

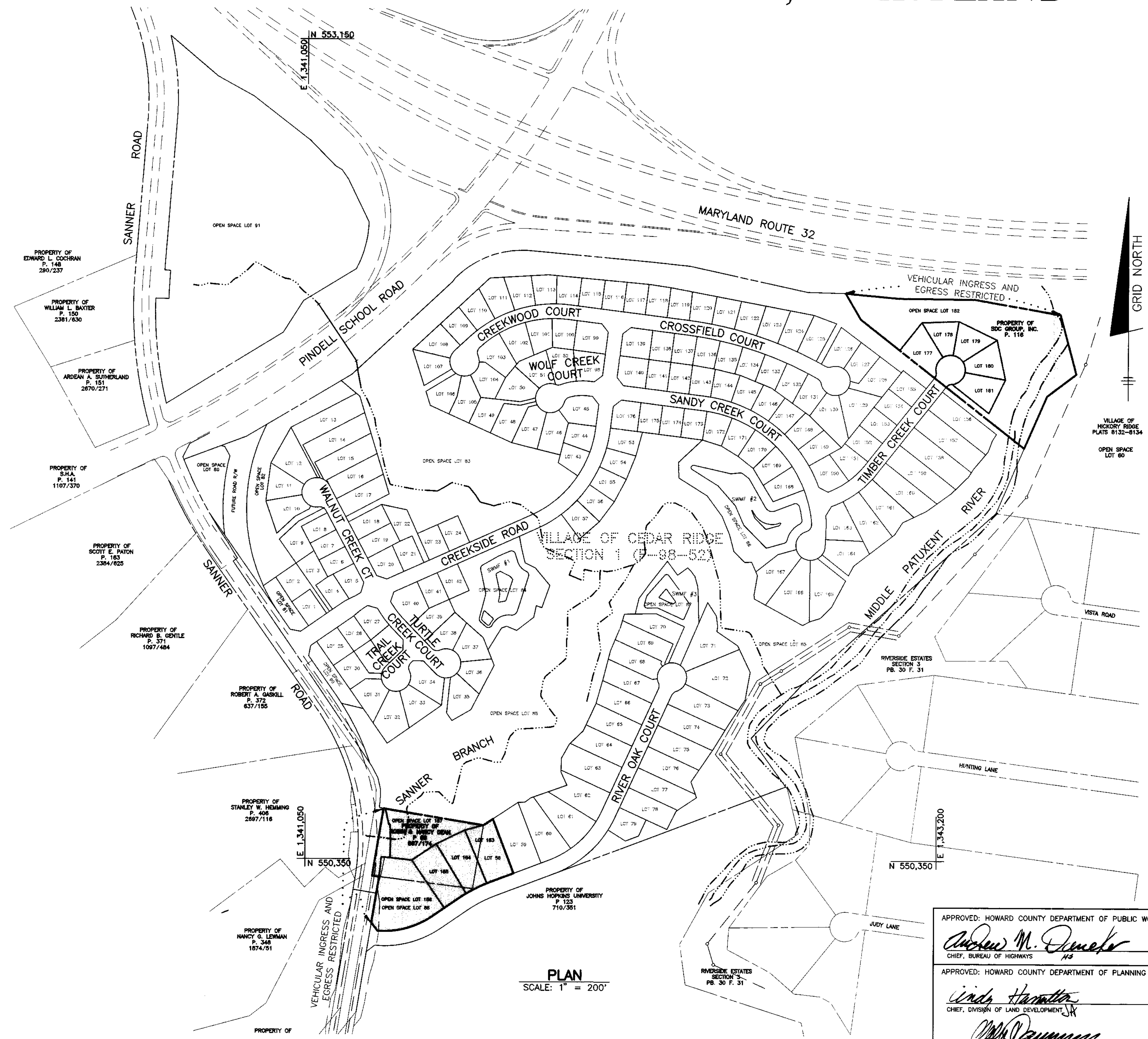
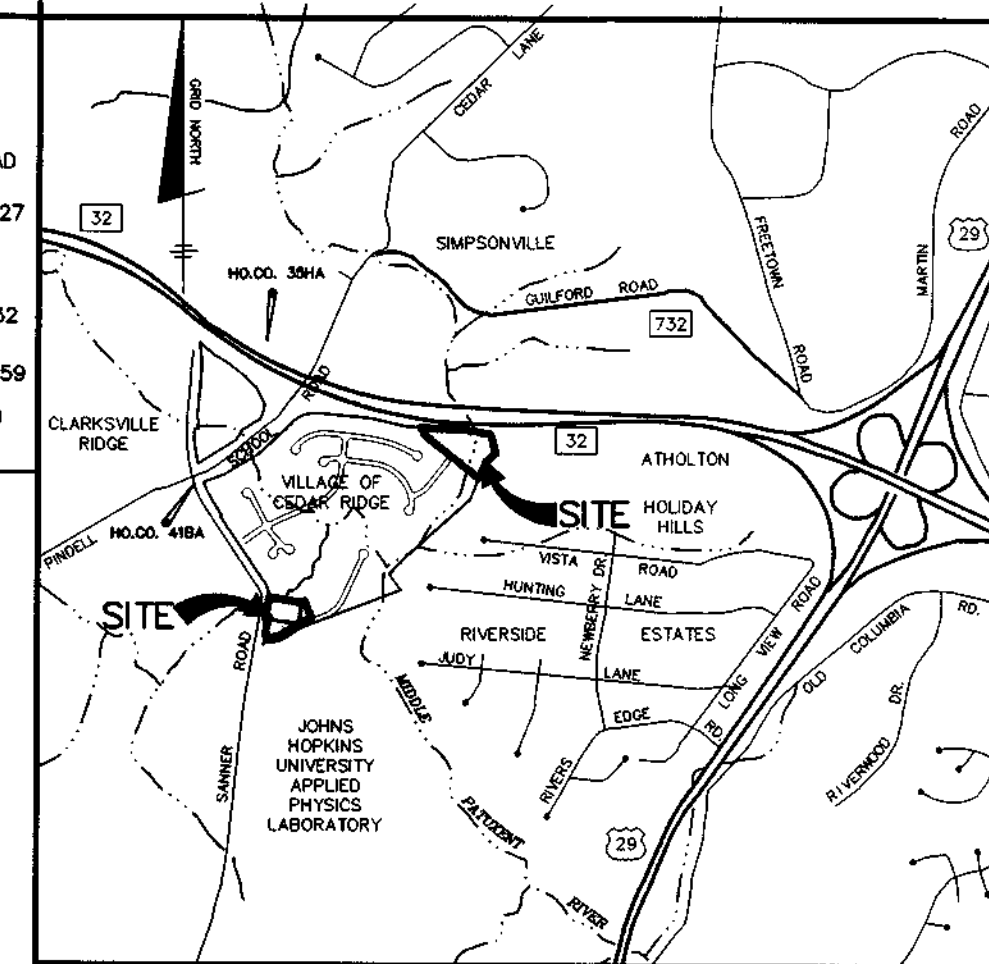
SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	ROAD PLAN AND PROFILE
3	DRAINAGE AREA MAP & STORM DRAIN PROFILE
4	GRADING, SEDIMENT & EROSION CONTROL, AND LANDSCAPE PLAN
5	SEDIMENT CONTROL NOTES AND DETAILS
6	FOREST CONSERVATION PLAN
7	FOREST CONSERVATION NOTES AND DETAILS

ROAD AND STORM DRAINAGE VILLAGE OF CEDAR RIDGE SECTION 2 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BENCH MARKS NAD 83
 HO. CO. #418A NAD 83
 STAMPED CONC. MONUMENT LOCATED AT THE
 NORTHWEST CORNER OF PINDELL SCHOOL ROAD
 AND SANNER LANE.
 N 551789.4787 E 1340518.127

HO. CO. #35HA NAD 83
 STAMPED CONC. MONUMENT LOCATED 3.5±
 BEHIND THE GUARD RAIL SOUTH OF MD RTE 32
 500± WEST OF PINDELL SCHOOL ROAD.
 N 553353.579 E 1340567.859

HO. CO. BMMR-109 ELEV. 405.389
 USED FOR VEHICLE CONTROL.



GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT HOWARD COUNTY DESIGN MANUAL VOL. IV, PLUS USHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 24 HOURS PRIOR TO THE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
4. PROJECT BACKGROUND :
 LOCATION : PARCEL 88 - TAX MAP 41 AND P/O PARCEL 116 - TAX MAP 35
 ZONING : RES
 TOTAL TRACT AREA : 7.98 AC.
 NUMBER OF PROPOSED LOTS : 8 BUILDABLE AND 3 OPEN SPACE
5. DATE PRELIMINARY PLAN APPROVED: SEPTEMBER 11, 1998
 DPZ REFERENCE # : SP-97-02, PB-319, PB 312, F-93-70, SP-98-14, F-98-52
6. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. TOPOGRAPHY TAKEN FROM FIELD RUN SURVEY BY TSA GROUP, INC., 2/98. CONTOUR INTERVAL IS 2 FEET.
8. HOWARD COUNTY MONUMENTS 418A AND 35HA USED FOR HORIZONTAL DATUM. HO. CO. BENCH MARK R-109 WAS USED FOR VERTICAL DATUM.
9. STREET LIGHT PLACEMENT, TYPE OF FIXTURE AND POLE SELECTION SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III.
10. ALL ROAD FILLS SHALL BE COMPACTED TO 95% AS DETERMINED BY MASHTO T-180.
11. ALL SIDEWALKS AND SIDEWALK RAMPS SHALL BE IN CONFORMANCE WITH CURRENT ADA CRITERIA.
12. WATER AND SEWER FOR THIS SUBDIVISION IS PUBLIC, AND PROVIDED UNDER THE VILLAGE OF CEDAR RIDGE, SECTION 1 F-98-52. DRAINAGE AREA IS PATUENT. CONTRACT NUMBERS 34-3652-D AND 34-3652-D.
13. WETLANDS DELINEATION COMPILED BY ECO-SCIENCE PROFESSIONALS INC. DATED MARCH, 1998.
14. TRAFFIC STUDY COMPILED BY LEE CUNNINGHAM & ASSOC. DATED MARCH, 1998 AND WAS REVIEWED & APPROVED AS PART OF THE PRELIMINARY EQUIVALENT SKETCH PLAN APPROVED 7-1-98.
15. NOISE STUDY PREPARED BY TSA GROUP, INC. ON FEB., 1998, APPROVED 1-6-99.
16. EXISTING UTILITIES WERE LOCATED BY RECORD DRAWINGS AND/OR FIELD RUN SURVEY BY TSA GROUP, INC., 5/95. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
17. UNLESS NOTED AS "PRIVATE" ALL EASEMENTS ARE PUBLIC.
18. STORMWATER MANAGEMENT AND WATER QUALITY FOR THIS PROJECT WAS PROVIDED UNDER THE VILLAGE OF CEDAR RIDGE, SECTION 1 F-98-52.
19. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, WETLANDS BUFFERS, STREAM BUFFERS OR FOREST CONSERVATION RETENTION AREAS.
20. THE FLOODPLAIN STUDY WAS PERFORMED BY THE TSA GROUP, INC. DATED 4/97, AND AS TAKEN FROM THE MIDDLE PATUXENT RIVER, DRAINAGE STUDY PREPARED BY KIDDE CONSULTANTS, INC. CAPITAL PROJ. NO. D-1028.
21. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN TREES AND STREET LIGHTS.

NO.	DATE	REVISION

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-8644

OWNERS: TOLL MD LIMITED PARTNERSHIP A MD LIMITED PARTNERSHIP 3208 TOWER OAKS BOULEVARD SUITE 310 ROCKVILLE, MARYLAND 20852	PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2 A SUBDIVISION OF PARCEL 88, TAX MAP 41; P/O PARCEL 116, TAX MAP 35 AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 58 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1
DEVELOPER: SDC GROUP, INC. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244	LOCATION: TAX MAP 41 - LOTS 58 & 88; VILLAGE OF CEDAR RIDGE, SECTION 1 PARCEL 88, AND P/O PARCEL 116; TAX MAP 35 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE SHEET SP-97-02 PB-319 PB 312 F-98-52 SP-98-14 F-93-70 DATE: OCTOBER, 1998 JANUARY, 1999	PROJECT NO. 1088 SHEET 1 OF 7

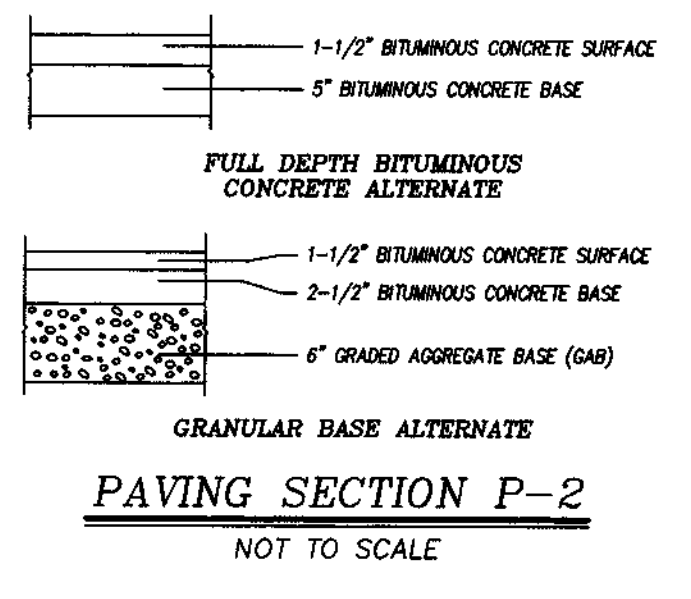
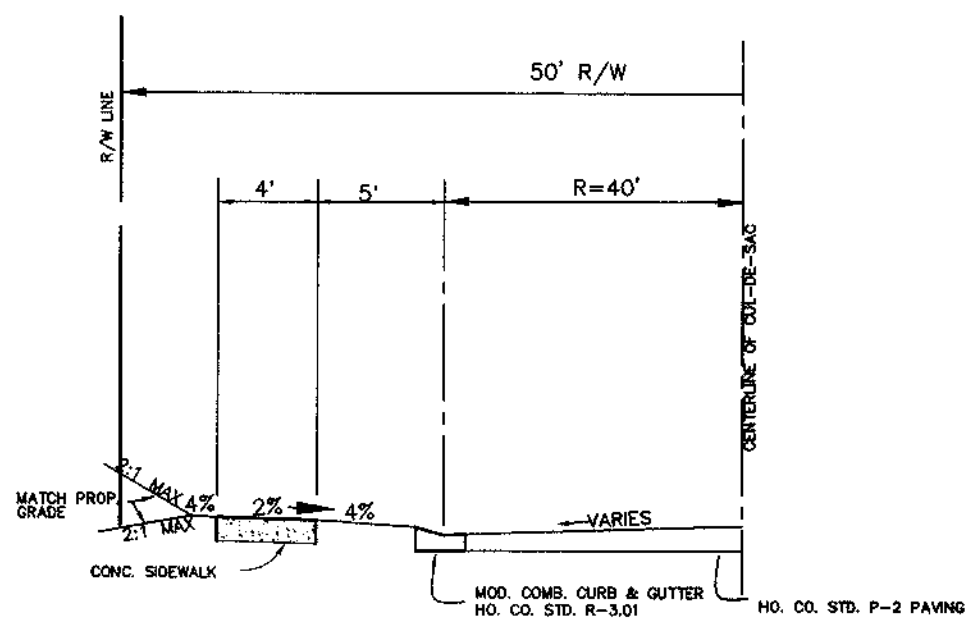
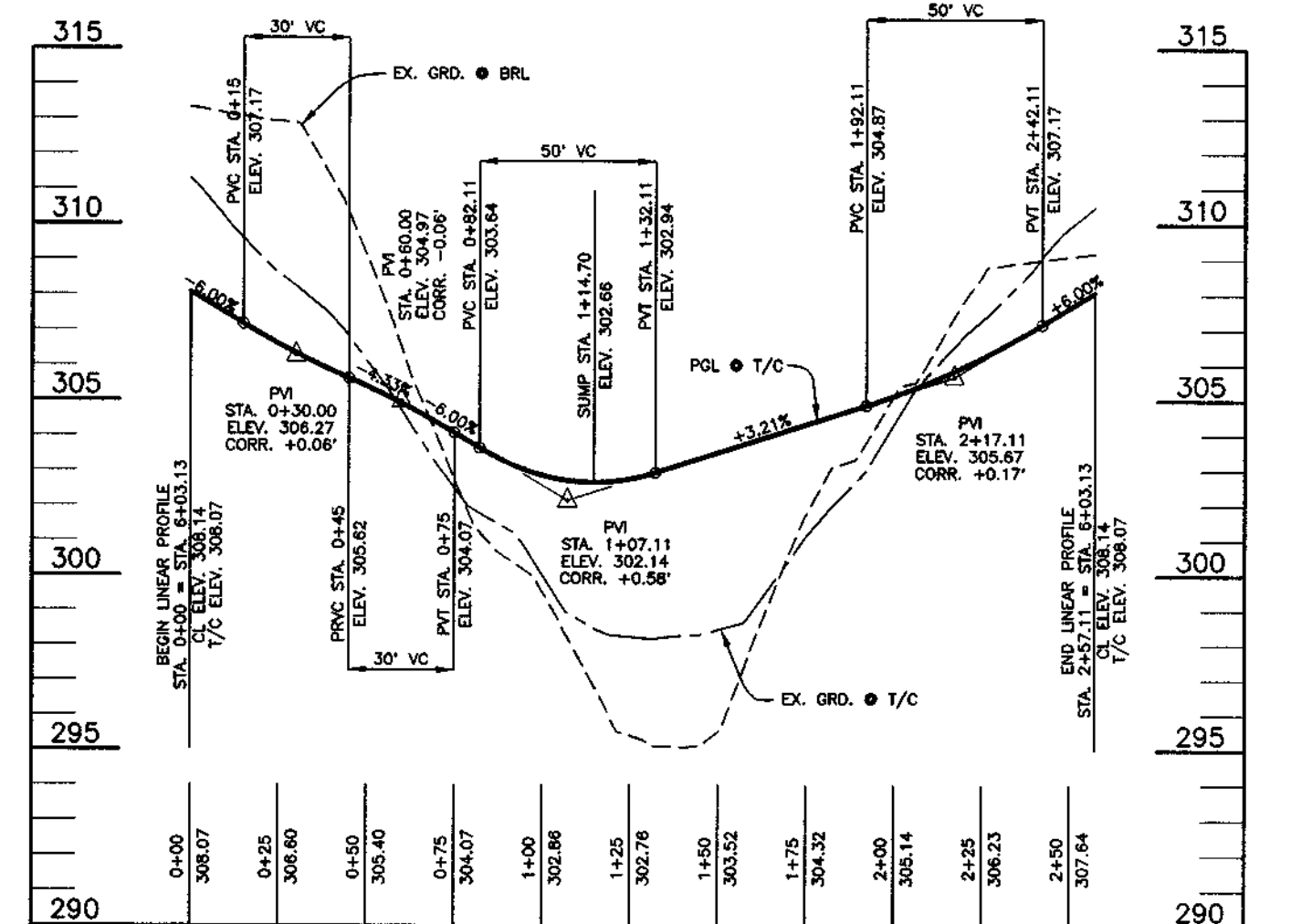
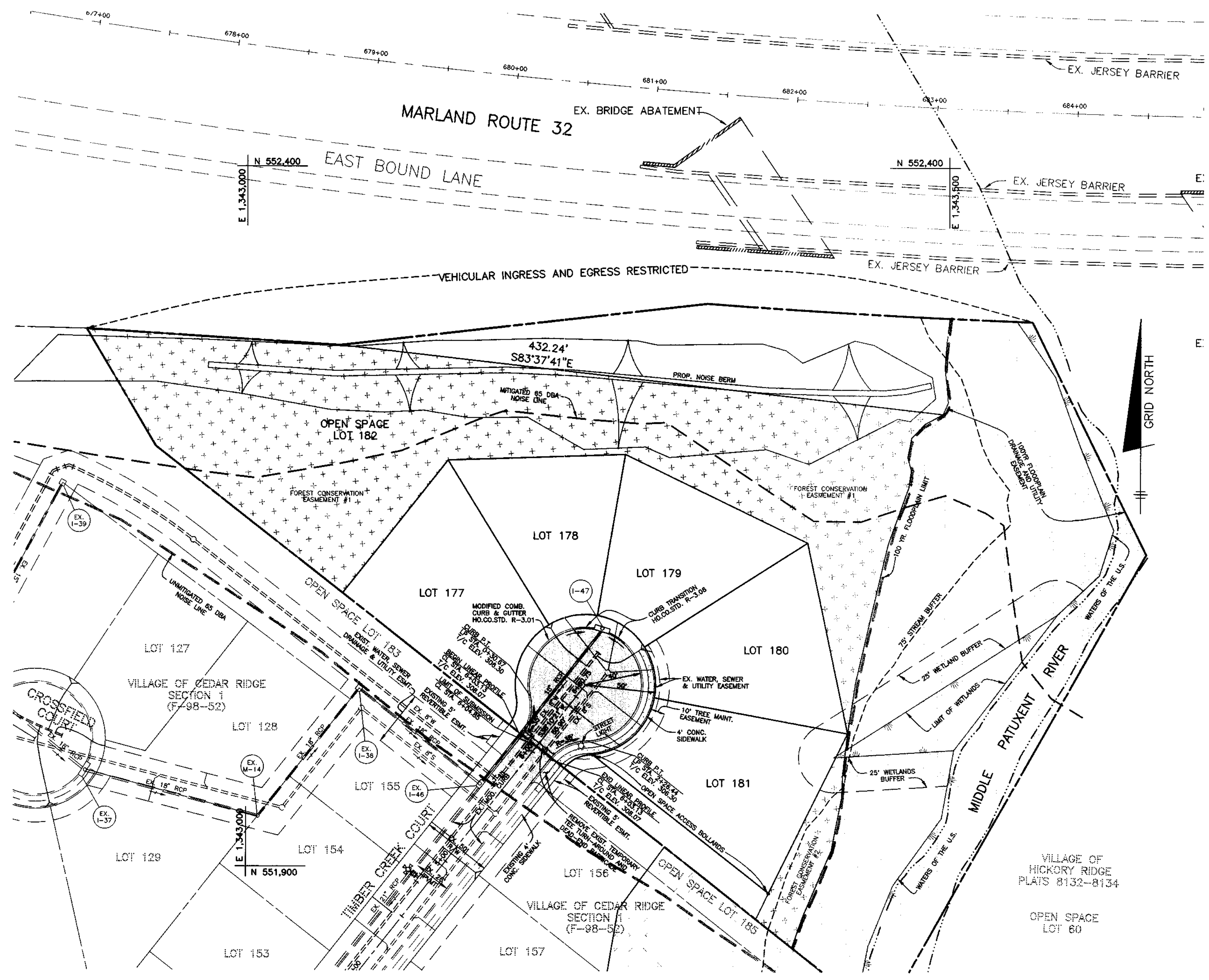
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Demko 3-5-99
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Linda Hamilton 3/10/95
 CHIEF, DIVISION OF LAND DEVELOPMENT

