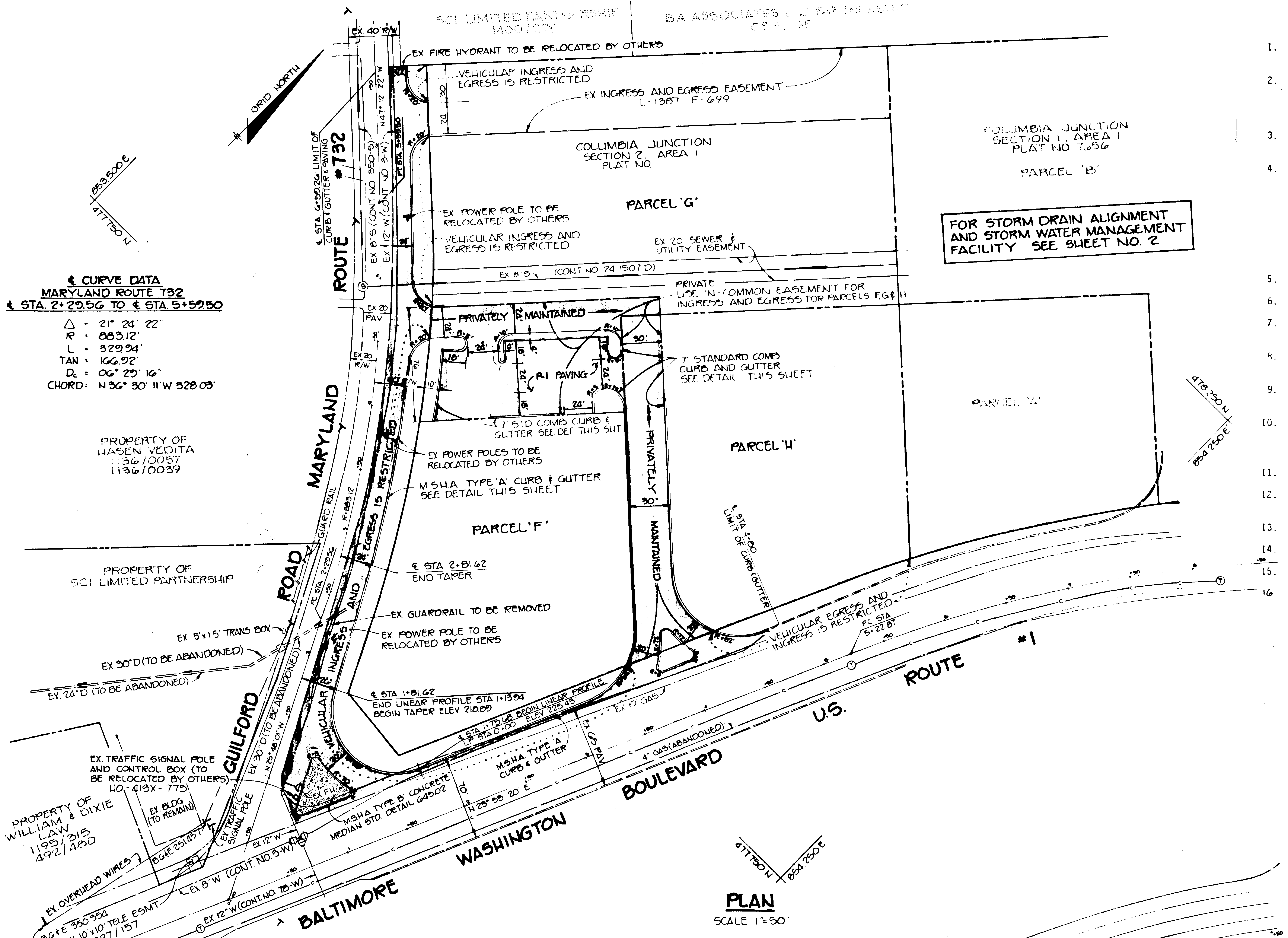


FOR STORM DRAIN ALIGNMENT AND STORM WATER MANAGEMENT FACILITY SEE SHEET NO. 2

℄ CURVE DATA
MARYLAND ROUTE 732
℄ STA. 2+29.56 TO ℄ STA. 5+59.50

Δ = 21° 24' 22"
R = 883.12'
L = 329.94'
TAN = 166.92'
D_c = 06° 29' 16"
CHORD: N 36° 30' 11" W, 328.03'

PLAN
SCALE 1"=50'

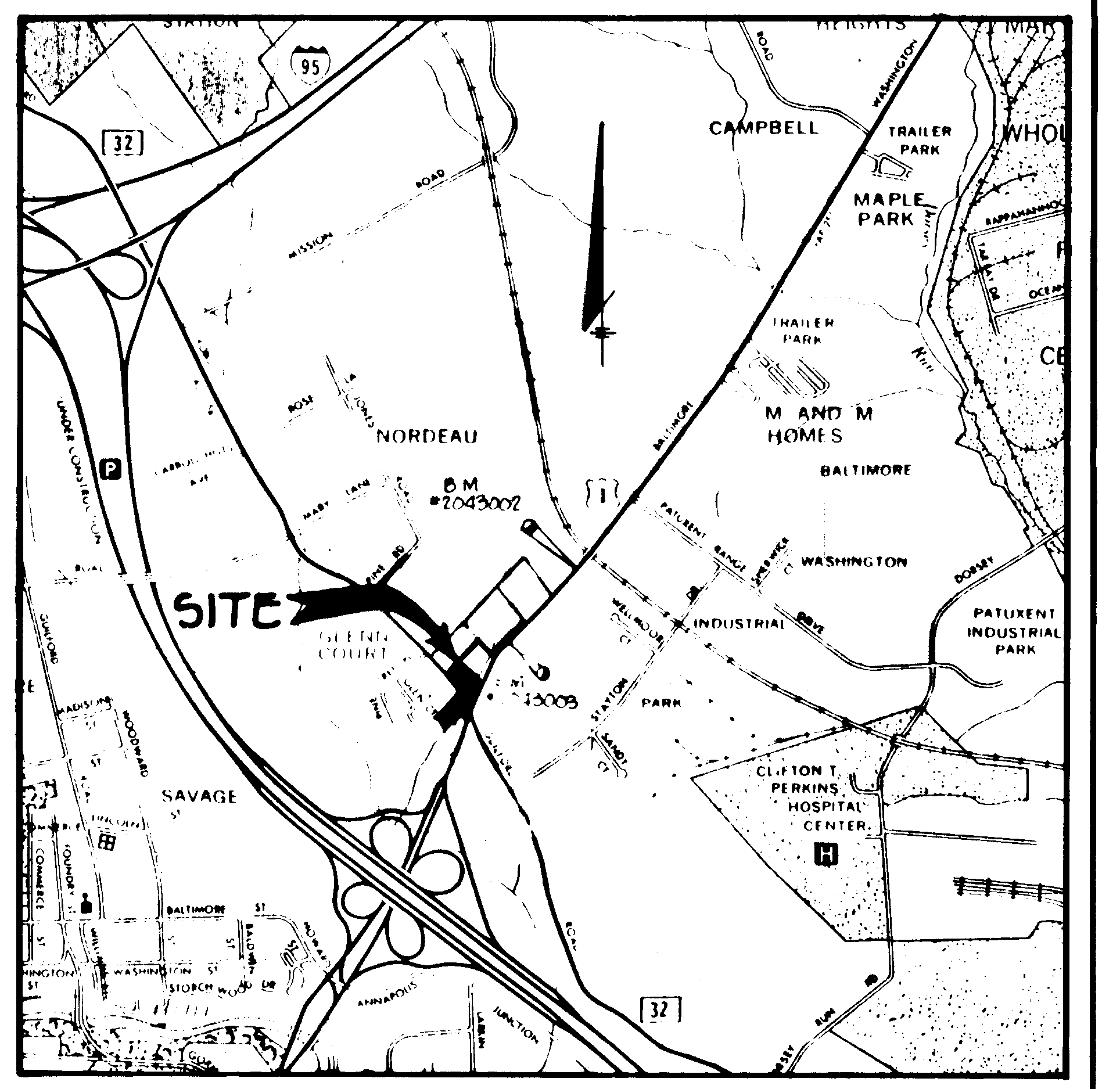
GENERAL NOTES

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 COUNTY BUREAU OF UTILITIES	992-2366
HOWARD COUNTY CONSTRUCTION INSPECTION SURVEY DIVISION	992-2417/2418

5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORANCE WITH HOWARD COUNTY STANDARDS.
6. ALL STREET CURB RETURNS SHALL HAVE 20.0' 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:

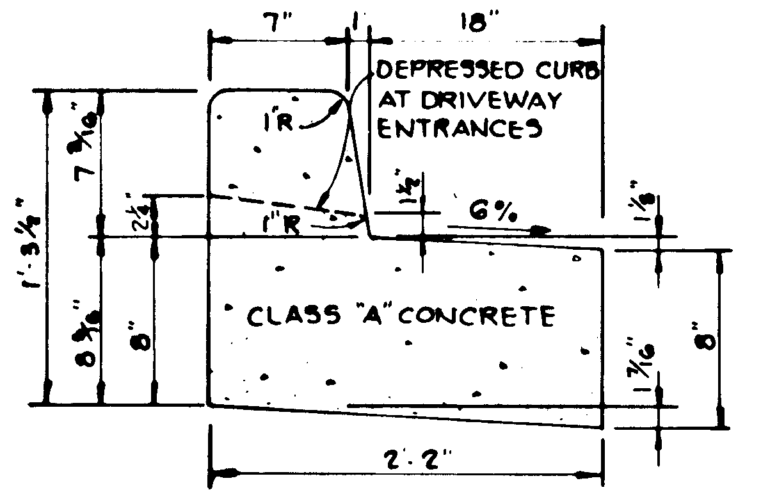
    ALL MAJOR COLLECTORS FOR 40 M.P.H.
    ALL INTERMEDIATE ARTERIALS (UNDIVIDED) DESIGNED FOR 50 M.P.H.
11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
12. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTOR.
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 B-2 & M-1 PER 8-2-85 COMPREHENSIVE ZONING PLAN
16. VP-86-25 REQUESTED DIRECT ACCESS TO US ROUTE 1, AN INTERMEDIATE ARTERIAL



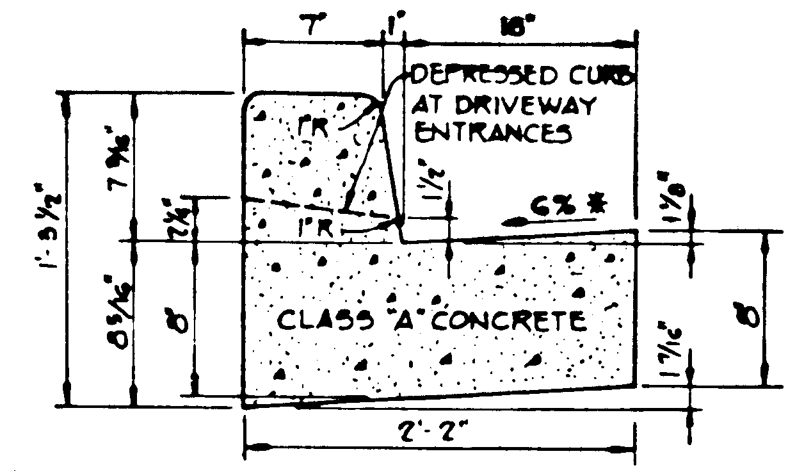
VICINITY MAP
SCALE 1"=2000'

