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REVISION 2/11/88 ADD'D ADDRESS

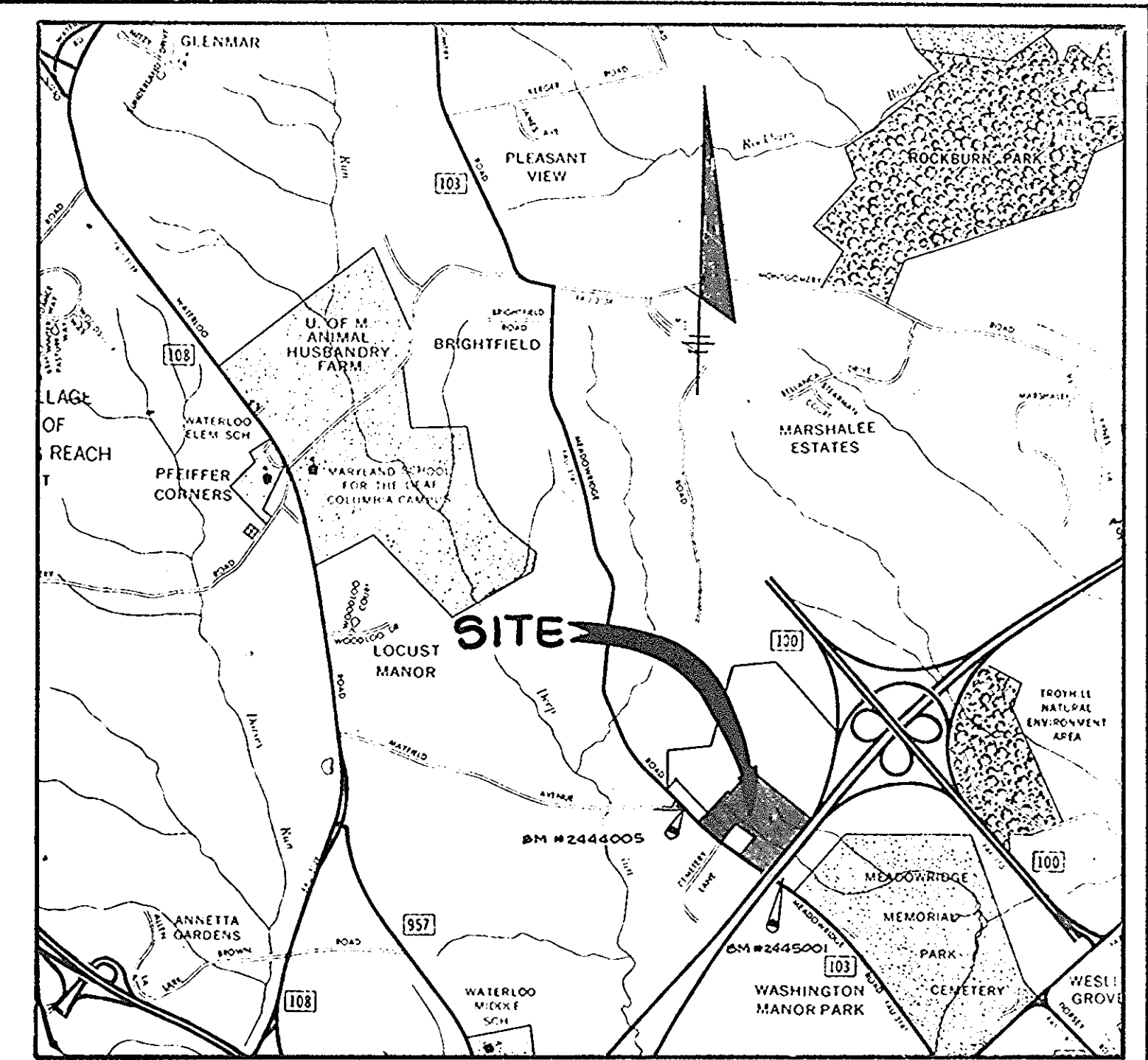
# SITE DEVELOPMENT PLAN

# NOTTINGHAM VILLAGE

## PHASE I

## 1ST ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND



**VICINITY MAP**  
SCALE: 1"=2000'

- BENCH MARK DESCRIPTIONS**
- |                                      |               |
|--------------------------------------|---------------|
| HC-B.M. #2444005                     | ELEV. 271.249 |
| CONCRETE MONUMENT 0.5' BELOW SURFACE |               |
| HC-B.M. #2445001                     | ELEV. 245.095 |
| CONCRETE MONUMENT 0.1' BELOW SURFACE |               |

NOTE: SEE UNIT DETAILS ON DRAWING NO. 3 FOR MAXIMUM ALLOWABLE SIZE.

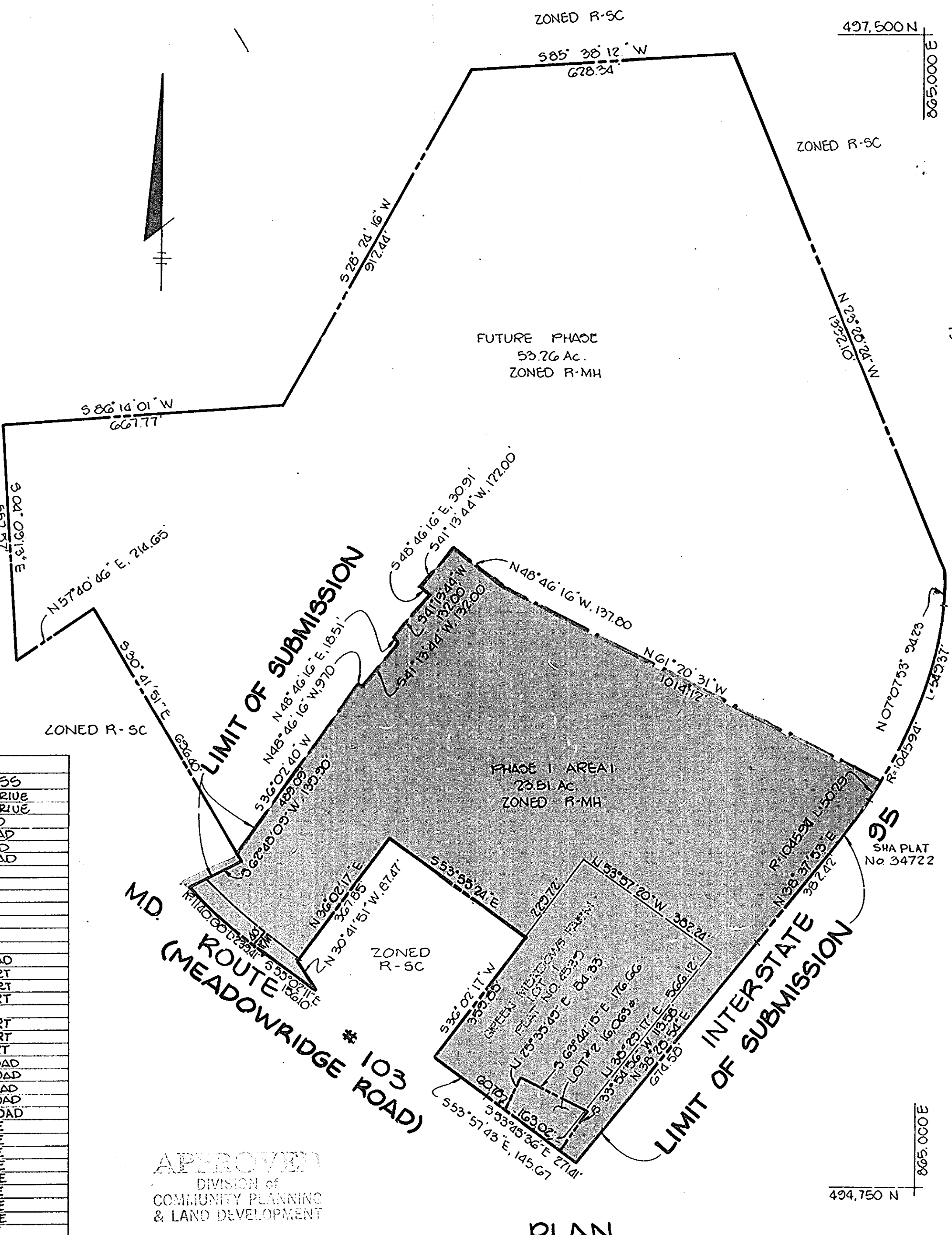
**GENERAL NOTES**

- ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
- CORRUGATED STEEL PIPE SECTIONS WILL BE JOINED WITH A SINGLE OR TWO PIECE CORRUGATED BAND WITH A WATER-TIGHT NEOPRENE GASKET. DIMPLED BAND CONNECTORS WILL NOT BE PERMITTED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR 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 PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THIS/DRAWING:
 

C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS AND ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	631-5533
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION	992-2417/2418
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 2'-0" OF EXTERIOR MANHOLE WALLS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
- TOPD TAKEN FROM FIELD RUN SURVEY

SITE TABULATION			
EXISTING ZONING	R-MH	R-SC	TOTAL
GROSS AREA OF SITE	22.74 AC.	0.77 AC.	23.51 AC.
NET AREA OF SITE	22.74 AC.	0.77 AC.	23.51 AC.
NO. OF MOBILE HOME SITES PERMITTED	182	0	182
NO. OF MOBILE HOME SITES PROPOSED	98	0	98
OPEN SPACE TO REMAIN	9.61 AC. (42.3%)	0.33 AC. (50.6%)	10.0 AC. (42.5%)
PARKING:			
REQUIRED	2 SPACES/D.U.	196	196
PROVIDED	196		196

ADDRESS CHART					
LOT NOS.	STREET ADDRESS	LOT NOS.	STREET ADDRESS	LOT NOS.	STREET ADDRESS
1	6530 HUNTSIRE DRIVE	43	6472 WOODLAND FOREST DRIVE	85	1667 OLD ROCKBRIDGE DRIVE
2	6534 HUNTSIRE DRIVE	44	6476 WOODLAND FOREST DRIVE	86	1671 OLD ROCKBRIDGE DRIVE
3	6538 HUNTSIRE DRIVE	45	6480 WOODLAND FOREST DRIVE	87	1675 OLD HIGHGATE ROAD
4	6542 HUNTSIRE DRIVE	46	6484 WOODLAND FOREST DRIVE	88	1679 OLD HIGHGATE ROAD
5	6546 HUNTSIRE DRIVE	47	6488 WOODLAND FOREST DRIVE	89	1683 OLD HIGHGATE ROAD
6	6550 HUNTSIRE DRIVE	48	6492 WOODLAND FOREST DRIVE	90	1687 WOODLAND FOREST DRIVE
7	6554 HUNTSIRE DRIVE	49	6496 WOODLAND FOREST DRIVE		
8	6558 HUNTSIRE DRIVE	50	6500 OLD HIGHGATE ROAD		
9	6562 HUNTSIRE DRIVE				
10	6566 HUNTSIRE DRIVE				
11	6570 HUNTSIRE DRIVE				
12	6574 WOODLAND FOREST DRIVE				
13	6578 WOODLAND FOREST DRIVE				
14	6582 WOODLAND FOREST DRIVE				
15	6586 WOODLAND FOREST DRIVE				
16	6590 WOODLAND FOREST DRIVE				
17	6594 WOODLAND FOREST DRIVE				
1-118	6505 MEADOWRIDGE AVE.				
18	6473 WOODLAND FOREST DRIVE				
19	6469 WOODLAND FOREST DRIVE				
20	6465 WOODLAND FOREST DRIVE				
21	6461 WOODLAND FOREST DRIVE				
22	6457 WOODLAND FOREST DRIVE				
23	6453 WOODLAND FOREST DRIVE				
24	6449 WOODLAND FOREST DRIVE				
25	6445 WOODLAND FOREST DRIVE				
26	6441 WOODLAND FOREST DRIVE				
27	6437 WOODLAND FOREST DRIVE				
28	6433 WOODLAND FOREST DRIVE				
29	6429 WOODLAND FOREST DRIVE				
30	6425 WOODLAND FOREST DRIVE				
31	6421 WOODLAND FOREST DRIVE				
32	6417 WOODLAND FOREST DRIVE				
33	6413 WOODLAND FOREST DRIVE				
34	6409 WOODLAND FOREST DRIVE				
35	6405 WOODLAND FOREST DRIVE				
36	6401 WOODLAND FOREST DRIVE				
37	6397 WOODLAND FOREST DRIVE				
38	6393 WOODLAND FOREST DRIVE				
39	6389 WOODLAND FOREST DRIVE				
40	6385 WOODLAND FOREST DRIVE				
41	6381 WOODLAND FOREST DRIVE				
42	6377 WOODLAND FOREST DRIVE				
43	6373 WOODLAND FOREST DRIVE				
44	6369 WOODLAND FOREST DRIVE				
45	6365 WOODLAND FOREST DRIVE				
46	6361 WOODLAND FOREST DRIVE				
47	6357 WOODLAND FOREST DRIVE				
48	6353 WOODLAND FOREST DRIVE				
49	6349 WOODLAND FOREST DRIVE				
50	6345 WOODLAND FOREST DRIVE				
51	6341 WOODLAND FOREST DRIVE				
52	6337 WOODLAND FOREST DRIVE				
53	6333 WOODLAND FOREST DRIVE				
54	6329 WOODLAND FOREST DRIVE				
55	6325 WOODLAND FOREST DRIVE				
56	6321 WOODLAND FOREST DRIVE				
57	6317 WOODLAND FOREST DRIVE				
58	6313 WOODLAND FOREST DRIVE				
59	6309 WOODLAND FOREST DRIVE				
60	6305 WOODLAND FOREST DRIVE				
61	6301 WOODLAND FOREST DRIVE				
62	6297 WOODLAND FOREST DRIVE				
63	6293 WOODLAND FOREST DRIVE				
64	6289 WOODLAND FOREST DRIVE				
65	6285 WOODLAND FOREST DRIVE				
66	6281 WOODLAND FOREST DRIVE				
67	6277 WOODLAND FOREST DRIVE				
68	6273 WOODLAND FOREST DRIVE				
69	6269 WOODLAND FOREST DRIVE				
70	6265 WOODLAND FOREST DRIVE				
71	6261 WOODLAND FOREST DRIVE				
72	6257 WOODLAND FOREST DRIVE				
73	6253 WOODLAND FOREST DRIVE				
74	6249 WOODLAND FOREST DRIVE				
75	6245 WOODLAND FOREST DRIVE				
76	6241 WOODLAND FOREST DRIVE				
77	6237 WOODLAND FOREST DRIVE				
78	6233 WOODLAND FOREST DRIVE				
79	6229 WOODLAND FOREST DRIVE				
80	6225 WOODLAND FOREST DRIVE				
81	6221 WOODLAND FOREST DRIVE				
82	6217 WOODLAND FOREST DRIVE				



**CERTIFICATION**

I CERTIFY THAT ALL LOTS FOR MOBILE HOME LOCATION IN NOTTINGHAM VILLAGE PHASE I MEET THE HOWARD COUNTY ZONING REGULATION RHM III C.2.B. AND RHM III C.2.C. THESE REQUIREMENTS INCLUDE:

- 4000 SF MINIMUM LOT SIZE
- 45' AVERAGE WIDTH OF LOT AT THE MOBILE HOME LOCATION
- BUILDING/MOBILE HOME SETBACKS
  - 30' FROM OF INTERNAL PRIVATE STREET
  - 5' FROM SIDE LOT LINE
  - 10' FROM REAR LOT LINE
  - 50' FROM DIFFERENTLY ZONED DISTRICT
  - 20' FROM ANOTHER BUILDING/MOBILE HOME
- 20% OPEN SPACE

*James K. Tracy* 9-11-86  
DATE

**LOT AREA CHART**

LOT NO	AREA SF	LOT NO	AREA SF
1	6538	60	5175
2	4728	61	5175
3	4896	62	5175
4	4896	63	5175
5	4896	64	5175
6	4896	65	5175
7	4896	66	4896
8	4896	67	4896
9	4896	68	4590
10	4896	69	4947
11	5712	70	4896
12	5610	71	4896
13	4896	72	4896
14	4896	73	4896
15	4896	74	4896
16	4896	75	4896
17	4896	76	4896
18	4896	77	4896
19	4896	78	4896
20	4896	79	4896
21	4896	80	4896
22	4896	81	4896
23	4896	82	4896
24	4896	83	4896
25	4896	84	4896
26	4896	85	4944
27	4896	86	4590
28	4743	87	4947
29	5508	88	4590
30	4896	89	4590
31	4590	90	4590
32	4692	91	5300
33	4845	92	7252
34	4590	93	4590
35	4590	94	4590
36	4590	95	4590
37	4590	96	4590
38	4590	97	4590
39	4590	98	4590
40	4590	99	4590
41	4590	100	4590
42	4590	101	4590
43	4590	102	5855
44	4590	103	6477
45	4590	104	4590
46	4590	105	4590
47	4590	106	4590
48	5457	107	4590
49	4590	108	4590
50	4725	109	4590
51	5750	110	4590
52	5175	111	4590
53	5175	112	6046
54	5175	113	5745
55	5175	114	4853
56	5175	115	7217
57	5175	116	6265
58	5175	117	5825
59	5175		

APPROVED  
DIVISION OF  
COMMUNITY PLANNING  
& LAND DEVELOPMENT  
HOWARD COUNTY,  
MARYLAND  
DATE 7-31-87

**PLAN**  
SCALE: 1"=200'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

*James K. Tracy* 12-15-88  
COUNTY HEALTH OFFICER DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*James K. Tracy* 12-8-88  
DIRECTOR DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

*James K. Tracy* 1-11-89  
PLANNING DIRECTOR DATE

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

11/2/80 REV. GENERAL NOTES  
10/25/80 REV. STREET ADDRESSES

NO	DATE	REV. STREET ADDRESSES	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
planning • architecture • engineering  
8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER: SECURITY DEVELOPMENT CORP. & NORMANDY SHOPPING CENTER, ELLICOTT CITY, MARYLAND 21043

PROJECT: NOTTINGHAM VILLAGE PHASE I LOTS 1-118

LOCATION: TAX MAP NO. 37 PARCEL NOS 1334201  
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DEVELOPER: SECURITY DEVELOPMENT CORP. & NORMANDY SHOPPING CENTER, ELLICOTT CITY, MARYLAND 21043

TITLE SHEET

DATE: DEC 14, 1986 PROJECT NO. 8540 SDF  
OCT. 19, 1988

DES: JKT DRN: KMN/CDT SCALE: 1"=200' DRAWING 1 OF 14



CURVE DATA		CURVE DATA	
STA. 3+28.56 TO STA. 4+65.15	$\Delta = 39^{\circ} 07' 44''$ $R = 200.00'$ $L = 136.59$ $T = 71.05$ $D = 28^{\circ} 38' 52''$ $Chd = N 16^{\circ} 40' 52'' E, 133.95'$	STA. 5+72.87 TO STA. 7+17.82	$\Delta = 41^{\circ} 31' 30''$ $R = 200.00'$ $L = 144.95$ $T = 73.82$ $D = 28^{\circ} 38' 52''$ $Chd = N 17^{\circ} 52' 45'' E, 141.80'$
CURVE DATA		CURVE DATA	
STA. 0+37.38 TO STA. 0+89.66	$\Delta = 09^{\circ} 59' 01''$ $R = 300.00'$ $L = 52.27$ $T = 26.20$ $D = 19^{\circ} 05' 55''$ $Chd = N 56^{\circ} 21' 01'' W, 52.21'$	STA. 7+63.14 TO STA. 8+28.96	$\Delta = 12^{\circ} 34' 15''$ $R = 300.00'$ $L = 65.82$ $T = 33.04$ $D = 19^{\circ} 05' 55''$ $Chd = N 55^{\circ} 03' 23'' W, 65.60'$
CURVE DATA		CURVE DATA	
STA. 0+47.50 TO STA. 0+99.78	$\Delta = 09^{\circ} 59' 01''$ $R = 300.00'$ $L = 52.27$ $T = 26.20$ $D = 19^{\circ} 05' 55''$ $Chd = N 56^{\circ} 21' 01'' W, 52.21'$	STA. 7+47.57 TO STA. 8+13.39	$\Delta = 12^{\circ} 34' 15''$ $R = 300.00'$ $L = 65.82$ $T = 33.04$ $D = 19^{\circ} 05' 55''$ $Chd = N 55^{\circ} 03' 23'' W, 65.60'$

NOTE: THESE MOBILE HOME UNITS COMPLY WITH CERTIFICATION REQUIRED BY THE SECRETARY OF HUB AND COMPLIES WITH THE STANDARDS ESTABLISHED UNDER THE FEDERAL ACT. SEE SECTION 103A.77 ZONING REG.

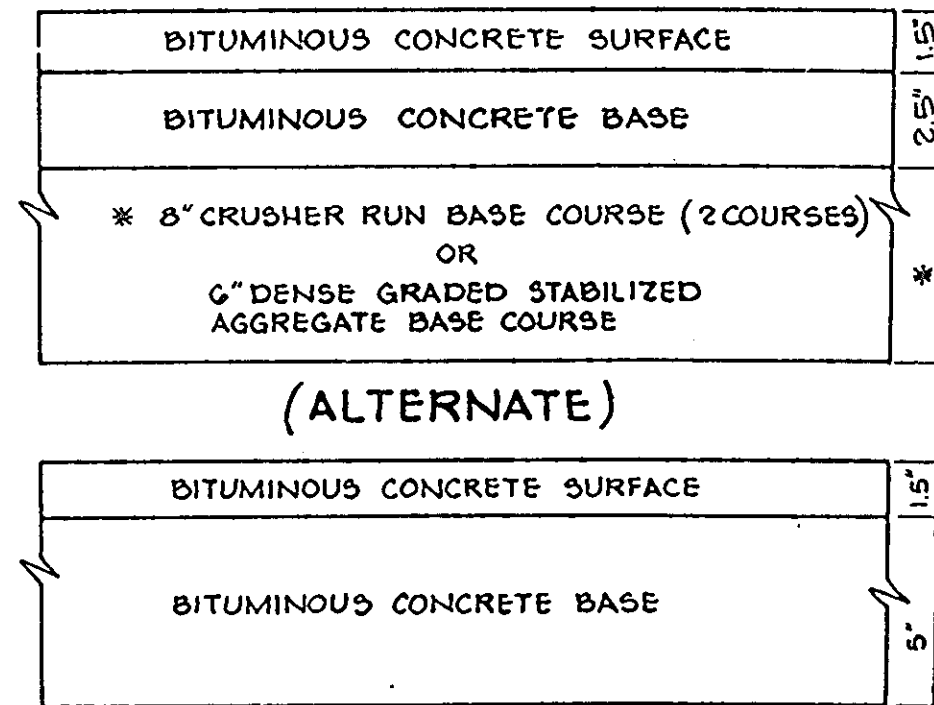
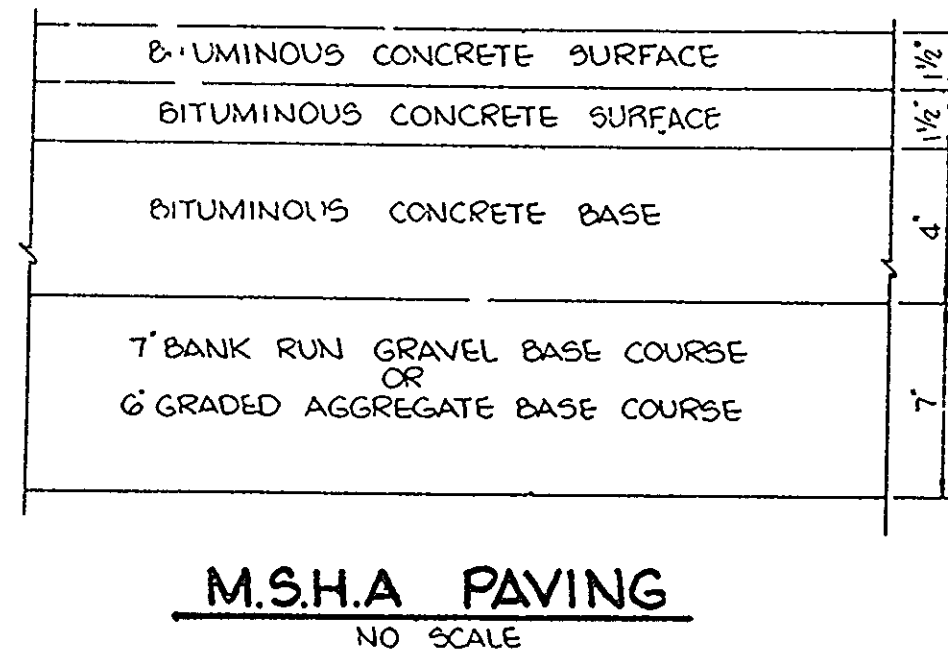
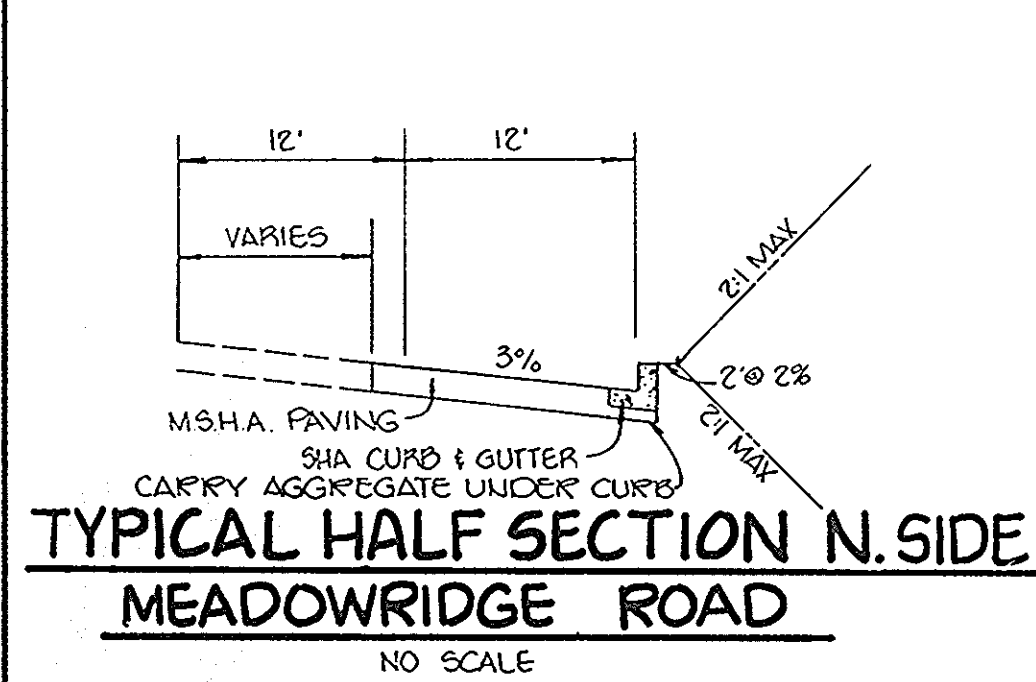
NOTES:

- ON SITE PUBLIC WATER MAIN SHALL BE CONSTRUCTED UNDER HOWARD COUNTY CONTRACT NO. 44-1512-0. ON SITE PRIVATE SANITARY SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS.
- FOR TYPICAL STORAGE SHED LOCATION SEE TYPICAL PLAN SHEET NO. 3.
- RECREATIONAL FACILITIES SHOWN HEREON ARE TO BE UTILIZED BY THIS SECTION AND FUTURE SECTIONS.
- LOTS NOT TO BE IMPROVED UNLESS PERMITS FOR SUCH IMPROVEMENTS ARE ISSUED BY THE CORPS OF ENGINEERS AND/OR THE MARYLAND DEPT. OF NATURAL RESOURCES. THE LOTS REFERRED TO IN THIS NOTE ARE LOTS 3, 4, 22, 23, 40, 41, 42, 51, 52, 53, 54, 72, 73, 83, 84, 91, 92, 93 & 102.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	<i>James J. ...</i>	11-12-90
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.	<i>James J. ...</i>	11/2/90
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING.	<i>James J. ...</i>	12/7/90
APPROVED: CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT.	<i>James J. ...</i>	12/7/90
REVISION		
Δ 10/10/90	REMOVED SINGLE WIDE UNITS, ADDED DOUBLE WIDE UNITS	
Δ 11/2/89	INSTALLED ISLAND ON HUNT SHIRE DRIVE	
NO DATE	REVISION	

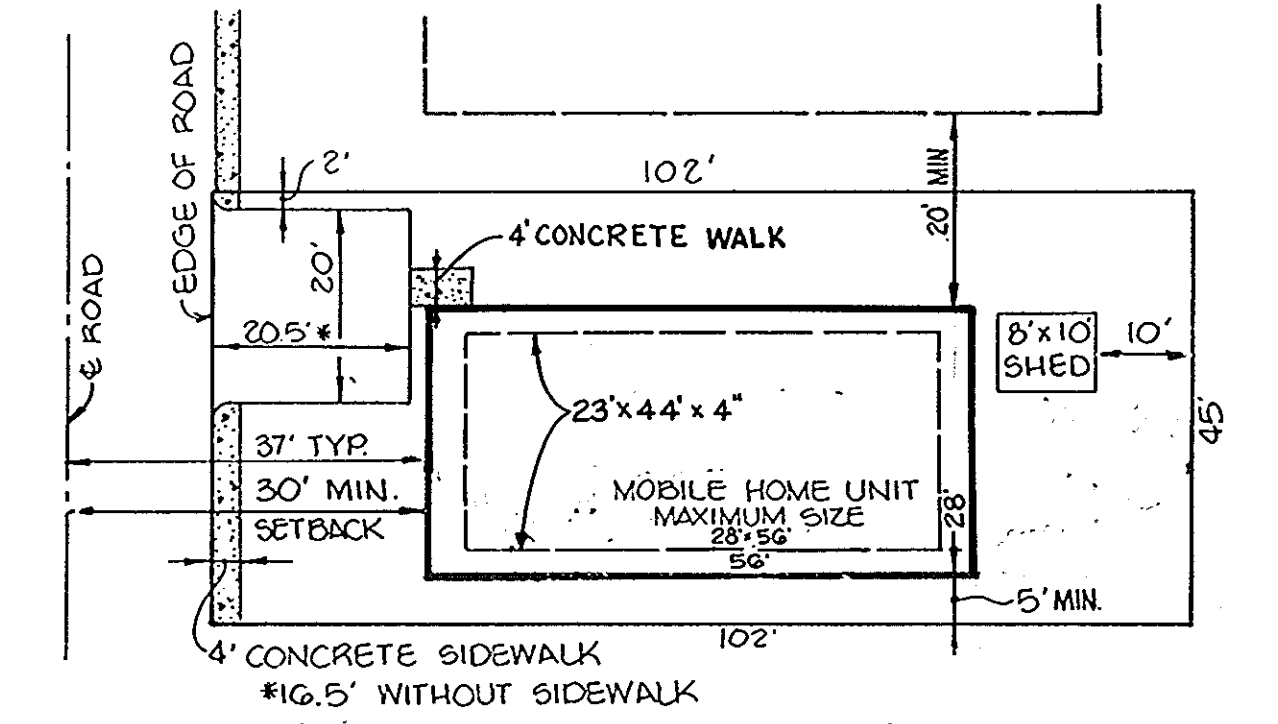
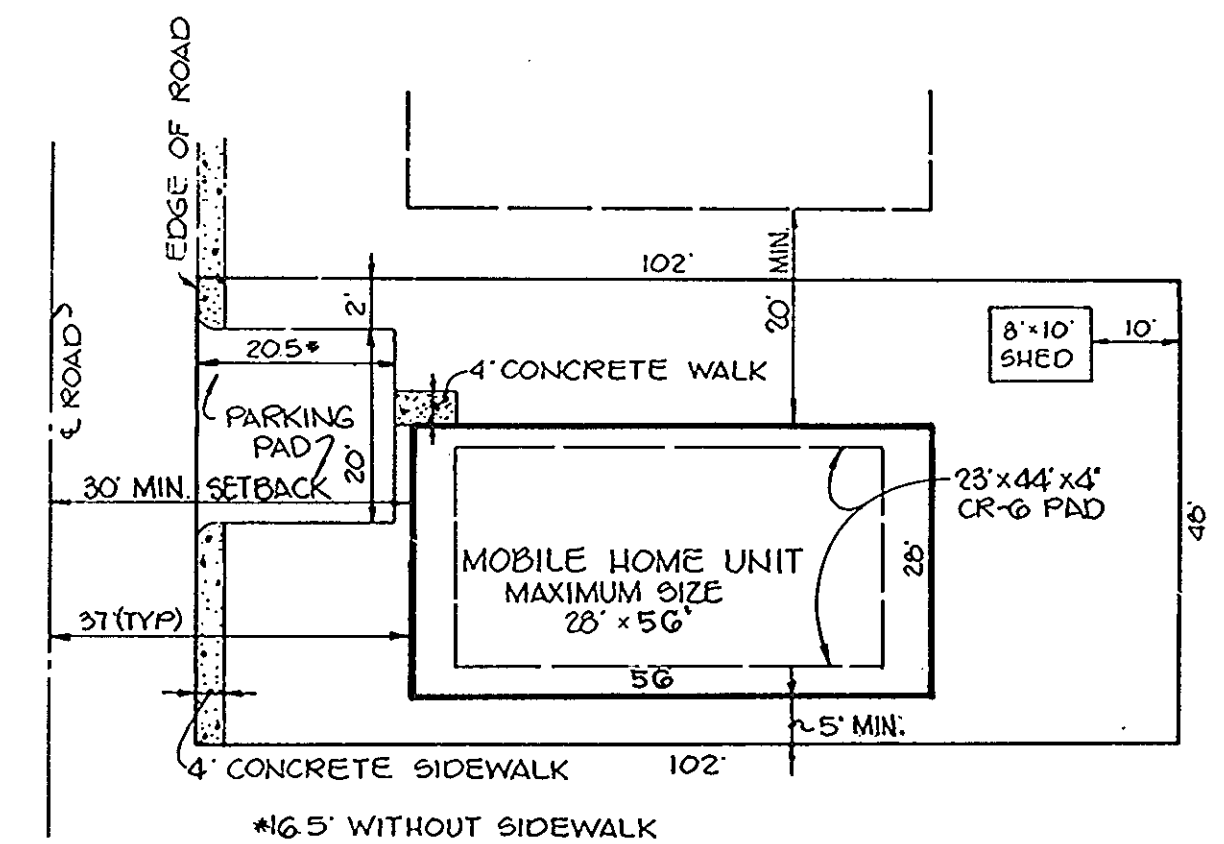
TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER	SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043	PROJECT	<b>NOTTINGHAM VILLAGE</b> PHASE ONE LOTS 1-118
DEVELOPER	SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043	LOCATION	TAX MAP NO. 37 PARCEL 405 1333 201 1 <sup>ST</sup> ELECTION DISTRICT HOWARD COUNTY MARYLAND
TITLE	<b>SITE DEVELOPMENT PLAN</b>	DATE	DEC. 14, 1990 OCT. 10, 1990
DES. JKT	DRN. KMN	PROJECT NO.	8540-SDP
SCALE	1" = 50'	DRAWING	2 OF 14

