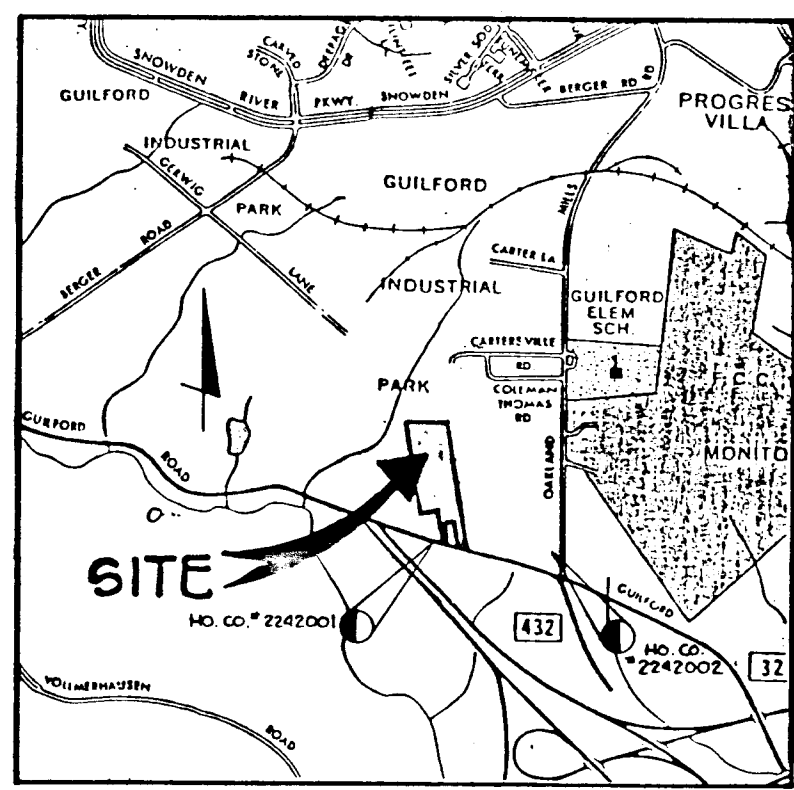


SHEET INDEX	
NO.	DESCRIPTION
1	PLAN OF RIDGEVIEW ROAD
2	PROFILE OF RIDGEVIEW DRIVE AND INTERSECTION DETAIL
3	DRAINAGE AREA MAP
4	STORM DRAIN PROFILES
5	GRADING AND EROSION AND SEDIMENT CONTROL PLAN
6	STORMWATER MANAGEMENT DETAILS
7	STORMWATER MANAGEMENT NOTES
8	DETAILS
9	PLANTING PLAN

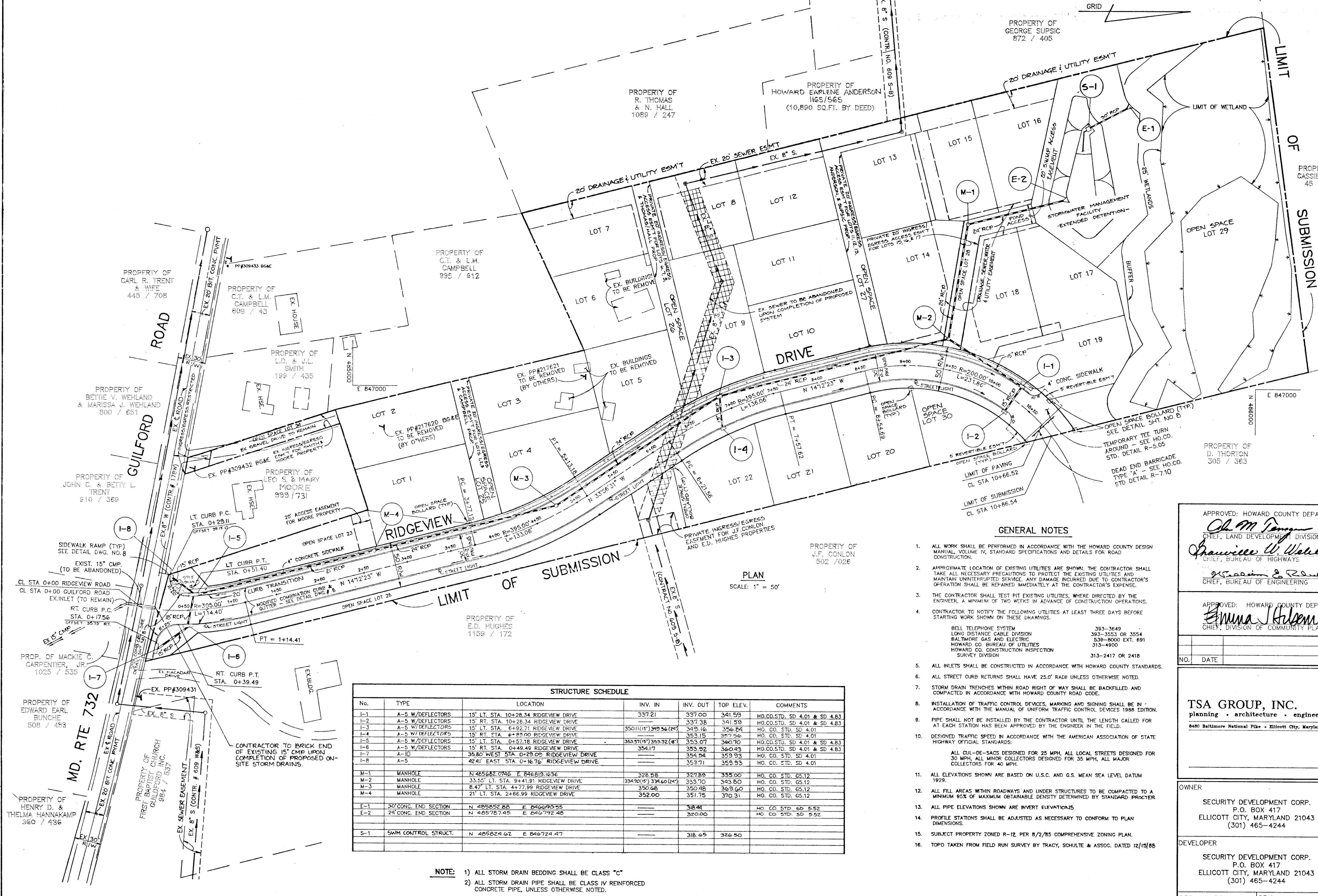
CENTERLINE CONTROL DATA			
DESCRIPTION	NORTH	EAST	
CL STA 0+00.00	484768.6141	847247.0268	
CL PT STA 1+14.41	484882.1374	847240.1609	
CL PC STA 3+17.12	485136.8257	847175.6848	
CL PG STA 5+13.18	485260.4554	847120.4505	
CL PO STA 6+21.56	485350.3457	847059.9458	
CL PT STA 7+57.62	485473.9605	847004.7183	
CL PC STA 8+54.69	485568.0560	846980.8974	
LIMIT OF SUBMISSION	485775.2066	847052.2414	
CL STA 10+86.54			

CENTERLINE CURVE DATA							
CL STA.	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA	
0+00.00 TO 1+14.41	305.00'	114.40'	57.88'	113.73'	N 03°27'40" W	21°29'26"	
1+14.41 TO 5+13.18	395.00'	136.06'	68.71'	135.39'	N 24°04'27" W	19°44'08"	
5+13.18 TO 7+57.62	395.00'	136.06'	68.71'	135.39'	N 24°04'27" W	19°44'08"	
7+57.62 TO 10+86.54	200.00'	231.86'	130.93'	219.09'	N 19°00'16" E	66°25'19"	



**BENCH MARKS**

HO. CO. # 2242001	ELEV. 358.340
CONC. MON. 4' SOUTH OF SOUTH EDGE OF GUILFORD ROAD NEAR HOUSE #9355, 1' BELOW SURFACE	N 484826.330 E 846868.185
HO. CO. # 2242002	ELEV. 365.719
REBAR 7.73' NORTH EAST OF NAIL & CAP IN POLE CAP #1 ON THE NORTH EAST SIDE OF OAKLAND MILLS ROAD NEAR THE INTERSECTION OF GUILFORD ROAD (RTE. 32)	N 484617.531 E 847867.759



PLAN  
SCALE: 1" = 50'

STRUCTURE SCHEDULE						
No.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	COMMENTS
I-1	A-5 W/DEFLECTORS	15' LT. STA. 10+28.34 RIDGEVIEW DRIVE	337.21	337.00	341.59	HO.CO.STD. SD. 4.01 & SD. 4.83
I-2	A-5 W/DEFLECTORS	15' RT. STA. 10+28.34 RIDGEVIEW DRIVE	337.38	341.59	341.59	HO.CO.STD. SD. 4.01 & SD. 4.83
I-3	A-5 W/DEFLECTORS	15' LT. STA. 6+82.71 RIDGEVIEW DRIVE	350.11(15) 349.36(24)	349.16	356.84	HO. CO. STD. SD. 4.01
I-4	A-5 W/DEFLECTORS	15' RT. STA. 6+82.71 RIDGEVIEW DRIVE	350.11(15) 349.36(24)	349.16	356.84	HO. CO. STD. SD. 4.01
I-5	A-5 W/DEFLECTORS	15' LT. STA. 0+49.49 RIDGEVIEW DRIVE	353.57(15) 353.52(4)	353.07	360.70	HO.CO.STD. SD. 4.01 & SD. 4.83
I-6	A-5 W/DEFLECTORS	15' RT. STA. 0+49.49 RIDGEVIEW DRIVE	353.57(15) 353.52(4)	353.07	360.70	HO.CO.STD. SD. 4.01 & SD. 4.83
I-7	A-10	35.80 WEST STA. 0+29.09 RIDGEVIEW DRIVE	354.17	354.94	359.93	HO. CO. STD. SD. 4.01
I-8	A-5	42.41 EAST STA. 0+16.76 RIDGEVIEW DRIVE	352.71	352.71	359.93	HO. CO. STD. SD. 4.01
M-1	MANHOLE	N 485682.0746 E 846819.1636	328.98	327.89	335.60	HO. CO. STD. SD. 5.52
M-2	MANHOLE	33.55' LT. STA. 9+41.91 RIDGEVIEW DRIVE	334.70(15) 334.60(24)	333.70	343.80	HO. CO. STD. SD. 5.52
M-3	MANHOLE	8.47' LT. STA. 4+77.99 RIDGEVIEW DRIVE	350.68	350.48	363.60	HO. CO. STD. SD. 5.52
M-4	MANHOLE	21' LT. STA. 2+86.99 RIDGEVIEW DRIVE	352.00	351.75	370.31	HO. CO. STD. SD. 5.52
E-1	30" CONC. END SECTION	N 485852.88 E 846690.55	318.44	320.00		HO. CO. STD. SD. 5.52
E-2	24" CONC. END SECTION	N 485787.45 E 846792.48	318.44	320.00		HO. CO. STD. SD. 5.52
S-1	SWM CONTROL STRUCT.	N 485824.62 E 846724.47	318.65	326.50		

NOTE: 1) ALL STORM DRAIN BEDDING SHALL BE CLASS "C"  
2) ALL STORM DRAIN PIPE SHALL BE CLASS IV REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED.