John Cummings
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

PLAN
SCALE: 1" = 200'

Auto Draw: 7/02/95/01 Date: 8-1-1998



NOTE: ALL ROADS ARE TO BE PUBLIC ROADS

STREET LIGHT SCHEDULE		
SYMBOL	LOCATION	DESCRIPTION
☆	TIMBER CREEK COURT	100 WATT HPS VAPOR TRADITIONARE POST TOP MOUNTED ON 14" BLACK FIBERGLASS POLE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 2-5-99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton 7/0/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

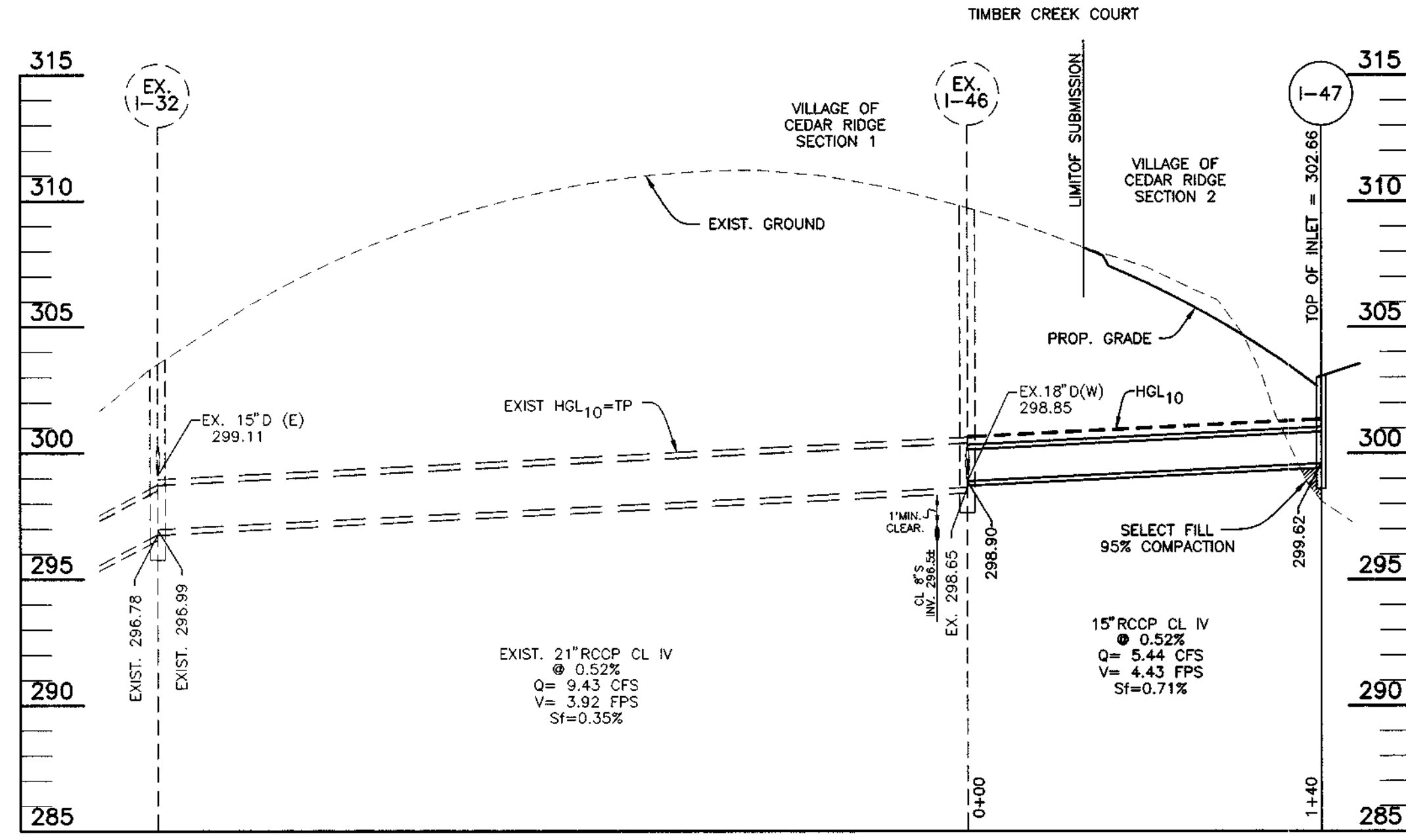
Mike Deussen 2/4/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO. DATE REVISION	
BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644	
OWNERS: TOLL MD LIMITED PARTNERSHIP A MD LIMITED PARTNERSHIP 3206 TOWER OAKS BOULEVARD SUITE 310 ROCKVILLE, MARYLAND 20852 SDC GROUP, INC. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244	PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2 A SUBDIVISION OF PARCEL 68, TAX MAP 41; P/O PARCEL 116, TAX MAP 35 AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 58 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1 LOCATION: TAX MAP 41 - LOTS 58 & 88; VILLAGE OF CEDAR RIDGE, SECTION 1 PARCEL 68, AND P/O PARCEL 116; TAX MAP 35 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER: SDC GROUP, INC. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244	TITLE: ROAD PLAN AND PROFILE SP-97-02 PB-319 PB 312 F-98-52 SP-98-14 F-93-70 DATE: OCTOBER, 1998 PROJECT NO. 1088 JANUARY, 1999
DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM	SCALE: AS SHOWN SHEET 2 OF 7

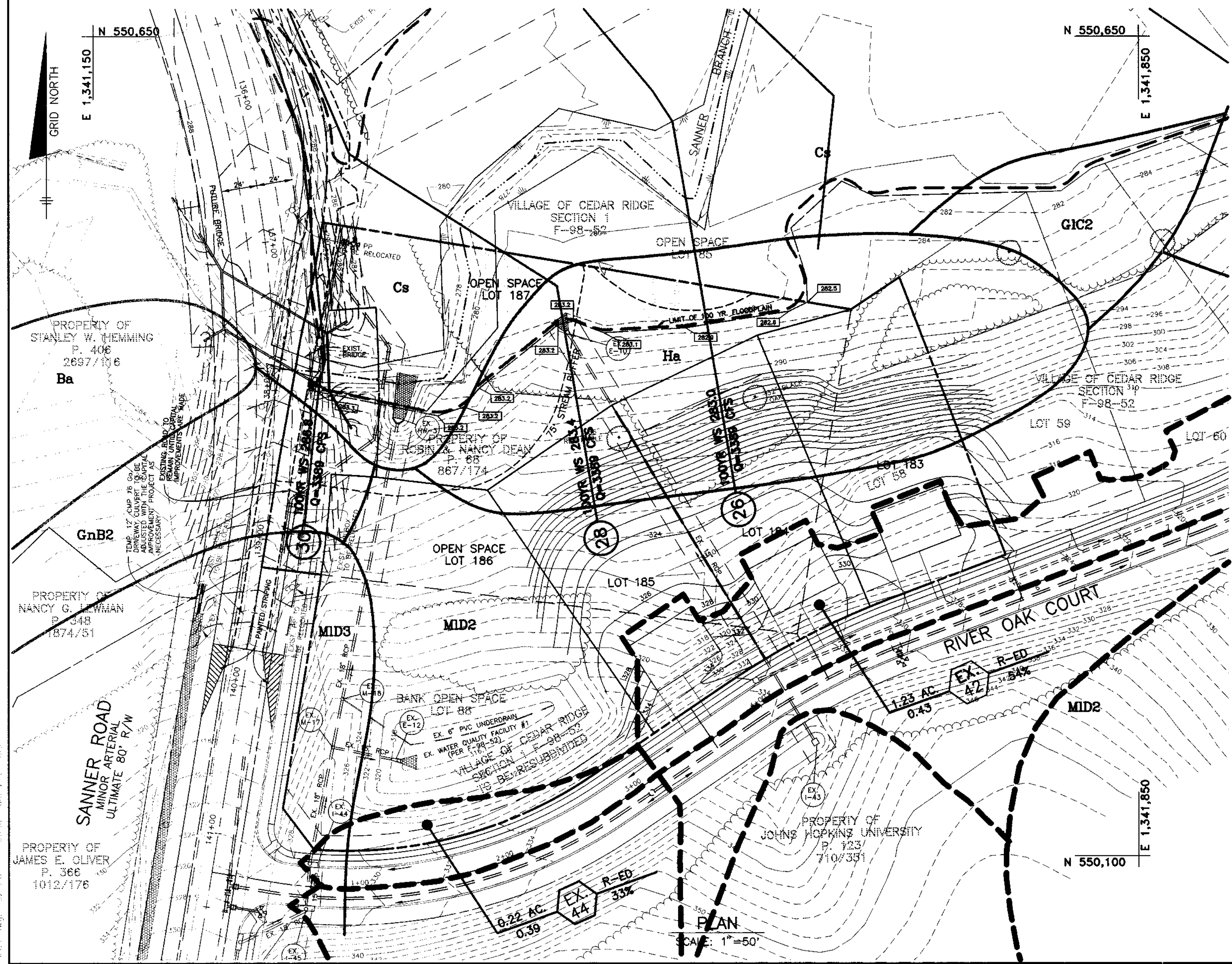
AutoCAD: 10/03/99 Plotter: 10/27/99

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
EX	D	BALE SILT LOAM
CyC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
ChR2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
ChO2	B	CHESTER SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
Ca	B	COMUS SILT LOAM
DA	B	ELJOAK SILT LOAM, 0 TO 3 PERCENT SLOPES
DB2	B	ELJOAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
DO2	B	ELJOAK SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GA	B	GLENDLE LOAM, 0 TO 3 PERCENT SLOPES
GB2	B	GLENDLE LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GC2	B	GLENDLE LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GD2	B	GLENDLE LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GhR2	C	GLENDLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GhO2	C	GLENDLE SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
Hd	D	HATBORO SILT LOAM
MgR2	B	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MgO2	B	MANOR GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MA	B	MANOR LOAM, 0 TO 3 PERCENT SLOPES
MB2	B	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MO2	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MD3	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
ME	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
Md	B	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
Mf	B	MANOR VERY STONY LOAM, 25 TO 60 PERCENT SLOPES
M	B	MIXED ALLUVIAL LAND

* INDICATES HYDROIC SOILS
SOILS MAP NO. 29



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



PLAN
SCALE: 1"=50'



PLAN
SCALE: 1"=50'

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	HO. CO. STD.
1-47	A-10 INLET	LP STA. 1+13.45 OFFS. 0.43' TIMBER CREEK CT.	---	299.62	302.66	SD 4.02 OR 4.41

PIPE SCHEDULE			
RUN	SIZE	CLASS	LENGTH
EX 1-46 TO 1-47	15"	N	140'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Davelle 3-5-91
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton 3/1/91
CHIEF, DIVISION OF LAND DEVELOPMENT

John Dammann 3/1/91
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

OWNERS: TOLL MD LIMITED PARTNERSHIP A MD LIMITED PARTNERSHIP 3206 TOWER OAKS BOULEVARD SUITE 310 ROCKVILLE, MARYLAND 20852	PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2 A SUBDIVISION OF PARCEL 68, TAX MAP 41-17-0 PARCEL 116, TAX MAP 35 AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 58 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1
DEVELOPER: SDC GROUP, INC. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244	TITLE: DRAINAGE AREA MAP AND STORM DRAIN PROFILES SP-97-02 PB-319 PB 312 F-98-52 SP-98-14 F-93-70 DATE: OCTOBER, 1998 JANUARY, 1999
DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM	
SCALE: AS SHOWN SHEET 3 OF 7	

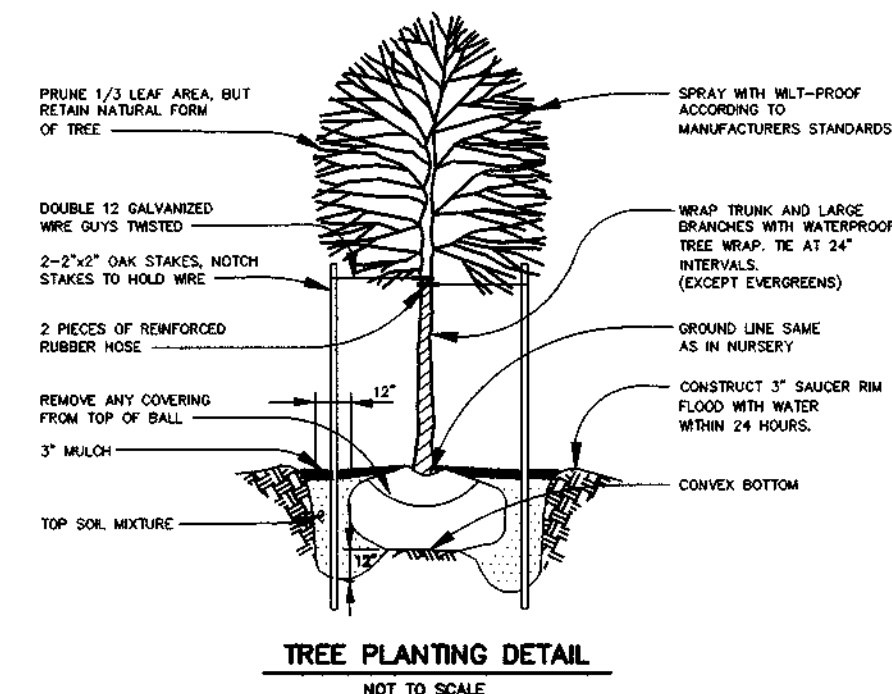
SCHEDULE A PERIMETER LANDSCAPE EDGE			
LANDSCAPE TYPE	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROP.
	A	B	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	676'	210'	565'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	YES, 565'
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO
NUMBER OF PLANTS REQUIRED	676 L.F.	210 L.F.	0 L.F.
SHADE TREES (1:50)	14	4	0
EVERGREEN TREES (1:40)	17	6	—
OTHER TREES (2:1 SUBSTITUTE)	—	—	—
SHRUBS	—	—	—
NUMBER OF PLANTS PROVIDED	14	4	0
SHADE TREES	17	6	—
EVERGREEN TREES	—	—	—
OTHER TREES (2:1 SUBSTITUTE)	—	—	—
SHRUBS (10:1 SUBSTITUTE)	—	—	—

- ① AREA NOT PREVIOUSLY PART OF SECTION 1 PLANS F-98-52.
 ② EXISTING WOODS WITH WIDTH 20' OR GREATER.

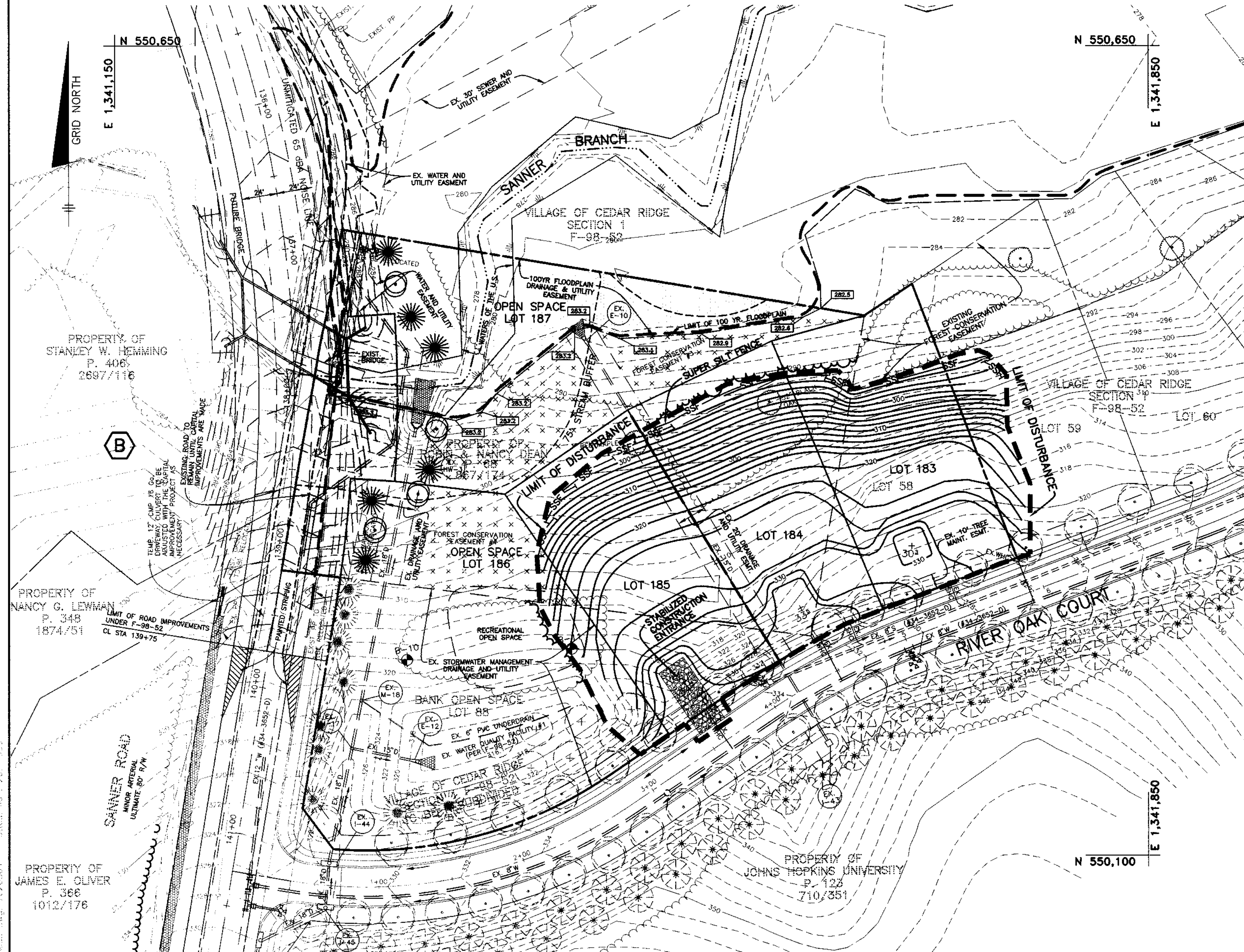
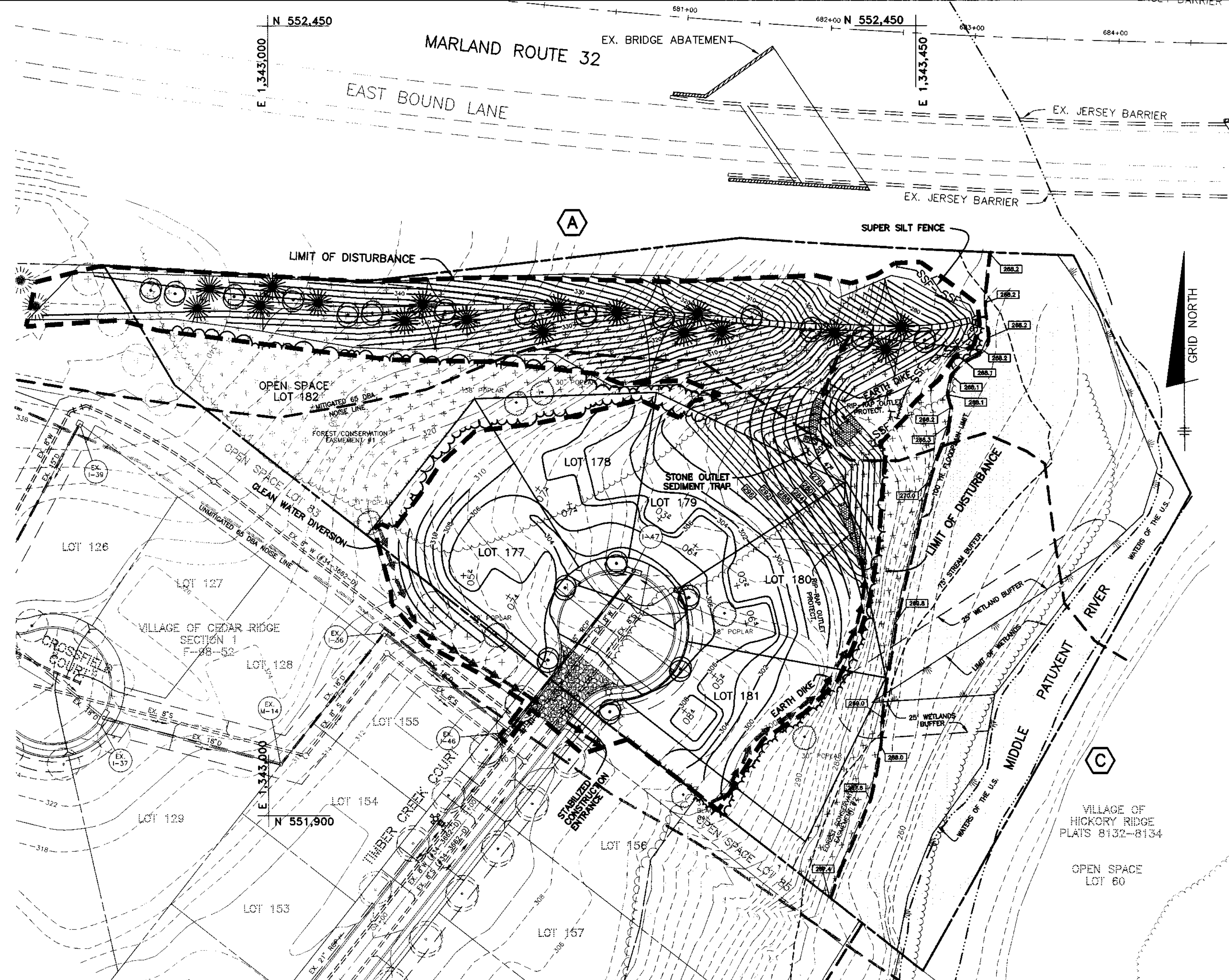
LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
☉	102	PLANTANUS ACERIFOLIA 'BLOODGOOD' (Bloodgood London Plane)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	162	PINUS STROBUS (Eastern White Pine)	5'-6" ht. UNSHEARED
☉	59	CUPRESSUS VIRGATA LEYLANDII (Leyland Cypress)	5'-6" HEIGHT
☉	85	TILIA CORDATA 'GREENSPIRE' (Greenspire Littleleaf Linden)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	104	ACER RUBRA (Red Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	193	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	18	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	23	PINUS STROBUS (Eastern White Pine)	5'-6" ht. UNSHEARED