BM #2043002 ELEV 293.831'
CONCRETE MONUMENT SET FLUSH WITH GROUND 1.2' FROM 4" LOCUST TREE

BM #2043003 ELEV 251.171'
REBAR 0.3' BELOW SURFACE AND 4.4' FROM EDGE OF ROAD



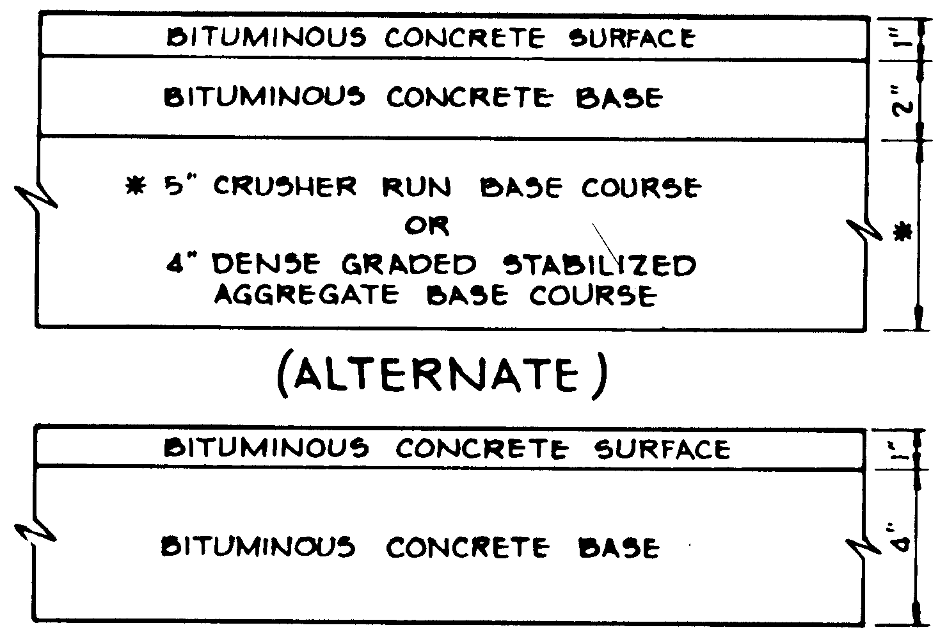
REVERSE



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

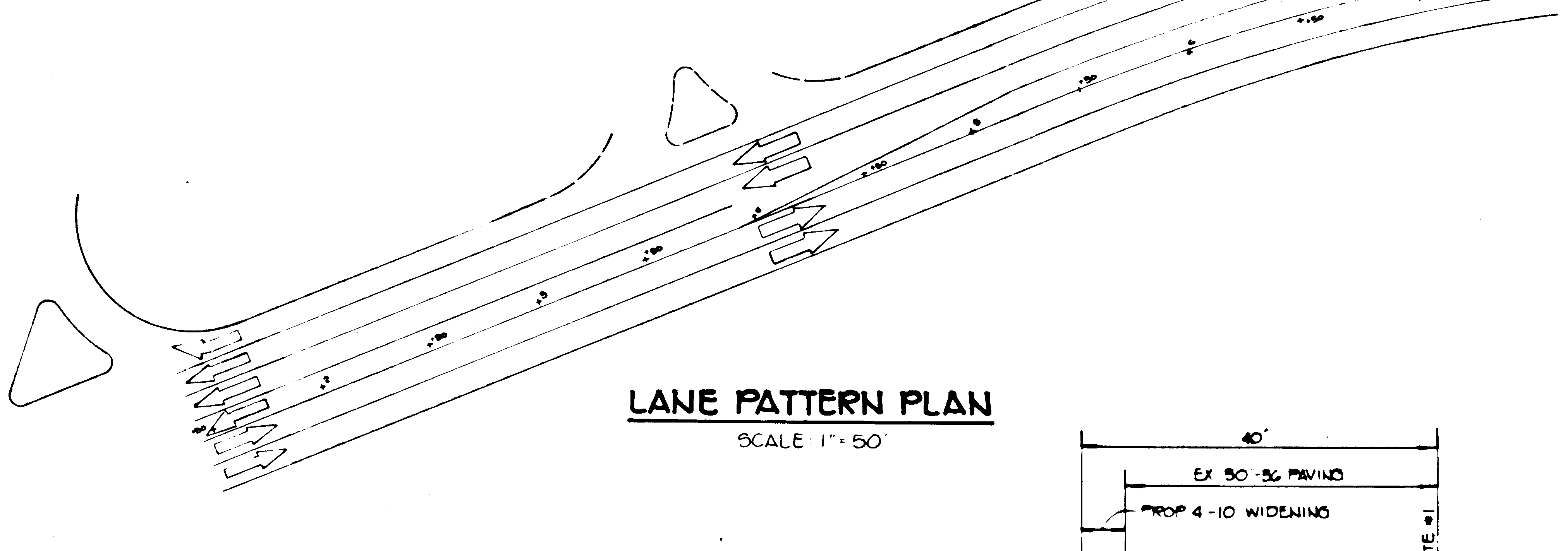
* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

STANDARD 7" COMBINATION CURB AND GUTTER
No Scale

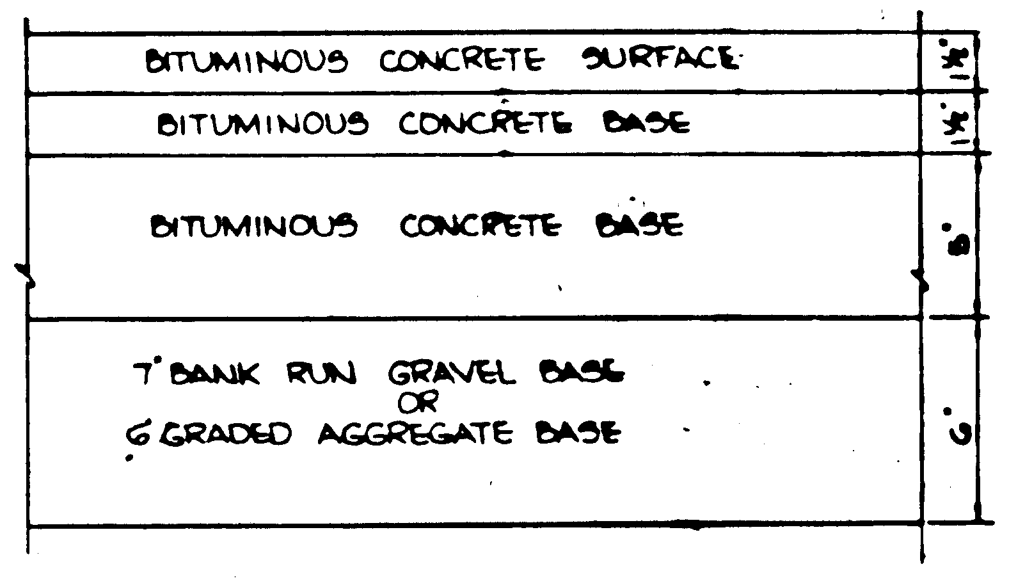


HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

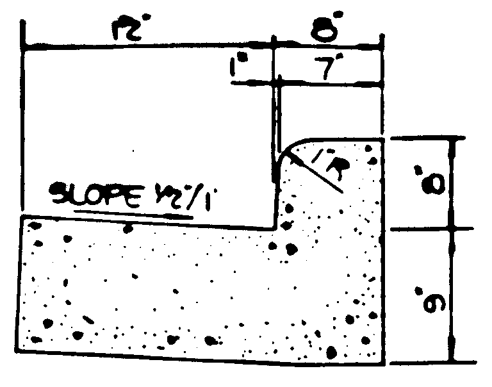
5" PAVING, P-1
NO SCALE



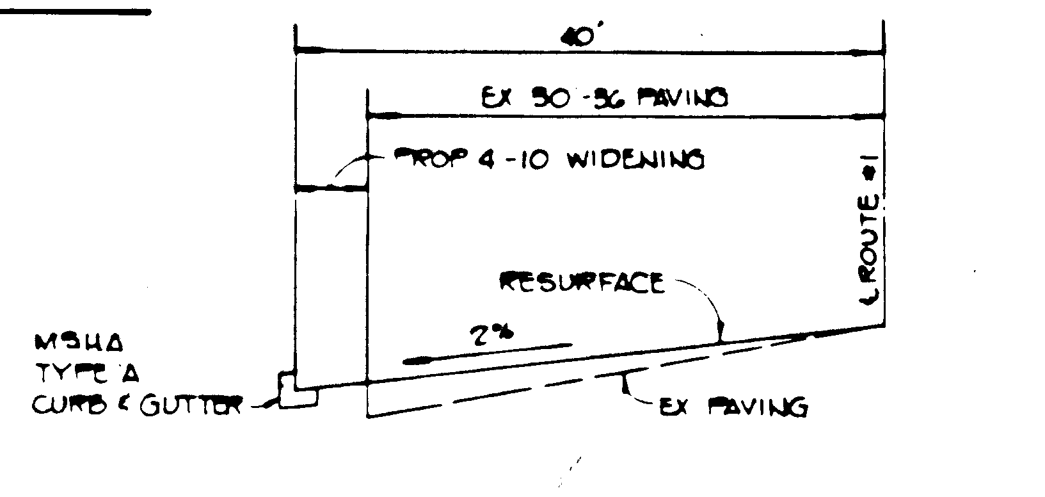
LANE PATTERN PLAN
SCALE 1"=50'



M.S.H.A. PAVING
U.S. ROUTE #1
MD. ROUTE #732
NO SCALE

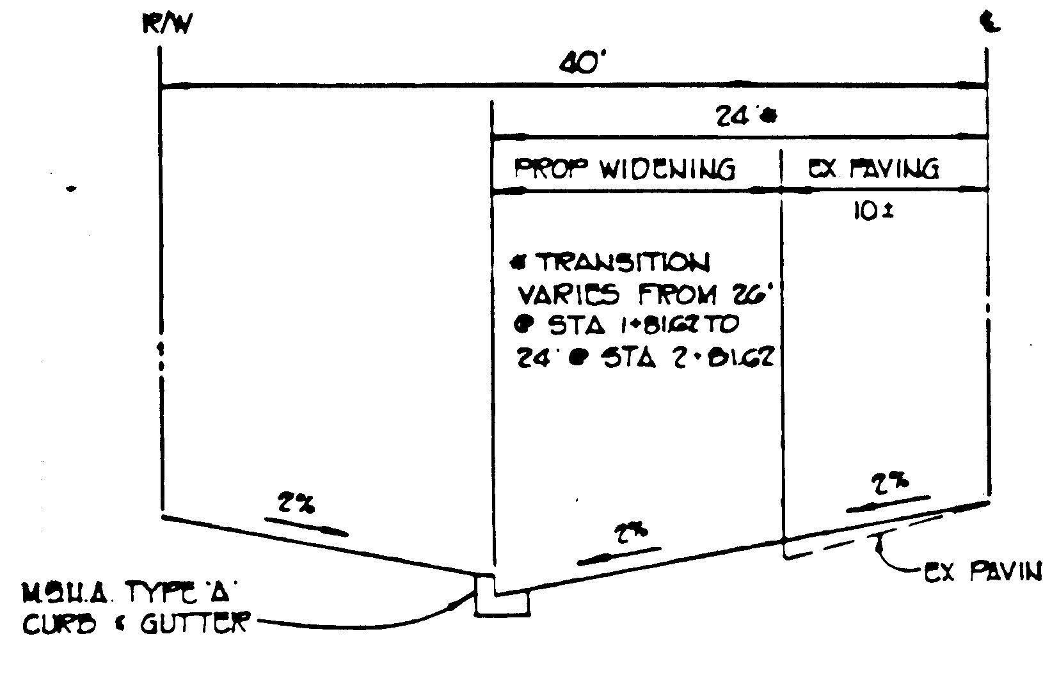


M.S.H.A. TYPE 'A' CURB AND GUTTER
NO SCALE



US ROUTE #1: STA 1+75.68 TO STA 4+50
CLASSIFICATION: INTERMEDIATE ARTERIAL
DESIGN SPEED: 50 MPH
ZONING: B-2

TYPICAL HALF SECTION
NO SCALE



MD. ROUTE #732 STA 1+81.62 TO STA 6+59.26
CLASSIFICATION: MAJOR COLLECTOR
DESIGN SPEED: 40 MPH
ZONING: B-2

TYPICAL HALF SECTION
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

CHIEF, LAND DEVELOPMENT DIVISION — DATE 11/3/88
Granville W. Wehland
CHIEF, BUREAU OF HIGHWAYS — DATE 10/25/88
Andrew M.
Acting CHIEF, BUREAU OF ENGINEERING — DATE 11/3/88

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 11-17-88

NO	DATE	REVISION

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

JAMES KENNETH TRACY
James K. Tracy

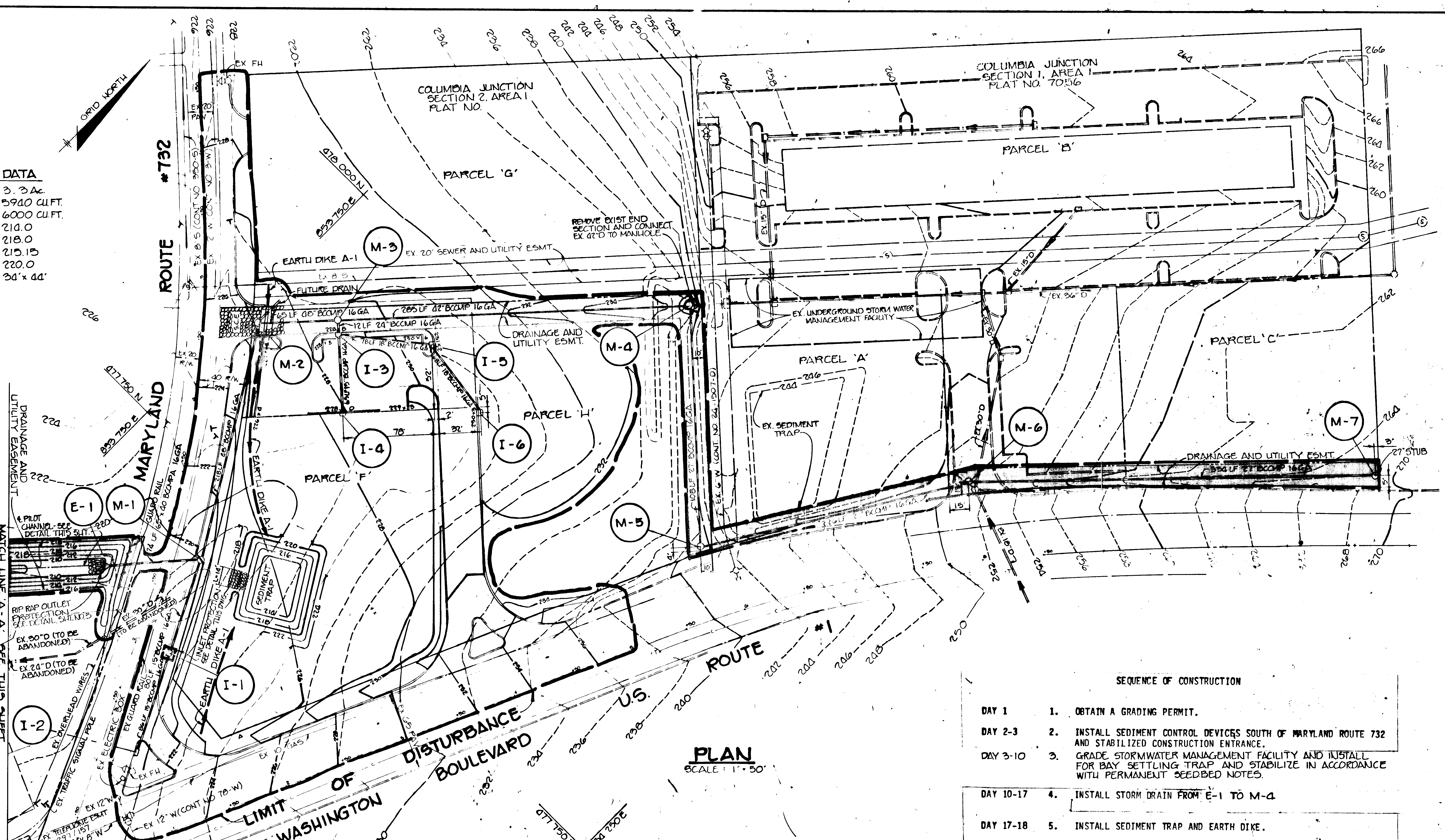
OWNER SCI LIMITED PARTNERSHIP 8480 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043	PROJECT **COLUMBIA JUNCTION** SECTION 2, AREA 1
	LOCATION TAX MAP NOS 47 & 48 PARCEL 68, 77 & 508 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DEVELOPER SCI LIMITED PARTNERSHIP 8480 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043	TITLE **PLAN OF U.S. ROUTE #1 AND MD. ROUTE #732** PB 1, F45 S-87-55 P-88-17 V.P.-86-25 F-88-160
	DATE APRIL 7, 1988 AUGUST 26, 1988 PROJECT NO 87C8
DES. JKT DRN CDT\JH	SCALE 1"=50' DRAWING 1 OF 7