**GENERAL NOTES**

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR ROAD CONSTRUCTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST FIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.  
BELL TELEPHONE SYSTEM 393-3649  
LONG DISTANCE CABLE DIVISION 393-3553 OR 3554  
BALTIMORE GAS AND ELECTRIC 539-8600 EXT. 691  
HOWARD CO. BUREAU OF UTILITIES 313-4900  
HOWARD CO. CONSTRUCTION INSPECTION SURVEY DIVISION 313-2417 OR 2418
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 25.0' RADI UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1988 EDITION.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:  
ALL CUL-DE-SACS DESIGNED FOR 25 MPH. ALL LOCAL STREETS DESIGNED FOR 30 MPH. ALL MINOR COLLECTORS DESIGNED FOR 35 MPH. ALL MAJOR COLLECTORS FOR 40 MPH.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY STANDARD PROCTER
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED R-12 PER 8/2/85 COMPREHENSIVE ZONING PLAN.
- TOPO TAKEN FROM FIELD RUN SURVEY BY TRACY, SCHULTE & ASSOC. DATED 12/15/88

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Oh M Tomp*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 9/5/91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Emma Klemm*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 1/16/91

APPROVED: HOWARD COUNTY DEPARTMENT OF HIGHWAYS  
*Shawnee W. Walsland*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 8/27/91

APPROVED: HOWARD COUNTY DEPARTMENT OF ENGINEERING  
*William S. Row*  
 CHIEF, BUREAU OF ENGINEERING  
 DATE: 9/6/91

NO.	DATE	REVISION

**TSA GROUP, INC.**  
 planning • architecture • engineering  
 8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-0100

OWNER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELICOTT CITY, MARYLAND 21043  
 (301) 465-4244

PROJECT: OAK RIDGE SECTION ONE, AREA ONE

LOCATION: TAX MAP NO. 42  
 PARCEL NO. 201, 202 & 327  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DEVELOPER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELICOTT CITY, MARYLAND 21043  
 (301) 465-4244

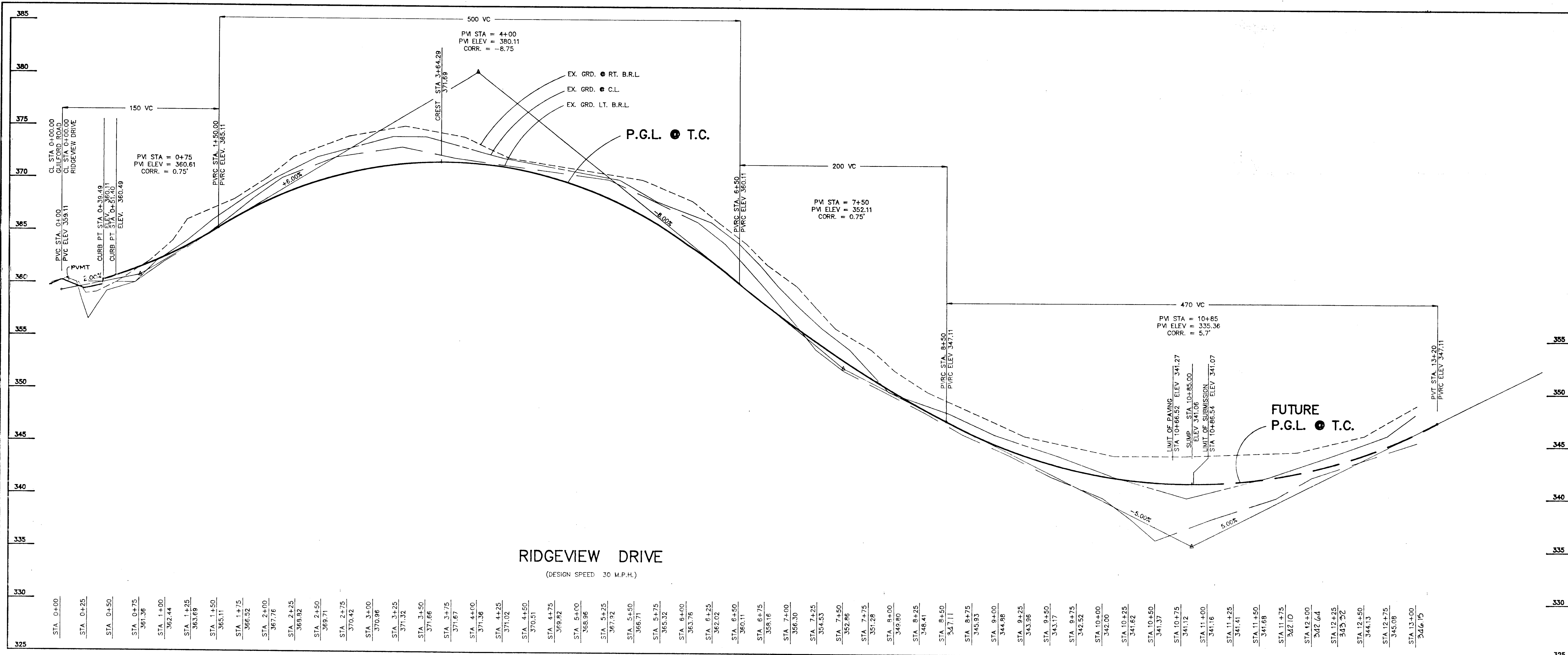
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DATE: MARCH 5, 1991  
 JUNE 20, 1991

PROJECT NO. 0293

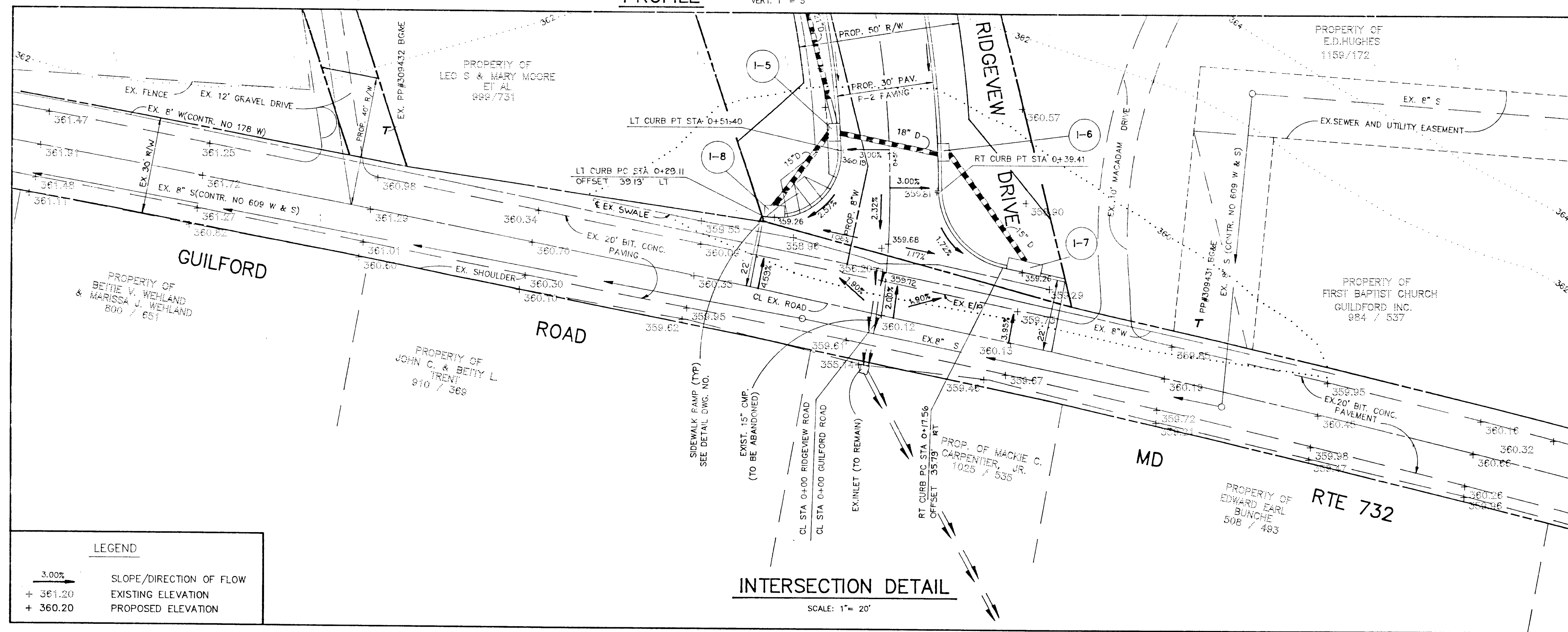
DES. JH DRN. JH SCALE: 1" = 50' DRAWING 1 OF 9

1633



**RIDGEVIEW DRIVE**  
(DESIGN SPEED 30 M.P.H.)

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



**INTERSECTION DETAIL**

SCALE: 1" = 20'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Oliver M. Pappas*  
 CHIEF, LAND DEVELOPMENT DIVISION  
*Braville D. Woodard*  
 CHIEF, BUREAU OF HIGHWAYS  
*William S. Ryan*  
 CHIEF, BUREAU OF ENGINEERING

9/6/91  
8/29/91  
9-6-91  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Anna K. Holmuth*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