* PER F-98-52

STREET TREE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
☉	6	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B&B FULL HEAD



- NOTE:**
- TREES SHOULD BE PLANTED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVING AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.
 - TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.
 - SEE TREE PLANTING DETAIL - THIS SHEET.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MAJAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING TREES IN THE AMOUNT OF \$8,850.00 MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.



BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED 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.

James R. Maxley III 2/10/99
 DEVELOPER DATE

BY THE ENGINEER:
 I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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.

Donald Mason 1/23/99
 ENGINEER - DONALD A. MASON, P.E. # 21443 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Cheryl Simon / as 2/22/99
 NATURAL RESOURCE CONSERVATION SERVICE DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jeffrey Selig 2/22/99
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chris Deussen 3/9/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Stanton 3/14/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Andrew M. Daniels 3-5-99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

STONE OUTLET SEDIMENT TRAP DATA

DRAINAGE AREA	2.9 ACRES
STORAGE REQUIRED	10440 CU.FT.
DRY STORAGE	5220 CU.FT.
WET STORAGE	5220 CU.FT.
STORAGE PROVIDED	8802 CU.FT.
DRY STORAGE	6416 CU.FT.
WET STORAGE	276.00
BOTTOM ELEVATION	276.00 TO 280.00
WET STORAGE LIMIT	280.00 TO 283.00
CLEANOUT ELEVATION	278.00
EMBANKMENT ELEVATION	284.00
WEIR ELEVATION	283.00
WEIR LENGTH	12'

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6644

OWNERS: TOLL MD LIMITED PARTNERSHIP
 3206 TOWER OAKS BOULEVARD
 SUITE 310
 ROCKVILLE, MARYLAND 20852

PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2
 A SUBDIVISION OF PARCEL 68, MAP 431, P/O PARCEL 116, TAX MAP 35; AND A RESUBDIVISION OF OPEN SPACE LOT 98 AND LOT 99 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1

DEVELOPER: SDC GROUP, INC.
 P.O. BOX 417
 ELLICOTT CITY, MARYLAND 21041
 410-465-4244

TITLE: GRADING, SEDIMENT & EROSION CONTROL AND LANDSCAPE PLAN

DATE: OCTOBER, 1998
 JANUARY, 1999

DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM SCALE: AS SHOWN SHEET 4 OF 7

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1855).
- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL", REVISIONS THERETO.
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7. SITE ANALYSIS:

Table with 2 columns: Category and Value. Includes TOTAL AREA OF SITE (7.98 ACRES), AREA DISTURBED (3.82 ACRES), AREA TO BE ROOFED OR PAVED (0.44 ACRES), AREA TO BE VEGETATIVELY STABILIZED (3.38 ACRES), TOTAL CUT (1152 CY), TOTAL FILL (32811 CY), and OFFSITE WASTE/BORROW AREA LOCATION (F-98-52).

- 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 10. 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.
- 11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

TEMPORARY SEEDBED PREPARATIONS

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

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

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

SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT) FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT) FOR THE PERIOD NOVEMBER 16 THROUGH 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 SOO.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAM STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FT OR HIGHER, USE 348 GALLONS PER ACRE (8 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.

PERMANENT SEEDBED PREPARATIONS

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

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

- 1. PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 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 TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).
- 2. ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 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 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF 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 THROUGH FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOO. OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WELL ANCHORED STRAW.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAM STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDBED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TOPSOIL SPECIFICATIONS

1. Topsoil salvaged from the existing site may be used provided that it meets the standards 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 Maryland Agricultural Experiment Station.

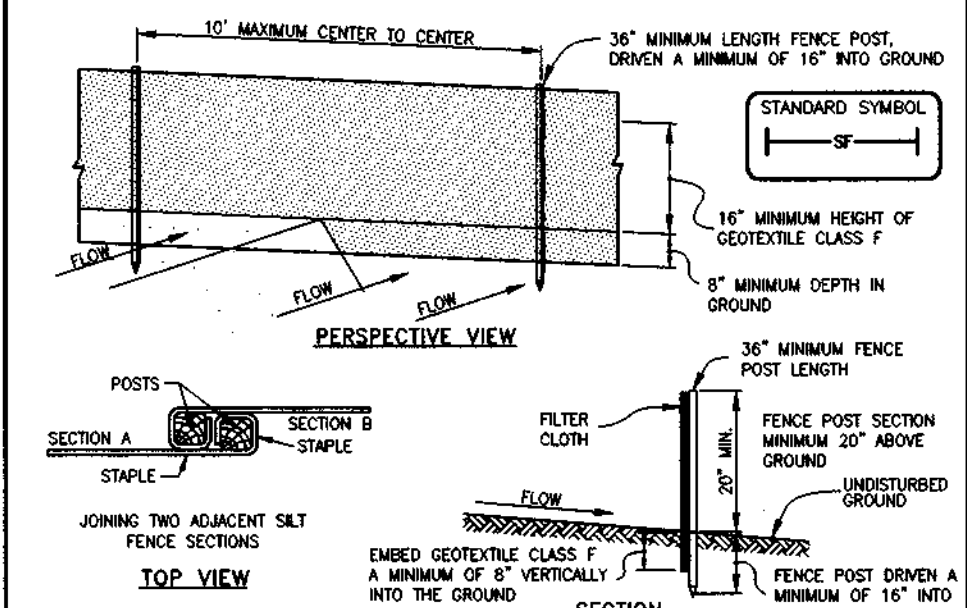
2. Topsoil Specifications - Soil to be used as topsoil must meet the following:

- i. 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 soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting texture subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, roots, sticks, rocks, trash, or other materials larger than 1-1/2" in diameter.
- ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutsedge, poison ivy, thistle, or others as specified.
- iii. 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.
- iii. For sites having disturbed areas over 5 acres:
 - 1. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
 - iv. For sites having disturbed areas over 5 acres:
 - 1. On soil meeting Topsoil specifications, obtain test results detailing fertilizer and lime amendments required to bring the soil into compliance with the following:
 - a. 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.
 - b. Organic content of topsoil shall be not less than 1.5 percent by weight.
 - c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - d. 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 phytotoxic materials.

Notes: 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.

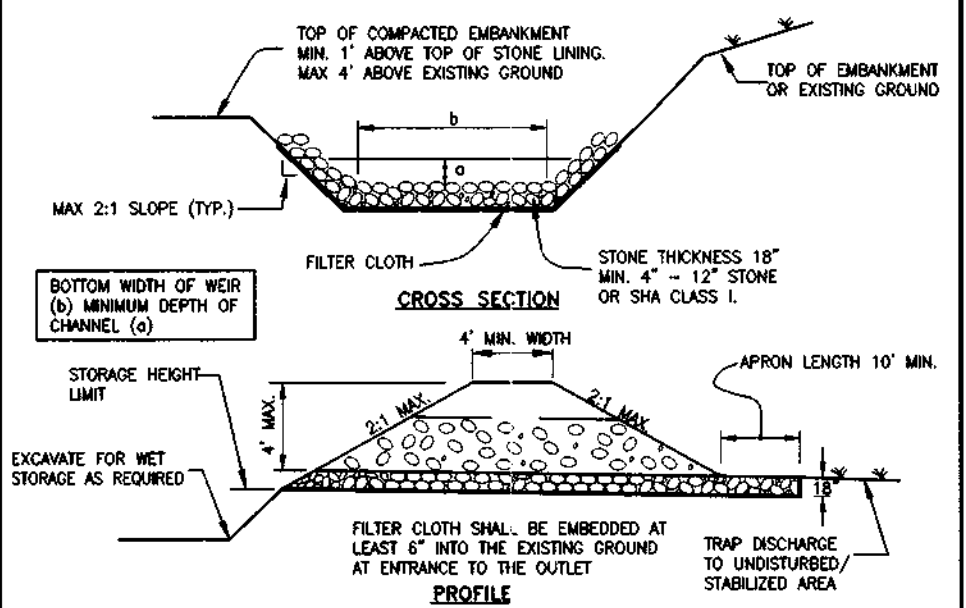
ii. Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

DETAIL 22 - SILT FENCE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE: 1. Fence posts shall be a minimum of 3/4" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut), or 1 3/4" diameter (minimum diameter), and shall be 1/4" vertically. Posts shall be standard T or U section weighing not less than 1.00 pound per linear foot.

DETAIL 10 - RIP-RAP OUTLET SEDIMENT TRAP - ST III

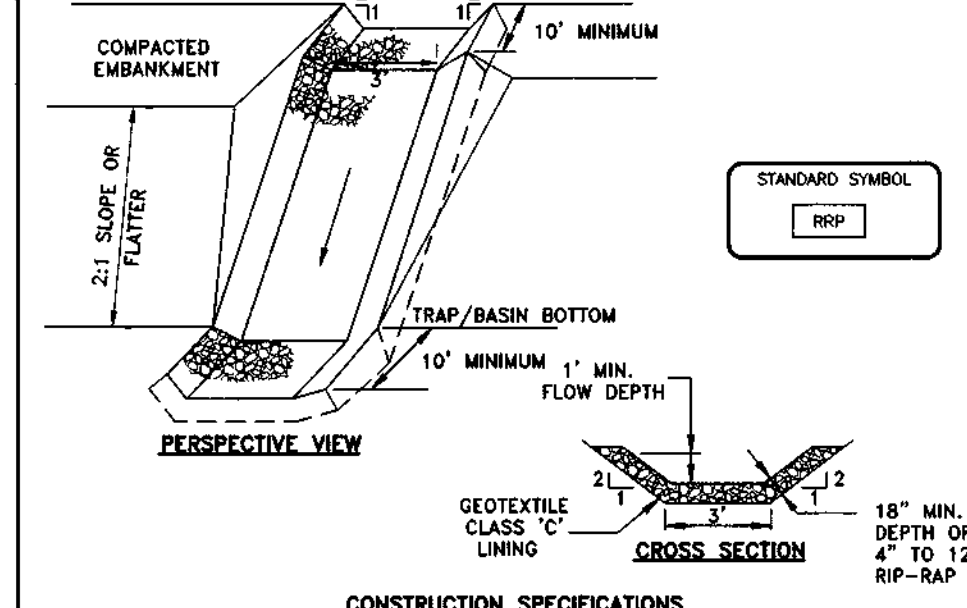


CONSTRUCTION NOTES FOR RIP-RAP OUTLET SEDIMENT TRAP - ST III: 1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

TRAP-RAP OUTLET SEDIMENT TRAP - ST III

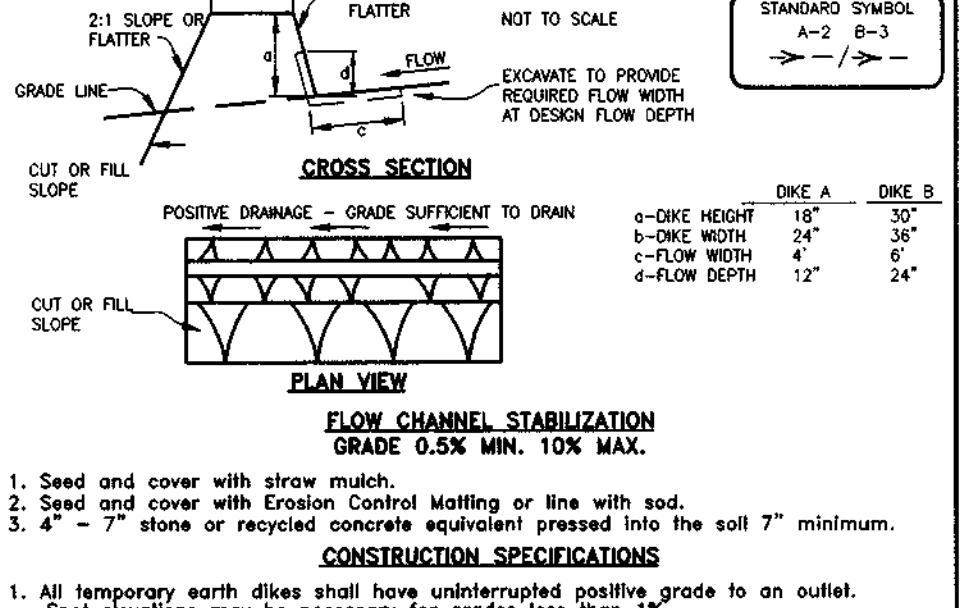
CONSTRUCTION SPECIFICATIONS: 1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

DETAIL 5 - RIP-RAP INFLOW PROTECTION



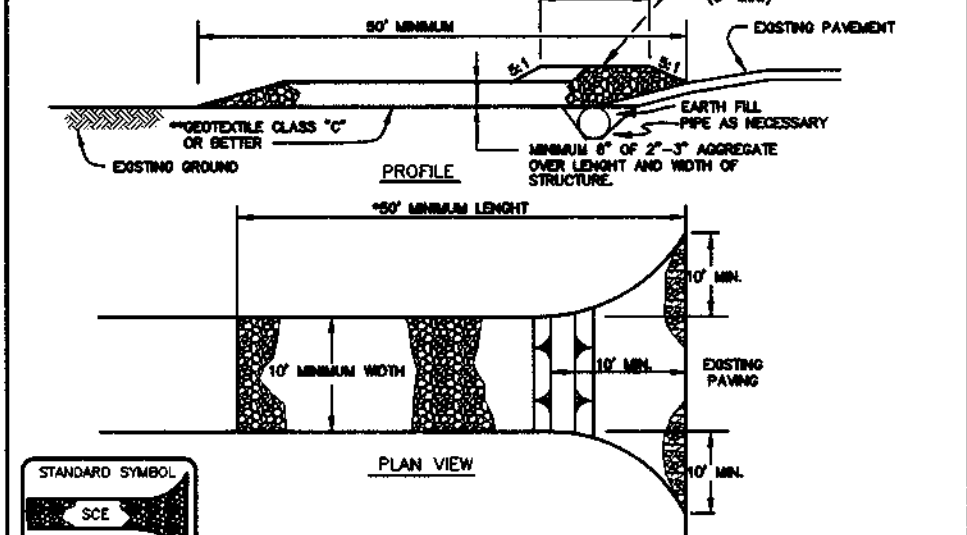
CONSTRUCTION SPECIFICATIONS: 1. All lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3" (min.) bottom width. The channel shall be lined with 4" to 12" rip-rap.

DETAIL 1 - EARTH DIKE



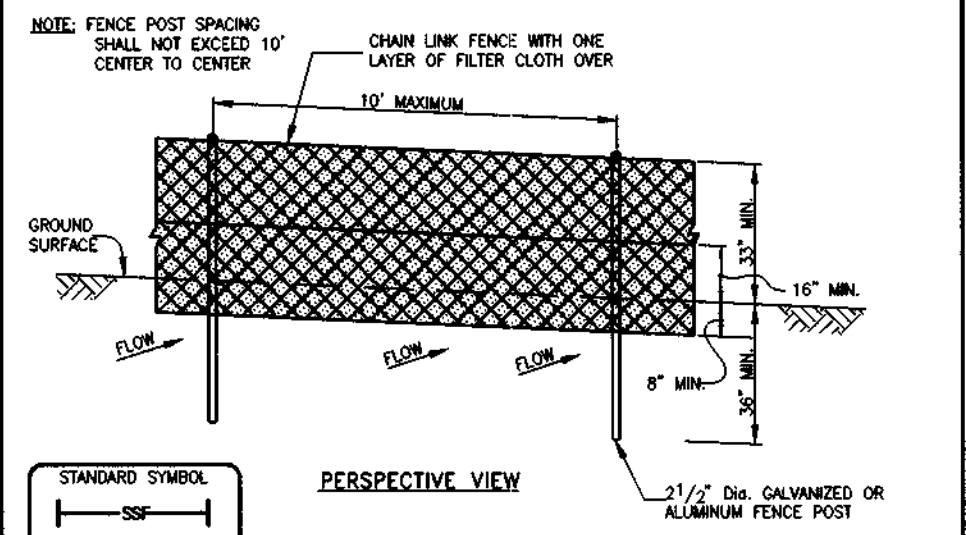
CONSTRUCTION SPECIFICATIONS: 1. Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS: 1. Length - minimum of 50' (30' for single residence lot).

DETAIL 33 - SUPER SILT FENCE



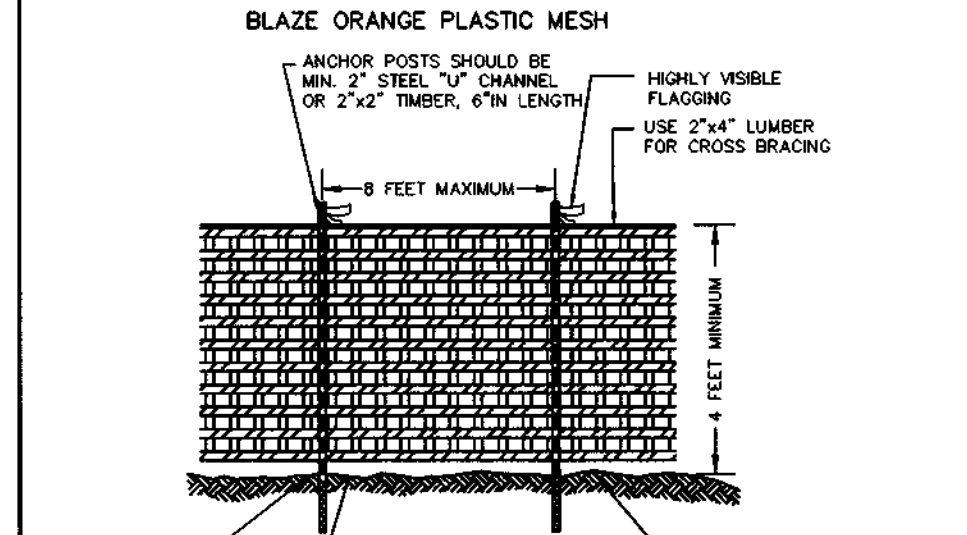
CONSTRUCTION SPECIFICATIONS: 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing.

SUPER SILT FENCE

CONSTRUCTION SPECIFICATIONS: 1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing.

