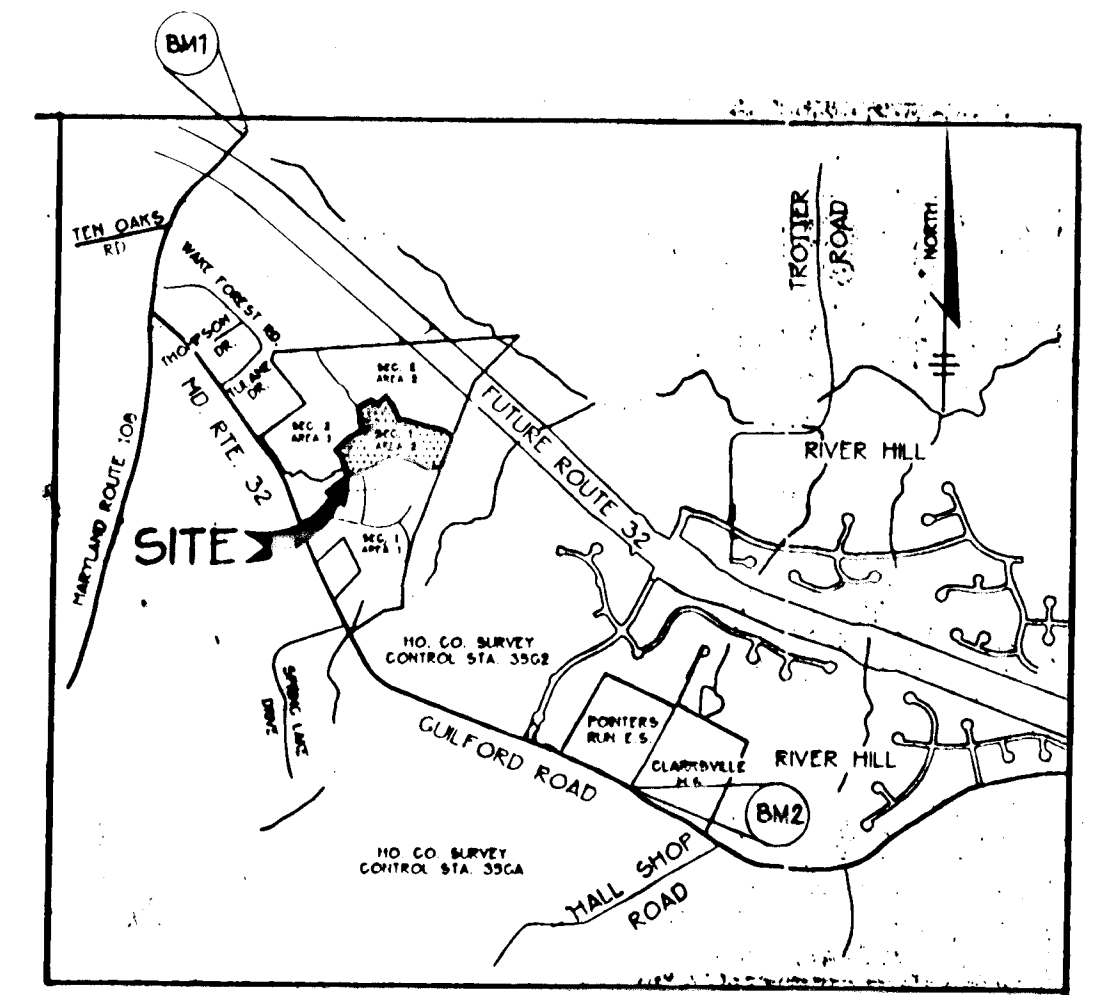


SHEET INDEX	
1	COVER SHEET
2	ROAD PLAN AND PROFILE - SHANNON COURT & KELLS COURT
3	ROAD PLAN AND PROFILE - BALLYMORE LANE FROM CL STA 5+85.62 TO CL STA 9+45.81
4	GRADING AND SEDIMENT CONTROL PLAN
5	DRAINAGE AREA MAP
6	DETAIL SHEET
7	STORM DRAIN PROFILES

CLARKS GLEN SECTION 1 AREA 2 ROADWAYS & STORM DRAINS

LOTS 65 - 98 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS

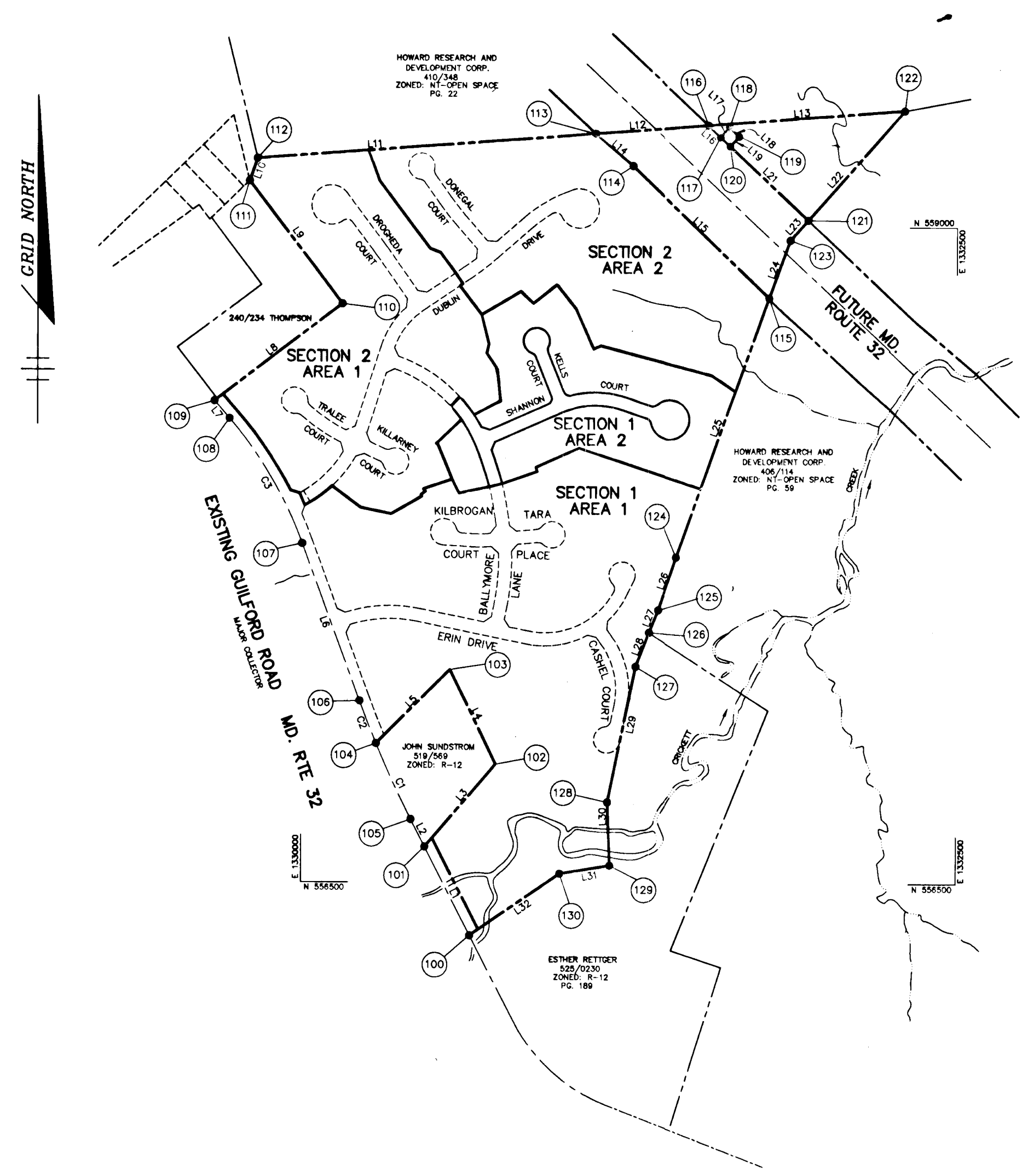
- BM1 HOWARD COUNTY MONUMENT NO. 2637003
ELEV. 481.25
CONCRETE MONUMENT
- BM2 HOWARD COUNTY MONUMENT NO. 2437003
ELEV. 472.12
CONCRETE MONUMENT

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 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. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1800 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.