11/6/91  
DATE

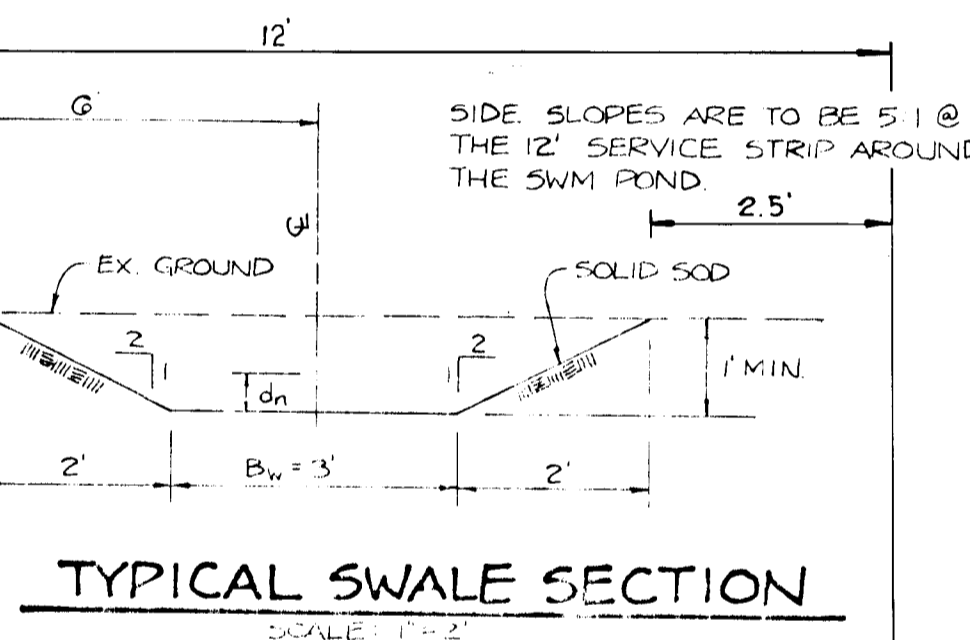
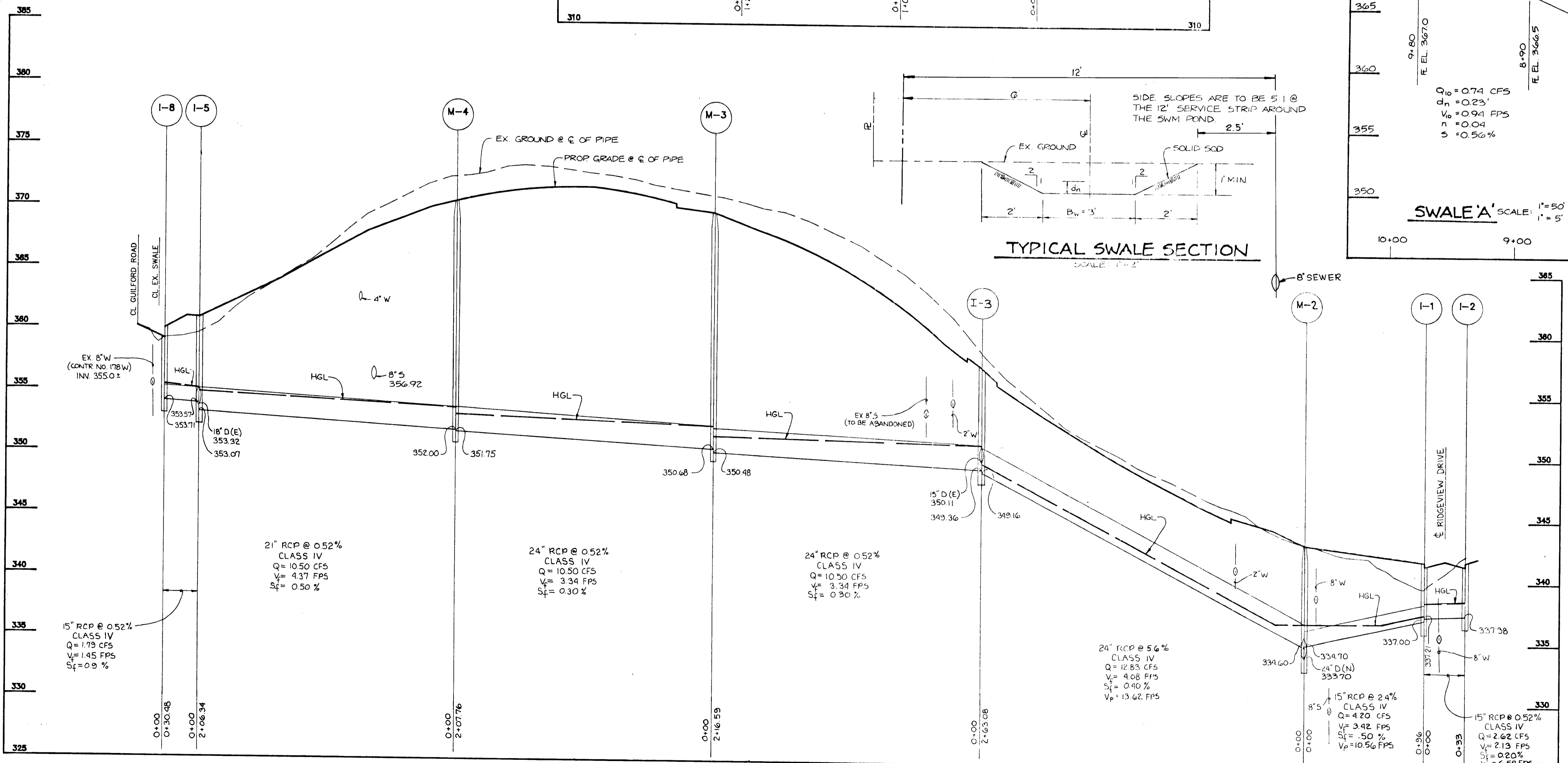
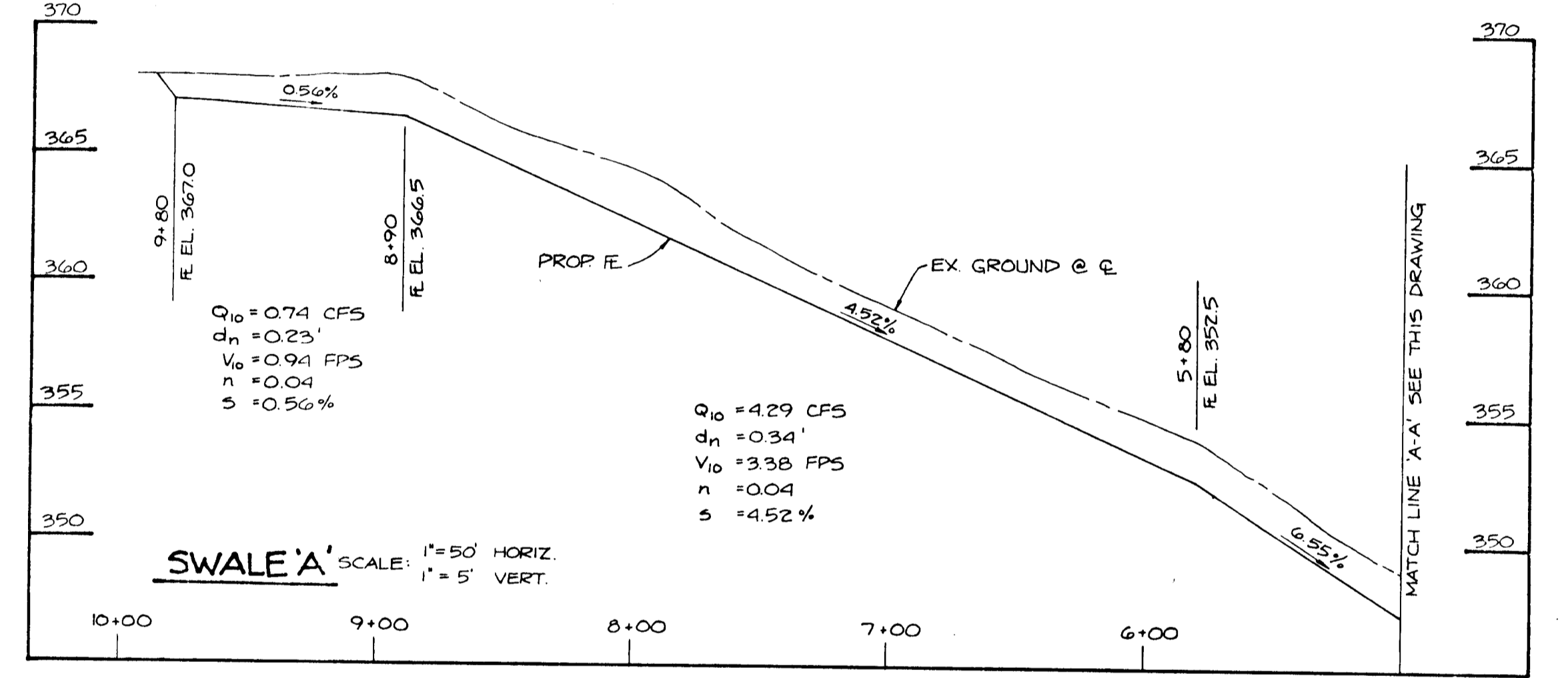
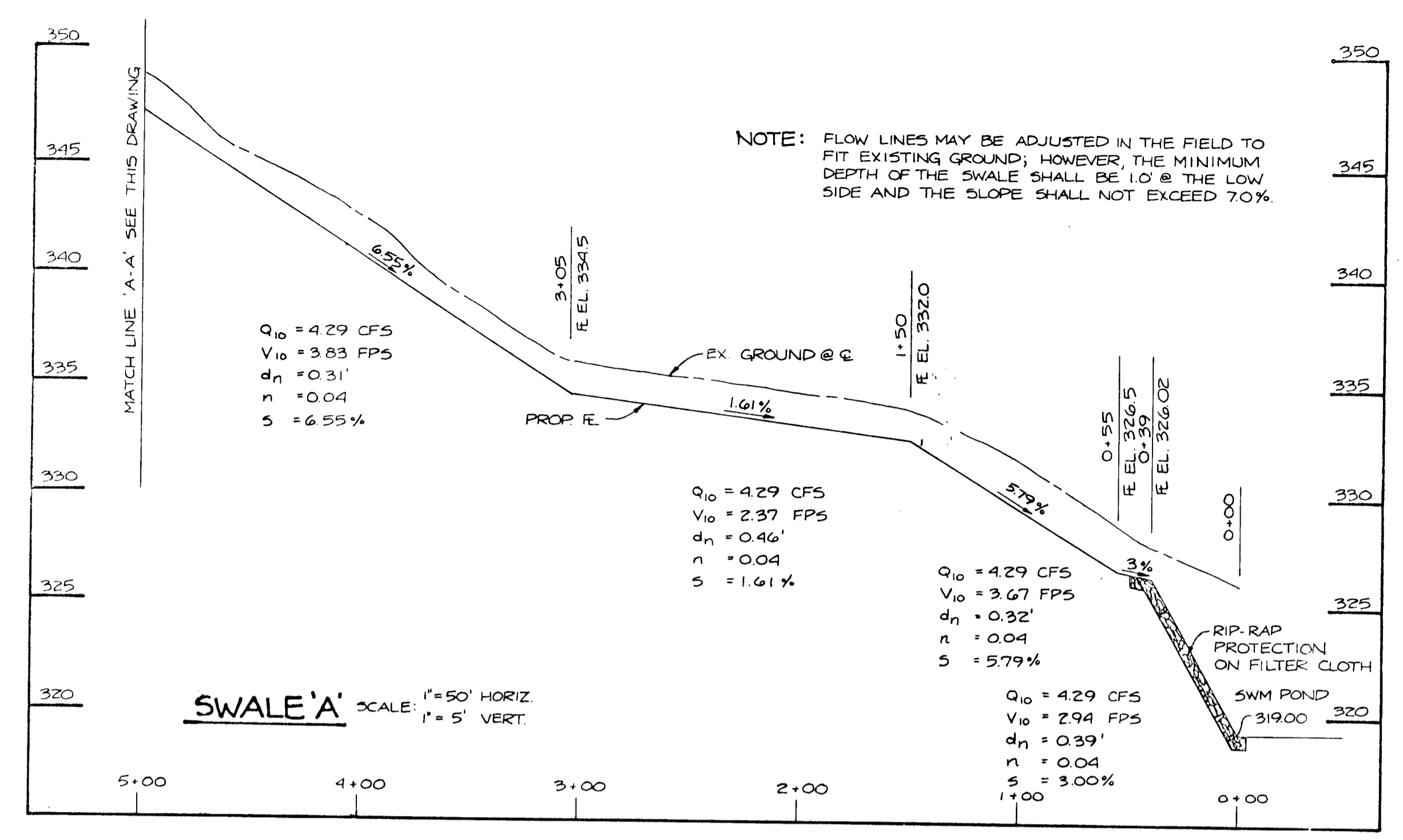
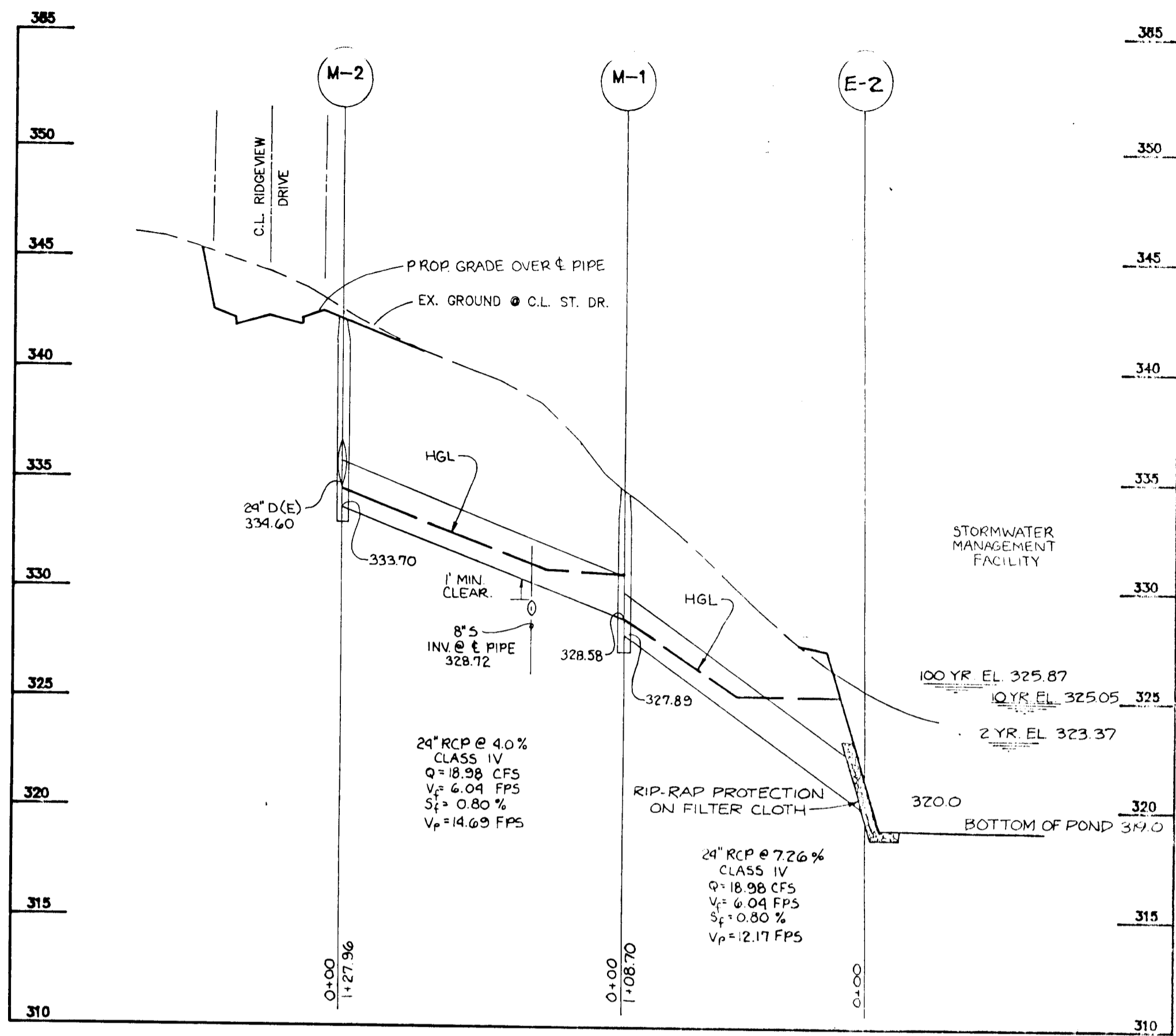
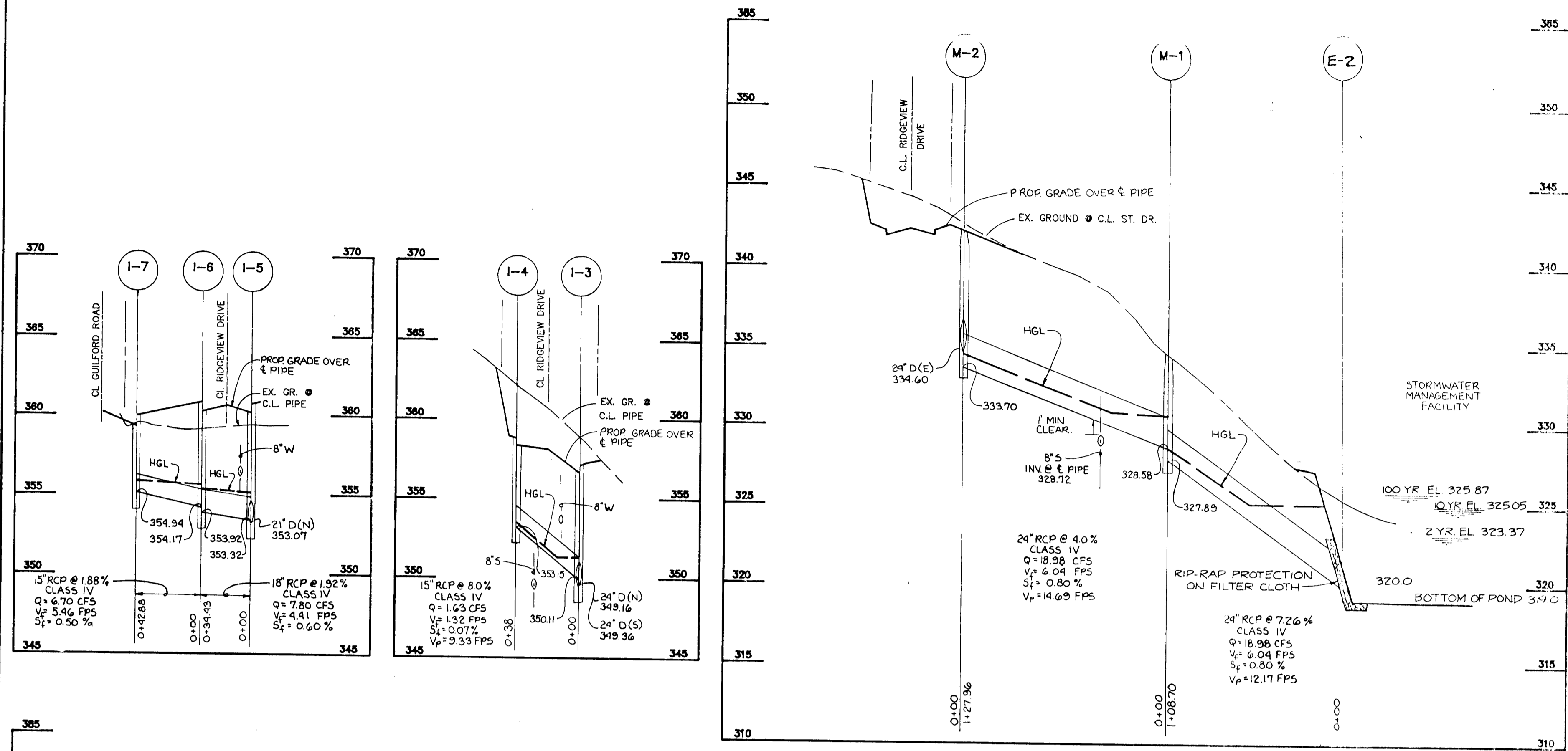
NO.	DATE	REVISION

