

ROADWAYS, STORM DRAINS AND STORMWATER MANAGEMENT

VILLAGE OF RIVER HILL

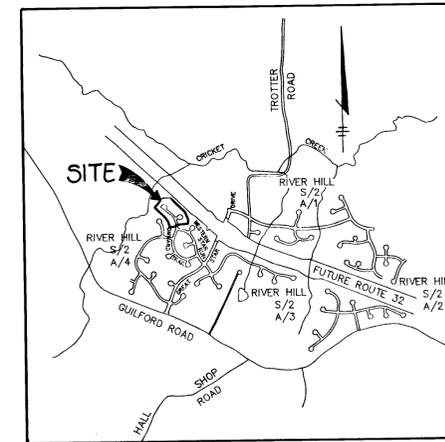
SECTION 2 AREA 3 PHASE 3

LOTS 121 - 145

5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE OF ONWARD TRAIL & GLITTERING LIGHT LANE
3	DRAINAGE AREA MAP, GRADING AND SEDIMENT CONTROL PLAN
4	DETAIL SHEET
5	PROFILE SHEET



VICINITY MAP
SCALE: 1" = 2000'

BENCHMARKS

BM#1 RAILROAD SPIKE IN POLE #525690
TROTTER ROAD ELEV. 393.27
N 496697.02 E 822026.81

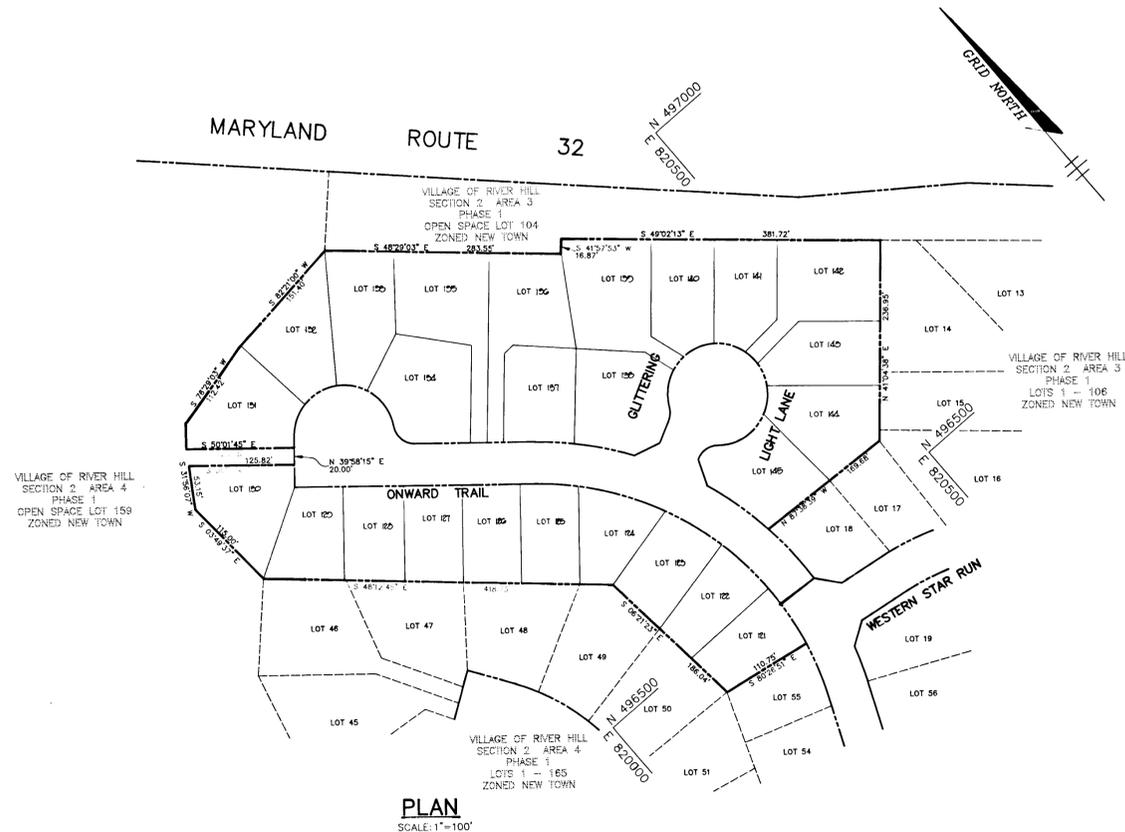
BM#2 RAILROAD SPIKE IN POPLAR
ELEV. 438.92
N 495551.90 E 820727.80

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) 313-1880 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.

WELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 OR 3554
BALTIMORE GAS AND ELECTRIC CO.	59-8000
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
COLONIAL PIPELINE	795-1390
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNS 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 INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- 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.A., 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:

