SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	ROADWAY PLAN
3	ROAD PROFILES
4	ROAD PROFILES
5	GRADING, SEDIMENT AND EROSION CONTROL PLAN
6	EROSION ,SEDIMENT CONTROL AND ROADWAY NOTES AND DETAILS
7	DRAINAGE AREA MAP
8	STORM DRAIN PROFILES
9	STORMWATER MANAGEMENT NOTES AND DETAILS
10	DETAILS
11	STRIPING PLAN AND NOISE BARRIER DETAILS
12	PLANTING PLAN
13	ROADWAY WIDENING PLAN MARYLAND ROAD 103

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR ROAD CONSTRUCTION.
2. 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.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
4. 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	539-8000 EXT. 691
HOWARD CO. BUREAU OF UTILITIES	313-4900
HOWARD CO. CONSTRUCTION INSPECTION SURVEY DIVISION	313-2417 OR 2418

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE 25.0' RADII UNLESS OTHERWISE NOTED.
7. STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
8. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1984 EDITION.
9. 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.
10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

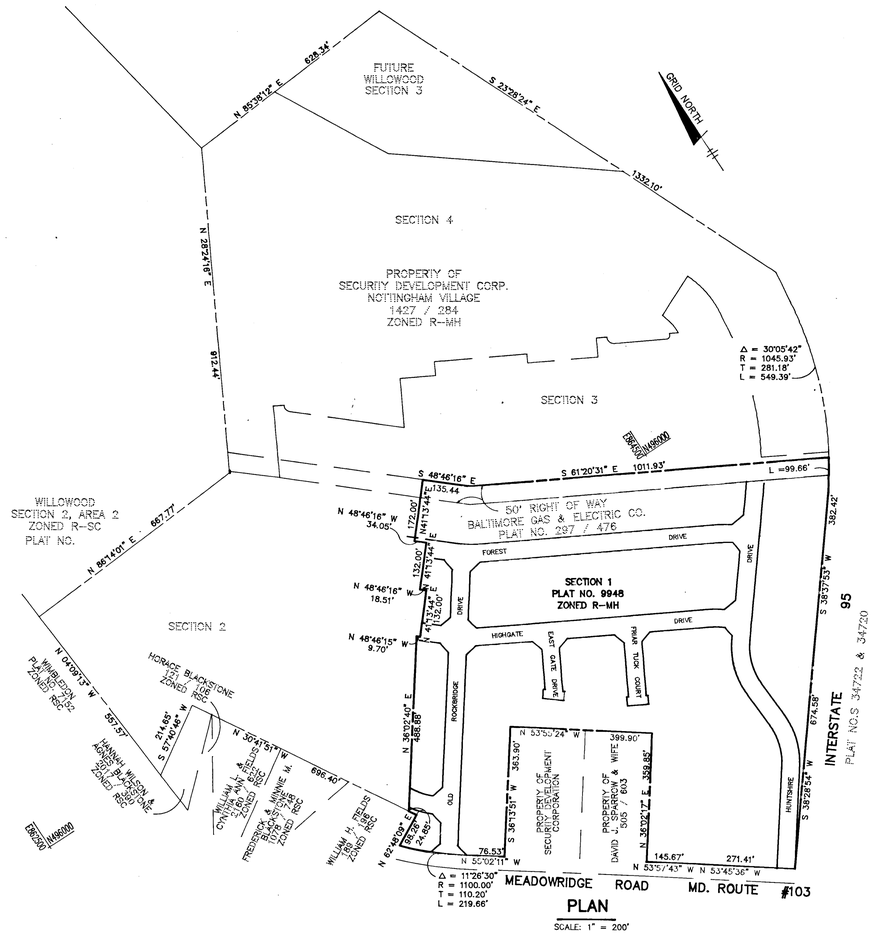
    ALL CUL-DE-SACS DESIGNED FOR 25 MPH, ALL LOCAL STREETS DESIGNED FOR 30 MPH, ALL MINOR COLLECTORS DESIGNED FOR 35 MPH, ALL MAJOR COLLECTORS FOR 40 MPH.
11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
12. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTER.
13. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
15. SUBJECT PROPERTY ZONED R-MH PER 8/2/85 COMPREHENSIVE ZONING PLAN.
16. TOPO TAKEN FROM AERIAL SURVEY BY MAPPING ASSOCIATES DATED APRIL, 1986 AND SUPPLEMENTED BY TOPOGRAPHY BY TSA GROUP ON OR ABOUT JAN. 1991.
17. THESE PLANS HAVE BEEN PREPARED IN ORDER TO CONVERT PRIVATE ROADS SHOWN ON SDP-86-234 TO PUBLIC ROADS.
18. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH THE M.U.T.C.D., 1988 EDITION.
19. FOR APPROVED SITE DEVELOPMENT PLANS FOR LOT GRADING SEE SDP-92-81, SDP-91-115, SDP-92-09, SDP-92-78 AND SDP-92-128.
20. FLOODPLAIN STUDY FOR THIS PROJECT IS BY THE TSA GROUP INC DATED MARCH 27,1991.
21. WETLAND STUDY WAS PERFORMED BY JOHN E. HARMS JR AND ASSOC. ON OR ABOUT MARCH 1988.
22. WAIVER PETITION WP-91-89 REQUESTED A WAIVER TO SECTION 16.115 FOR A SKETCH PLAN, SECTION 16.120 FOR A PRELIMINARY PLAN, SECTION 16.119 F.3 TO REDUCE THE R/W TRUNCATION AT THE SOUTHWEST CORNER OF OLD HIGHGATE DRIVE AND OLD ROCKBRIDGE DRIVE AND TO SECTION 16.113.C.3 TO WAIVE INSTALLING CUL-DE-SACS AT THE END OF EAST GATE DRIVE AND FRIAR TUCK COURT. THIS WAIVER WAS CONSIDERED AND APPROVED 2/28/91.
23. THE FEATURES SHOWN ON THESE PLANS ARE EXISTING WITH THE EXCEPTION OF THE INTERSECTION DIVERSIONS, SOME STORMWATER MANAGEMENT GRADING AND THE UPDATING OF THE STORM DRAIN SYSTEM. IT WILL BE THE DEVELOPER AND CONTRACTOR'S RESPONSIBILITY TO UPDATE ALL FEATURES TO CONFORM TO THESE PLANS PRIOR TO DEDICATION.

ROADWAY, STORM DRAINAGE AND STORMWATER MANAGEMENT

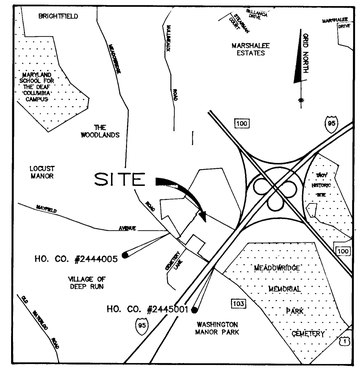
NOTTINGHAM VILLAGE

SECTION 1

1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



PLAN
SCALE: 1" = 200'



VICINITY MAP
SCALE: 1" = 2000'

BENCH MARKS

HO. CO. BM.# 2444005 ELEV. 271.249
CONCRETE MONUMENT 0.5' BELOW SURFACE
N495588.271 E863126.170

HO. CO. BM.# 2445001 ELEV. 245.095
CONCRETE MONUMENT 0.1' BELOW SURFACE
N494663.186 E864478.479

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8-26-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/25/92

NO.	DATE	REVISION

T S A GROUP INC.
planning • architecture • engineering
8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

OWNER SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244	PROJECT NOTTINGHAM VILLAGE SECTION 1
	LOCATION TAX MAP NO. 37 ZONING MAP NO. 37, PARCEL 615 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244	TITLE TITLE SHEET F-87-156,F-89-104,F-91-99,WP-91-89,SDP-86-234
	DATE: JULY 15, 1992 — PROJECT NO. 0331
DES. JH — DRN. JH	SCALE: AS SHOWN — DRAWING 1 OF 13

1647

F-91-99

CURVE DATA							
	CL STA	RADIUS	LENGTH	TAN.	CHORD	BEARING	DELTA
HUNTSHIRE DRIVE	3+28.56 TO 4+65.15	200.00	136.59	71.08	133.95	N 16° 40' 52" E	28° 38' 52"
HUNTSHIRE DRIVE	5+72.87 TO 7+17.82	200.00	144.95	75.82	141.80	N 17° 52' 45" E	28° 36' 52"
WOODLAND FOREST DRIVE	0+37.38 TO 0+89.66	300.00	52.27	26.20	52.21	N 56° 21' 01" W	19° 05' 55"
WOODLAND FOREST DRIVE	7+63.14 TO 8+28.96	300.00	65.82	33.04	65.69	N 55° 03' 23" W	19° 05' 55"
OLD HIGHGATE DRIVE	0+47.50 TO 0+99.78	300.00	52.27	26.20	52.21	N 56° 21' 01" W	19° 05' 55"
OLD HIGHGATE DRIVE	7+47.57 TO 8+13.39	300.00	65.82	33.04	65.69	N 55° 03' 23" W	19° 05' 55"

STREET LIGHT LEGEND

- 250 WATT HPS VAPOR PENDANT FIXTURE MOUNTED AT 30' USING 20' ARM ON EXISTING B&E POLE
- 100 WATT HPS TRADITIONAIRE MOUNTED ON 14' BLACK FIBERGLASS POLE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8-26-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/25/92

NO.	DATE	REVISION
1	10-11-95	REMOVE INTERSECTION DIVERSION - HUNTSHIRE DRIVE
2	12-9-93	REVISED STREET LIGHT TYPES AND LOCATIONS