**TSA GROUP, INC.**  
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 8460 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-6100

OWNER SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT <b>OAK RIDGE SECTION ONE, AREA ONE</b>
DEVELOPER SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION TAX MAP NO. 42 PARCEL NO. 201, 202 & 327 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DES. JH	DRN. JH
TITLE PROFILE OF RIDGEVIEW DRIVE AND INTERSECTION DETAIL	DATE: MARCH 5, 1991 JUNE 20, 1991
SCALE: AS SHOWN	PROJECT NO. 0293 DRAWING 2 OF 9

1633





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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*John M. Duggan*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 9/5/91

APPROVED: HOWARD COUNTY DEPARTMENT OF HIGHWAYS  
*Lawrence W. Welton*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 8/29/91

APPROVED: HOWARD COUNTY DEPARTMENT OF ENGINEERING  
*William E. Kelly*  
 CHIEF, BUREAU OF ENGINEERING  
 DATE: 9-6-91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Anna H. Henshaw*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 9/6/91

NO. DATE REVISION

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 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-6105

OWNER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELlicOTT CITY, MARYLAND 21043  
 (301) 465-4244

PROJECT: **OAK RIDGE SECTION ONE, AREA ONE**

DEVELOPER: SECURITY DEVELOPMENT CORP.  
 P.O. BOX 417  
 ELlicOTT CITY, MARYLAND 21043  
 (301) 465-4244

LOCATION: TAX MAP NO. 42  
 PARCEL NO. 201, 202 & 327  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN PROFILES**

DATE: MARCH 5, 1991  
 JUNE 20, 1991

PROJECT NO. 0293

DES. JH DRN. DBT SCALE: AS SHOWN DRAWING 4 OF 9

- SEDIMENT CONTROL NOTES**
- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (892-2437).
  - ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
  - FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 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 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
  - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD STABILIZATION WITH MULCH ALONE CAN ONLY 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
  - SITE ANALYSIS:
 

TOTAL AREA OF SITE	8.99	ACRES
AREA TO BE ROOFED OR PAVED	2.97	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.770	ACRES
TOTAL CUT	4.000	CU YDS
TOTAL FILL	1.000	CU YDS
OFFSITE WASTE/BORROW AREA LOCATION	ONSITE	
  - ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED, 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 DPW SEDIMENT CONTROL INSPECTOR.
  - ALL SEDIMENT TRAPS 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.

- PERMANENT SEEDING PREPARATION**
- 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 DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 800 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 UREAFORM FERTILIZER (8 LBS/1000 SQ FT).
  - ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (22 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS PER ACRE (14 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 SOD. 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 UNROOTED SMALL GRASS 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHOD'S NOT COVERED.
- MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

- TEMPORARY SEEDING PREPARATION**
- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WITHIN A SHORT-TERM 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: APPLY 800 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).
- SEEDING: FOR PERIOD MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 1 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (212 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS. 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 SOD.
- MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROOTED SMALL GRASS 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHOD'S NOT COVERED.

**SEDIMENT BASIN**

MAX. DRAINAGE AREA 0.0 AC.

STORAGE REQUIRED 14,400 CF (0.33 AC)

STORAGE PROVIDED 0.354 AC TO ELEV. 325.00

CREST ELEV. 326.00

BASEIN BOTTOM ELEV. 321.00

CREST LENGTH 32'

TOP OF EMBANK. 327.10

**STONE OUTLET SEDIMENT TRAP NO. 1**

DRAINAGE AREA 0.51 AC.

STORAGE REQ'D 918 CF

STORAGE PROVIDED 1,740 CF

TRAP DIMENSIONS 2'8" X 10'

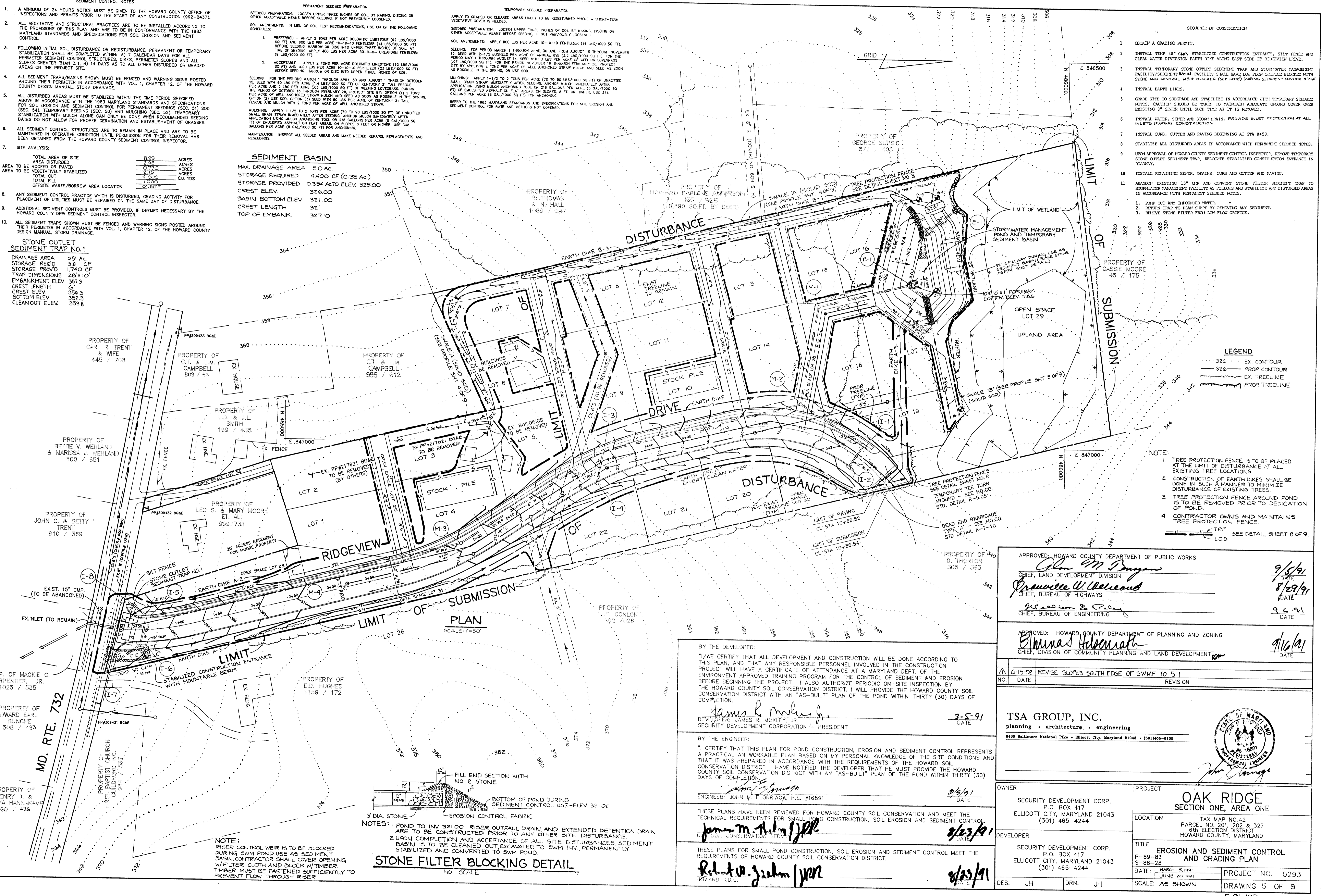
EMBANKMENT ELEV. 357.3

CREST LENGTH 6'