F-88-160

1234

SEDIMENT TRAP DATA

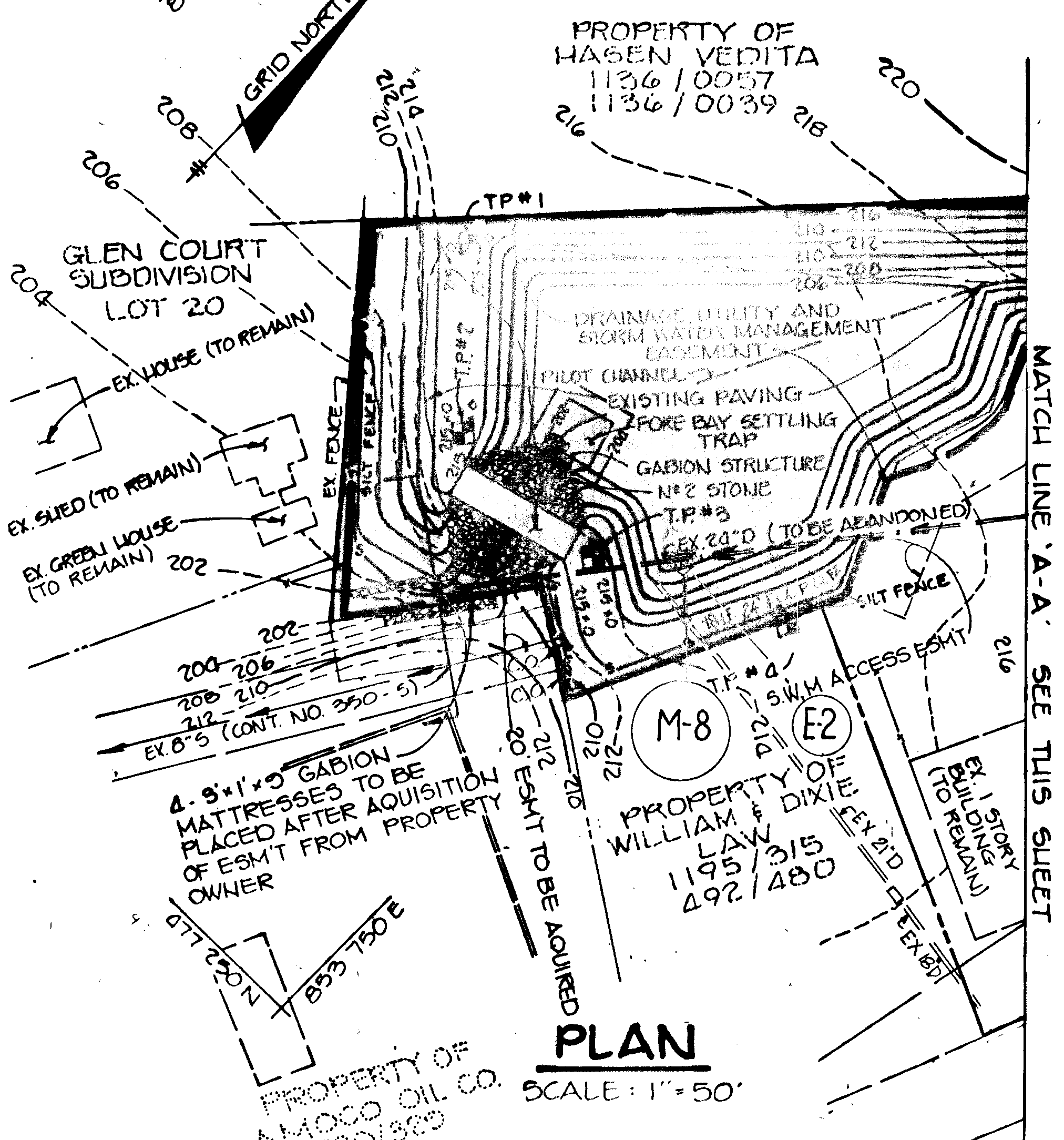
DRAINAGE AREA	3.3 Ac.
VOLUME REQUIRED	5940 CU.FT.
VOLUME PROVIDED	6000 CU.FT.
BOTTOM ELEVATION	210.0
CREST ELEVATION	218.0
CLEANOUT ELEVATION	215.15
TOP ELEVATION	220.0
BOTTOM DIMENSION	34' x 44'



PLAN

SCALE: 1" = 50'

NOTE:
EXISTING DRAINS TO BE ABANDONED SHALL BE FILLED AND BULKHEADED.



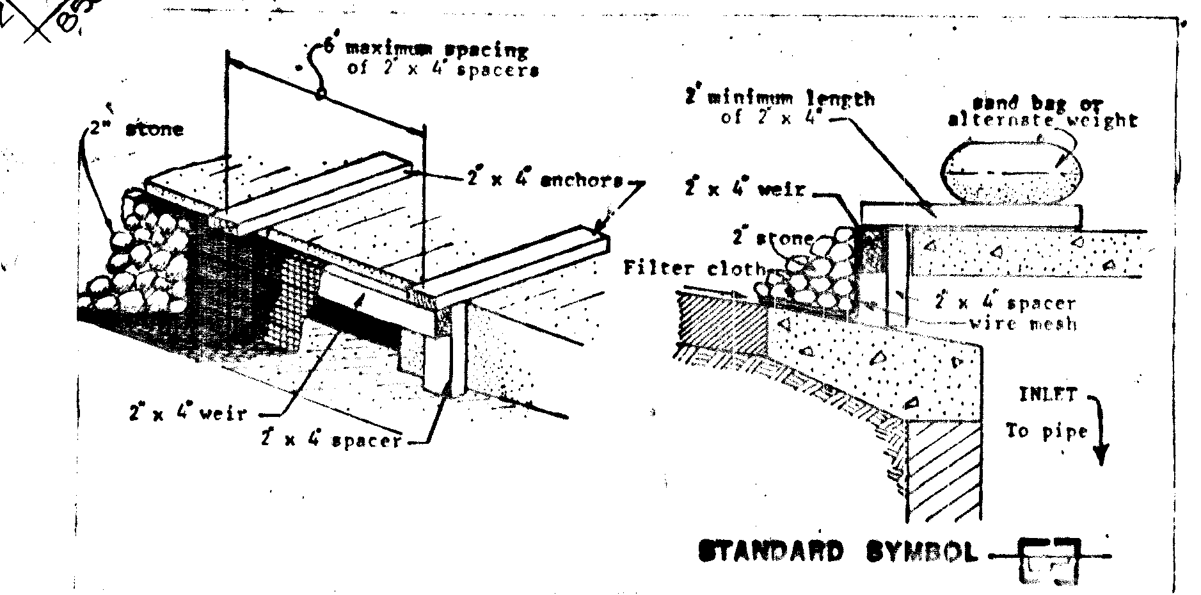
PLAN

SCALE: 1" = 50'

FORE BAY SETTLING TRAP

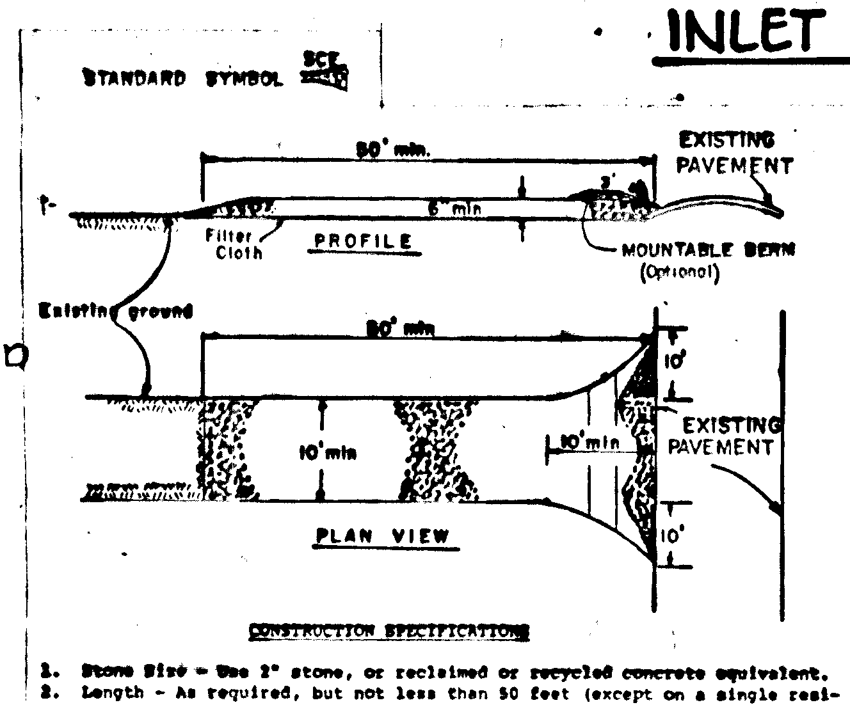
DRAINAGE AREA	N/A
DISTURBED AREA	N/A
STORAGE VOLUME	
REQUIRED	N/A
PROVIDED	1200 c.f.
CREST ELEV.	204.23
CLEANOUT ELEV.	202.73
BOTTOM ELEV.	201.23
TRAP DIMENSIONS	20' x 20' x 3'

NOTE: CONSTRUCTION OF PROPOSED DAM SHALL BE IN ACCORDANCE WITH RECOMMENDATION IN THE SOILS REPORT CONDUCTED BY ATEC ASSOC. INC. FOR THIS SITE ON APRIL 27, 1988.



INLET PROTECTION DETAIL

NO SCALE

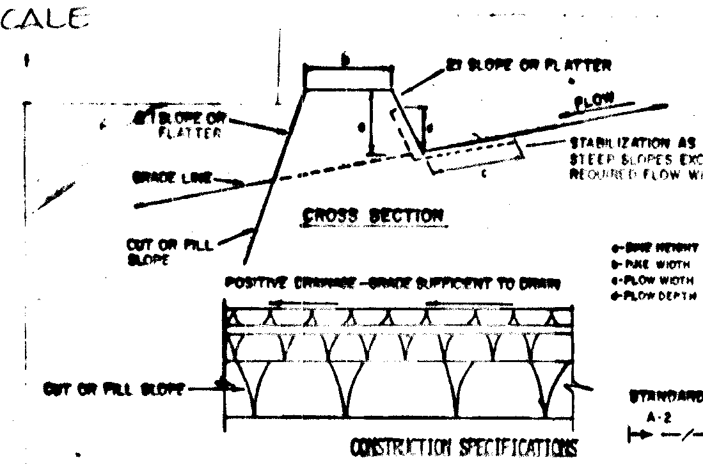


CONSTRUCTION SPECIFICATIONS

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 onto 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 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. FIELD 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 STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

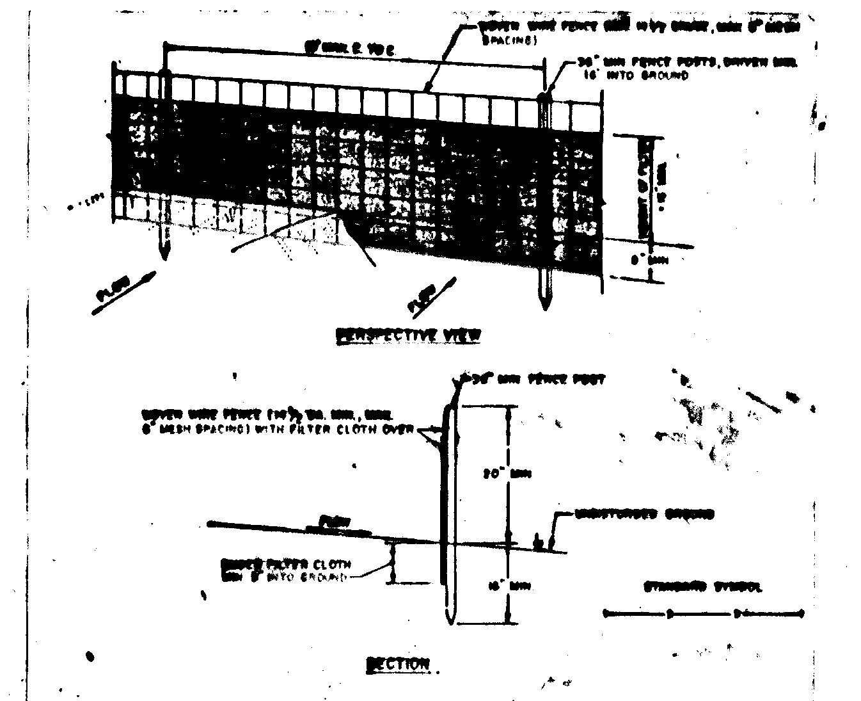
FLOW CHANNEL STABILIZATION

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%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	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 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE 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



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.