T S A GROUP INC.
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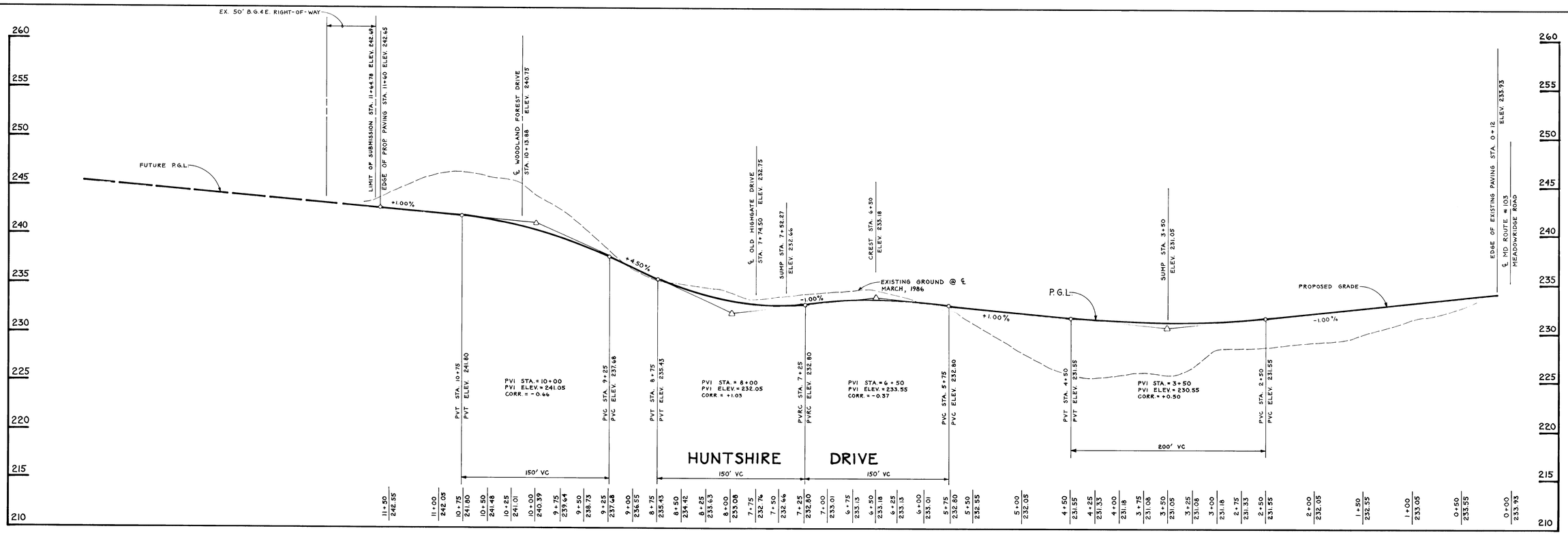
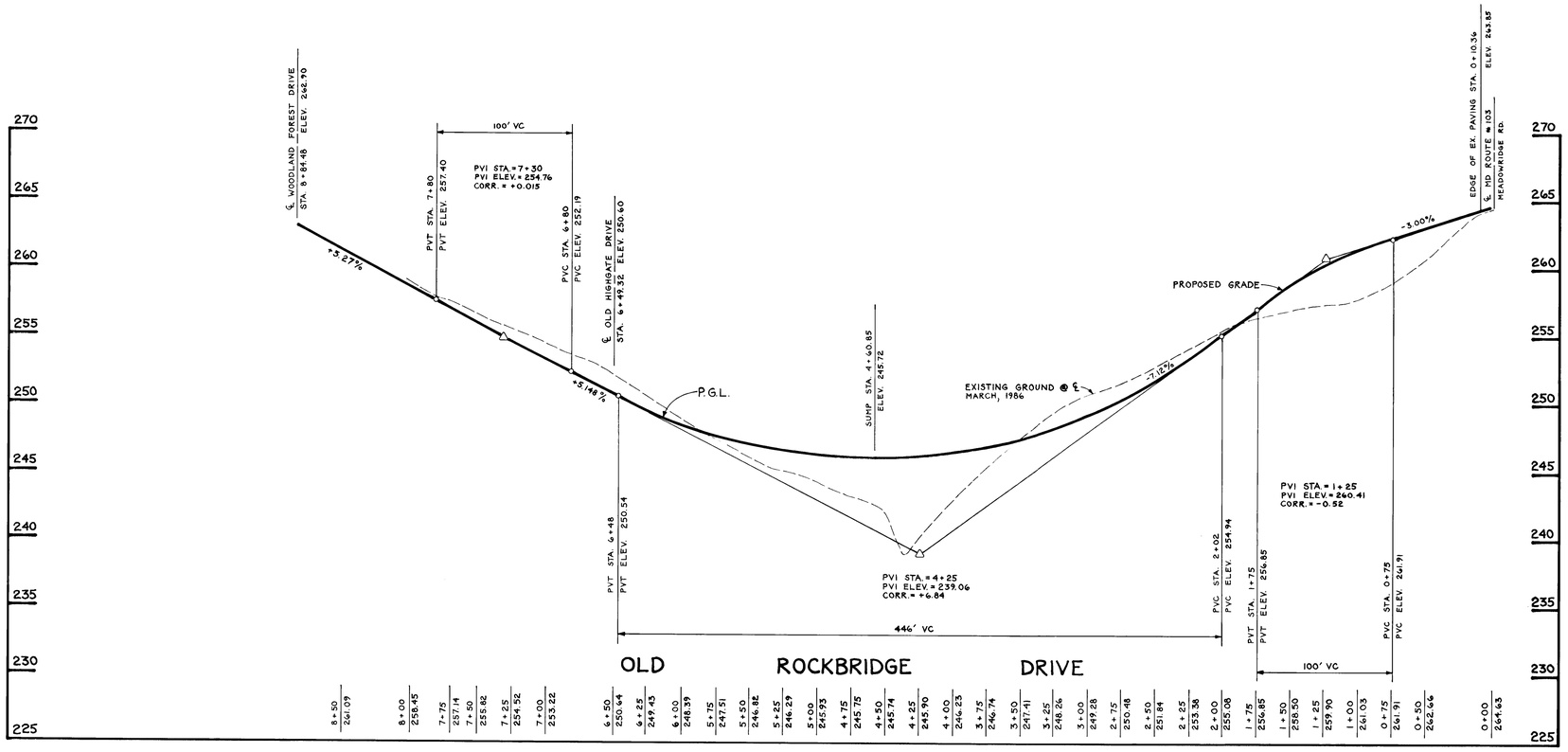
OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105
PROJECT	NOTTINGHAM VILLAGE SECTION 1
LOCATION	TAX MAP NO. 37 ZONING MAP NO.37 PARCEL NO. 615 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	ROADWAY PLAN
	F-91-99 F-89-104 F-87-156, WP-91-89
DATE:	JULY 15, 1992
PROJECT NO.	0331
DES. JH	DRN. JH
SCALE:	1" = 50'
DRAWING	2 OF 13

1647

F-91-99





APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE: 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE: 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE: 8/28/92

NO.	DATE	REVISION

T S A GROUP INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-8105

OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244
DES. DAM	DRN. SHS

PROJECT: NOTTINGHAM VILLAGE
SECTION 1

LOCATION: TAX MAP NO. 37 L. 1427, F. 284
ZONING MAP NO. 37, PARCEL 615
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

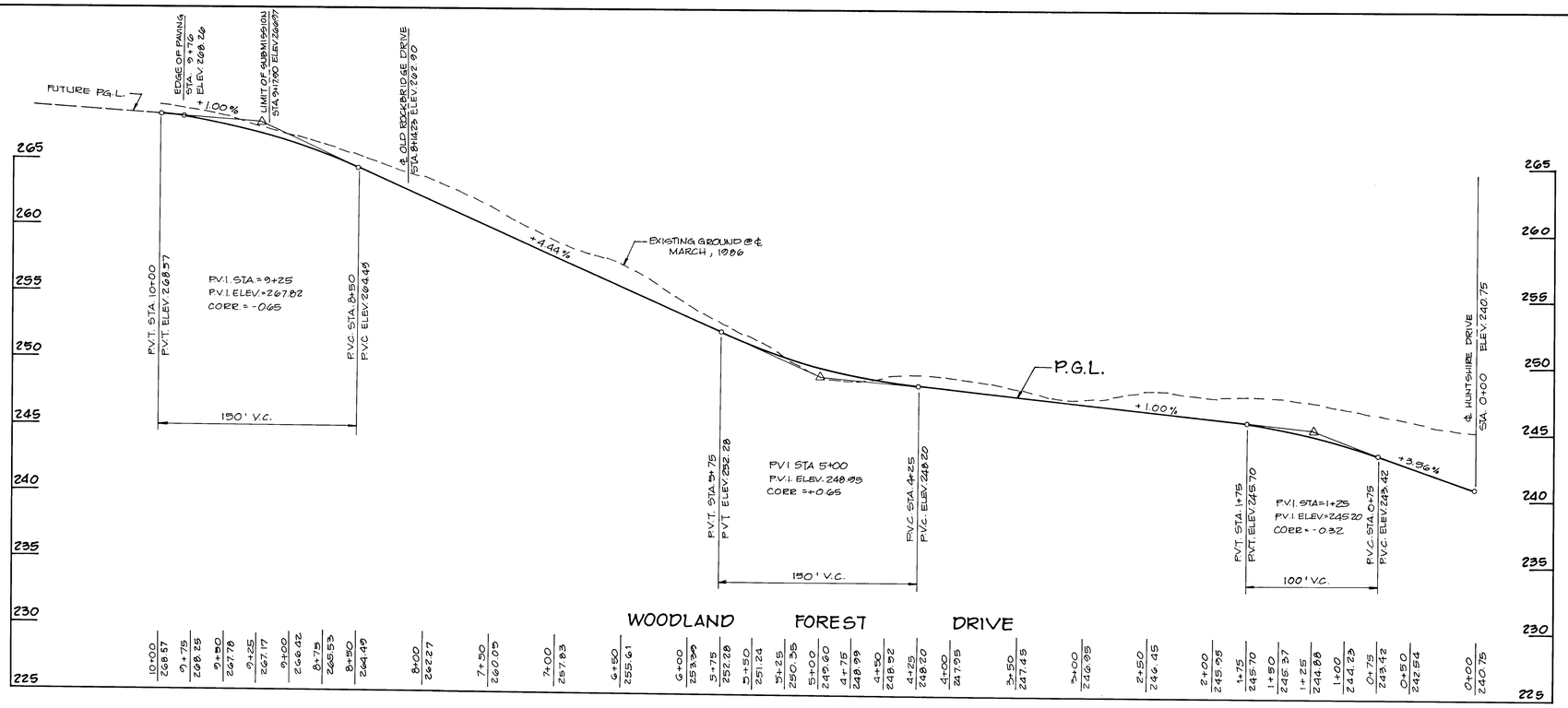
TITLE: ROAD PROFILES

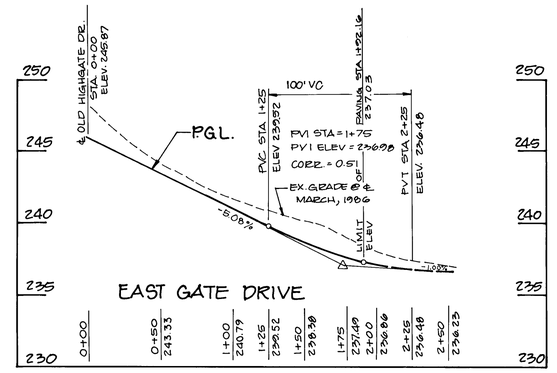
DATE: JULY 15, 1992 — PROJECT NO. 0331

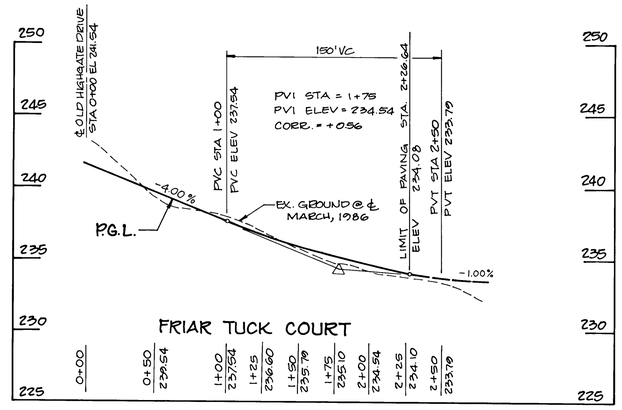
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5' — DRAWING 3 OF 13