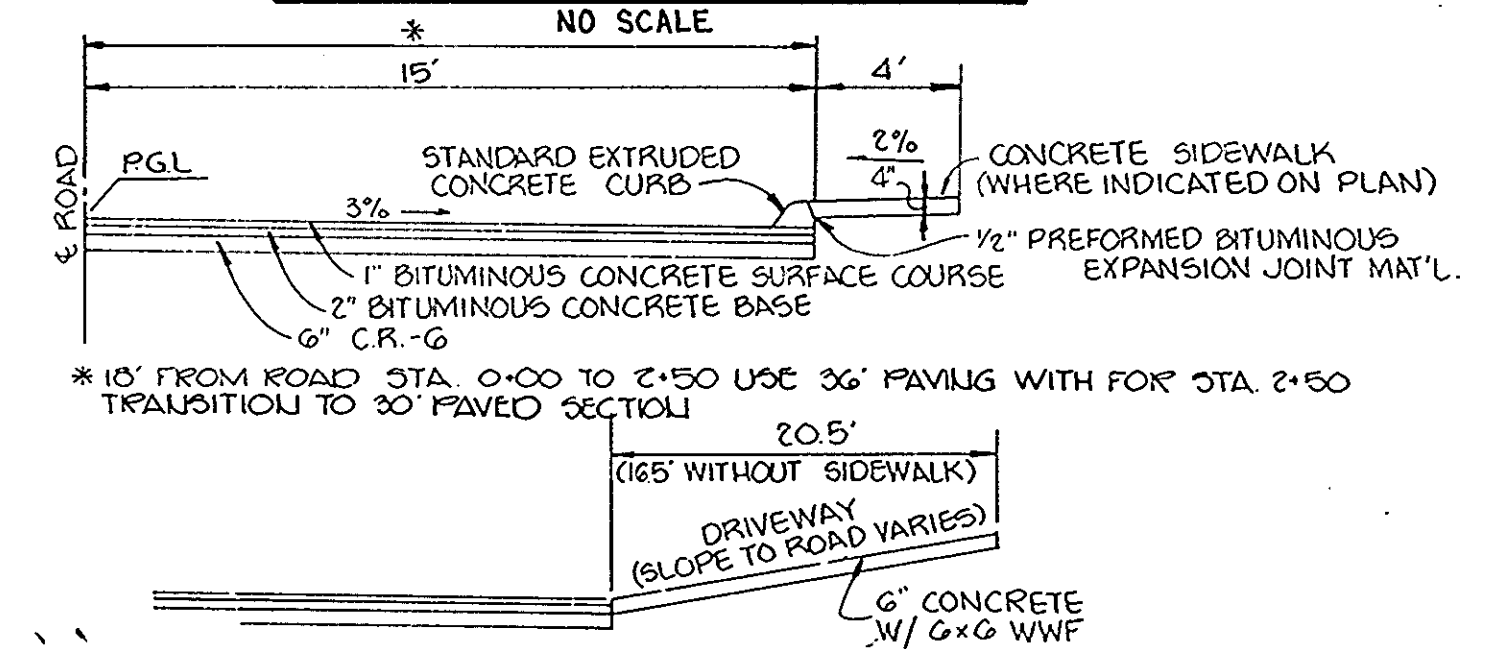


HOWARD COUNTY DESIGN MANUAL VOLUME IV  
STANDARD SPECIFICATIONS AND DETAILS FOR  
CONSTRUCTION (DRAWING R-201)

**6 1/2" PAVING, P-2**  
NO SCALE

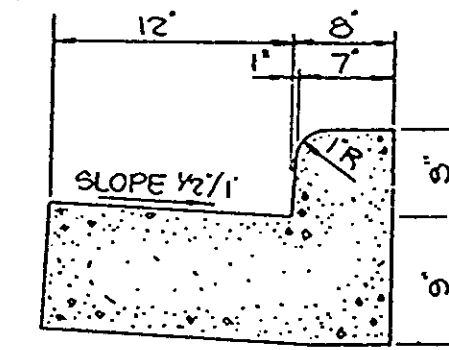
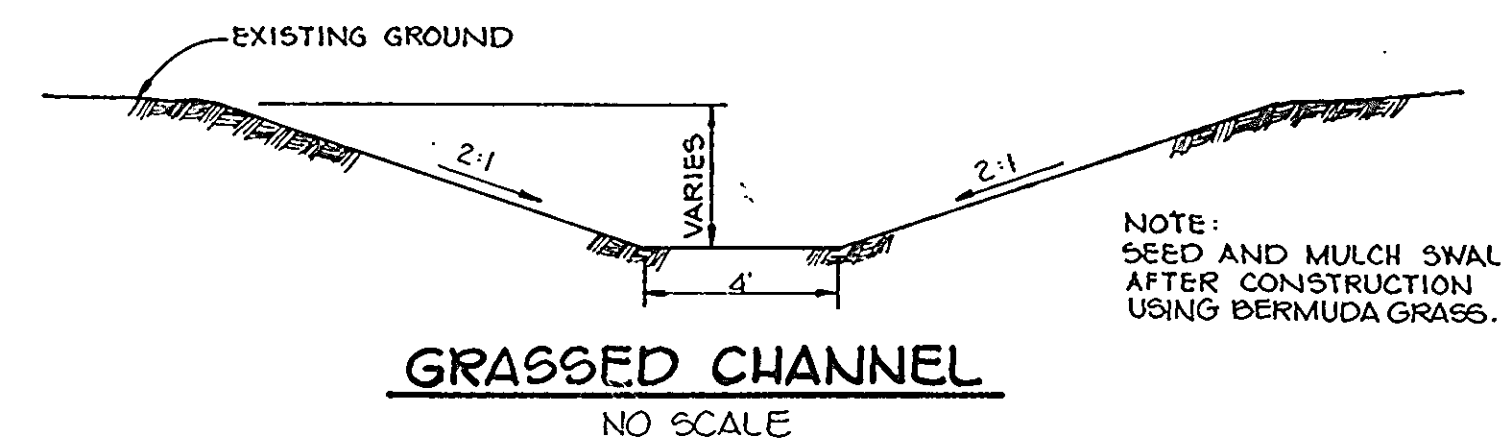
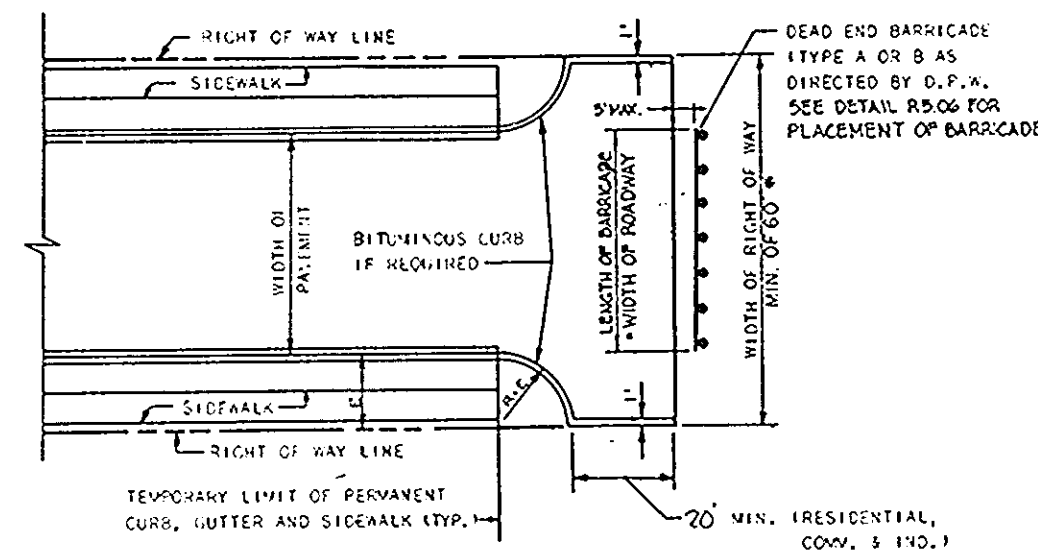
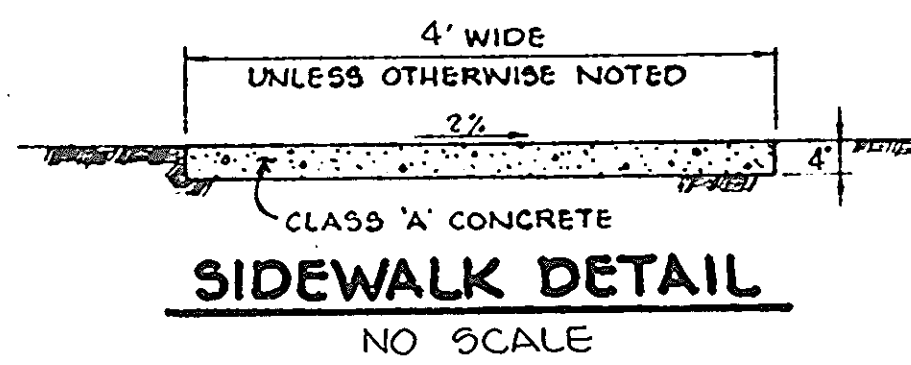
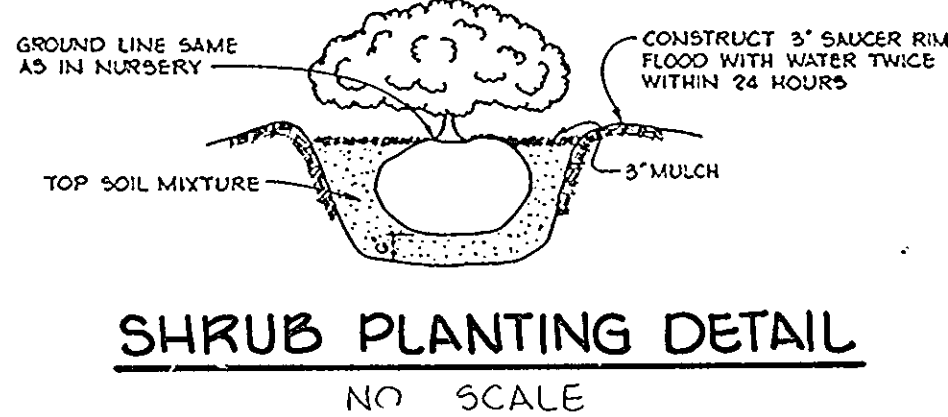
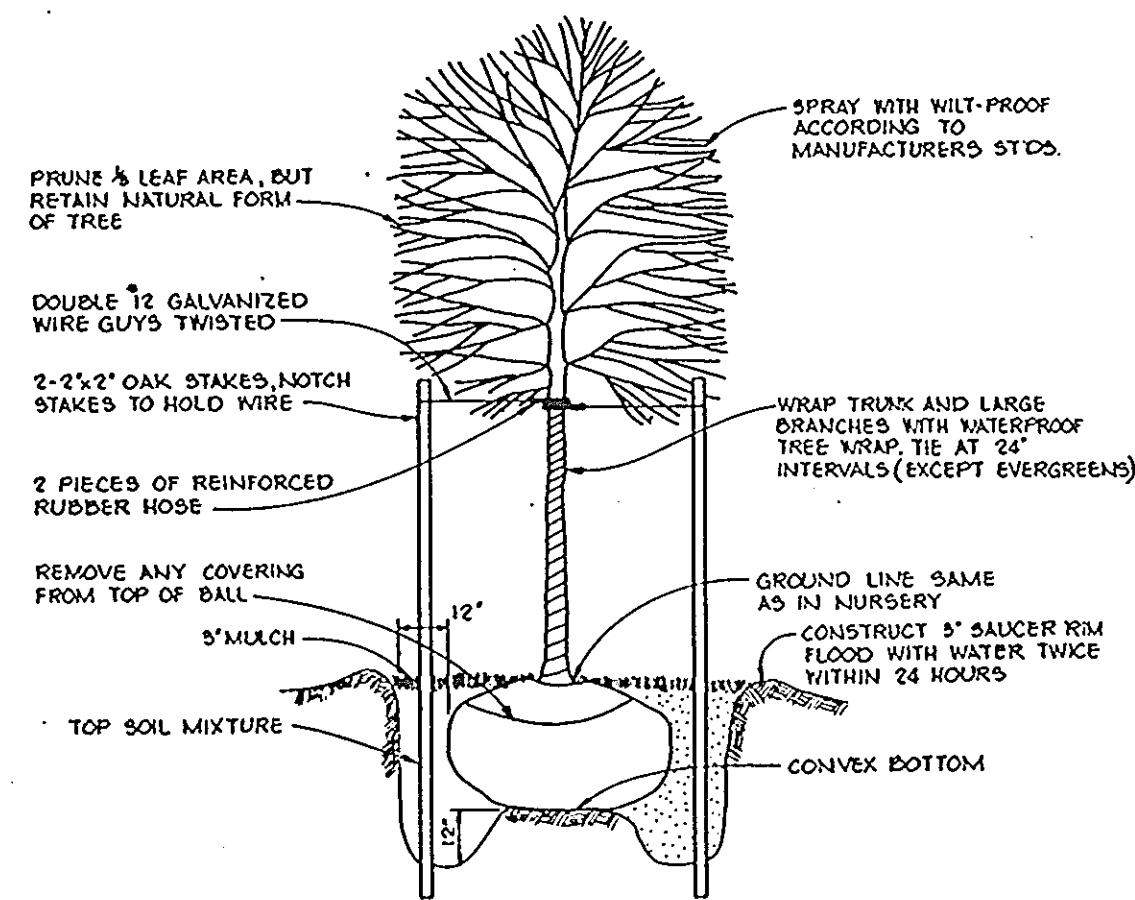
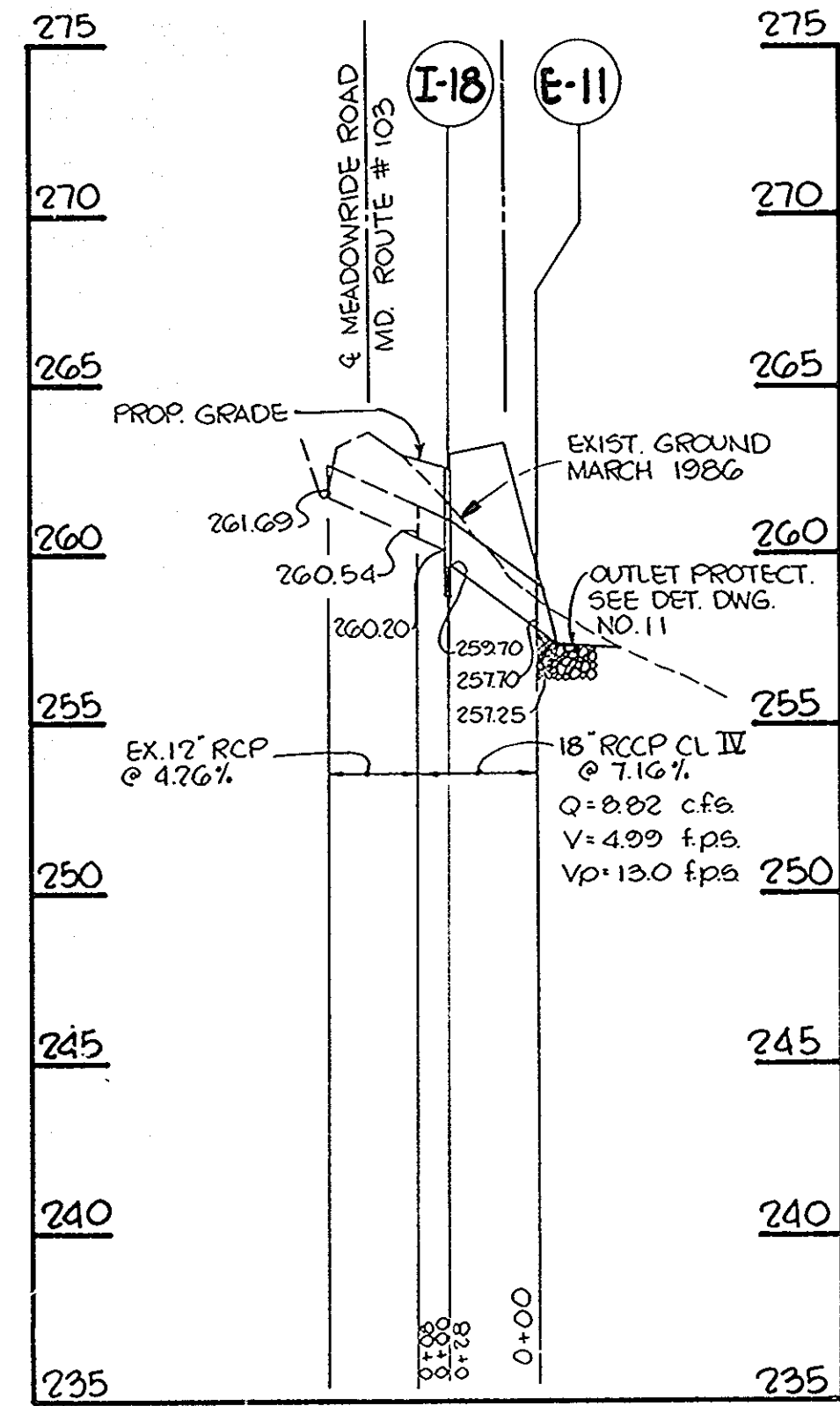


**TYPICAL LOT LAYOUT SINGLE OR DOUBLE MOBILE HOME**  
NO SCALE

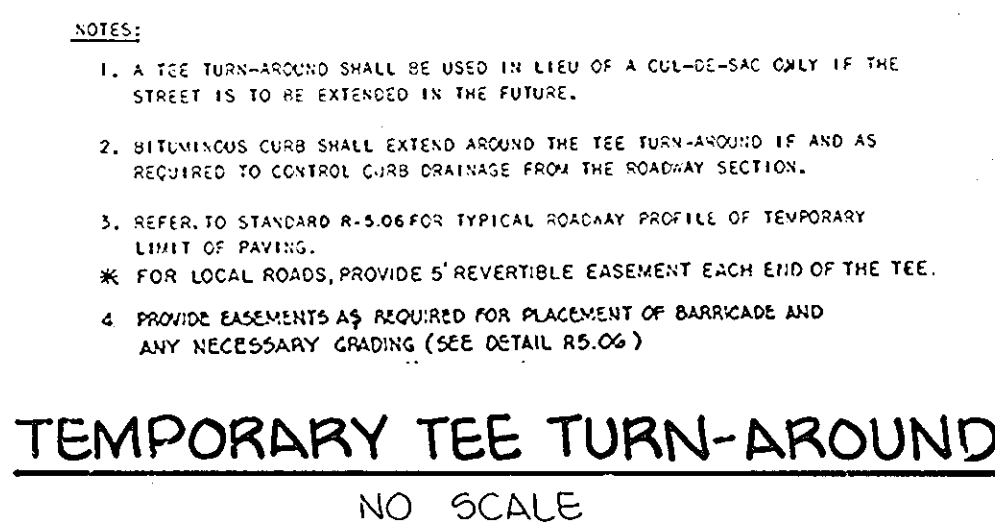
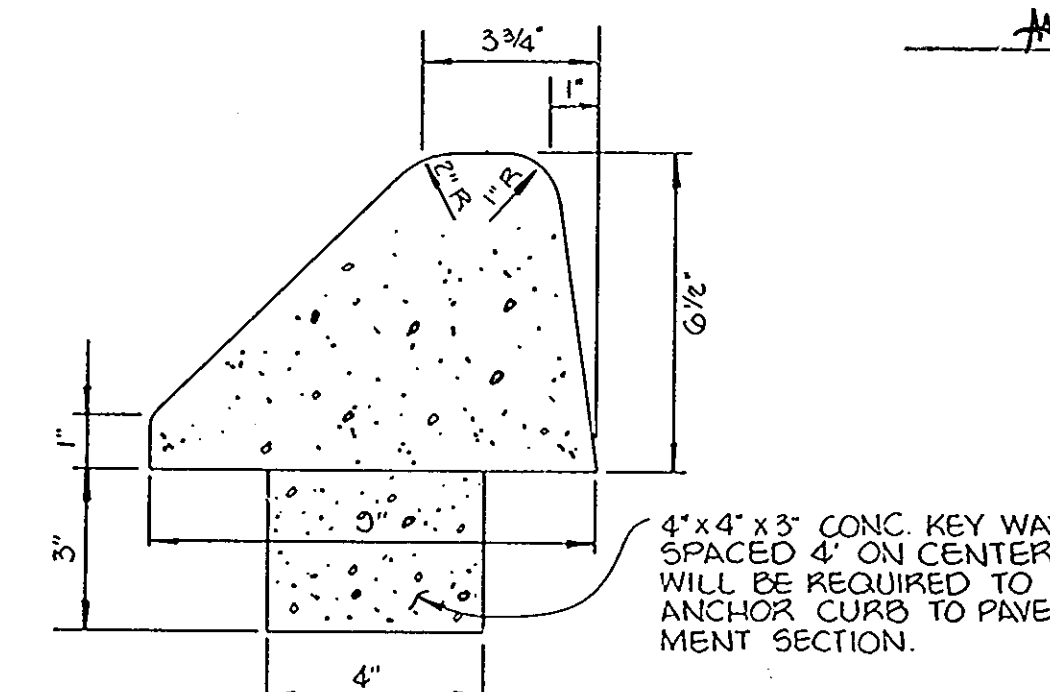


NOTES:  
1. A TACK COAT WILL BE REQUIRED IN ACCORDANCE WITH SECTION 3-4 OF THE HOWARD COUNTY CONSTRUCTION CODE AND SPECIFICATIONS.  
2. BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-3 OF THE HOWARD COUNTY CONSTRUCTION CODE AND SPECIFICATIONS.