BELL TELEPHONE SYSTEM	363-3644
LONG DISTANCE CABLE DIVISION	363-3553 OR 3554
BALTIMORE GAS AND ELECTRIC CO.	539-8000
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
COLONIAL PIPELINE	795-1390
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL LOCAL STREET INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS & SPECIFICATIONS.
- ALL STREET CURB RETURNS SHALL HAVE 25' RADI UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:

SHANNON COURT	30 M.P.H.
BALLYMORE LANE	30 M.P.H.
KELLS COURT	30 M.P.H.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-99.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED R-12 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS "C" AS SHOWN IN FIG. 11-4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS. S-94-18, W-94-31, P-94-25, F-95-83, P-95-16.
- STORMWATER QUANTITY AND QUALITY CONTROL ARE PROVIDED UNDER F-95-83 APPROVED 5/95.
- TOPOGRAPHY SHOWN HEREON WAS PERFORMED BY MINDS AERIAL MAPPING COMPANY, MARCH 1994. ALL CONTOURS ARE TWO FOOT INTERVALS.
- PUBLIC WATER AND SEWER SYSTEMS AS PER CONTRACT NO. 34-3394-D ARE TO BE UTILIZED FOR THIS SITE. SEWER SERVICE DRAINAGE AREA: MIDDLE PATIENT.
- NOISE STUDY WAS PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. AND APPROVED P-94-25.
- GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT AND PAVEMENT FOR THIS PROJECT IS PROVIDED BY GEO-TECHNOLOGY ASSOCIATES INC., JUNE 1994.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. III (1993) AND AS MODIFIED BY THE "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (LANE 1993)" WHICH INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. STREET TREES TO BE PLACED 20' FROM STREET LIGHTS.
- THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
- CONTRACTOR SHALL PROVIDE A 20' TRANSITION WHEN CONNECTING MODIFIED CURB & GUTTER TO STANDARD CURB & GUTTER. SEE STANDARD DETAIL R-3.02.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- FOREST CONSERVATION IS PROVIDED UNDER THE FOREST CONSERVATION MASTER PLAN THAT COVERS CLARKS GLEN SECTION 1 AREAS 1 & 2.



PLAN
SCALE: 1" = 400'

CURVE LISTINGS		
CURVE	RADIUS	LENGTH
C1	4000.00'	315.56'
C2	4000.00'	174.74'
C3	1519.06'	550.72'

PROPERTY LINE LIST		
LINE	BEARING	DISTANCE
L1	S 27°05'14" E	377.31'
L2	S 27°05'14" E	116.73'
L3	S 40°34'50" E	412.82'
L4	S 25°44'28" E	400.00'
L5	S 44°40'57" W	398.83'
L6	S 20°04'21" E	640.39'
L7	N 40°50'41" W	89.94'
L8	N 52°30'36" E	612.22'
L9	S 37°10'27" E	586.47'
L10	N 19°19'52" E	90.00'
L11	N 85°37'26" E	1290.16'
L12	N 85°37'26" E	433.57'
L13	N 85°37'26" E	735.60'
L14	S 49°47'59" E	187.07'
L15	S 46°13'22" E	726.20'
L16	N 46°56'20" W	63.58'
L17	S 43°03'40" W	50.00'
L18	N 46°56'20" W	50.00'
L19	N 43°03'40" E	50.00'
L20	N 46°56'20" W	50.00'
L21	N 46°56'20" W	410.78'
L22	S 41°33'05" W	555.24'
L23	S 41°33'05" W	103.22'
L24	S 19°50'08" W	234.83'
L25	S 19°50'08" W	1048.18'
L26	S 18°50'31" W	213.96'
L27	S 21°49'50" W	92.86'
L28	S 21°49'50" W	139.35'
L29	S 11°41'17" W	528.00'
L30	S 02°18'43" E	240.00'
L31	S 80°30'43" W	192.86'
L32	S 55°26'00" W	415.25'