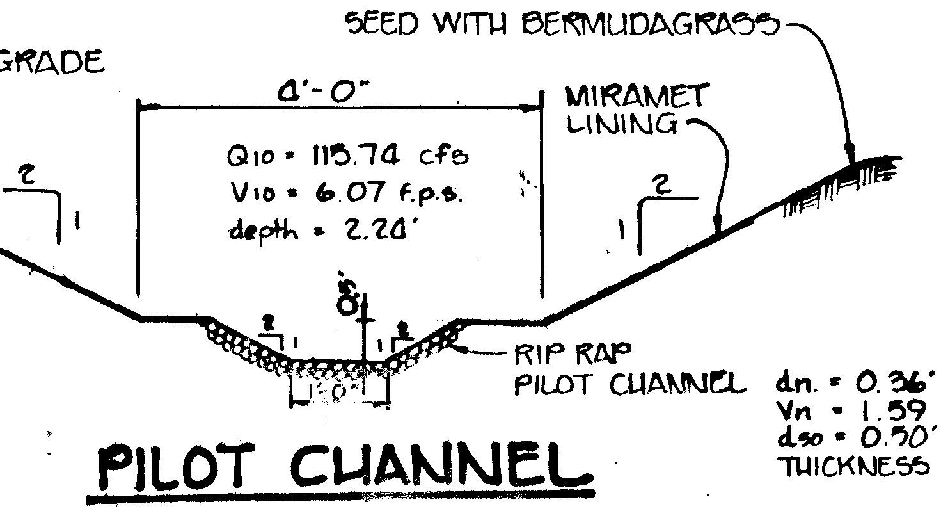
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE

NO SCALE

SEQUENCE OF CONSTRUCTION

DAY 1	1.	OBTAIN A GRADING PERMIT.
DAY 2-3	2.	INSTALL SEDIMENT CONTROL DEVICES SOUTH OF MARYLAND ROUTE 732 AND STABILIZED CONSTRUCTION ENTRANCE.
DAY 3-10	3.	GRADE STORMWATER MANAGEMENT FACILITY AND INSTALL FOR BAY SETTLING TRAP AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
DAY 10-17	4.	INSTALL STORM DRAIN FROM E-1 TO M-4
DAY 17-18	5.	INSTALL SEDIMENT TRAP AND EARTH DIKE.
DAY 18-23	6.	GRADE SITE AND ROAD WIDENING TO SUBGRADE MAINTAINING OUTLET FOR SEDIMENT TRAP THROUGH EXISTING 30" D LEAVING EXISTING GUARD RAIL ALONG 732 UNTIL SEDIMENT TRAP IS REMOVED AND GRADING FOR ROAD WIDENING CAN BE COMPLETED.
DAY 23-28	7.	INSTALL REMAINING STORM DRAIN AND UTILITIES.
DAY 28-31	8.	CONSTRUCT CURB AND GUTTER AND PAVING IN PRIVATE DRIVE AND STABILIZE REMAINING SITE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
DAY 31-33	9.	REMOVE SEDIMENT TRAP, INSTALL INLET BLOCKING AT I-2, ABANDON EXIST. 30"D, FILL WITH GROUT, AND FINISH REMAINING GRADING FOR ROAD WIDENING.
DAY 33-37	10.	INSTALL CURB AND GUTTER AND PAVING IN ROAD WIDENING AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDBED NOTES.
DAY 38-39	11.	UPON APPROVAL OF THE DEPT. OF PUBLIC WORKS SEDIMENT CONTROL INSPECTOR REMOVE ANY REMAINING SEDIMENT CONTROL DEVICES.



PILOT CHANNEL TYPICAL SECTION

NO SCALE

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."

James K. Tracy
ENGINEER:
10.6.88
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 POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

DEVELOPER:
3.8.88
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 M. Tilar
U.S. SOIL CONSERVATION SERVICE
10/18/88
DATE

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

Robert W. Ziehm
HOWARD S.C.D.
10/18/88
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ronald D. Lepson
CHIEF, LAND DEVELOPMENT DIVISION
11/3/88
DATE

Granville W. Wehland
CHIEF, BUREAU OF HIGHWAYS
10/25/88
DATE

Andrew M. Dorier
Acting
CHIEF, BUREAU OF ENGINEERING
11/3/88
DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Joseph J. McLaughlin
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
11-10-88
DATE

NO	DATE	REVISION
△	4-24-89	ADD M-8 TO E-2

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

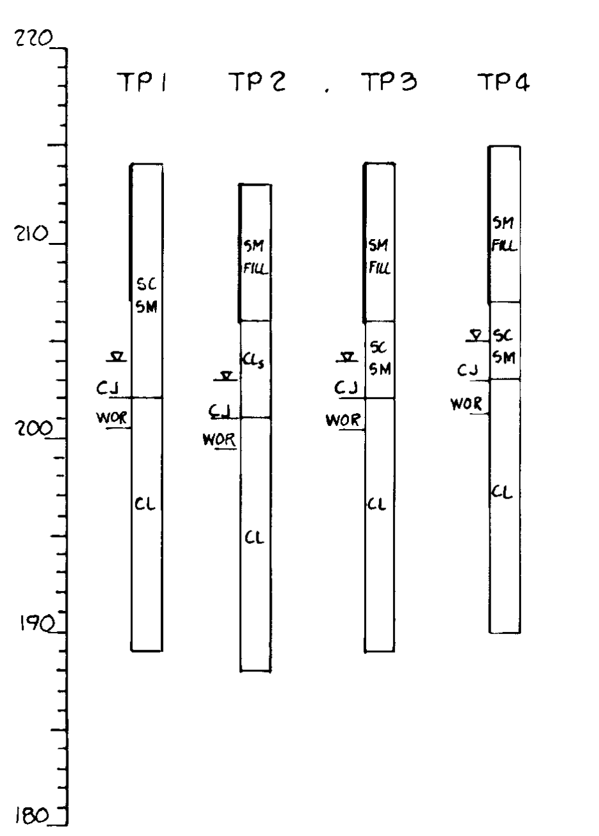
JAMES KENNETH TRACY
NO. 9565

James K. Tracy

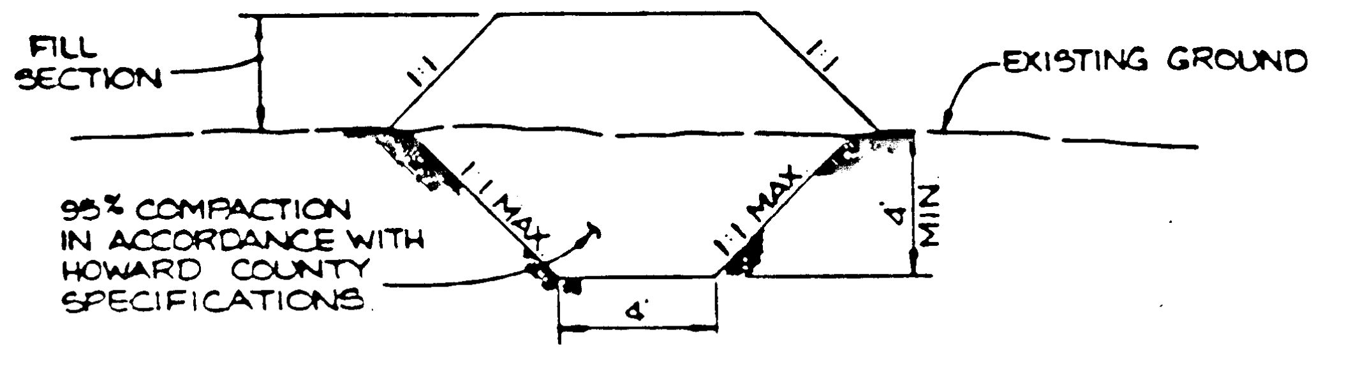
OWNER	SCI LIMITED PARTNERSHIP 8480 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043
DEVELOPER	SCI LIMITED PARTNERSHIP 8480 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043
PROJECT	**COLUMBIA JUNCTION** SECTION 2, AREA 1
LOCATION	TAX MAP NOS 47 & 48 PARCEL 68, 77 & 508 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	GRADING AND SEDIMENT CONTROL PLAN PB1, F45 S-87-55 P-88-17 V.P-86-25 F-88-160
DATE	APRIL 7, 1988 AUGUST 26, 1988
PROJECT NO	87C8 RSD
DES	JKT
DRN	CDT\JH
SCALE	AS NOTED
DRAWING	2 OF 7