ALL 50' RIGHT OF WAYS	25 AND 30 M.P.H.
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- 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 T80.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED NEW TOWN PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- NO PIPE SHALL BE LAID UNLESS 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 NO'S. S-91-03, P-94-01, F-94-81 AND F-94-100.
- LIGHT POLES, ARMS AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME II AND GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS, JUNE 1993.
- STORMWATER MANAGEMENT QUANTITY IS PROVIDED UNDER F-94-108. WATER QUALITY IS PROVIDED BY A SHALOW MARKS.
- STREET TREES (43 TOTAL) THE LOCATION, TYPE AND NUMBER OF TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS INCLUDING 20' CLEARANCE OF ANY STREET LIGHT AND BUILDERS LANDSCAPE PROGRAMS. BOND RELEASE IS CONTINGENT UPON SECTION 15.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- TOPOGRAPHY SHOWN HEREON IS FROM AERIAL MAPS FLOWN IN 1989 BY MAPPING ASSOCIATES, INC.
- PUBLIC WATER AND SEWER SYSTEMS AS PER CONTRACT NO. 34-2002-0 ARE TO BE UTILIZED FOR THIS SITE. SEWER SERVICE DRAINAGE AREA: LITTLE PATUXENT.
- THE 100-YEAR FLOODPLAIN STUDY WAS PREPARED BY WHITMAN REQUARDT AND ASSOCIATES AND WAS APPROVED UNDER S-91-03 ON 12-17-91.
- WETLANDS DELINEATION IS PROVIDED BY GEO-TECHNOLOGY ASSOC., INC. AND WAS APPROVED BY ARMY CORPS OF ENGINEERS ON 9-20-93.
- TRAFFIC STUDY WAS PREPARED BY GOROVE/SLADE ASSOCIATES AND WAS APPROVED UNDER S-91-03 ON 12-17-91.
- NOISE STUDY WAS PREPARED BY STAJANO ENGINEERING, INC. AND APPROVED UNDER P-92-13 AND P-92-15 ON 6-26-92 AND 1-8-93 RESPECTIVELY.
- GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT FOR THIS PROJECT IS PROVIDED BY THE ROBERT BAKER COMPANY.
- BOUNDARY SURVEY WAS PREPARED BY KCI, INC., AUGUST 28, 1991.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- THE COORDINATES SHOWN HEREON ARE BASE ON NAD 27, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY MONUMENT NO. 2337001, 2337002 AND 2437003.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.



