.75 AC.	
3 (F-02-170)	2.06 AC***	0.52 AC.	0.00 AC.	0.00 AC.	0.00 AC.**	19.13 AC.	0.03 AC.	0.00** AC.	0.72 AC.	
4										
5										
6										
7										
8										
9										
TOTAL	53.41 AC***	13.36 AC.	32.49 AC.	0.54 AC.	33.03 AC.	19.13 AC.	0.29 AC.	1.01 AC.	0.72 AC.	

\*REQUIRED OPEN SPACE CALCULATED FOR THE ENTIRE R-ED PORTION OF THE SUBDIVISION AS 25% OF GROSS AREA (83.27 AC. X 25% = 20.82 AC.) REQUIRED RECREATIONAL OPEN SPACE CALCULATED AS 250 SF PER D.U. (144 D.U. X 250 SF = 36,000 SF OR 0.83 AC.)  
\*\*REQUIRED OPEN SPACE AND REQUIRED RECREATIONAL OPEN SPACE FOR THE ENTIRE SUBDIVISION PROVIDED UNDER WORTHINGTON FIELDS PHASE 1, PLAT NO. 14946-14955.  
\*\*\*DOES NOT INCLUDE RESIDUE PORTIONS OF NON-BUILDABLE PARCEL 'B' TO BE DEVELOPED IN FUTURE PHASES.

NO.	REVISION	DATE



**TITLE SHEET**  
**WORTHINGTON FIELDS**  
PHASE 3 LOTS 50-54 AND  
NON-BUILDABLE PARCEL 'B-2'  
A RESUBDIVISION OF NON-BUILDABLE PARCEL 'B-1', PHASE 2  
TAX MAP 25 BLOCK 20 PARCEL '98'  
TAX MAP 31 BLOCK 2 HOWARD COUNTY, MARYLAND  
2ND ELECTION DISTRICT REFERENCE: S-98-18, P-02-08