F-88-160

1234

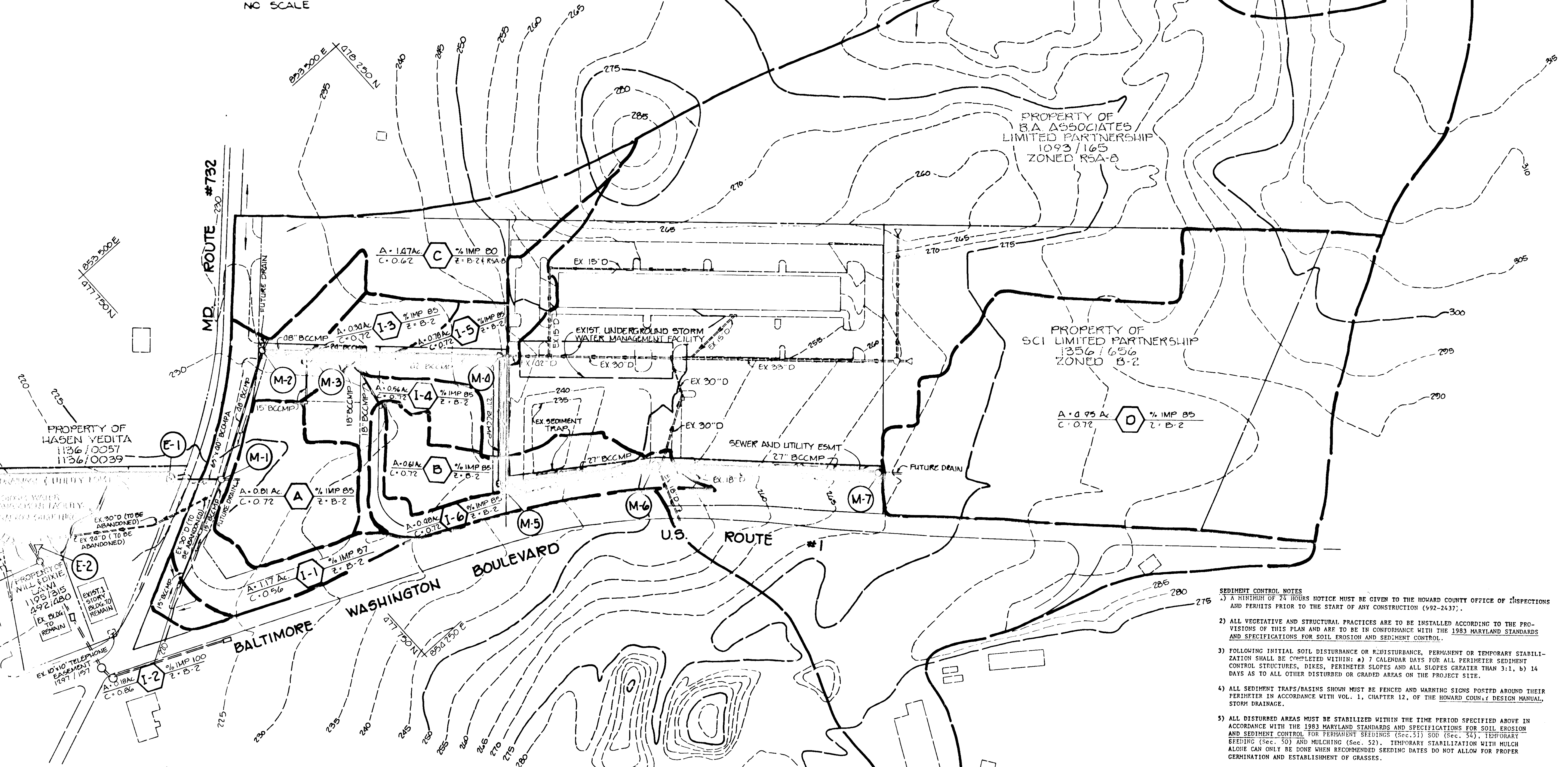


TEST PIT DATA



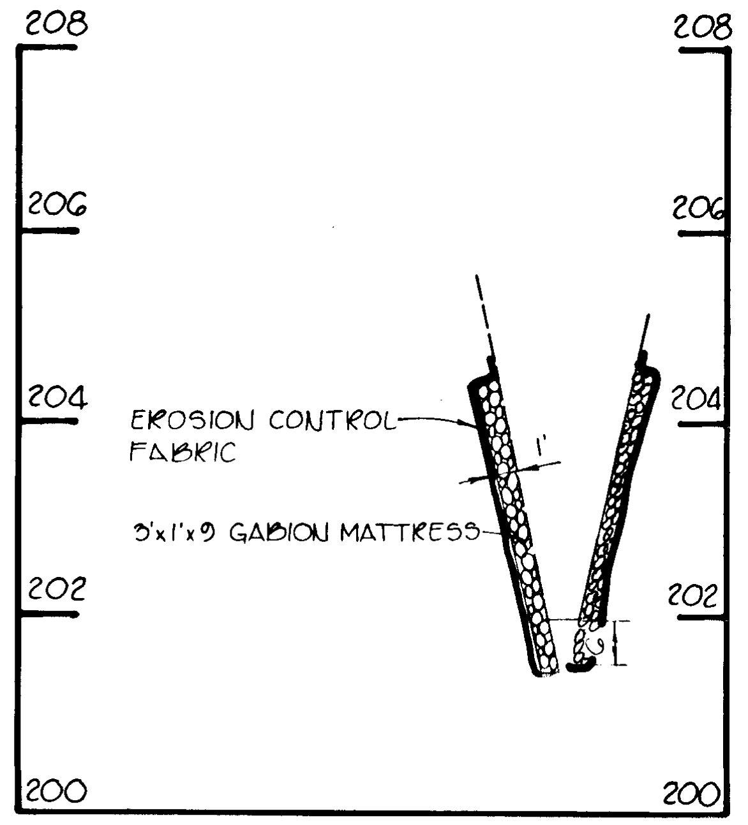
CORE TRENCH SECTION

NO SCALE



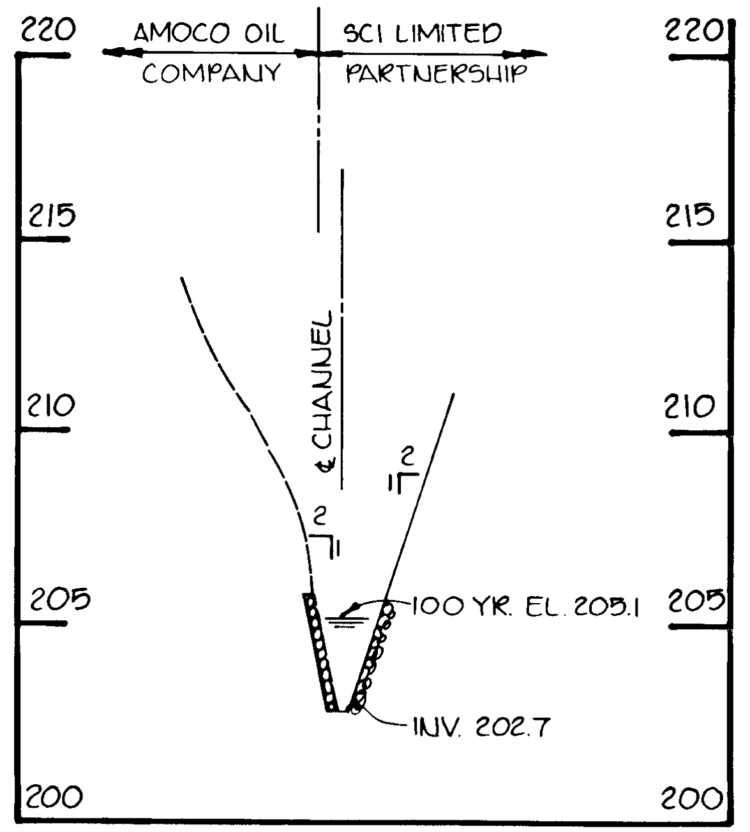
PLAN

SCALE 1" = 100'



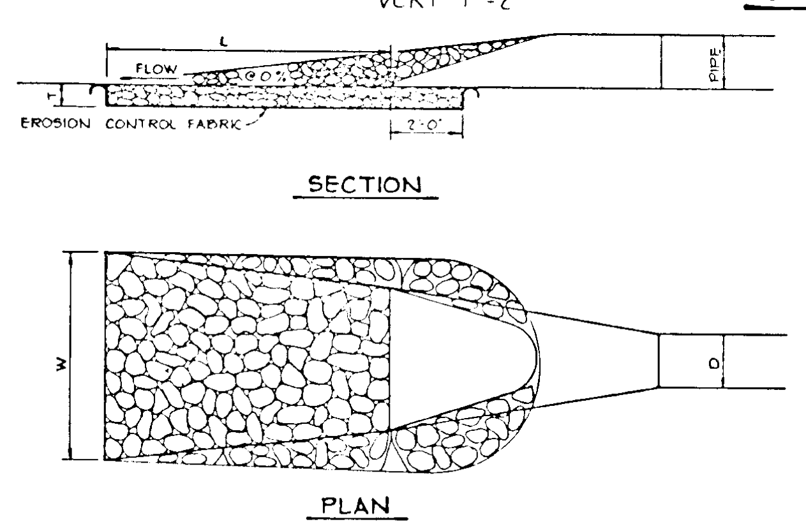
GABION PROTECTION DETAIL

SCALE HORIZ 1" = 20'
VERT 1" = 2'



CROSS SECTION OF OUTLET CHANNEL

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



STRUCTURE	d - 50	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	0.5'	10.0'	10.0'	1.25'

RIP RAP OUTLET PROTECTION

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 600 LBS PER ACRE 10-10-10 FERTILIZER (14 lbs/1000 sq ft).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2-1/2 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.

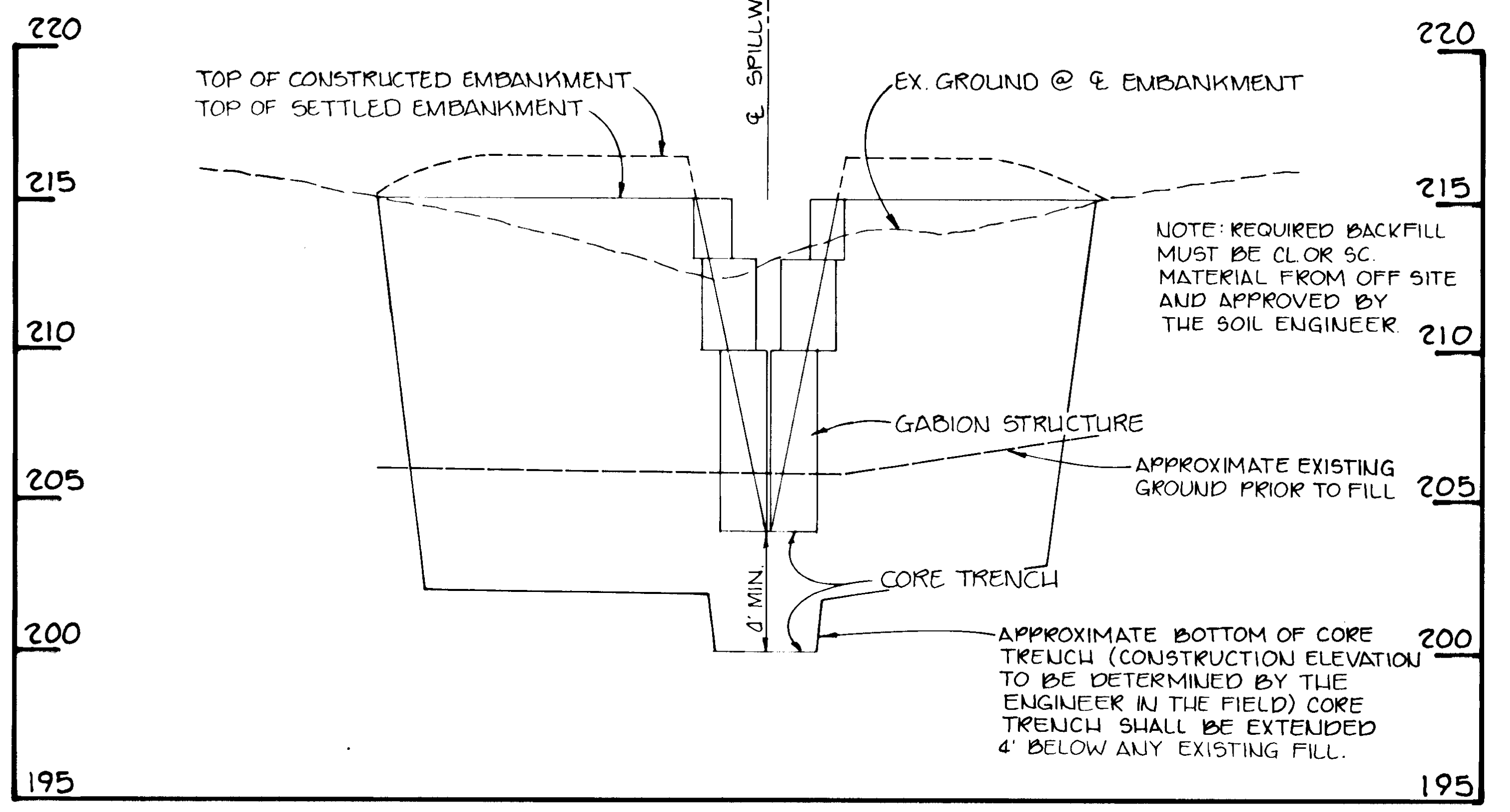
7) SITE ANALYSIS:

TOTAL AREA OF SITE	5.35	ACRES
AREA DISTURBED	4.48	ACRES
AREA TO BE ROOFED OR PAVED	0.95	ACRES
AREA TO BE VEGETATIVELY STABILIZED	3.53	ACRES
TOTAL CUT	5497	CU.YDS.
TOTAL FILL	13130	CU.YDS.

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.



PROFILE THRU ℄ EMBANKMENT

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

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TC ELEV.	REMARKS
M-1	MANHOLE	30 RT & STA 2+81 MD RTE. 732	21"D 212.68 48"D 214.13	209.47	*220.60	HO. CO. STD G-5.03
M-2	MANHOLE	45 RT & STA 4+67 MD RTE. 732	219.66	219.46	*226.20	HO. CO. STD. G-5.03
M-3	MANHOLE	SEE PLAN	24"D 222.49 42"D 222.49	221.79	*228.90	HO. CO. STD. G-5.03
M-4	MANHOLE	SEE PLAN	42"D 236.92 27"D 233.09	231.84	242.00	HO. CO. STD. G-5.03
M-5	MANHOLE	SEE PLAN	237.98	237.76	*242.00	HO. CO. STD G-5.13
M-6	MANHOLE	SEE PLAN	248.00	247.29	252.00	HO. CO. STD G-5.13
M-7	MANHOLE	SEE PLAN	--	260.16	268.00	HO. CO. STD G-5.13
M8	MANHOLE	SEE PLAN			215.00	HO. CO. STD G5.13
I-1	COG 5 INLET	27.92 RT & STA 2+02.10 MD RTE. 732	214.34	214.14	218.62	MSHA STD. DETAIL MD 374.51
I-2	COG 5 INLET	SEE PLAN	--	215.20	218.85	MSHA STD. DETAIL MD 374.51
I-3	A-5 W/DEFL	SEE PLAN	223.85	223.10	229.40	HO. CO. STD. SD 4.01
I-4	A-10	SEE PLAN	--	224.50	228.60	HO. CO. STD. SD 4.02
I-5	A-10 W/ DEFL	SEE PLAN	225.78	225.57	231.80	HO. CO. STD. SD 4.02
I-6	A-5	SEE PLAN	--	226.60	230.90	HO. CO. STD. SD 4.01
E2	END SECTION	SEE PLAN		205.30	---	HO. CO. STD SD 5.61
E-1	65"X40" END SECTION	42 LT & STA 2+52 MD RTE. 732	--	208.58	--	HO. CO. STD. SD 5.63

ALL STORM DRAIN BEDDING SHALL BE CLASS 'C'

* ELEVATION AT RIM.

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."