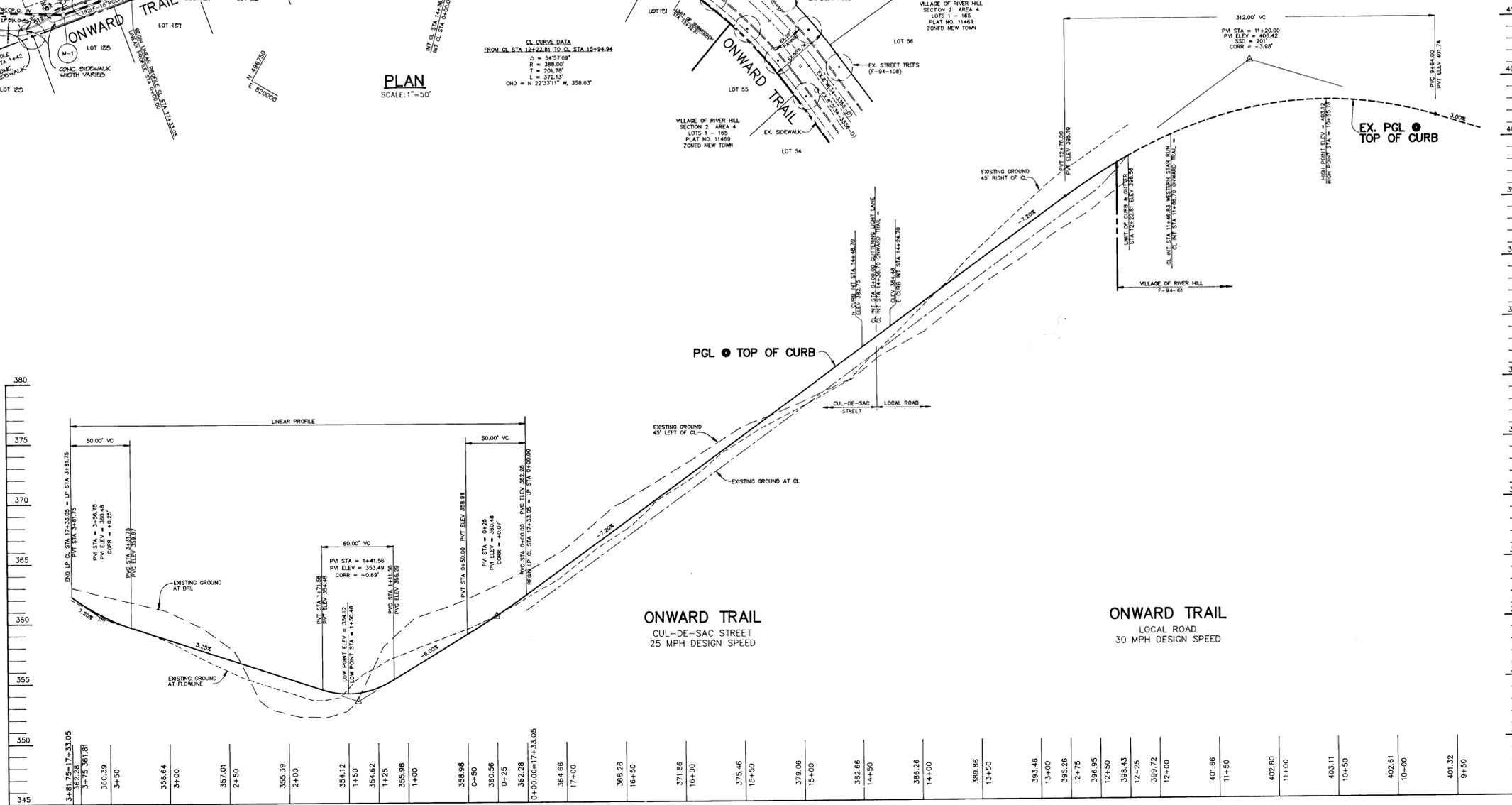
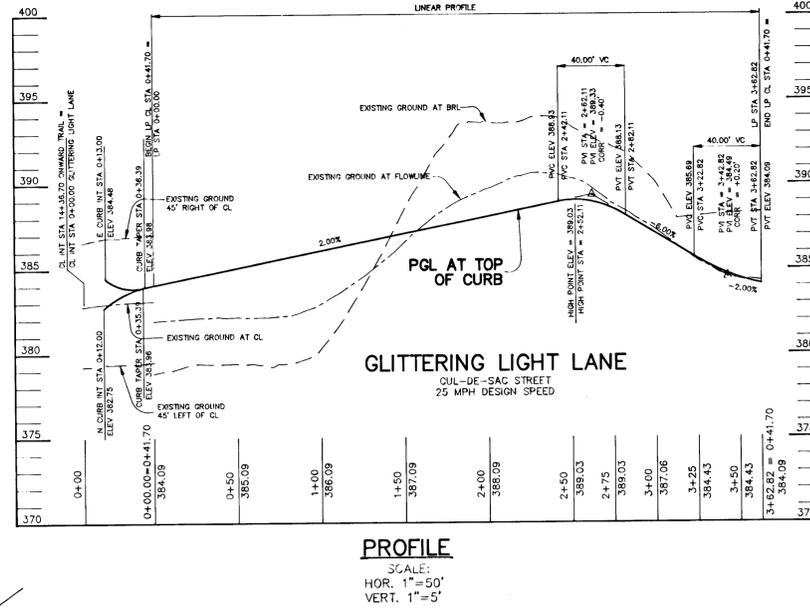
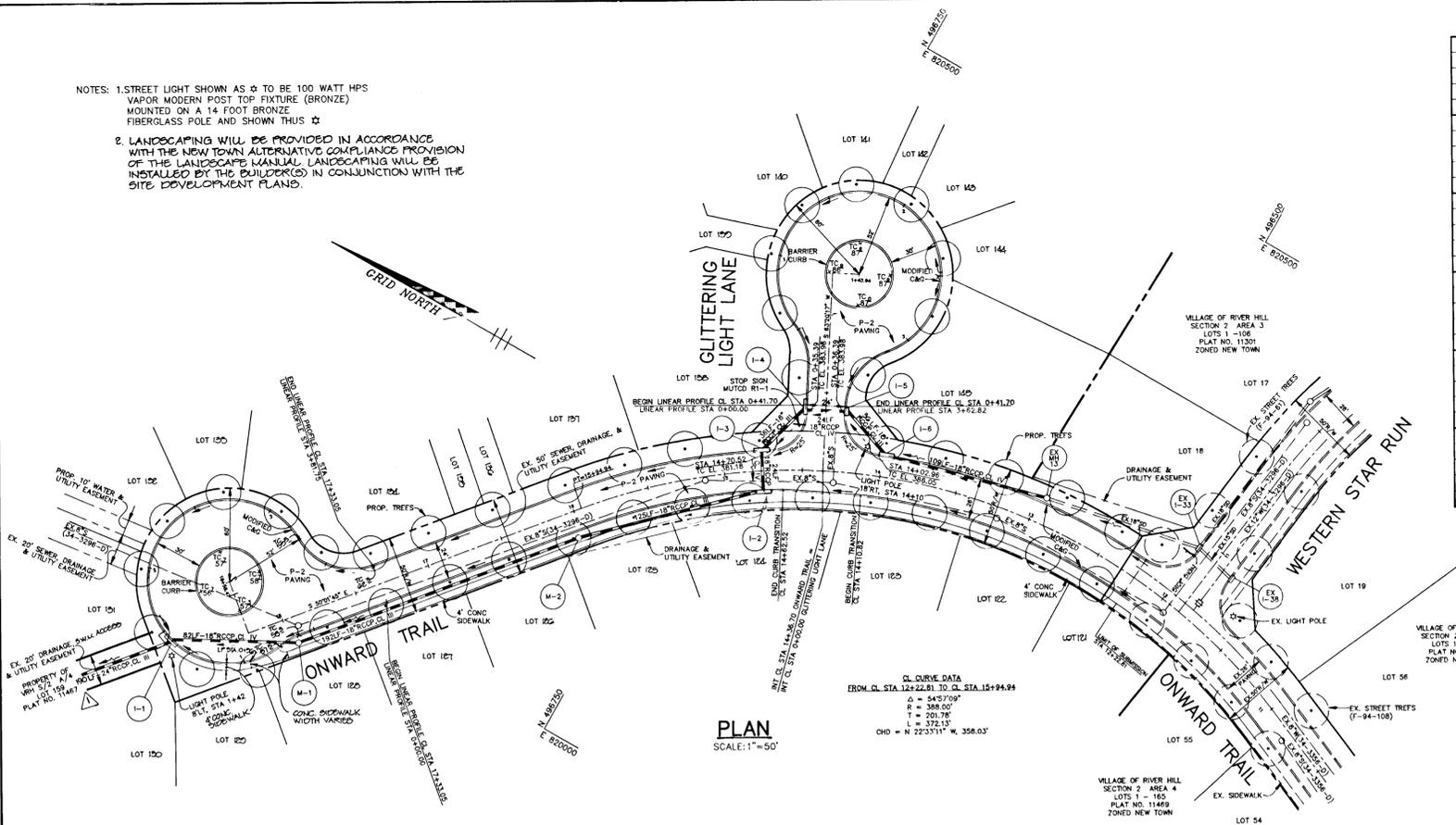
PLAN
SCALE: 1"=100'

AS BUILT CERTIFICATE	
DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	DATE: 9-20-95
<i>Andrew M. Daniels</i> CHIEF, BUREAU OF HIGHWAYS	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	DATE: 10/5/95
<i>Jim Murray</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	
<i>John Deacon</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 10/4/95
DATE NO.	REVISION
OWNER / DEVELOPER	
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044	
PROJECT VILLAGE OF RIVER HILL SECTION 2 AREA 3 PHASE 3 LOTS 121 - 145	
AREA TAX MAP NO. 35 ZONED NEW TOWN PART OF PARCELS 59, 70 & 240 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE TITLE SHEET	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282	
DATE: 9.18.95	DESIGNED BY: C.J.R.
	DRAWN BY: DAM
	PROJECT NO: HOCO\B8112 PH3RD.DWG
	DATE: SEPTEMBER 18, 1995
SCALE: AS SHOWN	DRAWING NO. 1 OF 5