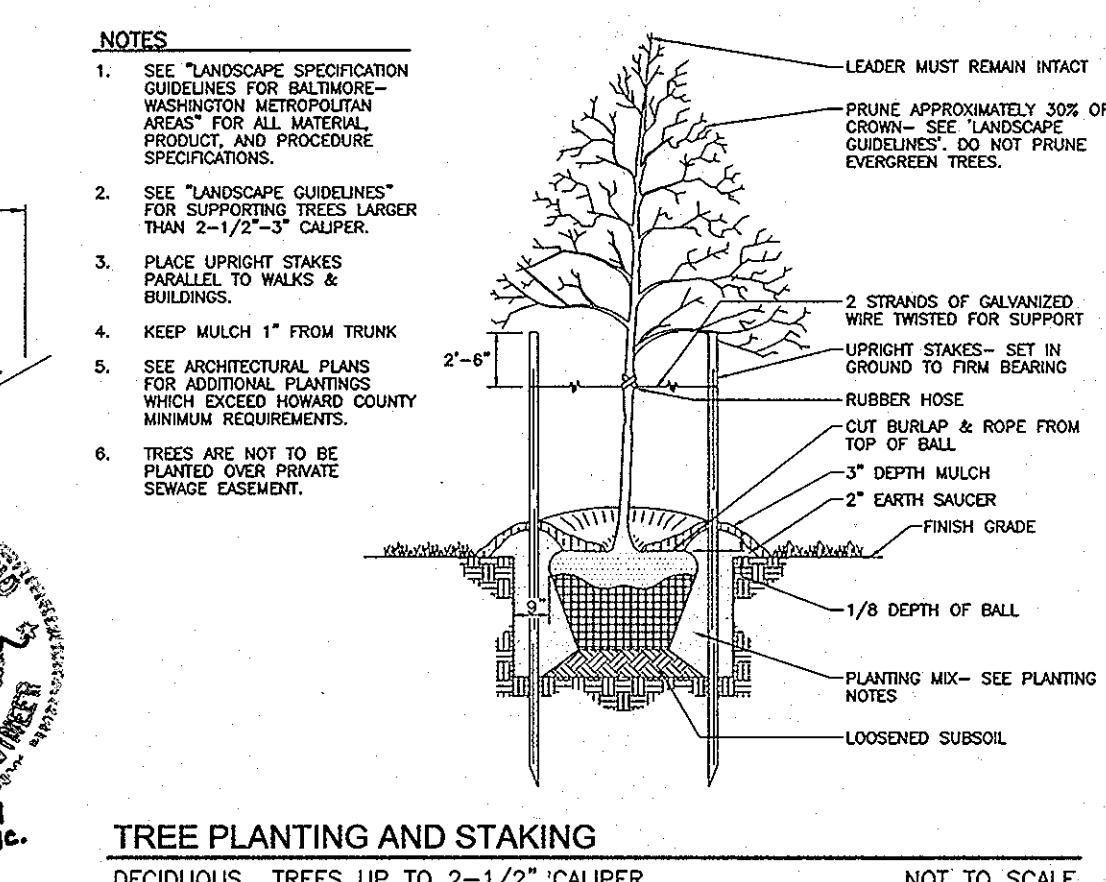
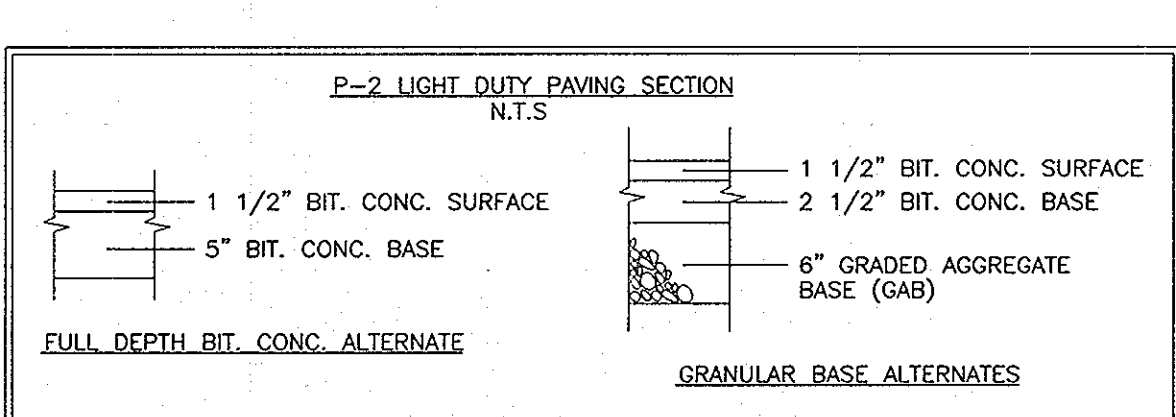
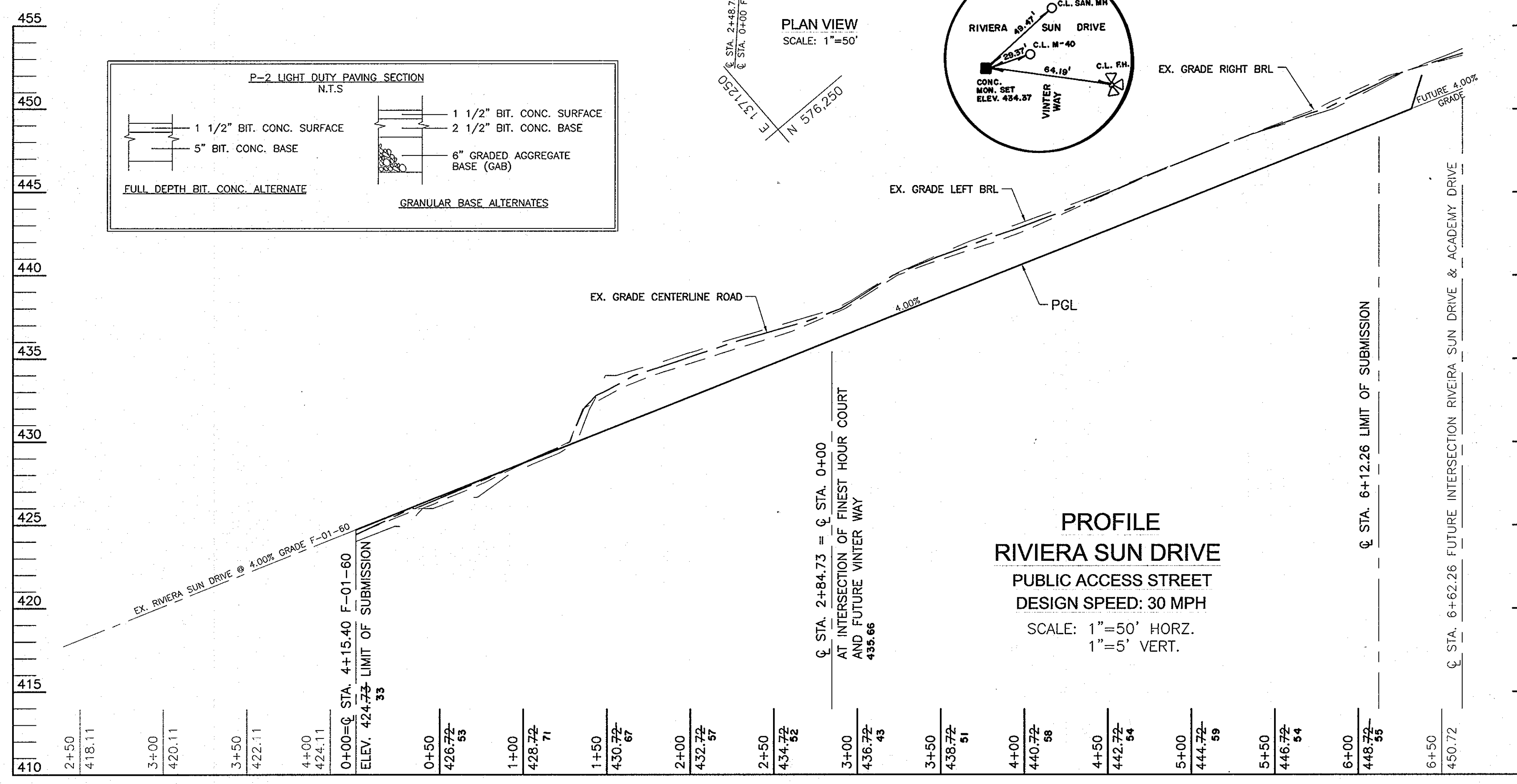
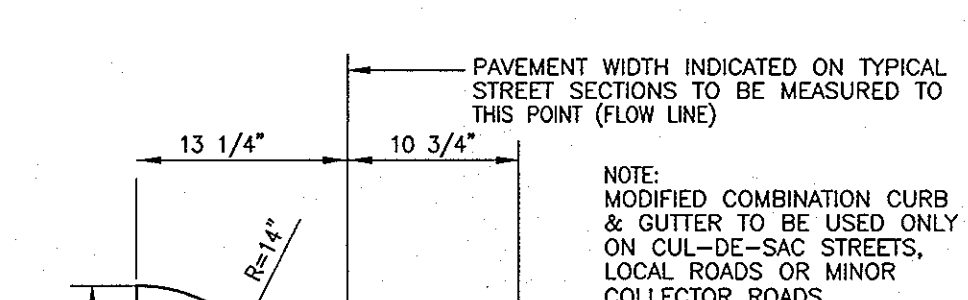
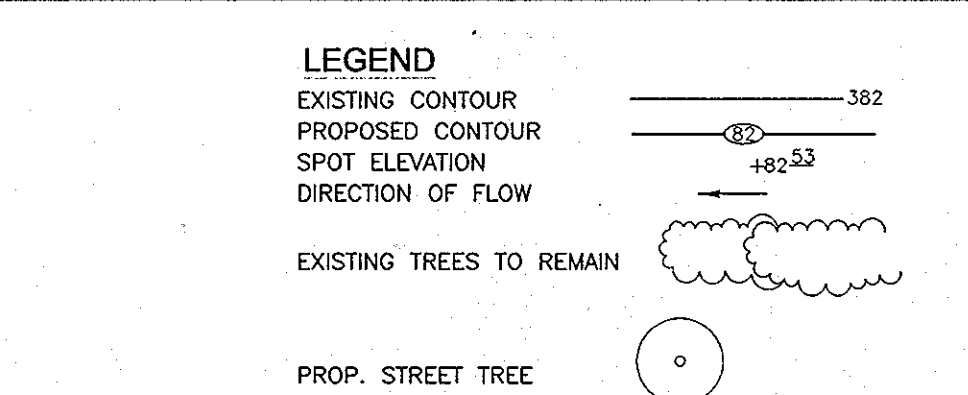