CREST ELEV. 356.3

BOTTOM ELEV. 352.3

CLEANDOUT ELEV. 353.8



**LEGEND**

- 326 --- EX. CONTOUR
- 326 --- PROP. CONTOUR
- EX. TREE LINE
- PROP. TREE LINE

- NOTE:**
- TREE PROTECTION FENCE IS TO BE PLACED AT THE LIMIT OF DISTURBANCE AT ALL EXISTING TREE LOCATIONS.
  - CONSTRUCTION OF EARTH DIKES SHALL BE DONE IN SUCH A MANNER TO MINIMIZE DISTURBANCE OF EXISTING TREES.
  - TREE PROTECTION FENCE AROUND POND IS TO BE REMOVED PRIOR TO DEDICATION OF POND.
  - CONTRACTOR OWNS AND MAINTAINS TREE PROTECTION FENCE.
- SEE DETAIL SHEET B OF 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Alan M. Bingham*  
 CHIEF, LAND DEVELOPMENT DIVISION  
 DATE: 9/5/91

*Lawrence W. Helmond*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 8/29/91

*William S. Gray*  
 CHIEF, BUREAU OF ENGINEERING  
 DATE: 9-6-91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Blinnas Helmond*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT  
 DATE: 9/6/91

NO.	DATE	REVISION
Δ 6-15-92		REVISE SLOPES SOUTH EDGE OF SWMF TO 5:1

**TSA GROUP, INC.**  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Elliott City, Maryland 21643 • (301)466-6106

*Alan M. Bingham*  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 16891

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND 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 MARYLAND DEPT. 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 COUNTY SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD COUNTY SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN THIRTY (30) DAYS OF COMPLETION.

*James R. Moxley, Jr.*  
 DEVELOPER: JAMES R. MOXLEY, JR.  
 SECURITY DEVELOPMENT CORPORATION - PRESIDENT  
 DATE: 3-5-91

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, 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 COUNTY SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD COUNTY SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN THIRTY (30) DAYS OF COMPLETION.

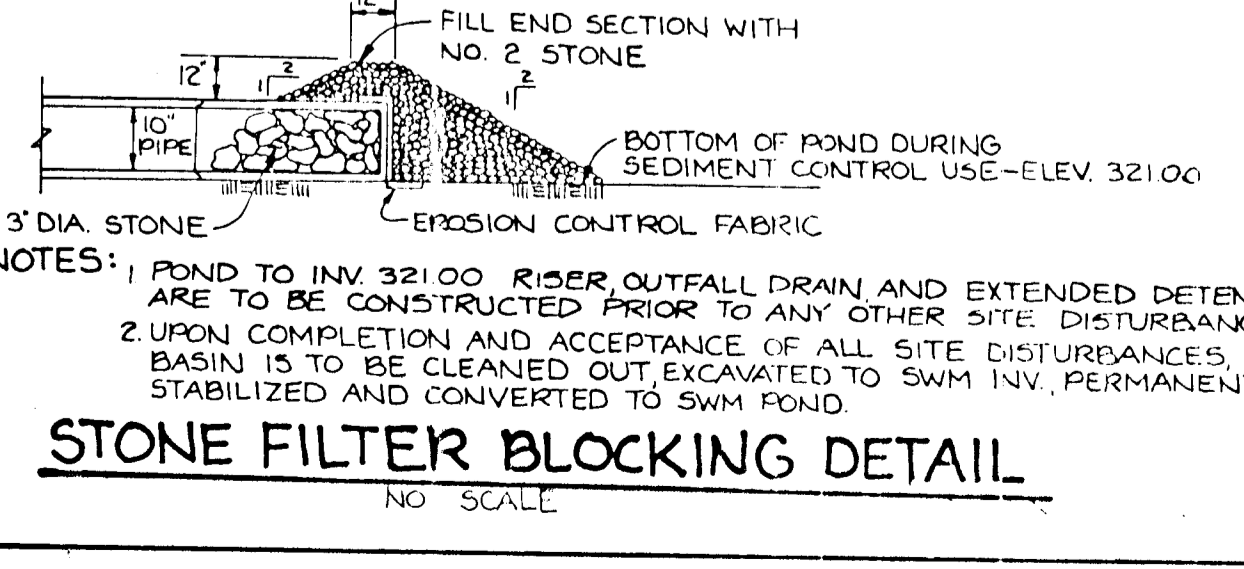
*John M. Elkorriaga*  
 ENGINEER: JOHN M. ELKORRIAGA, P.E. #16891  
 DATE: 9/5/91

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL UNDER SOIL CONSERVATION SERVICE.

*James M. Hill*  
 DATE: 8/23/91

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD COUNTY SOIL CONSERVATION DISTRICT.

*Robert W. Zickm*  
 FORWARD: R.W. ZICKM  
 DATE: 8/23/91



1633



I. SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL

The fill material shall be taken from approved designated borrow areas or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

Areas on which fill to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Compaction

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtain that density and is to be certified by the Engineer.

Cutoff Trench

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be as shown on the drawings, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS

All pipes shall be circular in cross section.

A. Corrugated Metal Pipe

1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specifications M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are commercially available: Nexon, Plasticote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Materials - (Aluminized Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274-791 with watertight coupling bands or flanges.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Coupling bands, anti-seep collars, end sections, etc. must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be less than 9 and greater than 4.

2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel around the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to the completely watertight. Dimple bands are not considered to be watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.

5. Backfilling shall conform to structural backfill as shown above.

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWMA Specification C-301.

2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3", or as shown on the drawings.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.

4. Backfilling shall conform to structural backfill as shown above.

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

C. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

1. Materials

- a. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
- b. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
- c. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
- d. Coarse Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.
- e. Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel conforming to ASTM Specification A-615.

2. Design Mix - The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5-1/2 to 6 U.S. Gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

3. Mixing - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

4. Forms - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

5. Reinforcing Steel - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

6. Consolidating - Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

7. Finishing - Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be tamped and completely filled with dry-patching mortar.

8. Protection and Curing - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.

9. Placing Temperature - Concrete may not be placed at temperatures below 37°F with the temperature falling, or 34° with the temperature rising.

VII. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications or as shown on the accompanying drawings.

VIII. EROSION AND SEDIMENT CONTROL

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

NO.	SOIL DESCRIPTION	DEPTH (ft)	SCALE	TEST	REMARKS
3230	Black, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	0-1.5	D/1	2-3	1 DS 8
3215	Tan, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	1.5-3.5	D/1	2-2	2 DS 9
3195	Tan, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	3.5-5	D/1	7	3 DS 13
	Tan, brown, moist, dense to very dense silty sand (SM), trace of organic matter (LOAM)	5-6.5	D	102/5	4 DS 5
	(Decomposed Rock)	6.5-10	D	100/5	5 DS 5
3110	Boring ended at 12.2 ft	12.0	D	100/5	6 DS 5
		15	D	100/1	7 DS 1

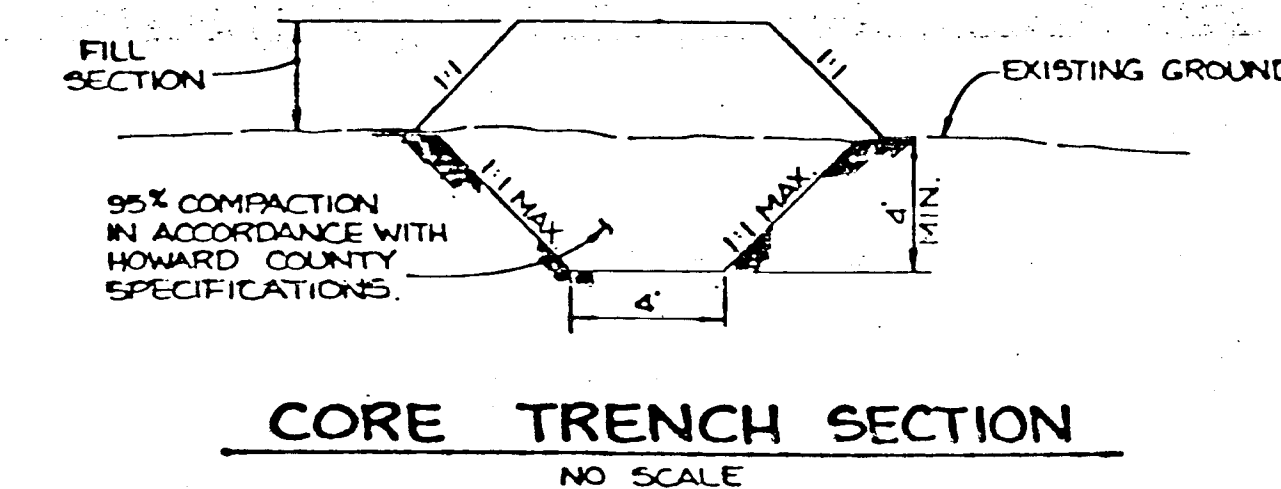
NO.	SOIL DESCRIPTION	DEPTH (ft)	SCALE	TEST	REMARKS
3250	Black, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	0-1.5	D/1	2-3	1 DS 8
3225	Tan, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	1.5-3.5	D/1	3-8	2 DS 11
	Tan, brown, moist, dense to very dense silty sand (SM), trace of organic matter (LOAM)	3.5-6	D	13	3 DS 16
	(Decomposed Rock)	6-10	D	48	4 DS 11
3165	Boring ended at 8.5 ft	8.5	D	100/3	5 DS 3
		10	D		6 DS
		15	D		7 DS

NO.	SOIL DESCRIPTION	DEPTH (ft)	SCALE	TEST	REMARKS
3200	Black, brown, moist, loose to medium dense silty sand (SM), trace of organic matter (LOAM)	0-1.5	D/1	2-2	1 DS 8
3170	Grey, greenish, moist, medium dense, to very dense silty sand (SM), trace of organic matter (Sandy LOAM)	1.5-3	D/1	10-9	2 DS 10
		3-5	D	12	3 DS 12
		5-10	D/1	14-14	4 DS 14
		10-12	D/1	11	5 DS 13
	(Decomposed Rock)	12-15	D	13-10	6 DS 14
3050	Boring ended at 15 ft	15.0	D	100/2	7 DS 2

NO.	SOIL DESCRIPTION	DEPTH (ft)	SCALE	TEST	REMARKS
3240	Black, moist, soft clayey silt (M), trace of organic matter (LOAM)	0-1.5	D/1	3-2	1 DS 3
3215	Tan, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	1.5-2.5	D/1	3-2	2 DS 9
3180	Tan, brown, moist, soft clayey silt (M), trace of organic matter (LOAM)	2.5-5	D/1	5-7	3 DS 13
3160	Brown, moist, very dense silty sand (SM), trace of gravel (LOAM)	5-10	D	100/2	4 DS 2
3160	Boring ended at 8.0 ft	8.0	D		5 DS
		10	D		6 DS
		15	D		7 DS

SOIL BORING DATA

NOTE WOR: WATER ON ROD  
BORING ENCOUNTERED DURING BORING OPERATION.  
WOC: WATER ON COMPLETION  
WATER IN BORING HOLE AFTER 24 HOURS.