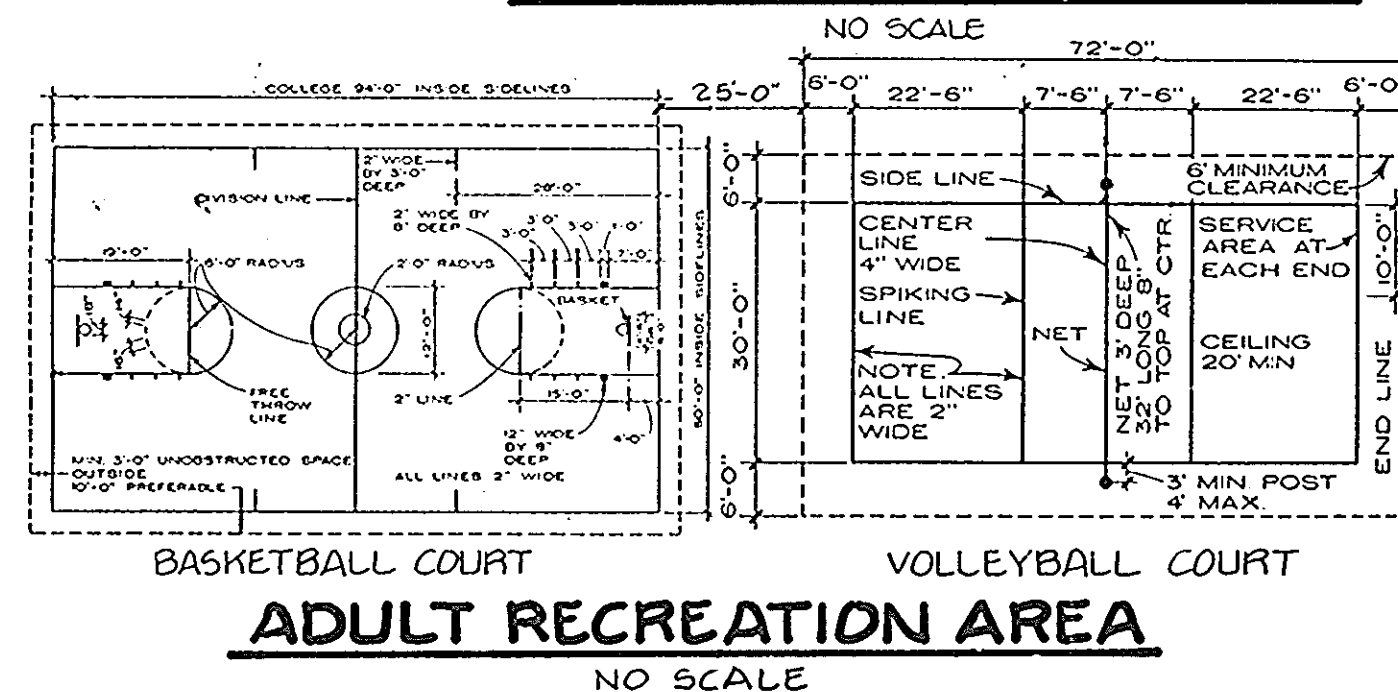
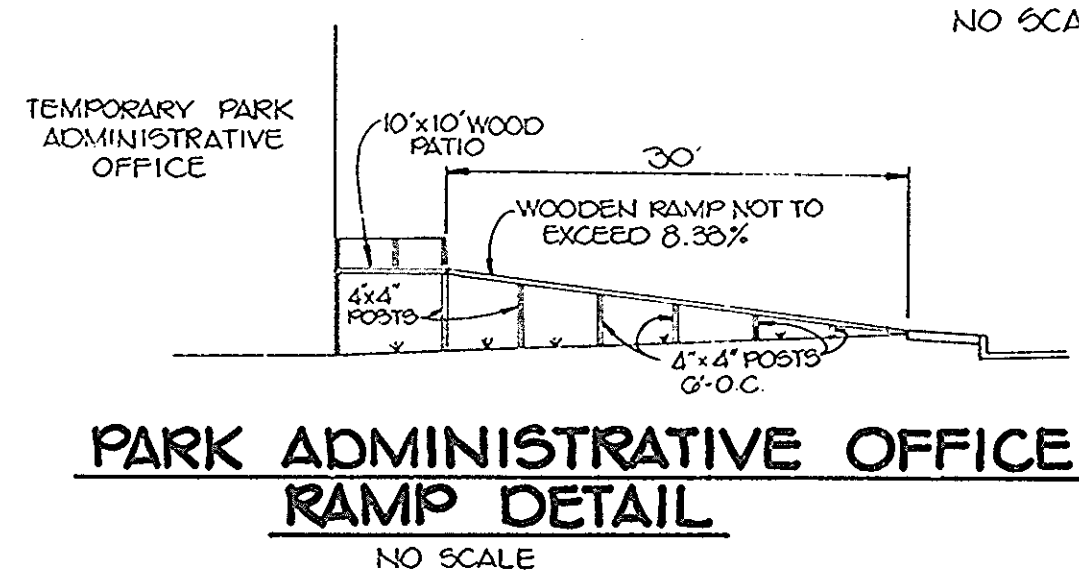
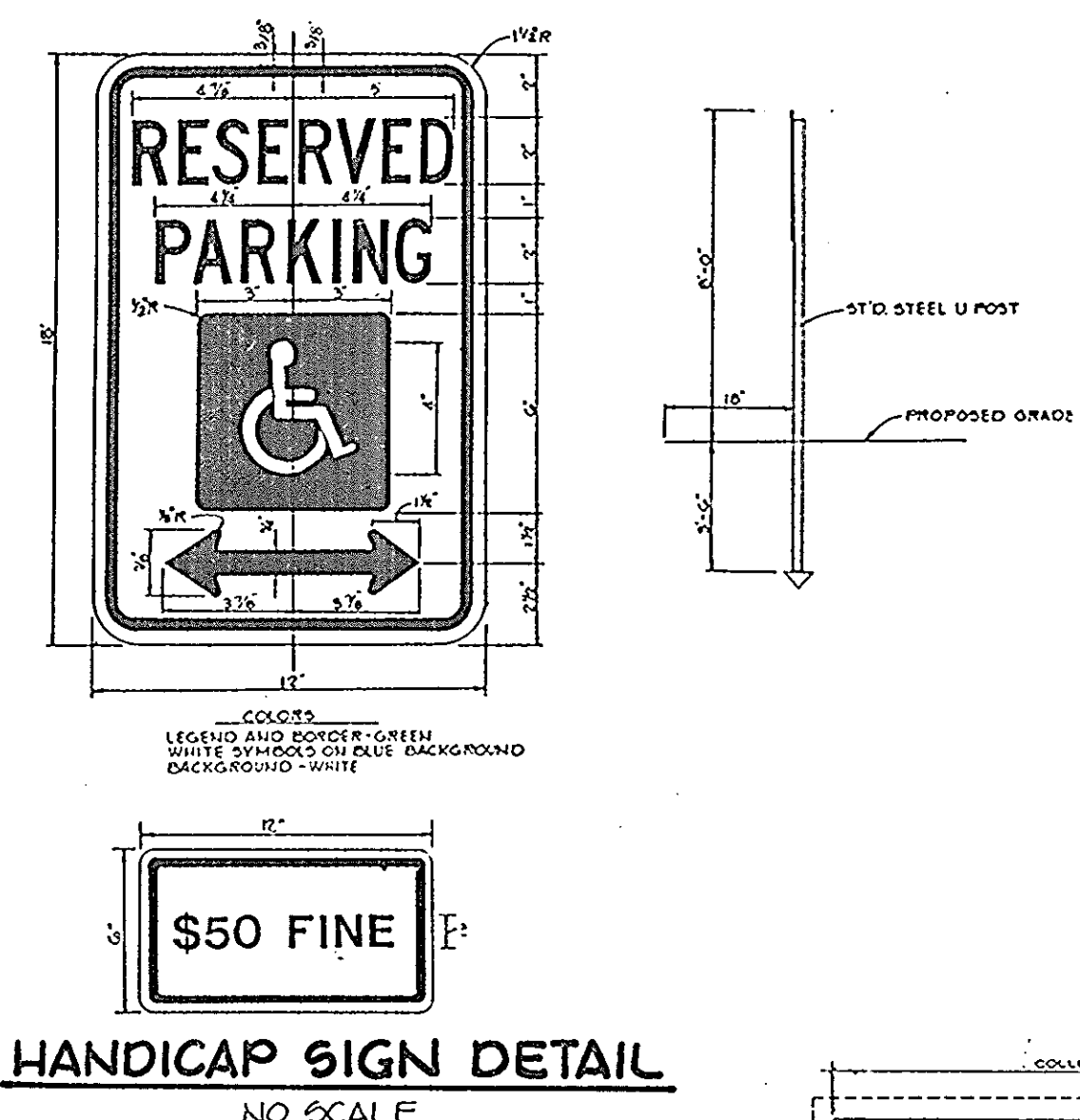
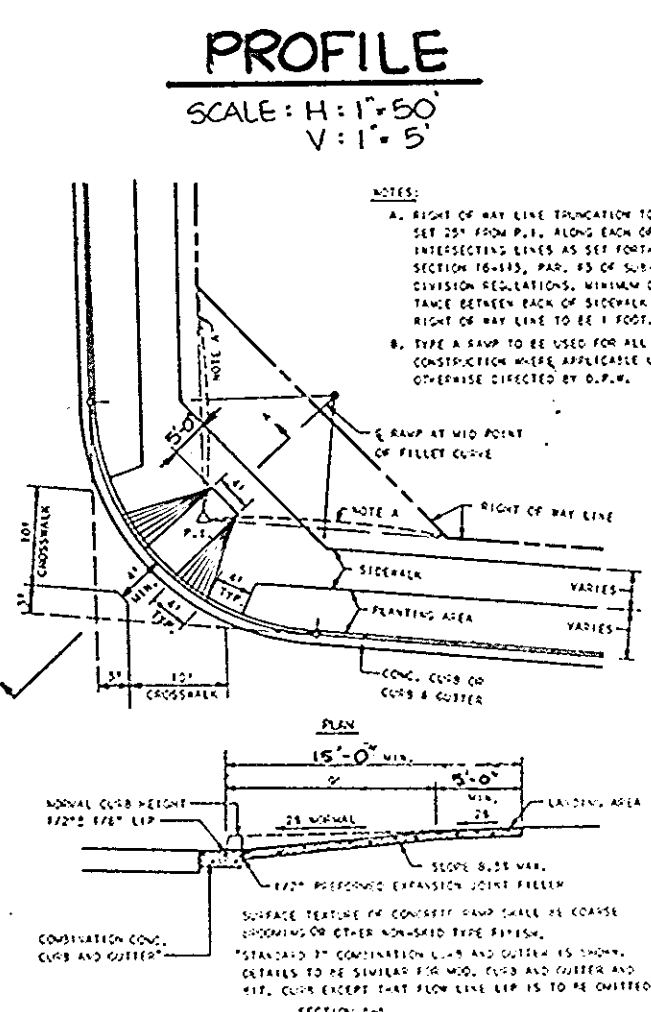
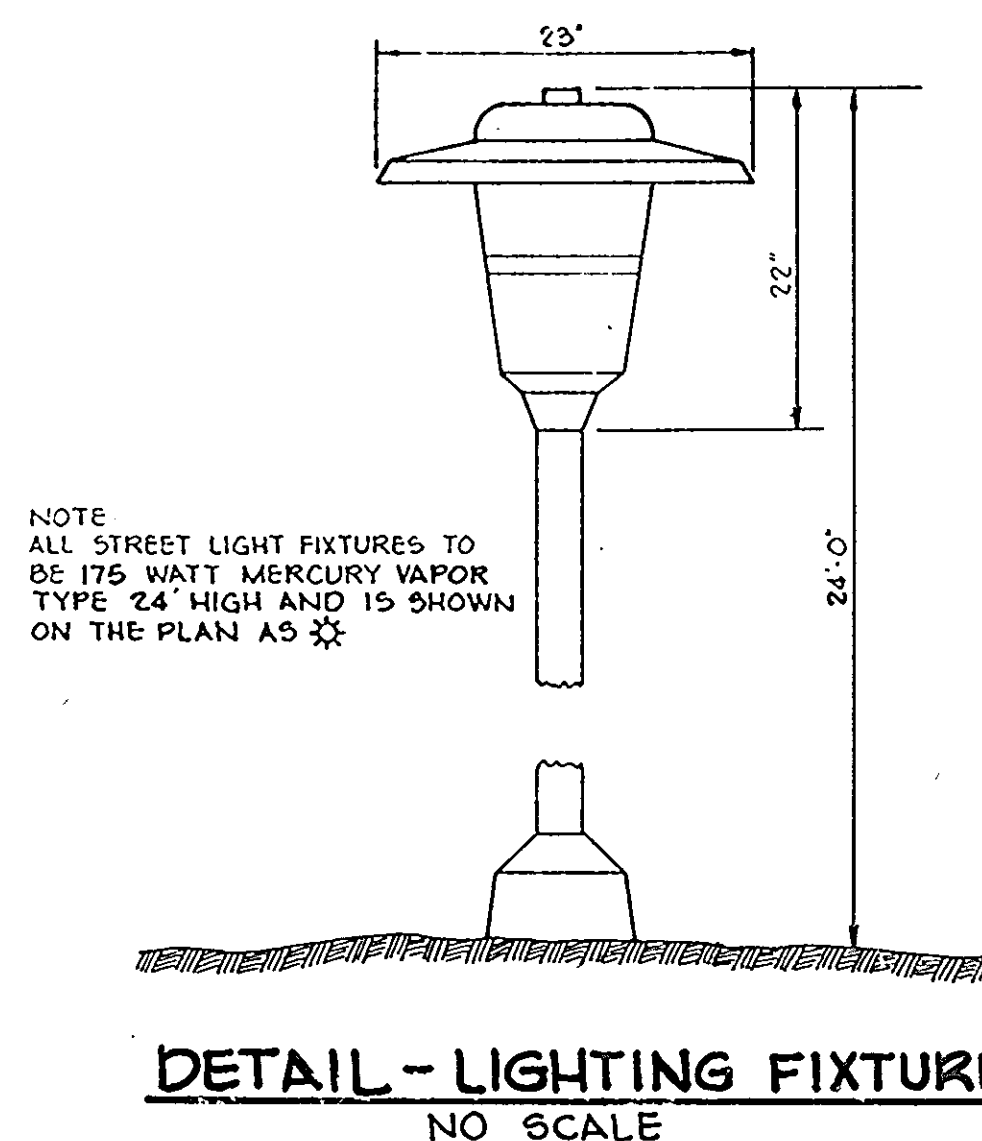
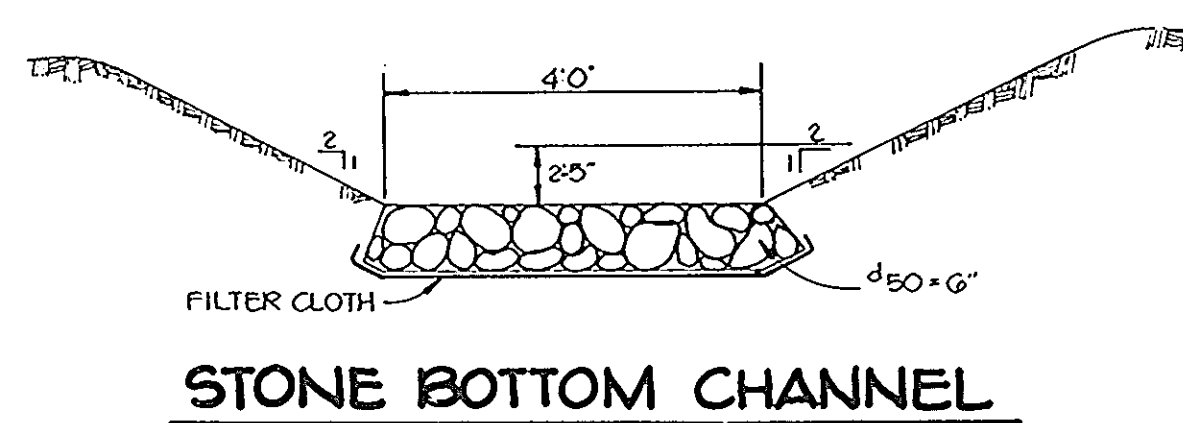
**STANDARD PAVING SECTION**  
SCALE: 1/4" = 1'-0"



APPROVED  
DIVISION OF  
COMMUNITY PLANNING  
& LAND DEVELOPMENT  
HOWARD COUNTY,  
MARYLAND  
DATE 7-31-87



**EXTRUDED CONCRETE CURB**  
NO SCALE



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*James J. Blum* 12-13-88  
COUNTY HEALTH OFFICER  
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND PUBLIC ROADS.  
*James J. Blum* 12/8/88  
DIRECTOR  
*William S. G. G.* 12-8-88  
CHIEF, BUREAU OF ENGINEERING  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.  
*U. P. A.* 1. 11. 89  
PLANNING DIRECTOR  
*Mark S. McLaughlin* 12-29-87  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

NO	DATE	REV. TYP	REVISION
Δ	11/2/89		REV. TYP LOT LAYOUT DETAIL

TRACY, SCHULTE & ASSOCIATES INC.  
planning • architecture • engineering  
8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER: SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043

PROJECT: NOTTINGHAM VILLAGE PHASE I LOTS 1-118

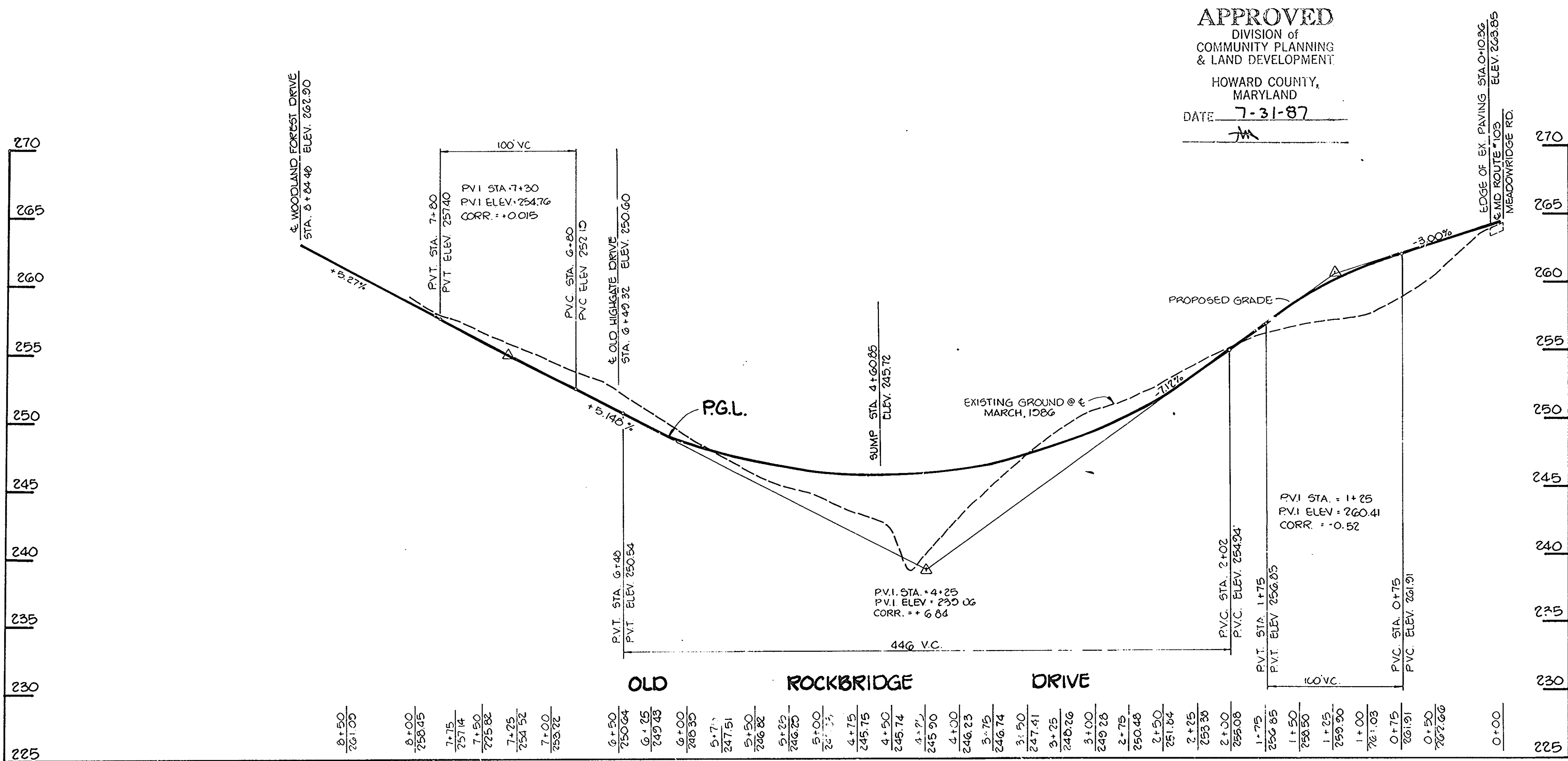
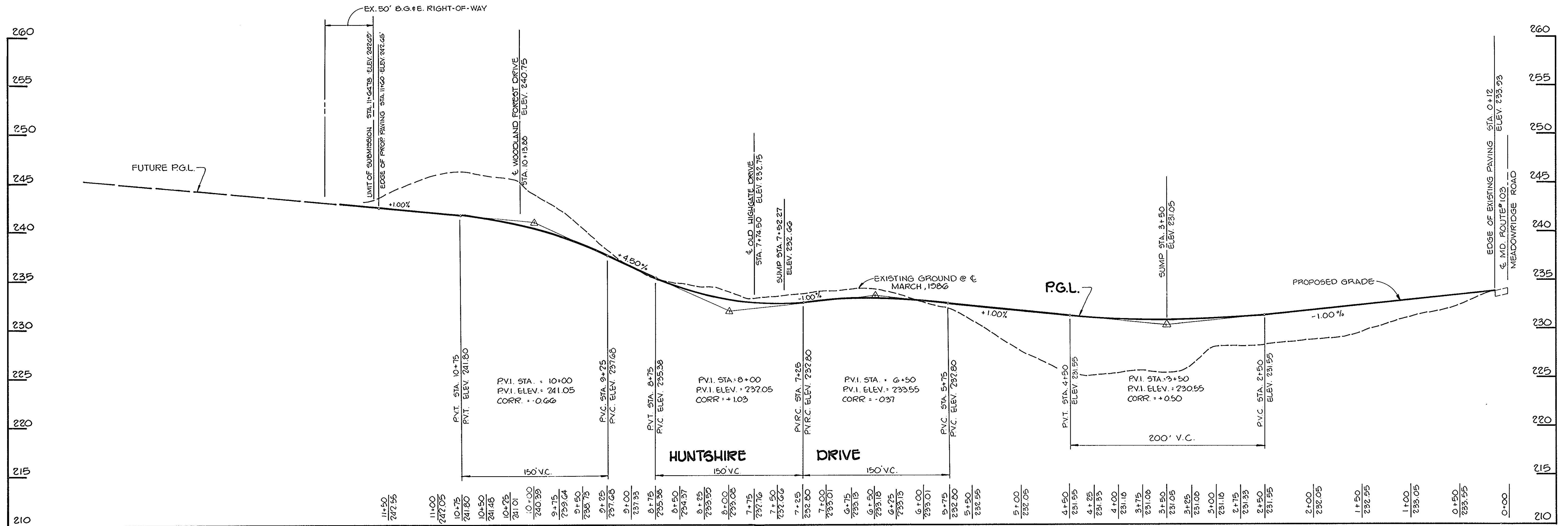
LOCATION: TAX MAP NO. 37 ZONING MAP NO. 37 PARCEL NOS 1334201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DEVELOPER: SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043

TITLE: DETAILS AND STORM DRAIN PROFILE

DATE: DEC. 14, 1986 PROJECT NO. 8540 SDP  
OCT. 13, 1988

DES: JKT DRN: KMN/KAM SCALE: AS SHOWN DRAWING 3 OF 14



**APPROVED**  
 DIVISION of  
 COMMUNITY PLANNING  
 & LAND DEVELOPMENT  
 HOWARD COUNTY,  
 MARYLAND  
 DATE: 7-31-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

*James B. Blyden* 12-5-88  
 COUNTY HEALTH OFFICER DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*James J. Dunne* 12/6/88  
 DIRECTOR DATE

*William S. Ray* 12-8-88  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

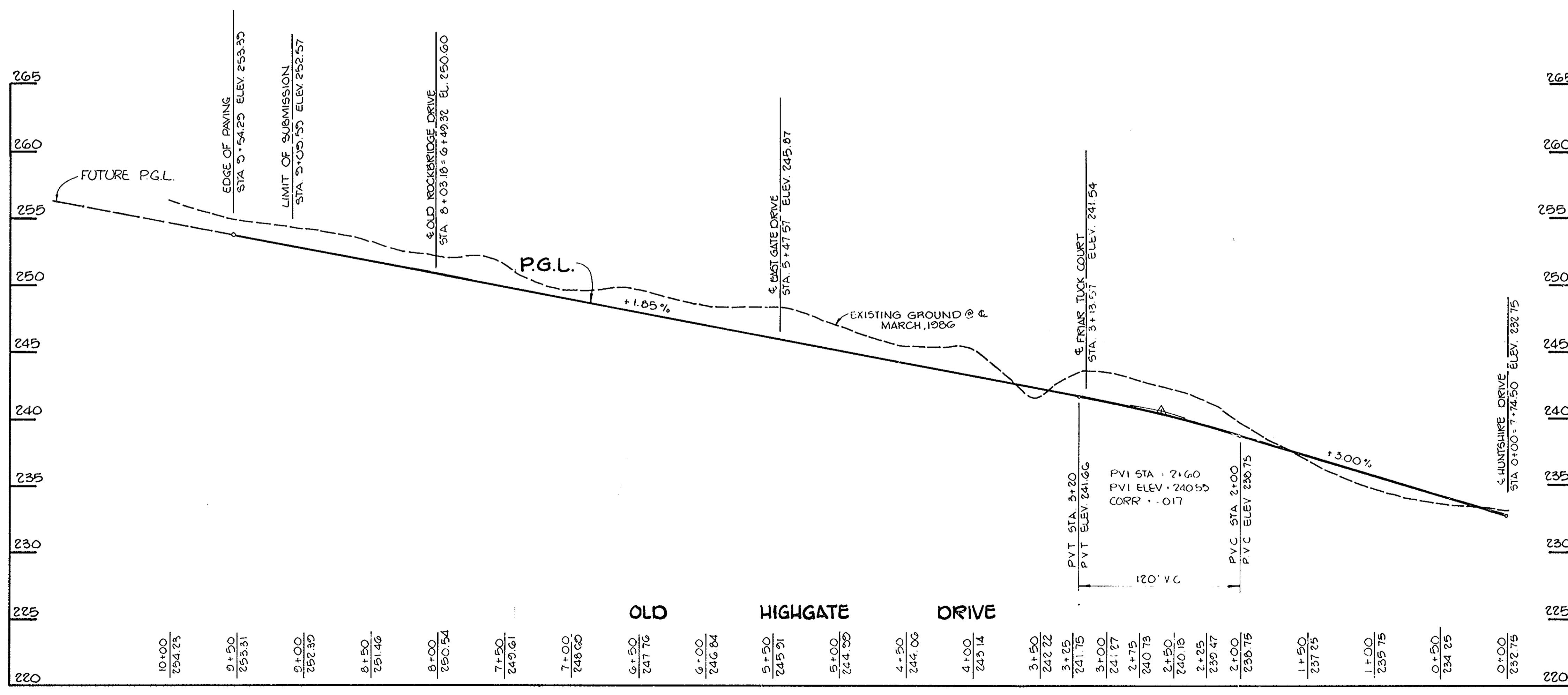
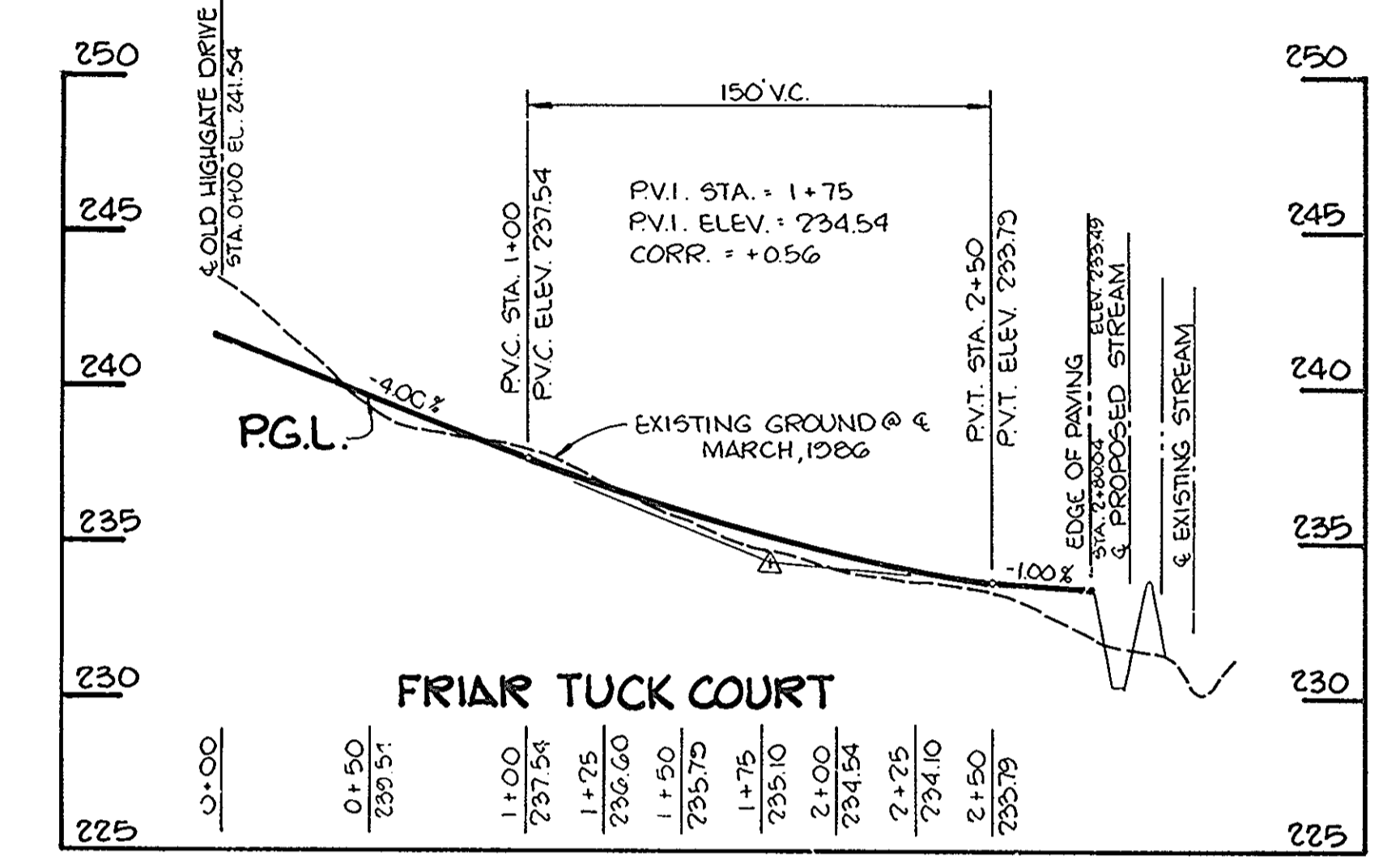
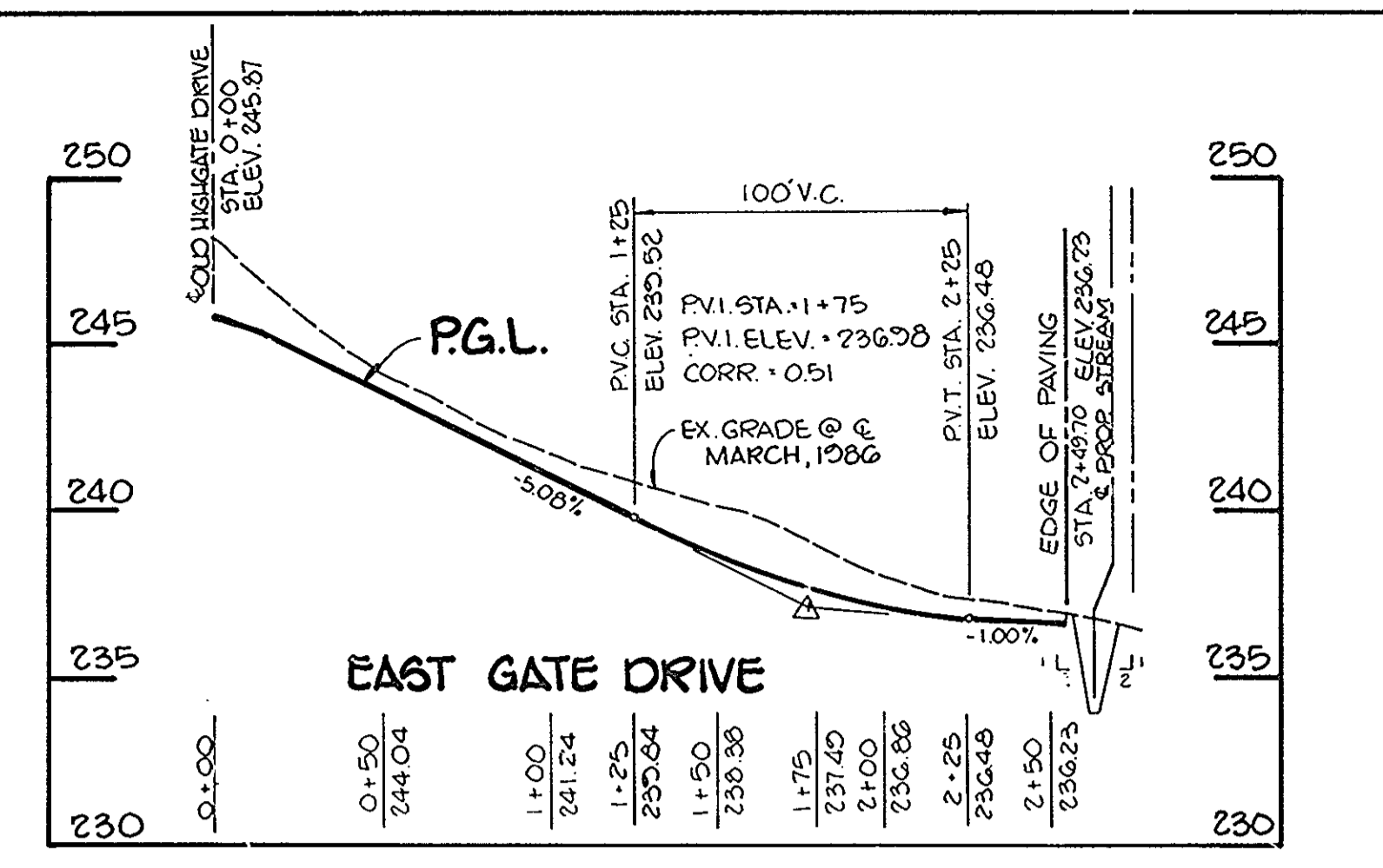
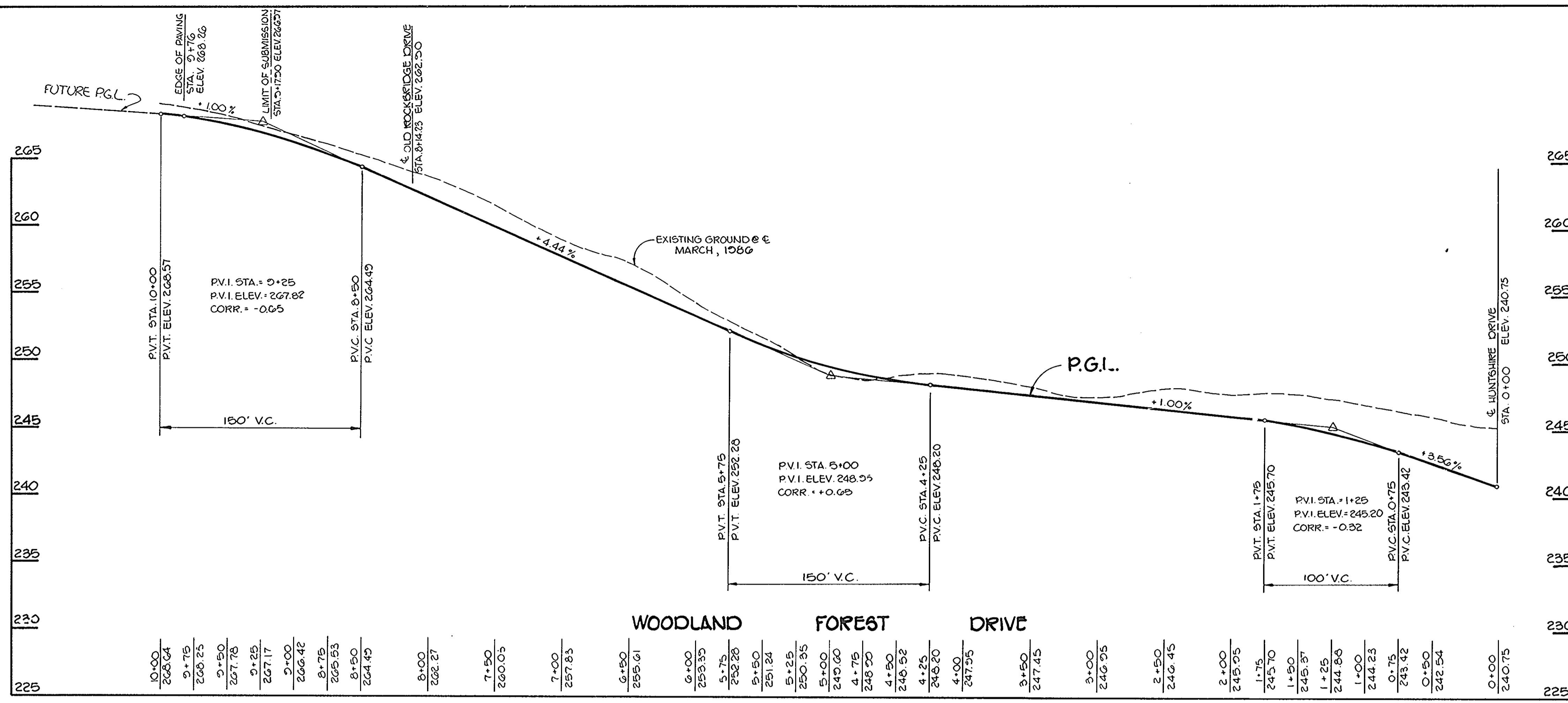
*William S. Ray* 1.11.89  
 PLANNING DIRECTOR DATE

*Frank J. McLaughlin* 12-27-88  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

NO	DATE	REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
 planning • architecture • engineering  
 8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105

<b>OWNER</b> SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 0 ELLICOTT CITY, MARYLAND 21043	<b>PROJECT</b> <b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118 LOCATION TAX MAP NO. 37 ZONING MAP NO. 37 PARCEL NOS. 133 & 201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
<b>DEVELOPER</b> SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 0 ELLICOTT CITY, MARYLAND 21043	<b>TITLE</b> <b>ROADWAY PROFILES</b>
DATE: DEC. 14, 1986 OCT. 19, 1988	PROJECT NO: 8450 80P
DES. SJB	DRN. KAM/KMN
SCALE: HORIZ. 1"=50' VERT. 1"=5'	DRAWING 4 OF 14



**APPROVED**  
 DIVISION of  
 COMMUNITY PLANNING  
 & LAND DEVELOPMENT  
 HOWARD COUNTY,  
 MARYLAND  
 DATE 7-31-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

*James P. Blyler* COUNTY HEALTH OFFICER DATE 12-13-88

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND PUBLIC ROADS.