1487

NOTES: 1. STREET LIGHT SHOWN AS \odot TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14 FOOT BRONZE FIBERGLASS POLE AND SHOWN THUS \odot

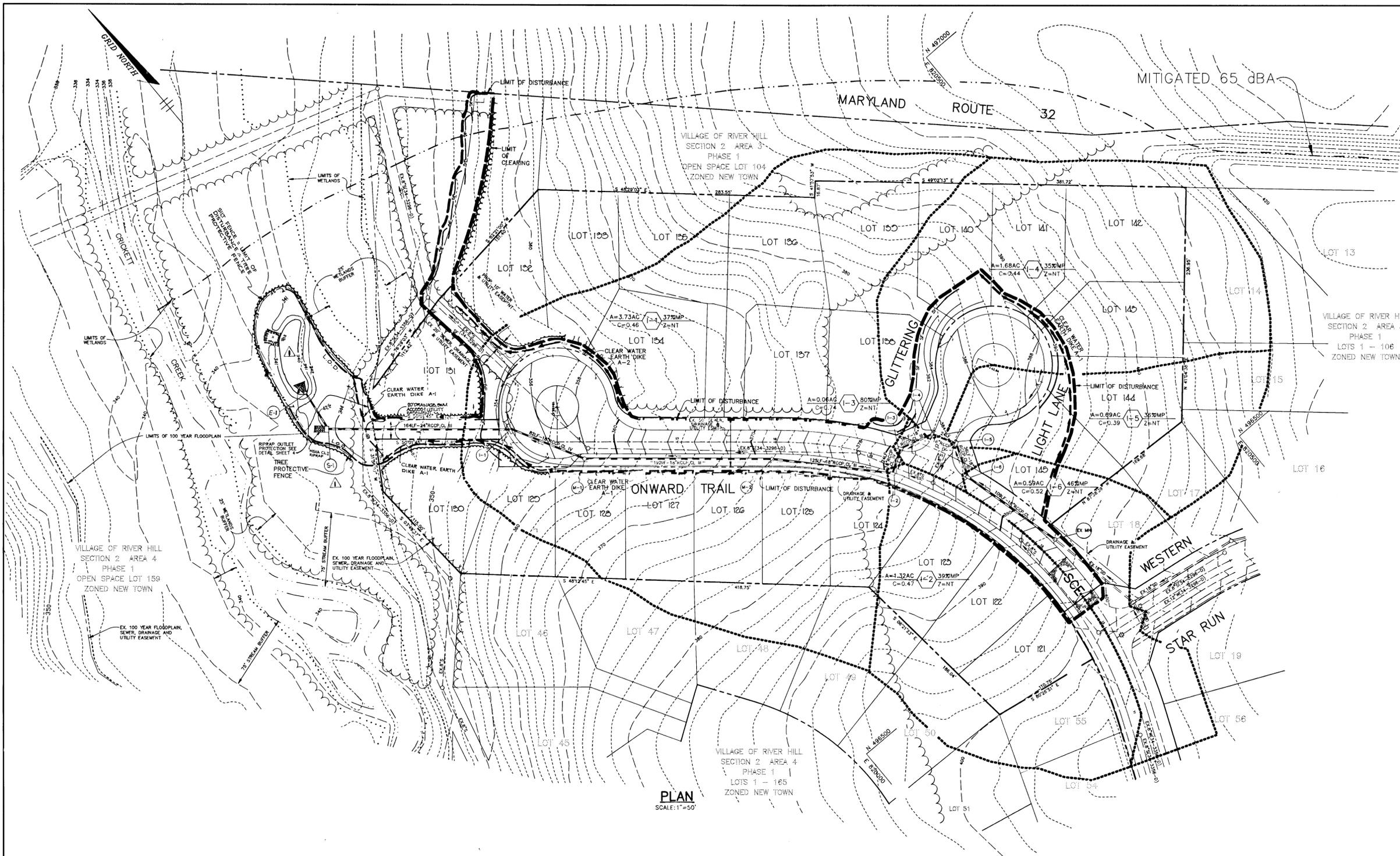
2. LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH THE NEW TOWN ALTERNATIVE COMPLIANCE PROVISION OF THE LANDSCAPE MANUAL. LANDSCAPING WILL BE INSTALLED BY THE EXHAUSTERES IN CONJUNCTION WITH THE SITE DEVELOPMENT PLANS.



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

AS BUILT CERTIFICATE	
DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	DATE: 9-28-95
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING	DATE: 10/5/95
APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 10/4/95
3/12/96	REVISION: REVISED LENGTH OF 24' RCP @ INLET I-1.
DATE NO.	REVISION
OWNER / DEVELOPER	
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044	
PROJECT: VILLAGE OF RIVER HILL SECTION 2 AREA 3 PHASE 3 LOTS 121-145	
AREA: TAX MAP NO. 35 ZONED NEW TOWN PART OF PARCELS 59, 70 & 240 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: PLAN AND PROFILES OF ONWARD TRAIL & GLITTERING LIGHT LANE	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282	
DATE: 9-18-95	DESIGNED BY: C.J.R.
	DRAWN BY: DAM
	PROJECT NO.: HOCO\88112 PH3RD2.DWG
	DATE: SEPTEMBER 18, 1995
	SCALE: AS SHOWN
J. Parekh	DRAWING NO.: 2 OF 5