BY THE ENGINEER:  
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

ENGINEER: *James E. Longino* 3/8/91 DATE

BY THE DEVELOPER:  
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

DEVELOPER: *James R. McLaughlin* 3-5-91 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

APPROVED: *James M. Helm* 8/23/91 DATE  
S. SOIL CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: *Robert W. Ziehm* 8/23/91 DATE  
HOWARD S.C.D.

APPROVED: *Emma J. Hilsenrath* 1/16/94 DATE  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: *Alan M. Tangeman* 9/5/91 DATE  
CHIEF, LAND DEVELOPMENT DIVISION

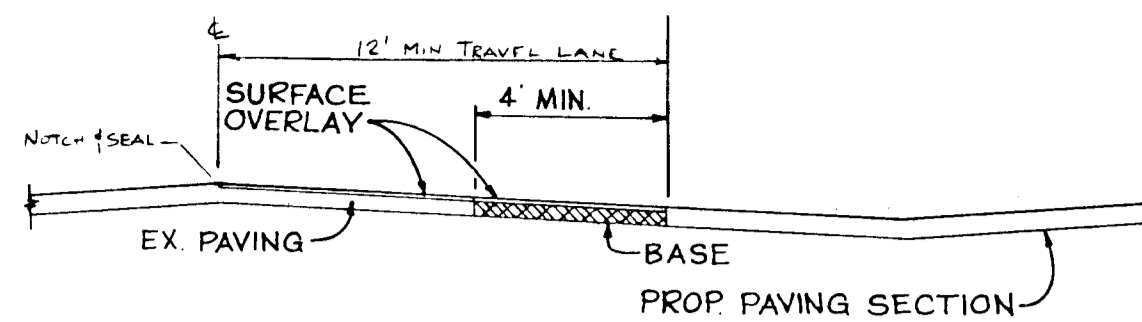
APPROVED: *Spawville W. Weiland* 8/29/91 DATE  
CHIEF, BUREAU OF ENGINEERING

NO.	DATE	REVISION

TSA GROUP, INC.  
planning - architecture - engineering  
5640 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-6105

OWNER	PROJECT	LOCATION	TITLE
SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	OAK RIDGE SECTION ONE, AREA ONE	TAX MAP NO. 32 PARCEL NO. 201, 202 & 327 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	STORMWATER MANAGEMENT DETAILS
DEVELOPER	DATE:	PROJECT NO.	DRAWING
SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	MARCH 5, 1991 JUNE 20, 1991	0293	7 OF 9
DES. JH	DRN.	SCALE: AS SHOWN	

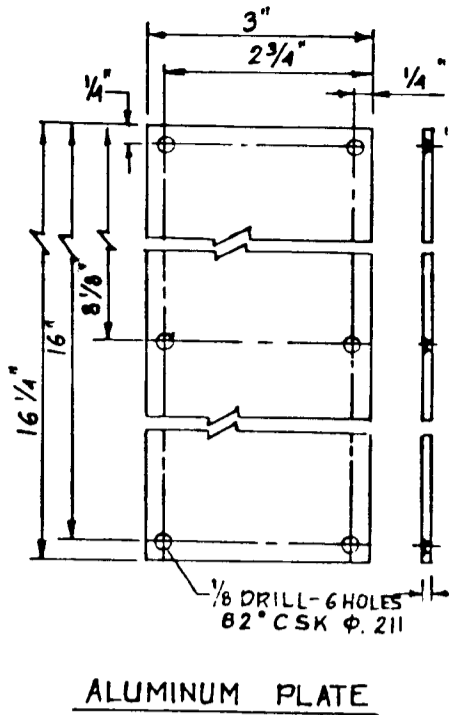
1633



- NOTE 1. THE SURFACE OVERLAY SHALL BE TO THE  $\frac{1}{2}$  OF ROAD AND NOTCHED AND SEALED
2. SURFACE OVERLAY COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE PROPOSED PAVEMENT SECTION
3.  $\frac{1}{2}$  OF ROAD TO BE MILLED AT DEPTH OF  $1\frac{1}{2}$ " WIDE USING A MILLING MACHINE

**GUILFORD ROAD  
PAVEMENT JUNCTION AND OVERLAY DETAIL**

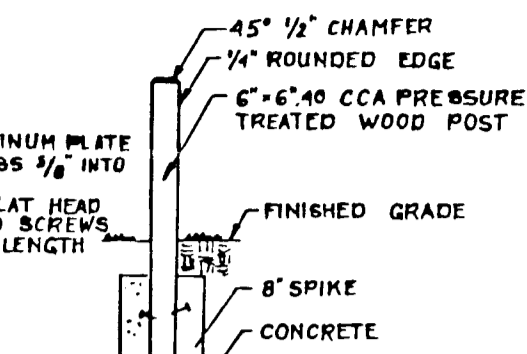
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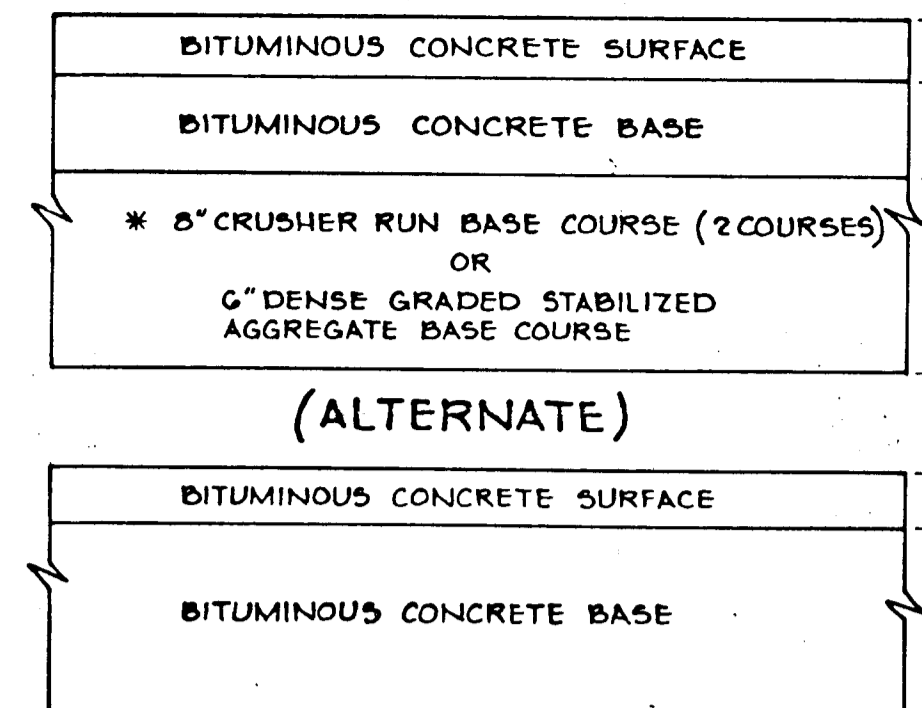
**OPEN SPACE BOLLARD DETAIL**

NO SCALE

NOTE: PLATE TO BE SCREWED & CLUED IN PLACE  
SCREWS ARE TO BE COUNTERSUNK



NOTE: BOLLARDS WILL BE PLACED AT THE FOUR CORNERS OF THE OPEN SPACE ACCESS STRIP  
THE ALUMINUM PLATE WILL ONLY BE REQUIRED ON THE FRONT RIGHT BOLLARD DIRECTLY FACING THE ROAD



**6 1/2" PAVING, P-2**

NO SCALE

HOWARD COUNTY DESIGN MANUAL VOLUME IV  
STANDARD SPECIFICATIONS AND DETAILS FOR  
CONSTRUCTION (DRAWING R-2.01)

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

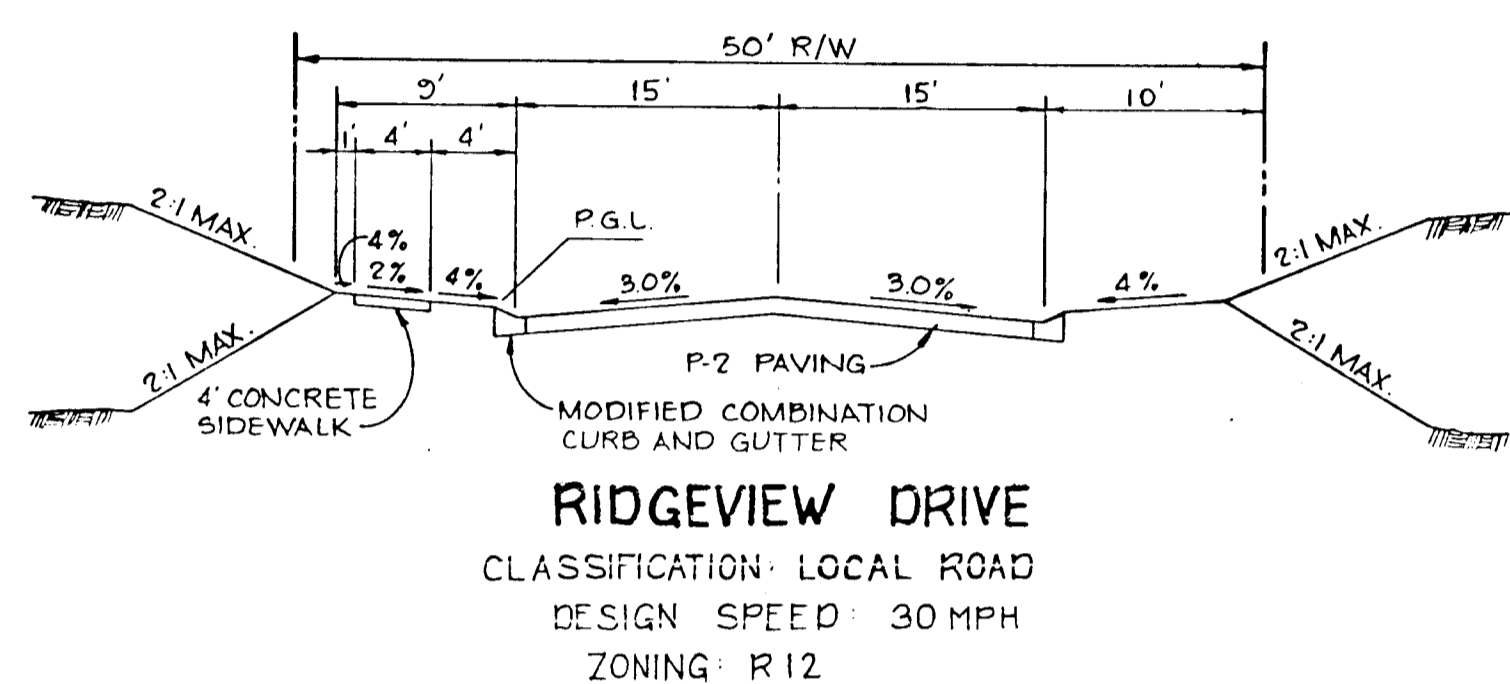
*Jamarr M. Helm* / JMR  
SOIL CONSERVATION SERVICE

8/23/91  
DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVER: *Robert W. Johnson* / RWR  
HOWARD S.C.D.