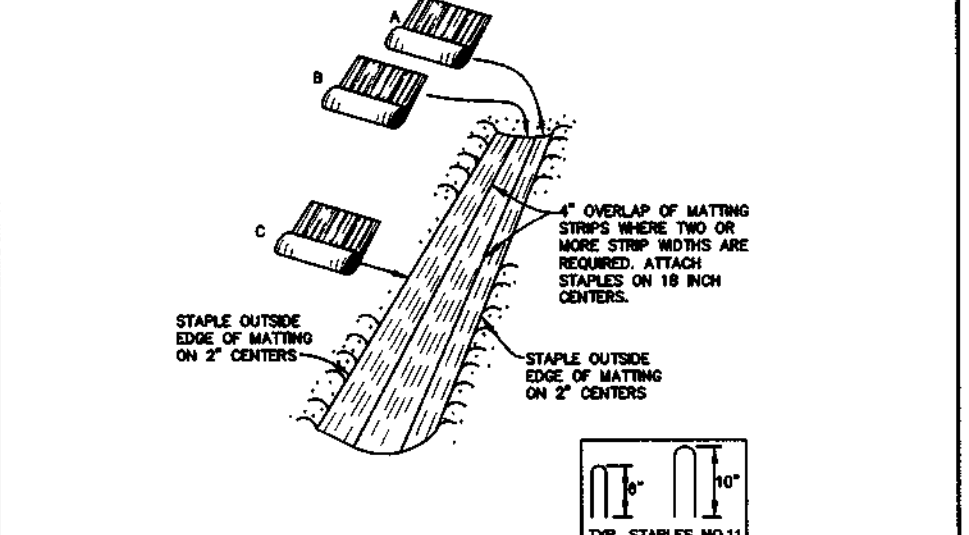
Table with 4 columns: Slope, Slopesides, Slope Length (approx), and Silt Fence Length (maximum). It lists specifications for various slope ratios like 0-10%, 10-20%, etc.

TREE PROTECTION FENCE



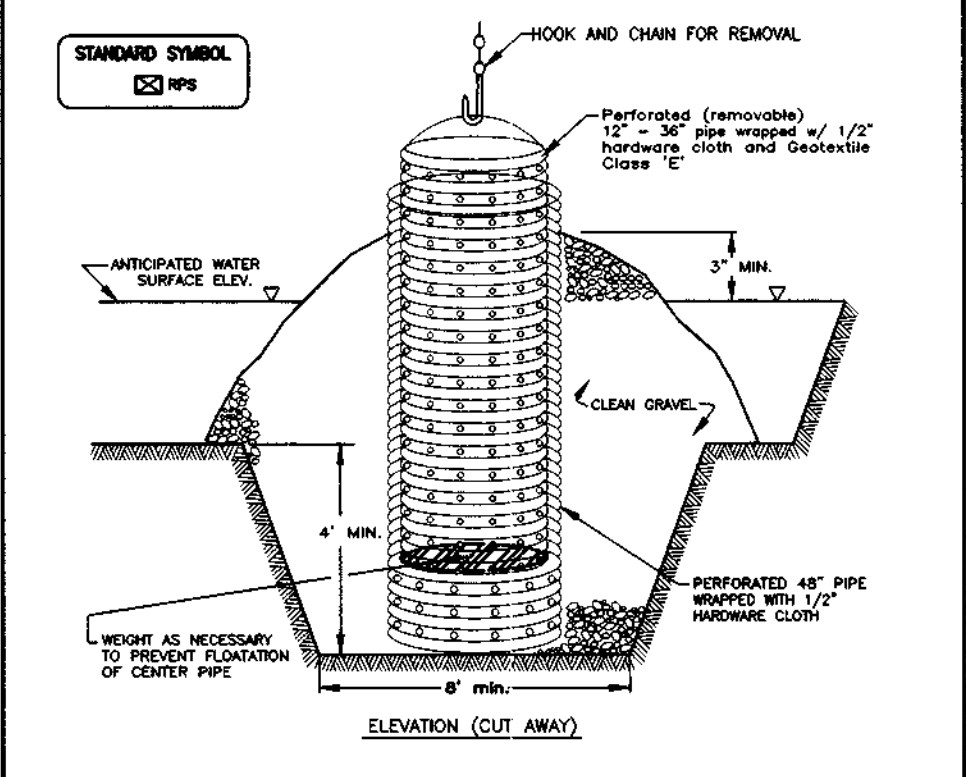
CONSTRUCTION SPECIFICATIONS: 1. FOREST PROTECTION DEVICE ONLY. 2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.

DETAIL 30 - EROSION CONTROL MATTING



CONSTRUCTION SPECIFICATIONS: 1. SEW-IN THE MATTING BY PLACING THE TOP EDGES OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. RAKE THE TRENCH AND TAMP FINELY TO CONFORM TO THE CHANNEL CROSS-SECTION.

DETAIL 20A - REMOVABLE PUMPING STATION



CONSTRUCTION SPECIFICATIONS: 1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe.

SEQUENCE OF CONSTRUCTION

- NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION OBTAIN GRADING PERMIT.
- 1. INSTALL STABILIZED CONSTRUCTION ENTRANCES, TREE PROTECTION FENCES, SILT FENCES, AND SUPER SILT FENCES. (DAY 1-2).
- 2. INSTALL TEMPORARY SEDIMENT TRAP AND EARTH DIKES. INSTALL STORM DRAIN FROM EX. 1-46 TO 1-47. (DAY 3-7).
- 3. UPON APPROVAL OF THE HO. CO. SEDIMENT CONTROL INSPECTOR, COMMENCE ROAD AND SITE GRADING. SUBGRADE SHALL BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDBED NOTES. (DAY 7-14).
- 4. UPON APPROVAL OF THE HO. CO. SEDIMENT CONTROL INSPECTOR, COMMENCE WITH UTILITY CONSTRUCTION (DAY 14-16).
- 5. INSTALL CONCRETE CURB AND GUTTER. (DAY 17).
- 6. INSTALL PAVING. (DAY 18).
- 7. COMPLETE FINAL GRADING OF SITE (TO EXTENT POSSIBLE), REDISTRIBUTE TOPSOIL OVER SITE AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES. SEE SEDIMENT CONTROL STD. AND SPEC. 2-21-1 FOR TOPSOIL SPECIFICATIONS. INSTALL EROSION CONTROL MATTING IN SWALES AS DESIGNATED ON PLANS. (DAY 19-20).
- 8. UPON THE APPROVAL OF THE HO. CO. SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAP. COMPLETE FILL WITHIN THE TRAP AREA. STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDBED NOTES. (DAY 21-22).

BY THE DEVELOPER: I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED 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.

BY THE ENGINEER: I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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.

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

BENCHMARK ENGINEERING, INC. logo and contact information: 8480 BALTIMORE NATIONAL PIKE, SUITE 418, ELLICOTT CITY, MARYLAND 21043. PHONE: 410-465-8105. FAX: 410-465-8844.

Project information table: OWNERS: TOLL MD LIMITED PARTNERSHIP, PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2, LOCATION: TAX MAP 41 - LOTS 58 & 88; VILLAGE OF CEDAR RIDGE, SECTION 1, DEVELOPER: SDC GROUP, INC., TITLE: SEDIMENT CONTROL NOTES AND DETAILS, DATE: OCTOBER, 1998, PROJECT NO. 1088, SHEET 5 OF 7.

APPENDIX G
FOREST CONSERVATION WORKSHEET

I. BASIC SITE DATA

	ACRES (1/10 acre)
GROSS SITE AREA	7.98
AREA WITHIN 100 YEAR FLOODPLAIN	1.86
AREA WITHIN EXIST. LOTS TO BE RESUBDIVIDED	1.31
NET TRACT AREA	4.81
LAND USE CATEGORY (R-RD, R-RMD, R-S, C/V/O, I)	R-ED

II. INFORMATION FOR CALCULATIONS

A. NET TRACT AREA	4.81
B. REFORESTATION THRESHOLD (20% x A)	0.96
C. AFFORESTATION MINIMUM (15% x A)	0.72
D. EXISTING FOREST ON NET TRACT AREA	2.79
E. FOREST AREAS TO BE CLEARED	2.07
F. FOREST AREAS TO BE RETAINED WITHIN FCE	0.72

- III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION
1. **Reforestation**
If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and clearing of forest areas is proposed, reforestation requirements may apply.
GO TO SECTION IV
- If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.
2. **Afforestation**
If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation requirements apply.
GO TO SECTION V

IV. REFORESTATION CALCULATIONS

	ACRES (1/10 acre)
A. NET TRACT AREA	4.81
B. REFORESTATION THRESHOLD (20% x A)	0.96
D. EXISTING FOREST ON NET TRACT AREA	2.79
E. FOREST AREAS TO BE CLEARED	2.07
F. FOREST AREAS TO BE RETAINED	0.72
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D-F, if F equals or is greater than B, Alternate 1) D-F, if F is less than B, Alternate 2)	1.83
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B-F, if applicable)	0.24
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F-B, Retention Credit, if applicable)	N/A

SELECT THE ALTERNATE THAT APPLIES:

1. **Clearing above the threshold only**

If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD	$G \times 1/4$
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD	I = Retention Credit
TOTAL REFORESTATION REQUIRED	$(G \times 1/4) - I$

If the total reforestation requirement is equal to or less than 0, no reforestation is required.

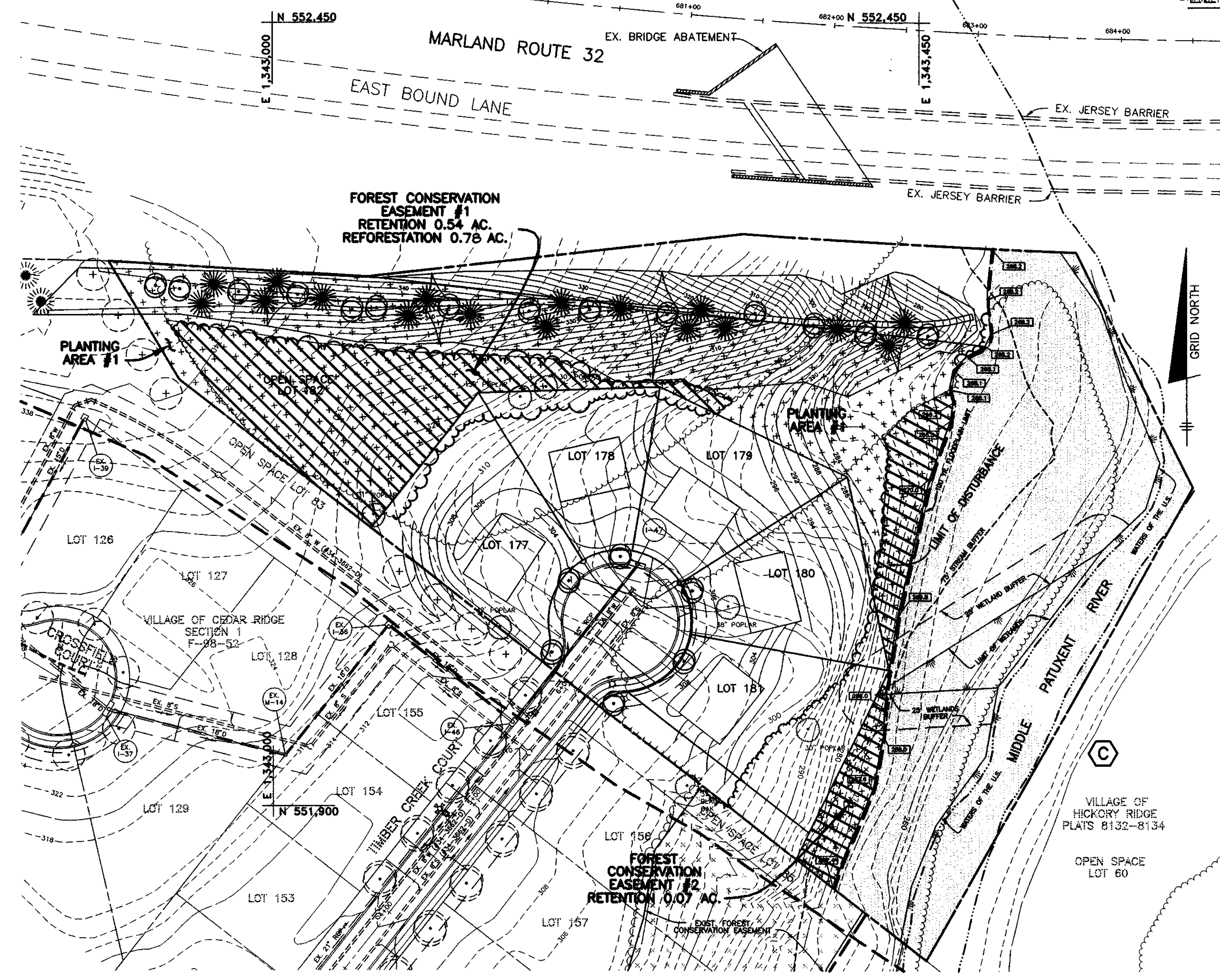
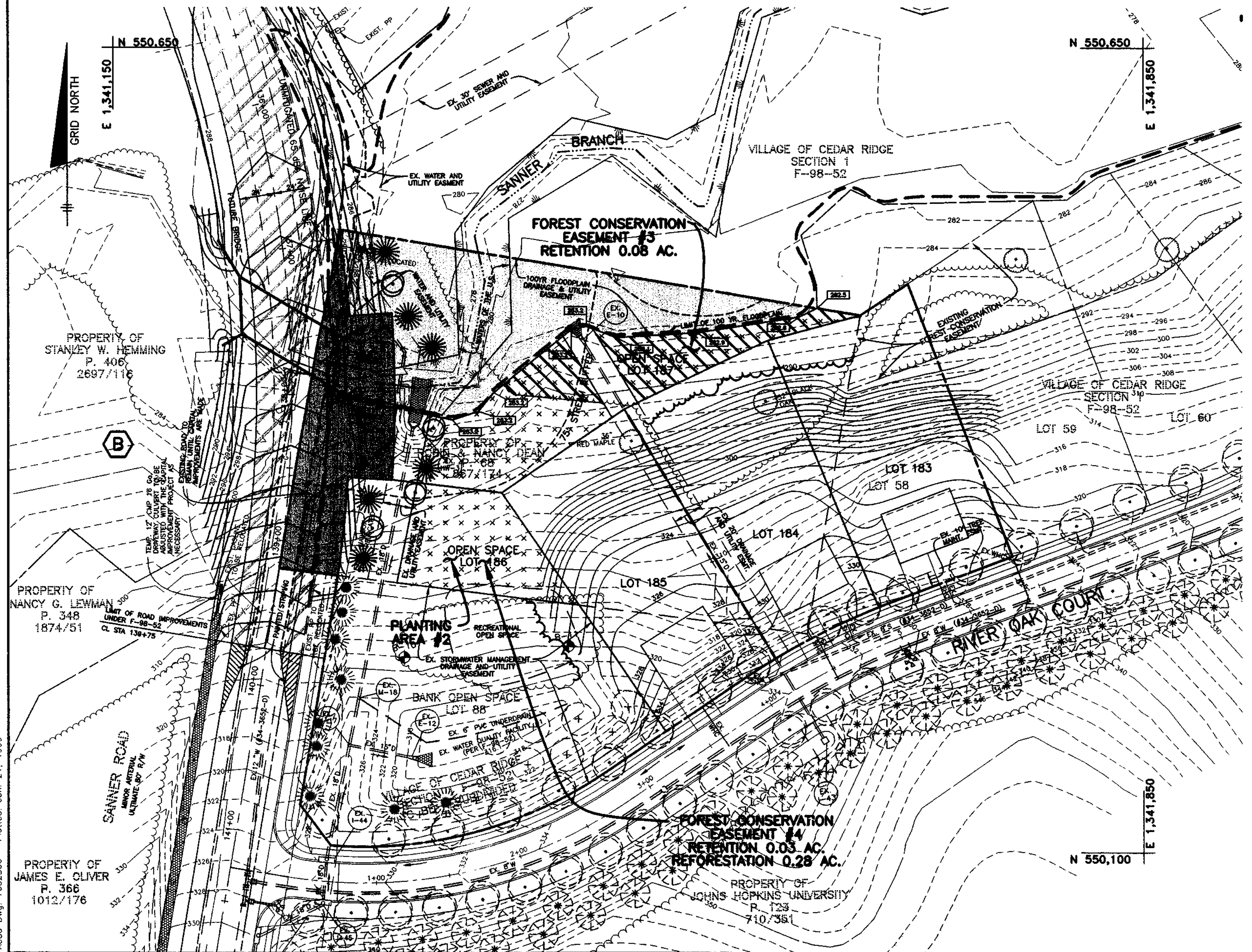
2. **Clearing below the threshold**

If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD	$G \times 1/4$
REFORESTATION FOR CLEARING BELOW THRESHOLD	$H \times 2$
TOTAL REFORESTATION REQUIRED	$(G \times 1/4) + (H \times 2)$

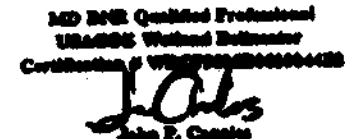
Since clearing occurs below the threshold, no forest retention credit is possible.

NOTE: FOREST CONSERVATION OBLIGATIONS FOR THE PORTION OF THIS SITE BEING RESUBDIVIDED HAVE PREVIOUSLY BEEN MET UNDER F-98-52.



	FOREST CONSERVATION EASEMENT (RETENTION AREA)
	FOREST CONSERVATION EASEMENT (REFORESTATION AREA)

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS



P.O. Box 5006 Glen Arm, MD 21057 (410) 592-6752

SITE DATA		ACRES
GROSS AREA:		7.98
NET TRACT AREA (NTA):		4.81
EXISTING FOREST ON NTA:		2.79
REFORESTATION THRESHOLD:		0.96
AFFORESTATION THRESHOLD:		0.72
FOREST TO BE CLEARED (NTA):		2.07
TOTAL FOREST TO BE RETAINED IN FCE:		0.72
REFORESTATION REQUIRED:		0.94
REFORESTATION PROPOSED:		1.06

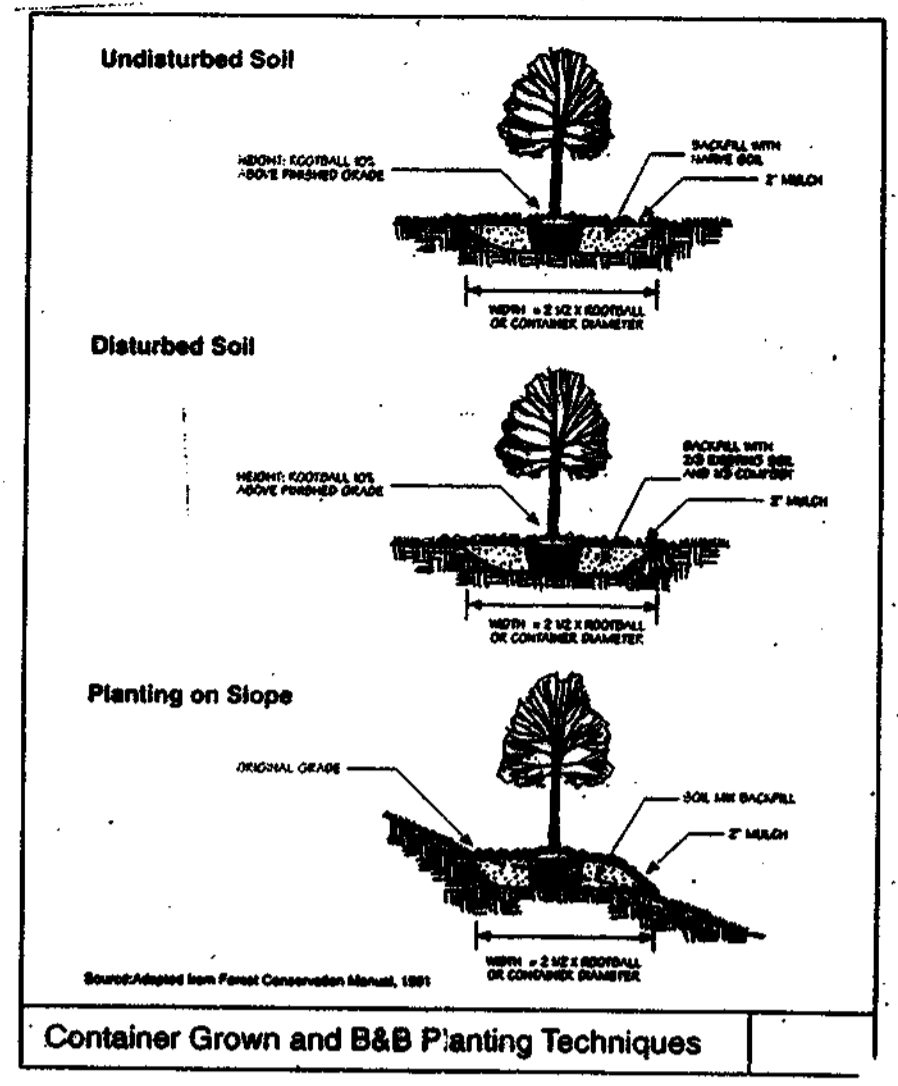
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Danaher</i>	3-5-99
CHIEF, BUREAU OF HIGHWAYS	NS
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Andy Hamata</i>	3/1/99
CHIEF, DIVISION OF LAND DEVELOPMENT	JR
<i>Alan Wynn</i>	3/5/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION	AC

NO.	DATE	REVISION
BENCHMARK ENGINEERING, INC. ENGINEERS - LAND SURVEYORS - PLANNERS 8480 BALTIMORE NATIONAL PIKE - SUITE 418 - ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644		
OWNERS: TOLL MD LIMITED PARTNERSHIP A MD LIMITED PARTNERSHIP 3206 TOWER OAKS BOULEVARD SUITE 310 ROCKVILLE, MARYLAND 20852		PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2 A SUBDIVISION OF PARCEL 88, TAX MAP 41, P/O PARCEL 116, TAX MAP 35, AND A RESUBDIVISION OF OPEN SPACE LOTS 88, 89 AND LOT 90 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1
DEVELOPER: SDC GROUP, INC. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244		LOCATION: TAX MAP 41 - LOTS 88 & 89, VILLAGE OF CEDAR RIDGE, SECTION 1 PARCEL 88, AND P/O PARCEL 116, TAX MAP 35 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: FOREST CONSERVATION PLAN SP-97-02 PB-319 PB-312 F-93-70 WP-98-82 F-93-70 DATE: OCTOBER, 1998 PROJECT NO. 1088 JANUARY, 1999		SCALE: AS SHOWN SHEET 6 OF 7

PLANTING SCHEDULE

PLANTING AREA		SPECIES	SIZE	SPACING
#1	#2			
0.78 AC.	0.28 AC.			
QUANTITY				
8	2	ACER RUBRUM - RED MAPLE	1" CAL.	##
8	2	LIRIODENDRON TULIPIFERA - TULIP POPLAR	1" CAL.	##
27	10	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
27	9	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
27	11	LIRIODENDRON TULIPIFERA - POPLAR	2-3' WHIP	**
27	9	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	**
27	9	PRUNUS SEROTINA - BLACK CHERRY	2-3' WHIP	**
27	10	QUERCUS RUBRA - RED OAK	2-3' WHIP	**
27	10	QUERCUS VELLUTINA - BLACK OAK	2-3' WHIP	**
27	10	SASSAFRAS ALBIDUM - SASSAFRAS	2-4' WHIP	**
27	9	VIBURNUM PRUNIFOLIUM - BLACKHAW	18-24" B.T.	**

KEY:
 CAL. - CALIPER
 CONT. - CONTAINER GROWN
 B.T. - BRANCHED TRANSPLANT
 ## - ONE INCH CALIPER TREES SHALL BE PLANTED, AS SHOWN BY . SPECIES MAY BE RANDOMLY MIXED.
 ** - TREES AND SHRUBS SHALL BE PLANTED, ON AVERAGE, AT A SPACING OF 11 FEET ON CENTER, NOT IN A GRID PATTERN. LIMITED CLUMPING OF SHRUBS IS PERMITTED.