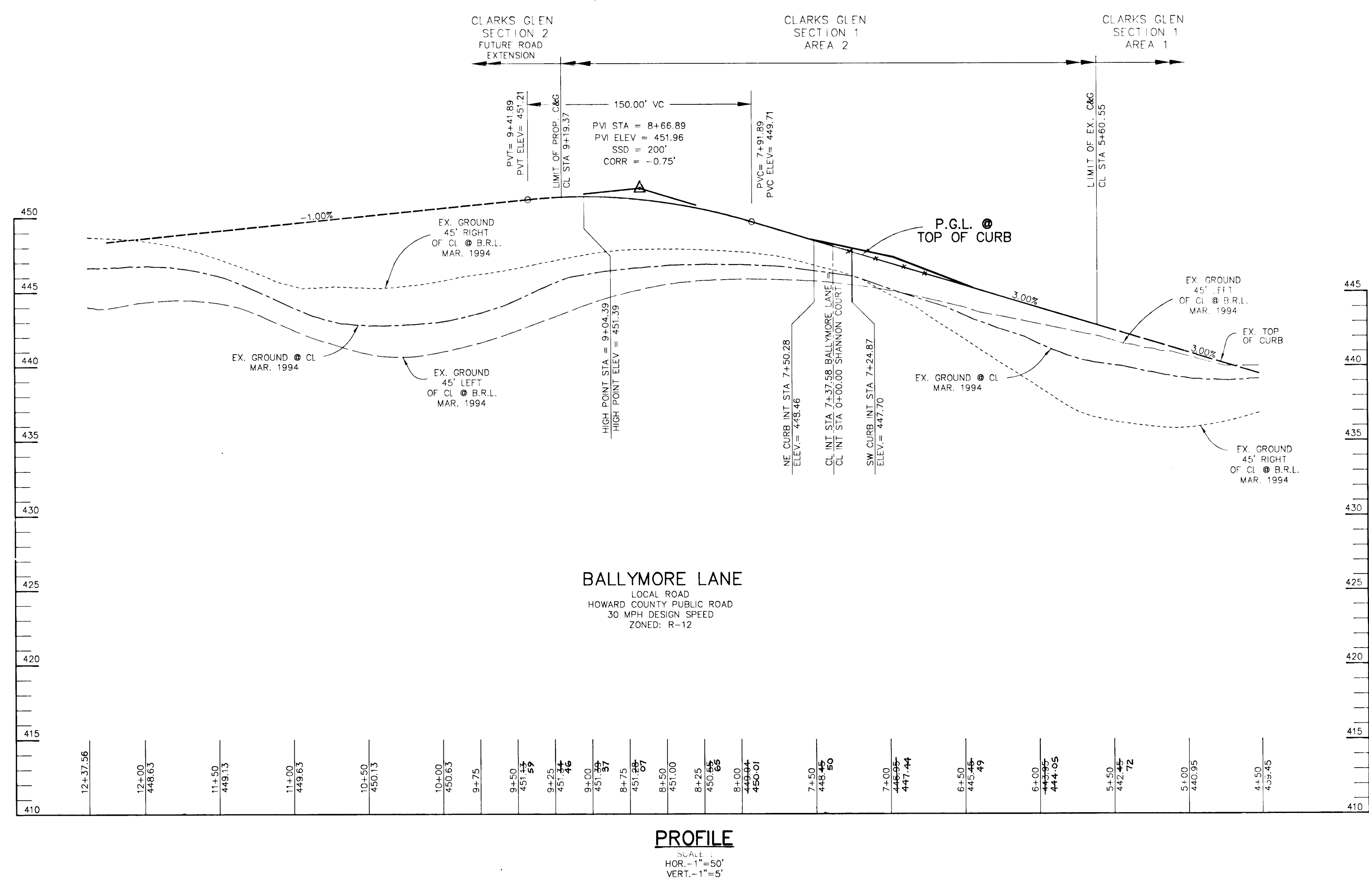
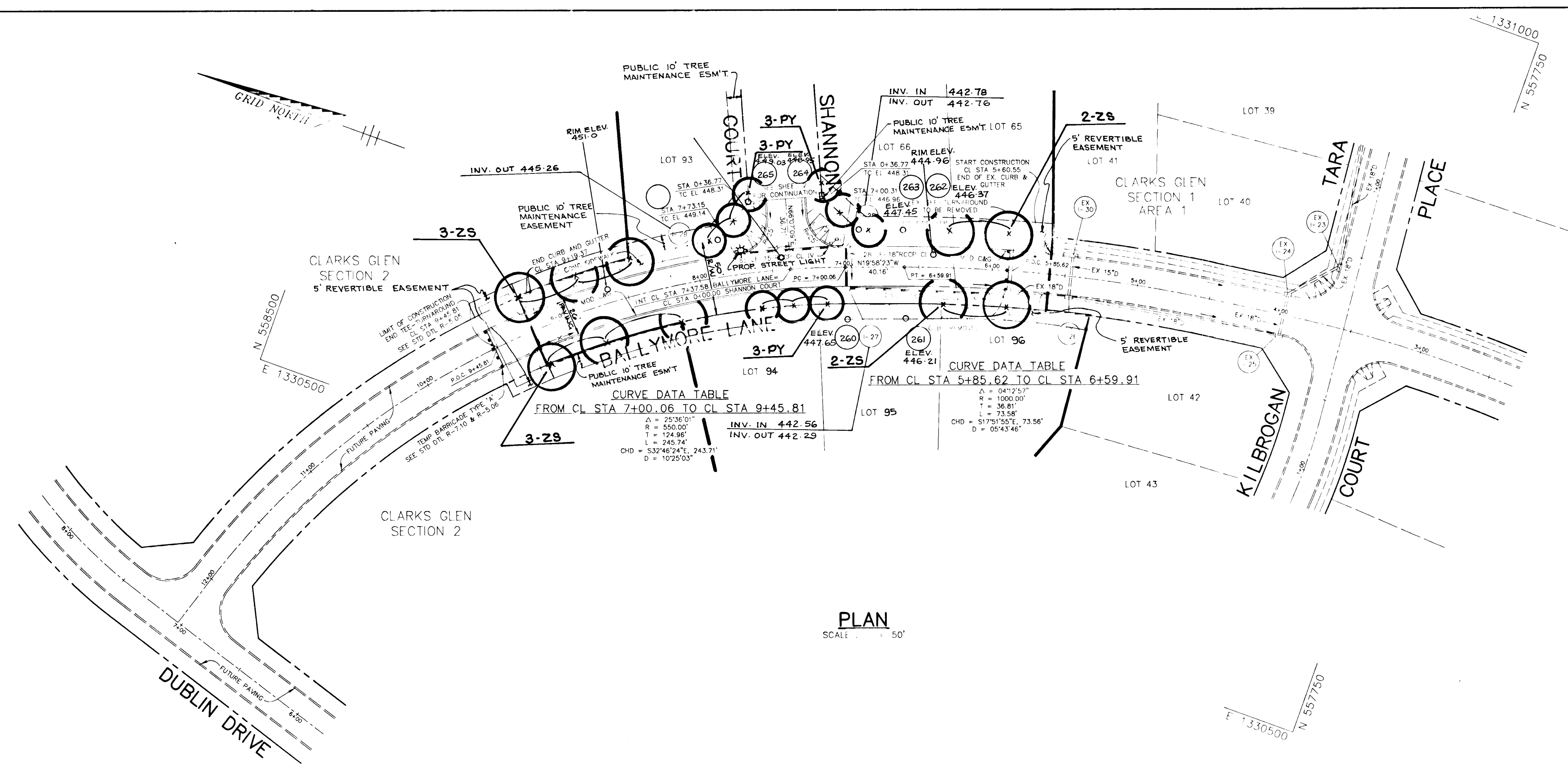
COORDINATE LIST		
NO.	NORTHING	EASTING
100	556299.892	1330643.332
101	556635.817	1330471.526
102	556949.351	1330740.072
103	557309.857	1330966.350
104	557026.083	1330285.902
105	556739.746	1330418.372
106	557188.295	1330222.594
107	557769.789	1330002.806
108	558261.915	1329725.163
109	558328.438	1329667.652
110	558701.048	1330153.422
111	559158.349	1329799.054
112	559253.278	1329828.838
113	559351.720	1331115.236
114	559230.971	1331258.122
115	558728.543	1331782.467
116	559384.803	1331547.538
117	559341.393	1331593.990
118	559377.924	1331628.129
119	559343.785	1331664.660
120	559307.254	1331630.521
121	559206.182	1331930.648
122	559442.304	1332298.938
123	558949.539	1331862.186
124	557242.548	1331426.795
125	557440.054	1331557.595
126	557454.031	1331323.245
127	557324.140	1331772.783
128	556807.088	1331165.819
129	556567.284	1331175.501
130	556535.492	1330985.279

Christopher J. Reid CHRISTOPHER J. REID # 19949	7/20/99 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
Andrew M. Quaker CHIEF, BUREAU OF HIGHWAYS #8	11-21-95 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
Gina Summy CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH #A	11/22/95 DATE
[Signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION	
DATE NO.	REVISION
OWNER / DEVELOPER	
WILBEN II LIMITED PARTNERSHIP C/O ANDREW L. ISAACSON 5450 WHITLEY PARK TERRACE NO. 410 BETHESDA, MD 20814	
PROJECT	
CLARKS GLEN SECTION 1, AREA 2, LOT 65-98	
AREA	
TAX MAP 35 PARCEL 205 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
COVER SHEET	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Maryland 21045 410-997-8900 FAX: 410-997-9282	
10.31.95 DATE	DESIGNED BY: A.A.P.
[Signature]	DRAWN BY: W.C.W.
J. Laible	PROJECT NO: 93211
JAYKANT D. PAREKH #19148	DATE: OCT. 31, 1995
	SCALE: AS SHOWN
	DRAWING NO. 1 OF 7

1739

STREET LIGHT SCHEDULE		
STREET	STATION	OFFSET
BALLYMORE LANE	7+70	12' RT.

NOTE: ALL STREET LIGHTS TO BE 100 WATT HPS VAPOR TRADITIONAIRE POST TOP MOUNTED ON A 14' BLACK FIBERGLASS EMBEDDED POLE.



PERMIT CERTIFICATE

CHRISTOPHER J. REID #19949 DATE 9.28.99

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Andrew M. Daniels 11-21-95
 CHIEF, BUREAU OF HIGHWAYS # DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Dino Summary 11/22/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH # DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	REVISION

OWNER / DEVELOPER
 WILBEN II LIMITED PARTNERSHIP
 C/O ANDREW L. ISAACSON
 5450 WHITLEY PARK TERRACE
 NO. 410
 BETHESDA MD. 20814

PROJECT
 CLARKS GLEN
 SECTION 1, AREA 2, LOT 65-98

AREA
 TAX MAP 35 PARCEL 205
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
 ROAD PLAN AND PROFILE
 BALLYMORE LANE FROM
 CL STA 5+85.62 TO CL STA 9+45.81