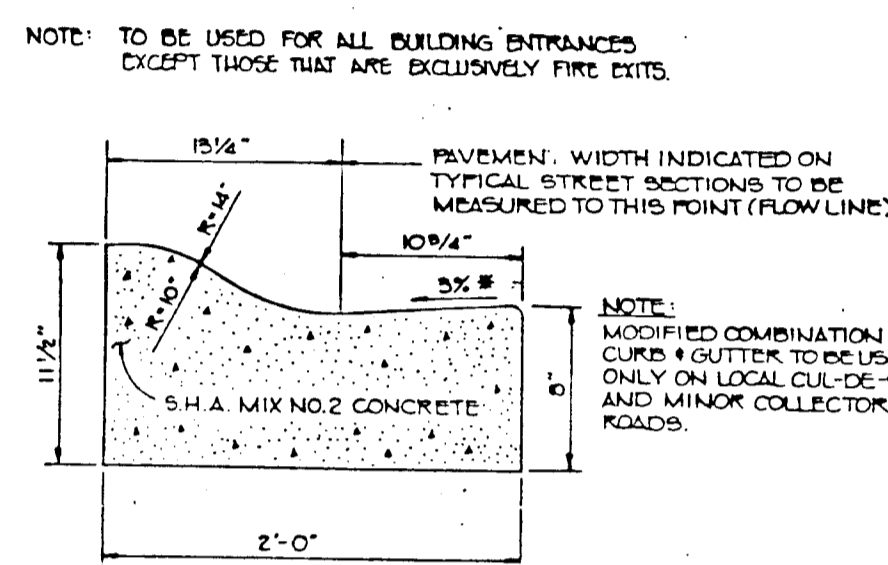
8/23/91  
DATE



**RIDGEVIEW DRIVE  
CLASSIFICATION: LOCAL ROAD  
DESIGN SPEED: 30 MPH  
ZONING: R 12**

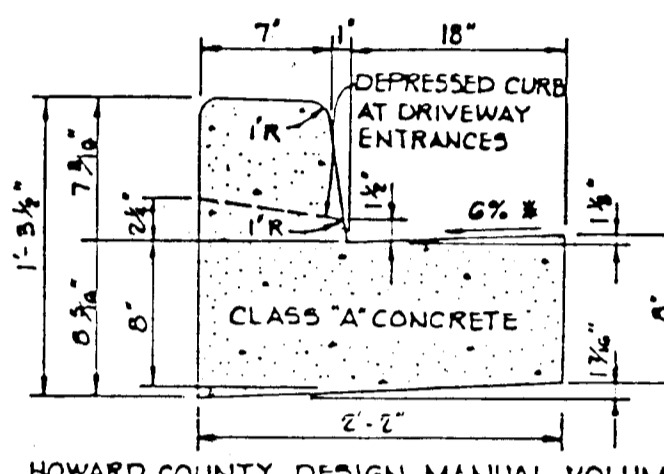
**TYPICAL SECTION**

NO SCALE



**MODIFIED COMBINATION  
CURB AND GUTTER**

NO SCALE

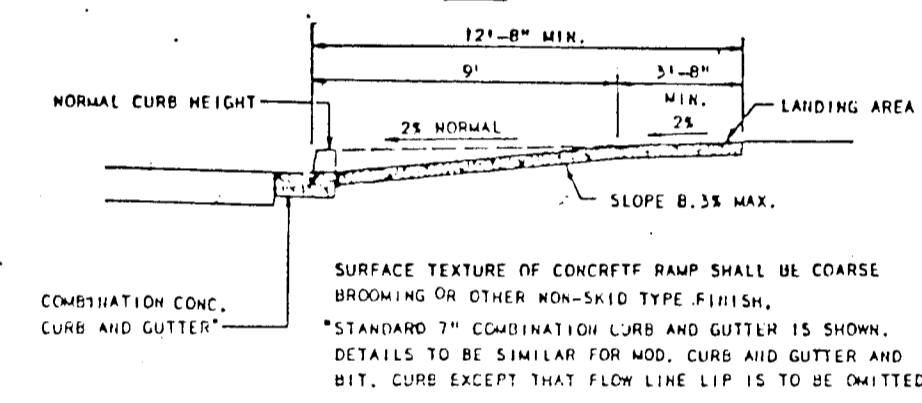
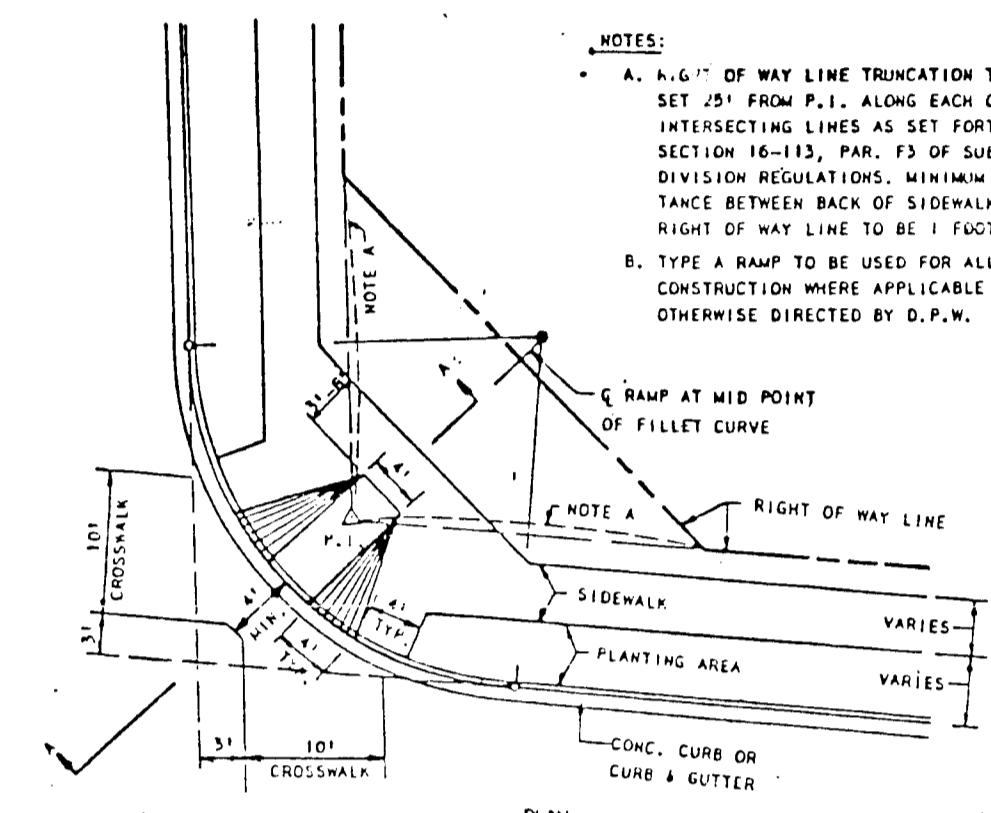


**STANDARD 7" COMBINATION  
CURB AND GUTTER**

NO SCALE

NOTE: TO BE USED FOR ALL BUILDING ENTRANCES EXCEPT THOSE THAT ARE EXCLUSIVELY FIRE EXITS

NOTE: GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT MATCH PAVEMENT CROWN SLOPE WHEN CURB IS LOCATED ON LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB AND GUTTER.

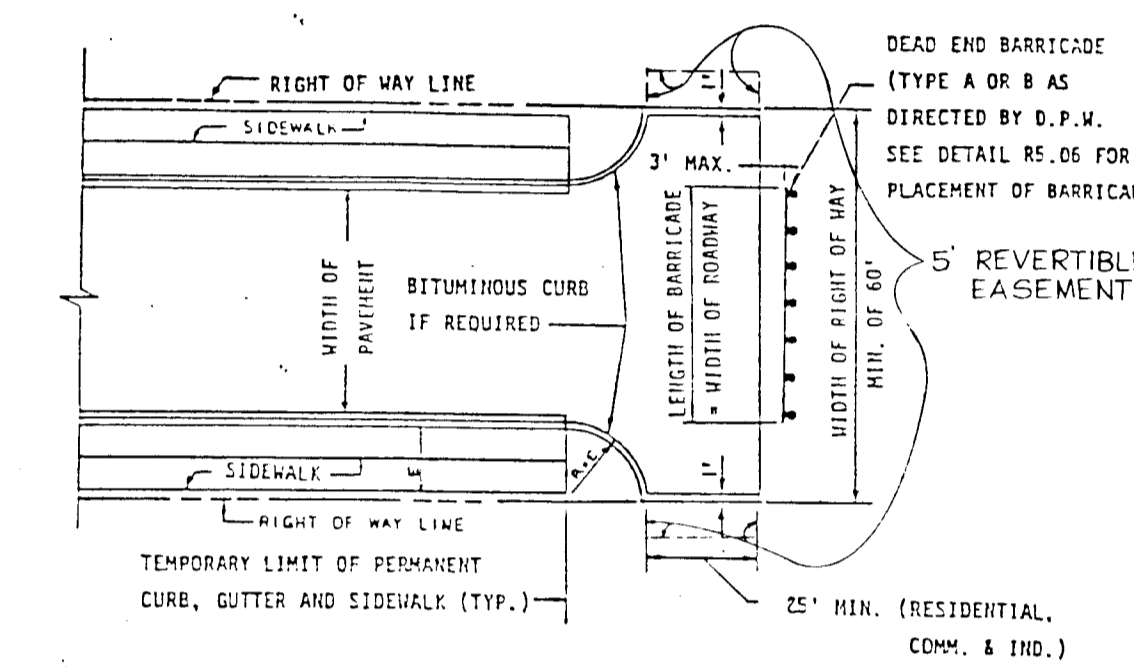


**SIDEWALK RAMP DETAIL**

NO SCALE

NOTE: A. A 4'-6" OF WAY LINE TRUNCATION TO BE SET 20' FROM P.L. ALONG EACH OF THE INTERSECTING LINES AS SET FORTH IN SECTION 16-113, PAR. F3 OF SUB-DIVISION REGULATIONS. MINIMUM DISTANCE BETWEEN BACK OF SIDEWALK AND RIGHT OF WAY LINE TO BE 1' FEET.

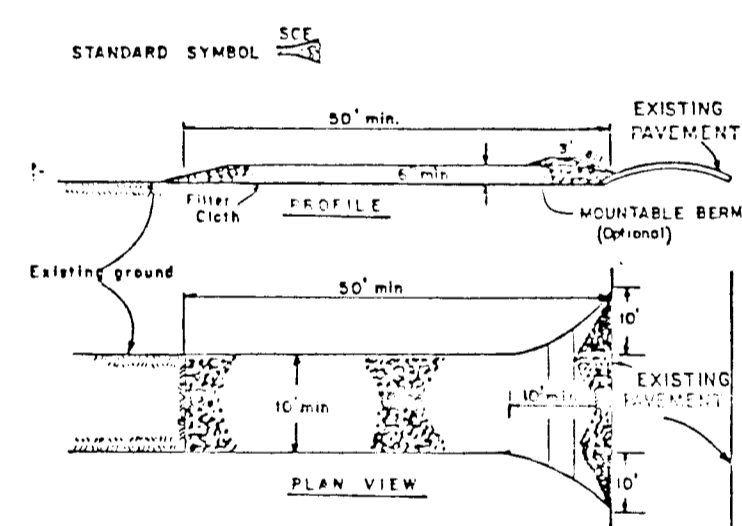
B. TYPE A RAMP TO BE USED FOR ALL NEW CONSTRUCTION WHERE APPLICABLE UNLESS OTHERWISE DIRECTED BY D.P.W.