Container Grown and B&B Planting Techniques

Planting Specifications

- Planting of nursery stock shall take place between March 15th and April 30th.
- A 1/2" (1/2) inch layer of mulch shall be spread over all foundation areas impacted by site grading to ensure a suitable planting area. Disturbed areas shall be seeded and stabilized as per general construction plan for project. Planting areas not impacted by site grading shall have an additional 1/2" layer of mulch.
- All bare-rooted nursery stock shall have their root systems dipped into an anti-fungal gel prior to planting.
- Plants shall be installed so that the top of root mass is level with the top of existing grade. Backfill in the planting pit shall consist of 3 parts existing soil to 1 part pine fines or equivalent. Fertilizer shall consist of Agribon 22-8-2, or equivalent, applied as per manufacturer's specifications.
- A 2" (2) inch layer of hardwood mulch shall be placed over the root area of all plantings.
- Root material shall be transported to the site in a tarp or covered truck. Plants shall be kept moist prior to planting.
- All equipment and materials associated with the planting operations shall be removed from the site by the contractor.

Seasoning of Construction

- Soil erosion control and tree protection devices shall be installed in accordance with general construction plan for site. Site shall be graded in accordance with general construction plan.
- Proposed foundation areas impacted by site grading shall be seeded and stabilized as per all of Planting/Soil Specifications for project.
- Plants shall be installed as per Plant Schedule and the Planting/Soil Specifications for the project.
- Upon completion of site planting, signs shall be installed as per the Forest Protection Devices shown on the Forest Conservation Plan.
- Plantings shall be maintained and protected in accordance with the Maintenance and Care requirements for project.

Maintenance of Plantings

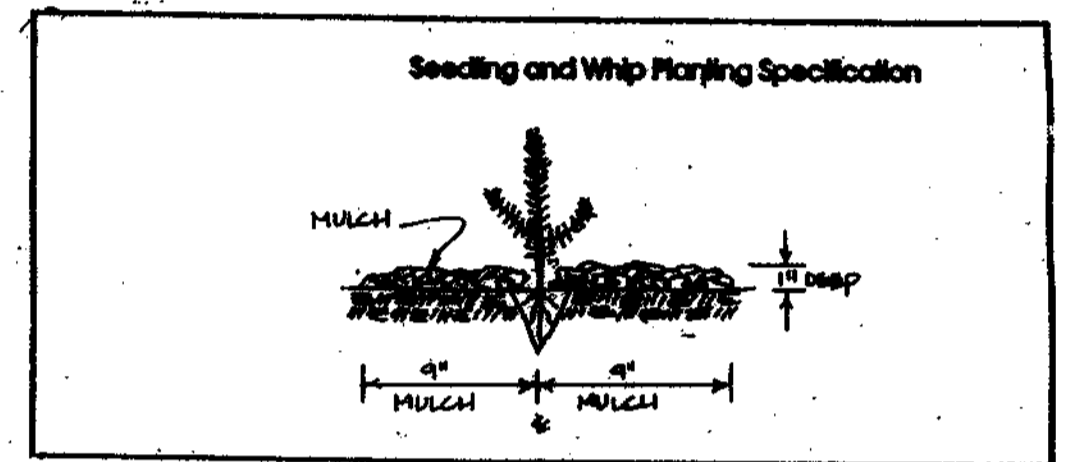
- Maintenance of plantings shall last for a period of 24 months.
- All plant material shall be watered once a week during the first growing season. Watering may be more or less frequent depending on weather conditions. During second growing season, once a month during May-September, if needed. Insects control and mulch work will be required from foundation areas. All soil associated with project will be retained.
- Plants will be established a minimum of 100% during the growing season for each plant type and diameter. Survival statistics will be treated with the appropriate agent. Dead material will be removed from planting.

Guarantee Requirements

- A 75 percent survival rate of foundation plantings will be required at the end of the 24 month maintenance period. All plant material below the 75 percent threshold will be replaced at the beginning of the next growing season. After one growing season, plant material shall be replaced at 100% survival threshold.
- The contractor will not be liable for plant loss due to theft or vandalism.

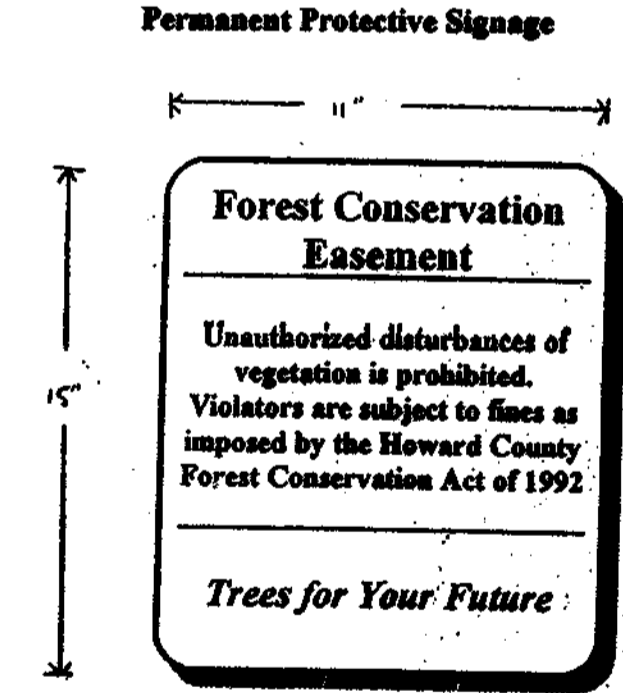
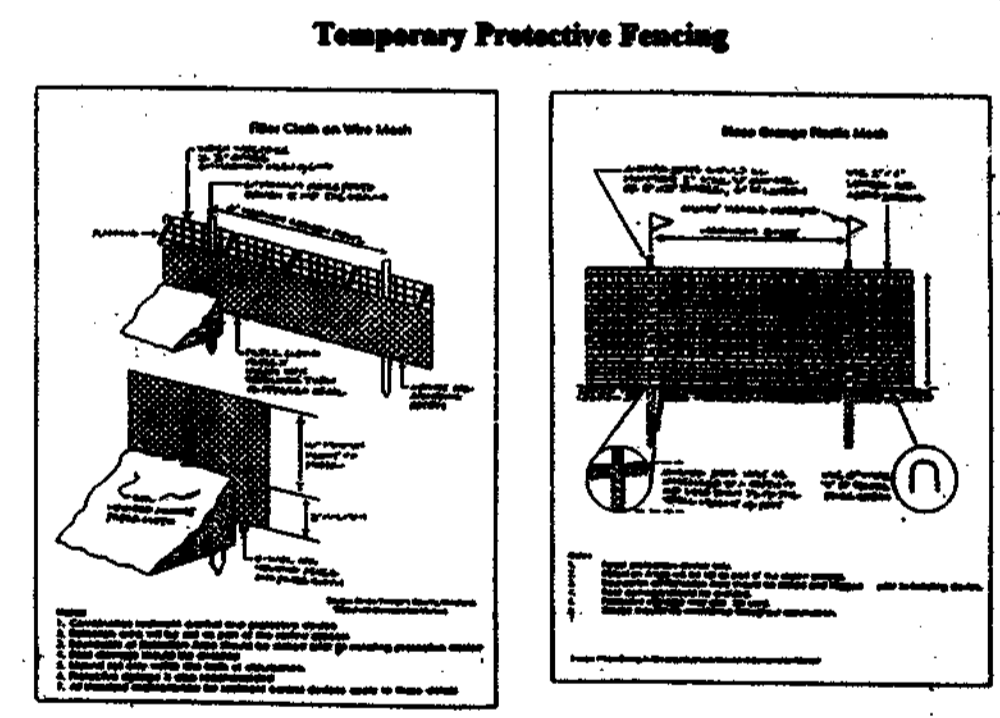
Survey for Re-vegetation

- The developer shall post a survey (hand, letter or work) to ensure that re-vegetation plantings are completed. Upon completion of the plantings by the County, the hand shall be returned.



FCE NOTES

- Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
- Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land covenants.
- Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or the FCE boundary, whichever is greater.
- There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
- No stockpiles, parking areas, equipment cleaning areas, etc. shall occur within areas designated as Forest Conservation Easements.
- Temporary fencing shall be used to protect forest resources during construction. The fencing shall be placed along all FCE boundaries which occur within 15 feet of the proposed limits of disturbance.
- Permanent signage shall be placed 50-100' apart along the boundaries of all areas included in Forest Conservation Easements.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Danaher 3-5-99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Andi Hamstra 3/10/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mr. Danaher 3/1/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-485-6105 FAX: 410-485-6644

STATE OF MARYLAND
 PROFESSIONAL ENGINEERING

OWNERS: TOLL MD LIMITED PARTNERSHIP
 A MD LIMITED PARTNERSHIP
 3206 TOWER OAKS BOULEVARD
 SUITE 310
 ROCKVILLE, MARYLAND 20852

PROJECT: VILLAGE OF CEDAR RIDGE
 SECTION 2
 A SUBDIVISION OF PARCEL 88, TAX MAP 41; P/O PARCEL 116, TAX MAP 35;
 AND A RESUBDIVISION OF OPEN SPACE, LOT 38 AND LOT 58 OF THE
 VILLAGE OF CEDAR RIDGE, SECTION 1

DEVELOPER: SDC GROUP, INC.
 P.O. BOX 417
 ELLICOTT CITY, MARYLAND 21041
 410-485-4244

TITLE: FOREST CONSERVATION PLAN
 SP-97-02 PB-319 PB 312 F-93-70 WP-98-82 F-93-70
 DATE: SEPTEMBER, 1998
 PROJECT NO. 1088

DRAWN: YSL/DAM DRAFT: DBT/YSL CHECK: DAM
 SCALE: AS SHOWN SHEET 7 OF 7

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS
 MD DNR Qualified Professional
 USACE Wetland Designer
 Certification # W9279902046184483
 John T. Condit
 P.O. Box 5006 Glen Arm, MD 21057 (410) 592-6752

PLANTING SCHEDULE

PLANTING AREA		SPECIES	SIZE	SPACING
#1 0.78 AC.	#2 0.28 AC.			
QUANTITY				
8	2	ACER RUBRUM - RED MAPLE	1" CAL.	##
8	2	LIRIODENDRON TULIPIFERA - TULIP POPLAR	1" CAL.	##
27	10	ACER RUBRUM - RED MAPLE	2-3' WHIP	**
27	9	CORNUS FLORIDA - FLOWERING DOGWOOD	2-3' WHIP	**
27	11	LIRIODENDRON TULIPIFERA - POPLAR	2-3' WHIP	**
27	9	PLATANUS OCCIDENTALIS - SYCAMORE	2-3' WHIP	**
27	9	PRUNUS SEROTINA - BLACK CHERRY	2-3' WHIP	**
27	10	QUERCUS RUBRA - RED OAK	2-3' WHIP	**
27	10	QUERCUS VELUTINA - BLACK OAK	2-3' WHIP	**
27	10	SASSAFRAS ALBIDUM - SASSAFRAS	2-4' WHIP	**
27	9	VIBURNUM PRUNIFOLIUM - BLACKHAW	18-24" B.T.	**

KEY:
 CAL. - CALIPER
 CONT. - CONTAINER GROWN
 B.T. - BRANCHED TRANSPLANT
 ## - ONE INCH CALIPER TRESS SHALL BE PLANTED, AS SHOWN BY . SPECIES MAY BE RANDOMLY MIXED.
 ** - TREES AND SHRUBS SHALL BE PLANTED, ON AVERAGE, AT A SPACING OF 11 FEET ON CENTER, NOT IN A GRID PATTERN. LIMITED CLUMPING OF SHRUBS IS PERMITTED.

Planting/Soil Specifications

- Planting of nursery stock shall take place between March 15th and April 30th.
- A twelve (12) inch layer of topsoil shall be spread over all denudation areas impacted by site grading to ensure a suitable planting area. Disturbed areas shall be seeded and stabilized as per general construction plan for project. Planting areas not impacted by site grading shall have no additional topsoil installed.
- All nursery planting stock shall have their root systems dipped into an anti-desiccant gel prior to planting.
- Plants shall be installed so that the top of root mass is level with the top of existing grade. Backfill in the planting pit shall consist of 3 parts existing soil to 1 part pine fines or equivalent. Fertilizer shall consist of Agriform 22-0-2, or equivalent, applied as per manufacturer's specification.
- A two (2) inch layer of hardwood mulch shall be placed over the root area of all plantings. Plant material shall be transported to the site in a tarpal or covered truck. Plants shall be kept moist prior to planting.
- All non-organic debris associated with the planting operation shall be removed from the site by the contractor.

Sequence of Construction

- Sediment control and tree protection devices shall be installed in accordance with general construction plan for site. Site shall be graded in accordance with general construction plan.
- Proposed denudation areas impacted by site grading shall be topsoiled and stabilized as per #2 of Planting/Soil Specifications for project.
- Plants shall be installed as per Plant Schedule and the Planting/Soil Specifications for the project.
- Upon completion of the planting, signage shall be installed as per the Forest Protection Devices shown on the Forest Conservation Plan.
- Plantings shall be maintained and guaranteed in accordance with the Maintenance and Guarantee requirements for project.

Maintenance of Plantings

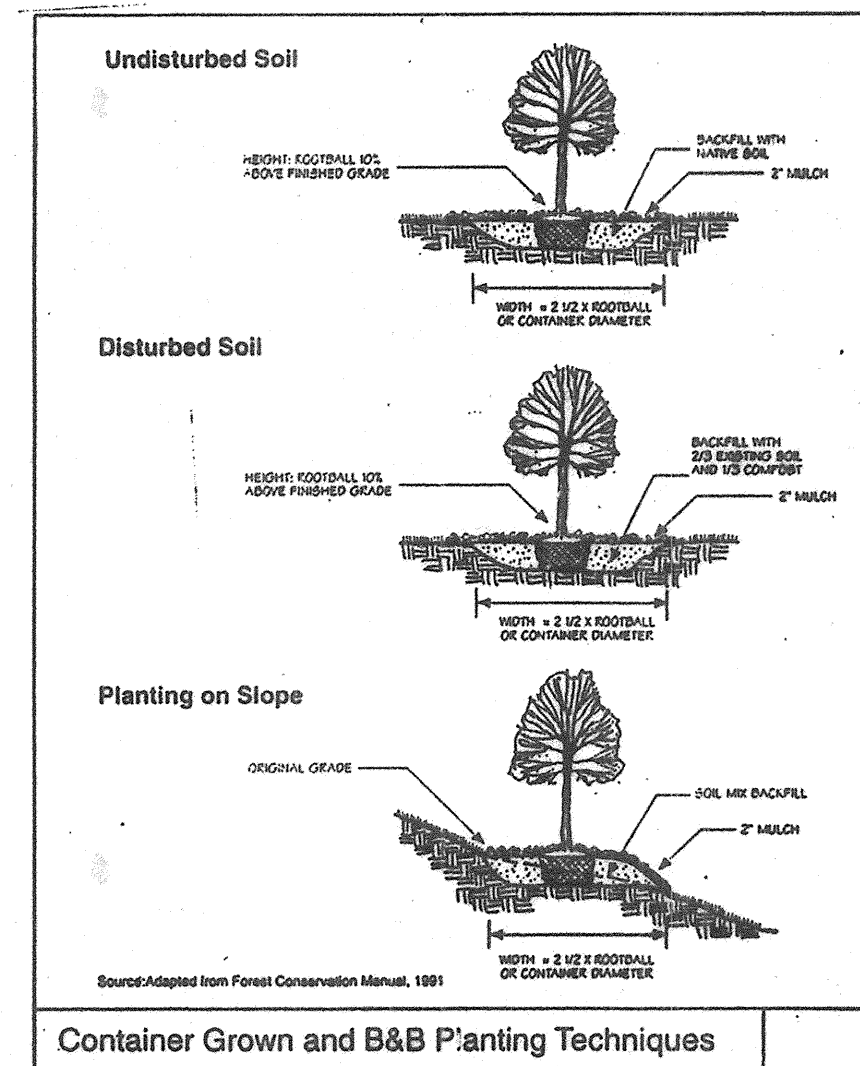
- Maintenance of plantings shall last for a period of 24 months.
- All plant material shall be watered twice a month during the 1st growing season. Watering may be more or less frequent depending on weather conditions. During second growing season, once a month during May-September, if needed.
- Invasive species and noxious weeds shall be removed from denudation areas. Old field succession species will be retained.
- Plants will be monitored a minimum two times during the growing season for various plant pests and diseases. Serious problems will be treated with the appropriate agent.
- Dead branches will be ground from plantings.

Guarantee Requirements

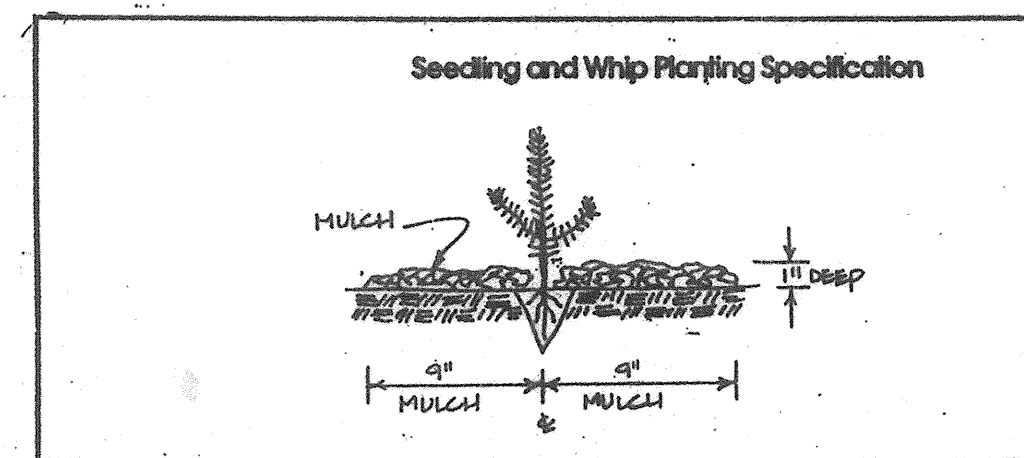
- A 75 percent survival rate of denudation plantings will be required at the end of the 24 month maintenance period. All plant material below the 75 percent threshold will be replaced at the beginning of the next growing season. After one growing season, plant material shall be maintained at 90% survival threshold.
- The contractor will not be liable for plant loss due to theft or vandalism.