*James P. Blyler* DIRECTOR DATE 12-8-88

*James P. Blyler* CHIEF, BUREAU OF ENGINEERING DATE 12-8-88

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

*William J. McLaughlin* PLANNING DIRECTOR DATE 1.11.89

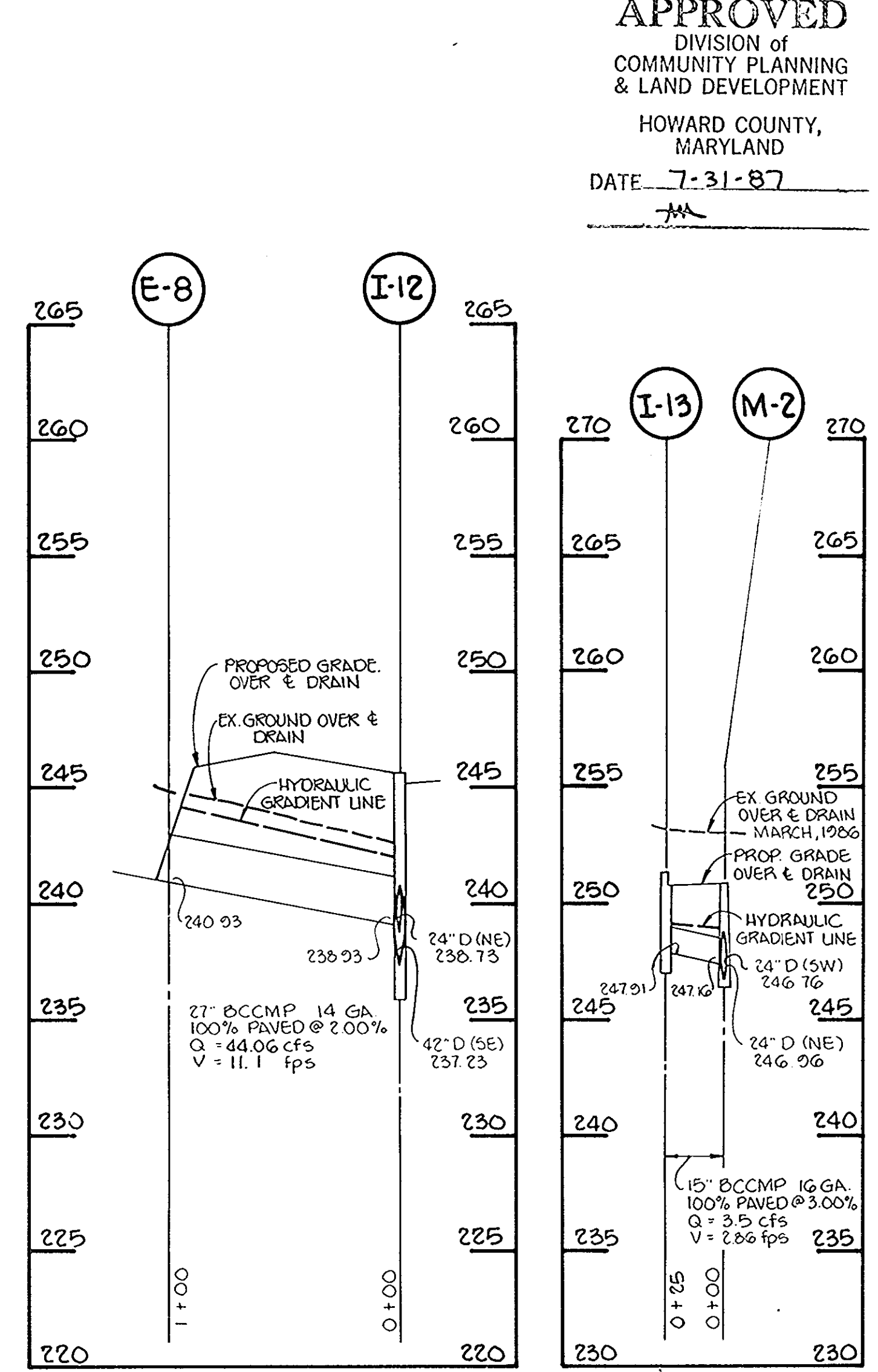
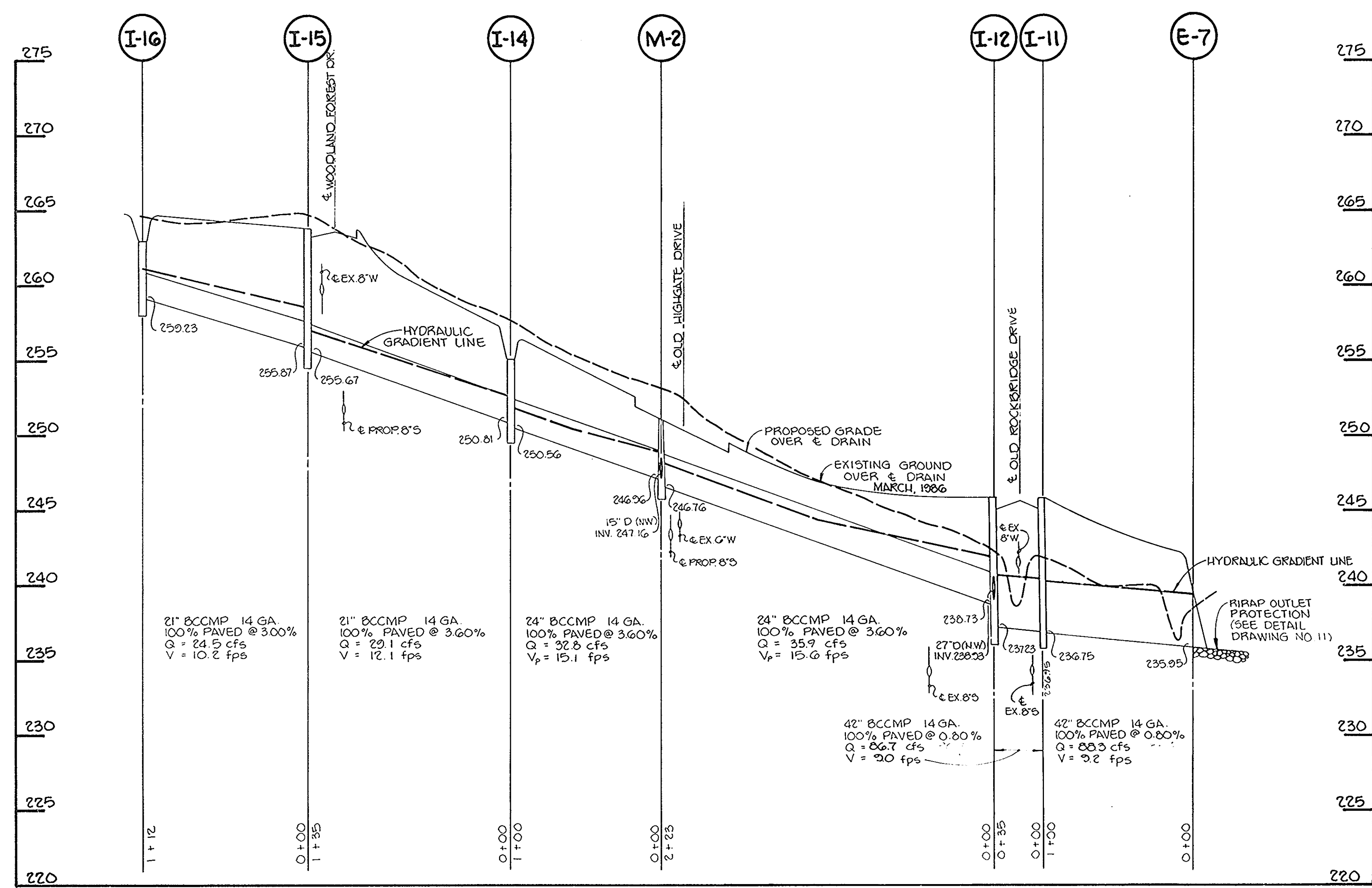
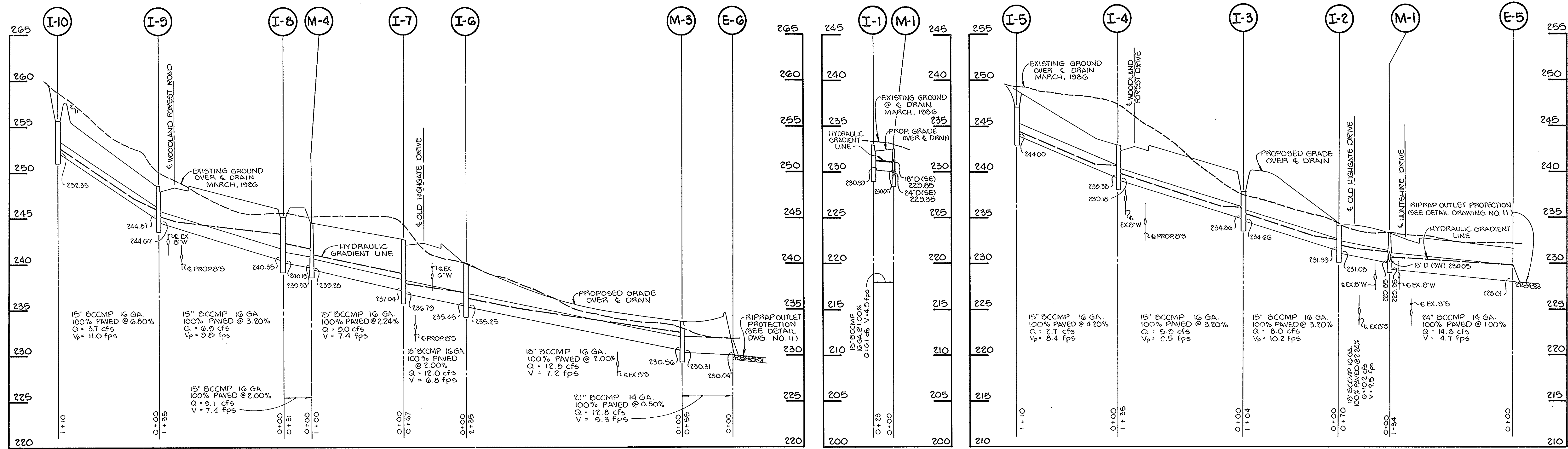
*William J. McLaughlin* CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE 11-29-88

NO. DATE REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
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*James K. Tracy*

OWNER	SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLCOTT CITY, MARYLAND 21043	PROJECT	<b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118
DEVELOPER	SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLCOTT CITY, MARYLAND 21043	LOCATION	TAX MAP NO 37 ZONING MAP NO 37 PARCEL NOS 133 & 201 1 <sup>ST</sup> ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	ROADWAY PROFILES		
DATE	DEC. 14, 1986 OCT. 19, 1988	PROJECT NO	8540 SDP
DES. SJB	DRN. L.R.C.	SCALE	HORIZ. 1"=50' VERT. 1"=5'
		DRAWING	5 OF 14



**APPROVED**  
 DIVISION of  
 COMMUNITY PLANNING  
 & LAND DEVELOPMENT  
 HOWARD COUNTY,  
 MARYLAND  
 DATE 7-31-87  
 JM

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*James K. Jolley* 12-13-88  
 COUNTY HEALTH OFFICER DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND PUBLIC ROADS.  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*James K. Jolley* 12-8-88  
 DIRECTOR DATE

*William B. Ray* 12-8-88  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.  
*William B. Ray* 1-11-89  
 PLANNING DIRECTOR DATE

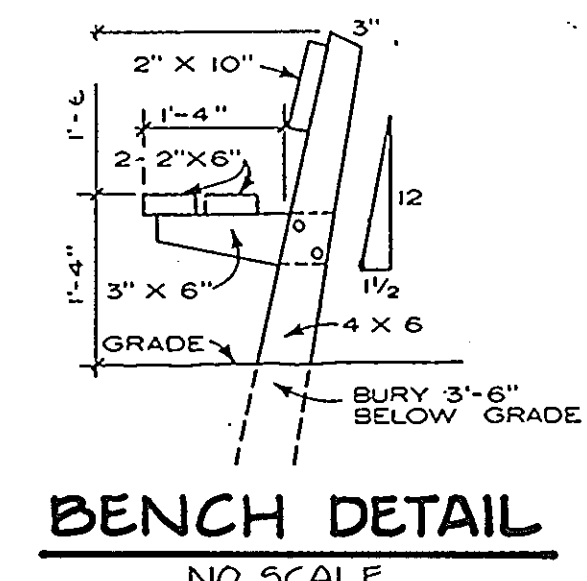
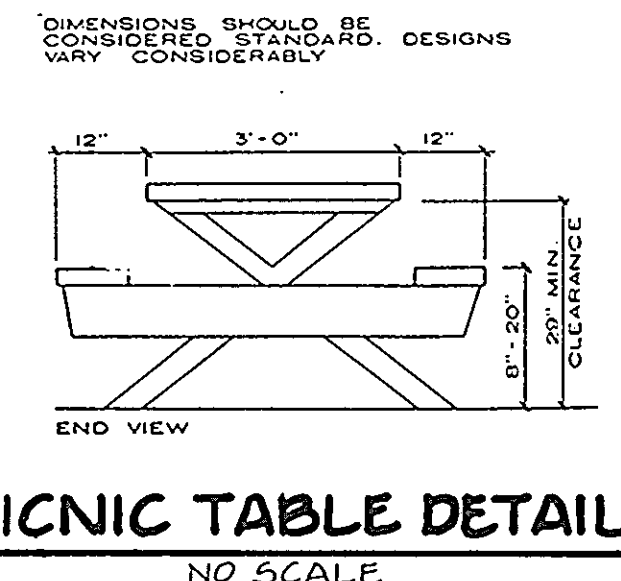
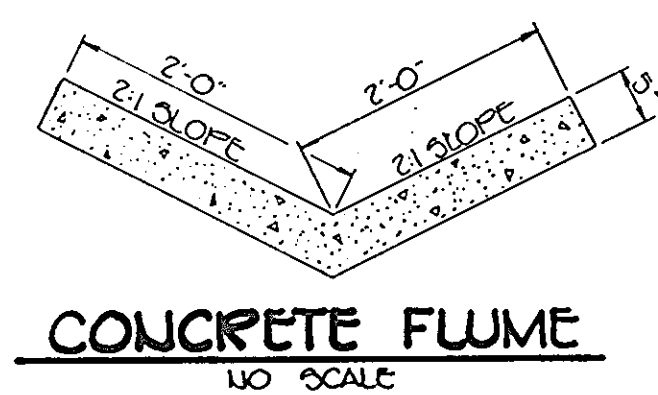
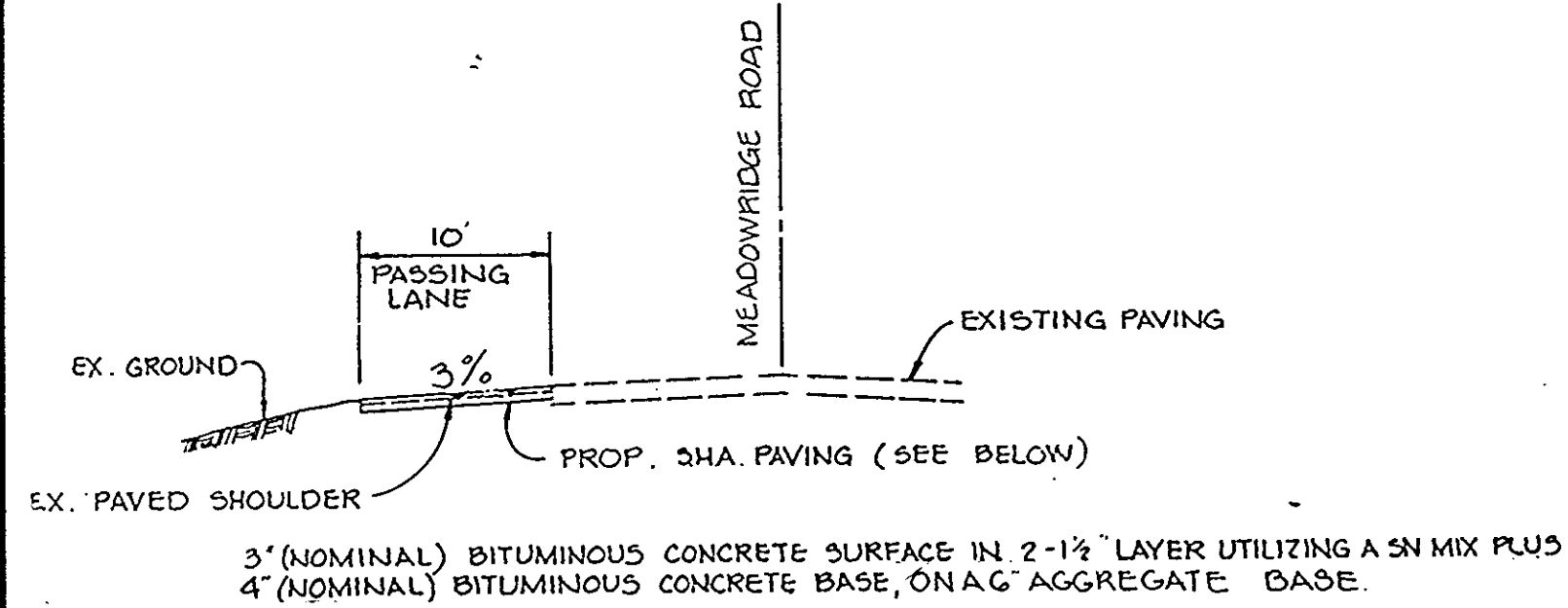
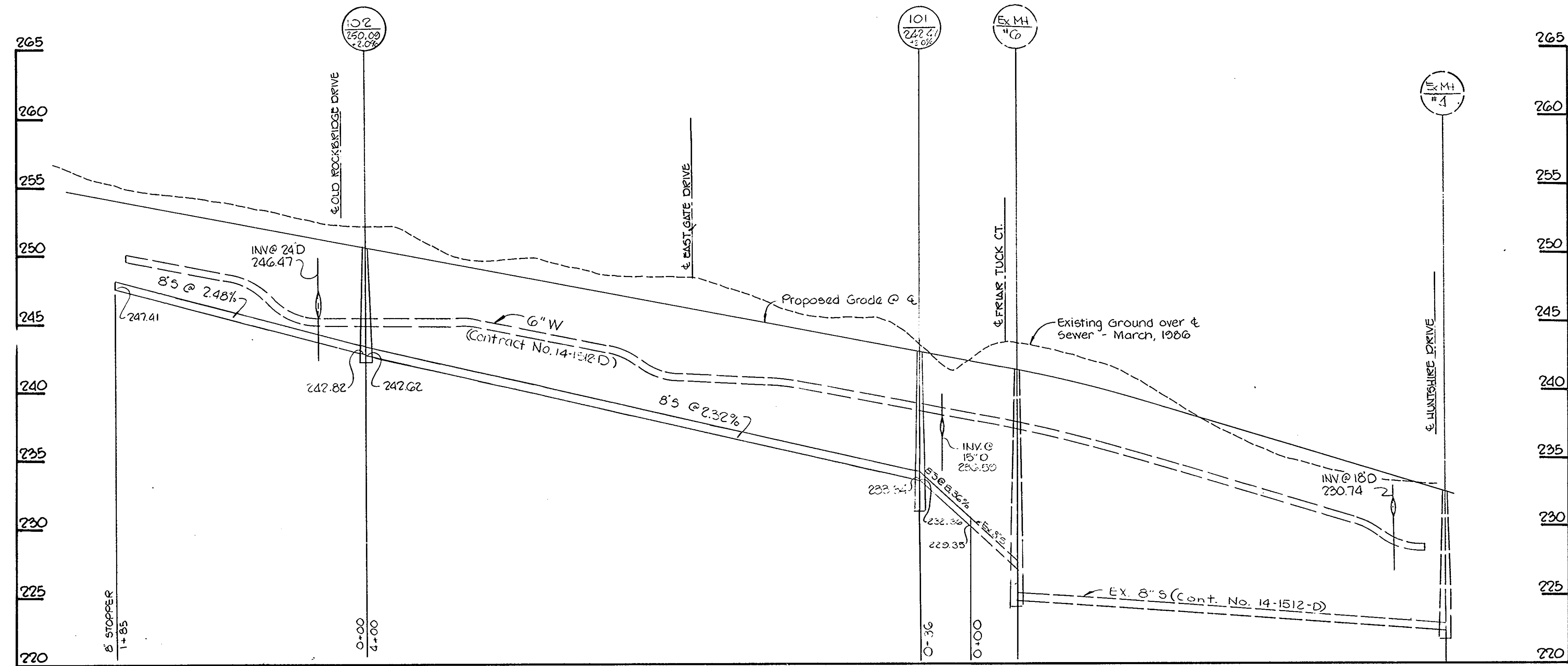
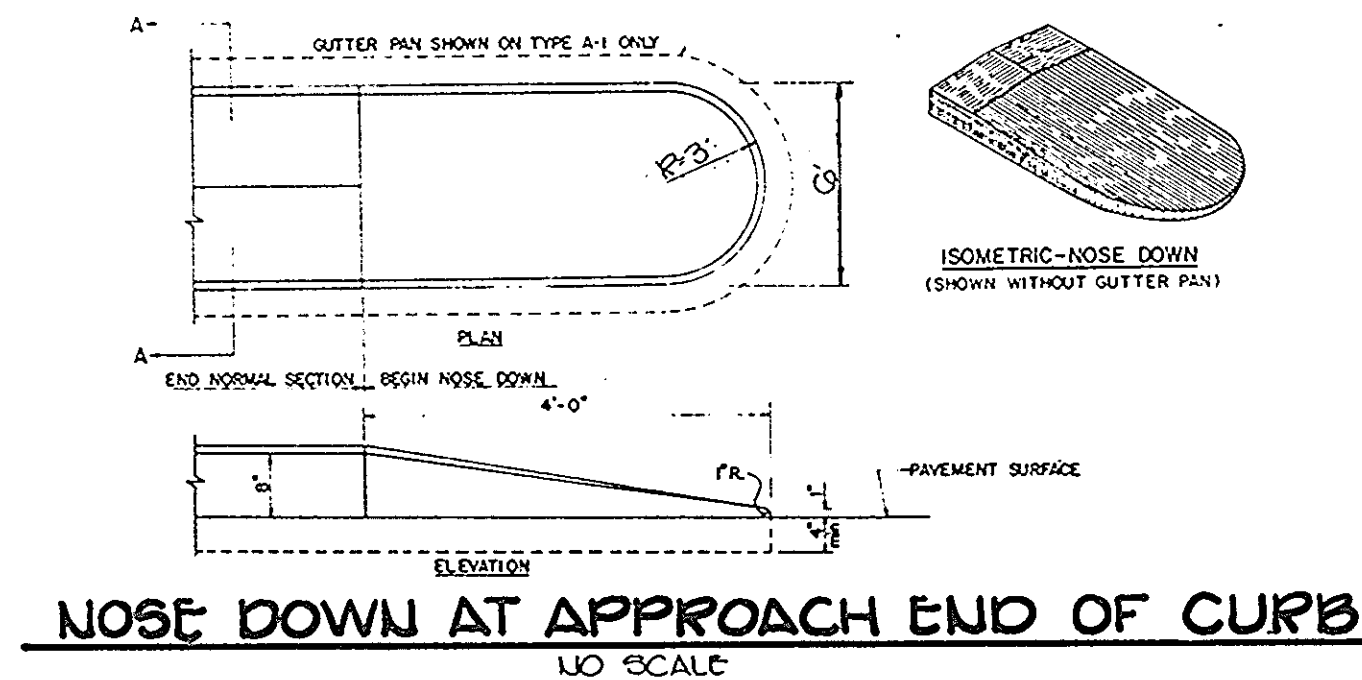
*Frank J. Langley* 12-21-87  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

NO	DATE	REVISION

**TRACY, SCHULTE & ASSOCIATES INC.**  
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*James K. Jolley*

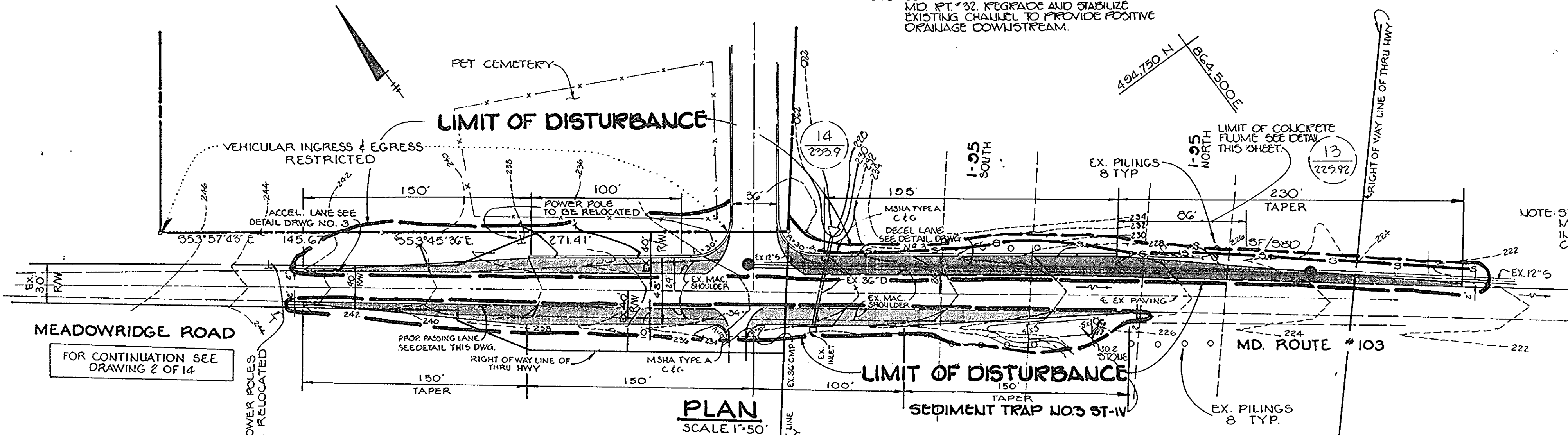
<b>OWNER</b> SECURITY DEVELOPMENT CORP 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043	<b>PROJECT</b> <b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118 LOCATION TAX MAP NO. 37 ZONING MAP NO. 37 PARCEL NOS. 133+201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
<b>DEVELOPER</b> SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043	<b>TITLE</b> STORM DRAIN PROFILES
DATE DEC. 14, 1986 OCT. 10, 1988	PROJECT NO. 8540 SDP
DES. S.J.B. DRN. K.M.N.	SCALE HORIZ.: 1" = 50' VERT.: 1" = 5' DRAWING 6 OF 14



\*NOTE: CLEAN OUT EXISTING 36" RCP UNDER MD RT. #32. REGRADE AND STABILIZE EXISTING CHANNELED TO PROVIDE POSITIVE DRAINAGE DOWNSTREAM.

**APPROVED**  
DIVISION OF COMMUNITY PLANNING & LAND DEVELOPMENT  
HOWARD COUNTY, MARYLAND  
DATE: 7-31-87

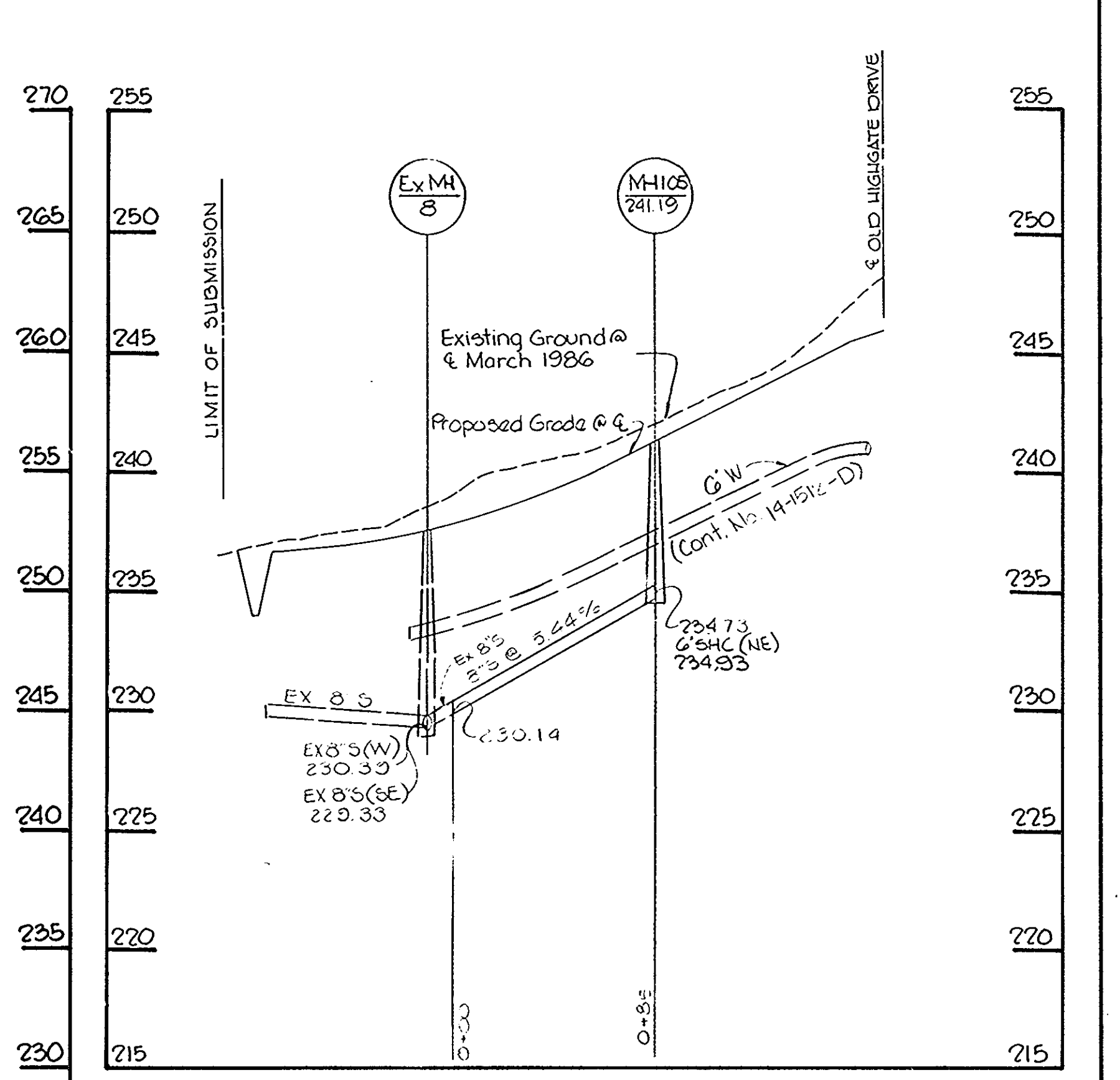
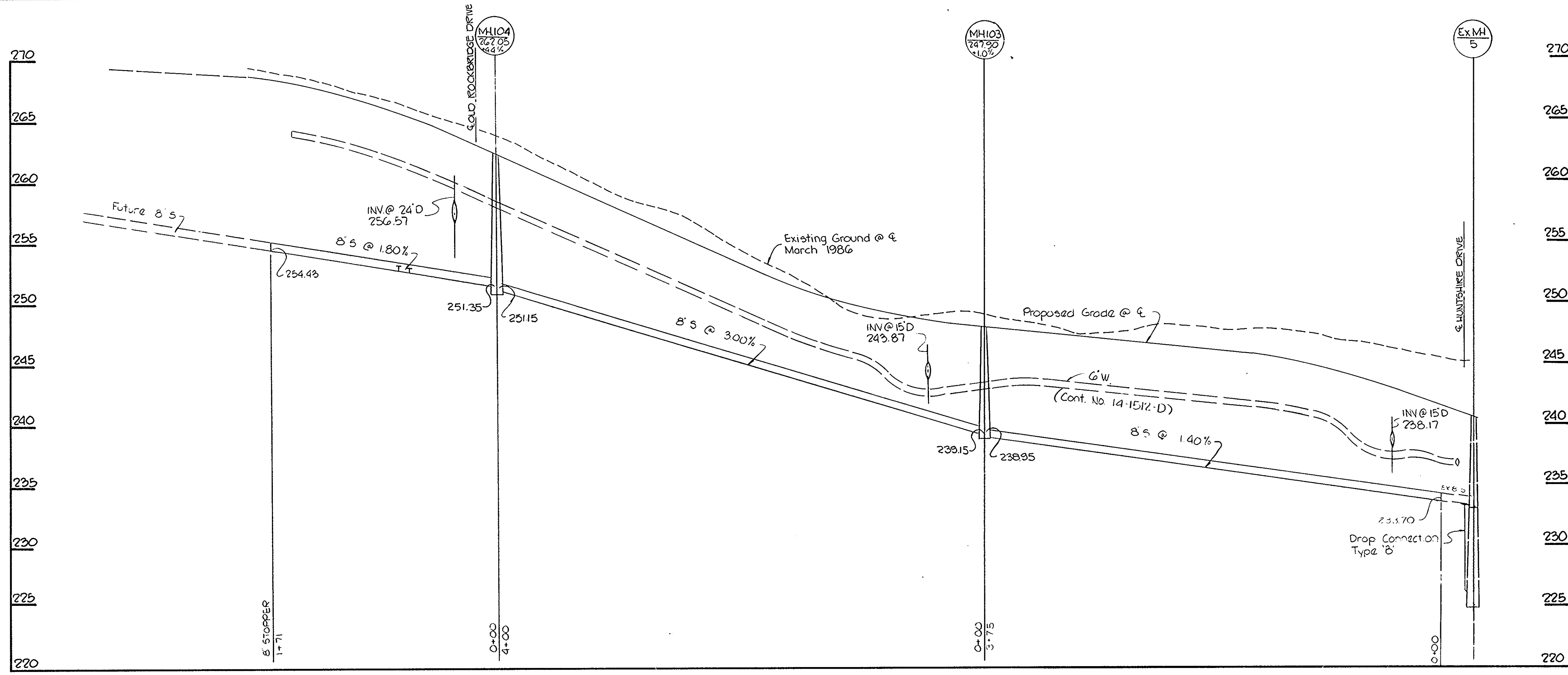
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
<i>James J. Kelly</i> COUNTY HEALTH OFFICER	12-14-88 DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND PUBLIC ROADS.	
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>James J. Kelly</i> DIRECTOR	12-14-88 DATE
<i>William B. Kelly</i> CHIEF, BUREAU OF ENGINEERING	12-8-88 DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.	
<i>W.R.D.</i> PLANNING DIRECTOR	1-11-89 DATE
<i>Mark J. McLaughlin</i> CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	12-29-87 DATE