James K. Tracy
ENGINEER: JAMES K. TRACY # 9566
10·6·88
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 POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Robert R. Moxley
DEVELOPER:
3·8·88
DATE

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

Robert W. Ziehm
HOWARD S.C.D.
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 M. Helm
U.S. SOIL CONSERVATION SERVICE
10/18/88
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ronald O. Lepson
CHIEF, LAND DEVELOPMENT DIVISION
11/3/88
DATE

Granville W. Wehland
CHIEF, BUREAU OF HIGHWAYS
10/25/88
DATE

Andrew M. Danekr
Acting CHIEF, BUREAU OF ENGINEERING
11/3/88
DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
11-18-88
DATE

NO	DATE	REVISION
△	4/24/89	REVISE STRUCTURE SCHEDULE ADD M8 & E2

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

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

James K. Tracy

OWNER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

DEVELOPER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

PROJECT
COLUMBIA JUNCTION
SECTION 2, AREA 1

LOCATION
TAX MAP NOS. 47 & 48
PARCEL 68, 77 & 548
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SEDIMENT CONTROL DETAILS AND DRAINAGE AREA MAP
S-87-55 P-88-17 V.P.-86-25 PB 1, F45 F-88-160

DATE APRIL 7, 1988 / AUGUST 26, 1988
PROJECT NO 87C8

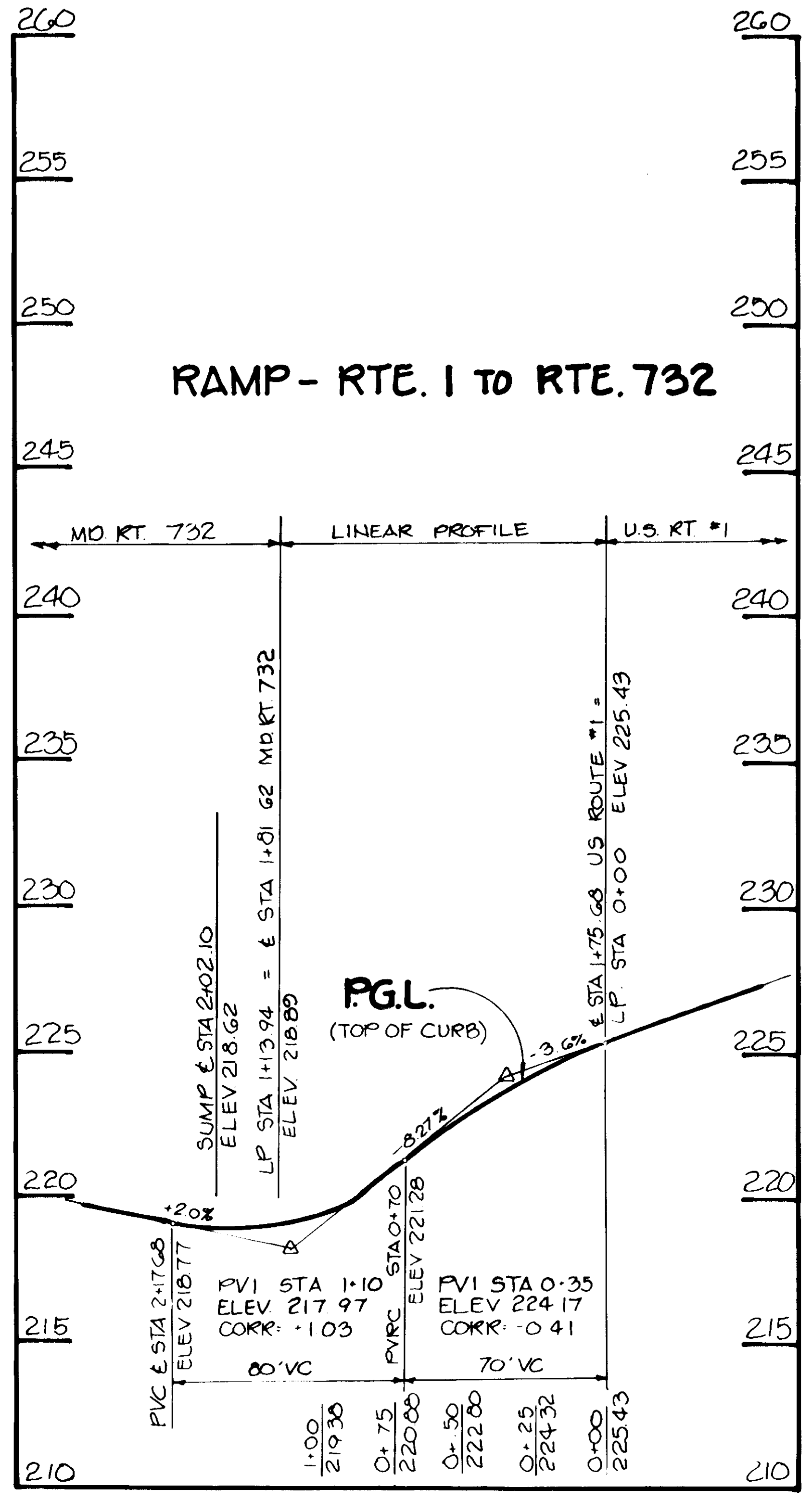
DES. DAM
DRN CDT / JH
SCALE AS SHOWN
DRAWING 3 OF 7

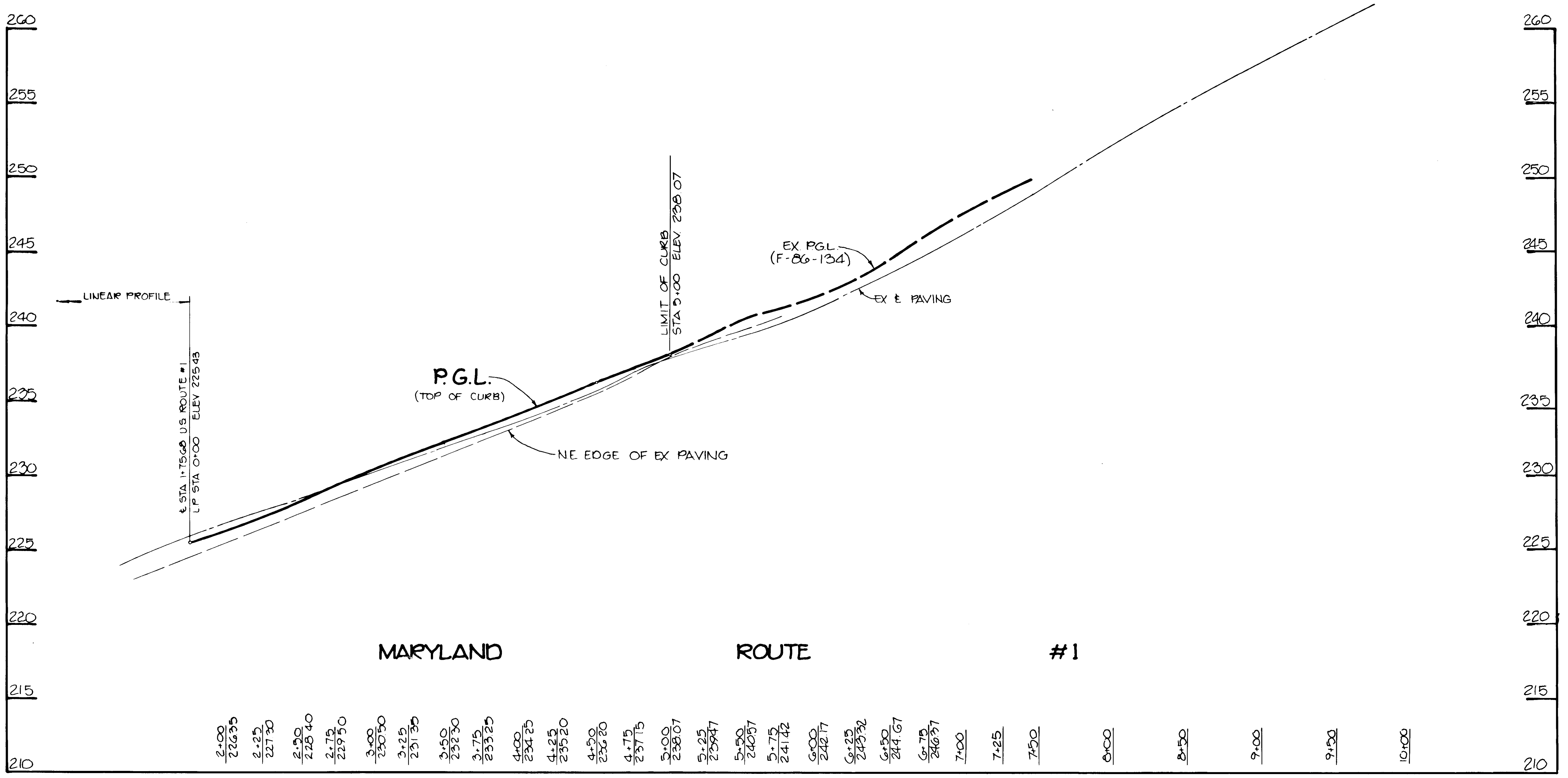
F-88-160

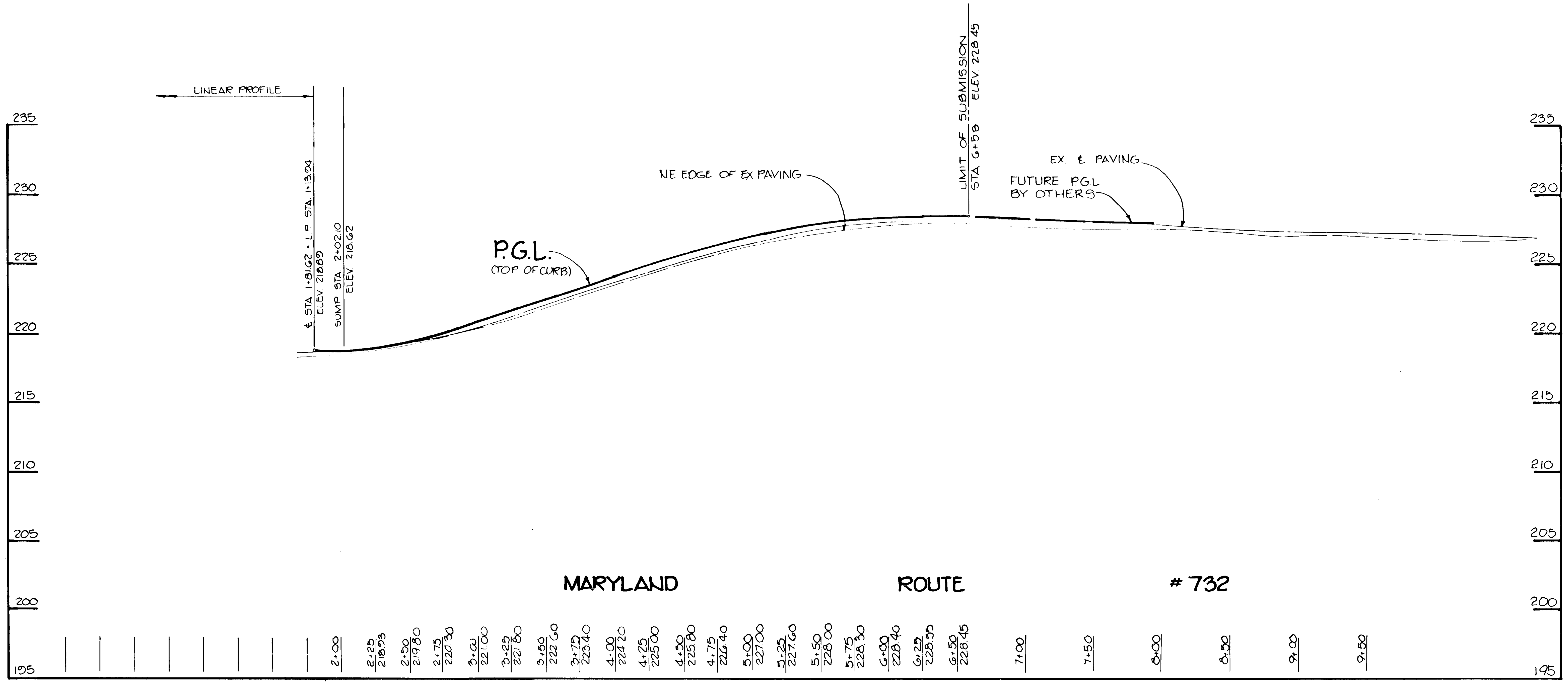
1234

N05620

1234


RAMP - RTE. 1 TO RTE. 732


MARYLAND ROUTE #1


MARYLAND ROUTE #732

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ronald O. Lepson 11/3/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Granville W. Wehland 10/25/88
CHIEF, BUREAU OF HIGHWAYS DATE

Andrew M. Danelo 11/3/88
Acting CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

11-18-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

NO	DATE	REVISION

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

James K. Tracy

OWNER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

DEVELOPER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

PROJECT
COLUMBIA JUNCTION
SECTION 2 AREA 1

LOCATION
TAX MAP NOS. 47 & 48
PARCEL 68, 77 & 548
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
ROAD PROFILES OF U.S. ROUTE #1 AND MD. ROUTE #732
PB 1, F45
S-87-55
P-88-17 V.P.-86-25 F-88-160

DATE APRIL 7, 1988
AUGUST 26, 1988
PROJECT NO 87C8

DES DAM
DRN CKS
SCALE H: 1" = 50' V: 1" = 5'
DRAWING 4 OF 7

F-88-160

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ronald [illegible] 11/3/88
CHIEF, LAND DEVELOPMENT DIVISION DATE

Granville W. Wehland 10/25/88
CHIEF, BUREAU OF HIGHWAYS DATE

Andrew M. Daneker 11/3/88
Acting CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

11-14-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

NO	DATE	REVISION
△	4/24/89	ADD M-8 AND E-2 PROFILE

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

James K. Tracy

OWNER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

DEVELOPER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

PROJECT
COLUMBIA JUNCTION
SECTION 2, AREA 1

LOCATION
TAX MAP NOS 47 & 48
PARCEL 68, 77 & 548
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
STORM DRAIN PROFILES
PB1, F45
S-87-55 P-88-17 V.P-86-25 F-88-160

DATE APRIL 7, 1988
AUGUST 26, 1988
PROJECT NO 87C8

DES DAM
DRN JH
SCALE AS SHOWN
DRAWING 5 OF 7

F-88-160

1234

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.