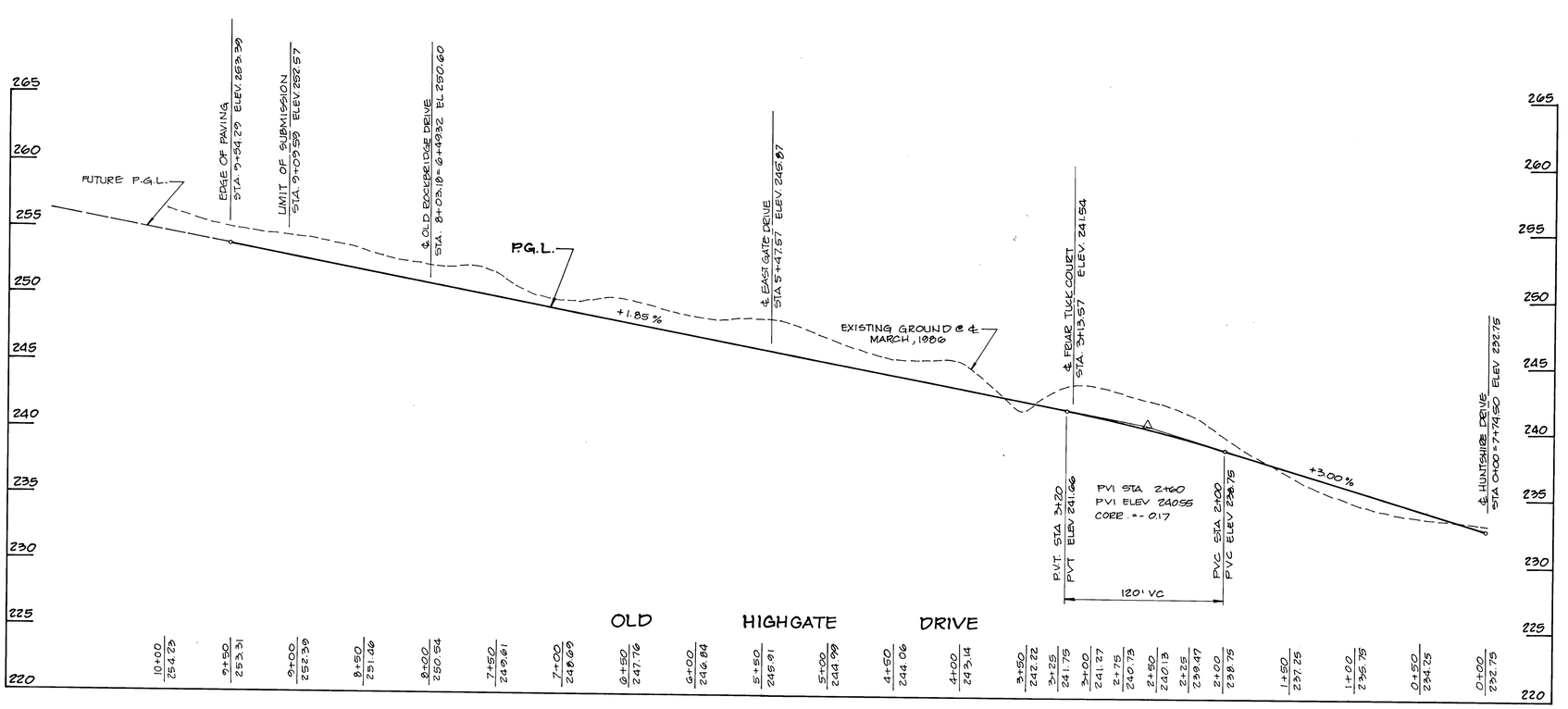
1647

F-91-99









APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/20/92

NO.	DATE	REVISION

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8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-8105

OWNER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244	PROJECT: NOTTINGHAM VILLAGE SECTION 1
	LOCATION: TAX MAP NO. 37 L. 1427, F. 284 ZONING MAP NO. 37, PARCEL 615 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244	TITLE: ROAD PROFILES
	DATE: JULY 15, 1992 — PROJECT NO. 0331
DES. D.A.M. — DRN. J.W.G.	SCALE: HORIZ. 1" = 50' VERT. 1" = 5' — DRAWING 4 OF 13

1947

F-91-99

FOR THE SEQUENCE OF CONSTRUCTION SEE SHEET No. 10

NOTE: ALL GRADING SHOWN ON LOTS IS FOR INFORMATIONAL PURPOSES ONLY. ALL LOT GRADING AND SEDIMENT CONTROL IS TO BE PERFORMED IN ACCORDANCE WITH APPROVED SITE DEVELOPMENT PLANS. SDP-92-01, SDP-91-115, SDP-92-00, SDP-92-78 AND SDP-92-128

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND 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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

James R Moxley Jr. 7-15-92

DEVELOPER: JAMES R. MOXLEY, JR. — DATE
SECURITY DEVELOPMENT CORPORATION — 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 POND WITHIN 30 DAYS OF COMPLETION.

John Giannija 7-15-92

ENGINEER: JOHN M. GIORRIAGA, P.E. # 16891 — 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.

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.

HOWARD S.C.D. — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/26/92
CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92
CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/27/92

NO.	DATE	REVISION
1	10-11-95	REMOVE INTERSECTION DIVERSION - HUNTSHIRE DRIVE

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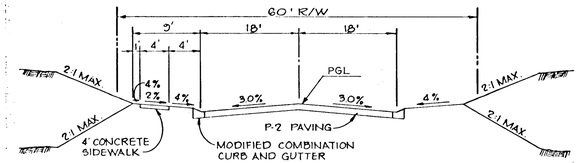
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-8105

OF MARY
JOHN M. GIORRIAGA
No. 16891
REG. ENGINEER

OWNER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105	PROJECT: NOTTINGHAM VILLAGE SECTION 1
	LOCATION: TAX MAP NO. 37 ZONING MAP NO.37 PARCEL NO. 615 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER: SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105	TITLE: GRADING AND SEDIMENT F-91-99 F-89-104 AND EROSION CONTROL PLAN F-87-156, WP-91-89
	DATE: JULY 15, 1992 — PROJECT NO. 0331
DES. DAM — DRN. CAB	SCALE: 1" = 50' — DRAWING 5 OF 13

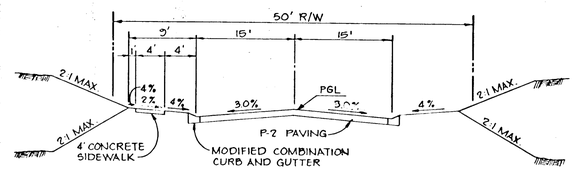
1697

F-91-99



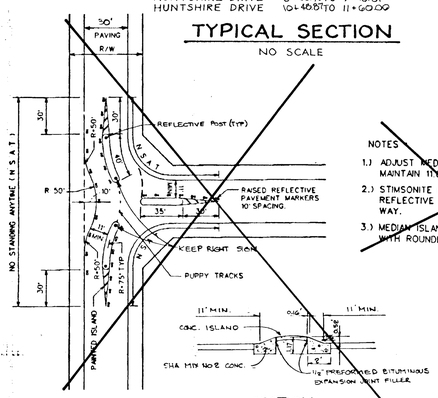
LOCAL ROAD (DESIGN SPEED 30 MPH)
HUNTSHIRE DRIVE FROM STA. 0+99.51 TO STA. 3+05.66

TYPICAL SECTION
NO SCALE



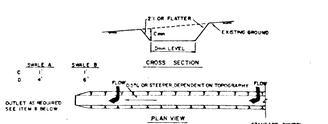
LOCAL ROAD (DESIGN SPEED 30 MPH)
OLD ROCKBRIDGE DRIVE 0+80 TO STA. 8+49
HUNTSHIRE DRIVE 3+28.56 TO STA. 7+39.40
HUNTSHIRE DRIVE 8+09.70 TO 9+76.87
HUNTSHIRE DRIVE 10+68.70 TO 11+60.09

TYPICAL SECTION
NO SCALE



NOTES
1.) ADJUST MEDIAN WIDTH AS REQUIRED TO MAINTAIN 11'-12.0' LANE WIDTHS.
2.) STIMSONITE MODEL 88 FLOWABLE RAISED REFLECTIVE PAVEMENT MARKERS - ONE WAY.
3.) MEDIAN ISLANDS SHOULD BE MOUNTABLE WITH ROUNDED CROSS-SECTION.

INTERSECTION DIVERSION
NO SCALE



CONSTRUCTION SPECIFICATIONS

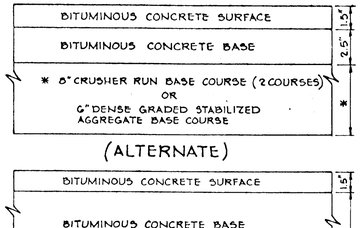
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR DIKED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 ac or less)	B (5 ac - 30 ac)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SOD WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 6-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

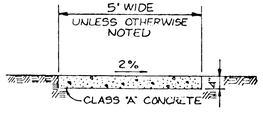
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

TEMPORARY SWALE
NO SCALE

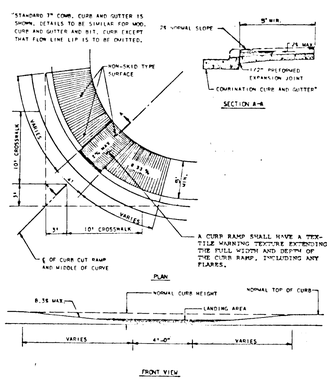


HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-7.01)

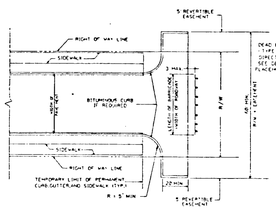
6½" PAVING, P-2
NO SCALE



SIDEWALK DETAIL
NO SCALE

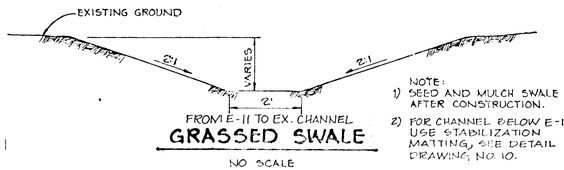


SIDEWALK RAMP
TYPE 'C'
NO SCALE



NOTES:
1. 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.
2. BITUMINOUS CURB SHALL EXTEND AROUND THE TEE TURN-AROUND IF AND AS REQUIRED TO CONTROL CURB DRAINAGE FROM THE ROADWAY SECTION.
3. REFER TO STANDARD R-5.80 FOR TYPICAL ROADWAY PROFILE OF TEMPORARY LIMIT OF PAVING.
4. PROVIDE REVERTIBLE EASEMENT FOR CONSTRUCTION.
5. PROVIDE EASEMENTS AS REQUIRED FOR PLACEMENT OF PAVEMENT BARRICADE AND ANY NECESSARY GRADING (SEE DETAIL R 5.80).

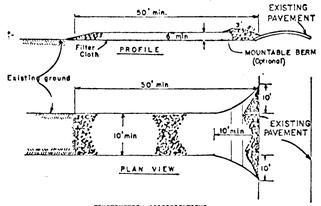
TEE TURN-AROUND DETAIL
NO SCALE



NOTE:
1) SEED AND MULCH SWALE AFTER CONSTRUCTION.
2) FOR CHANNEL BELOW E-11, USE STABILIZATION MATTING, SEE DETAIL DRAWING NO. 10.

GRASSED SWALE
NO SCALE

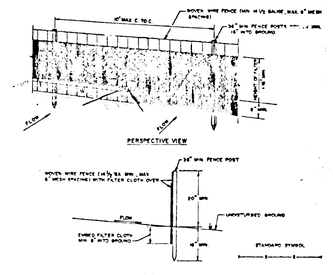
STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance c to public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE
NO SCALE

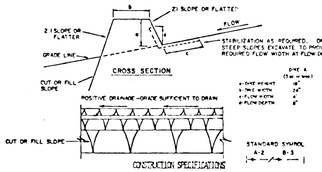


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24' AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14½ GA. MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100, STABILINKA T100 OR APPROVED EQUAL
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE
NO SCALE



CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. CHANNEL LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STORM MULCH IF NOT IN NESTING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SOD WITH JUTE, OR SOD & STONE	LINED RIP-RAP 6-8"
4	8.1-20%	LINED RIP-RAP 6-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 6-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE
NO SCALE

PERMANENT SEEDBED PREPARATION

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

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

1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 lbs/1000 sq ft) AND 600 lbs PER ACRE 10-10-10 FERTILIZER (14 lbs/1000 sq ft) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 lbs/10000 sq ft)

2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 lbs/1000 sq ft) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 lbs/1000 sq ft) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30 AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 lbs/1000 sq ft) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS 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 THRU 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 UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 gal/1000 sq ft) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 gal/1000 sq ft) FOR ANCHORING.