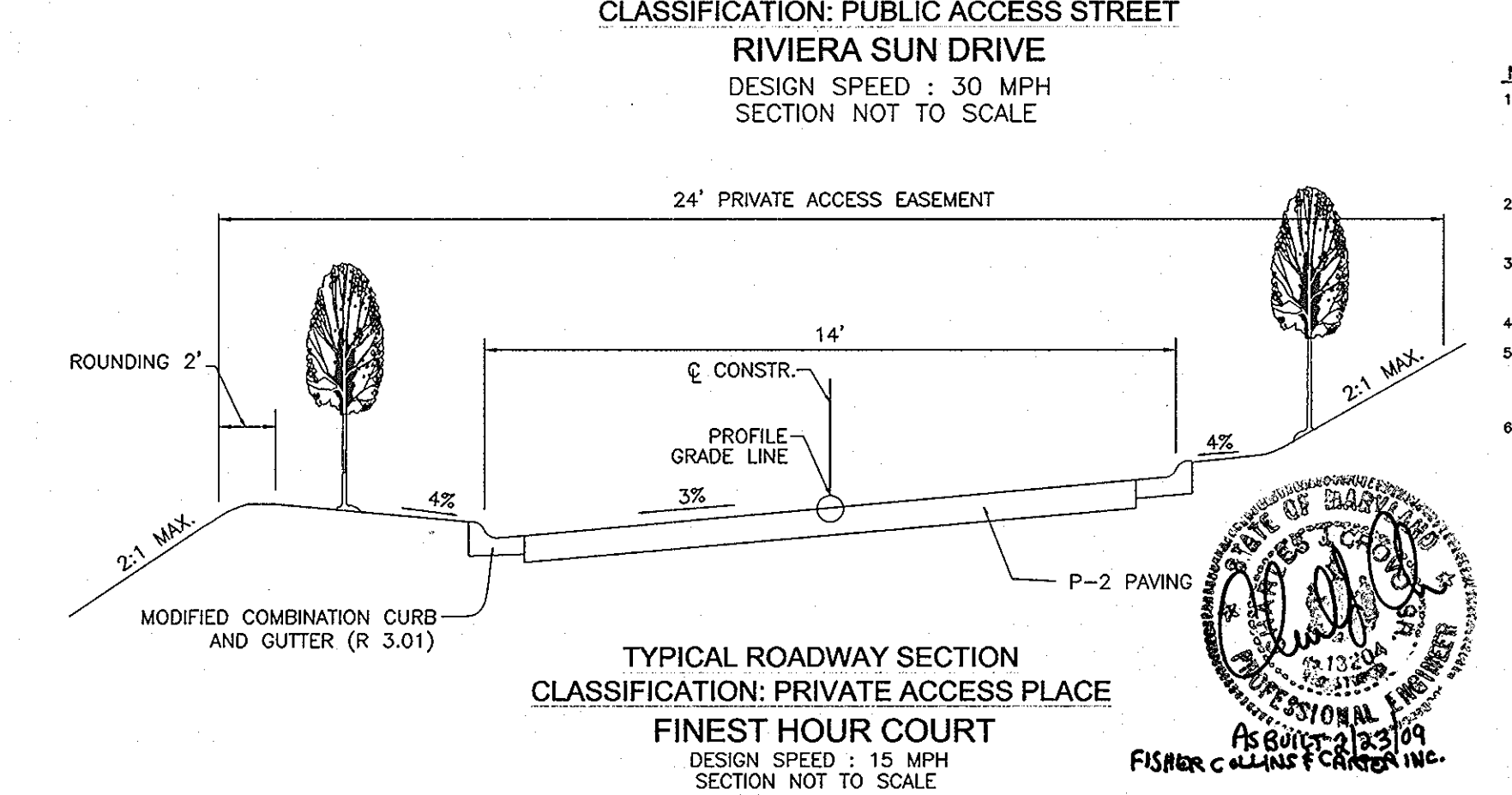
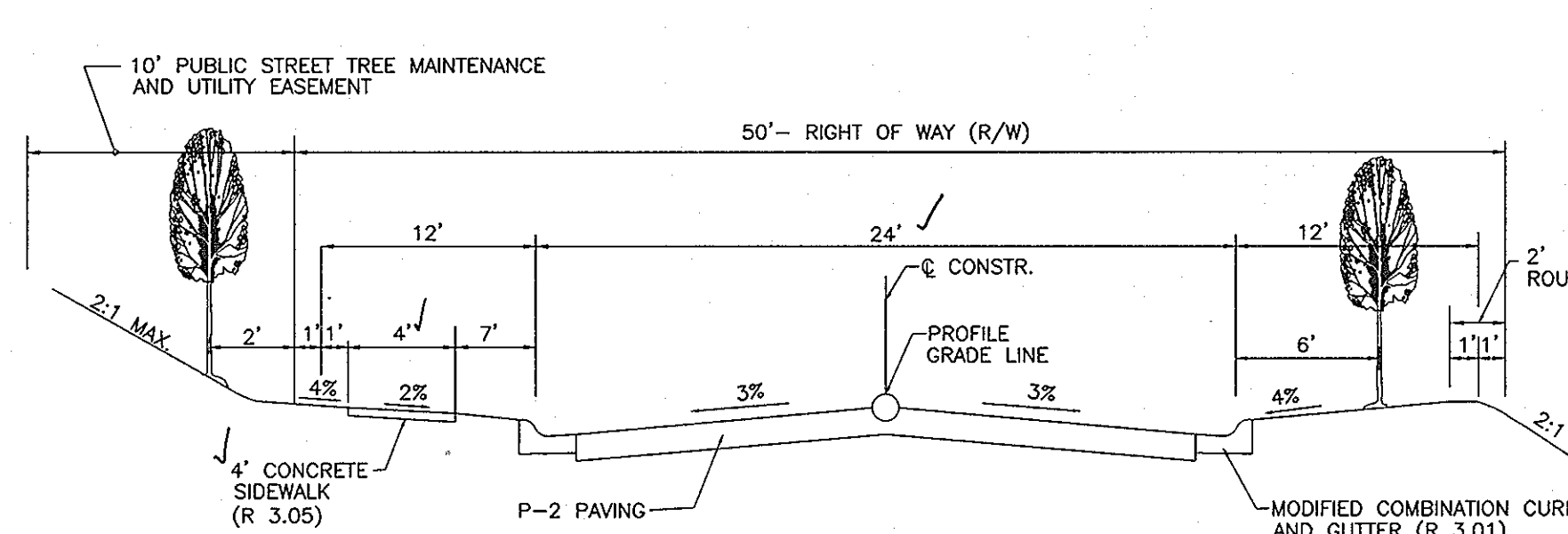
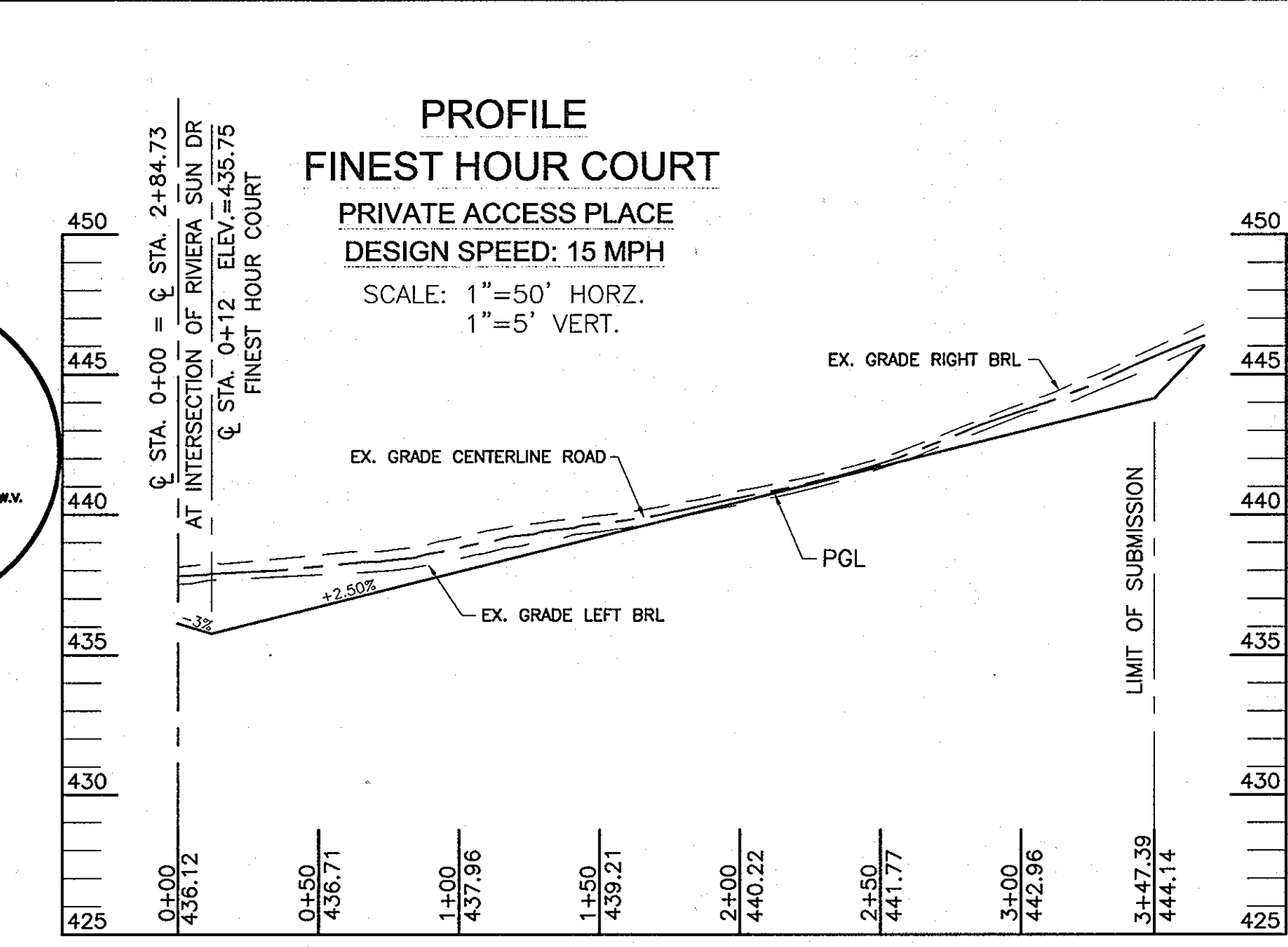
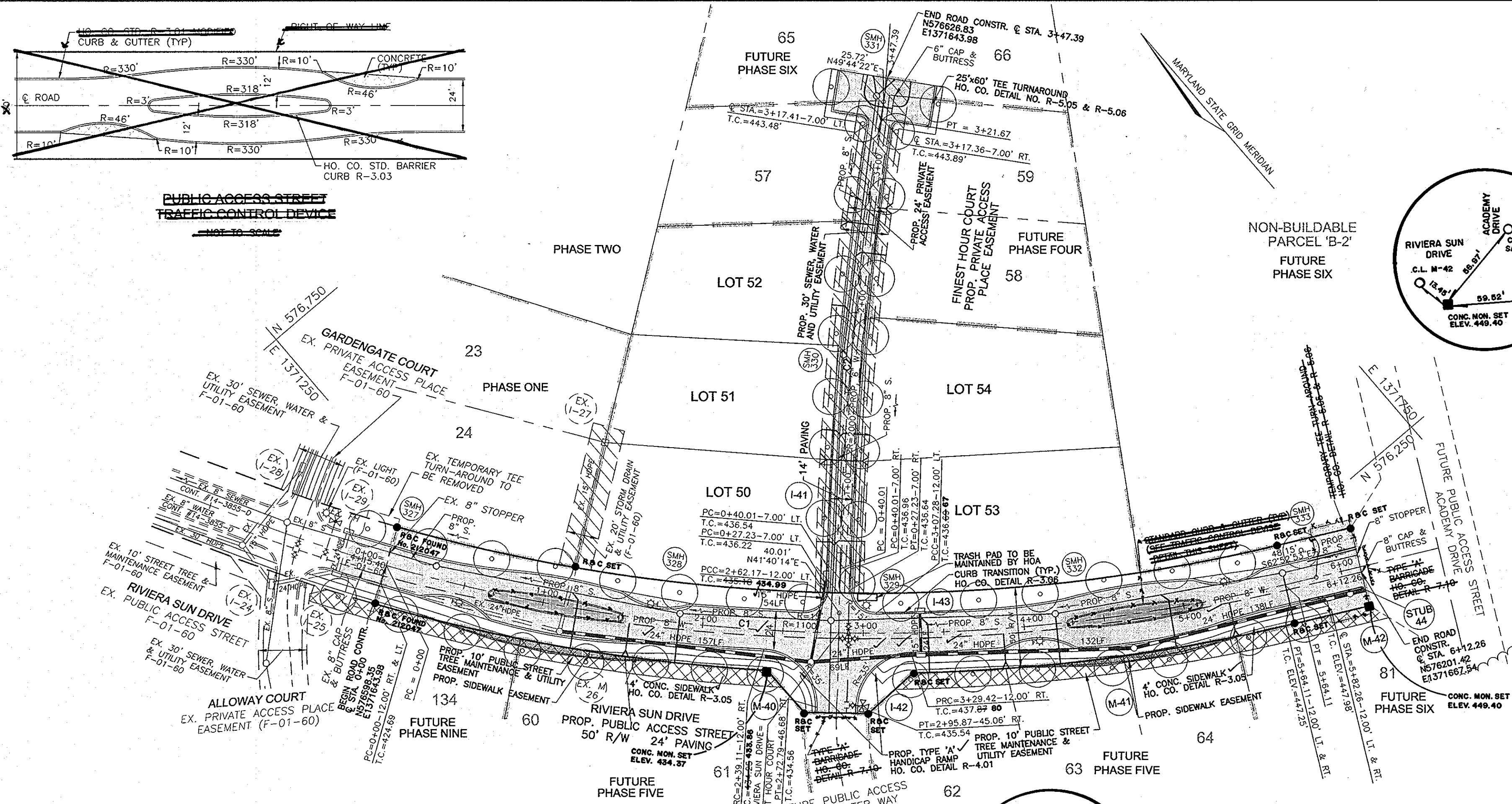
**FREDERICK WARD ASSOCIATES, INC.**  
ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354  
ARCHITECTS Phone: 410-290-9550 Fax: 410-720-6226  
SURVEYORS Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