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 can be obtained with the equipment used.

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

Cutoff Trench

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

III. STRUCTURAL BACKFILL

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

IV. PIPE CONDUITS

All pipes shall be circular in cross section.

A. Corrugated Metal Pipe

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

   Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are commercially available: Nexon, 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 the completely watertight. Dimple bands are not considered to be watertight.

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

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

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

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

B. Reinforced Concrete Pipe

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

2. Bedding - All reinforced conrete 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 (1-½) 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 5-½ to 6 U.S. Gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-½. 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 suplemented 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

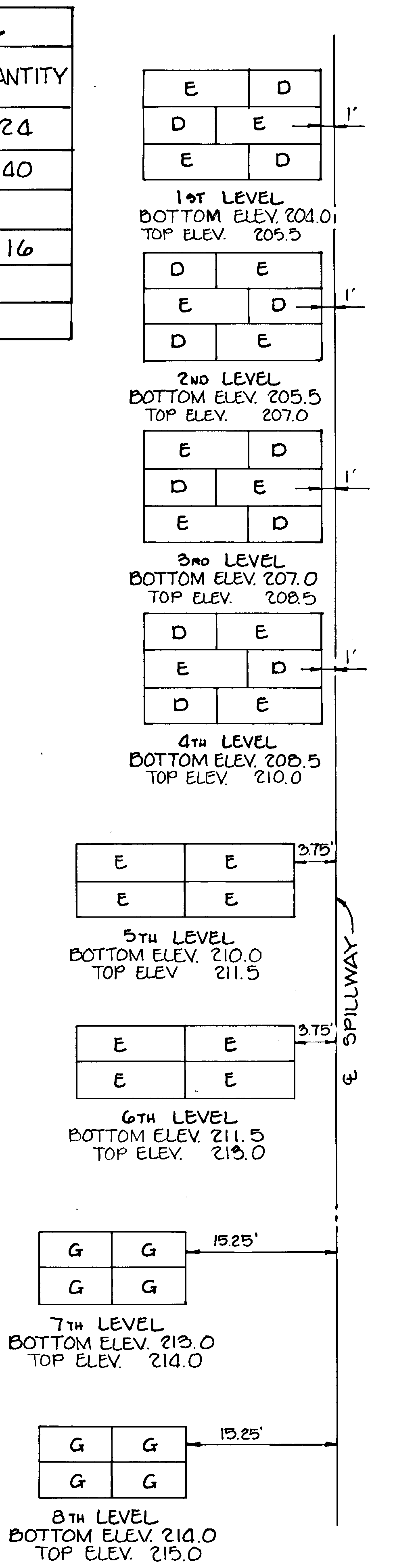
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications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

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.

GABION SCHEDULE

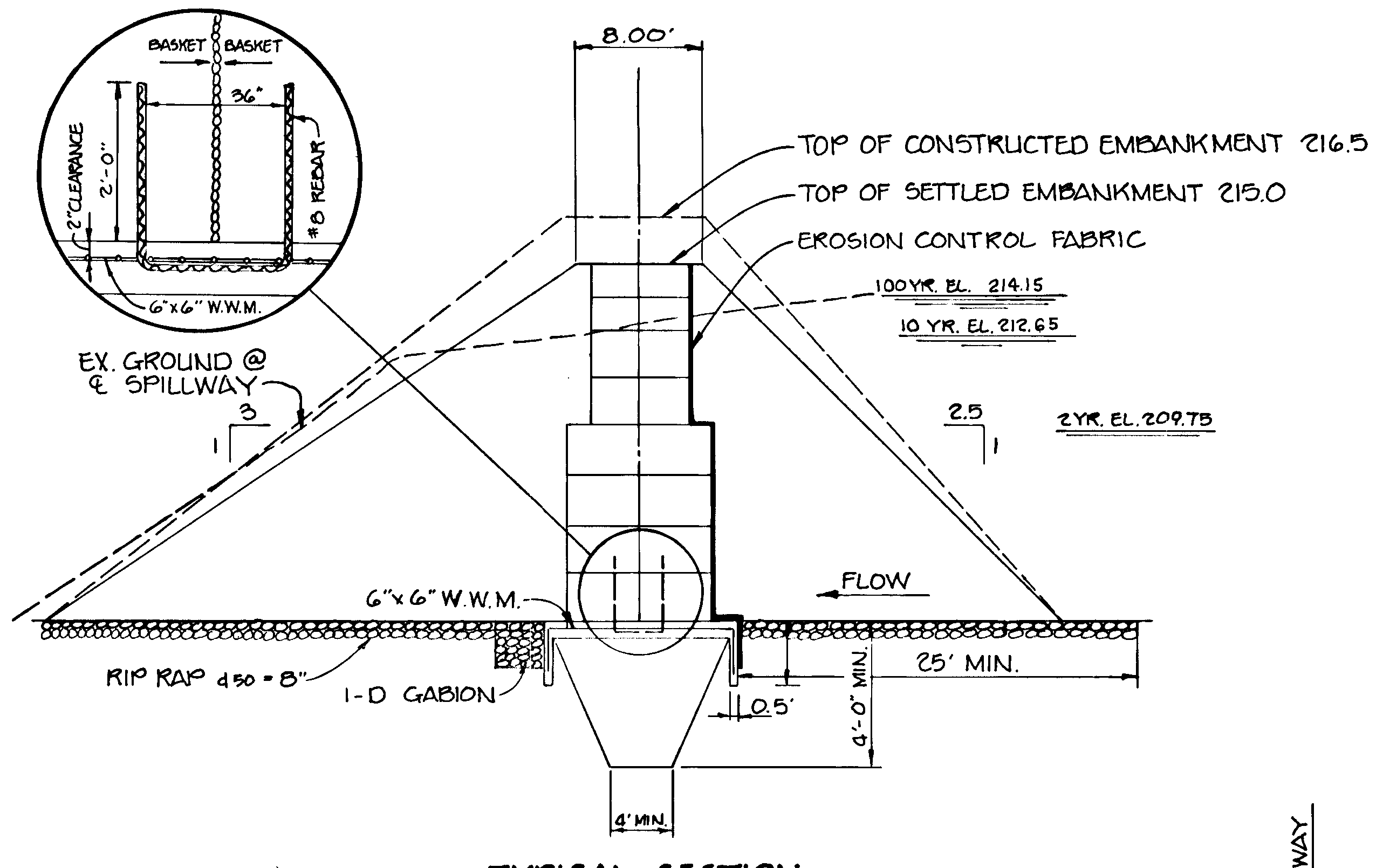
TYPE	DIMENSIONS			QUANTITY
	Height	Width	Length	
D	1.5'	3.0'	6.0'	24
E	1.5'	3.0'	9.0'	40
F	1.5'	3.0'	12.0'	
G	1.0'	3.0'	6.0'	16
H	1.0'	3.0'	9.0'	
I	1.0'	3.0'	12.0'	



GABION PLAN

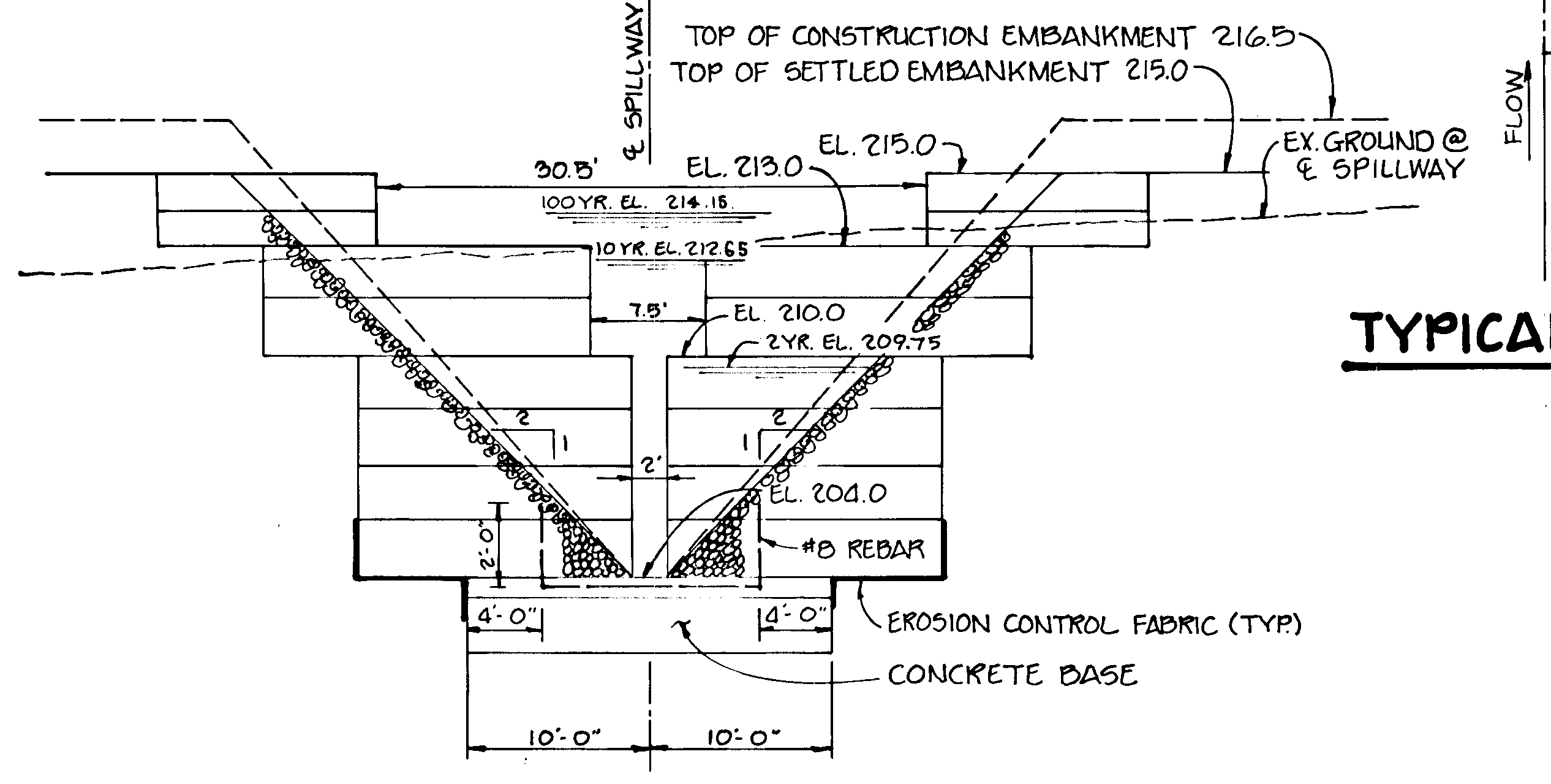
SCALE: 1" = 10'

(TYPICAL EACH SIDE OF ℄ SPILLWAY)



TYPICAL SECTION

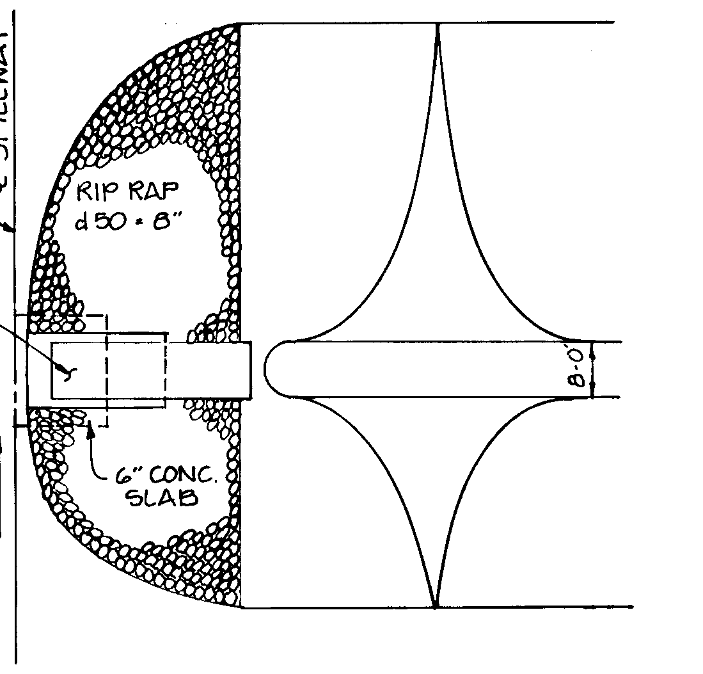
SCALE : HORIZ. 1" = 10'
VERT. 1" = 5'