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

TEMPORARY SEEDBED PREPARATION

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

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

SOIL AMENDMENTS: APPLY 300 LBS PER ACRE 10-10-10 FERTILIZER (14 lbs/1000 sq ft).

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

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 to 90 lbs/1000 sq ft) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 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 METHODS NOT COVERED.

SEDIMENT CONTROL NOTES

1) 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 (992-2437).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (Sec.51) SOD (Sec. 54), TEMPORARY SEEDING (Sec. 50) AND MULCHING (Sec. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

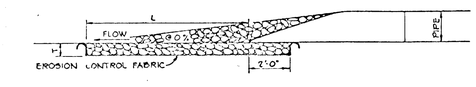
7) SITE ANALYSIS:

TOTAL AREA OF SITE	23.51 ACRES
AREA DISTURBED	17.71 ACRES
AREA TO BE ROOFED OR PAVED	8.28 ACRES
AREA TO BE VEGETATIVELY STABILIZED	9.48 ACRES
TOTAL CUT	28586 CU.YDS.
TOTAL FILL	14631 CU.YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A

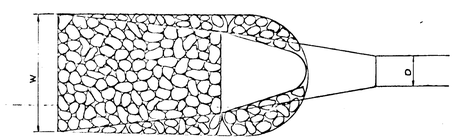
8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.

10) 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.



SECTION

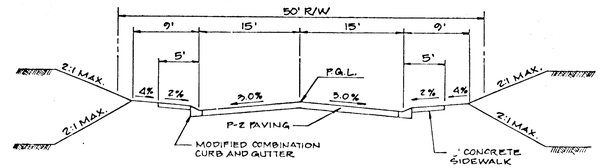


PLAN

STRUCTURE	d - 50	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-11	0.8'	20'	22'	1.8'
E-23	0.5'	20'	10'	1.3'

OUTLET PROTECTION DETAIL
NO SCALE

STRUCTURE	d 50	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-6	0.8'	25'	28.5'	1.8'
E-13	0.5'	10'	12'	1.13'
E-14	0.6'	18'	20'	1.35'
E-15	0.5'	10'	10'	1.13'
E-16	0.5'	10'	10'	1.13'
E-17	0.4'	12'	14'	0.9'
E-15	0.5'	10'	10'	1.13'



LOCAL ROAD (DESIGN SPEED 30MPH)
OLD HIGHGATE DRIVE 0+40 TO STA. 9+10
WOODLAND FOREST DRIVE 0+40 TO STA. 9+18
FRIAR TUCK COURT STA. 0+35 TO STA. 1+90
EAST GATE COURT STA. 0+35 TO STA. 1+50
TOUCHSTONE WAY STA. 0+35 TO STA. 1+19

TYPICAL 30' WIDE SECTION
NO SCALE

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND 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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

James R. Moxley Jr. 7-15-92
DEVELOPER: JAMES R. MOXLEY, JR. — DATE
SECURITY DEVELOPMENT CORPORATION — PRESIDENT

BY THE ENGINEER:

"I CERTIFY THAT THESE PLANS FOR 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 CONSERVATION DISTRICT.

John Elorriaga 7-15-92
ENGINEER: JOHN M. ELORRIAGA, P.E. # 16891 — DATE

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

U.S. SOIL CONSERVATION SERVICE — DATE

THESE PLANS MEETFOR EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD S.C.D. — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92
CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92
CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/6/92

NO.	DATE	REVISION
1	10-11-95	REMOVE INTERSECTION DIVERSION - HUNTSHIRE DRIVE

T S A GROUP INC.
planning • architecture • engineering
8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

OWNER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(410) 465-4244

DEVELOPER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(410) 465-4244

PROJECT NOTTINGHAM VILLAGE
SECTION 1

LOCATION TAX MAP NO. 37
ZONING MAP NO. 37, PARCEL 615
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE EROSION AND SEDIMENT CONTROL AND ROADWAY NOTES AND DETAILS

DATE: JULY 13, 1992 — PROJECT NO. 0331
DES. DAM — DRN. JWG — SCALE: AS SHOWN — DRAWING 6 OF 13

1647

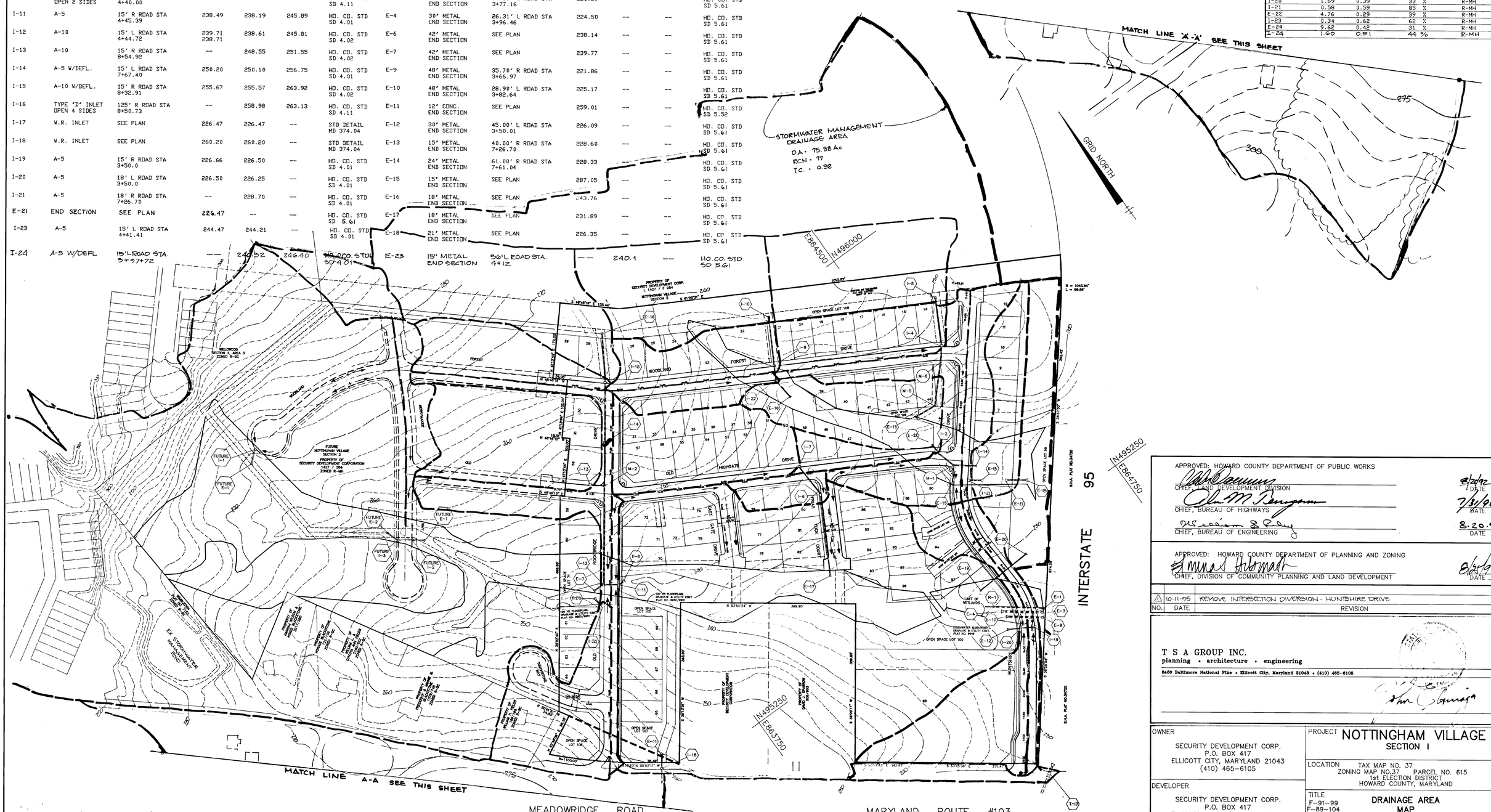
F-91-99

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS	NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
I-1	A-5	15' L ROAD STA 7+26.70	--	229.89	232.69	HO. CO. STD SD 4.01	E-22	END SECTION	SEE PLAN	232.6	---	---	HO. CO. STD SD 5.61
I-2	A-5 W/DEFL.	15' R ROAD STA 0+58.99	233.49	230.89	234.69	HO. CO. STD SD 4.01	M-1	STD MH	18.40 L ROAD STA 7+61.04	229.64 229.54	229.49	232.94	HO. CO. STD G. 5.11
I-4	A-10 W/DEFL.	15' R ROAD STA 0+59	239.17	238.77	243.07	HO. CO. STD SD 4.02	M-2	STD MH	16.89 R ROAD STA 8+21.78	247.05 246.60	246.55	251.15	HO. CO. STD G. 5.11
I-5	TYPE 'D' INLET OPEN 2 SIDES	126.51' R ROAD STA 0+67.21	--	243.90	246.75	HO. CO. STD SD 4.11	M-5	STD MH	SEE PLAN	237.38	237.28	---	HO. CO. STD G. 5.11
I-6	A-5 W/DEFL.	15' R ROAD STA 0+53.14	235.51	235.41	240.06	HO. CO. STD SD 4.01	M-6	STD MH	SEE PLAN	238.00	237.90	---	HO. CO. STD G. 5.11
I-7	A-5 W/DEFL.	15' R ROAD STA 3+71.23		236.79	242.67	HO. CO. STD SD 4.01	E-1	30' METAL END SECTION	44.89' R ROAD STA 3+83.70	220.63	--	--	HO. CO. STD SD 5.61
I-9	A-10 W/DEFL.	15' R ROAD STA 4+41.41	244.82	244.72	248.53	HO. CO. STD SD 4.02	E-2	60' METAL END SECTION	28.40' L ROAD STA 3+95.61	224.43	--	--	HO. CO. STD SD 5.61
I-10	TYPE 'D' INLET OPEN 2 SIDES	126.38 R ROAD STA 4+40.00	--	249.45	253.25	HO. CO. STD SD 4.11	E-3	60' METAL END SECTION	34.66' R ROAD STA 3+77.16	221.29	--	--	HO. CO. STD SD 5.61
I-11	A-5	15' R ROAD STA 4+45.39	238.49	238.19	245.89	HO. CO. STD SD 4.01	E-4	30' METAL END SECTION	26.31' L ROAD STA 3+96.46	224.50	--	--	HO. CO. STD SD 5.61
I-12	A-10	15' L ROAD STA 4+44.72	239.71 238.71	238.61	245.81	HO. CO. STD SD 4.02	E-6	42' METAL END SECTION	SEE PLAN	238.14	--	--	HO. CO. STD SD 5.61
I-13	A-10	15' R ROAD STA 8+54.92	--	248.55	251.55	HO. CO. STD SD 4.02	E-7	42' METAL END SECTION	SEE PLAN	239.77	--	--	HO. CO. STD SD 5.61
I-14	A-5 W/DEFL.	15' L ROAD STA 7+67.40	250.20	250.10	256.75	HO. CO. STD SD 4.01	E-9	48' METAL END SECTION	35.70' R ROAD STA 3+66.97	221.86	--	--	HO. CO. STD SD 5.61
I-15	A-10 W/DEFL.	15' R ROAD STA 8+32.91	255.67	255.57	263.92	HO. CO. STD SD 4.02	E-10	48' METAL END SECTION	28.90' L ROAD STA 3+82.64	225.17	--	--	HO. CO. STD SD 5.61
I-16	TYPE 'D' INLET OPEN 4 SIDES	125' R ROAD STA 8+50.73	--	258.98	263.13	HO. CO. STD SD 4.11	E-11	12' CONC. END SECTION	SEE PLAN	259.01	--	--	HO. CO. STD SD 5.52
I-17	W.R. INLET	SEE PLAN	226.47	226.47	--	STD DETAIL MD 374.04	E-12	30' METAL END SECTION	45.00' L ROAD STA 3+50.01	226.09	--	--	HO. CO. STD SD 5.61
I-18	W.R. INLET	SEE PLAN	260.20	260.20	--	STD DETAIL MD 374.04	E-13	15' METAL END SECTION	40.00' R ROAD STA 7+26.70	228.60	--	--	HO. CO. STD SD 5.61
I-19	A-5	15' R ROAD STA 3+50.0	226.66	226.50	--	HO. CO. STD SD 4.01	E-14	24' METAL END SECTION	61.00' R ROAD STA 7+61.04	228.33	--	--	HO. CO. STD SD 5.61
I-20	A-5	18' L ROAD STA 3+50.0	226.50	226.25	--	HO. CO. STD SD 4.01	E-15	15' METAL END SECTION	SEE PLAN	287.05	--	--	HO. CO. STD SD 5.61
I-21	A-5	18' R ROAD STA 7+26.70	--	228.70	--	HO. CO. STD SD 4.01	E-16	18' METAL END SECTION	SEE PLAN	243.76	--	--	HO. CO. STD SD 5.61
E-21	END SECTION	SEE PLAN	226.47	--	--	HO. CO. STD SD 5.61	E-17	18' METAL END SECTION	SEE PLAN	231.89	--	--	HO. CO. STD SD 5.61
I-23	A-5	15' L ROAD STA 4+41.41	244.47	244.21	--	HO. CO. STD SD 4.01	E-18	21' METAL END SECTION	SEE PLAN	226.35	--	--	HO. CO. STD SD 5.61
I-24	A-5 W/DEFL	15' L ROAD STA. 5+97+72	---	240.32	246.40	HO. CO. STD SD 4.01	E-23	15" METAL END SECTION	36' L ROAD STA. 4+12	---	240.1	---	HO. CO. STD. SD 5.61