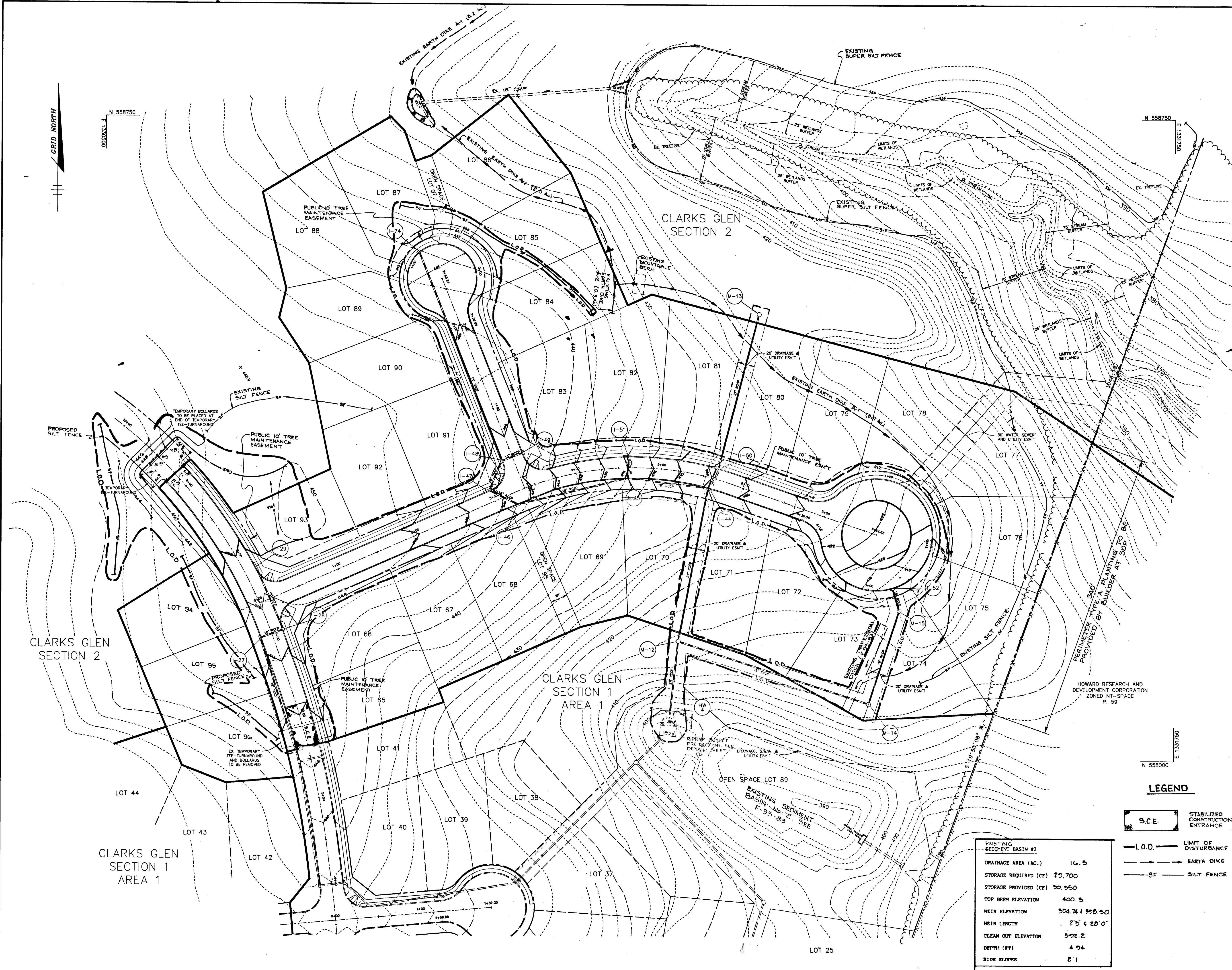
RIEMER MUEGGEL & ASSOCIATES, INC.
 Planners • Engineers • Surveyors
 8818 Centre Park Drive • Suite 200 • Columbia, Maryland 21045
 410-997-8900 FAX: 410-997-9282

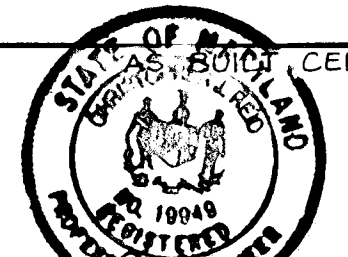
10.31.95 DATE
 DESIGNED BY: A.A.P.
 DRAWN BY: W.C.W.
 PROJECT NO: 93211
 DATE: OCT. 31, 1995
 SCALE: AS SHOWN
 DRAWING NO. 3 OF 7

J. Larekh
 JAYKANT L. PAREKH #19148

1739

1739





CERTIFICATE
 CHRISTOPHER J. REID #19949
 DATE: 9-20-99

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Mitchell Spauld 10/31/95
 DEVELOPER DATE

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

J. Sarell 10.31.95
 ENGINEER DATE

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

Patricia Engle 11/13/95
 NATURAL RESOURCE CONSERVATION SERVICE DATE

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

John P. Robinson 11/13/95
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Andrew M. Daniels 11-21-95
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Dina Simmons 11/22/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

[Signature] 11/22/95
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
 WILBEN II LIMITED PARTNERSHIP
 C/O ANDREW L. ISAACSON
 5450 WHITLEY PARK TERRACE
 NO. 410
 BETHESDA, MD 20814

PROJECT
CLARKS GLEN
 SECTION 1, AREA 2, LOT 65-98

AREA
 TAX MAP 35, PARCEL 205
 5th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
GRADING AND SEDIMENT CONTROL & LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES, INC.
 Planners • Engineers • Surveyors
 8818 Centre Park Drive • Suite 200 • Columbia, Maryland 21045
 410-997-8900 FAX: 410-997-9282

10.31.95
 DATE

J. Sarell
 JAYKAM D. PAREKH #19148

DESIGNED BY: AAP
 DRAWN BY: W.C.W.
 PROJECT NO: 93211
 DATE: OCT. 31, 1995
 SCALE: AS SHOWN
 DRAWING NO. 4 OF 7

AS-BUILT 9/17/99 F-95-170

1739



CHRISTOPHER J. REID #19949	9-20-99 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Davelo</i>	11-21-95 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
<i>Uma Jermiany</i>	11/22/95 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
DATE NO.	REVISION
OWNER / DEVELOPER	
WILBEN II LIMITED PARTNERSHIP C/O ANDREW L. ISAACSON 5450 WHITLEY PARK TERRACE NO. 410 BETHESDA, MD 20814	
PROJECT	
CLARKS GLEN SECTION 1, AREA 2, LOT 65-98	
AREA	
TAX MAP 35 PARCEL 205 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
DRAINAGE AREA MAP	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Maryland 21045 410-997-8900 FAX : 410-997-9282	
10-31-95 DATE	DESIGNED BY : A.A.P.
	DRAWN BY : W.C.W.
	PROJECT NO : 93211
	DATE : OCT. 31, 1995
	SCALE : AS SHOWN
<i>J. Kavel</i> JAYKANT D. PAREKH #19148	DRAWING NO. 3 OF 7

STRUCTURE SCHEDULE

Sluic. No.	LOGGERS	I.C. Elev.	Inv. In	Inv. Out	Remarks
1-27	BALLYMORE LANE	447.23	442.96	442.96	A-5 INLET
1-28	BALLYMORE LANE	447.23	442.96	442.96	SEE HO.CO. STD. DTL. SD 4.01
1-29	BALLYMORE LANE	447.23	442.96	442.96	A-5 INLET
1-44	CL STA 5+58.92	428.28	417.88	417.88	A-10 INLET
1-45	SHANNON COURT	434.28	428.40	428.40	SEE HO.CO. STD. DTL. SD 4.02
1-46	CL STA 3+19.89	443.71	439.40	439.40	A-10 INLET
1-47	SHANNON COURT	444.85	435.00	435.00	SEE HO.CO. STD. DTL. SD 4.02
1-48	CL STA 2+96.81	444.85	435.00	435.00	A-5 INLET
1-49	SHANNON COURT	443.50	435.00	435.00	SEE HO.CO. STD. DTL. SD 4.01
1-50	CL STA 5+82.84	428.10	418.21	418.21	A-10 INLET
1-51	SHANNON COURT	434.28	430.20	430.20	SEE HO.CO. STD. DTL. SD 4.02
1-52	SHANNON COURT	417.38	413.44	413.44	SEE HO.CO. STD. DTL. SD 4.02
1-74	LP STA 1+16.32	441.59	437.60	437.60	A-10 INLET
M-12	N 558,138.584	16' ABOVE	408.24	399.40	5' STANDARD MANHOLE
M-13	E 1,331,159.408	EXIST. GRND.	419.25	419.15	5' STANDARD MANHOLE
M-14	E 1,331,393.183	EXIST. GRND.	408.46	408.36	4' STANDARD MANHOLE
M-15	N 558,174.637	412.5 +	413.24	412.40	4' STANDARD MANHOLE
HW-4	N 558,048.658	400.0 +	396.60	396.60	TYPE 'C' ENDWALL

* RIM ELEVATION
 ** TOP OF WALL ELEVATION
 + CHANNEL FOR FUTURE 24" PIPE (TO BE BRICKED SHUT)
 NOTE: ALL CL STA DIMENSIONS ARE TO CENTER OF STRUCTURE AT FACE OF CURB, UNLESS OTHERWISE NOTED.