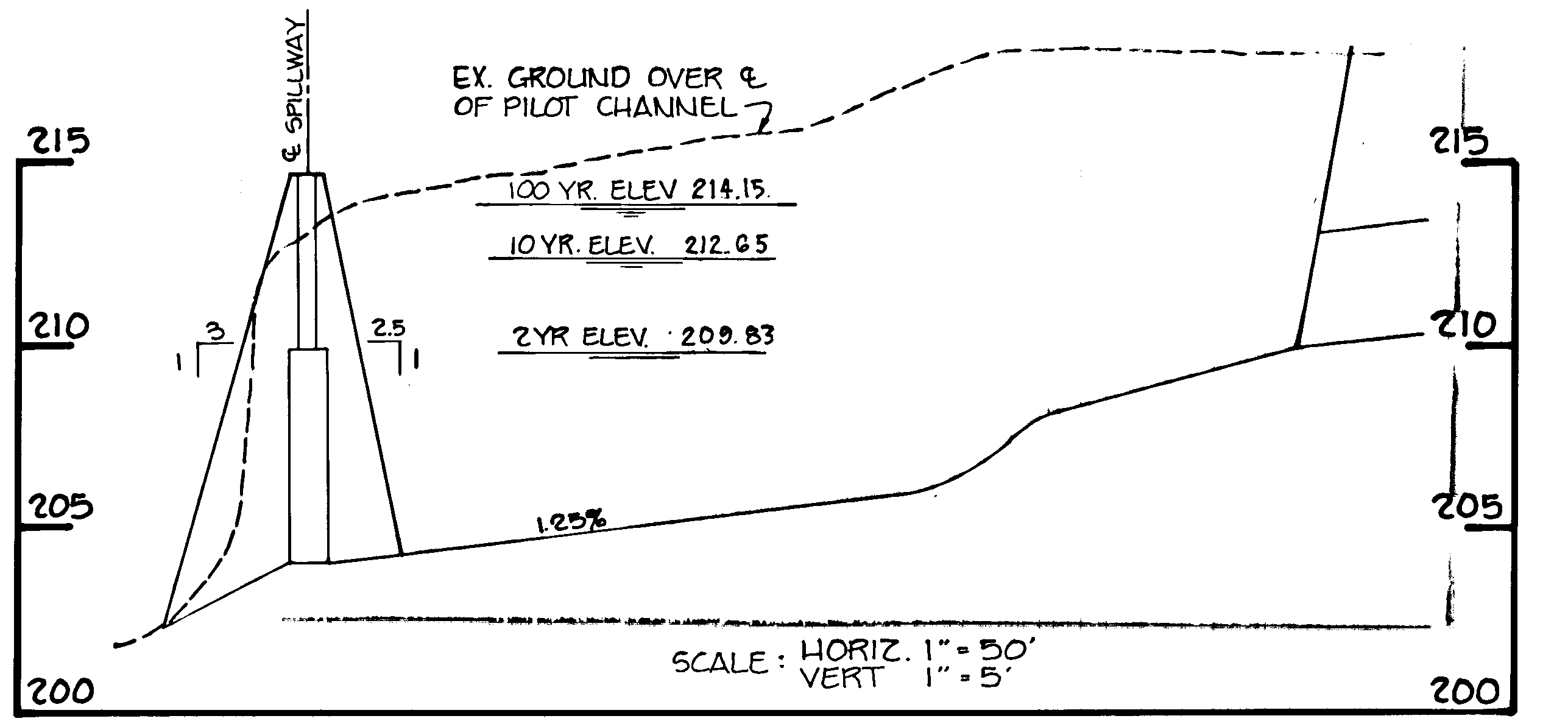
TYPICAL SECTION

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

SPILLWAY DETAILS



TYPICAL EMBANKMENT RIP RAP @ SPILLWAY



PROFILE THROUGH STORMWATER MANAGEMENT FACILTY ALONG ℄ PILOT CHANNEL

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."

James K Tracy 3.8.88

ENGINEER: JAMES K. TRACY #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 POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

3.8.88

DEVELOPER: 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.

10/18/88

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 10/18/88

HOWARD S.C.D. DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

11-14-88

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

11/3/88

CHIEF, LAND DEVELOPMENT DIVISION DATE

Granville W. Wehland 10/25/88

CHIEF, BUREAU OF HIGHWAYS DATE

11/3/88

Acting CHIEF, BUREAU OF ENGINEERING DATE

NO	DATE	REVISION
△	4/24/89	REVISE STORM DRAIN

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

8480 Baltimore National Pike • Suite 418 • Ellicott City, Maryland 21043 • (301) 465-6105

JAMES KENNETH TRACY No. 9566

James K Tracy

OWNER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

DEVELOPER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

PROJECT
COLUMBIA JUNCTION
SECTION 2, AREA 1

LOCATION
TAX MAP NOS. 47 & 48
PARCEL 68, 77 & 508
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
STORMWATER MANAGEMENT
SPECIFICATIONS AND DETAILS
PB 1, F45
S-87-55 P-88-17 V.P.-86-25 F-88-160

DATE APRIL 7, 1988
AUGUST 26, 1988

PROJECT NO. 87C8

DES. JKT

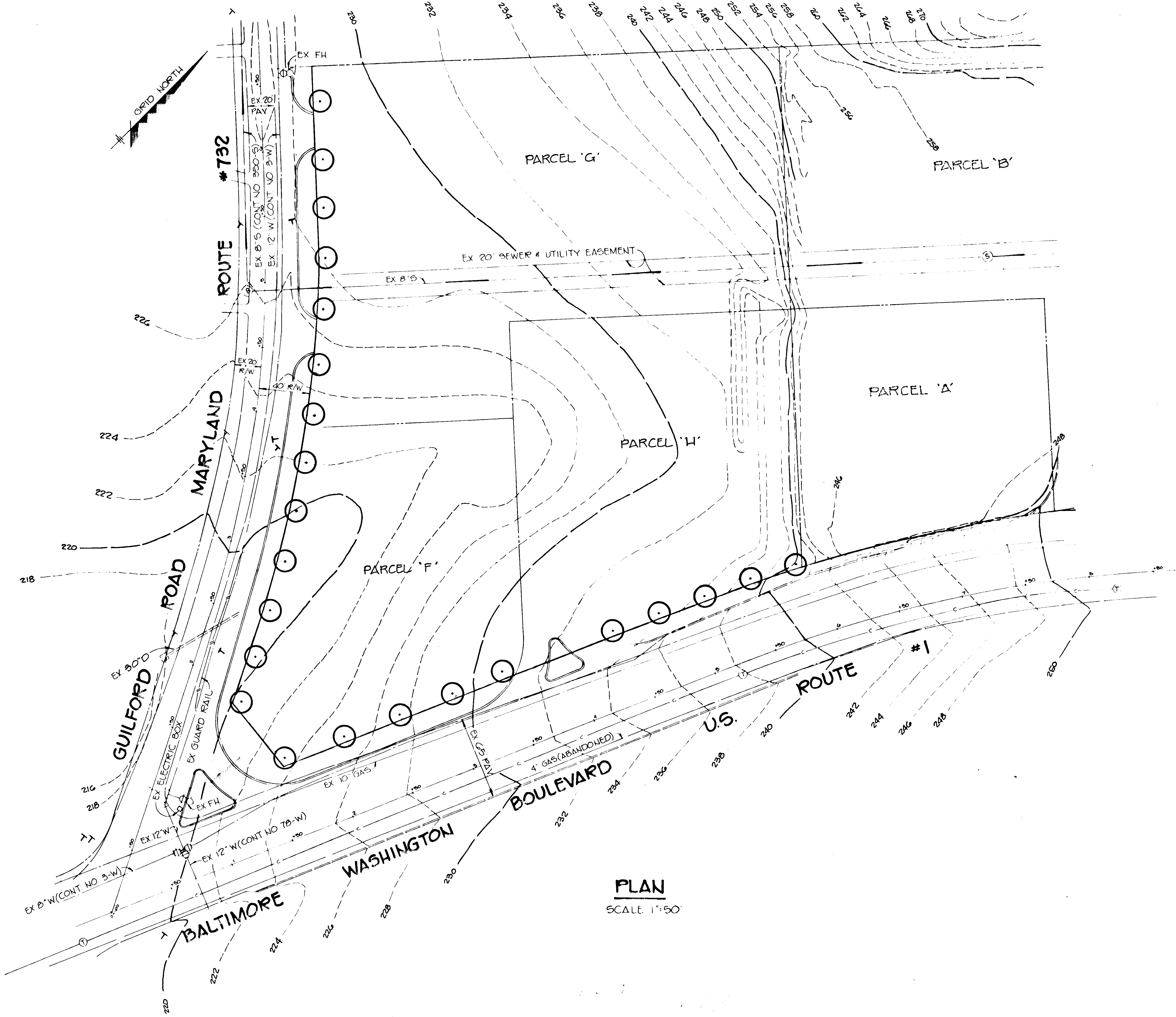
DRN. CDT / JH

SCALE AS SHOWN

DRAWING 6 OF 7

F-88-160

1234



PLAN

SCALE 1"=50'

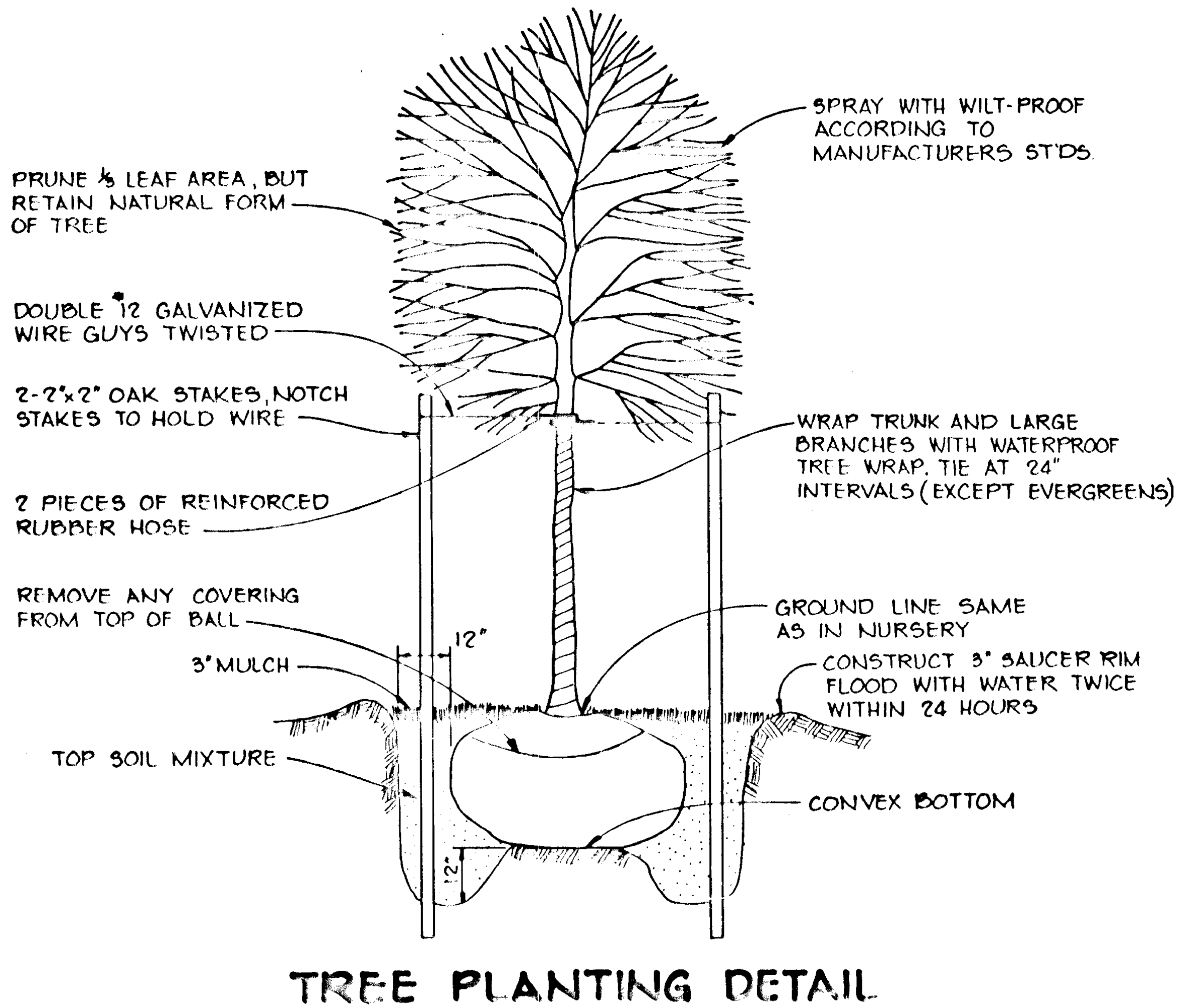
PLANT LIST

SYMBOL	QUANTITY	NAME	REMARKS
⊙	23	PYRUS CALLERYANA BRADFORD Bradford Pear	2½ Min. Cal. B&B Full Head
TOTAL	23		

914.64 ÷ 40 = 22.87

TOTAL REQUIRED 22.87

TOTAL PROVIDED 23



TREE PLANTING DETAIL

NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Ronald Lepson 11/3/88.
CHIEF, LAND DEVELOPMENT DIVISION DATE

Granville W. Wehland 10/25/88
CHIEF, BUREAU OF HIGHWAYS DATE

Andrew M. Daneker 11/3/88
Acting CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

11-18-88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

NO	DATE	REVISION

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

James K. Tracy

OWNER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

DEVELOPER
SCI LIMITED PARTNERSHIP
8480 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

PROJECT
COLUMBIA JUNCTION
SECTION 2, AREA 1

LOCATION
TAX MAP NOS. 47 & 48
PARCEL 68, 77 & 548
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
PLANTING PLAN
PB 1, F45
S-87-55
P-88-17 V.P.-86-25 F-88-160

DATE APRIL 7, 1988
AUGUST 26, 1988
PROJECT NO 87C8

DES JKT
DRN CDT
SCALE 1"=50'
DRAWING 7 OF 7

F-88-160

1234