DRAINAGE AREA SCHEDULE

INLET NO.	ACREAGE	C-FACTOR	% IMPERVIOUS	ZONING
I-1	1.31	0.56	52 %	R-MH
I-2	0.35	0.62	64 %	R-MH
I-4	1.01	0.53	47 %	R-MH
I-5	0.84	0.33	17 %	R-MH
I-6	0.31	0.60	59 %	R-MH
I-7	1.74	0.44	33 %	R-MH
I-9	0.96	0.40	26 %	R-MH
I-10	2.28	0.36	22 %	R-MH
I-11	0.29	0.86	100 %	R-MH
I-12	0.87	0.60	60 %	R-MH
I-13	1.89	0.52	46 %	R-MH
I-14	1.25	0.56	48 %	R-MH
I-15	1.04	0.54	48 %	R-MH
I-16	9.35	0.46	35 %	R-MH/R-SC
I-17	0.41	0.70	66 %	R-SC
I-18	0.12	0.86	100 %	R-SC
I-19	0.29	0.86	96 %	R-MH
I-20	1.69	0.39	33 %	R-MH
I-21	0.58	0.59	85 %	R-MH
E-22	4.76	0.29	39 %	R-MH
I-23	0.34	0.62	62 %	R-MH
E-24	9.62	0.42	31 %	R-MH
I-24	1.60	0.51	44 %	R-MH



PLAN
SCALE: 1"= 100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8.20.92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/20/92

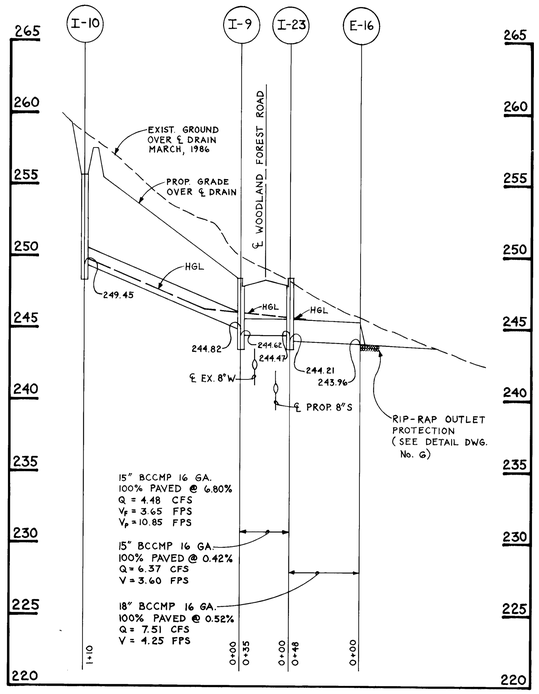
NO.	DATE	REVISION
1	10-11-95	REMOVE INTERSECTION DIVERSION - HUNTSHIRE DRIVE

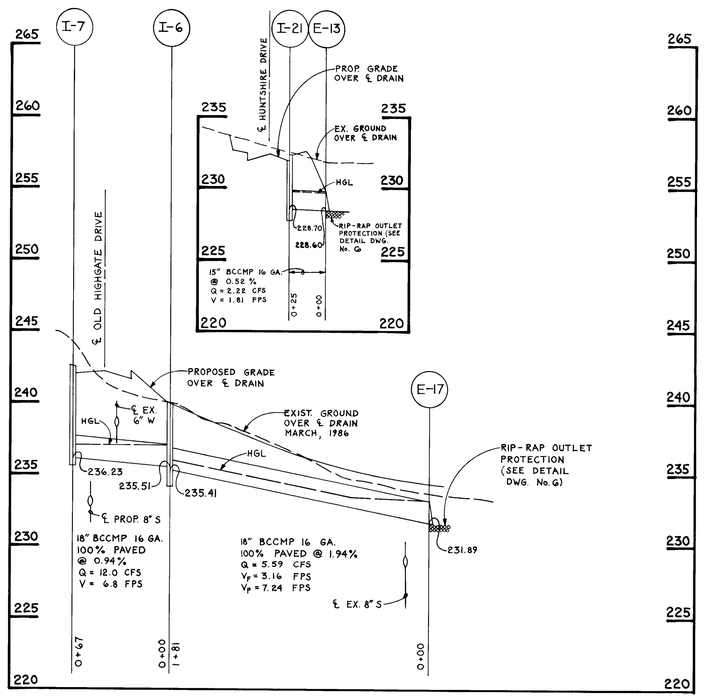
T S A GROUP INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

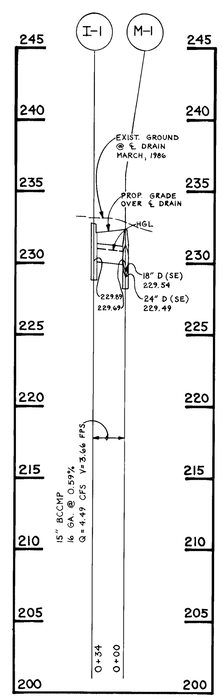
OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105
PROJECT	NOTTINGHAM VILLAGE SECTION 1
LOCATION	TAX MAP NO. 37 ZONING MAP NO.37 PARCEL NO. 615 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	F-91-99 F-89-104 F-87-156, WP-91-89 DRAINAGE AREA MAP
DATE	JULY 15, 1992
PROJECT NO.	0331
DES. JH	DRN. CAB
SCALE	1' = 100'
DRAWING	7 OF 13