OWNER  
TAYLOR FAMILY LIMITED PARTNERSHIP B  
4100 COLLEGE AVENUE  
ELICOTT CITY, MARYLAND 21043

DEVELOPER  
NEW CUT ROAD DEVELOPMENT 2, INC.  
C/O LAND DESIGN & DEVELOPMENT, INC.  
8000 MAIN STREET  
ELICOTT CITY, MARYLAND 21043  
ATTN: MR. DONALD R. REUWER  
PHONE: (410) 480-9105

DESIGN BY: CMH  
DRAWN BY: CMH  
CHECKED BY: RHV  
DATE: NOVEMBER 2002  
SCALE: AS SHOWN  
W.O. NO.: 2019011.0

1 SHEET OF 5



SYMBOL	ALL STREET TREES TO BE 2.5-3" CAL. B&B MARSHALLS SEEDLESS ASH
○	STREET NAME LINEAR FEET NO. REQUIRED NO. PROVIDED
○	RIVIERA SUN DRIVE 1174/40 30 30
○	FINEST HOUR COURT 644/40 17 17

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL CONFORM TO THE MOST CURRENT AN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LANDSCAPE SPECIFICATIONS AND THE HOWARD COUNTY LANDSCAPE MANUAL. 2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. 3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES. 4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

DEVELOPER'S AGREEMENT  
FINANCIAL SURETY FOR THE REQUIRED LANDSCAPE TREES ON FINEST HOUR COURT, A PRIVATE ACCESS PLACE TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT \$5100.00 FOR 17 SHADE TREES. FINANCIAL SURETY FOR THE REQUIRED STREET TREES ON RIVIERA SUN DRIVE, A PUBLIC ACCESS STREET, TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT \$9000.00 FOR 30 STREET TREES.

CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	564.11'	1100.00'	29°22'57"	288.40'	S48°11'24"E	557.94'
C2	281.66'	2000.00'	8°04'08"	141.06'	N45°42'18"E	281.42'

DWG. NO.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
1 OF 1	RIVIERA SUN DR	0+47	9' R	100 WATT HPS
1 OF 1	RIVIERA SUN DR	1+67	7' L	VAPOR COLONIAL
1 OF 1	RIVIERA SUN DR	3+03	17' L	POST-TOP FIXTURE MOUNTED ON A 14"
1 OF 1	RIVIERA SUN DR	4+06	9' R	BLACK FIBERGLASS POLE
1 OF 1	RIVIERA SUN DR	5+30	9' L	"WIS-76" (MODIFIED)
1 OF 1	RIVIERA SUN DR	0+42	9' R	16"x18" BLACK/YELLOW
1 OF 1	RIVIERA SUN DR	1+72	9' L	MOUNT ON 4"x4" WOOD POLE
1 OF 1	RIVIERA SUN DR	4+01	9' R	
1 OF 1	RIVIERA SUN DR	5+35	9' L	
1 OF 1	RIVIERA SUN DR	0+89	2' R	R4-7 "KEEP RIGHT"
1 OF 1	RIVIERA SUN DR	1+49	2' R	
1 OF 1	RIVIERA SUN DR	4+31	2' R	
1 OF 1	RIVIERA SUN DR	5+08	2' R	
1 OF 1	FINEST HOUR CT.	0+29	10' R	R1-1 "STOP"

DESIGNER: NEW CUT ROAD DEVELOPMENT 2, INC. C/O LAND DESIGN & DEVELOPMENT, INC. 8000 MAIN STREET ELLICOTT CITY, MARYLAND 21043 ATTN: MR. DONALD R. REUWER PHONE: (410) 480-9105

OWNER: TAYLOR FAMILY LIMITED PARTNERSHIP B 4100 COLLEGE AVENUE ELLICOTT CITY, MARYLAND 21043

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Andrew M. Daulton, 12-17-02, CHIEF, BUREAU OF HIGHWAYS, DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Cindy Harms, 12/26/02, CHIEF, DIVISION OF LAND DEVELOPMENT, DATE

I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN AND SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. I 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.  
 OWNER/DEVELOPER, 11/20/02, DATE

ROAD CONSTRUCTION PLAN AND PROFILES  
 WORTHINGTON FIELDS  
 PHASE 3 LOTS 50-54 AND  
 NON-BUILDABLE PARCEL 'B-2'  
 A RESUBDIVISION OF NON-BUILDABLE PARCEL B-1, PHASE 2  
 TAX MAP 25 BLOCK 20 PARCEL '98'  
 TAX MAP 31 BLOCK 2 HOWARD COUNTY, MARYLAND  
 2ND ELECTION DISTRICT REFERENCE: S-98-18, P-02-08

FREDERICK WARD ASSOCIATES, INC.  
 ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354  
 ARCHITECTS Phone: 410-290-9550 Fax: 410-720-6226  
 SURVEYORS Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: CMH  
 DRAWN BY: CMH  
 CHECKED BY: RHV  
 DATE: NOVEMBER 2002  
 SCALE: AS SHOWN  
 W.O. NO.: 2019011.0