TEMPORARY SEEDING NOTES

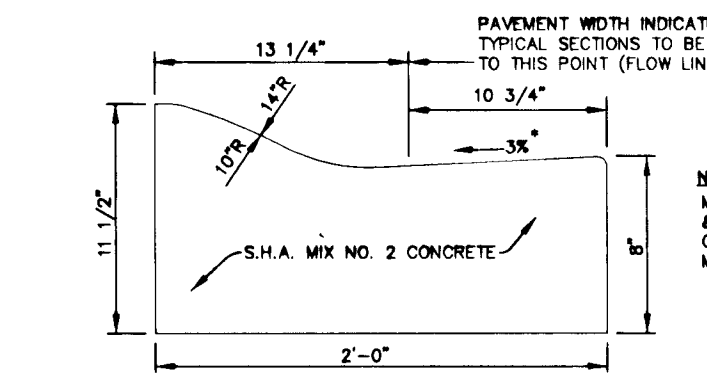
Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
Seeding Preparation: Loosen upper three inches of soil by raking, digging or other acceptable means before seeding. If not previously loosened.
Soil Amendments: Apply 800 lbs. per acre 10-10-10 fertilizer (14 lbs. per 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 ryegrass (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 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. per 1000 sq.ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
Seeding Preparation: Loosen upper three inches of soil by raking, digging 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. per 1000 sq.ft.) and 800 lbs. per acre 10-10-10 fertilizer (14 lbs. per 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 urea-form fertilizer (9 lbs. per 1000 sq.ft.).
 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.
Seeding: For the period March 1 thru April 30 and from August 15 thru October 15, seed with 50 lbs. per acre (14 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:
 1) 2 tons per acre of well-anchored straw mulch and seed as soon as possible in the spring.
 2) Use sod.
Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.
Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

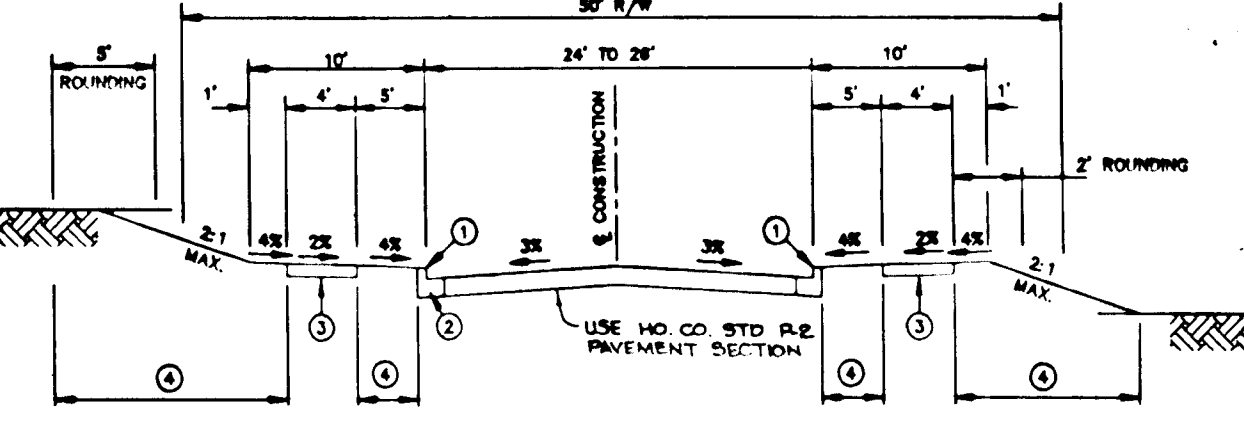
SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections and Permits prior to the start of any construction (313-1855).
 2. All vegetative and structural practices are to be installed according to the provisions of this plan and to be in conformance with the MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, and reference thereto.
 3. Following initial soil disturbance or redistribution, 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 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 the 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 1981 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, for permanent seedings (Sec. 53), and (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding does 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: 11,716 acres
 Area Disturbed: 3,358 acres
 Area to be roofed or paved: 1,412 acres
 Area to be vegetatively stabilized: 1,886 acres
 Total: 6,656 sq. yds.
 Total Fill: 1,045 cu. yds.



MODIFIED COMBINATION CURB AND GUTTER

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



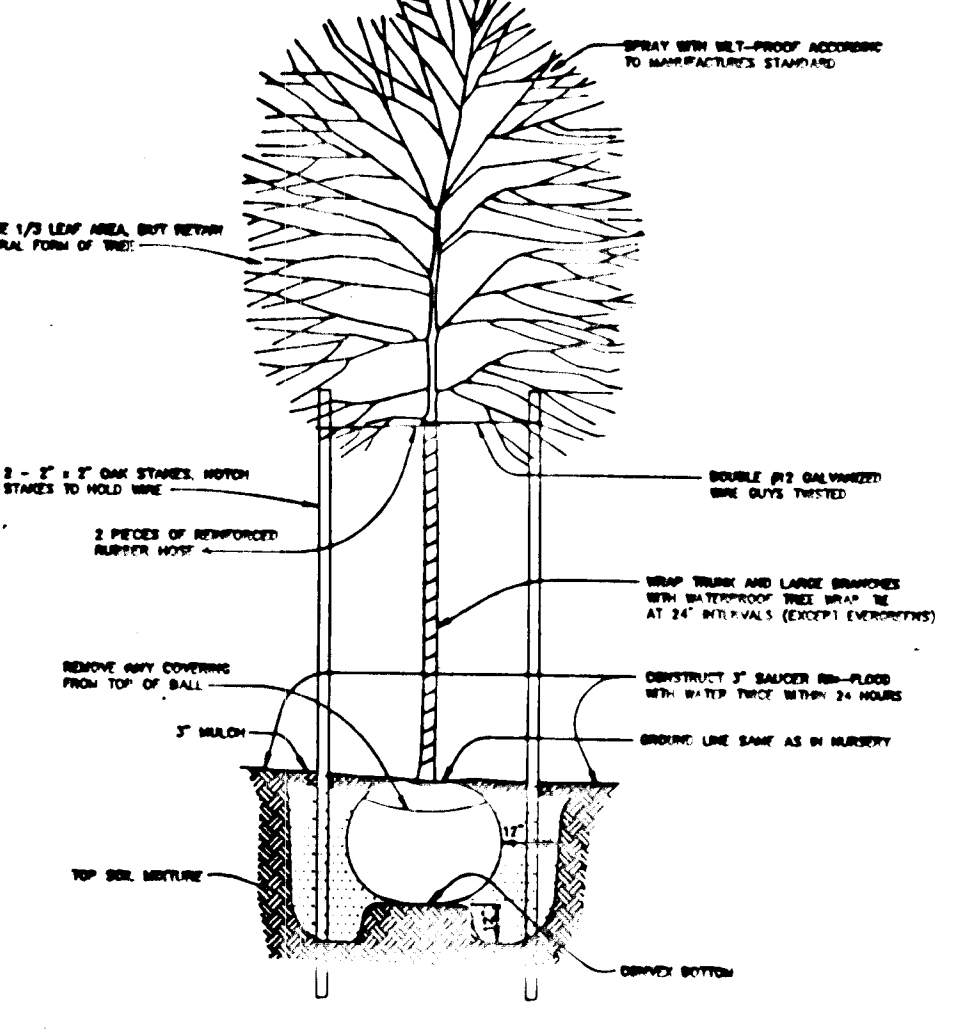
CLOSED SECTION

- 1 PROFILE GRADE LINE (PGL) SEE DESIGN MANUAL.
- 2 TYPE OF CURB VARIANTS (WITHIN THIS CURB OR MOD. COMB. CURB & GUTTER OR STANDARD COMB. CURB & GUTTER - SEE DESIGN MANUAL).
- 3 4" CONCRETE SIDEWALK AS REQUIRED BY SUPERVISION REGULATIONS.
- 4 INDICATES 2" TOPSOIL, SETD AND MACH.
- 5 OTHER NOTES REQUIRED BY THE DESIGN MANUAL.
- 6 DRAINAGE CROSS SECTION SLOPE MAY BE FLATTENED TO PROVIDE A SHOULDER AT OR NEAR THE CREST OF VERTICAL CURBS WHERE QUANTITY OF SMALL FLOW IS SHOWN AS PERMITTED BY SPW.