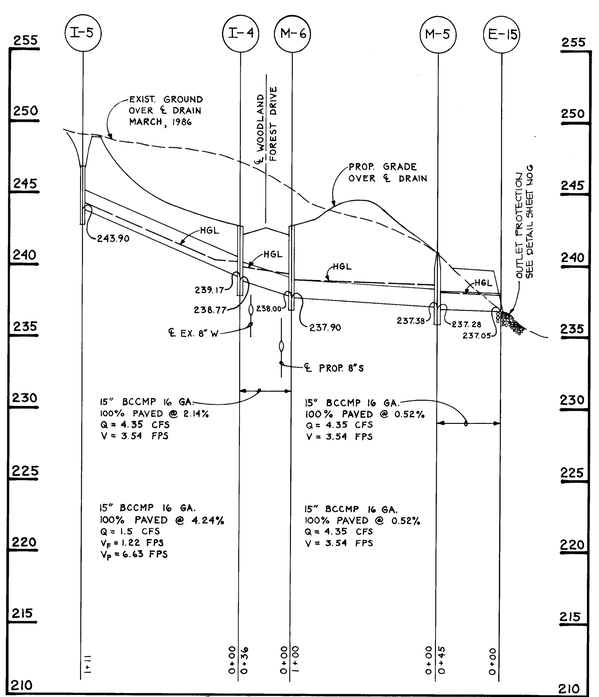
1647

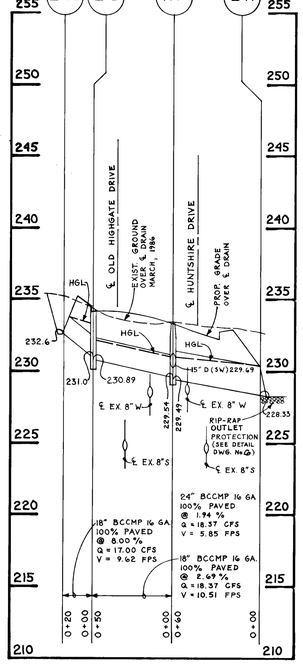
F-91-99

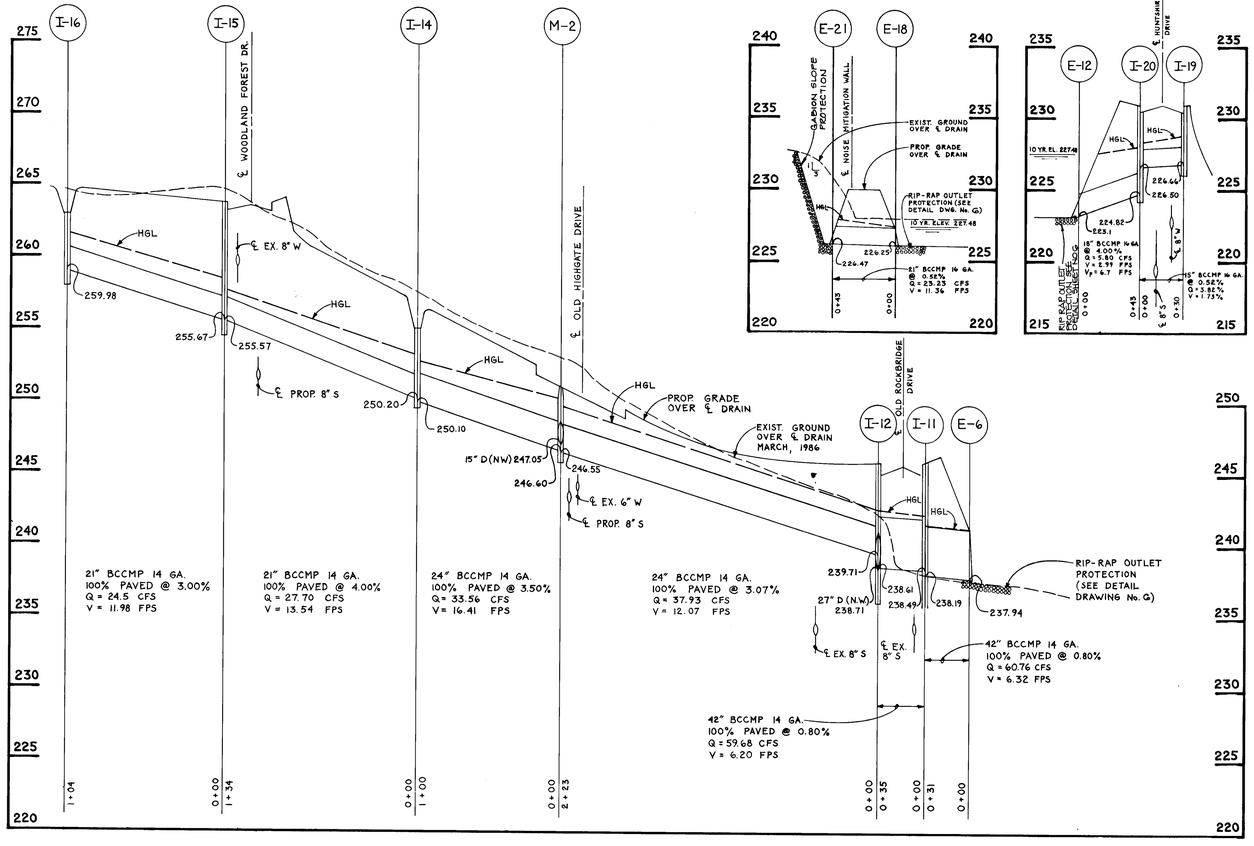


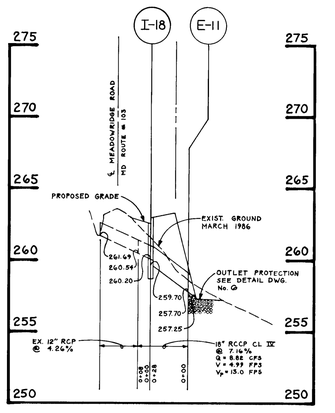


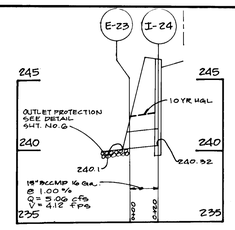


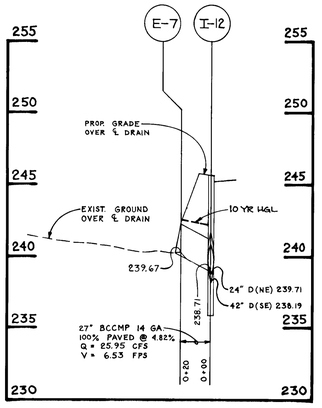


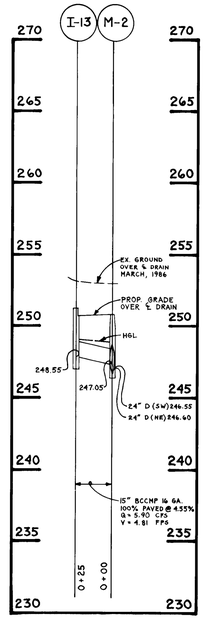












APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8.20.92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/25/92

NO.	DATE	REVISION

T S A GROUP INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (301)465-8105

OWNER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(410) 465-4244

DEVELOPER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(410) 465-4244

PROJECT
NOTTINGHAM VILLAGE
SECTION 1

LOCATION TAX MAP NO. 37 L. 1427, F. 284
ZONING MAP NO. 37, PARCEL 615
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
STORM DRAIN PROFILES

DATE: JULY 15, 1992 | PROJECT NO. 0331

DES. JH | DRN. SHS | SCALE: HORIZ. 1" = 50' VERT. 1" = 5' | DRAWING 8 OF 13

1647

F-91-99

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 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. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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.

Earth Fill

Material – The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement – Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into 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 sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench – The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures 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 manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during 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 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe – All of the following criteria shall apply for 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 Specification 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 or an approved equal may be used: 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 – (Aluminum Coated Pipe) – This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

   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. 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 between 4 and 9.

2. 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.

3. 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. 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.

   All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 48" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with O-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

4. 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.

5. Backfilling shall conform to "Structure Backfill."

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

Reinforced Concrete Pipe – All of the following criteria shall apply for reinforced concrete pipe:

1. Materials – Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302.

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 inches, 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. The first joint must be located within 2 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

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

Polyvinyl Chloride (PVC) Pipe – All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials – PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.

2. Joints and connections to anti-seep collars shall be completely 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. Backfilling shall conform to "Structure Backfill."

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

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one third the greatest dimension of the fragment.

The rock shall have the following properties:

1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.

2. Absorption not more than three percent.

3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

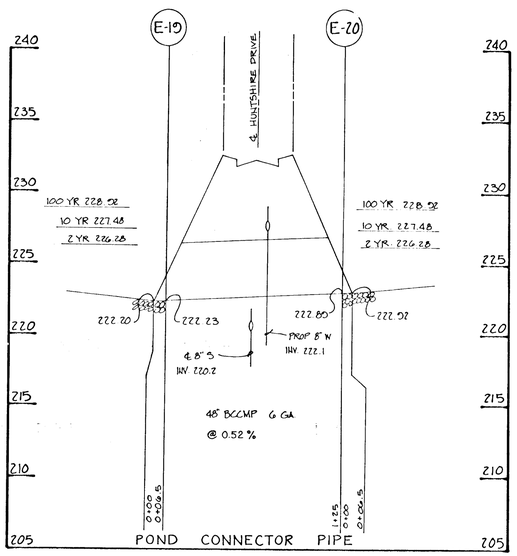
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

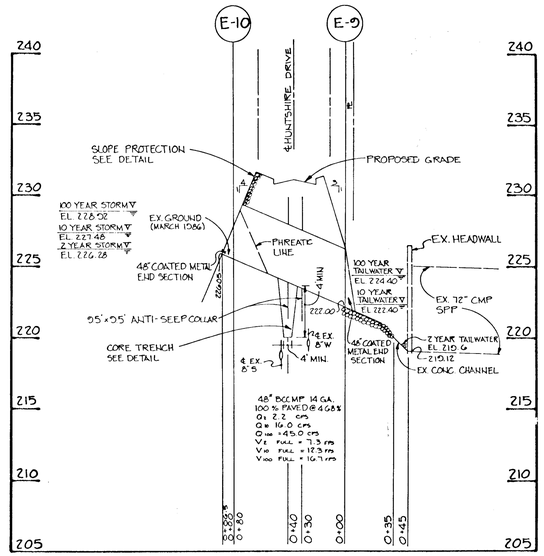
Stabilization

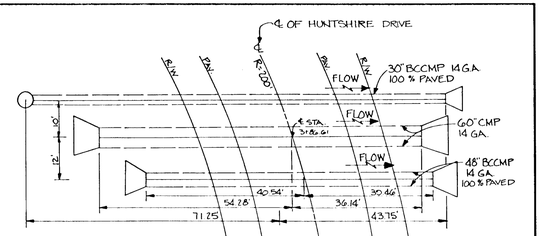
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

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.

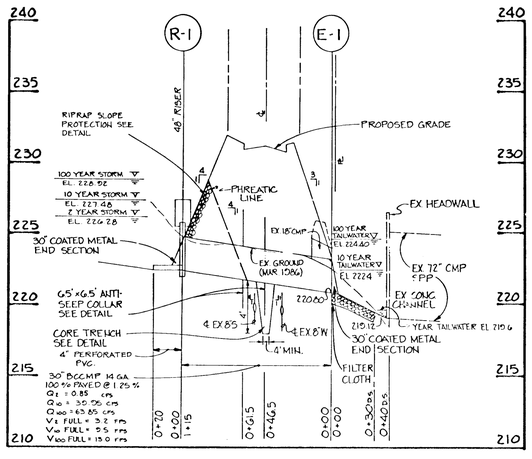


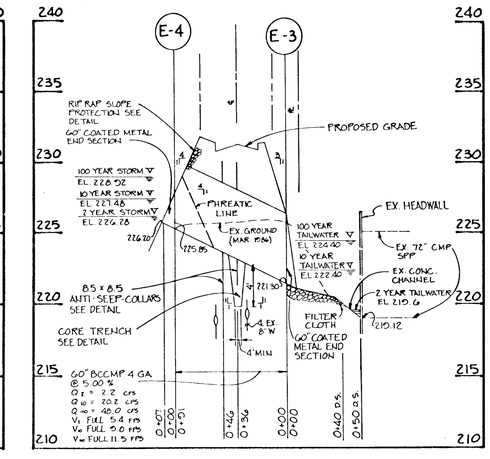


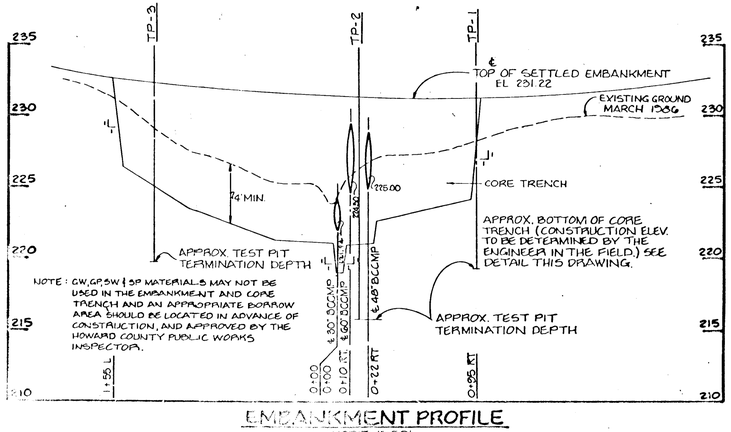


PLAN - S.W.M.F. OUTLETS

SCALE: 1" = 20'







EMBANKMENT PROFILE

HORIZ. 1"=50'
VERT. 1"=5'

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND 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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF PONDS NO. 1 AND NO. 2 WITHIN 30 DAYS OF COMPLETION.

James R Moxley Jr. — 7-15-92

DEVELOPER: JAMES R. MOXLEY, JR. — DATE
SECURITY DEVELOPMENT CORPORATION – 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.

John M. Ecorriaga — 7-15-92

ENGINEER: JOHN M. ECORRIAGA, P.E. # 16891 — 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.

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.