2 SHEET OF 5



21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

**DEFINITION**  
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

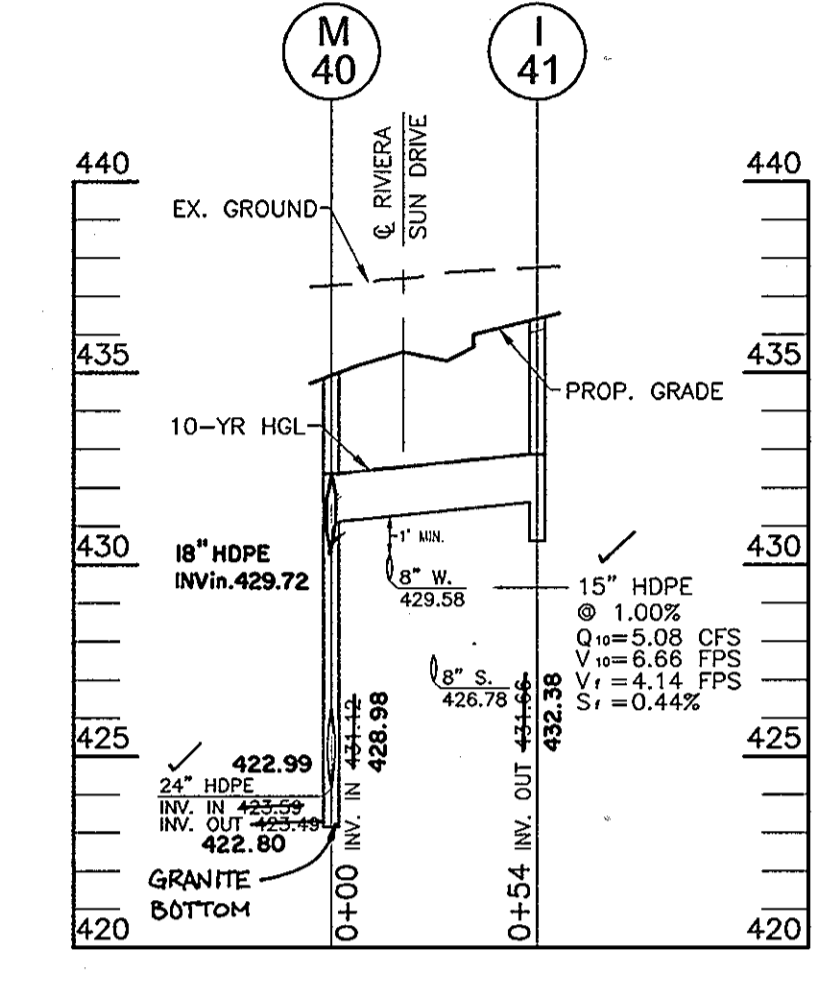
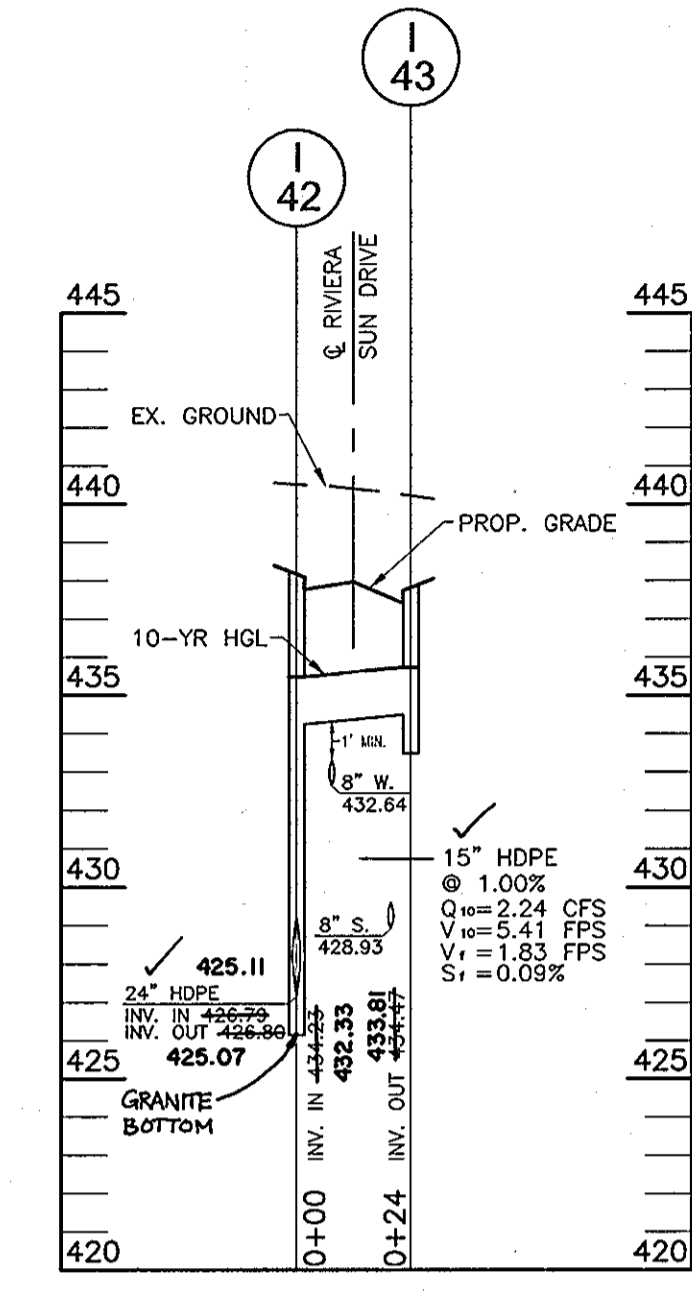
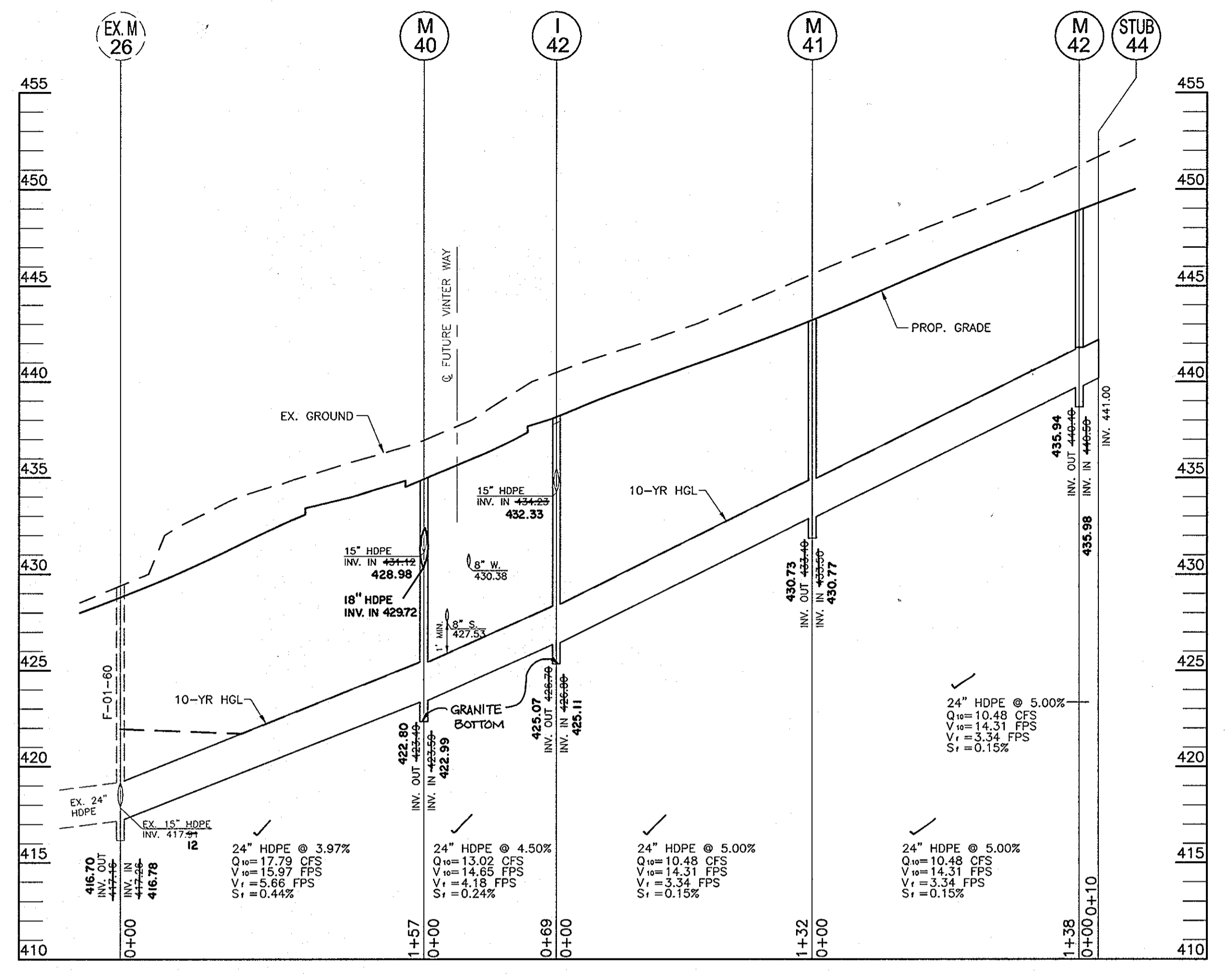
**PURPOSE**  
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