1487



- ### SEQUENCE OF CONSTRUCTION
- OBTAIN GRADING PERMIT.
 - INSTALL SCE, CLEAR WATER EARTH DIKES, SILT FENCE AND TREE PROTECTIVE FENCE (3 DAYS). SILT FENCE TO BE STAKED AT 3'-5' INTERVALS.
 - CLEAR AND GRUB SITE (3 DAYS).
 - BEGIN GRADING FOR ROADS.
 - AS SUBGRADE ELEVATION IS OBTAINED, INSTALL UTILITIES, INCLUDING WATER, SEWER AND STORM DRAINS (2 WEEKS).
 - INSTALL CURB AND GUTTER AND PAVE (2 WEEKS).
 - STABILIZE ALL DISTURBED AREA IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES (1 DAY).
 - GRADE FOR SHALLOW MARSHES, INSTALL STREET TREES, LIGHTS AND COMPLETE CONSTRUCTION (4 DAYS).
 - UPON PERMISSION OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

STRUCTURE SCHEDULE

NO.	ITEM	LOCATION	INV. IN	INV. OUT	TOP. ELEV.	REMARKS
I-1	A-10 INLET	LP STA 1+50 ONWARD TRAIL	350.01	346.85	354.40	SEE HO CO STD DETAIL SD 4.02
I-2	A-10 W/DEF. INLET	12.52' LT OF CL STA 14+75.5 ONWARD TRAIL	373.12	373.02	361.00	SEE HO CO STD DETAIL SD 4.02 & 4.83
I-3	A-10 INLET	12.52' RT OF CL STA 14+75.5 ONWARD TRAIL	373.70	373.60	361.20	SEE HO CO STD DETAIL SD 4.02
I-4	A-10 W/DEF. INLET	12.52' LT OF CL STA 0+40.4 GLITTERING LIGHT LANE	376.60	376.50	364.51	SEE HO CO STD DETAIL SD 4.02 & 4.83
I-5	A-5 INLET	12.52' RT OF CL STA 0+38.9 GLITTERING LIGHT LANE	380.20	377.56	384.31	SEE HO CO STD DETAIL SD 4.01
I-6	A-10 W/DEF. INLET	13.52' RT OF CL STA 13+98 ONWARD TRAIL	383.01	382.91	366.54	SEE HO CO STD DETAIL SD 4.02 & 4.83
M-1	4'-0" DIAMETER MANHOLE	17' LT OF CL STA 17+95 ONWARD TRAIL	354.42	354.32	358.3	SEE HO CO STD DETAIL G 5.12
M-2	4'-0" DIAMETER MANHOLE	17' LT OF CL STA 16+03 ONWARD TRAIL	366.04	365.94	371.8	SEE HO CO STD DETAIL G 5.12
E-1	12 CONCRETE END SECTION	SEE SHEET 3	-	340.00	-	SEE HO CO STD DETAIL SD 5.51
A-5-1	MODIFIED A-5 INLET	SEE SHEET 3	340.52	340.42	343.60	SEE HO CO STD DETAIL SD 4.01 AND SHEET 4 OF 5.

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.

Gregory R. Mar 9-18-95
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. Lauck 9-18-95
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 9/21/95
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Robinson 9/21/95
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Andrew M. Parker 9-29-95
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Jim Sturman 10/5/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

John Deussen 10/4/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

3/11/96 REVISOR WATER QUALITY AREA, ADD STRUC. 5-1, RELOC. E1 - REVISED STRUC. SCHEDULE.

DATE NO. REVISION

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044

PROJECT VILLAGE OF RIVER HILL SECTION 2 AREA 3 PHASE 3 LOTS 121-145

AREA TAX MAP NO. 35 ZONED NEW TOWN PART OF PARCELS 59, 70 & 240 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE DRAINAGE AREA MAP, GRADING AND SEDIMENT CONTROL PLAN

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

9-18-95 DATE

DESIGNED BY : C.J.R.

DRAWN BY : DAM

PROJECT NO : HOCO 88112 PH 3RDS.DWG

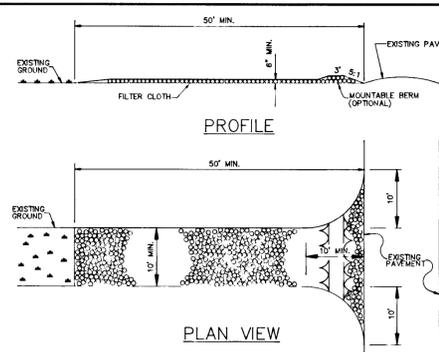
DATE : SEPTEMBER 18, 1995

SCALE : AS SHOWN

DRAWING NO. 3 OF 5

J. Lauck
JAYKANT D. PARKH #10148

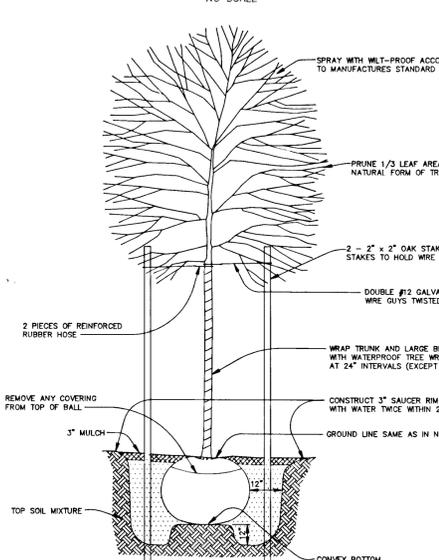
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CONSTRUCTION SPECIFICATIONS

- 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 2 1/4 (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 MOUNTAIN BERM 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 CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED INTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 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 CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED INTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEEL WASHING IS REQUIRED. IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT CONTROL DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