HOWARD S.C.D. — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92
CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92
CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/25/92

NO.	DATE	REVISION

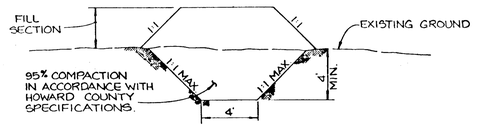
T S A GROUP INC.
planning · architecture · engineering
8400 Baltimore National Pike · Ellicott City, Maryland 21043 · (410) 465-6105

STATE OF MARYLAND — JOHN M. ECORRIAGA — No. 16891 — PROFESSIONAL ENGINEER

OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244
PROJECT	NOTTINGHAM VILLAGE SECTION 1
LOCATION	TAX MAP NO. 37 ZONING MAP NO. 37, PARCEL 615 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	STORMWATER MANAGEMENT NOTES AND DETAILS
DATE: JULY 15, 1992	PROJECT NO. 0331
DES. JH / DRN. CAB	SCALE: AS SHOWN / DRAWING 9 OF 13

1647

F-91-00



CORE TRENCH SECTION

NO SCALE

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

SEQUENCE OF CONSTRUCTION

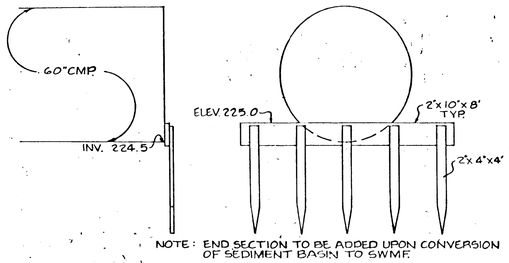
DAY 1	OBTAIN A GRADING PERMIT.
DAY 2 - 3	INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE).
DAY 4 - 5	INSTALL ALL SEDIMENT CONTROL DEVICES NECESSARY TO FACILITATE CONSTRUCTION OF SWMF.
DAY 6 - 9	INSTALL CORE TRENCH IN SWMF.
DAY 10 - 22	INSTALL SWMF AND STABILIZE AS PER PERMANENT SEEDING NOTES.
DAY 23	INSTALL PIPE BLOCKING DEVICES AT E-4.
DAY 24 - 30	INSTALL REMAINDER OF SEDIMENT CONTROL DEVICES AND SEED AS PER TEMPORARY SEEDING NOTES.
DAY 31 - 49	CLEAR AND GRUB REMAINDER OF SITE.
DAY 50 - 65	GRADE SITE.
DAY 66 - 135	INSTALL UTILITIES (WATER, SEWER AND STORM DRAINS).
DAY 136 - 140	STABILIZE ALL SLOPES IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
DAY 141 - 155	COMPLETE ALL ROADWAY CONSTRUCTION AND STABILIZE AS PER PERMANENT SEEDING NOTES.
DAY 156 - 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:

A. DEWATER BASINS BY PUMPING INTO A SEDIMENT TRAP OR WELL STABILIZED VEGETATED AREA AS DIRECTED BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

B. REMOVE SILT AND BLOCKING AND RESTORE PONDS TO ITS ORIGINAL DIMENSIONS; STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

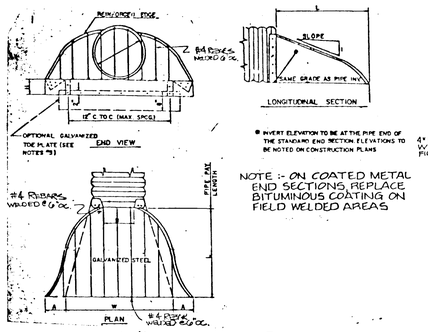
C. REMOVED SILT SHALL BE SPREAD ACROSS LOT 98.

NOTE: THESE PLANS HAVE BEEN PREPARED TO CONVERT PRIVATE ROADS SHOWN ON SDP-86-234 TO PUBLIC ROADS. THE ROADWAYS AND UTILITIES ARE EXISTING AS OF THIS DATE WITH THE EXCEPTION OF MINOR MODIFICATIONS. ALL LOTS WILL BE GRADED IN ACCORDANCE WITH APPROVED SITE PLANS ONLY.



PIPE BLOCKING DETAIL 60" CMP

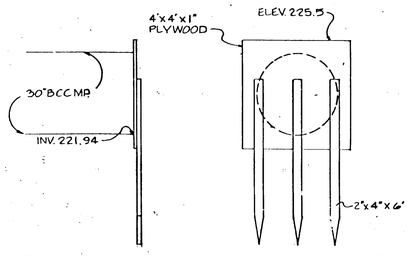
NO SCALE



NOTE :- ON COATED METAL END SECTIONS, REPLACE BITUMINOUS COATING ON FIELD WELDED AREAS

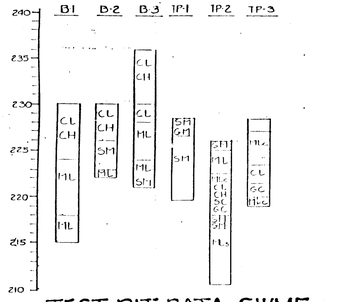
TRASH RACK DETAIL @ E-4 & E-10

NO SCALE

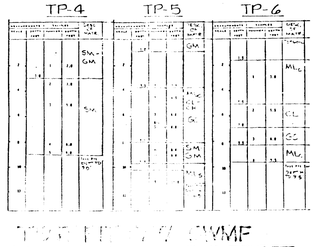


PIPE BLOCKING DETAIL 30"BCCMP

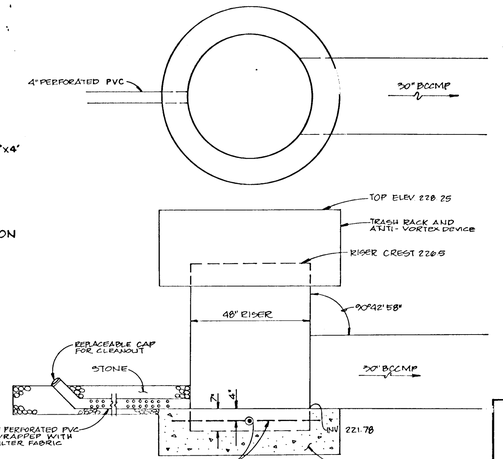
NO SCALE



TEST PIT DATA SWMF

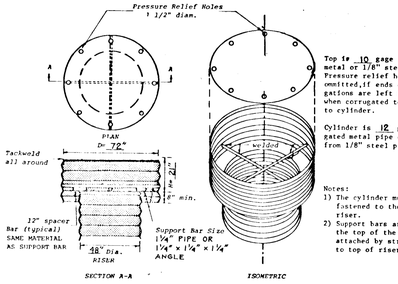


TEST PIT DATA SWMF



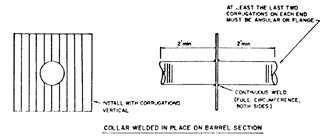
RISER R-1

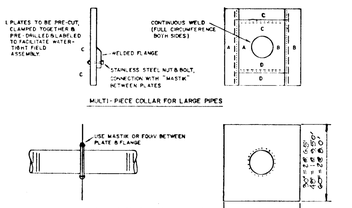
NOT TO SCALE



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE

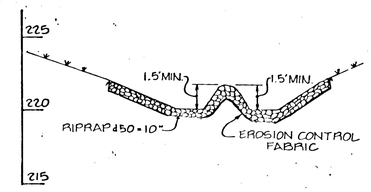
NOT TO SCALE





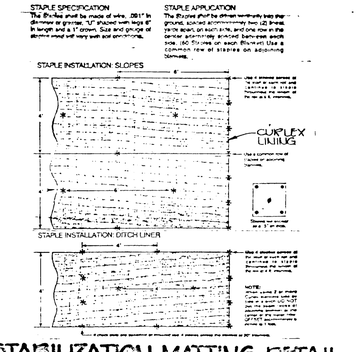
ANTI-SEEP COLLAR

NO SCALE



CROSS SECTION A-A @ OUTFALL SWMF #1

SCALE: HORIZ : 1"= 5'
VERT : 1"= 10'



STABILIZATION MATTING DETAIL

NO SCALE

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND 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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF PONDS NO. 1 AND NO. 2 WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: JAMES R. MOXLEY, JR. — DATE 7-15-92
SECURITY DEVELOPMENT CORPORATION / 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: JOHN M. ELORRIAGA, P.E. # 16891 — DATE 7-15-92

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.

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.

HOWARD S.C.D. — DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/26/92
CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92
CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/25/92

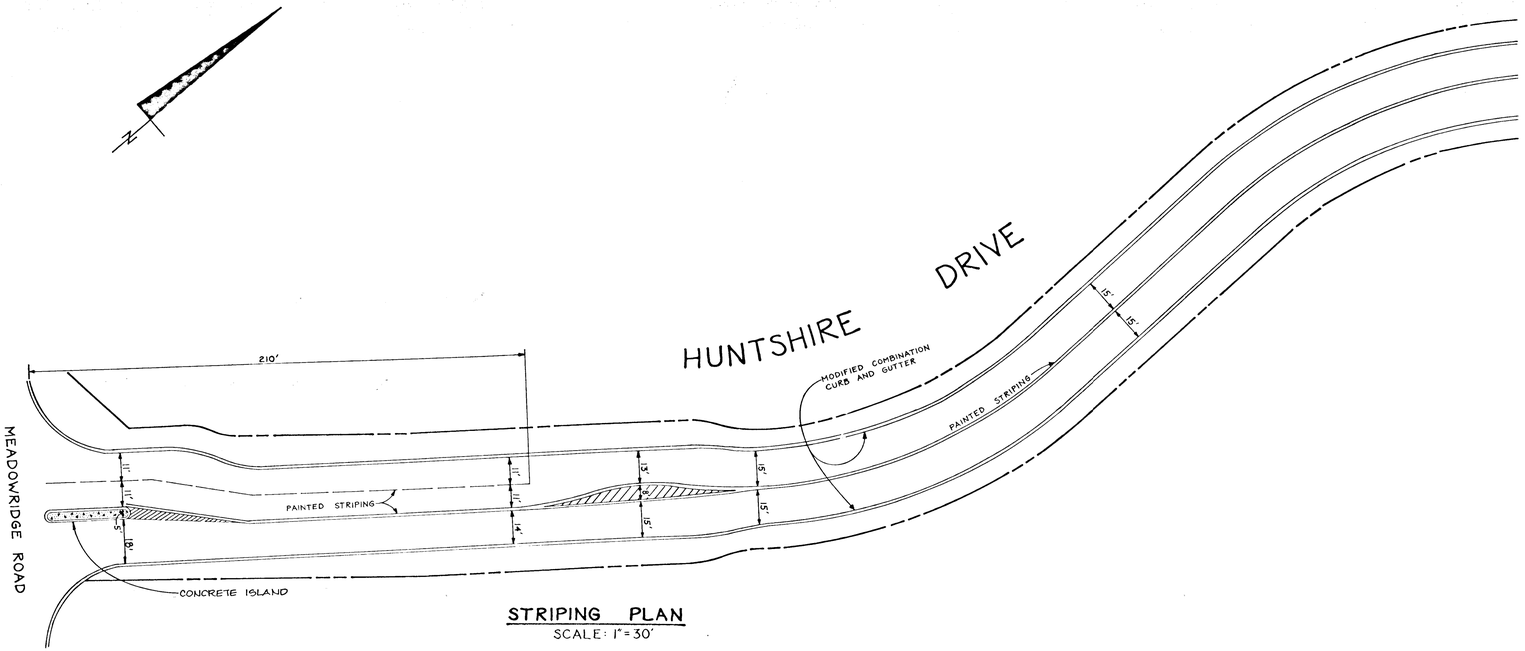
NO.	DATE	REVISION

T S A GROUP INC.
planning • architecture • engineering
8400 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

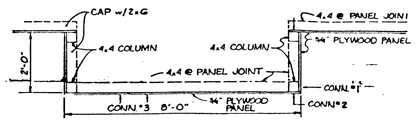
OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-4244
PROJECT	NOTTINGHAM VILLAGE SECTION 1
LOCATION	TAX MAP NO. 37 ZONING MAP NO. 37, PARCEL 615 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	DETAILS
DATE:	JULY 13, 1992
PROJECT NO.	0331
DES. DAM	DRN. JWG
SCALE:	AS SHOWN
DRAWING	10 OF 13

1647

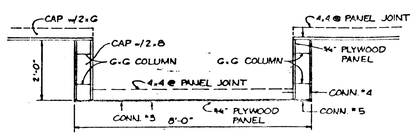
F-91-99



STRIPING PLAN
SCALE: 1"=30'

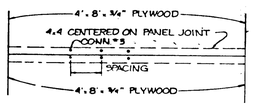


PLAN VIEW
COLUMN AND PANEL ASSEMBLY
SECTION 'A' (6' TO 12' HIGH)
SCALE: ½" = 1'

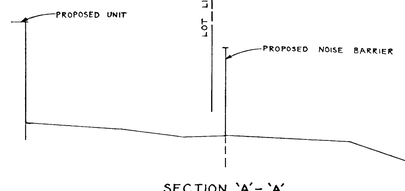


PLAN VIEW
COLUMN AND PANEL ASSEMBLY
SECTION 'B' (6' TO 20' HIGH)
SCALE: ½" = 1'

NOTES:
1. 4x4 TO BE CENTERED AT ALL PANEL JOINTS AND INSTALLED FLUSH WITH TOP OR BOTTOM OF WALL.
2. END CAP TO BE LAID HORIZONTALLY AND FASTENED WITH GALVANIZED NAILS, STAGGERED AT 12" O.C.
3. ALL OTHER CONNECTIONS TO BE STANDARD DRYWALL SCREW, 3" MIN. LENGTH AS PER DETAIL AND FASTENING TABLE.
4. ALL WOOD TO BE PRESSURE TREATED RATED "GROUND CONTACT".