CUL-DE-SAC ROAD & TYPICAL SECTION LOCAL ROAD

NO SCALE

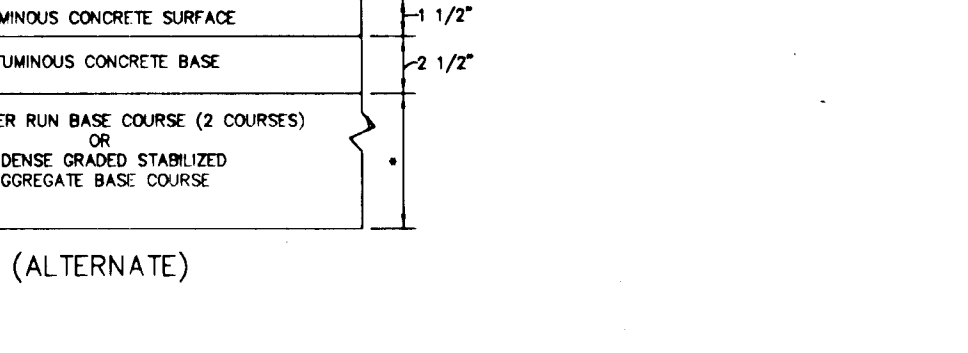
PAVING WIDTHS
 26' - BALLYMORE LANE: CL STA 5+60.55 TO CL STA 9+19.37
 SHANNON COURT: CL STA 0+36.77 TO CL STA 3+01.81
 TRANS - SHANNON COURT: CL STA 3+01.81 TO CL STA 3+50.79
 24' - SHANNON COURT: CL STA 3+50.79 TO CL STA 6+76.42
 KELLS COURT: CL STA 0+36.86 TO CL STA 2+04.79



TREE PLANTING DETAIL

CONSTRUCTION SPECIFICATIONS

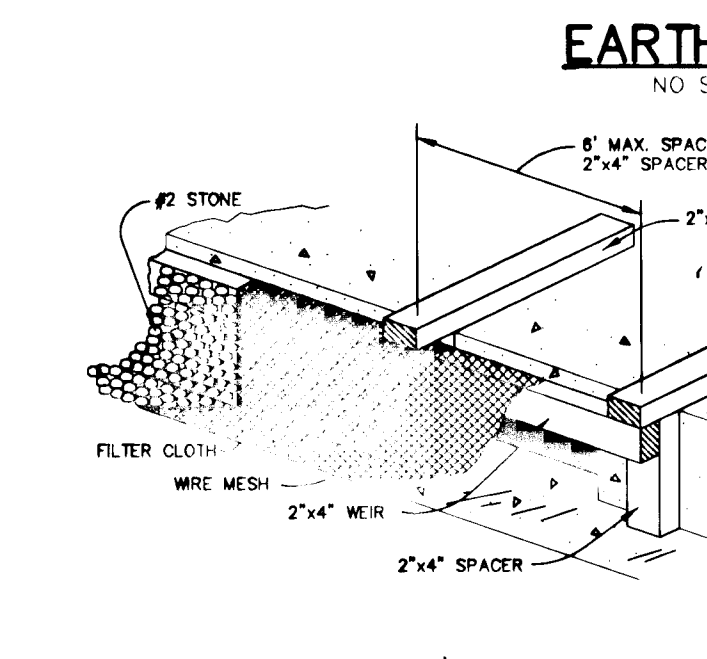
- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
 - ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
 - TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
 - FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
 - 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.
 - 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.
- | TYPE OF TREATMENT | CHANNEL GRADE | DIKE A | DIKE B |
|-------------------|---------------|----------------------------------|---|
| 1 | 0.5-3.0% | SEED & STRAW MULCH | SEED & STRAW MULCH |
| 2 | 3.1-5.0% | SEED & STRAW MULCH | SEED USING JUTE, OR EXCELLENT SOO, 2" STONE |
| 3 | 5.1-8.0% | SEED WITH JUTE, OR SOO, 2" STONE | LINED RIPRAP 4-6" |
| 4 | 8.1-20% | LINED RIPRAP 4-6" | ENGINEERED DESIGN |
- 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.
 - RIPRAP TO BE 4-6 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
 - APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
 - PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



P-2 PAVING

NO SCALE

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

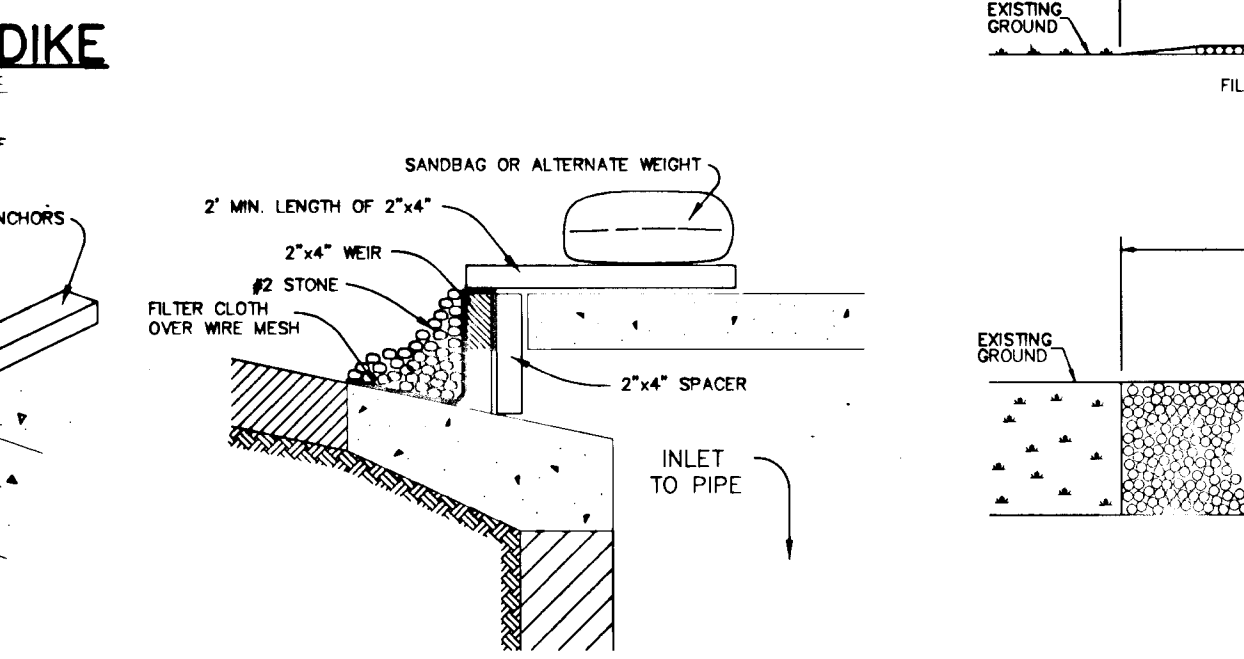


EARTH DIKE

NO SCALE

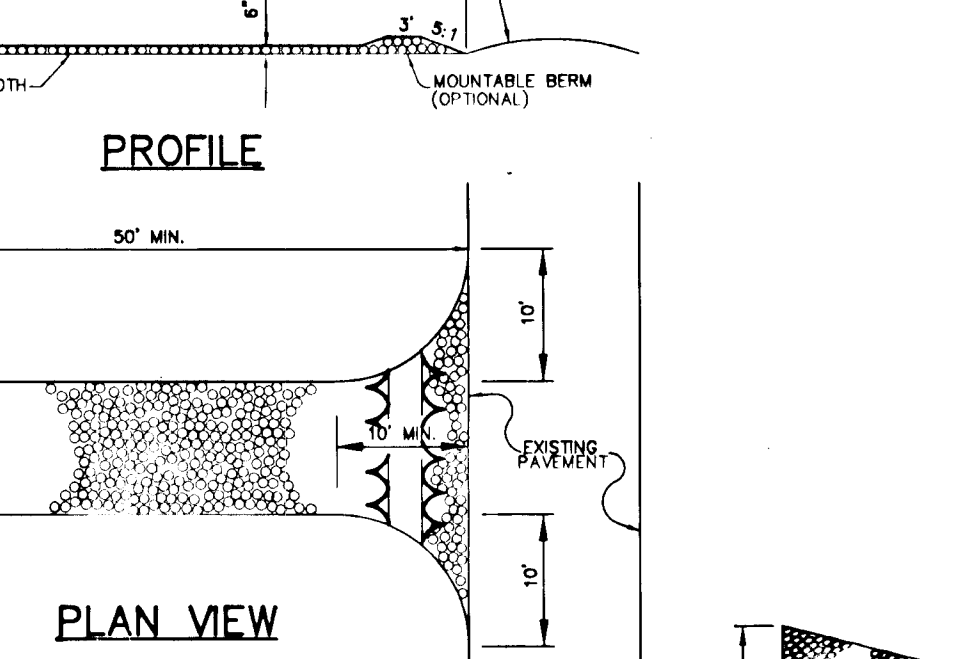
CONSTRUCTION SPECIFICATIONS

- WOODEN FRAME IS TO BE CONSTRUCTED OF 2"x4" CONSTRUCTION GRADE LUMBER.
- WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC AND STONE, WITH WATER FULLY IMPOUNDED AGAINST IT.
- FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE, RESISTANT TO SUNLIGHT WITH A SOLE SIZE, EOE 40-85, TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT.
- STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.