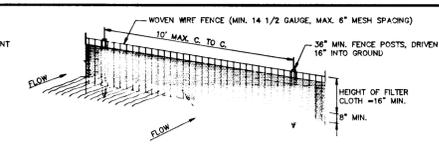


TREE PLANTING DETAIL

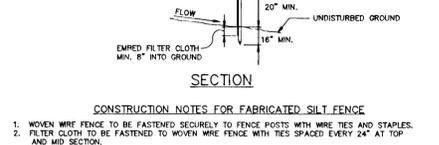
SEDIMENT CONTROL NOTES

- 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 (S-1, S-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 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) CALENDAR DAYS FOR ALL PERMITS EXCEPT CONSTRUCTION, DYES, PERMITS SLOPES AND ALL SLOPES AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- 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.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL FOR PERMANENT SEEDINGS (SEC. 51), S-2 (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONG CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	7.15 ACRES
AREA DISTURBED	2.07 ACRES
AREA TO BE ROOFED OR PAVED	0.87 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.26 ACRES
TOTAL CUT	500 CU.YDS.
TOTAL FILL	500 CU.YDS.
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE GRADING WILL BEGON ONLY AFTER ALL PERMITS SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL NOR DO THEY REPRESENT CONSIDERATION OF UNLOADING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 AC., APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMITS EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER GRADING OR DRAINAGE CONSTRUCTION. BEFORE GRADING OR DRAINAGE INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.



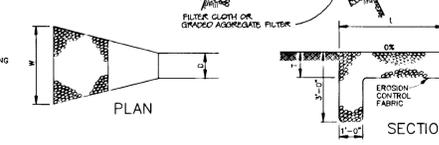
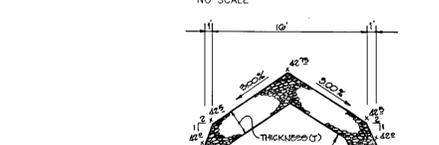
PROTECTIVE TREE FENCING ELEVATION DETAIL



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

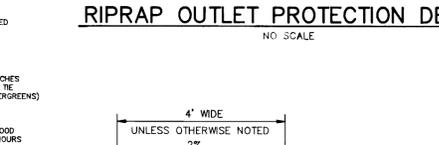
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES AND STAPLES.
- FILTER CLOTH TO BE FASTENED TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES (6") AND TOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHICH "BUILDS" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

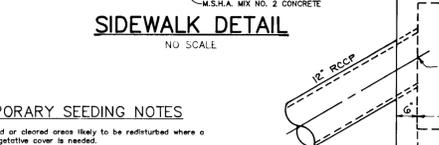


STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	0.5"	10'	18"	10"

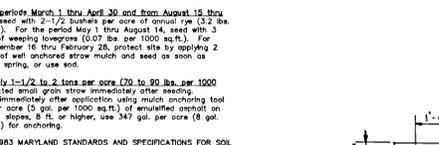
RIPRAP OUTLET PROTECTION DETAIL



EARTH DIKE



SIDWALK DETAIL



PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-term vegetative cover is needed.

Seeding 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:

- 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 uniform fertilizer (8 lbs. per 1000 sq.ft.).
- 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 1 thru October 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 1 lb. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by covering 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 annual grass 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, 3 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1993 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, FOR RATE AND METHODS NOT COVERED POSSIBLE IN THE MANUAL, or use sod.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

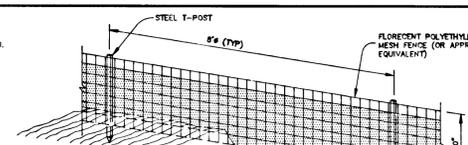
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 800 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 uniform fertilizer (8 lbs. per 1000 sq.ft.).
- 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 1 thru October 15, seed with 60 lbs. per acre (1.4 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:

- 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
- Use sod.
- Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of untreated annual grass 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, 3 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, top dressings and reseedings.



PROTECTIVE TREE FENCING ELEVATION 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. RIMOFF SHALL BE CONVERTED 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 EXCELSON 500-2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOO; 2" STONE	
4	8.1-20%	LINED RIPRAP 4-8"	ENGINEERED DESIGN

CONSTRUCTION SPECIFICATIONS

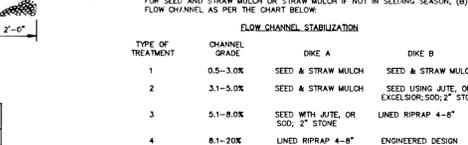
1. PROFILE GRADE LINE (PGL), SEE DESIGN MANUAL.

2. TYPE OF CURB VARIES (MOD. COMB. CURB & GUTTER OR STANDARD COMB. CURB & GUTTER - SEE ROAD PLAN).

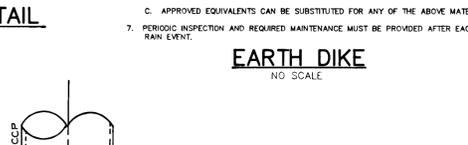
3. 4" CONCRETE SIDEWALK AS REQUIRED BY SUBDIVISION REGULATIONS.

4. INDICATES 2" TOPSOIL, SEED AND MULCH.

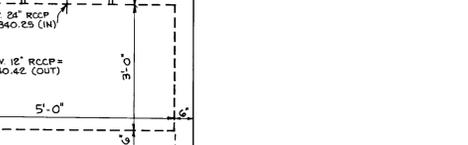
5. DESIGN SPEED = 30 M.P.H.