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<b>OWNER</b> SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELICOTT CITY, MARYLAND 21043	<b>PROJECT</b> <b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118 LOCATION TAX MAP NO. 37 ZONE MAP NO. 37 PARCELS NOS. 193 & 201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
<b>DEVELOPER</b> SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELICOTT CITY, MARYLAND 21043	<b>TITLE</b> SEWER PROFILES PLAN AND DETAILS
<b>DATE</b> DEC. 14, 1986 OCT. 12, 1988	<b>PROJECT NO</b> 8540 SDP
<b>DES. RJW/KAM</b> <b>DRN. KAM</b>	<b>SCALE</b> H-1"=50' V-1"=5'
	<b>DRAWING</b> 7 OF 14



APPROVED  
 DIVISION of  
 COMMUNITY PLANNING  
 & LAND DEVELOPMENT  
 HOWARD COUNTY,  
 MARYLAND  
 DATE 7-31-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*John Boyer* 12-13-87  
 COUNTY HEALTH OFFICER DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*James J. Shaw* 12/8/88  
 DIRECTOR DATE

*William E. Ryan* 12-8-88  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.  
*W. H. [Signature]* 1.11.89  
 PLANNING DIRECTOR DATE

*Frankie S. DeLanghe* 12-25-87  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

NO	DATE	REVISION

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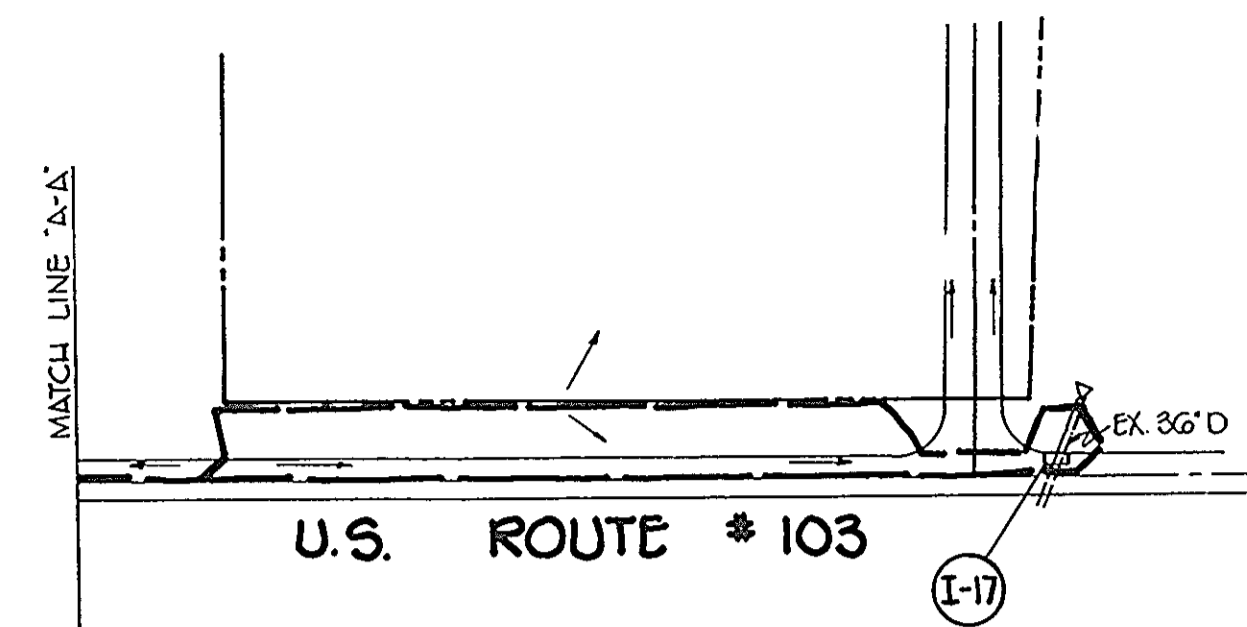
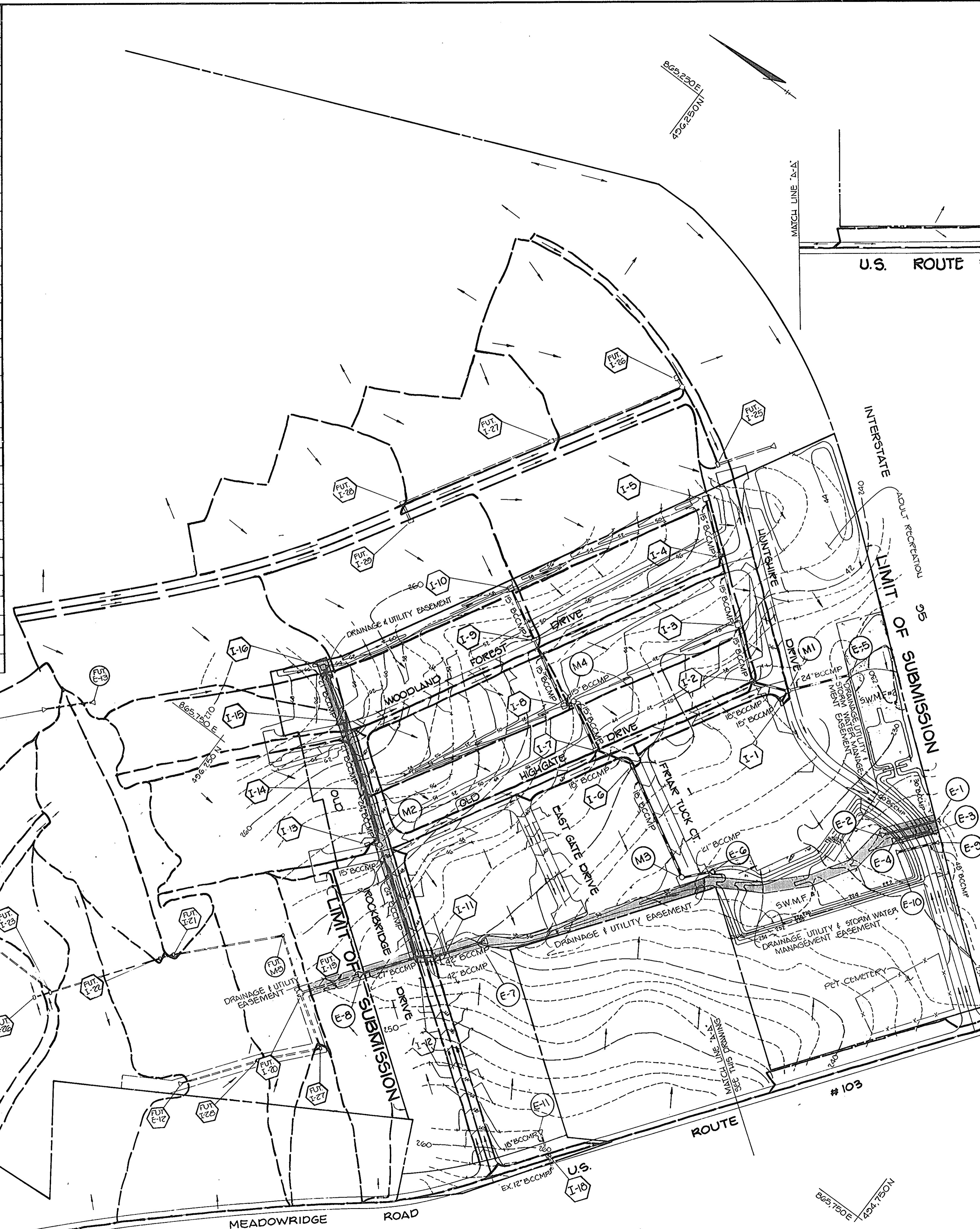
*James K. Tracy*

OWNER SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLCOTT CITY, MARYLAND 21043	PROJECT <b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118 LOCATION TAX MAP NO. 37 ZONE MAP NO. 37 PARCEL NOS. 133 & 201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLCOTT CITY, MARYLAND 21043	TITLE <b>SEWER PROFILES</b>
DES. R.JW/KAM DRN. KAM	DATE DEC. 14, 1986 OCT. 10, 1988 SCALE H: 1" = 5' V: 1" = 5'
PROJECT NO 8540 SDP	DRAWING 8 OF 14



STORM DRAIN STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV IN	INV OUT	TOP ELEV	REMARKS
I-1	A-5 W/ DEFLECTORS	15' LEFT OF ROAD STA 7+34.5	-	230.39	232.84	H.C. STD S.D. 4.01
I-2	A-5 W/ DEFLECTORS	15' RIGHT OF ROAD STA 0+60	231.33	231.08	234.64	H.C. STD S.D. 4.01
I-3	TYPE 'D' INLET OPEN 2 SIDES	60' LEFT OF ROAD STA 8+95.71	234.86	234.66	237.8	H.C. STD S.D. 4.11
I-4	A-10 W/ DEFLECTORS	15' RIGHT OF ROAD STA 0+68.90	239.38	239.18	241.52	H.C. STD S.D. 4.02
I-5	TYPE 'D' INLET OPEN 2 SIDES	126.7' RIGHT OF ROAD STA 0+67.23	-	244.00	247.0	H.C. STD S.D. 4.11
I-6	A-5 W/ DEFLECTORS	15' RIGHT OF ROAD STA 0+37.50	235.45	235.25	240.13	H.C. STD S.D. 4.01
I-7	A-5 W/ DEFLECTORS	15' RIGHT OF ROAD STA 3+69.78	237.04	236.79	242.67	H.C. STD S.D. 4.01
I-8	TYPE 'D' INLET OPEN 1 SIDE	117' LEFT OF ROAD STA 4+41.84	240.35	240.15	244.9	H.C. STD S.D. 4.11
I-9	A-10 W/ DEFLECTORS	15' RIGHT OF ROAD STA 4+41.84	244.87	244.67	248.49	H.C. STD S.D. 4.02
I-10	TYPE 'D' INLET OPEN 2 SIDES	125' RIGHT OF ROAD STA 4+41.84	-	252.35	255.6	H.C. STD S.D. 4.11
I-11	A-5	15' RIGHT OF ROAD STA 4+35.85	236.95	236.75	245.50	H.C. STD S.D. 4.01
I-12	A-10	15' LEFT OF ROAD STA 4+44.81	238.73	237.23	245.50	H.C. STD S.D. 4.02
I-13	A-10	15' RIGHT OF ROAD STA 8+43.23	-	247.91	251.42	H.C. STD S.D. 4.02
I-14	A-5 W/ DEFLECTORS	15' LEFT OF ROAD STA 7+68.20	250.81	250.56	256.87	H.C. STD S.D. 4.01
I-15	A-10 W/ DEFLECTORS	15' RIGHT OF ROAD STA 8+24.83	255.87	255.67	263.46	H.C. STD S.D. 4.11
I-16	TYPE 'D' INLET OPEN 4 SIDES	125' RIGHT OF ROAD STA 8+54.09	-	259.23	262.80	H.C. STD S.D. 4.11
M-4	STD MH	117' LEFT OF ROAD STA 4+41.14	239.53	239.28	233.30	H.C. STD G 5.11
M-3	STD MH	17.25' RIGHT OF ROAD STA 2+72	230.56	230.31	233.30	H.C. STD G 5.11
M-2	STD MH	17.41' RIGHT OF ROAD STA 8+22.07	247.16 246.96 246.76	246.76	251.03	H.C. STD G 5.11
M-1	STD MH	17.0' LEFT OF ROAD STA 7+57.50	230.05 229.85	229.35	232.76	H.C. STD G 5.11
E-1	30" METAL END SECTION	44.74' RIGHT OF ROAD STA 3+83.47	220.80	-	-	H.C. STD S.D. 5.61
E-2	30" METAL END SECTION	40.10' LEFT OF ROAD STA 4+16.75	221.94	-	-	H.C. STD S.D. 5.61
E-3	60" METAL END SECTION	34.66' RIGHT OF ROAD STA 3+77.16	221.30	-	-	H.C. STD S.D. 5.61
E-4	60" METAL END SECTION	26.3' LEFT OF ROAD STA 3+96.66	224.50	-	-	H.C. STD S.D. 5.61
E-5	24" METAL END SECTION	127' RIGHT OF ROAD STA 7+57	228.01	-	-	H.C. STD S.D. 5.61
E-6	21" METAL END SECTION	33' LEFT OF ROAD STA 2+80	230.04	-	-	H.C. STD S.D. 5.61
E-7	42" METAL END SECTION	115' RIGHT OF ROAD STA 4+35.85	235.95	-	-	H.C. STD S.D. 5.61
E-8	27" METAL END SECTION	115' LEFT OF ROAD STA 4+44.81	240.93	-	-	H.C. STD S.D. 5.61
E-11	12" CONC. END SECTION	SEE PLAN	259.01	-	-	H.C. STD S.D. 5.52
E-10	48" METAL END SECTION	35.06' RIGHT OF ROAD STA 3+166.56	225.0	-	-	H.C. STD S.D. 5.61
E-9	48" METAL END SECTION	21.00' LEFT OF ROAD STA 3+82.16	222.0	-	-	H.C. STD S.D. 5.61
I-17	W.R. INLET	SEE PLAN	226.47	226.47	-	STD DETAIL MD. 374.04
I-18	W.R. INLET	SEE PLAN	260.20	260.20	-	STD DETAIL MD. 374.04

DRAINAGE AREA SCHEDULE				
INLET NO.	ACREAGE	C-FACTOR	% IMPERVIOUS	ZONING
I-1	1.35	0.67	63.0%	R-MH
I-2	0.86	0.52	43.1%	R-MH
I-3	0.84	0.49	38.7%	R-MH
I-4	1.05	0.60	53.0%	R-MH
I-5	1.55	0.33	17.0%	R-MH
I-6	0.15	0.95	100.0%	R-MH
I-7	1.03	0.56	48.6%	R-MH
I-8	0.83	0.49	39.2%	R-MH
I-9	0.95	0.65	59.4%	R-MH
I-10	1.89	0.36	21.5%	R-MH
I-11	0.29	0.95	100.0%	R-MH
I-12	3.01	0.46	34.2%	R-MH
I-13	1.19	0.55	47.3%	R-MH
I-14	1.25	0.56	48.0%	R-MH
I-15	1.38	0.58	50.3%	R-MH
I-16	9.35	0.46	34.8%	R-MH/R-SC
I-17	0.41	0.70	65.5%	R-SC
I-18	0.12	0.95	100.0%	R-SC
FUTURE I-19	1.30	0.47	43.0%	R-MH/R-SC
FUTURE I-20	1.12	0.55	51.0%	R-MH
FUTURE I-21	0.55	0.58	54.0%	R-MH
FUTURE I-22	1.07	0.56	51.0%	R-MH
FUTURE I-23	0.54	0.61	57.0%	R-MH
FUTURE I-24	0.77	0.66	52.0%	R-MH
FUTURE I-25	1.80	0.49	41.0%	R-MH
FUTURE I-26	1.81	0.51	43.0%	R-MH
FUTURE I-27	0.82	0.36	36.0%	R-MH/R-SC
FUTURE I-28	0.92	0.43	40.0%	R-MH/R-SC
FUTURE I-29	0.25	0.95	100.0%	R-MH



**APPROVED**  
 DIVISION OF  
 COMMUNITY PLANNING  
 & LAND DEVELOPMENT  
 HOWARD COUNTY,  
 MARYLAND  
 DATE: 7-31-87

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
<i>James Ryder</i> COUNTY HEALTH OFFICER	12-13-88 DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>James Ryder</i> DIRECTOR	12/13/88 DATE
<i>Tracy Schulte &amp; Associates Inc.</i> CHIEF, BUREAU OF ENGINEERING	12-8-88 DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.	
<i>W. J. Langley</i> PLANNING DIRECTOR	1.11.89 DATE
<i>W. J. Langley</i> CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	12-29-87 DATE
NO. DATE	REVISION

**TRACY, SCHULTE & ASSOCIATES INC.**  
 planning • architecture • engineering  
 8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

**OWNER:**  
 SECURITY DEVELOPMENT CORP  
 8450 BALTIMORE NATIONAL PIKE  
 SUITE 8  
 ELLICOTT CITY, MARYLAND 21043

**DEVELOPER:**  
 SECURITY DEVELOPMENT CORP  
 8450 BALTIMORE NATIONAL PIKE  
 SUITE 8  
 ELLICOTT CITY, MARYLAND 21043

**DES:** SJB **DRN:** JLB

**PROJECT:**  
**NOTTINGHAM VILLAGE**  
 PHASE I LOTS 1-118

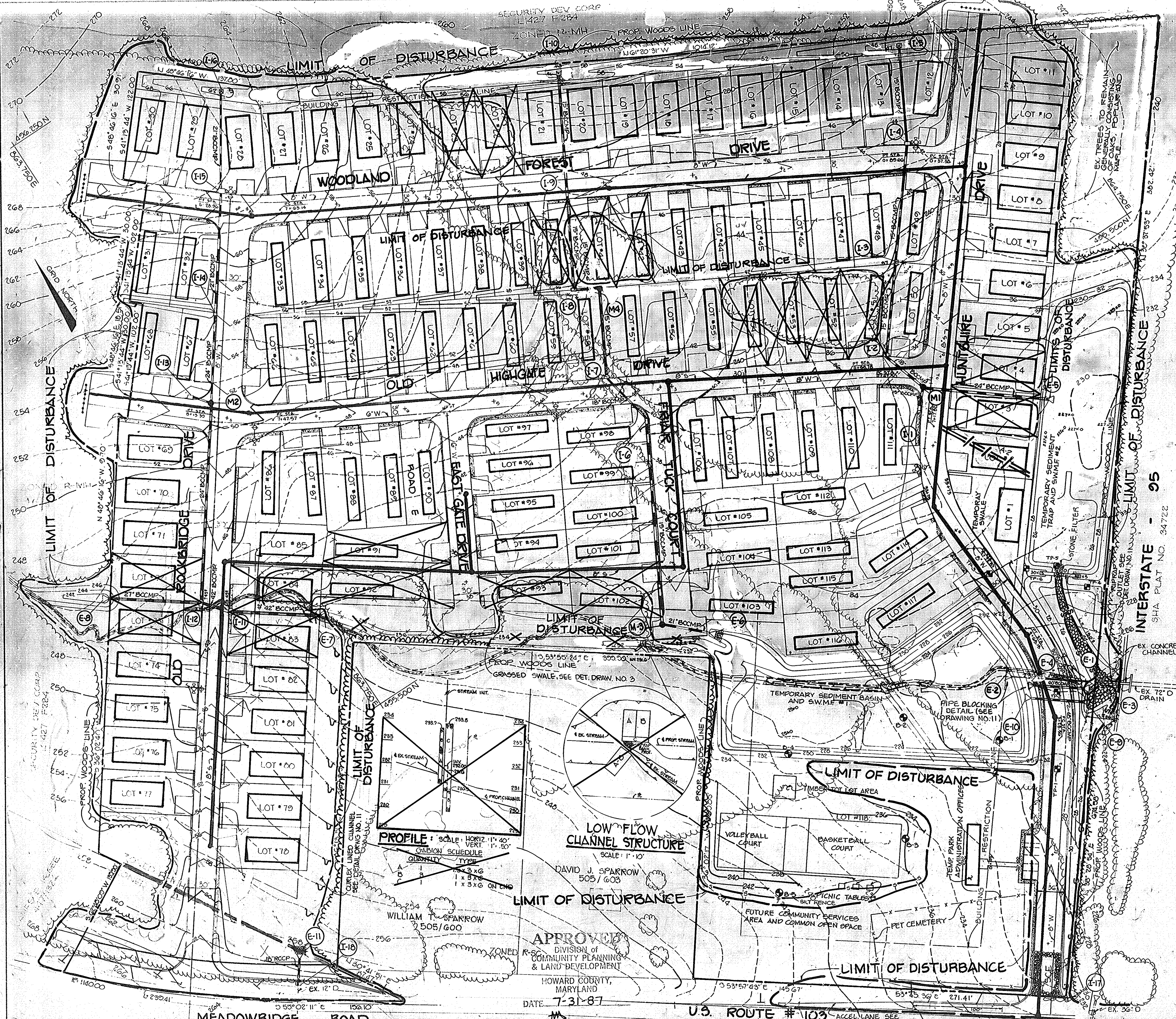
**LOCATION:** TAX MAP NO. 37  
 ZONING MAP NO. 37 PARCEL NOS. 133 & 201  
 1<sup>ST</sup> ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**TITLE:**  
**DRAINAGE AREA MAP**

DATE: DEC. 14, 1986  
 OCT. 13, 1988

PROJECT NO.: 8540 SDP  
 DRAWING: 9 OF 14

SCALE: 1"=100'



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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE PONDS, NO. 1 AND NO. 2 WITHIN 90 DAYS OF COMPLETION.

*James R. Moxley*  
 DEVELOPER: JAMES R. MOXLEY, JR. PRES, SECURITY DEVEL. CORP. DATE: 10-27-88

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 PONDS NO. 1 AND NO. 2 WITHIN 90 DAYS OF COMPLETION.

*James K. Tracy*  
 ENGINEER: JAMES K. TRACY, P.E. 9566 DATE: 10-18-88

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.

*John M. Hahn*  
 U.S. SOIL CONSERVATION SERVICE DATE: 11-21-88

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

APPROVED: *Robert J. Ziehm*  
 HOWARD S.O.D. DATE: 11-21-88  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

*Joyce Boyler*  
 COUNTY HEALTH OFFICER DATE: 12-13-88

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*James J. Law*  
 DIRECTOR DATE: 12-18-88

*James E. Kelly*  
 CHIEF, BUREAU OF ENGINEERING DATE: 12-8-88

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

*William H. ...*  
 PLANNING DIRECTOR DATE: 1-11-89

*Mark J. ...*  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE: 1-25-89

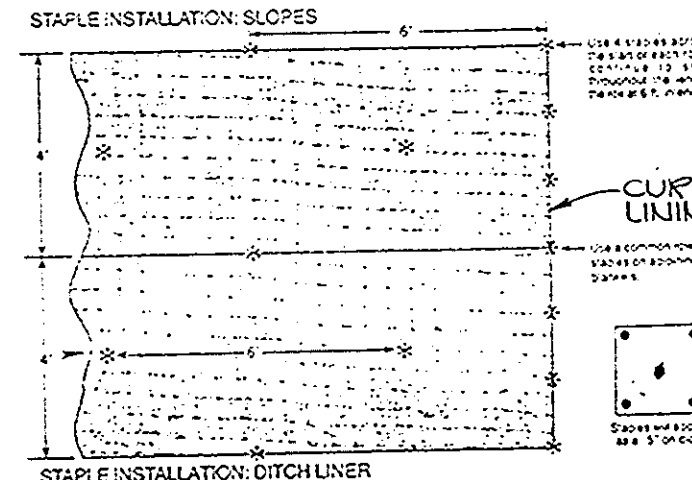
NO.	DATE	REVISION

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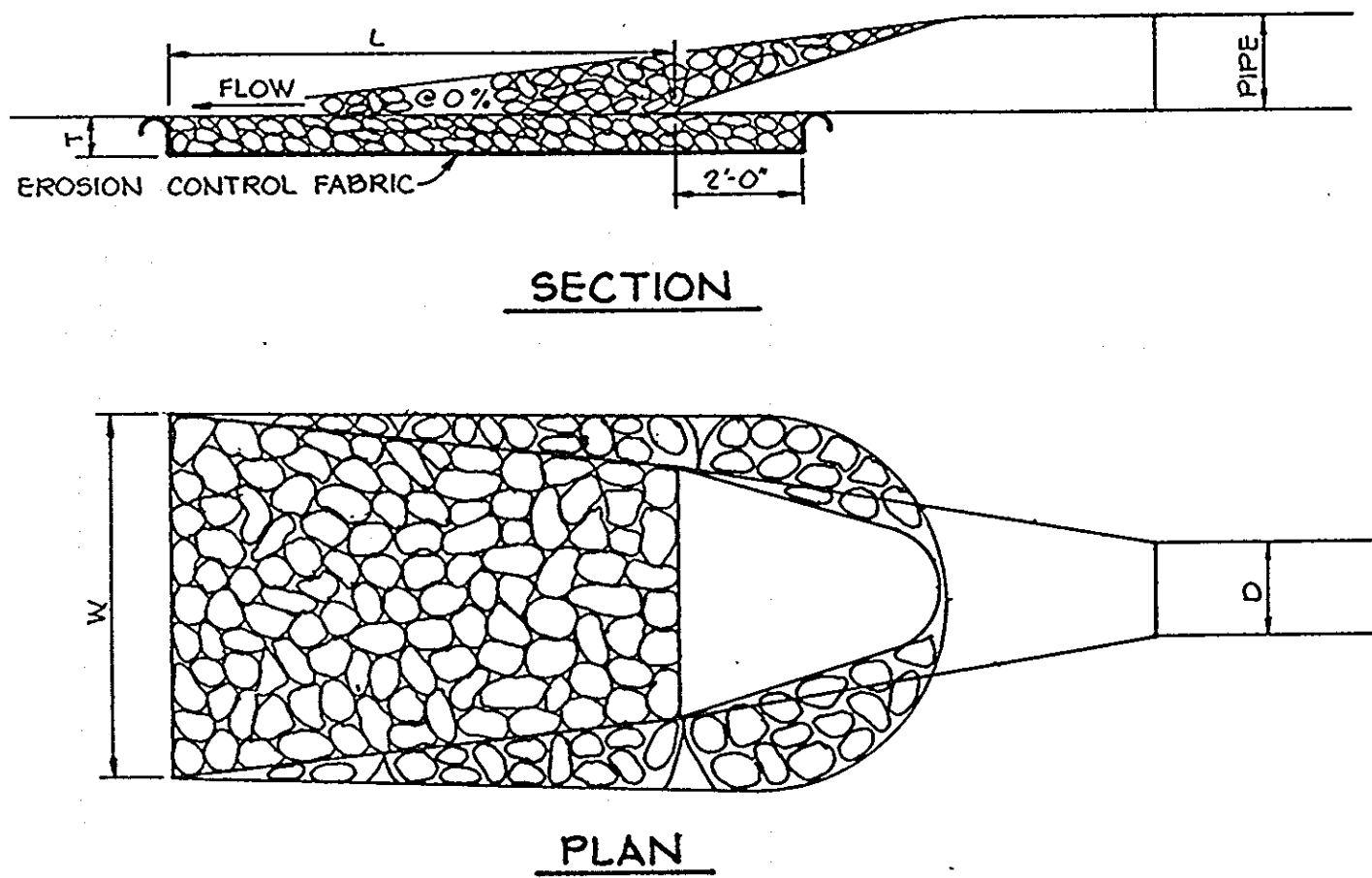
OWNER SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 0 ELLCOTT CITY, MARYLAND 21043	PROJECT <b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118 LOCATION TAX MAP NO. 37 ZONING MAP NO. 37 PARCEL NOS. 133 & 201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 0 ELLCOTT CITY, MARYLAND 21043	TITLE <b>GRADING, SEDIMENT CONTROL AND S.W.M. PLAN</b>
DES. JKT. DRN. KMN/CDT	DATE DEC. 14, 1988 OCT. 19, 1988 PROJECT NO. 8540 SDP SCALE 1" = 50' DRAWING 10 OF 14

**STAPLE SPECIFICATION**  
The staples shall be made of wire, .091" diameter or greater, 12" in length with legs in an inverted V shape. Size and weight of staples used will vary with soil conditions.

**STAPLE APPLICATION**  
The staples shall be driven vertically into a ground surface covered with 1/2" straw or other organic material on each side and driven into the ground to a depth of 6" on each side. Staples on each element use a 4" x 4" grid of staples on 4" spacing.



**STABILIZATION MATTING DETAIL**  
NO SCALE



STRUCTURE	d60	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-5	4'	7'	9'	6"
E-6	4'	9'	10.5'	6"
E-11	6'	10'	11.5'	1.12'

**OUTLET PROTECTION DETAIL**  
NO SCALE

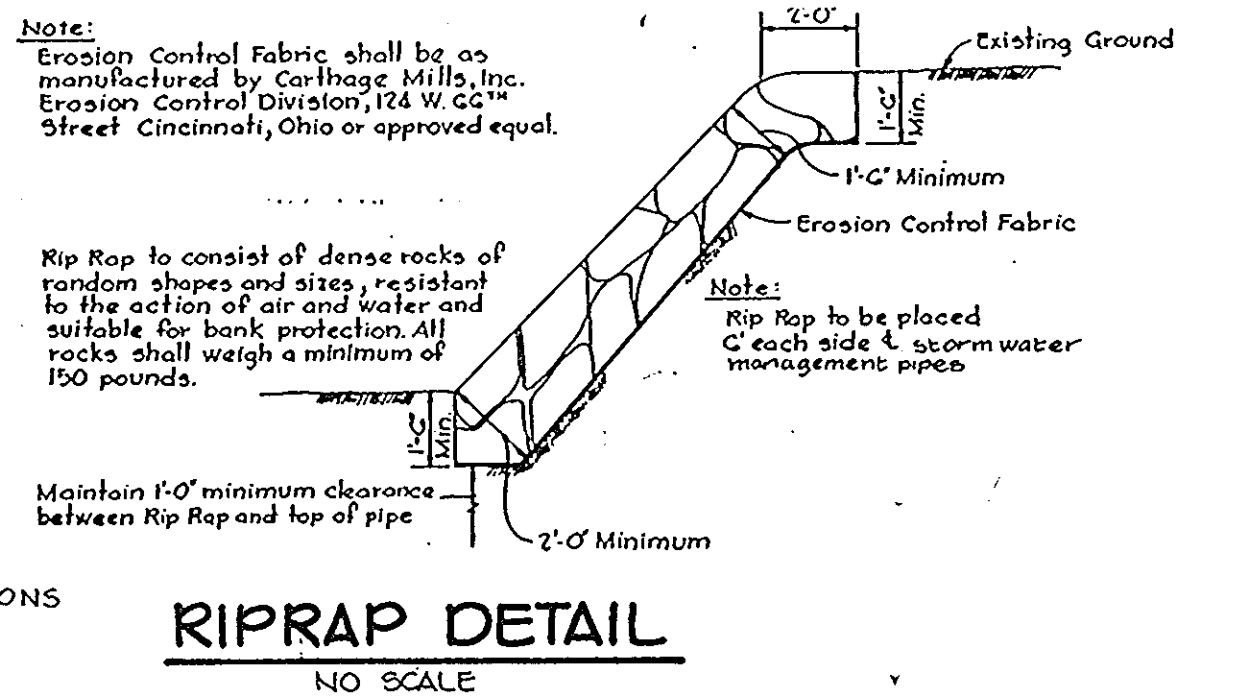
**SEDIMENT TRAP NO. 2**

DRAINAGE AREA	14.50 Ac.
DISTURBED AREA	6.86 Ac.
STORAGE VOLUME	
REQUIRED	26,100 CF
PROVIDED	27,088 CF
CREST ELEVATION	228.00'
BOTTOM ELEVATION	225.00'
CLEANOUT ELEVATION	226.00'
TRAP DIMENSIONS	300' x 90'

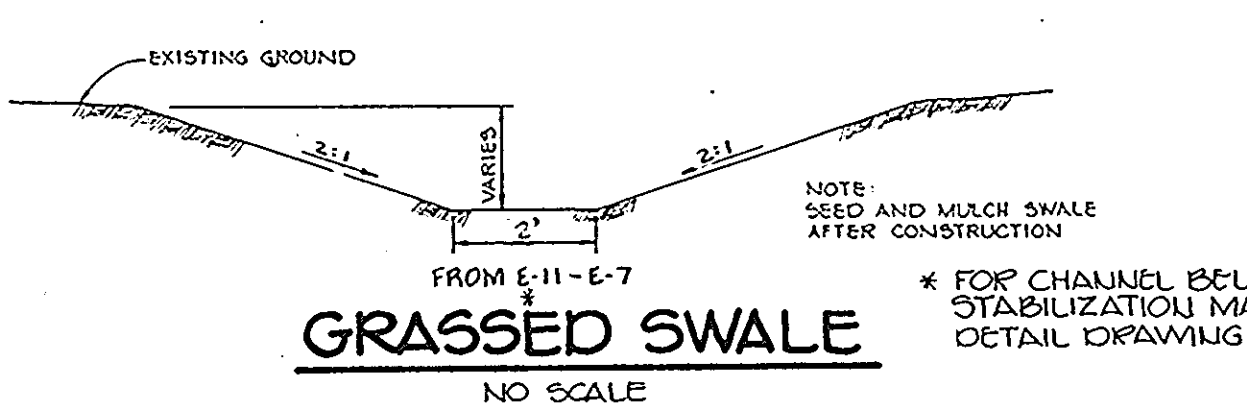
NOTE: FOR SEDIMENT BASIN DESIGN, SEE S.W.M.F. COMPUTATIONS SHEET VIII.