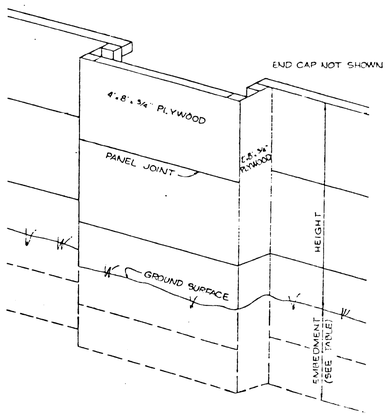


ELEVATION VIEW
TYPICAL PANEL JOINT
SECTION 'A' AND 'B'
SCALE: 1/2" = 1'



SECTION 'A'-'A'
SCALE: 1" = 10'

NOTE: NOISE BARRIER WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

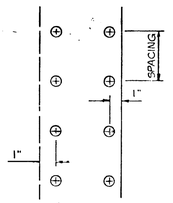


TYPICAL ISOMETRIC VIEW
NO SCALE

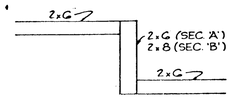
NOISE BARRIER DETAIL
NO SCALE

EMBEDMENT TABLE

MAX. HEIGHT	EMBEDMENT
5'	3'
10'	4'
15'	5'
20'	6'
25'	7'



DETAIL
CONNECTION 1,2,4,5
NO SCALE



DETAIL
END CAP PLAN
NO SCALE

CONNECTION SPACING TABLE

CONNECTION NO.	MAX. SPACING
1	3"
2	3"
3	12"
4	3"
5	3"

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/20/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/25/92

NO.	DATE	REVISION

T S A GROUP INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

STATE OF MARYLAND — DONALD H. ELDRIDGE — No. 10868 — REGISTERED PROFESSIONAL ENGINEER

OWNER
SECURITY DEVELOPMENT CORP.
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(410) 465-6105

DEVELOPER
SECURITY DEVELOPMENT CORP.
P.O. BOX 417
ELLICOTT CITY, MARYLAND 21043
(410) 465-6105

DES. DAM | DRN. SHS

PROJECT
NOTTINGHAM VILLAGE
SECTION 1

LOCATION TAX MAP NO. 37
ZONING MAP NO.37 PARCEL NO. 615
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

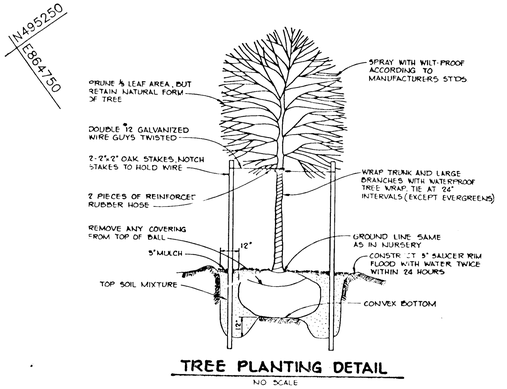
TITLE
F-91-99
F-89-104
F-87-156, WP-91-89
STRIPING PLAN AND NOISE BARRIER DETAILS

DATE: JULY 15, 1992
SCALE: AS SHOWN
PROJECT NO. 0331
DRAWING 11 OF 13

1647

F-91-99

PLANT LIST			
SYMBOL	QUANTITY	NAME	REMARKS
	57	QUERCUS PALUSTRIS Pin Oak	2 1/2 MIN CAL. B & B FULL HEAD
	58	ACER RUBRUM Red Maple	2 1/2 MIN CAL. B & B FULL HEAD
	10	PINUS STROBUS Eastern White Pine	5'- 6' HIEGHT B & B



TREE PLANTING DETAIL

NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/10/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8-20-92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/5/92

NO.	DATE	REVISION
1	10-11-95	REMOVE INTERSECTION DIVERSION - HUNTSHIRE DRIVE

T S A GROUP INC.
planning • architecture • engineering
8480 Baltimore National Pike • Ellicott City, Maryland 21043 • (410) 465-6105

OWNER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105
DEVELOPER	SECURITY DEVELOPMENT CORP. P.O. BOX 417 ELLICOTT CITY, MARYLAND 21043 (410) 465-6105
DES. JH	DRN. JWG

PROJECT: NOTTINGHAM VILLAGE SECTION 1

LOCATION: TAX MAP NO. 37, ZONING MAP NO. 37, PARCEL NO. 615, 1st ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: PLANTING PLAN

F-91-99
F-89-104
F-87-156, WP-91-89

DATE: JULY 15, 1992

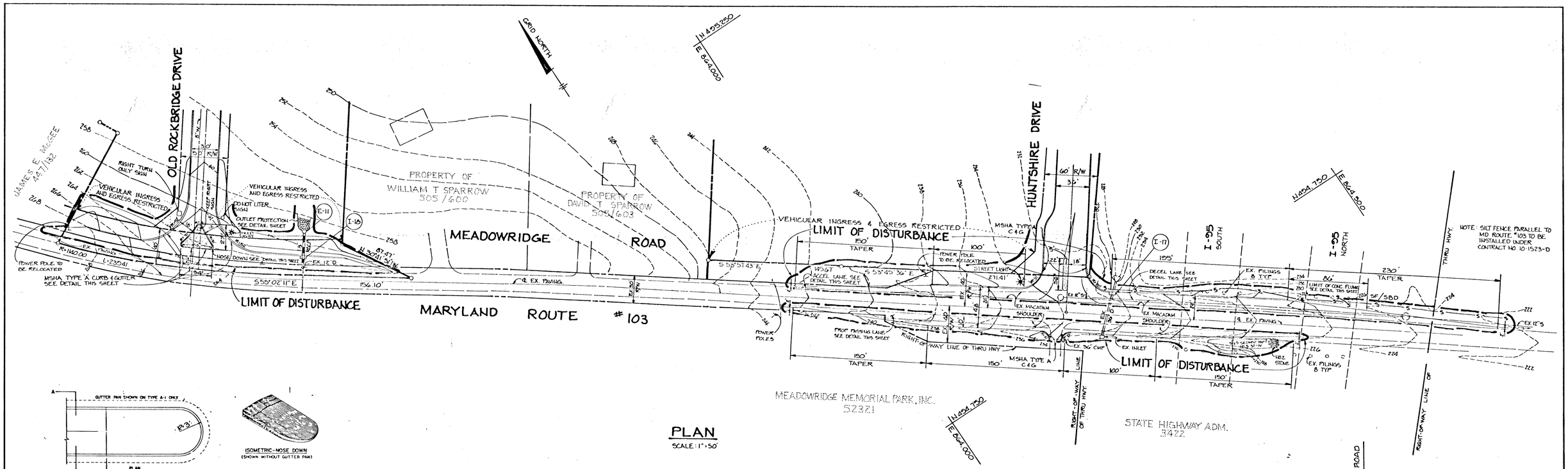
SCALE: 1" = 50'

PROJECT NO. 0331

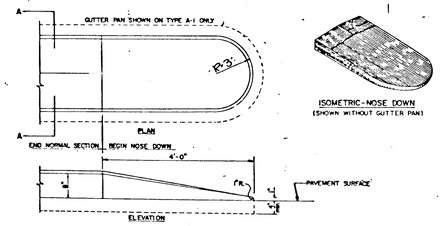
DRAWING 12 OF 13

1647

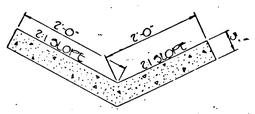
F-91-99



PLAN
SCALE: 1"=50'

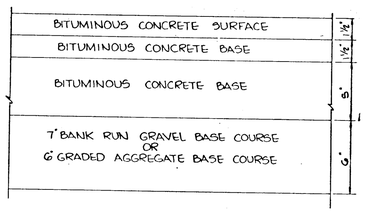


NOSE DOWN AT APPROACH END OF CURB
NO SCALE

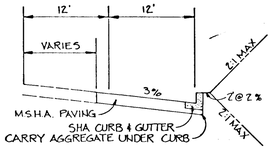


CONCRETE FLUME
NO SCALE

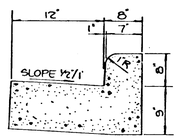
*NOTE: CLEAN OUT EXISTING 36" RCP UNDER MD RT # 103 REGRADE AND STABILIZE EXISTING CHANNEL TO PROVIDE POSITIVE DRAINAGE DOWNSTREAM.



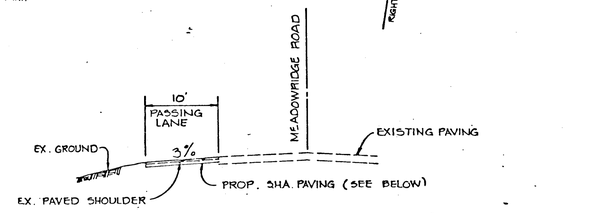
M.S.H.A. PAVING
NO SCALE



TYPICAL HALF SECTION N. SIDE
MEADOWRIDGE ROAD
NO SCALE



M.S.H.A. TYPE 'A' CURB AND GUTTER
NO SCALE



3" (NOMINAL) BITUMINOUS CONCRETE SURFACE IN 2-1½" LAYER UTILIZING A SN MIX PLUS
4" (NOMINAL) BITUMINOUS CONCRETE BASE, ON A 6" AGGREGATE BASE.

TYPICAL HALF SECTION S. SIDE
MEADOWRIDGE ROAD
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 8/6/92

CHIEF, BUREAU OF HIGHWAYS — DATE 7/31/92

CHIEF, BUREAU OF ENGINEERING — DATE 8.20.92

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 8/27/92

NO.	DATE	REVISION

T S A GROUP INC.
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STATE OF MARYLAND — JOHN F. TOMASSI — No. 21431 — REGISTERED PROFESSIONAL ENGINEER

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DEVELOPER
SECURITY DEVELOPMENT CORP.
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DES. DAM | DRN. CAB

PROJECT
NOTTINGHAM VILLAGE
SECTION 1

LOCATION TAX MAP NO. 37 PARCEL NO. 615
ZONING MAP NO. 37
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
F-91-99
F-89-104
F-87-156, WP-91-89
ROAD WIDENING
US ROUTE #103

DATE: JULY 15, 1992
PROJECT NO. 0331
SCALE: AS SHOWN
DRAWING 13 OF 13

1647

F-91-99