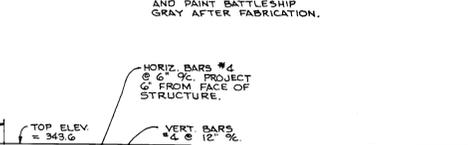
TYPICAL SECTION CUL-DE-SAC STREET



TRASH RACK DETAIL

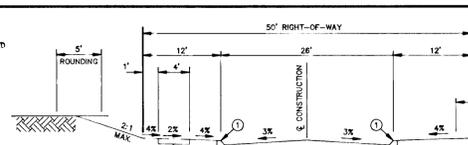


MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS

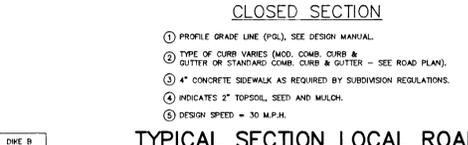


DETAIL STRUCTURE S-1

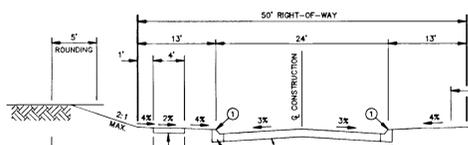
STRUCTURE NOTE: EXCEPT FOR THE MODIFICATIONS SHOWN HEREON, THE STRUCTURE SHALL BE BUILT ACCORDING TO HOWARD CO. STD. DETAIL SD-4.01



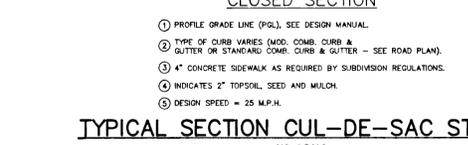
TYPICAL SECTION LOCAL ROAD



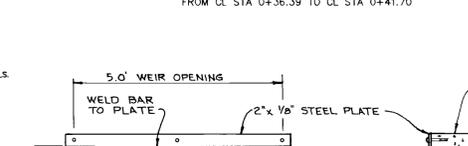
TYPICAL SECTION CUL-DE-SAC



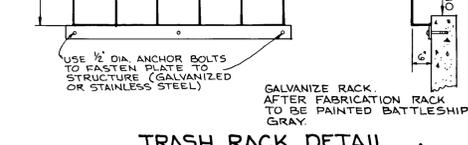
TYPICAL SECTION CUL-DE-SAC STREET



TRASH RACK DETAIL

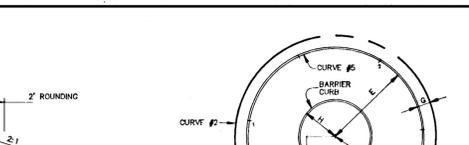


MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS

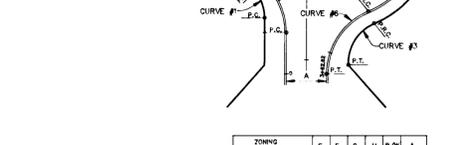


DETAIL STRUCTURE S-1

STRUCTURE NOTE: EXCEPT FOR THE MODIFICATIONS SHOWN HEREON, THE STRUCTURE SHALL BE BUILT ACCORDING TO HOWARD CO. STD. DETAIL SD-4.01



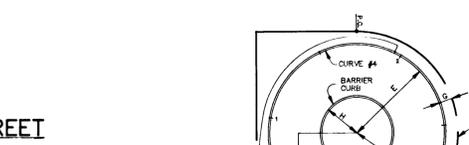
GLITTERING LIGHT LANE CUL-DE-SAC DETAIL



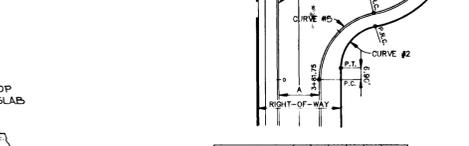
TYPICAL SECTION CUL-DE-SAC STREET



TRASH RACK DETAIL



MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS

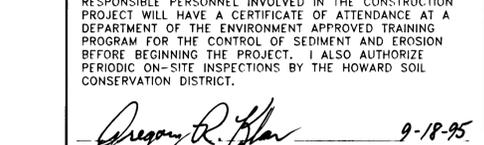


DETAIL STRUCTURE S-1

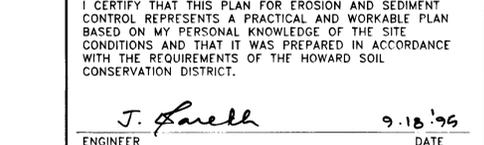
STRUCTURE NOTE: EXCEPT FOR THE MODIFICATIONS SHOWN HEREON, THE STRUCTURE SHALL BE BUILT ACCORDING TO HOWARD CO. STD. DETAIL SD-4.01



GLITTERING LIGHT LANE CUL-DE-SAC DETAIL



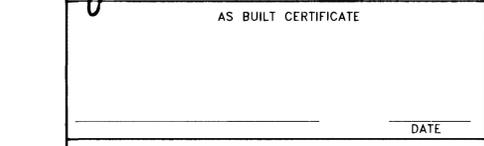
TYPICAL SECTION CUL-DE-SAC STREET



TRASH RACK DETAIL



MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS



DETAIL STRUCTURE S-1

STRUCTURE NOTE: EXCEPT FOR THE MODIFICATIONS SHOWN HEREON, THE STRUCTURE SHALL BE BUILT ACCORDING TO HOWARD CO. STD. DETAIL SD-4.01

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.

Gregory R. Khan 9-18-95
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. Farrell 9-18-95
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 E. G. [Signature] 9/21/95
NATURAL RESOURCES DIVISION SERVICE DATE

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

John R. Robertson 9/21/95
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

Andrew M. Daniels 9-29-95
CHIEF, BUREAU OF HIGHWAYS HS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Ann Summery 10/5/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH OAH DATE

Chad Summery 10/4/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION OAH DATE

3/12/96 [Signature] ADDED STRUCTURE S-1 DETAIL AND TRASH RACK DETAIL.