**CONDITIONS WHERE PRACTICE APPLIES**

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
  - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
  - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NETTLE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
  - FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
    - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
  - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
    - PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
    - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
    - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
    - NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
  - NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION I-VEGETATIVE STABILIZATION METHODS AND MATERIALS.
  - TOPSOIL APPLICATION
    - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
    - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4" - 8" HIGHER IN ELEVATION.
    - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
    - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.



STORM DRAIN PROFILE SCALE: HORIZ. 1"=50' VERT. 1"=5'

**PIPE SCHEDULE**

PIPE SIZE	TYPE	TOTAL LENGTH
15"	HDPE	78 LF
24"	HDPE	506 LF

**STRUCTURE SCHEDULE**

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-41	A-10 INLET	N 576415.96 E 1371141.3-42	436.41	-	15" 431.66	SD 4.41
I-42	A-5 INLET	N 576340.34 E 1371426.40	438.17	24" 426.69	24" 426.69	SD 4.40
I-43	A-10 INLET	N 576361.42 E 1371443.5-51	438.09	15" 434.42	15" 434.42	SD 4.41
M-40	STANDARD 5' MANHOLE	N 576391.06 E 1371374.39	434.03	15" 431.12	24" 423.40	0 5.13
M-41	STANDARD 5' MANHOLE	N 576257.39 E 1371529.57	442.24	24" 433.40	24" 433.39	0 5.13
M-42	STANDARD 5' MANHOLE	N 576195.77 E 1371655.40	445.00	24" 440.41	24" 440.41	0 5.13

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT AND OBTAIN MDE PERMIT FOR STREAM CROSSING.
- NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (313-1880) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL PERIMETER SUPER SILT FENCE & EARTHDIKE
- INSTALL UTILITIES.
- WITH INSPECTOR'S APPROVALS CLEAR AND GRUB SITE TO LOD.
- GRADE ROAD TO SUB-BASE AND INSTALL CURB AND GUTTER
- BEGIN ROAD GRADING.
- AS PAVING IS COMPLETED, INSTALL SIDEWALK.
- WITH INSPECTOR'S APPROVAL AND WITH ROAD PAVING COMPLETE STABILIZE CONTRIBUTING DRAINAGE AREAS AND INSTALL STREET TREES.

**NOTES**

- DURING GRADING AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE THE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN HEREON.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCH PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./100 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAPFORM FERTILIZER (9 LBS./1000 SQ.FT.)
- ACCEPTABLE-APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000 SQ.FT.) AND APPLY 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (6 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (9 GAL./1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1. (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE BY ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:
 

AREA DISTURBED	2.04 ACRES
AREA TO BE ROOFED OR PAVED	0.82 ACRES
AREA TO BE VEGETATIVELY STABILIZED	2.16 ACRES
TOTAL CUT	5000 CY
TOTAL FILL	5000 CY

 OFFSITE WASTE/BORROW AREA LOCATION:
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT

**TEMPORARY SEEDING NOTES**

SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (6 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (9 GAL./1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 12-17-02

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 12/18/02

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.  
  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 12/22/02

CHIEF, SOIL CONSERVATION DISTRICT  
 DATE: 12/14/02

**ENGINEERS CERTIFICATE**  
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.  
  
 SIGNATURE OF ENGINEER  
 DATE: 11/18/02

**DEVELOPER'S CERTIFICATE**  
 I/WE 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 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.  
  