**SWALE SEDIMENT TRAP NO. 3 ST-1V**

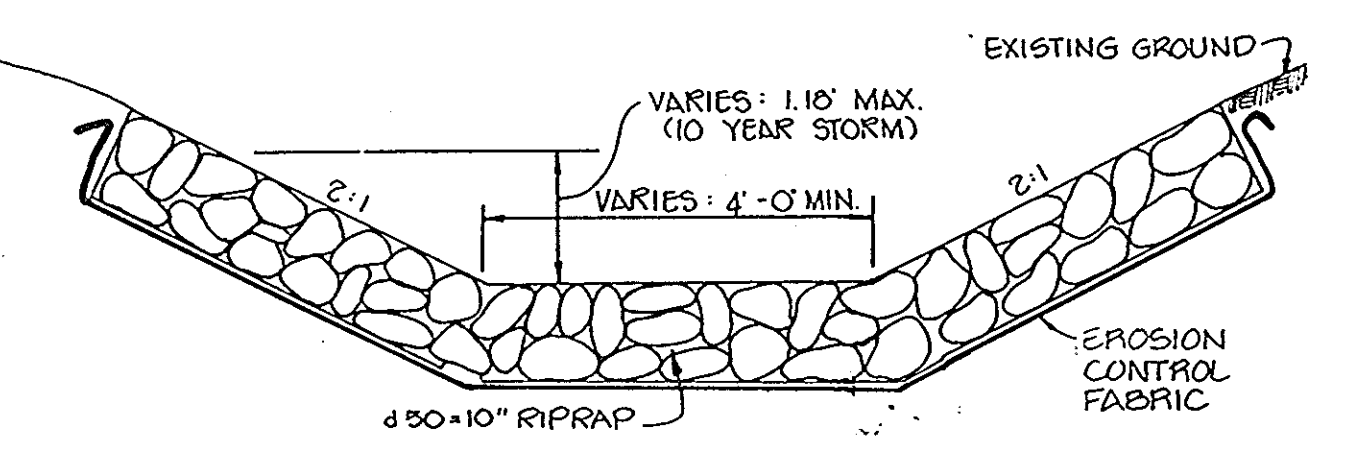
DISTURBED AREA	0.76 Ac.
STORAGE VOLUME	
REQUIRED	470 CF
PROVIDED	495 CF
CREST ELEVATION	226.0
BOTTOM ELEVATION	225.5
CLEANOUT ELEVATION	225.5
TRAP DIMENSIONS	45' x 11' x 1.0'



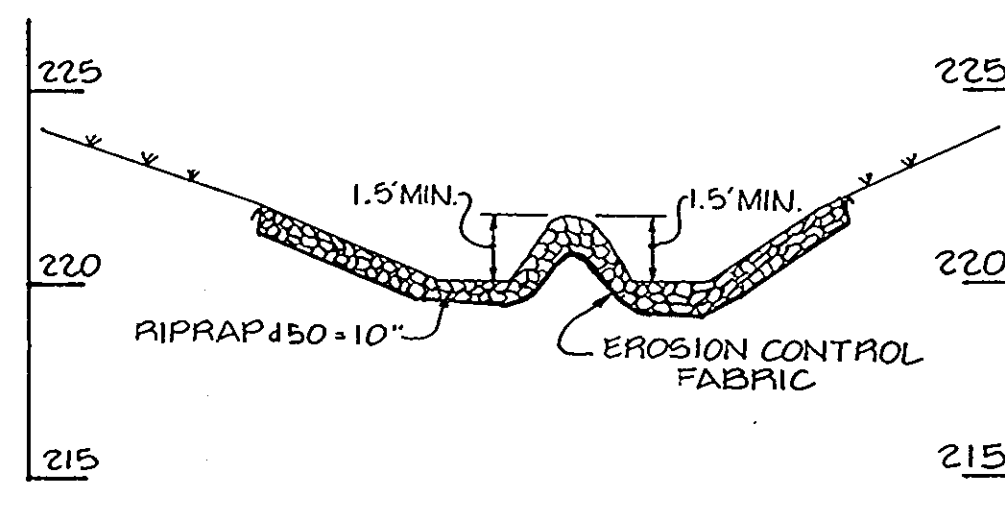
**RIPRAP DETAIL**  
NO SCALE



**GRASSED SWALE**  
NO SCALE

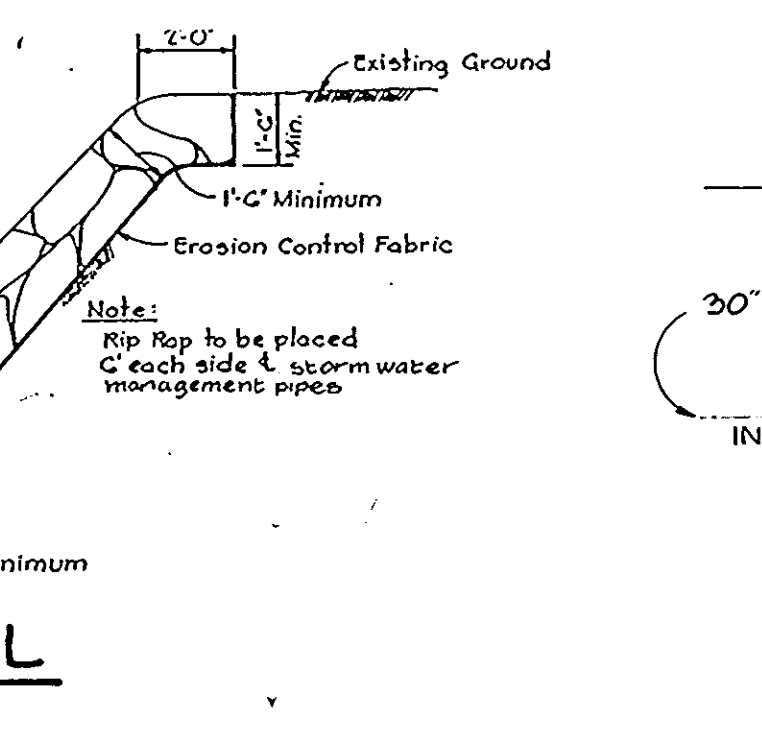


**RIPRAP OUTLET DETAIL**  
NO SCALE

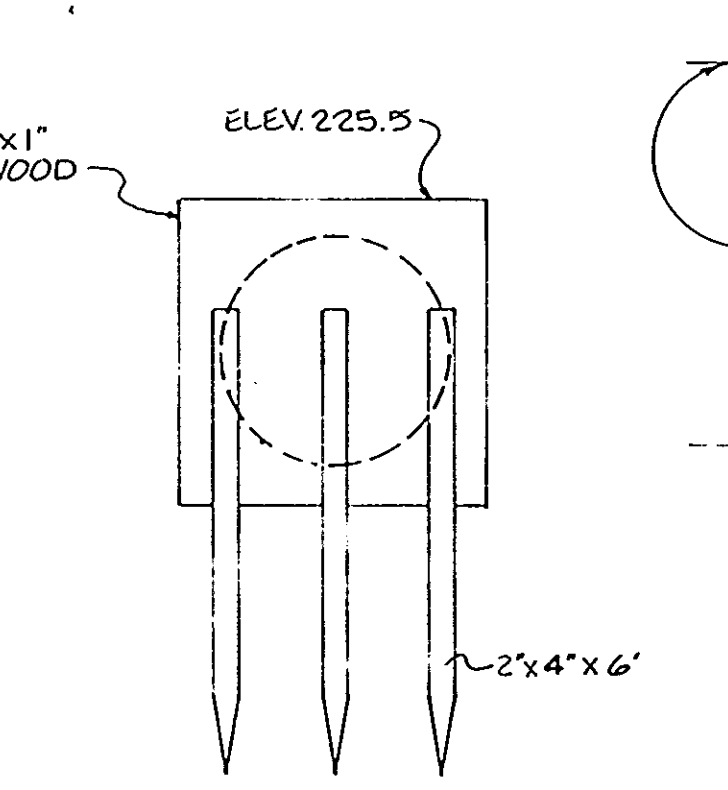


**CROSS SECTION A-A @ OUTFALL SWMF #1**  
SCALE: HORIZ: 1" = 5', VERT: 1" = 10'

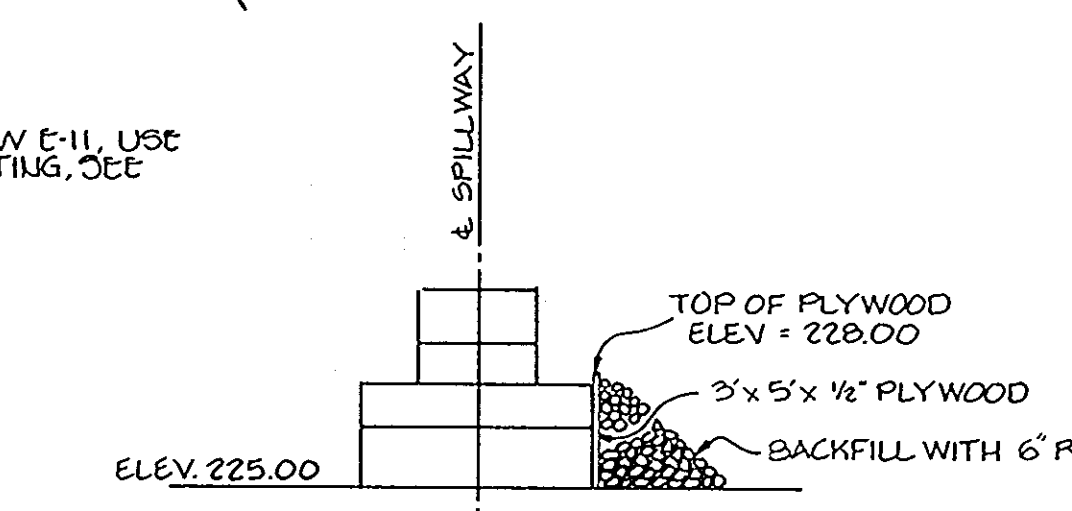
**SILT FENCE DETAIL**  
NO SCALE



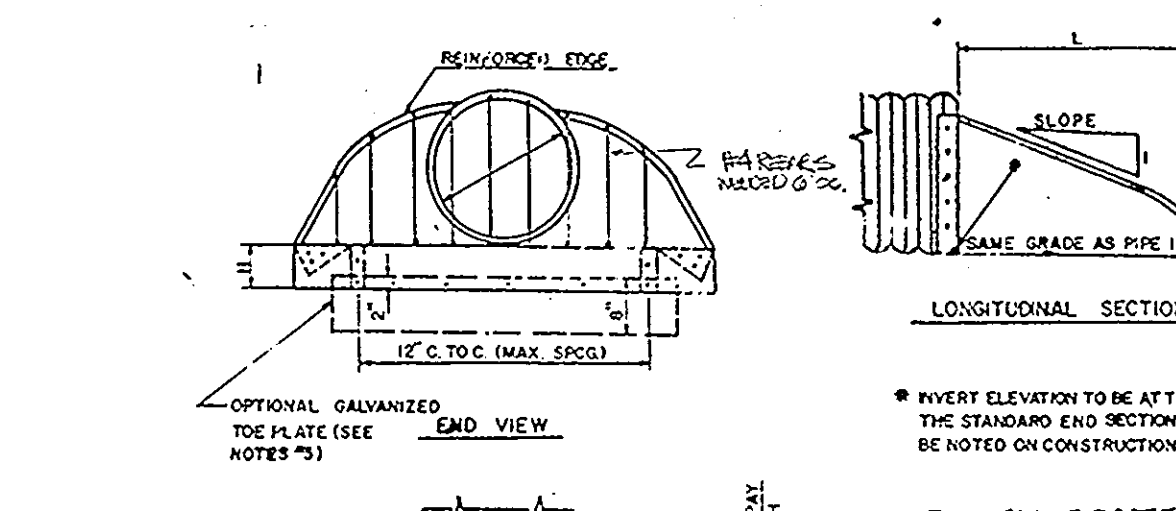
**TEMPORARY SWALE**  
NO SCALE



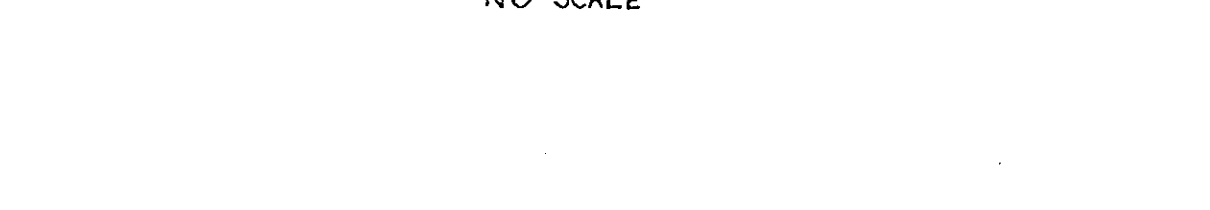
**PIPE BLOCKING DETAIL 30" BCCMP**  
NO SCALE



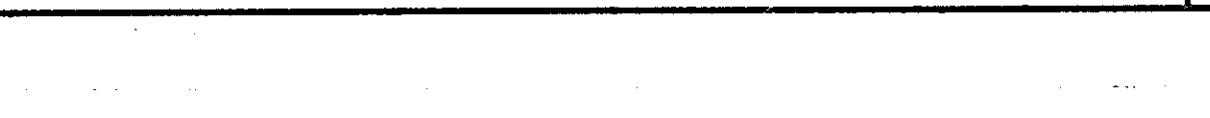
**PIPE BLOCKING DETAIL 60" CMP**  
NO SCALE



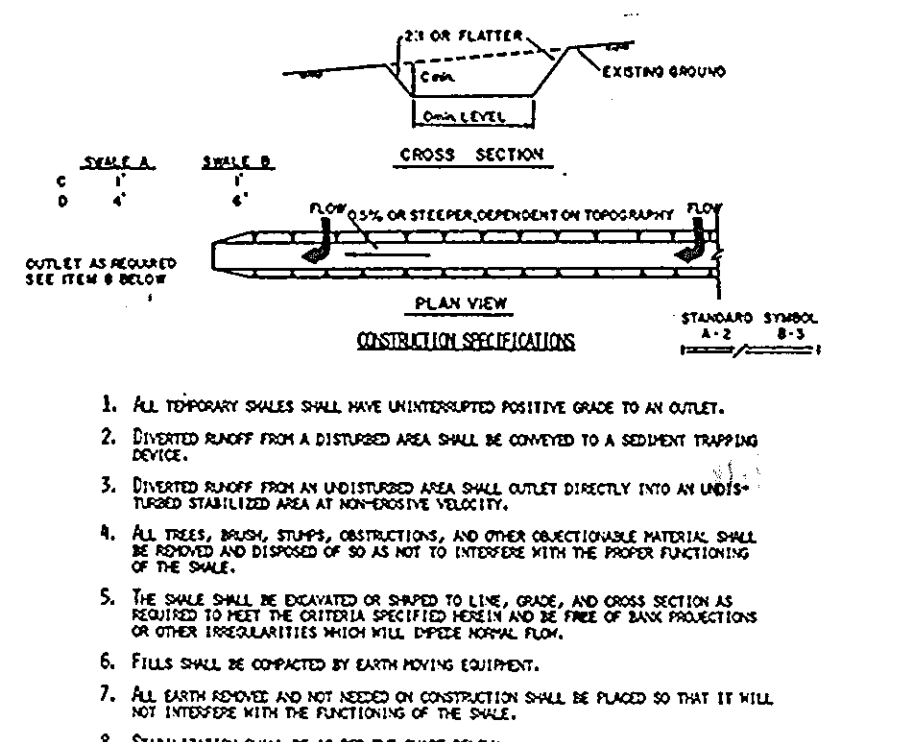
**PRINCIPLE SPILLWAY BLOCKING DETAIL SEDIMENT TRAP NO. 2**  
NO SCALE



**TRASH RACK DETAIL @ E-2, E-4 & E-10**  
NO SCALE

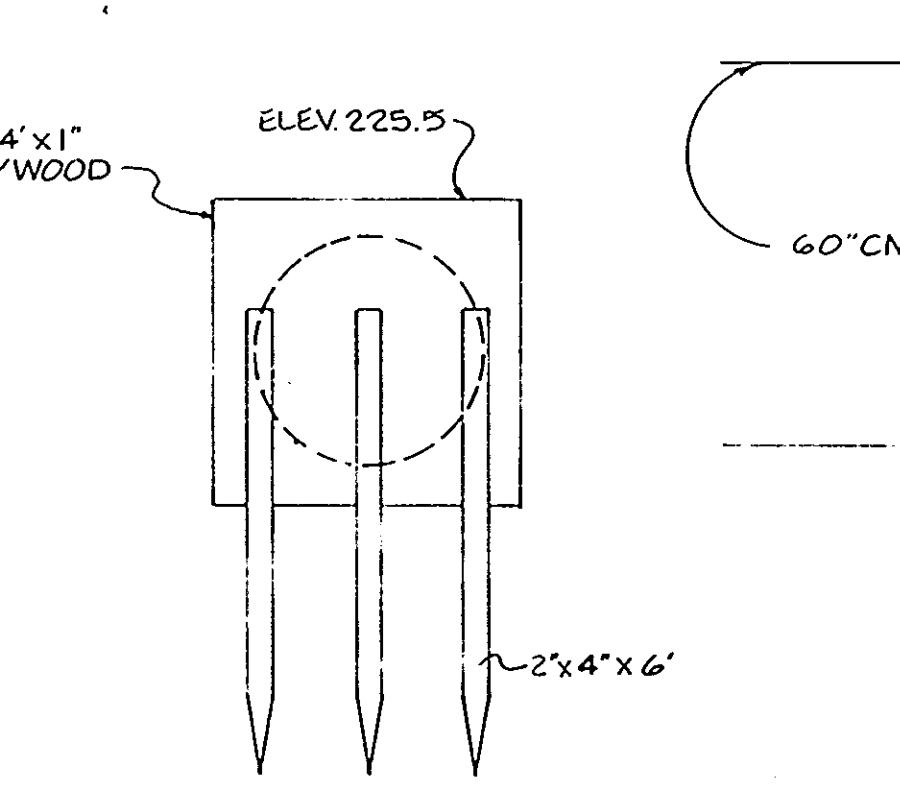


**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE

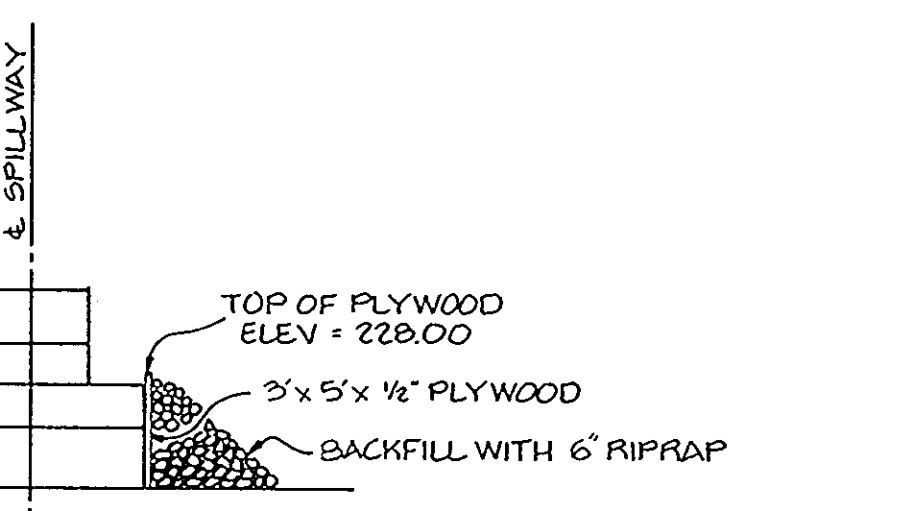


TYPE OF INSTANT	COVER	FLATNESS	FINISH
1	0.5-3.0	SEED AND STRAW PLOUGH	SEED AND STRAW PLOUGH
2	3.1-5.0	SEED AND STRAW PLOUGH	SEED AND STRAW PLOUGH
3	5.1-8.0	SEED WITH MULCH OR COVER	LINED RIP-RAP 6-8"
4	8.1-20	LINED RIP-RAP 6-8"	ENGINEERING DESIGN

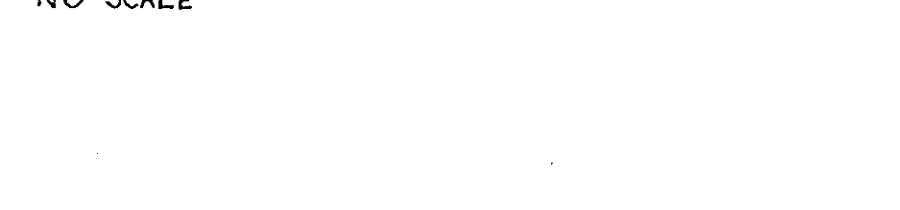
**TEMPORARY SWALE**  
NO SCALE



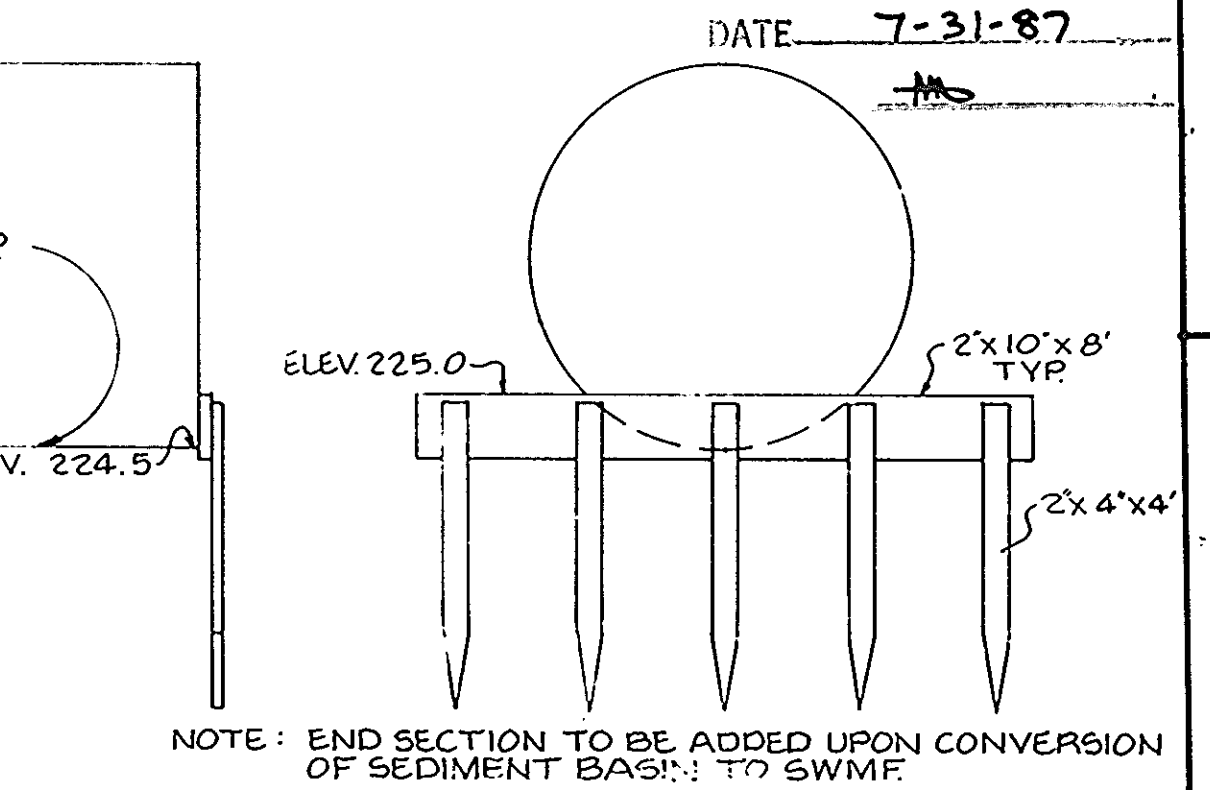
**PIPE BLOCKING DETAIL 30" BCCMP**  
NO SCALE



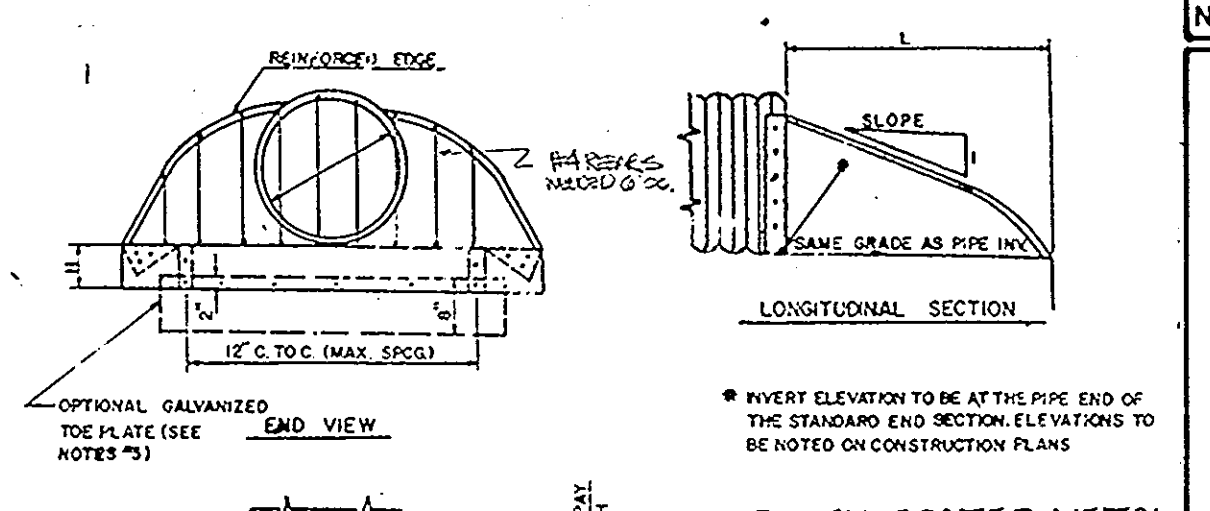
**PRINCIPLE SPILLWAY BLOCKING DETAIL SEDIMENT TRAP NO. 2**  
NO SCALE



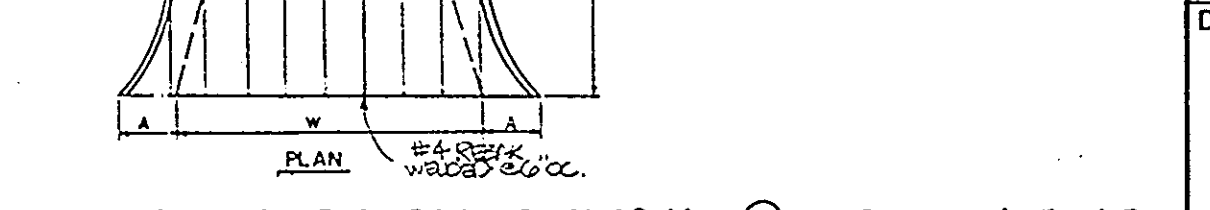
**TEMPORARY SWALE**  
NO SCALE



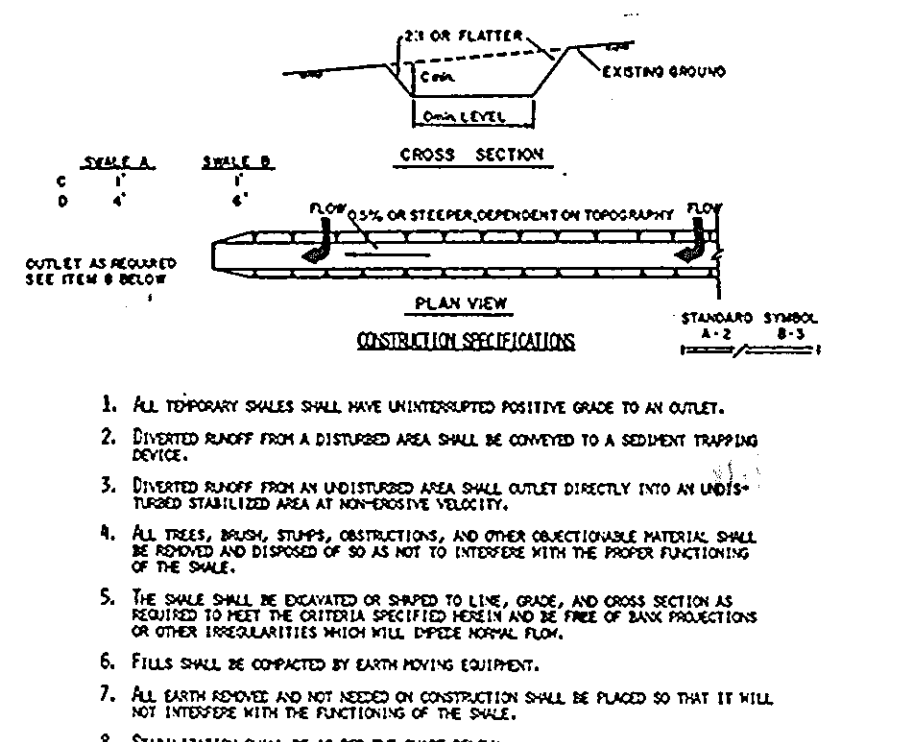
**PIPE BLOCKING DETAIL 60" CMP**  
NO SCALE