STONE FILTER INLET PROTECTION

NO SCALE



STABILIZED CONSTRUCTION ENTRANCE

NO SCALE

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT AND ALL OTHER NECESSARY PERMITS. 2 WEEKS
- CHECK INTEGRITY OF EXISTING SEDIMENT CONTROL DEVICES THAT ARE SPECIFIED TO REMAIN IN PLACE AND REPAIR IF NECESSARY. CLEAN THE SEDIMENT OUT OF S.W.M.F. #2. 2 WEEKS
- INSTALL THE STABILIZED CONSTRUCTION ENTRANCE, ADDITIONAL SILT FENCE AND EARTH DIKES AS SPECIFIED ON GRADING AND SEDIMENT CONTROL PLANS. 2 WEEKS
- CLEAR AND GRUB SITE AS NECESSARY. 1 WEEK
- ROUGH GRADE SITE. 3 WEEKS
- INSTALL UTILITIES AND ALL INLET PROTECTION. 6 WEEKS
- INSTALL CURB AND GUTTER AND PAVING. 2 MONTHS
- STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. 3 WEEKS
- WITH PERMISSION OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES OUTSIDE S.W.M.F. #2 AND STABILIZE REMAINING DISTURBED AREAS. 2 WEEKS

AS-BUILT CERTIFICATE

 CHRISTOPHER J. REID # 19949 DATE 9-20-99

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Mhaad Zoghd 10/3/95
 DEVELOPER DATE

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 J. Sarell 10-31-95
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
 Patricia Engle/MS 11/13/95
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 John R. Robinson 11/13/95
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Andrew M. Davelo 11-21-95
 CHIEF, BUREAU OF HIGHWAYS #5 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Anna Swannan 11/22/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH #1 DATE

DATE NO. REVISION

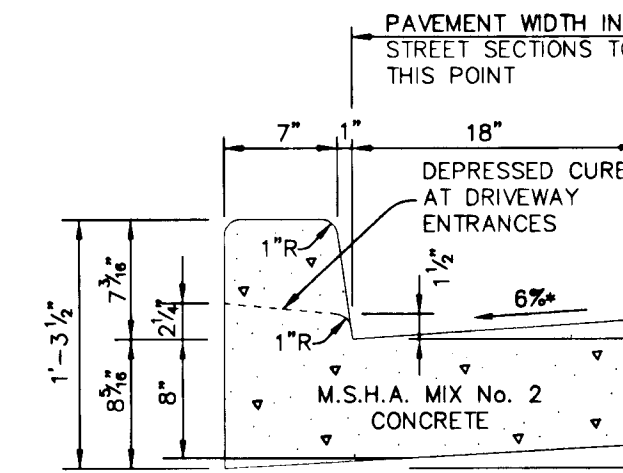
OWNER / DEVELOPER
 WILBEN II LIMITED PARTNERSHIP
 C/O ANDREW L. ISAACSON
 5450 WHITLEY PARK TERRACE
 NO. 410
 BETHESDA, MD 20814

PROJECT
CLARKS GLEN
 SECTION 1, AREA 2, LOT 65-98

AREA
 TAX MAP 35 PARCEL 205
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
DETAIL SHEET

DESIGNED BY: A.A.P
 DRAWN BY: W.C.W.
 PROJECT NO: 93211
 DATE: OCT. 31, 1995
 SCALE: AS SHOWN
 DRAWING NO. 6 OF 7



STANDARD 7" COMBINATION CURB AND GUTTER

NO SCALE

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.

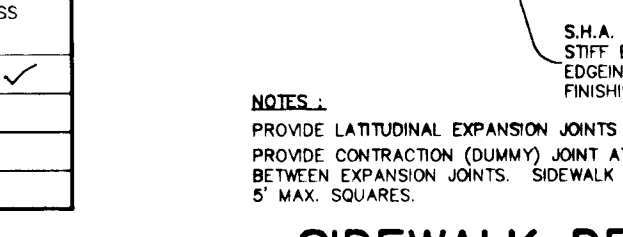
CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 2" STONE OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A PORTABLE BERM 5:1 SLOPES WILL BE PERMITTED.
- 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.
- 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 MACH. DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN.

RIPRAP OUTLET PROTECTION DETAIL

NO SCALE

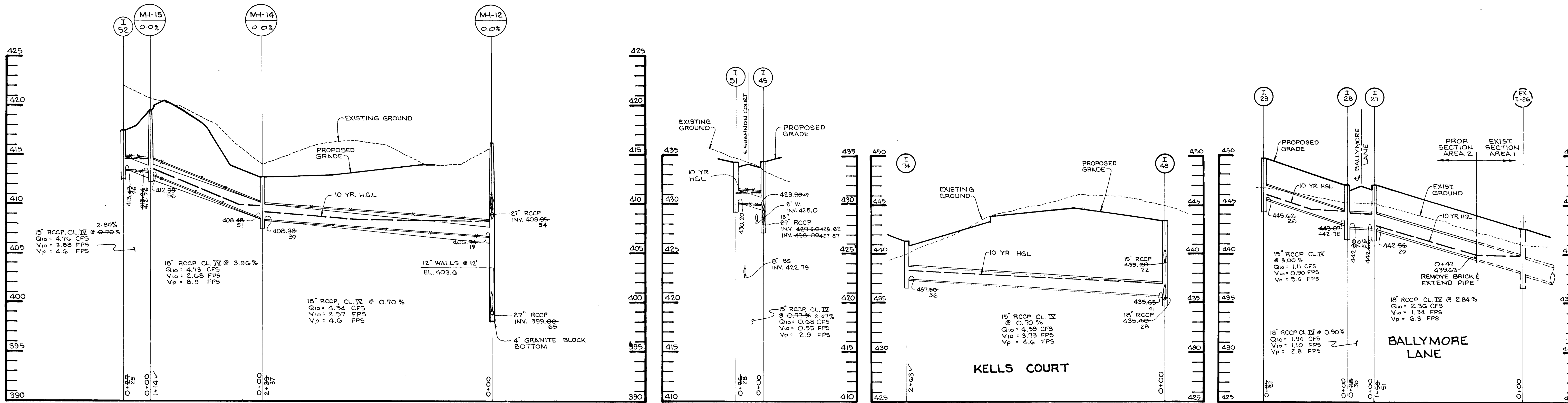
STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
HW-4	9.5"	17'	19.25'	19"