 SIGNATURE OF DEVELOPER  
 DATE: 11/20/02

**FREDERICK WARD ASSOCIATES, INC.**  
 ENGINEERS ARCHITECTS SURVEYORS  
 7125 Riverwood Drive Columbia, Maryland 21046-2354  
 Phone: 410-290-9550 Fax: 410-720-6226  
 Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

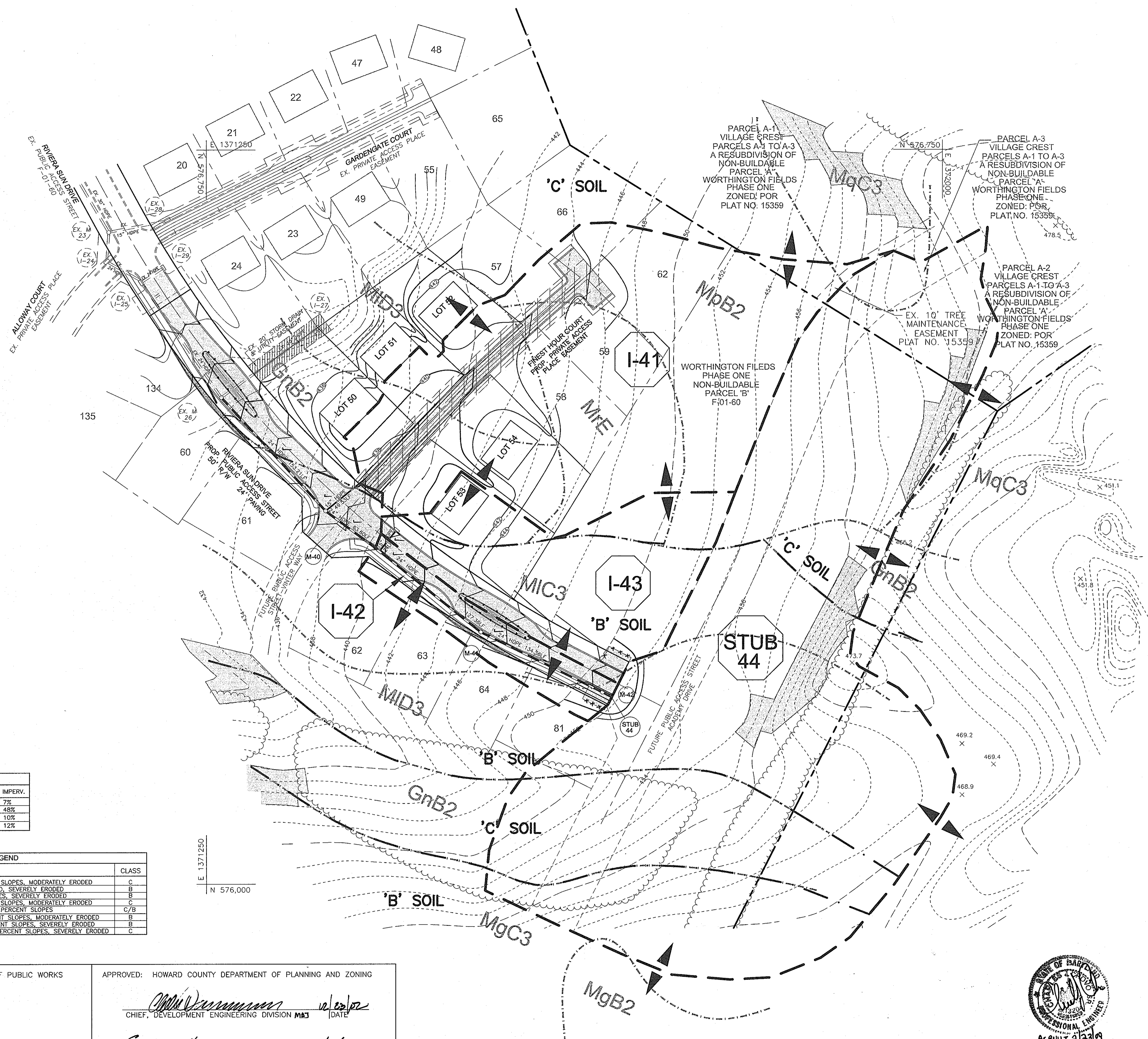
DESIGN BY: CMH  
 DRAWN BY: CMH  
 CHECKED BY: RHV  
 DATE: NOVEMBER 2002  
 SCALE: AS SHOWN  
 W.O. NO.: 2019011.0

4 SHEET OF 5

LEGEND

EXISTING CONTOUR		382
PROPOSED CONTOUR		+82.53
SPOT ELEVATION		
DIRECTION OF FLOW		
EXISTING TREES TO REMAIN		
SOILS DIVIDE		KeB2 NeB2
PROPOSED DRAINAGE DIVIDE		

Maryland State Grid Meridian



STORM DRAIN DATA

INLET NO.	AREA	'C' VALUE	ZONED	% IMPERV.
I-41	2.25 AC	0.34	R-ED	7%
I-42	0.31 AC	0.55	R-ED	48%
I-43	0.99 AC	0.34	R-ED	10%
STUB 44	4.41 AC	0.36	R-ED	12%

SOILS LEGEND

SYMBOL	SOILS NAME/DESCRIPTION	CLASS
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
MIC3	MANOR LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
MID3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
MpB2	MONTALTO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
MIE	MONTALTO AND RELAY SOILS, 15 TO 45 PERCENT SLOPES	C/B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MqC3	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
MqC3	MONTALTO SILTY CLAY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	C

HOWARD COUNTY SOIL SURVEY MAP NO. 20

E 1371250  
N 576,000

DEVELOPER  
 HOW CUT ROAD DEVELOPMENT 2, INC.  
 C/O LAND DESIGN & DEVELOPMENT, INC.  
 8000 MAIN STREET  
 ELLICOTT CITY, MARYLAND 21043  
 ATTN: MR. DONALD R. REUWER  
 PHONE: (410) 480-9105

OWNER  
 TAYLOR FAMILY LIMITED PARTNERSHIP B  
 4100 COLLEGE AVENUE  
 ELLICOTT CITY, MARYLAND 21043

NO.	REVISION	DATE

**STORM DRAIN AREA MAP**  
**WORTHINGTON FIELDS**  
 PHASE 3 LOTS 50-54 AND  
 NON-BUILDABLE PARCEL 'B-2'  
 A RESUBDIVISION OF NON-BUILDABLE PARCEL B-1, PHASE 2

TAX MAP 25 BLOCK 20 PARCEL '98'  
 TAX MAP 31 BLOCK 2 HOWARD COUNTY, MARYLAND  
 2ND ELECTION DISTRICT REFERENCE: S-98-18, P-02-08

**FREDERICK WARD ASSOCIATES, INC.**  
 ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046-2354  
 ARCHITECTS Phone: 410-290-9550 Fax: 410-720-6228  
 SURVEYORS Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: CMH  
 DRAWN BY: CMH  
 CHECKED BY: RHV  
 DATE: NOVEMBER 2002  
 SCALE: 1"=50'  
 W.O. NO.: 2019011.0

5 SHEET OF 5

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
  
 CHIEF, BUREAU OF HIGHWAYS 12-17-02 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION M&C 12/20/02 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 12/26/02 DATE