**TRASH RACK DETAIL @ E-2, E-4 & E-10**  
NO SCALE

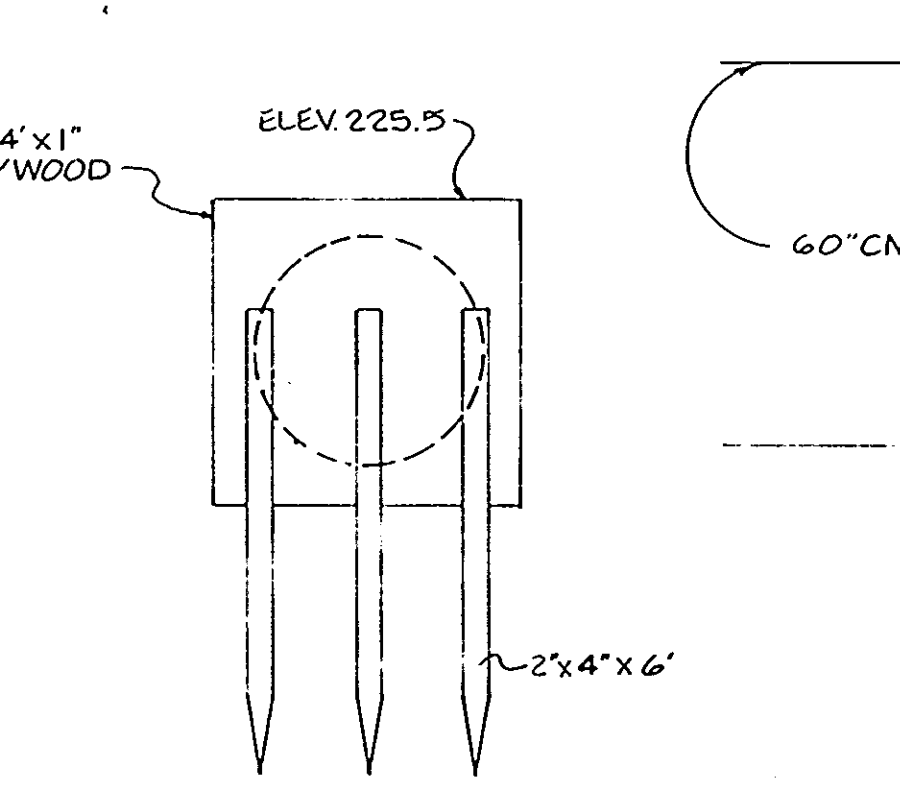


**STABILIZED CONSTRUCTION ENTRANCE**  
NO SCALE

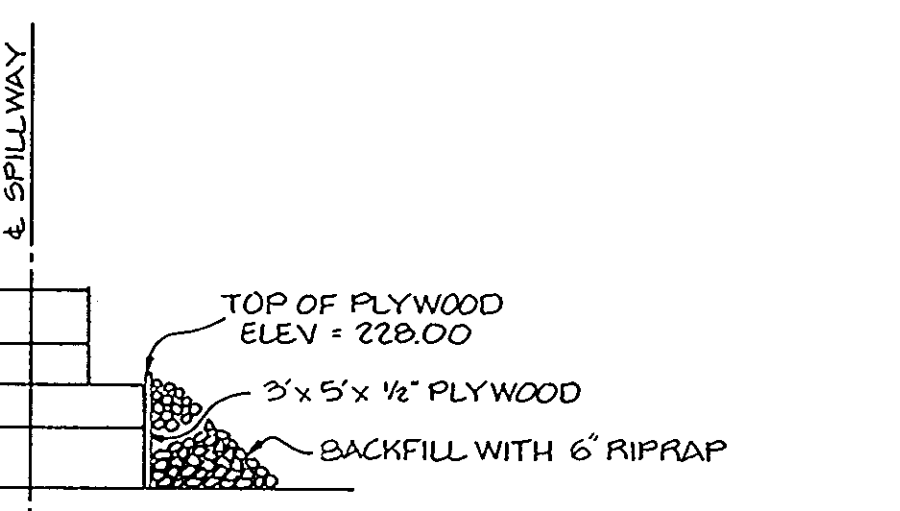


TYPE OF INSTANT	COVER	FLATNESS	FINISH
1	0.5-3.0	SEED AND STRAW PLOUGH	SEED AND STRAW PLOUGH
2	3.1-5.0	SEED AND STRAW PLOUGH	SEED AND STRAW PLOUGH
3	5.1-8.0	SEED WITH MULCH OR COVER	LINED RIP-RAP 6-8"
4	8.1-20	LINED RIP-RAP 6-8"	ENGINEERING DESIGN

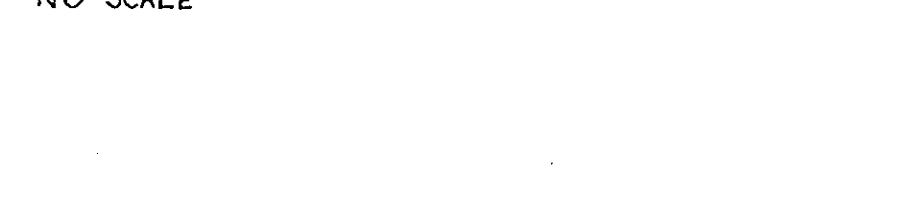
**TEMPORARY SWALE**  
NO SCALE



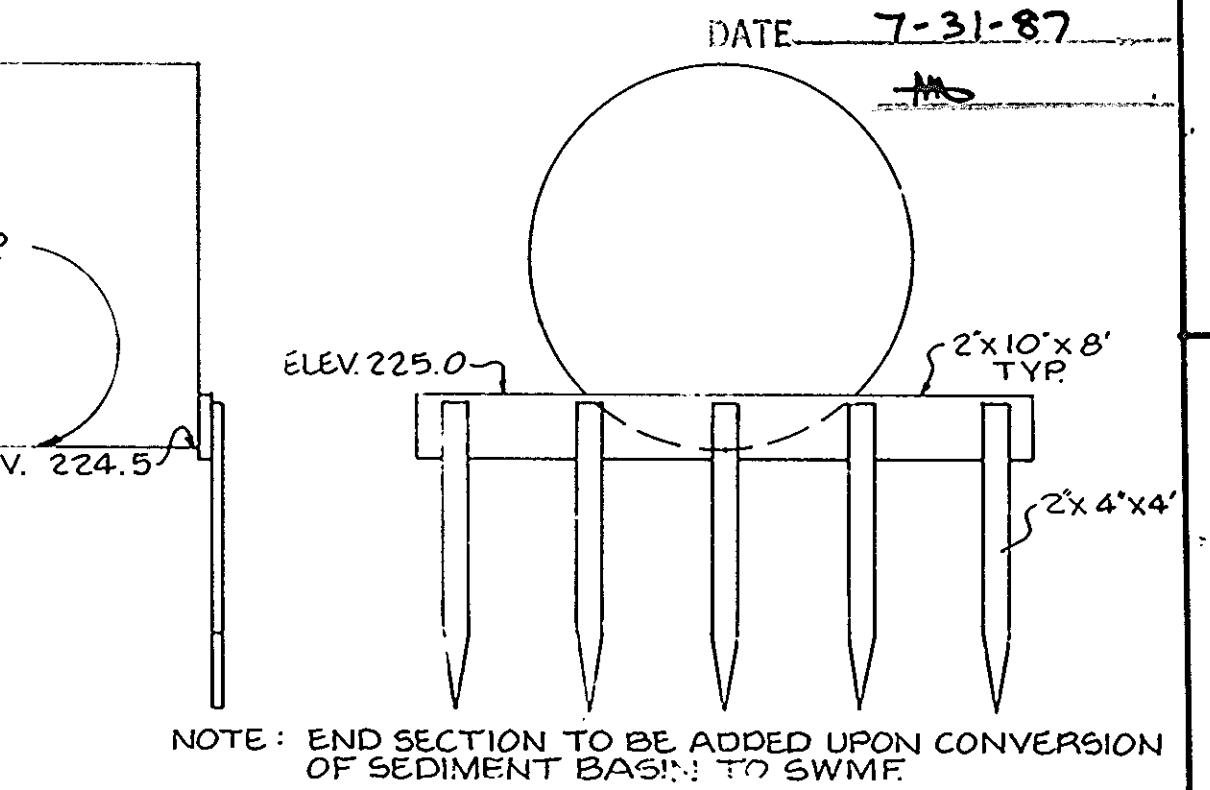
**PIPE BLOCKING DETAIL 30" BCCMP**  
NO SCALE



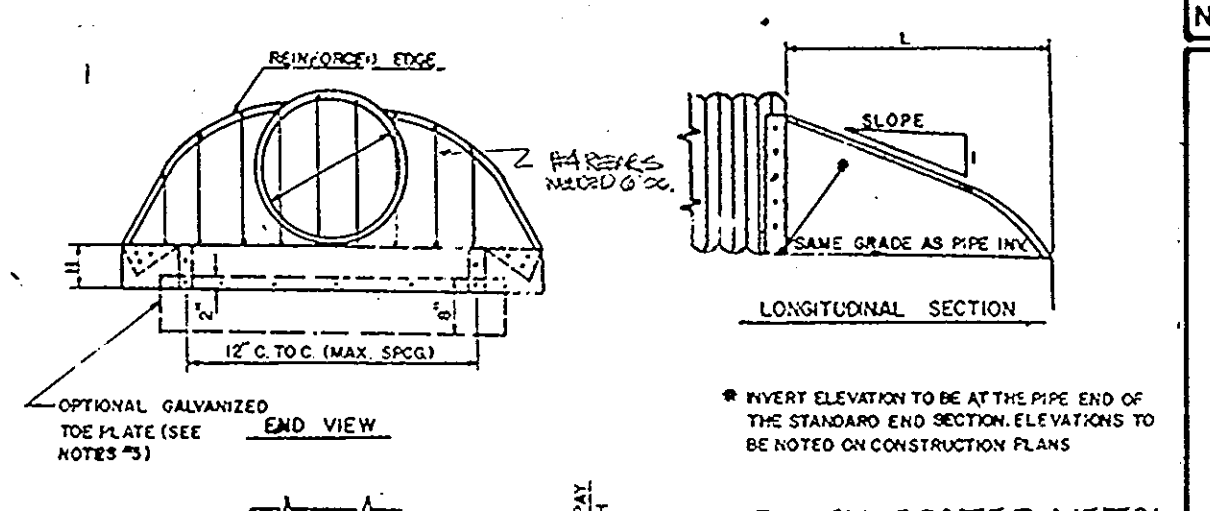
**PRINCIPLE SPILLWAY BLOCKING DETAIL SEDIMENT TRAP NO. 2**  
NO SCALE



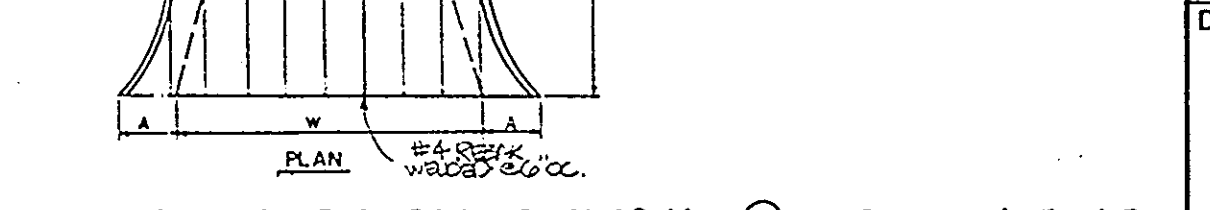
**TEMPORARY SWALE**  
NO SCALE



**PIPE BLOCKING DETAIL 60" CMP**  
NO SCALE



**TRASH RACK DETAIL @ E-2, E-4 & E-10**  
NO SCALE



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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE PONDS, NO. 1 AND NO. 2 WITHIN 30 DAYS OF COMPLETION."

DEVELOPER: James R. Moxley, Jr. DATE: 10-27-88  
SECURITY DEVELOPMENT CORP. - PRESIDENT

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 PONDS NO. 1 AND NO. 2 WITHIN 30 DAYS OF COMPLETION."

ENGINEER: James K. Tracy DATE: 10-18-88  
JAMES K. TRACY, P.E. # 9566

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.

John H. Hittelman DATE: 11-21-88  
U.S. SOIL CONSERVATION SERVICE

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

Robert W. Ziesem DATE: 11-21-88  
HOWARD S.C.D.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

James R. Boyler DATE: 12-13-88  
COUNTY HEALTH OFFICER

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND PUBLIC ROADS.

James P. Lewis DATE: 12/16/88  
DIRECTOR

James P. Lewis & Robert W. Ziesem DATE: 12-8-88  
CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

William H. ... DATE: 1. 11. 89  
PLANNING DIRECTOR

Harold J. ... DATE: 12-21-88  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

NO	DATE	REVISION

**TRACY, SCHULTE & ASSOCIATES INC.**  
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OWNER: SECURITY DEVELOPMENT CORP, 8450 BALTIMORE NATIONAL PIKE, SUITE 8, ELLICOTT CITY, MD. 21043

DEVELOPER: SECURITY DEVELOPMENT CORP, 8450 BALTIMORE NATIONAL PIKE, SUITE 8, ELLICOTT CITY, MD. 21043

DESIGNER: JKT DRN KAM

PROJECT: **NOTTINGHAM VILLAGE** PHASE I LOTS 1-118

LOCATION: TAX MAP NO. 37, ZONING MAP NO. 37, PARCEL NOS. 133 & 201, 1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: **SEDIMENT CONTROL, SWM, NOTES AND DETAILS**

DATE: DEC. 14, 1988 / OCT. 19, 1988

SCALE: AS SHOWN

PROJECT NO: 8540 SDP

DRAWING: 11 OF 14

**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 area 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.

**Connection**

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 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, Plasti-Cote, 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 connection to 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 be 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 ASTM 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 5/8 to 6 U.S. Gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-4. 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 reamed 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.

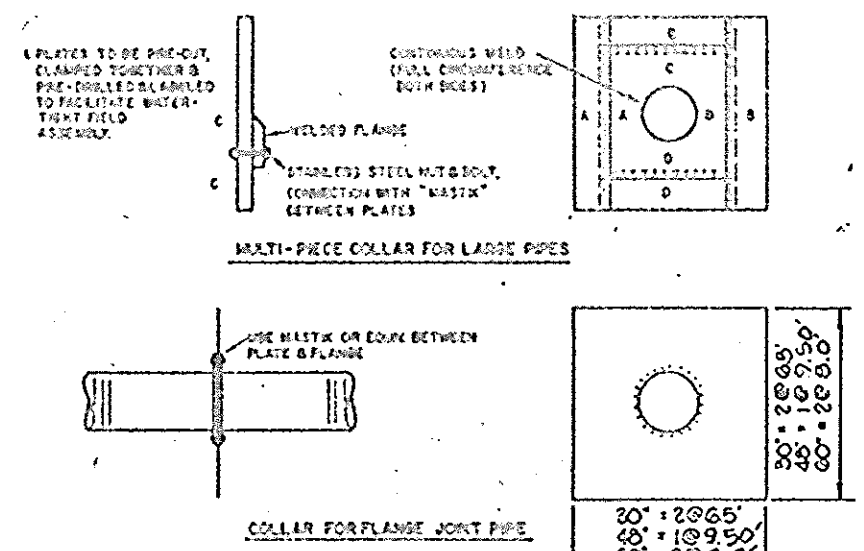
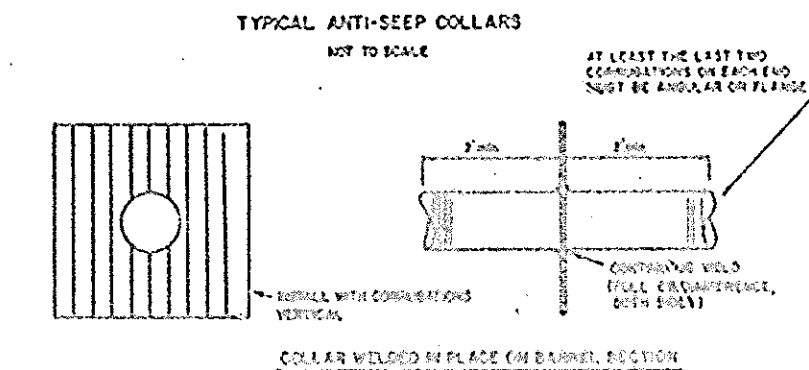
9. Placing Temperature - Concrete may not be placed at temperatures below 37°F with the temperature falling, or 34° with the temperature rising.

**VI. STABILIZATION**

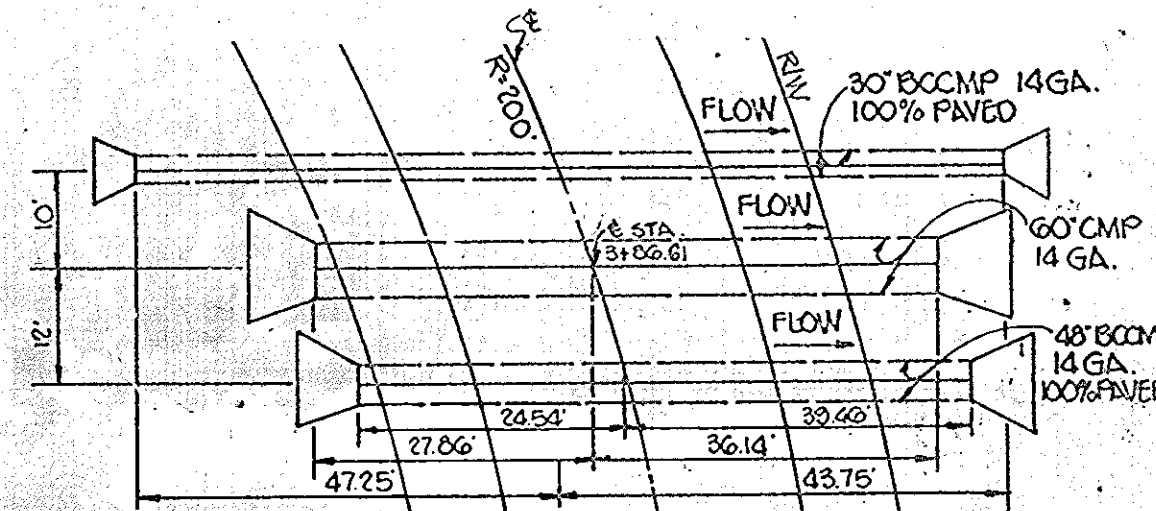
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, lining, fertilizing and mulching (if required) in accordance with the vegetative treatment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

**VII. EROSION AND SEDIMENT CONTROL**

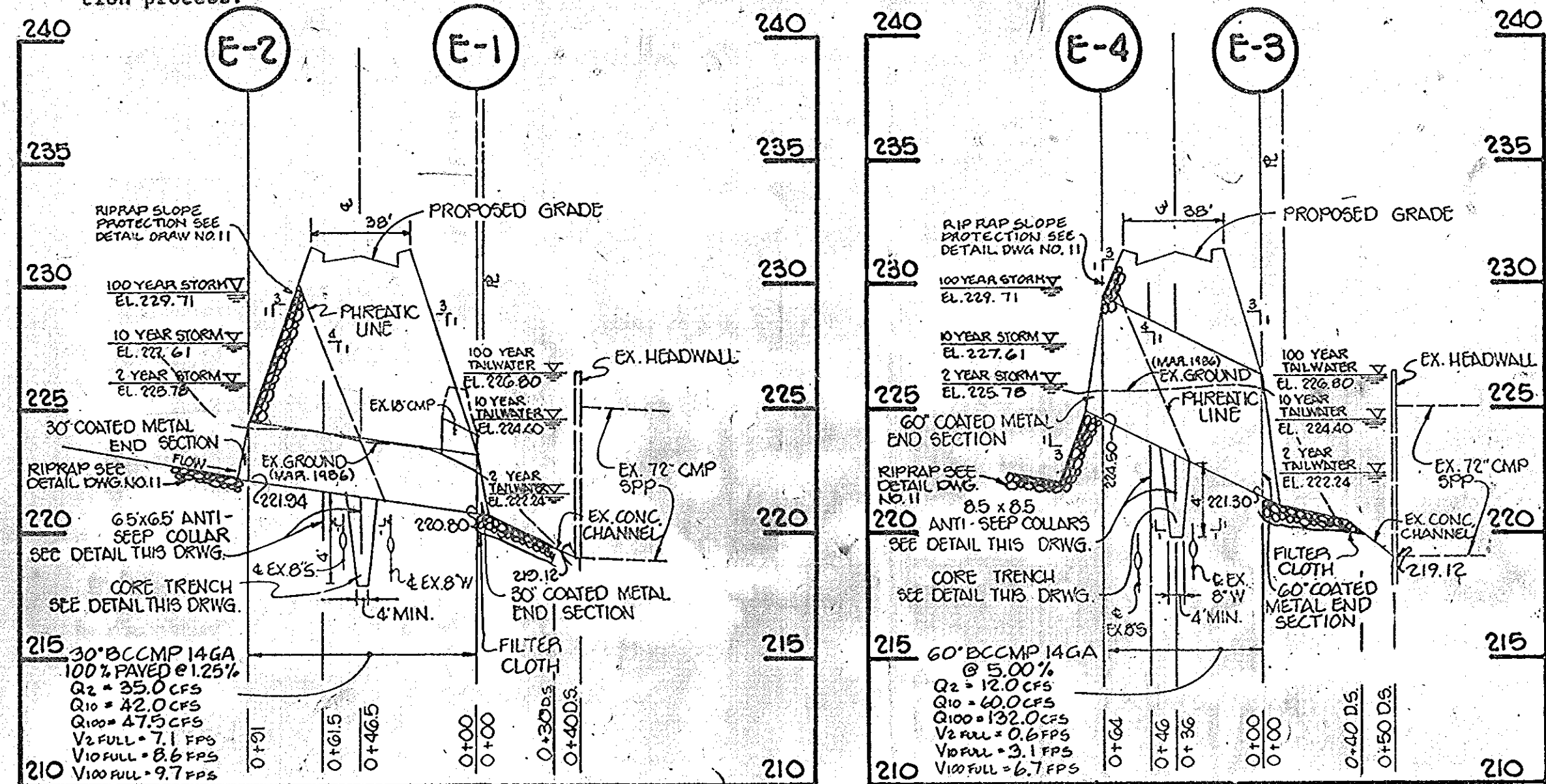
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction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



**ANTI-SEEP COLLAR**  
NO SCALE

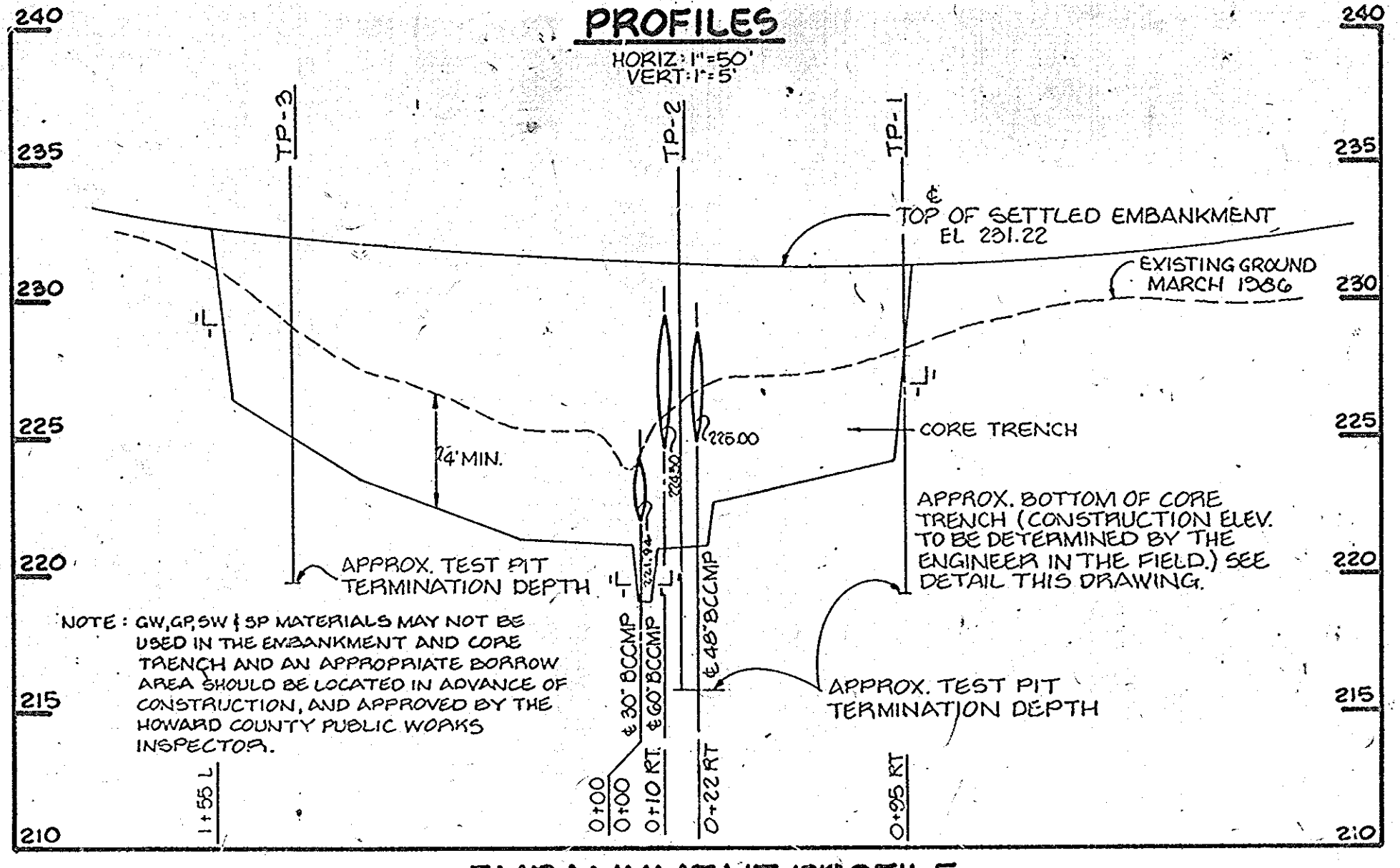


**PLAN - S.W.M.F. OUTLETS**  
SCALE: 1" = 20'

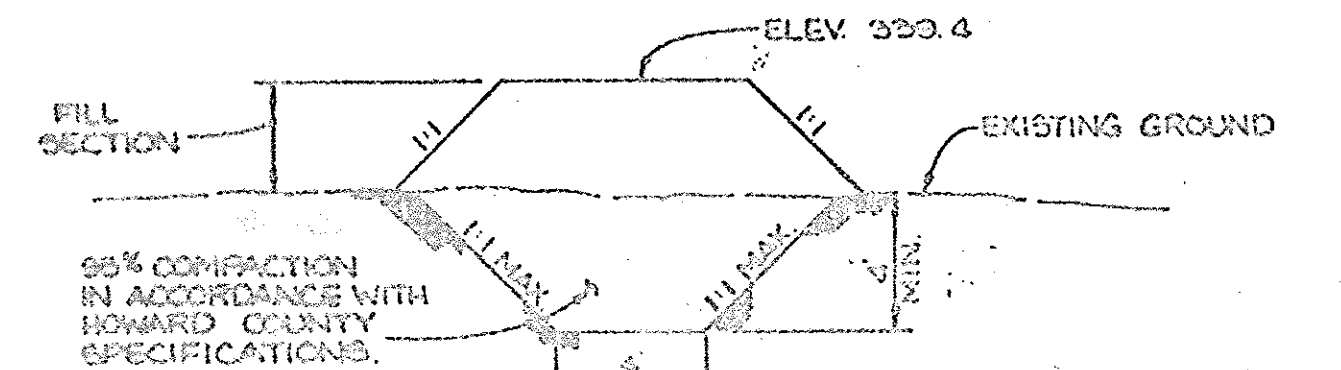


**PROFILES**  
HORIZ: 1"=50'  
VERT: 1"=5'

**APPROVED**  
DIVISION OF  
COMMUNITY PLANNING  
& LAND DEVELOPMENT  
HOWARD COUNTY,  
MARYLAND  
DATE: 7-31-87



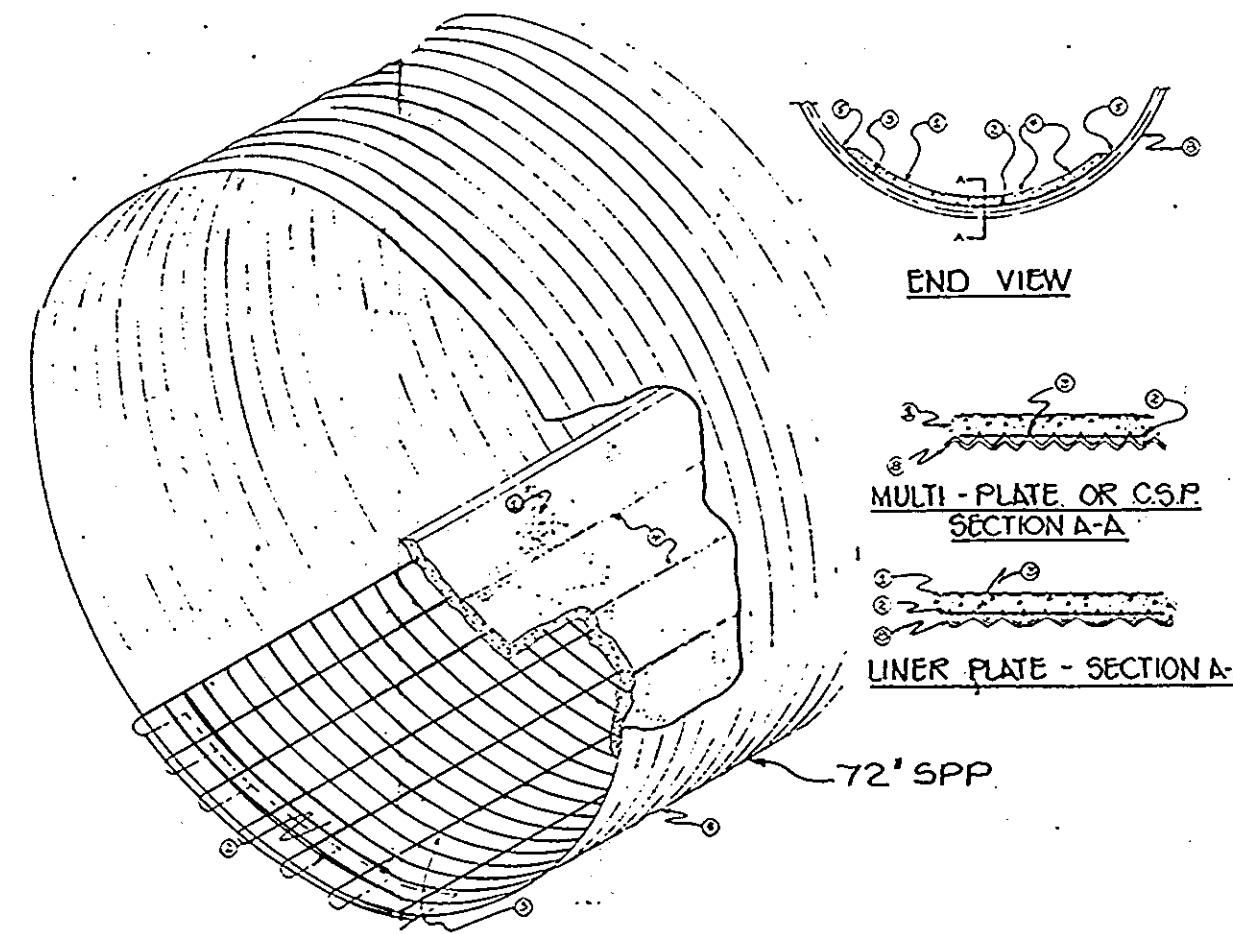
**EMBANKMENT PROFILE**  
HORIZ: 1"=50'  
VERT: 1"=5'



**CORE TRENCH SECTION**  
NO SCALE

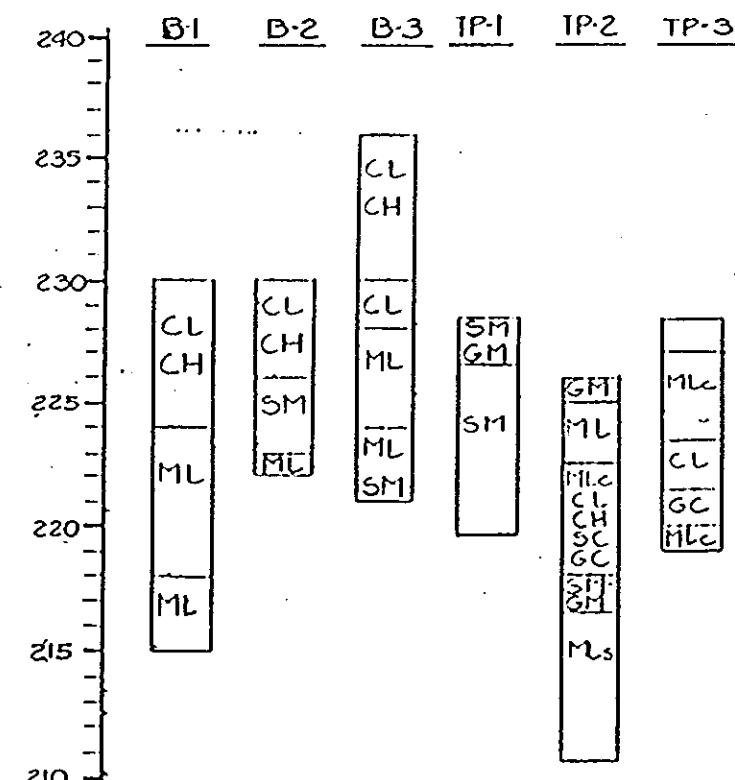
NOTE: GW, GP, SW & SP MATERIALS MAY NOT BE USED IN THE EMBANKMENT AND CORE TRENCH AND AN APPROPRIATE BORROW AREA SHOULD BE LOCATED IN ADVANCE OF CONSTRUCTION, AND APPROVED BY THE HOWARD COUNTY PUBLIC WORKS INSPECTOR.