- NOTE:
- A TEE TURN-AROUND SHALL BE USED IN LIEU OF A CUL-DE-SAC ONLY IF THE STREET IS TO BE EXTENDED IN THE FUTURE.
  - BITUMINOUS CURB SHALL EXTEND AROUND THE TEE TURN-AROUND IF AND AS REQUIRED TO CONTROL CURB DRAINAGE FROM THE ROADWAY SECTION.
  - REFER TO STANDARD R-5.06 FOR TYPICAL ROADWAY PROFILE OF TEMPORARY LIMIT OF PAVING.
  - FOR LOCAL ROADS, PROVIDE 5' REVERSIBLE EASEMENT EACH END OF THE TEE.
  - PROVIDE EASEMENTS AS REQUIRED FOR PLACEMENT OF BARRICADE AND ANY NECESSARY GRADING (SEE DETAIL RS.06)

**TEE TURN-AROUND**

NO SCALE

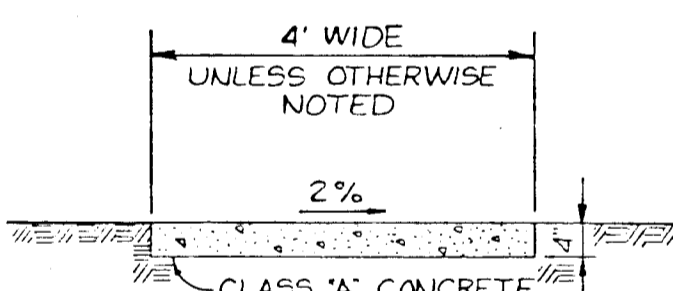


**STABILIZED CONSTRUCTION ENTRANCE**

NO SCALE

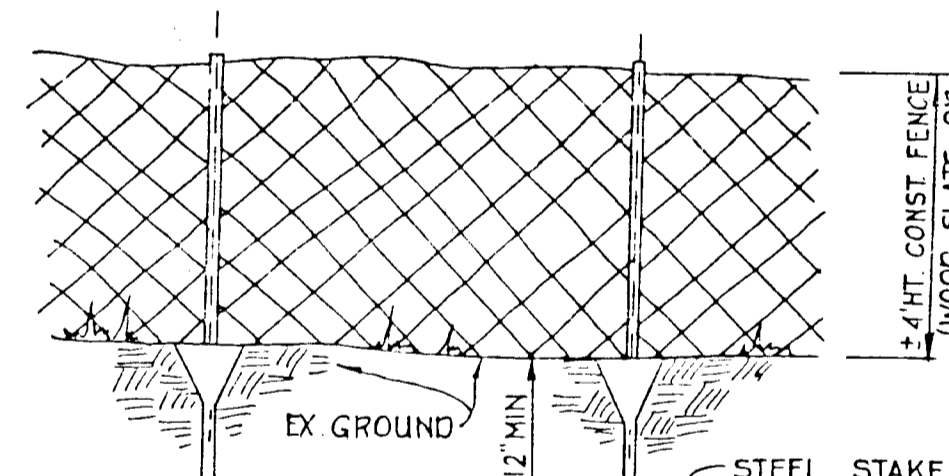
**CONSTRUCTION SPECIFICATIONS**

- Stone Size - Use 2" stone, or equivalent of recycled concrete equivalent.
- Length - As required, but not less than 30 feet (except on a single residential lot where a 30' foot minimum length would apply).
- Thickness - Not less than 6" (6" inches).
- Width - Top (10) feet minimum, but not less than the full width at points where increase of grades occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone.
- Filter Cloth - Will be placed over the entire area prior to placing of stone.
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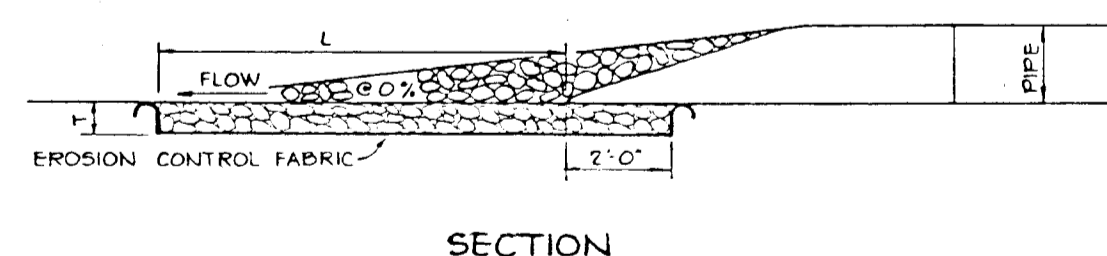
**SIDEWALK DETAIL**

NO SCALE

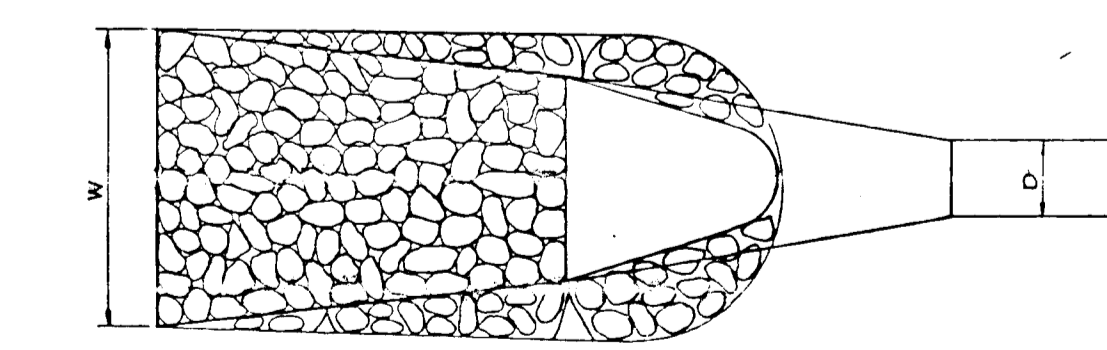


**TYPICAL TREE PROTECTION FENCE**

NO SCALE



**SECTION**



**PLAN**

STRUCTURE	d - 50	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	0.50'	8'	10'	113'
E-2	0.50'	8'	10'	113'

**OUTLET PROTECTION DETAIL**

NO SCALE

**STONE OUTLET SEDIMENT TRAP**

NO SCALE

LIGHTING FIXTURE NOTE:  
ALL STREET LIGHT FIXTURES TO BE 150 WATT MODERN SODIUM VAPOR LAMP MOUNTED ON 1 1/2" GRAY FIBERGLASS POLE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Ch. M. Roman*  
CHIEF, LAND DEVELOPMENT DIVISION

*Dravies W. Weiland*  
CHIEF, BUREAU OF HIGHWAYS

*Michael B. Ryan*  
CHIEF, BUREAU OF ENGINEERING

9/5/91  
DATE

8/21/91  
DATE

9-6-91  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Emmalie H. Hearn*  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

9/16/91  
DATE

**TSA GROUP, INC.**  
planning • architecture • engineering

8480 Baltimore National Pike • Elkton City, Maryland 21045 • (301)465-6105

OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT	<b>OAK RIDGE SECTION ONE, AREA ONE</b>
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLCOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION	TAX MAP NO. 42 PARCEL NO. 201, 202 & 327 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE		DETAILS	
P-89-83 S-88-28		DATE: MARCH 5, 1991 JUNE 20, 1991	
DES. JH DRN. IP		PROJECT NO. 0293	
SCALE: AS SHOWN		DRAWING 8 OF 9	

1633

**SILT FENCE**

NO SCALE

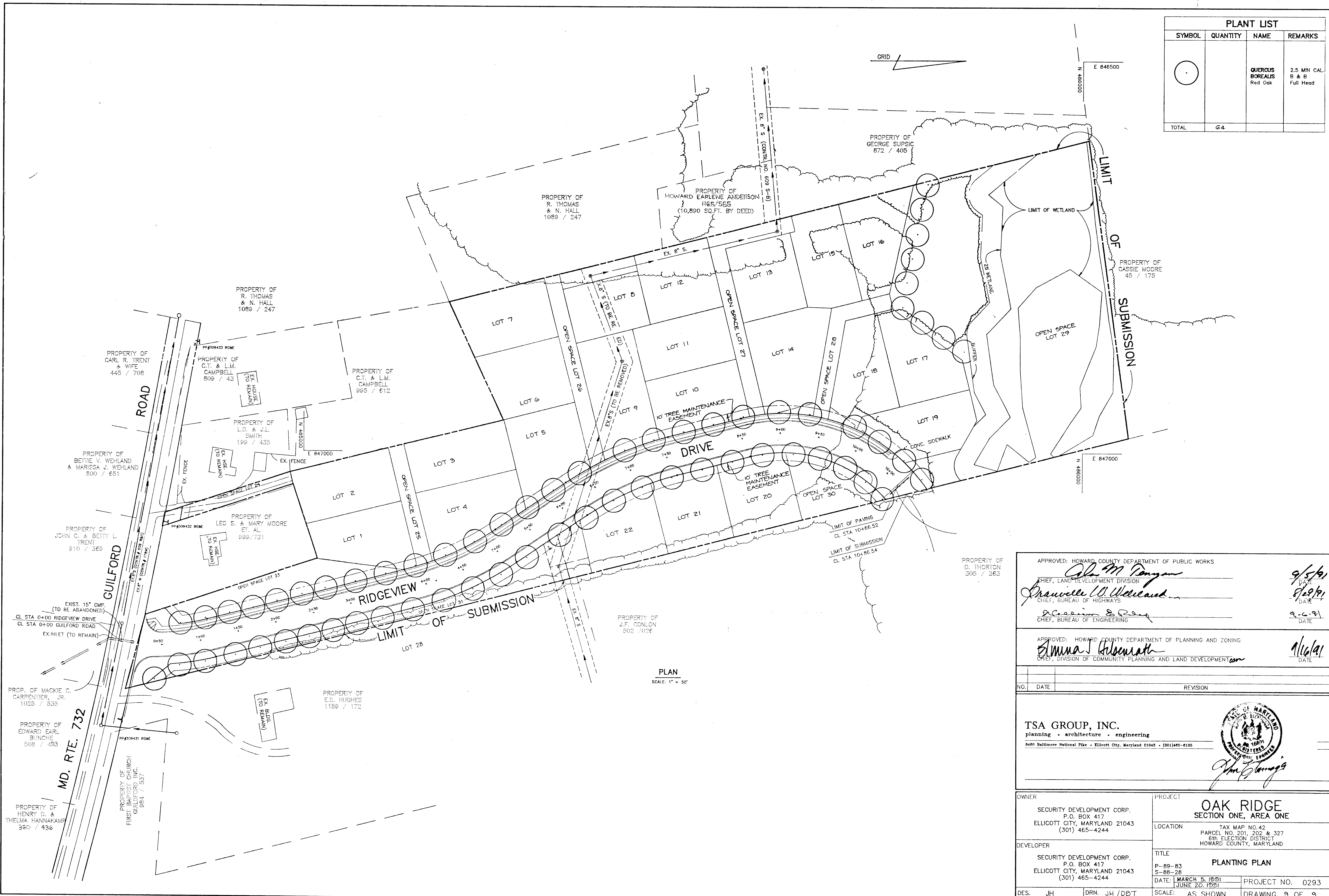
**EARTH DIKE**

NO SCALE



1633

PLANT LIST			
SYMBOL	QUANTITY	NAME	REMARKS
○		QUERCUS BOREAUS Red Oak	2.5 MIN CAL B & B Full Head
TOTAL	64		



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*John M. Poyner*  
 CHIEF, LAND DEVELOPMENT DIVISION  
*Shaville W. Welland*  
 CHIEF, BUREAU OF HIGHWAYS  
*Deborah S. Poyner*  
 CHIEF, BUREAU OF ENGINEERING

9/5/91  
 9/29/91  
 9-6-91

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Anna J. Gubernath*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

11/1/91

NO.	DATE	REVISION

**TSA GROUP, INC.**  
 planning • architecture • engineering  
 8460 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6100

*John M. Poyner*

OWNER SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	PROJECT <b>OAK RIDGE</b> SECTION ONE, AREA ONE
DEVELOPER SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (301) 465-4244	LOCATION TAX MAP NO. 42 PARCEL NO. 201, 202 & 327 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DES. JH	DRN. JH / DBT
TITLE <b>PLANTING PLAN</b>	
DATE: MARCH 5, 1991 JUNE 20, 1991	
PROJECT NO. 0293	
SCALE: AS SHOWN	
DRAWING 9 OF 9	