Surety for Re-forestation

- The developer shall post a surety (bond, letter of credit) to ensure that reforestation plantings are completed. Upon acceptance of the plantings by the County, the bond shall be released.

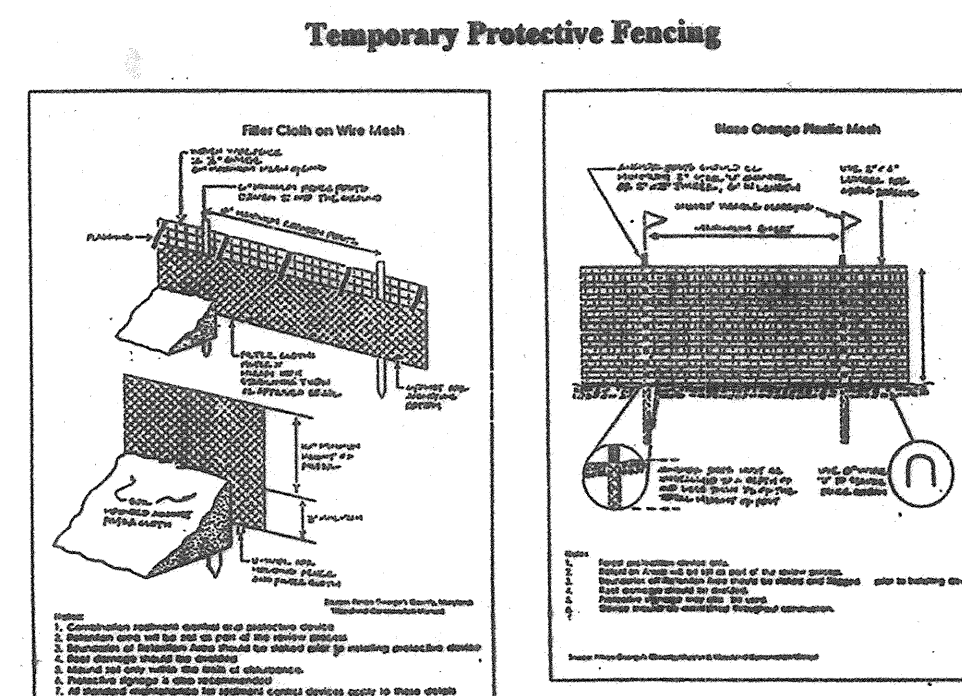


Container Grown and B&B Planting Techniques

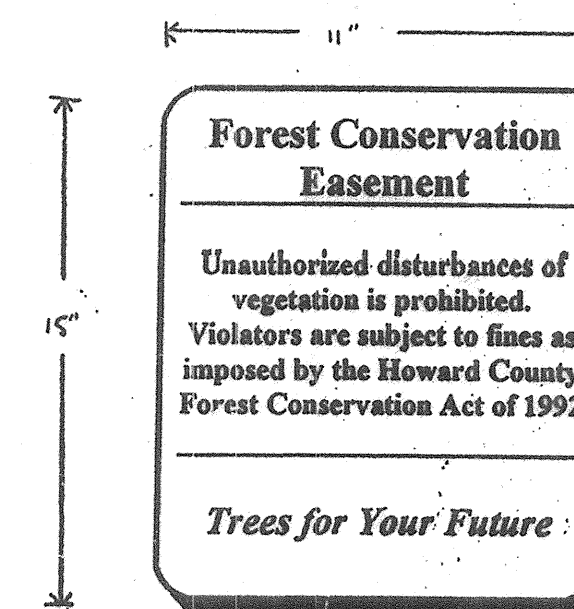


FCE NOTES

- Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
- Forested areas occurring outside of the FCE shall not be considered part of the FCE and shall not be subject to protective land cover-ats.
- Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or the FCE boundary, whichever is greater.
- There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ.
- No stockpiles, parking areas, equipment cleaning areas, etc. shall occur within areas designated as Forest Conservation Easements.
- Temporary fencing shall be used to protect forest resources during construction. The fencing shall be placed along all FCE boundaries which occur within 15 feet of the proposed limits of disturbance.
- Permanent signage shall be placed 50-100' apart along the boundaries of all areas included in Forest Conservation Easements.



Permanent Protective Signage



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Davelos 3-5-99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Sandra Hamilton 3/10/99
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Bill Dammann 3/1/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-8105 FAX: 410-465-6644

Professional Engineer Seal

OWNERS: TOLL MD LIMITED PARTNERSHIP
 A MD LIMITED PARTNERSHIP
 3206 TOWER OAKS BOULEVARD
 SUITE 310
 ROCKVILLE, MARYLAND 20852

PROJECT: VILLAGE OF CEDAR RIDGE
 SECTION 2
 A SUBDIVISION OF PARCEL 88, TAX MAP 41; P/O PARCEL 118, TAX MAP 35;
 AND A RESUBDIVISION OF OPEN SPACE LOT 38 AND LOT 58 OF THE
 VILLAGE OF CEDAR RIDGE, SECTION 1.

LOCATION:
 TAX MAP 41 - LOTS 88 & 88; VILLAGE OF CEDAR RIDGE, SECTION 1
 PARCEL 88, AND P/O PARCEL 118; TAX MAP 35
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

DEVELOPER: SDC GROUP, INC.
 P.O. BOX 417
 ELLICOTT CITY, MARYLAND 21041
 410-465-4244

TITLE: FOREST CONSERVATION PLAN
 SP-97-02 PB-319 PB 312 F-93-70 WP-98-82 F-93-70
 DATE: SEPTEMBER 1998 PROJECT NO. 1088
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DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM SCALE: AS SHOWN SHEET 7 OF 7

MD DNR Qualified Professional
 USACE Wetland Designer
 Certification # WJ-0000000404482
John P. Conlon

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS
 P.O. Box 5006 Glen Arm, MD 21057 (410) 592-7552

SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1850).

- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MINIMUM CURRENT MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL, REVISIONS THERETO.

Table with 2 columns: Category (TOTAL AREA OF SITE, AREA DISTURBED, etc.) and Value (7.98 ACRES, 3.82 ACRES, etc.).

- 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

TEMPORARY SEEDBED PREPARATIONS

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED 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 PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT).

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.

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

PERMANENT SEEDBED PREPARATIONS

SEEDBED 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 ON OF THE FOLLOWING SCHEDULES:

- 1. PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 500 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING.

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.

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

TOPSOIL SPECIFICATIONS

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

- I. 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 soil scientist and approved by the appropriate approval authority.

III. For sites having disturbed areas under 5 acres:

- I. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

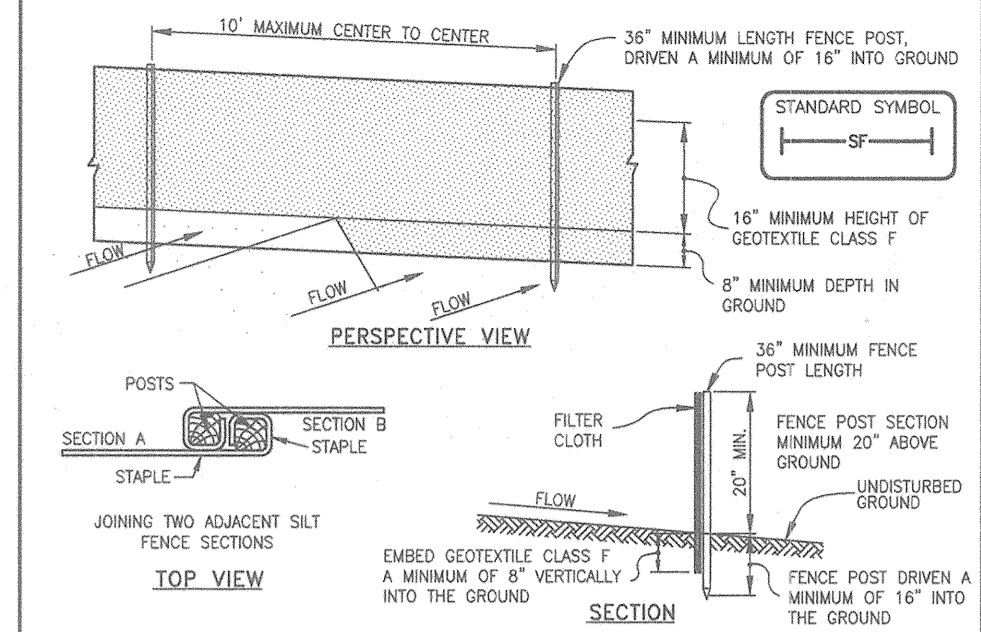
- II. For sites having disturbed areas over 5 acres:

- I. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

- a. 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.

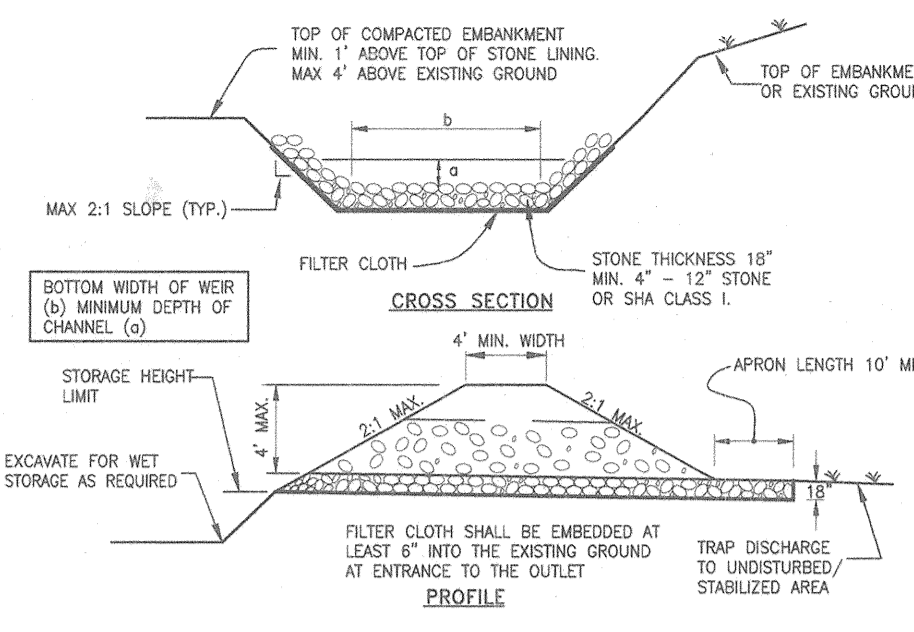
Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

DETAIL 22 - SILT FENCE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
1. Fence posts shall be a minimum of 1 1/2" diameter 16' minimum length into the ground.

DETAIL 10 - RIP-RAP OUTLET SEDIMENT TRAP - ST III

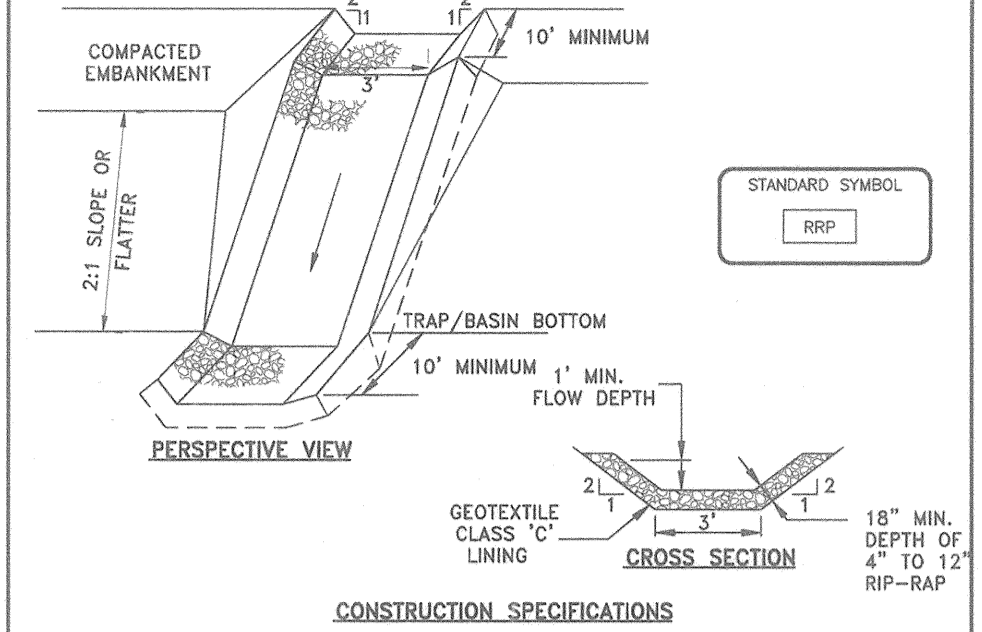


CONSTRUCTION SPECIFICATIONS
1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat.

RIp-RAP OUTLET SEDIMENT TRAP - ST III

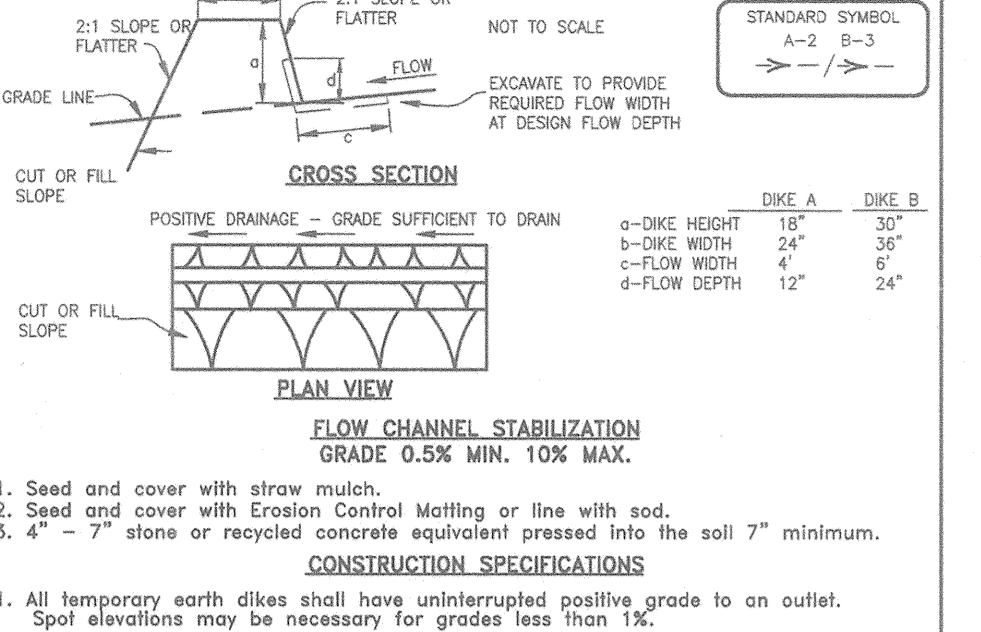
CONSTRUCTION SPECIFICATIONS
1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

DETAIL 5 - RIP-RAP INFLOW PROTECTION



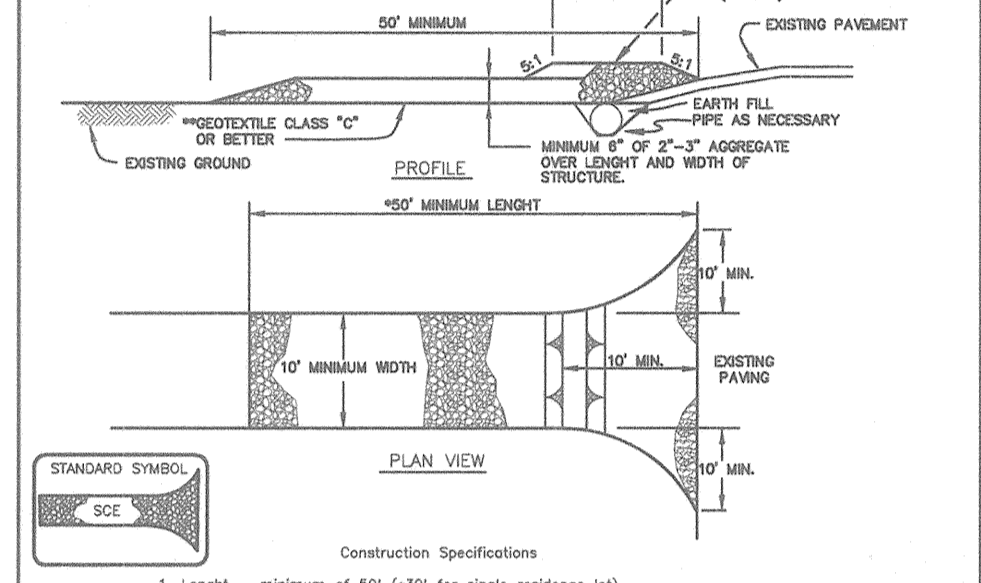
CONSTRUCTION SPECIFICATIONS
1. All lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min.) bottom width.

DETAIL 1 - EARTH DIKE



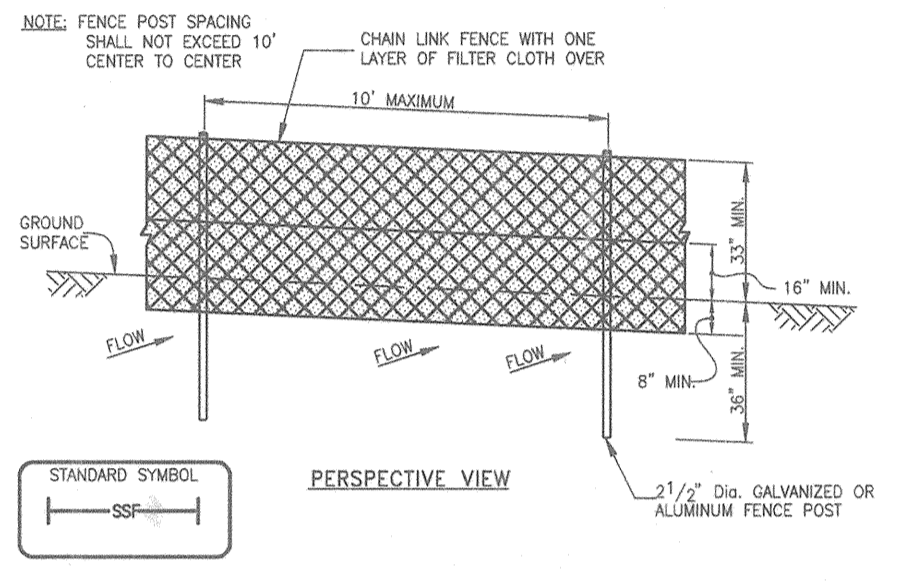
CONSTRUCTION SPECIFICATIONS
1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS
1. Length - minimum of 50' (40' for single residence lots).
2. Width - 10' minimum, shall be flared at the existing road to provide a turning radius.

DETAIL 33 - SUPER SILT FENCE

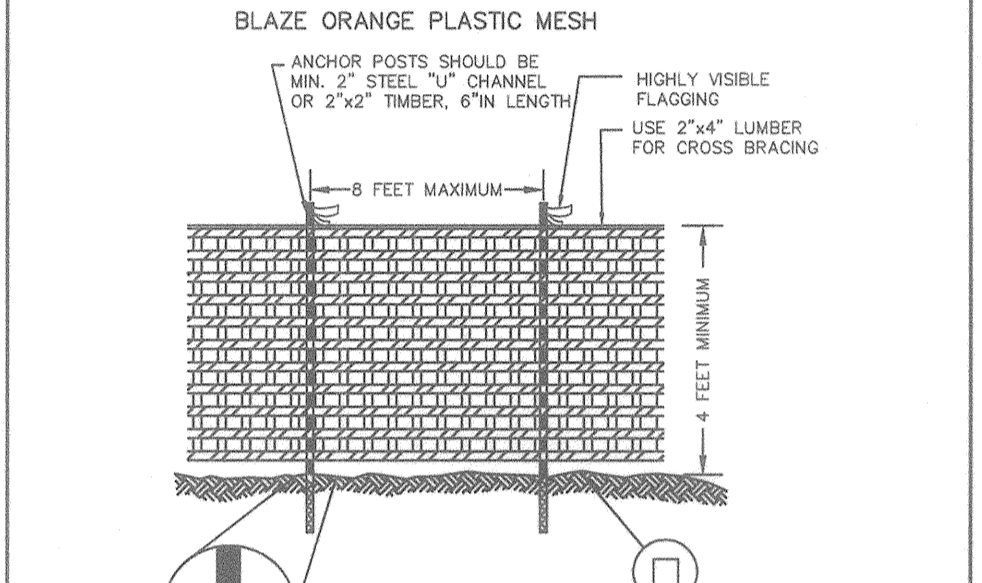


CONSTRUCTION SPECIFICATIONS
1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing.