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 PONDS NO.1 AND NO.2 WITHIN 30 DAYS OF COMPLETION.	10-18-88
ENGINEER: JAMES K. TRACY P.E. #9566	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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE PONDS NO.1 AND NO.2 WITHIN 30 DAYS OF COMPLETION.	10-27-88
DEVELOPER: JAMES R. MORLEY, JR. PRESIDENT - SECURITY DEVELOPMENT CORP.	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.	
JAMES R. MORLEY, JR.	11-21-88
U.S. SOIL CONSERVATION SERVICE	DATE
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
APPROVED: Robert W. Zieher H.D.S.C.D.	11-21-88
DATE	
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
DATE: 11-11-89	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
DATE: 12-23-88	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
DATE: 12-8-88	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
DATE: 12-13-88	
NO DATE REVISION	
TRACY, SCHULTE & ASSOCIATES INC. planning • architecture • engineering 8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 465-6105	
OWNER: SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043	
PROJECT: NOTTINGHAM VILLAGE PHASE I LOTS 1-118	
LOCATION: TAX MAP NO. 37 ZONING MAP NO. 37 PARCEL NOS. 193 & 201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
DEVELOPER: SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043	
TITLE: S.W.M. SPECIFICATIONS AND DETAILS	
DATE: DEC 14, 1988	PROJECT NO 8540
OCT. 19, 1988	
DES. S.J.B.	DRN. K.A.M./C.D.T.
SCALE AS SHOWN	DRAWING 12 OF 14



**CONCRETE FIELD PAVING DETAIL**  
NO SCALE

- NOTES:
1. PORTLAND CEMENT CONCRETE SHALL BE PLACED NOT LESS THAN 2" OVER THE CREST OF THE CORRUGATIONS AND A WIDTH NOT LESS THAN 20% OF THE PERIPHERY OF CIRCULAR AND ELLIPTICAL STRUCTURES WITH EDGES SLOPED TO PREVENT WATER POCKETS. PROPORTIONS FOR THE CONCRETE MIX SHALL BE AS RECOMMENDED BY STATE HIGHWAY OR RAILROAD SPECIFICATIONS FOR THIN WALL STRUCTURES WITH MAXIMUM ALLOWABLE COARSE AGGREGATE SIZE LIMITED TO THAT PASSING 3/4" SCREEN WITH LOW WATER CONTENT. IT SHALL BE TAMPED TO ELIMINATE VOIDS AND FINISHED IN A WORKMANLIKE MANNER.
  2. WELDED WIRE MESH NOT GREATER THAN 6" x 12" AND OF WIRE GAGE NO LIGHTER THAN NO. 10 SHALL BE USED FOR REINFORCEMENT.
  3. MESH SHALL BE PLACED ON THE CRESTS OF THE CORRUGATIONS AND HELDED OR OTHERWISE FASTENED TO THEM ON NOT MORE THAN 2 CENTERS. ALL LAPS SHALL BE AT LEAST 6" MESH SHALL BE FOLDED UNDER UPSTREAM AND DOWNSTREAM LAPS OF STRUCTURE AT LEAST 12" MESH SHALL EXTEND TO WITHIN 4" OF THE EDGES OF CONCRETE ON EACH SIDE.
  4. THE CONCRETE SHALL BE SCORED 3/4" DEEP LONGITUDINALLY 18" O.C. TO CONTROL CRACKING.
  5. NOT LESS THAN 4 HOURS AFTER FINISHING, AN ASPHALT EMULSION SHALL BE MOPPED ON THE EDGES OF CONCRETE NEXT TO THE METAL STRUCTURE TO EXTEND NOT LESS THAN 4" ON EACH SIDE OF JUNCTION.
  6. ALL FOREIGN MATERIAL AND CORROSIVE LOOSE SCALE SHALL BE REMOVED IMMEDIATELY BEFORE PLACEMENT OF THE CONCRETE. ALL FREE WATER SHALL BE REMOVED AND THE SURFACE FLUSHED WITH A MORTAR MADE OF THE STANDARD CONCRETE MIX BY ELIMINATION OF THE COARSE AGGREGATE FRACTION.
  7. REFERENCE: FEDERAL SPECIFICATIONS MH-405a, TYPE F.
  8. BASE METAL: APPLICABLE TO MULTI-PLATE, LINEAR PLATE, AND CORRUGATED STEEL PIPE.



**TEST PIT DATA SWMF #1**

TP-4	TP-5	TP-6
CL	CL	CL
CH	CH	CH
ML	ML	ML
SM	SM	SM
...	...	...

**TEST PIT DATA SWMF #2**

SEQUENCE OF CONSTRUCTION

DAY 1 OBTAIN A GRADING PERMIT.

DAY 2-DAY 3 INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE).

DAY 4-DAY 5 INSTALL ALL SEDIMENT CONTROL DEVICES NECESSARY TO FACILITATE CONSTRUCTION OF SWMF #1 AND #2.

DAY 6-DAY 9 INSTALL CORE TRENCH IN SWMF #1 AND #2.

DAY 10-DAY 20 INSTALL SWMF #1 AND #2 AND STABILIZE AS PER PERMANENT SEEDING NOTES.

DAY 21-DAY 22 INSTALL PIPE BLOCKING DEVICES AT E-2 AND E-4 (SEE DETAIL DRAWING NO. 11).

DAY 22-DAY 23 INSTALL BLOCKING DEVICE FOR GABION STRUCTURE, SWMF #2 (SEE DETAIL DRAWING NO. 11).

DAY 23-DAY 28 INSTALL STONE BOTTOM CHANNEL FROM E-7 TO E-2.

DAY 28-DAY 35 INSTALL REMAINDER OF SEDIMENT CONTROL DEVICES AND SEED AS PER TEMPORARY SEEDING NOTES.

DAY 36-DAY 49 CLEAR AND GRUB REMAINDER OF SITE

DAY 50-DAY 65 GRADE SITE

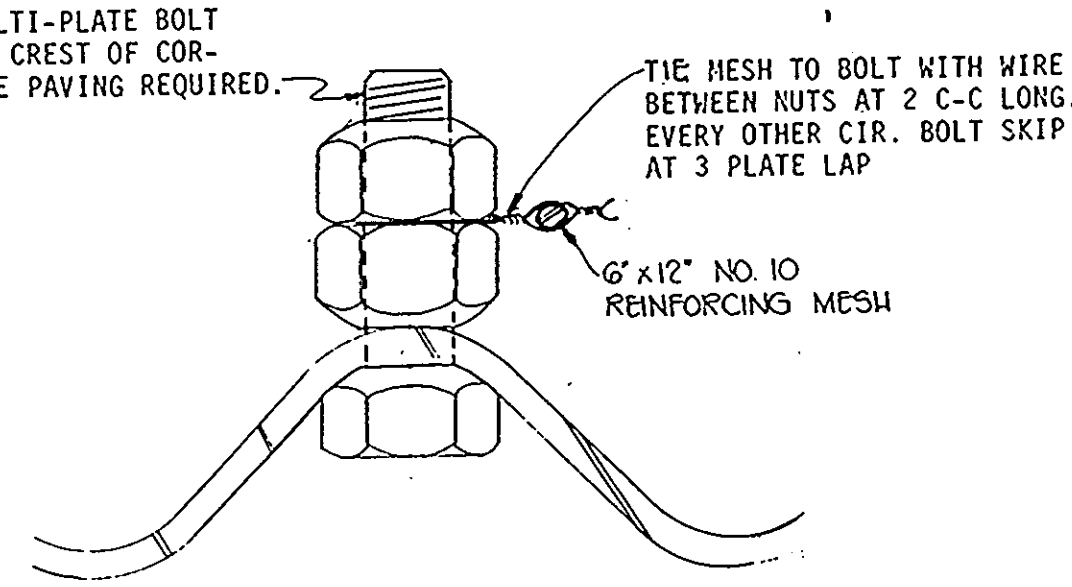
DAY 66-DAY 135 INSTALL UTILITIES (WATER, SEWER AND STORM DRAINS).

DAY 136-DAY 140 STABILIZE ALL SLOPES IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

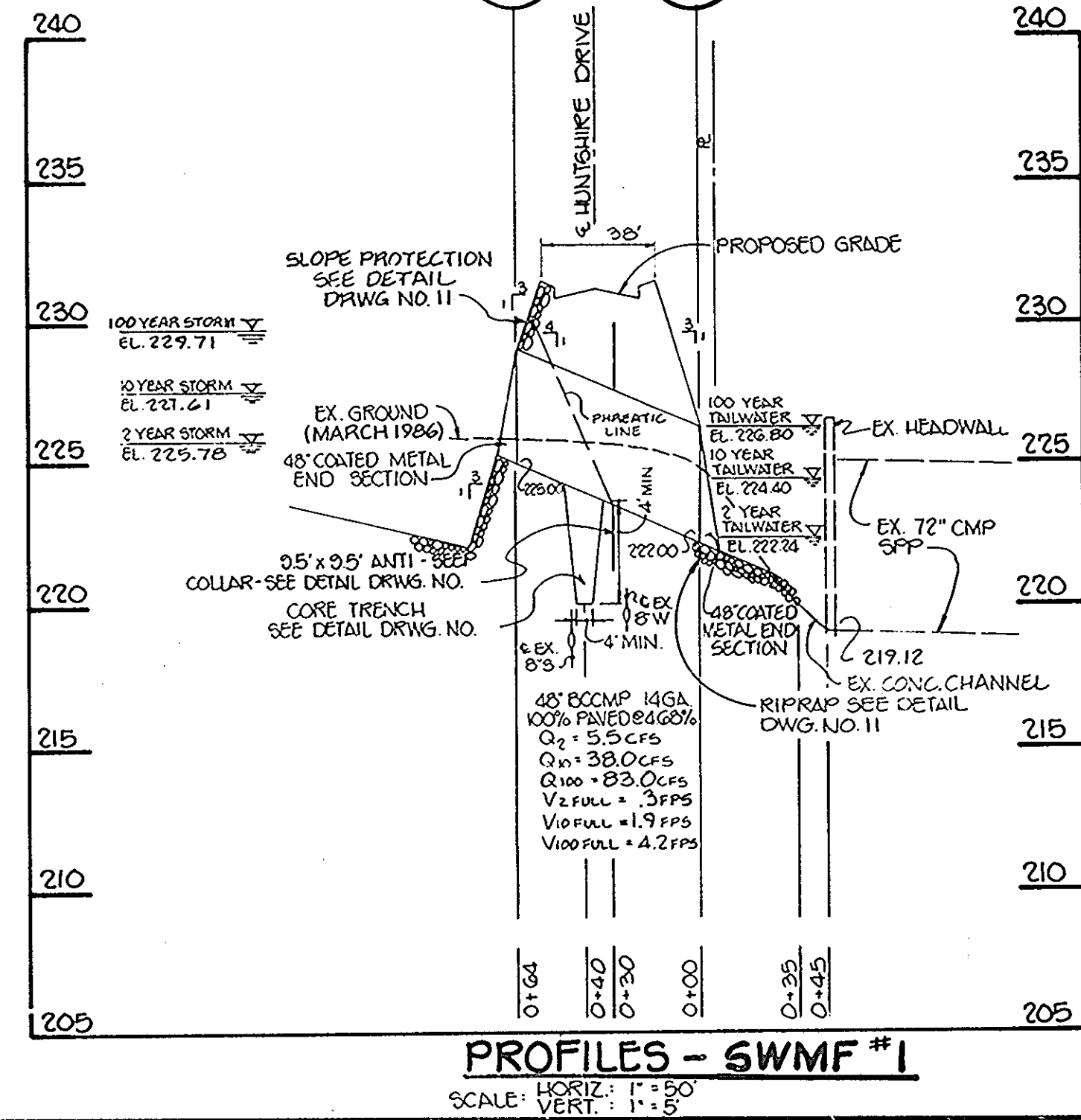
DAY 141-DAY 155 COMPLETE ALL ROADWAY CONSTRUCTION AND STABILIZE AS PER PERMANENT SEEDING NOTES.

DAY 156-DAY 158 UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND CONVERT SEDIMENT TRAP TO A PERMANENT STORM WATER MANAGEMENT FACILITIES AS FOLLOWS:

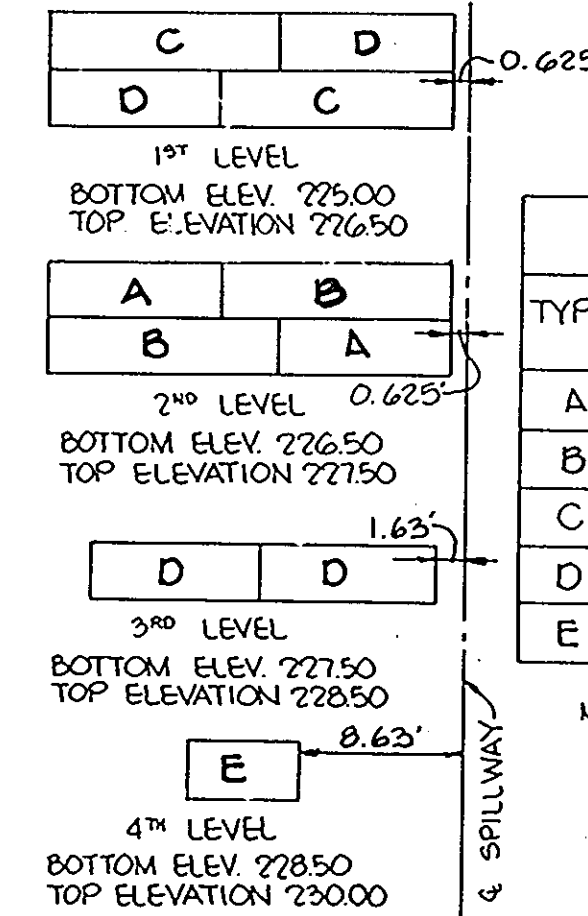
- DEWATER BASINS BY PUMPING INTO A SEDIMENT TRAP OR WELL STABILIZED VEGETATED AREA AS DIRECTED BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- REMOVE SILT AND STONE FILTERS AND RESTORE PONDS TO ITS ORIGINAL DIMENSIONS; STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
- REMOVED SILT SHALL BE SPREAD ACROSS THE REAR OF LOTS 88 AND 89 AND THE AREA WEST OF LOT 88 AND SEEDED IN ACCORDANCE WITH PERMANENT SEEDING NOTES.



**MESH FASTENING DETAIL**  
NO SCALE



**PROFILES - SWMF #1**  
SCALE: HORIZ: 1" = 50'  
VERT: 1" = 5'

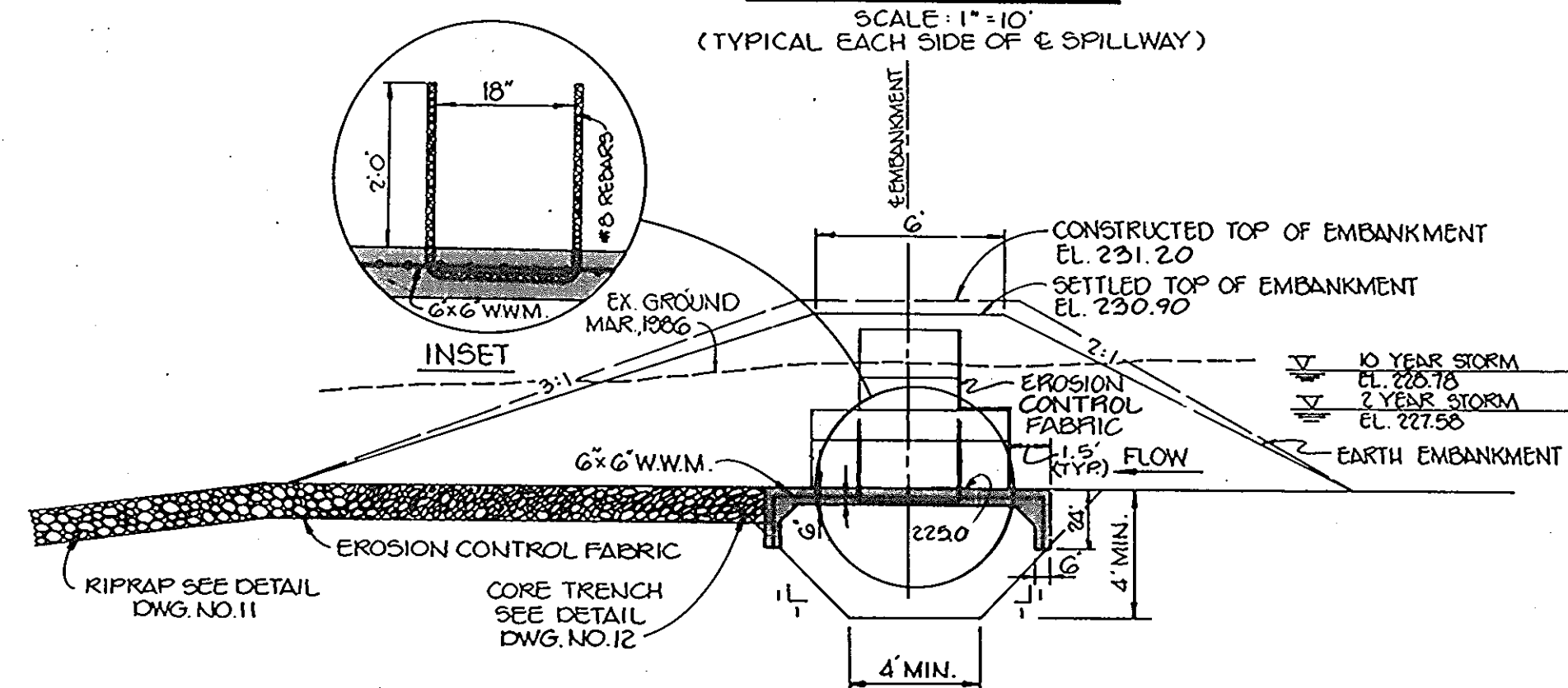


**GABION SCHEDULE**

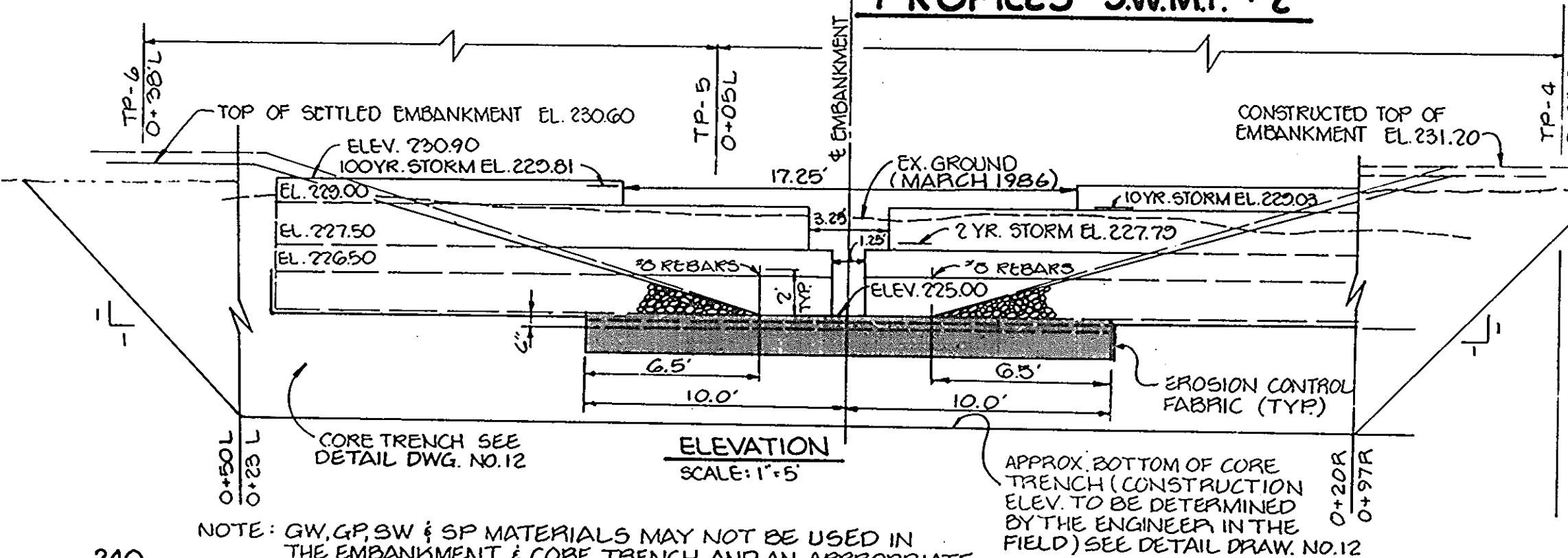
TYPE	DIMENSIONS			QUANTITY
	HEIGHT	WIDTH	LENGTH	
A	1	3	9	4
B	1	3	12	4
C	1.5	3	12	4
D	1.5	3	9	8
E	1	3	6	2

NOTE: GABION RIPRAP SIZE SHALL BE 4" DIA.

**GABION PLAN**  
SCALE: 1" = 10'  
(TYPICAL EACH SIDE OF SPILLWAY)

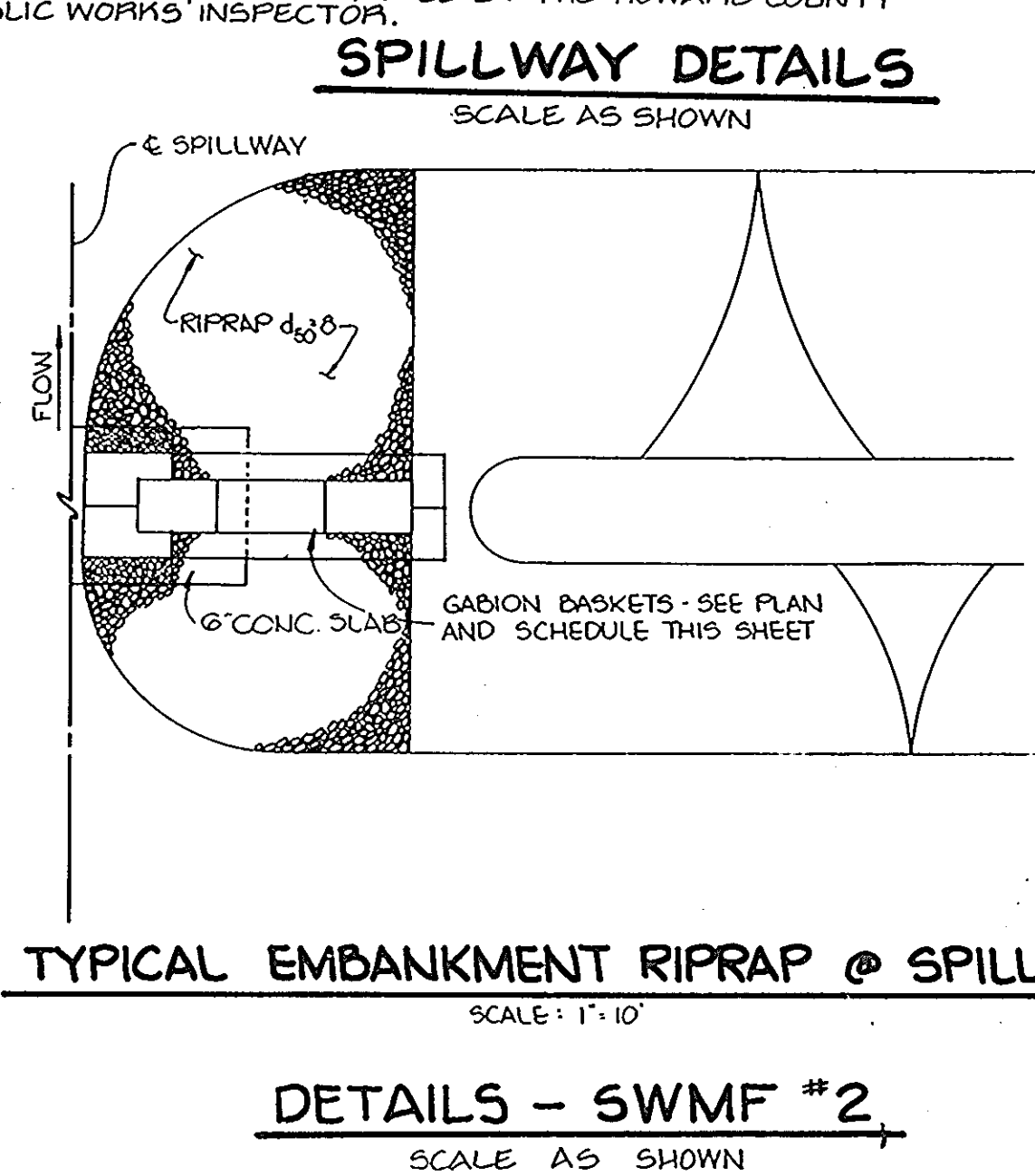


**TYPICAL SECTION**  
SCALE: 1" = 5'  
**PROFILES SWMF #2**



NOTE: GW, GP, SW & SP MATERIALS MAY NOT BE USED IN THE EMBANKMENT & CORE TRENCH AND AN APPROPRIATE EXPOSED AREA SHOULD BE LOCATED IN ADVANCE OF CONSTRUCTION, AND APPROVED BY THE HOWARD COUNTY PUBLIC WORKS INSPECTOR.

APPROVED  
DIVISION of  
COMMUNITY PLANNING  
& LAND DEVELOPMENT  
HOWARD COUNTY,  
MARYLAND  
DATE: 7-31-87



**TYPICAL EMBANKMENT RIPRAP @ SPILLWAY**  
SCALE: 1" = 10'

**DETAILS - SWMF #2**  
SCALE AS SHOWN

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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE PONDS NO.1 AND NO.2 WITHIN 30 DAYS OF COMPLETION.

*James K. Moxley*  
DEVELOPER: JAMES R. MOXLEY, P.E.  
PRESIDENT - SECURITY DEVELOPMENT CORP. 10-27-88 DATE

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 PONDS NO.1 AND NO.2 WITHIN 30 DAYS OF COMPLETION.

*James K. Tracy*  
ENGINEER: JAMES K. TRACY, P.E. # 9566 10-18-88 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.

*James K. Tracy*  
U.S. SOIL CONSERVATION SERVICE 11-21-88 DATE

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

*Robert W. Ziehm*  
APPROVED HOWARD S.C. 11-21-88 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

*John Boyle*  
COUNTY HEALTH OFFICER 12-13-88 DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*James M. Schwin*  
DIRECTOR 12-13-88 DATE

*William S. Rely*  
CHIEF, BUREAU OF ENGINEERING 12-8-88 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

*Unlabeled*  
PLANNING DIRECTOR 1. 11. 89 DATE

*Joseph V. DeAngelis*  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT 12-25-87 DATE

NO	DATE	REVISION

**TRACY, SCHULTE & ASSOCIATES INC.**  
planning • architecture • engineering  
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301) 465-6105

OWNER: SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043

PROJECT: **NOTTINGHAM VILLAGE**  
PHASE I LOTS 1-118  
LOCATION TAX MAP NO. 37  
ZONING MAP NO. 37 PARCEL NOS. 133 & 201  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DEVELOPER: SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 8 ELLICOTT CITY, MARYLAND 21043

TITLE: STORM WATER MANAGEMENT DETAILS

DATE: DEC. 14, 1986  
OCT. 10, 1988

DES. RJW DRN KAM

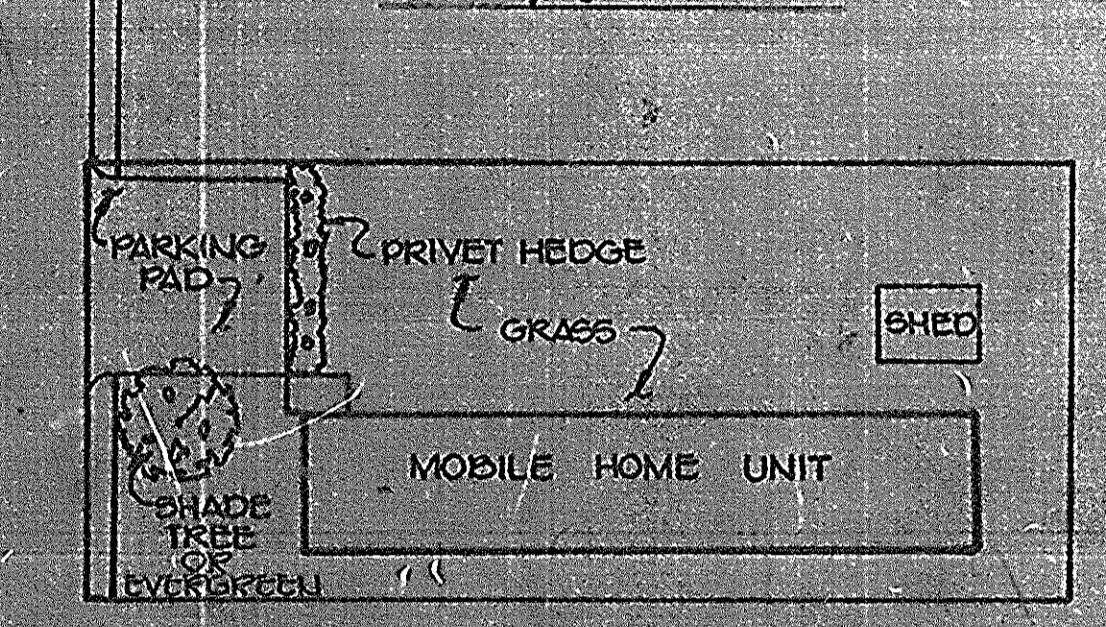
SCALE: AS SHOWN PROJECT NO. 8540 SDP DRAWING 13 OF 14



PLANT LIST

SYMBOL	QUAN	NAME	REMARKS
(Symbol)	55	QUERCUS PALUSTRIS PIN OAK	2 1/2 MIN. CAL. B+B FULL HEAD
(Symbol)	52	ACER RUBRUM RED MAPLE	2 1/2 MIN. CAL. B+B FULL HEAD
(Symbol)	54	PYRUS CALLERYANA BRADFORD BRADFORD PEAR	5'-6" H B+B

APPROVED  
DIVISION OF  
COMMUNITY PLANNING  
& LAND DEVELOPMENT  
HOWARD COUNTY,  
MARYLAND  
DATE 7-31-87



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

*James P. ...* 12-13-88  
COUNTY HEALTH OFFICER DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*James G. ...* 12/15/88  
DIRECTOR DATE

*William E. ...* 12-28-88  
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

*Unlabeled* 1-11-89  
PLANNING DIRECTOR DATE

*Mark ...* 12-29-88  
CHIEF, DIVISION OF COMMUNITY PLANNING AND  
LAND DEVELOPMENT DATE

NO DATE REVISION

TRACY, SCHULTE & ASSOCIATES INC.  
planning • architecture • engineering

8450 Baltimore National Pike • Suite 34 • Ellicott City, Maryland 21043 • (301) 365-8105

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER

*David K. ...*

OWNER SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 6 ELLCOTT CITY, MARYLAND 21043	PROJECT <b>NOTTINGHAM VILLAGE</b> PHASE I LOTS 1-118
DEVELOPER SECURITY DEVELOPMENT CORP. 8450 BALTIMORE NATIONAL PIKE SUITE 6 ELLCOTT CITY, MARYLAND 21043	LOCATION TAX MAP NO. 43 ZONING MAP NO. 43 PARCEL NOS. 133 & 201 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DES. JKT	DRN. KMN/KAM
DATE DEC. 14, 1986 OCT. 13, 1988	TITLE PLANTING PLAN
SCALE 1" = 50'	PROJECT NO. 0640 SDP DRAWING 14 OF 14