DATE NO.	REVISION

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044

PROJECT VILLAGE OF RIVER HILL
SECTION 2 AREA 3 PHASE 3
LOTS 121-145

AREA TAX MAP NO. 35 ZONED NEW TOWN
PART OF PARCELS 59, 70 & 240
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE DETAIL SHEET

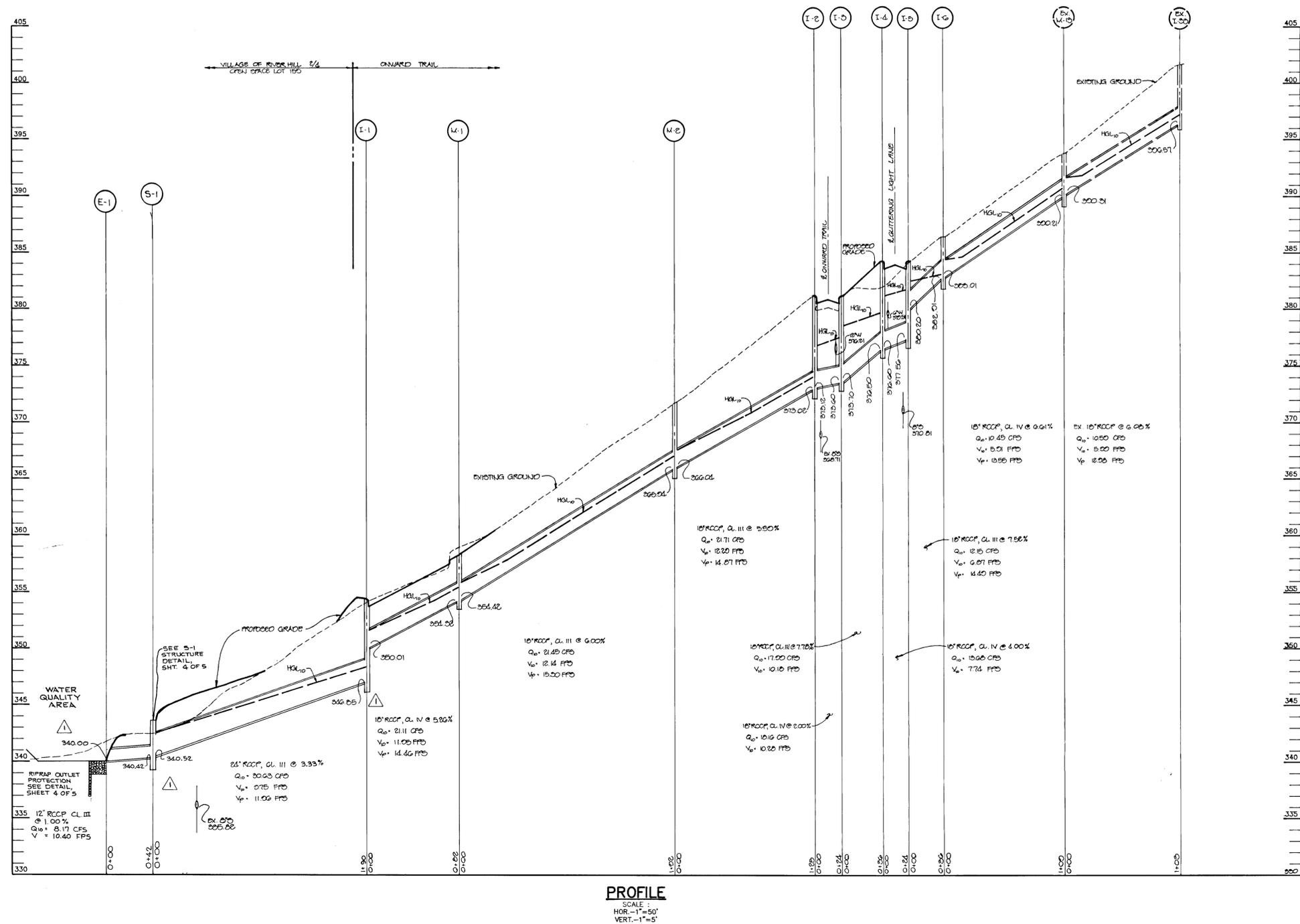
RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX: 410-997-9282

9-18-95 DATE

DESIGNED BY: C.J.R.
DRAWN BY: D.A.M.
PROJECT NO: HOCO/88112
PH3R04.DWG
DATE: SEPTEMBER 10, 1995
SCALE: AS SHOWN
DRAWING NO. 4 OF 5

1487

1487



AS BUILT CERTIFICATE	
DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>Thomas M. Quaker</i> CHIEF, BUREAU OF HIGHWAYS	9-29-95 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING <i>Jim Summers</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	10/5/95 DATE
<i>John Summers</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	10/4/95 DATE
3/12/96	REVISION: REVISED PROFILE FROM I-1 TO E-1, ADDED S1
DATE NO.	REVISION
OWNER / DEVELOPER	
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044	
PROJECT: VILLAGE OF RIVER HILL SECTION 2 AREA 3 PHASE 3 LOTS 121 - 145	
AREA	TAX MAP NO. 35 ZONED NEW TOWN PART OF PARCELS 59, 70 & 240 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: PROFILE SHEET	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282	
9-18-95 DATE	5-91-03 P-34-01 F-24-01 F-24-02
DESIGNED BY: C.J.R.	
DRAWN BY: DAM	
PROJECT NO: 88103	
DATE: SEPTEMBER 18, 1995	
SCALE: AS SHOWN	
DRAWING NO. 5 OF 5	