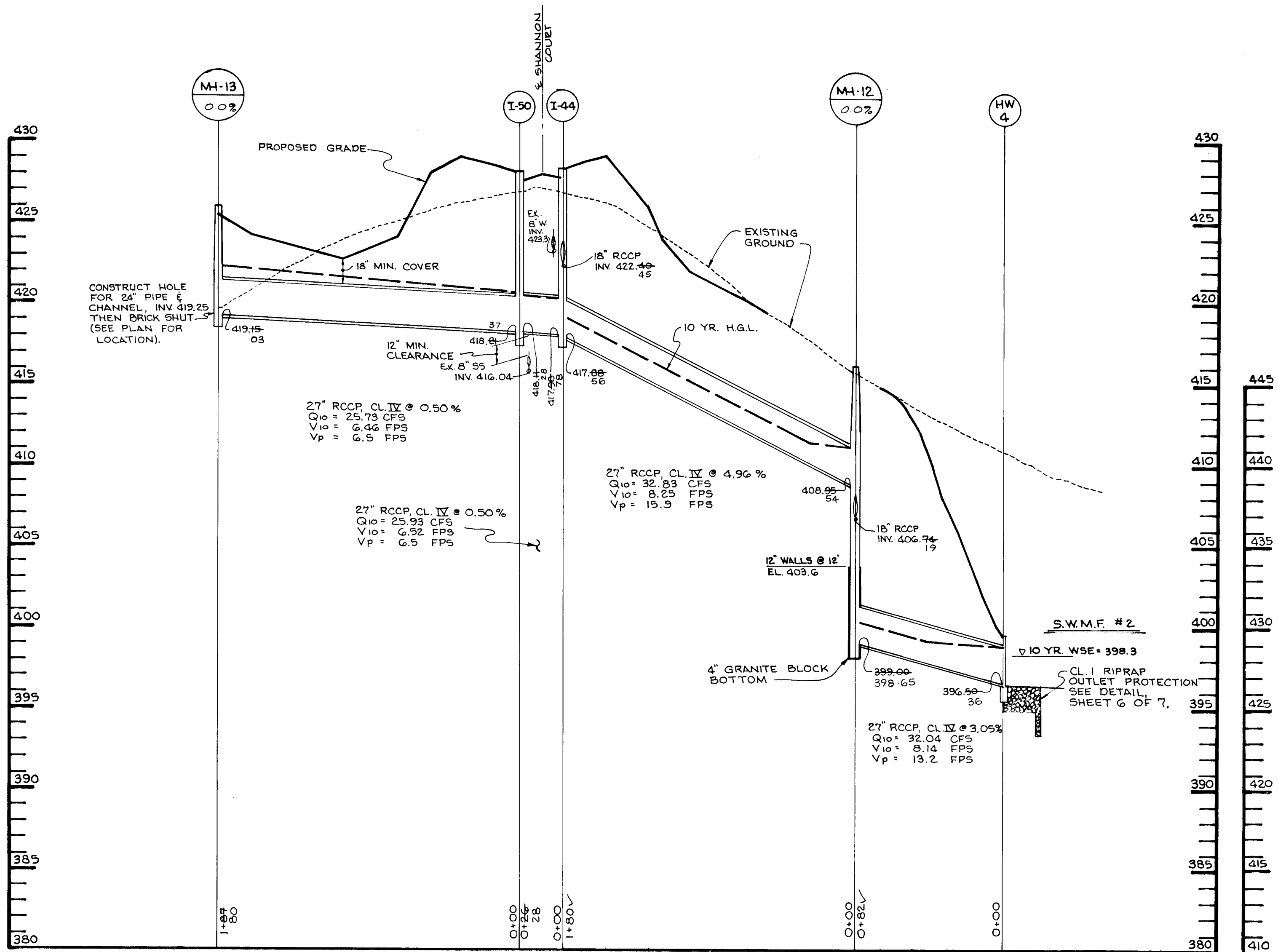
SIDEWALK DETAIL

NO SCALE

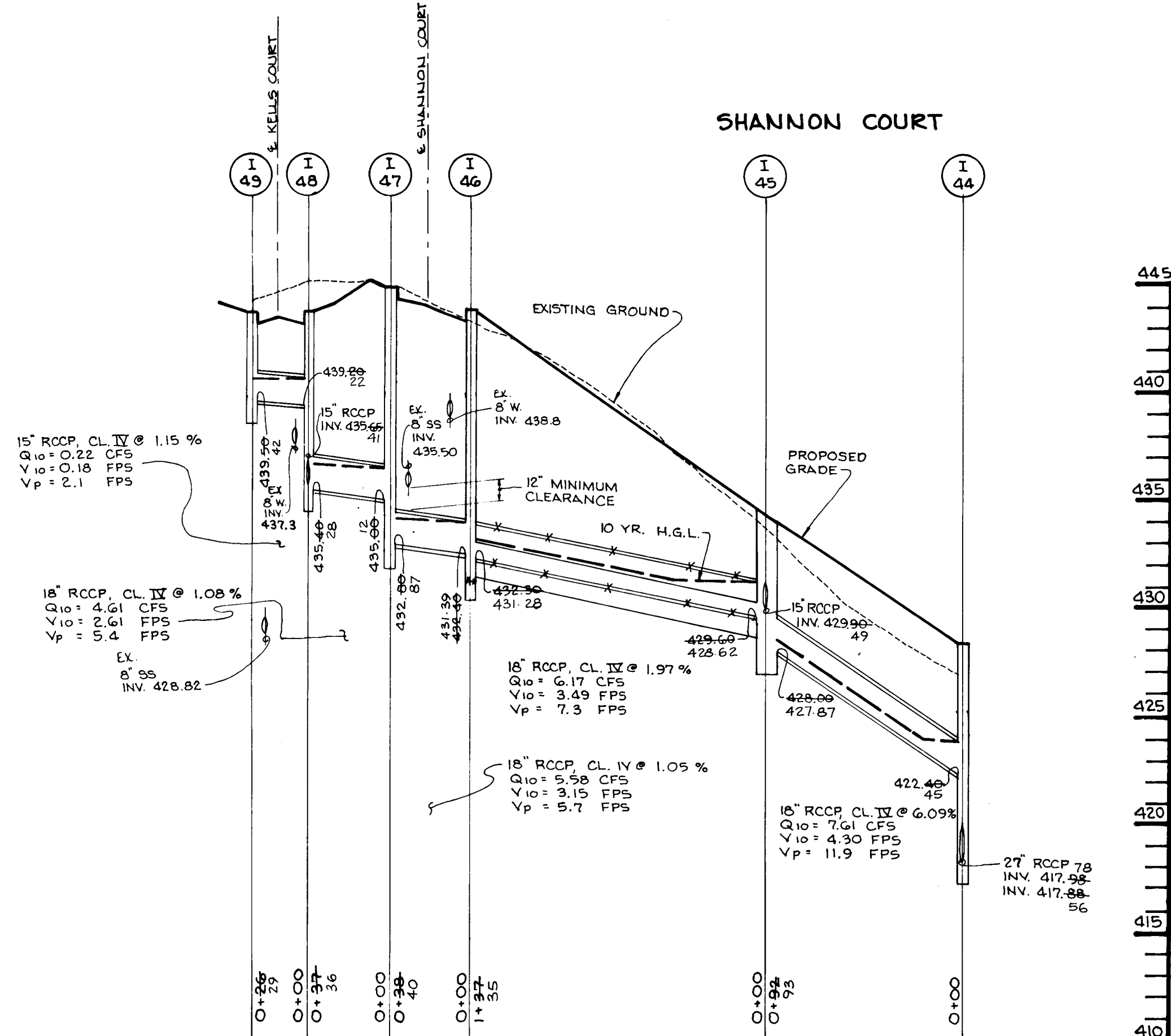
NOTES:
 PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX).
 PROVIDE CONTRACTION (DUMMY) JOINT AT 8' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN 5" MAX. SQUARES.



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



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



1739

		BUILT CERTIFICATE 9.2.99 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 		APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 		APPROVED: DIVISION OF LAND DEVELOPMENT & RESEARCH
APPROVED: DIVISION OF LAND DEVELOPMENT & RESEARCH 		CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH
DATE NO. _____ REVISION _____		DATE _____
OWNER / DEVELOPER WILBEN II LIMITED PARTNERSHIP 4450 WHITELEY PARK TERPACRE # 410 BETHESDA, MD 20814 301-530-1125		
PROJECT CLARKS GLEN SECTION I, AREA 2, LOT 65-98		
AREA TAX MAP 36 PARCELS 10 454 ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE STORM DRAIN PROFILES		
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Maryland 21045 410-997-8900 FAX: 410-997-9282		
10.31.95 		DESIGNED BY: A.A.P. DRAWN BY: R.J.C. PROJECT NO: 93211 DATE: OCT. 31, 1995 SCALE: AS SHOWN DRAWING NO. 7 OF 7