SUPER SILT FENCE

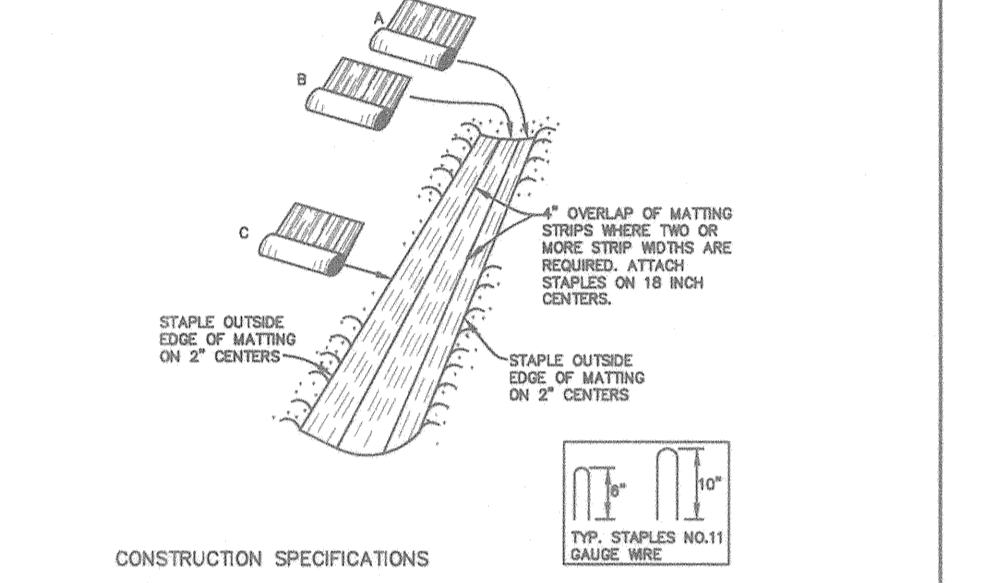
Table with columns: Slope, Slope Steepness, Slope Length (maximum), Silt Fence Length (maximum). Includes rows for slopes 0-10%, 10-20%, 20-33%, 33-50%, 50%+.

TREE PROTECTION FENCE



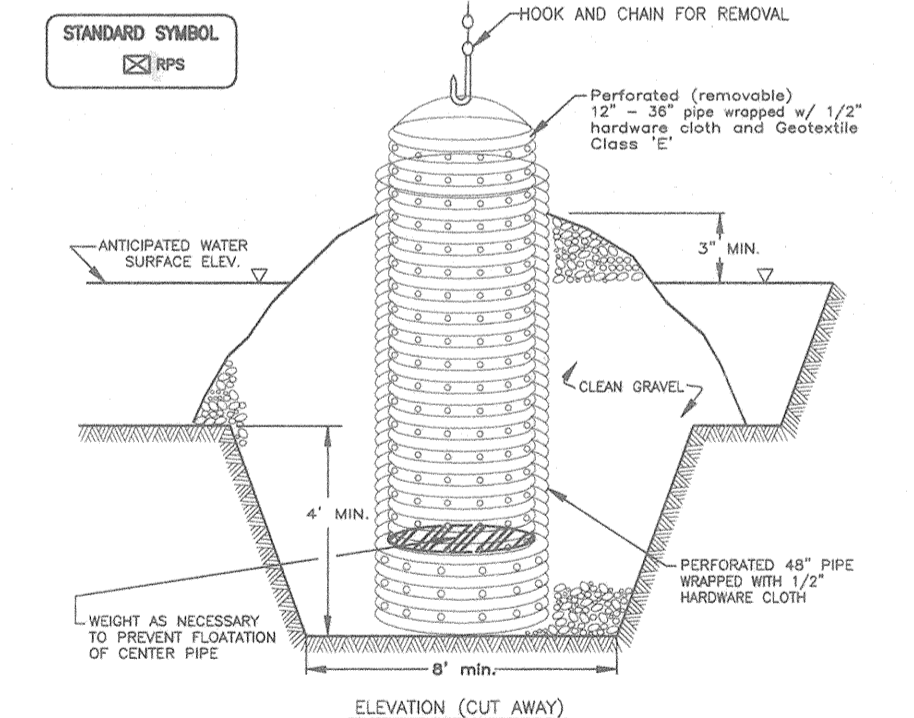
CONSTRUCTION SPECIFICATIONS
1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH 4" IN DEPTH.

DETAIL 30 - EROSION CONTROL MATTING



CONSTRUCTION SPECIFICATIONS
1. KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH 4" IN DEPTH.

DETAIL 20A - REMOVABLE PUMPING STATION



CONSTRUCTION SPECIFICATIONS
1. The outer pipe shall be 42" dia. or greater in any case, be at least 4' greater in diameter than the center pipe.

SEQUENCE OF CONSTRUCTION

- NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION
1. OBTAIN GRADING PERMIT.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES, TREE PROTECTION FENCES, SILT FENCES, AND SUPER SILT FENCES. (DAY 1-2).

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL OBTAIN A CERTIFICATE OF ATTENDANCE AT A SEMINAR OF THE ENVIRONMENT-APPROVED 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: James R. Maffey, 10-13-98 DATE

BY THE ENGINEER:
I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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: Donald Mason, 10/9/98 DATE

Signature: Cheryl Simms/les, 2/22/99 DATE

Signature: [Signature], 2/22/99 DATE

Signature: [Signature], 5/1/99 DATE

Signature: [Signature], 3/10/99 DATE

Signature: [Signature], 3-5-99 DATE

Table with columns: NO., DATE, REVISION.

BENCHMARK ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043

OWNERS: TOLL MO LIMITED PARTNERSHIP, A MARYLAND LIMITED PARTNERSHIP
3206 TOWER OAKS BOULEVARD, SUITE 310, ROCKVILLE, MARYLAND 20852

PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2
A SUBDIVISION OF PARCEL 68, TAX MAP 41-2 OF PARCEL 168, TAX MAP 35; AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 58 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1.

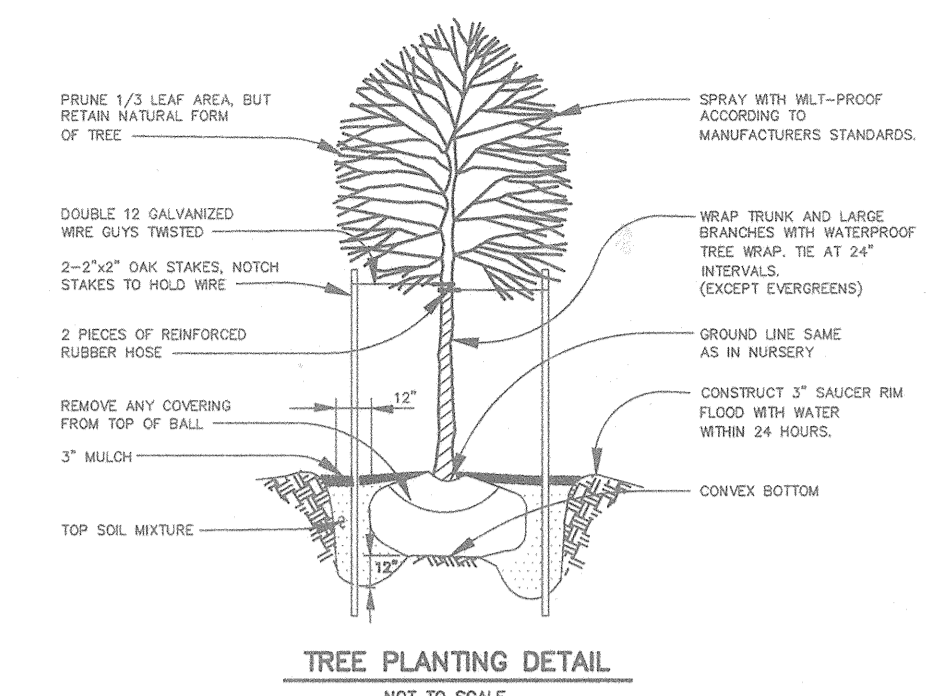
SCHEDULE A PERIMETER LANDSCAPE EDGE			
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROP.	
LANDSCAPE TYPE	(A) B	(B) B	(C) A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	676'	210'	565'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	②, YES, 565'
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES (1:50) EVERGREEN TREES (1:40) OTHER TREES (2:1 SUBSTITUTE) SHRUBS	676 L.F. 14 17 —	210 L.F. 4 6 —	0 L.F. 0 — —
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE)	14 17 — —	4 6 — —	0 — — —
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)			

- ① AREA NOT PREVIOUSLY PART OF SECTION 1 PLANS F-98-52.
- ② EXISTING WOODS WITH WIDTH 20' OR GREATER.

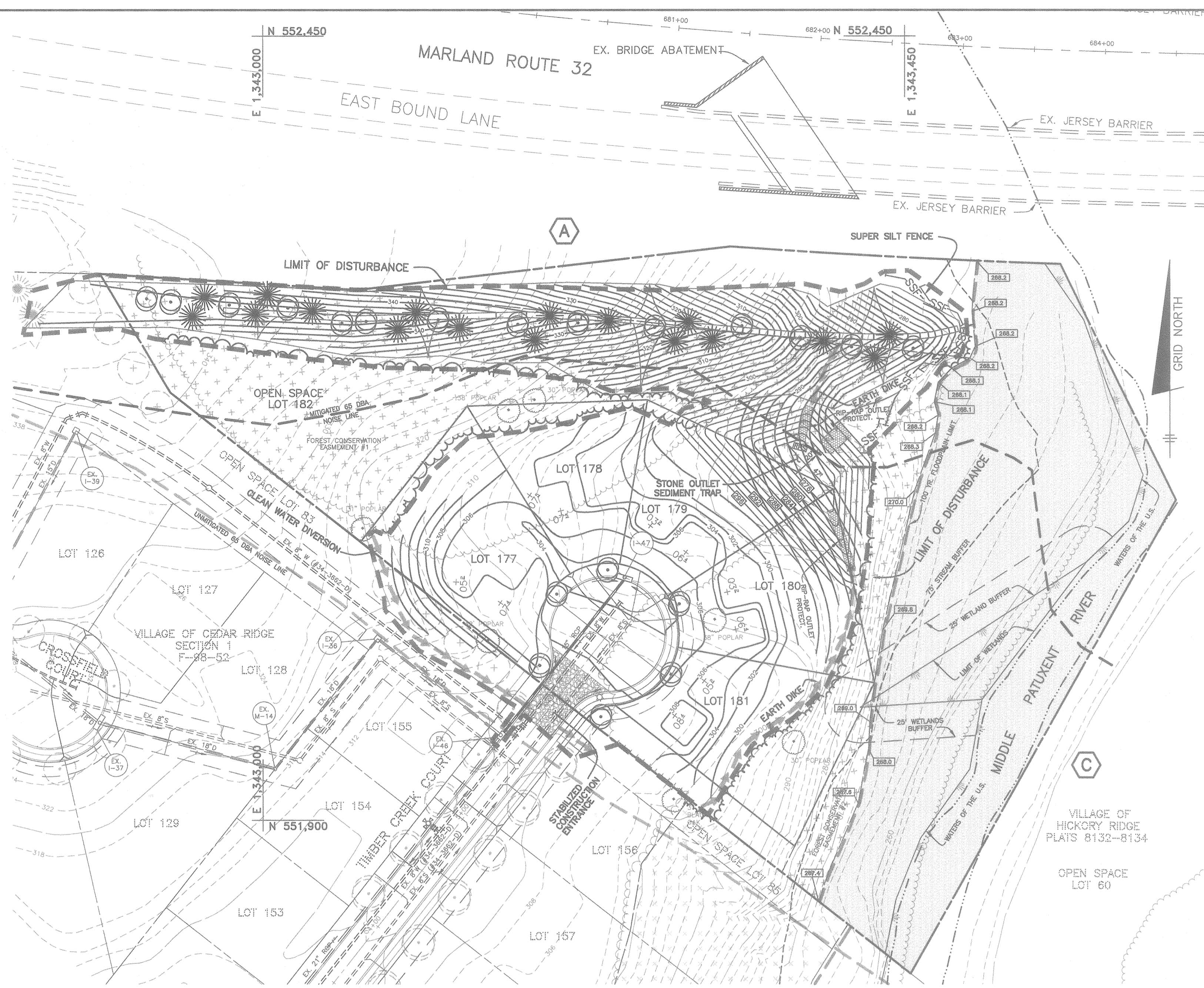
LANDSCAPE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
☉	102*	PLATANUS ACERIFOLIA 'BLOODGOOD' (Bloodgood London Plane)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	162*	PINUS STROBUS (Eastern White Pine)	5'-6" ht. UNSHEARED
☉	59*	CUPRESSOCYPRIS LEYLANDII (Leyland Cypress)	5'-6" HEIGHT
☉	85*	TILIA CORDATA 'GREENSPIRE' (Greenspire Littleleaf Linden)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	104*	ACER RUBRA (Red Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	193*	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	18	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☉	23	PINUS STROBUS (Eastern White Pine)	5'-6" ht. UNSHEARED

* PER F-98-52

STREET TREE PLANTING LIST			
SYMBOL	QUANTITY	NAME	REMARKS
☉	6	ACER SACCHARUM (Sugar Maple)	2 1/2" MIN. CAL. B&B FULL HEAD



- NOTE:**
- TREES SHOULD BE PLANTED A MINIMUM OF 6 FEET FROM THE EDGE OF PAVING AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.
 - TREES MUST BE PLANTED A MINIMUM OF 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.
 - SEE TREE PLANTING DETAIL - THIS SHEET.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MAUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING TREES IN THE AMOUNT OF \$6,850.00 MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.



BY THE DEVELOPER:
James R. Morley III 2/10/99
 DEVELOPER DATE

BY THE ENGINEER:
Donald Mason 1/23/99
 ENGINEER - DONALD A. MASON, P.E. # 21443 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Chap. Simon / as. 2/22/99
 NATURAL RESOURCE CONSERVATION SERVICE DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
John S. [Signature] 2/22/99
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Andrew M. Daniel 3-5-99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS
 8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6844

OWNERS: TOLL MD LIMITED PARTNERSHIP A MD LIMITED PARTNERSHIP 3206 TOWER OAKS BOULEVARD SUITE 310 ROCKVILLE, MARYLAND 20852

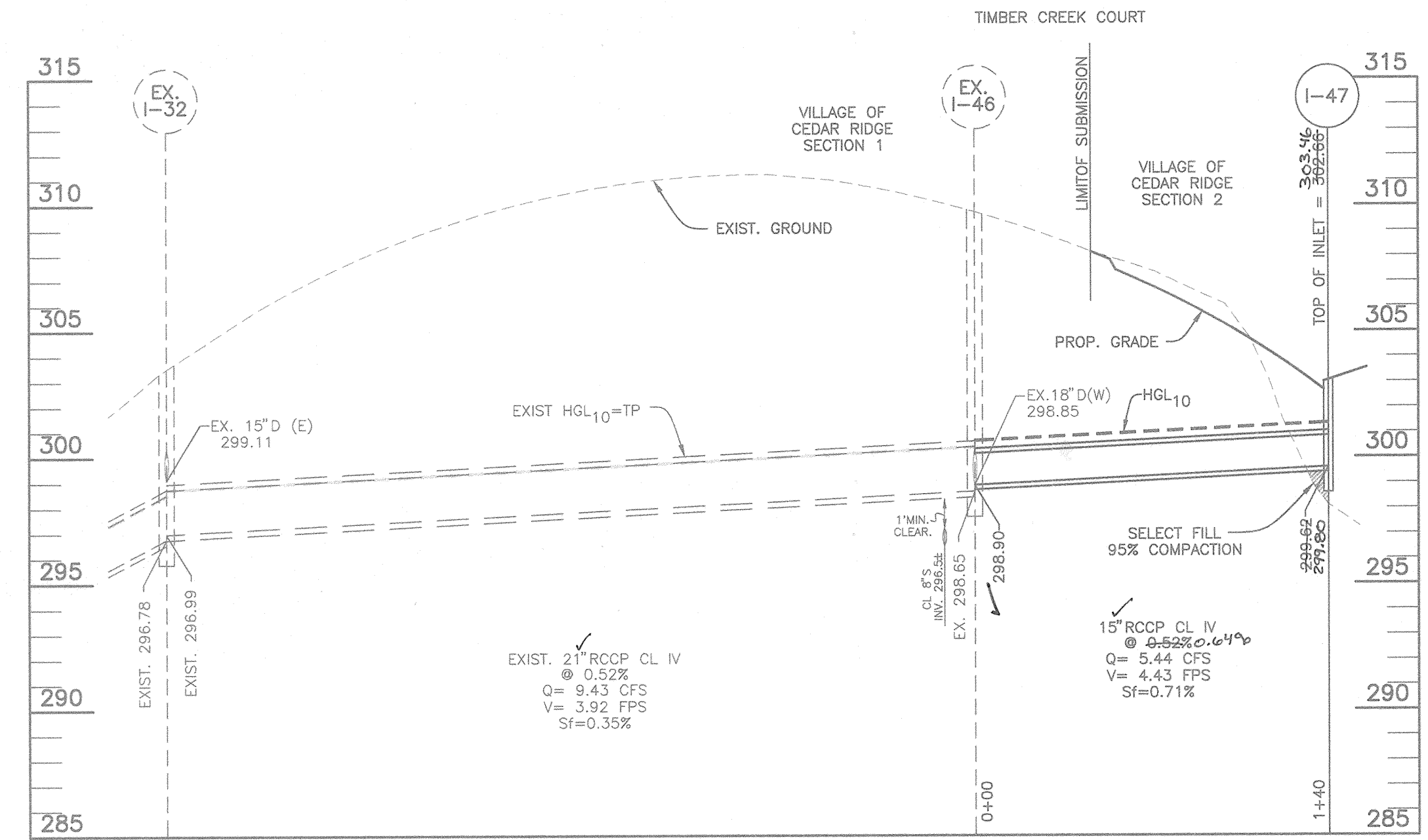
DEVELOPER: SDC GROUP, INC. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21041 410-465-4244

PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2 AND LANDSCAPE PLAN AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 58 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1

TITLE: GRADING, SEDIMENT & EROSION CONTROL AND LANDSCAPE PLAN
 SP-97-02 PB-319 PB-312 F-93-70 WP-98-82 F-93-70
 DATE: OCTOBER, 1998 PROJECT NO. 1088
 SCALE: AS SHOWN SHEET 4 OF 7

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Ba	D	BAILE SILT LOAM
CyC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
CHB2	B	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
CHD2	B	CHESTER SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
Cs	B	COMUS SILT LOAM
EA	B	EJDAK SILT LOAM, 0 TO 3 PERCENT SLOPES
EB2	B	EJDAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
EK2	B	EJDAK SILT LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GA	B	GLENELG LOAM, 0 TO 3 PERCENT SLOPES
GB2	B	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GC2	B	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
GD2	B	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
GnB2	C	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GnD2	C	GLENVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
Ha	D	HATBORO SILT LOAM
MgB2	B	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MgD2	B	MANOR GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MA	B	MANOR LOAM, 0 TO 3 PERCENT SLOPES
MB2	B	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
MC2	B	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
MD2	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED
MID2	B	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED
MIE	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES
MnD	B	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES
Mo	B	MANOR VERY STONY LOAM, 25 TO 60 PERCENT SLOPES
Mo	B	MIXED ALLUVIAL LAND

* INDICATES HYDRIC SOILS
SOILS MAP NO. 29



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



PLAN
SCALE: 1"=50'



PLAN
SCALE: 1"=50'

NO.	TYPE	LOCATION	INV. IN.	INV. OUT.	TOP ELEV.	HO. CO. STD.
1-47	A-10 INLET	LP STA. 1+13.45 OFFS. 0.43' TIMBER CREEK CT.	---	299.62	299.62	SD 4.02 OR 4.41
				299.60	302.146'	

RUN	SIZE	CLASS	LENGTH
EX 1-46 TO 1-47	15"	IV	140'

Donald Maen
AS-BUILT 10/3/05
PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniele 3-5-99
CHIEF, BUREAU OF HIGHWAYS
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Andi Hamilton 3/1/99
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

Mike Dammann 3/1/99
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

NO.	DATE	REVISION
1	9/27/05	REVISED PER AS-BUILT CONDITIONS

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644

OWNERS: TOLL MD LIMITED PARTNERSHIP
3206 TOWER OWNS BOULEVARD
SUITE 310
ROCKVILLE, MARYLAND 20852

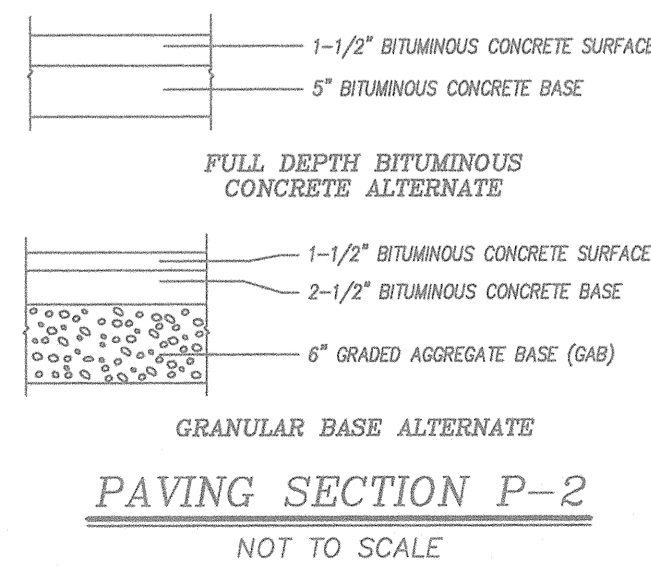
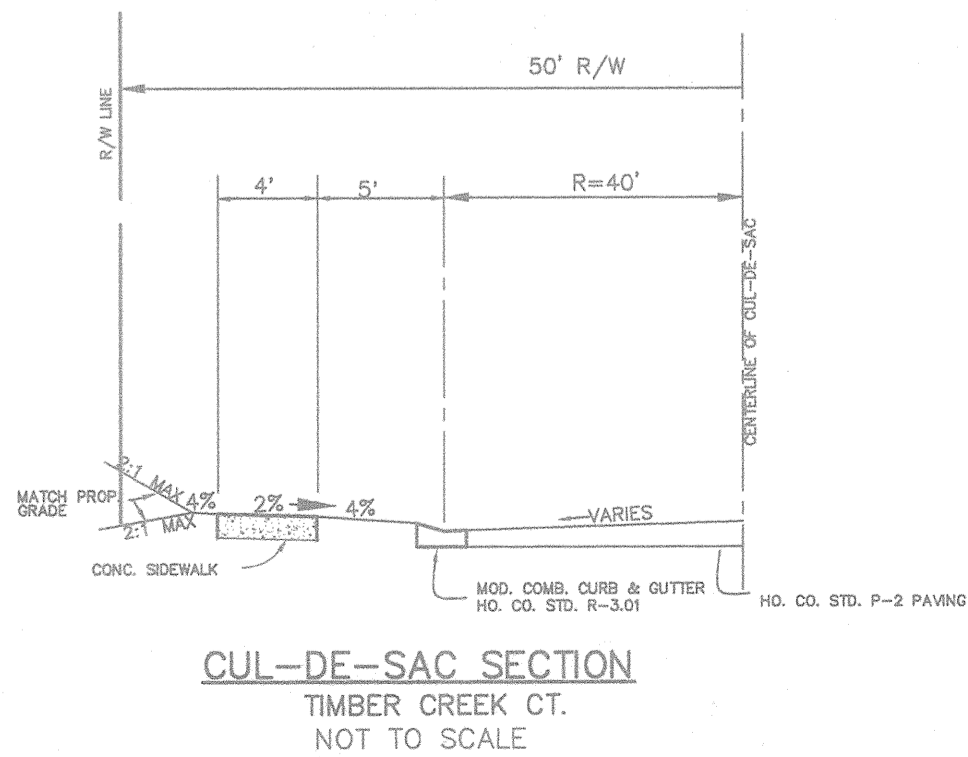
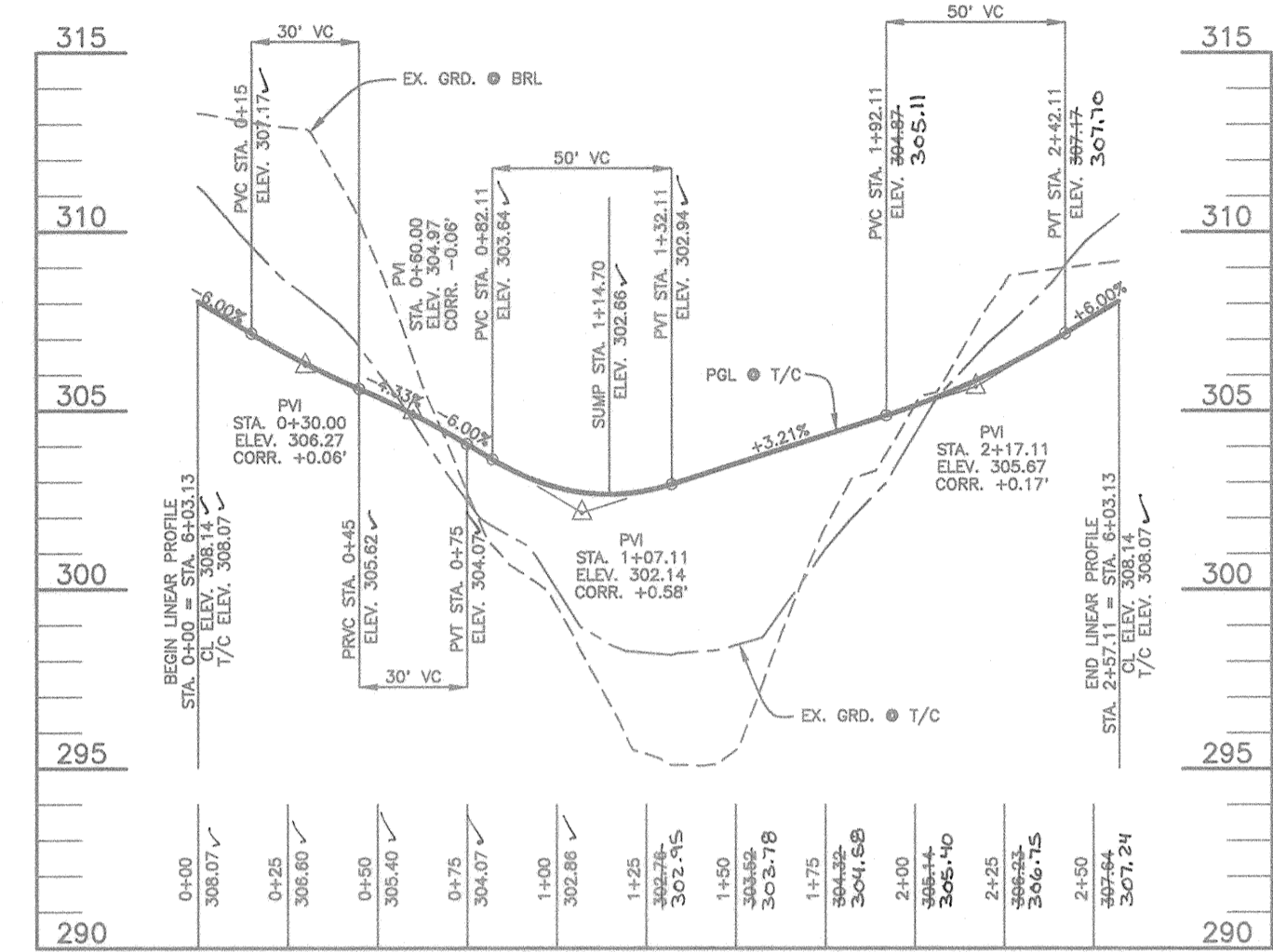
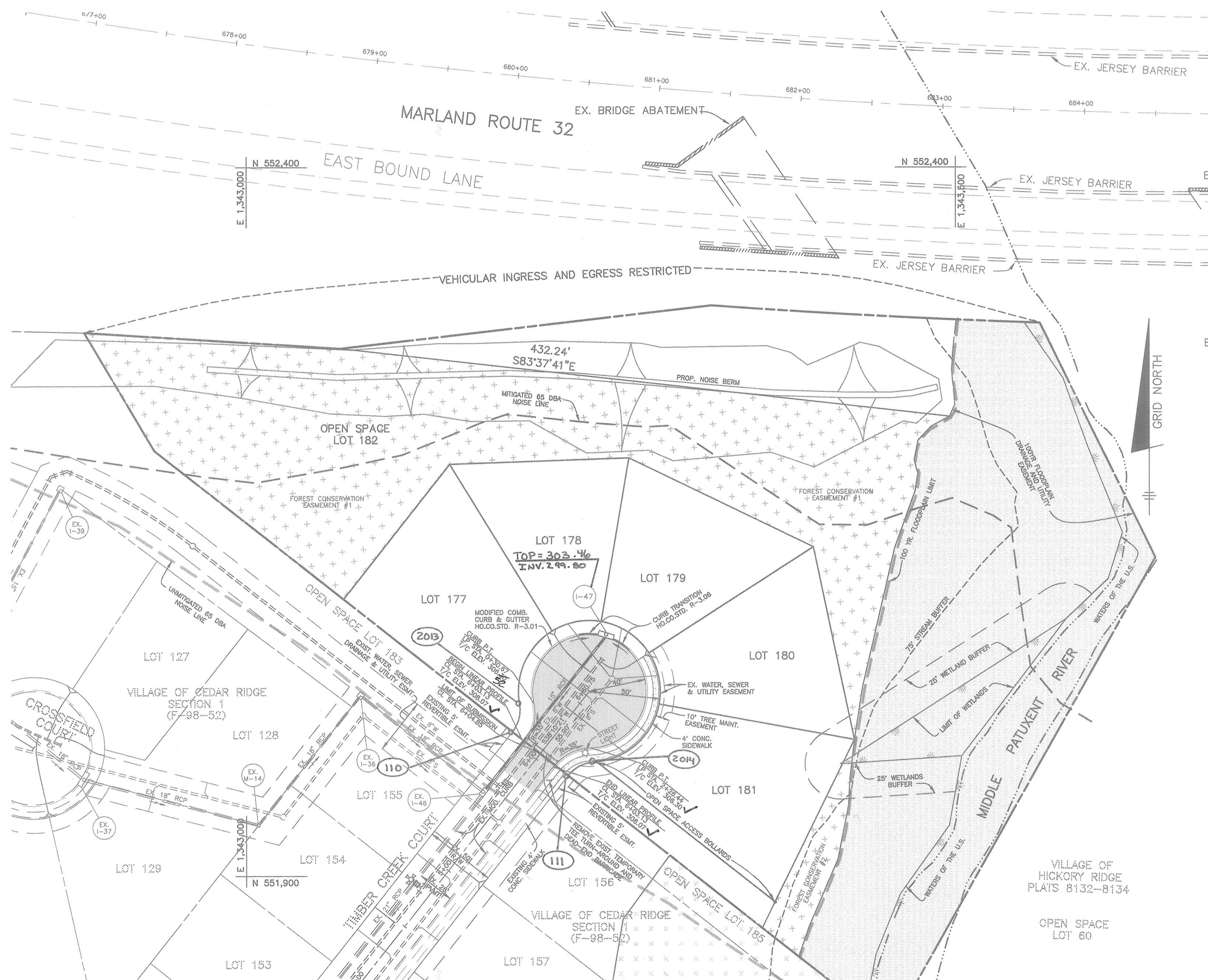
DEVELOPER: SDC GROUP, INC.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21041
410-465-4244

PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2
A SUBDIVISION OF PARCEL 68, TAX MAP 41; P/O PARCEL 116, TAX MAP 35 AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 89 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1

LOCATION: TAX MAP 41 - LOTS 88 & 89; VILLAGE OF CEDAR RIDGE, SECTION 1 PARCEL 68, AND P/O PARCEL 116; TAX MAP 35 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

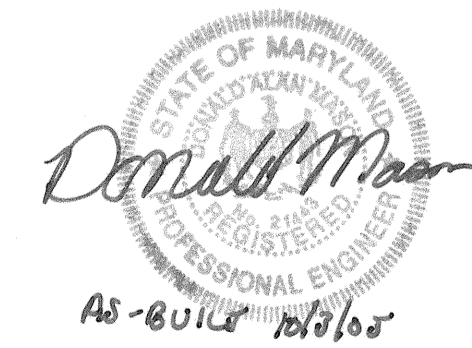
TITLE: DRAINAGE AREA MAP AND STORM DRAIN PROFILES
SP-97-02 PB-319 PB 312 F-98-52 SP-98-14 F-93-70
DATE: OCTOBER, 1998
JANUARY, 1999 PROJECT NO. 1088

DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM SCALE: AS SHOWN SHEET 3 OF 7



NOTE: ALL ROADS ARE TO BE PUBLIC ROADS

STREET LIGHT SCHEDULE		
SYMBOL	LOCATION	DESCRIPTION
⊙	TIMBER CREEK COURT	100 WATT HPS VAPOR TRADITIONAL POST TOP MOUNTED ON 14\"/>



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 3-5-99
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamler 7/0/99
 CHIEF, DIVISION OF LAND DEVELOPMENT

Mike Damm 2/1/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISION
1	9/27/05	REVISED PER AS-BUILT CONDITIONS

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 ENGINEERS • LAND SURVEYORS • PLANNERS

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DEVELOPER:
 SDC GROUP, INC.
 P.O. BOX 417
 ELLICOTT CITY, MARYLAND 21041
 410-465-4244

PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2
 A SUBDIVISION OF PARCEL 68, TAX MAP 41; P/O PARCEL 116, TAX MAP 35 AND A RESUBDIVISION OF OPEN SPACE LOT 88 AND LOT 58 OF THE VILLAGE OF CEDAR RIDGE, SECTION 1

LOCATION:
 TAX MAP 41 - LOTS 58 & 88; VILLAGE OF CEDAR RIDGE, SECTION 1
 PARCEL 68, AND P/O PARCEL 116; TAX MAP 35
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE:
 ROAD PLAN AND PROFILE

SP-97-02 PB-319 PB 312 F-98-52 SP-98-14 F-93-70
 DATE: OCTOBER, 1998
 JANUARY, 1999 PROJECT NO. 1088

DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM SCALE: AS SHOWN SHEET 2 OF 7

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	ROAD PLAN AND PROFILE
3	DRAINAGE AREA MAP & STORM DRAIN PROFILE
4	GRADING, SEDIMENT & EROSION CONTROL, AND LANDSCAPE PLAN
5	SEDIMENT CONTROL NOTES AND DETAILS
6	FOREST CONSERVATION PLAN
7	FOREST CONSERVATION NOTES AND DETAILS

RIGHT OF WAY ELEVATION CHART NAD 83		
R/W PT. NO.	DESCRIPTION	ELEVATION
110	REBAR / CAP	308.56
111	REBAR / CAP	308.21
2013	REBAR / CAP	307.60
2014	REBAR / CAP	306.91

ROAD AND STORM DRAINAGE

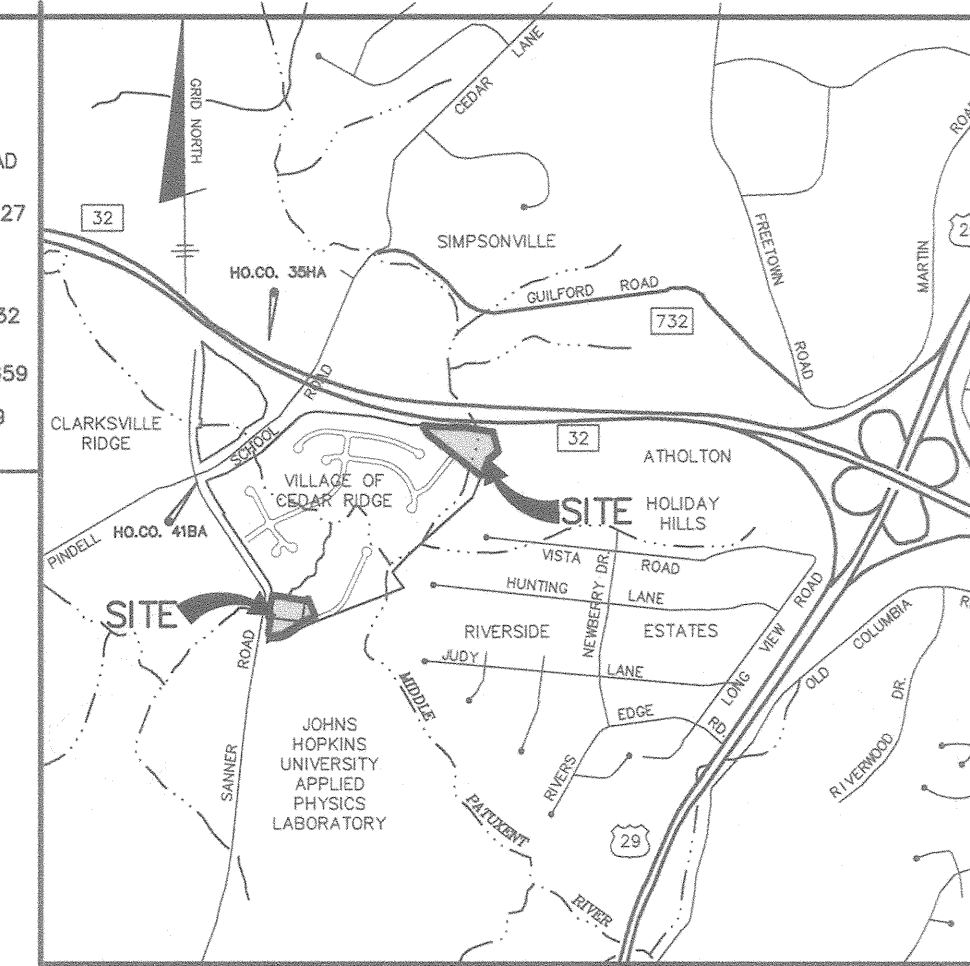
VILLAGE OF CEDAR RIDGE

SECTION 2

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

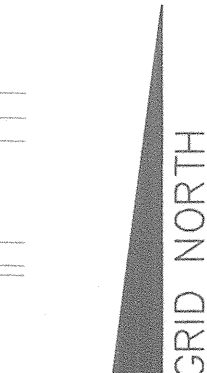
BENCH MARKS NAD 83
 HO. CO. #418A NAD 83
 STAMPED CONC. MONUMENT LOCATED AT THE NORTHWEST CORNER OF PINDELL SCHOOL ROAD AND SANNER LANE.
 N 551789.4787 E 1340518.127
 HO. CO. #35HA NAD 83
 STAMPED CONC. MONUMENT LOCATED 3.5'± BEHIND THE GUARD RAIL SOUTH OF MD RTE 32 500'± WEST OF PINDELL SCHOOL ROAD
 N 553353.579 E 1340587.659
 HO. CO. BM#R-109 ELEV. 405.389
 USED FOR VERTICAL CONTROL.



VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT HOWARD COUNTY DESIGN MANUAL VOL. IV, PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST 24 HOURS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND :
 LOCATION : PARCEL 66 - TAX MAP 41 AND P/O PARCEL 116 - TAX MAP 35
 ZONING : RED
 TOTAL TRACT AREA : 7.98 AC.
 NUMBER OF PROPOSED LOTS : 8 BUILDABLE AND 3 OPEN SPACE
 DATE PRELIMINARY PLAN APPROVED: SEPTEMBER 11, 1998
 DPZ REFERENCE # : SP-97-02, PB-319, PB 312, F-93-70, SP-98-14, F-98-52
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- TOPOGRAPHY TAKEN FROM FIELD RUN SURVEY BY TSA GROUP, INC., 2/98. CONTOUR INTERVAL IS 2 FEET.
- HOWARD COUNTY MONUMENTS 418A AND 35HA USED FOR HORIZONTAL DATUM. HO. CO. BENCH MARK R-109 WAS USED FOR VERTICAL DATUM.
- STREET LIGHT PLACEMENT, TYPE OF FIXTURE AND POLE SELECTION SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III.
- ALL ROAD FILLS SHALL BE COMPACTED TO 95% AS DETERMINED BY AASHTO T-180.
- ALL SIDEWALKS AND SIDEWALK RAMPS SHALL BE IN CONFORMANCE WITH CURRENT ADA CRITERIA.
- WATER AND SEWER FOR THIS SUBDIVISION IS PUBLIC, AND PROVIDED UNDER THE VILLAGE OF CEDAR RIDGE, SECTION 1 F-98-52. DRAINAGE AREA IS PATUXENT, CONTRACT NUMBERS 34-3852-D AND 34-3862-D.
- WETLANDS DELINEATION COMPLETED BY ECO-SCIENCE PROFESSIONALS INC. DATED MARCH, 1998.
- TRAFFIC STUDY COMPILED BY LEE CUNNINGHAM & ASSOC. DATED MARCH, 1998, AND WAS REVISED & APPROVED AS PART OF THE PRELIMINARY EQUIVALENT SKETCH PLAN APPROVED 7-1-98.
- NOISE STUDY PREPARED BY TSA GROUP, INC. ON FEB. 1998, APPROVED 1-6-99.
- EXISTING UTILITIES WERE LOCATED BY RECORD DRAWINGS AND/OR FIELD RUN SURVEY BY TSA GROUP, INC., 5/95. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.
- UNLESS NOTED AS "PRIVATE" ALL EASEMENTS ARE PUBLIC.
- STORMWATER MANAGEMENT AND WATER QUALITY FOR THIS PROJECT WAS PROVIDED UNDER THE VILLAGE OF CEDAR RIDGE, SECTION 1 F-98-52.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, WETLANDS BUFFERS, STREAM BUFFERS OR FOREST CONSERVATION RETENTION AREAS.
- THE FLOODPLAIN STUDY WAS PERFORMED BY THE TSA GROUP, INC. DATED 4/97, AND AS TAKEN FROM THE MIDDLE PATUXENT RIVER, DRAINAGE STUDY PREPARED BY KODE CONSULTANTS, INC. CAPITAL PROJ. NO. D-1028.
- A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN TREES AND STREET LIGHTS.



PLAN
SCALE: 1" = 200'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Demko 3-5-99
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton 3/10/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mike Damman 3/1/99
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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PROJECT: VILLAGE OF CEDAR RIDGE SECTION 2
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DEVELOPER: SDC GROUP, INC.
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 ELLICOTT CITY, MARYLAND 21041
 410-465-4244

TITLE: TITLE SHEET
 SP-97-02 PB-319 PB 312 F-98-52 SP-98-14 F-93-70
 DATE: OCTOBER, 1998 PROJECT NO. 1088
 JANUARY, 1999

DES: YSL/DAM DRAFT: DBT/YSL CHECK: DAM SCALE: AS SHOWN SHEET 1 OF 7