

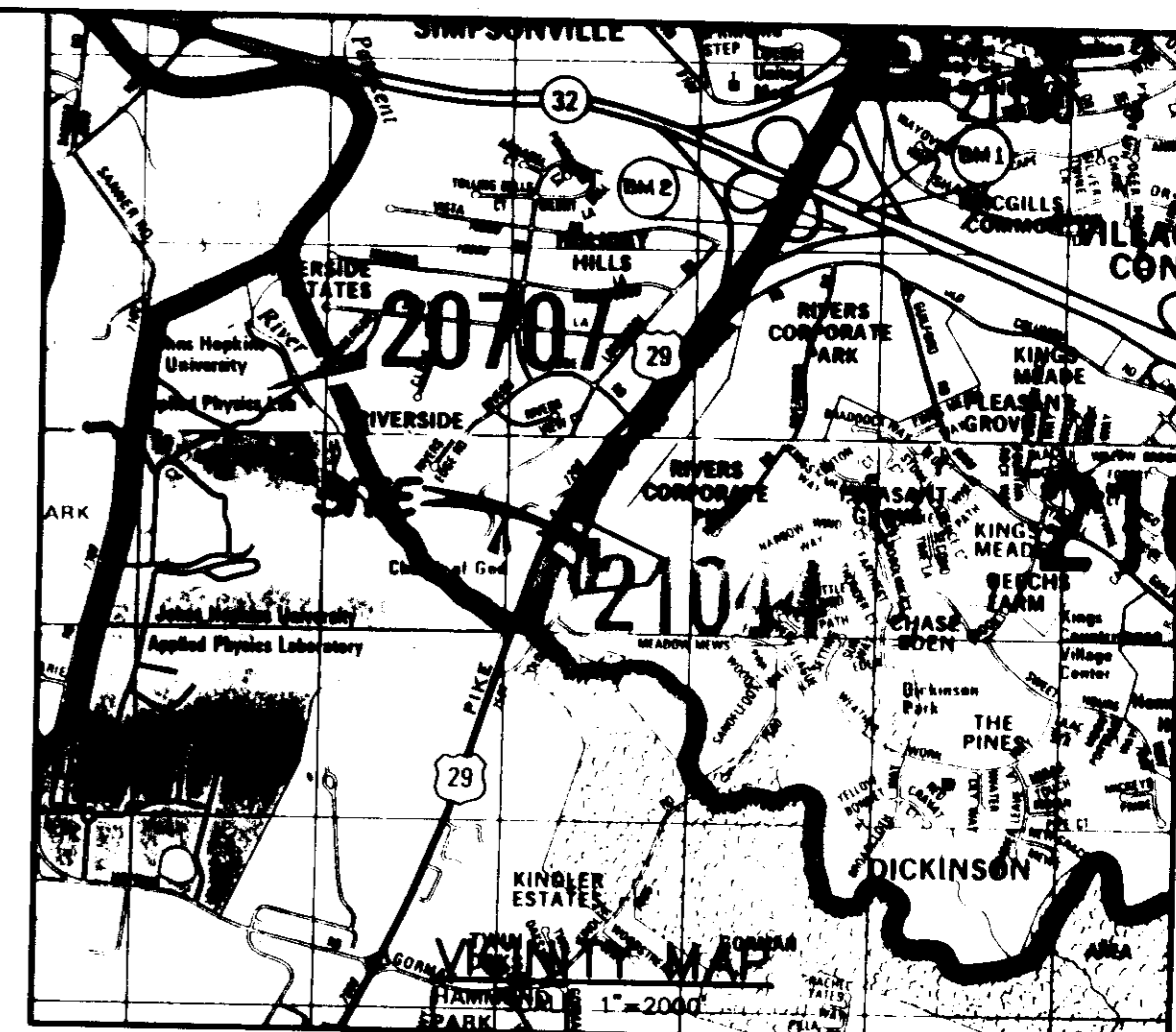
SHEET INDEX	
No.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	GEOMETRY PLAN
4	ROAD PROFILES
5	SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP
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7	STORM DRAIN PROFILES
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SITE DEVELOPMENT PLAN

CLARK'S CROSSING

6th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



ADDRESS CHART	
UNIT #	STREET ADDRESS
1	7300 ROCKY CREEK DRIVE
2	7302
3	7304
4	7306
5	7308
6	7310
7	7301
8	7303
9	7305
10	7307
11	7309
12	7311
13	7313
14	7321
15	7323
16	7325
17	7327
18	7329
19	7331
20	7340
21	7342
22	7344
23	7346
24	7348
25	7350 ROCKY CREEK DRIVE
26	7300 SHADY GLEN DRIVE
27	7302
28	7304
29	7306
30	7308
31	7310
32	7312
33	7314
34	7316
35	7318
36	7320
37	7322
38	7311
39	7309
40	7307
41	7305
42	7303
43	7301 SHADY GLEN DRIVE

- #### GENERAL NOTES
- ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
 - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL TEST ALL EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY SIZE, TYPE, LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
 MISS UTILITY 1-800-257-7777
 CAP TELEPHONE COMPANY 725-9978
 HOWARD COUNTY BUREAU OF UTILITIES 313-4900
 AT&T CABLE LOCATION DIVISION 393-3553
 BALTIMORE GAS & ELECTRIC COMPANY 880-0123
 - 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 INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
 - NO PIPE SHALL BE LAID UNDER LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
 - TOPO TAKEN FROM FIELD RUN SURVEY DATED NOV. 23, 1994 BY RIEMER MUEGGE & ASSOCIATES, INC. CONTOURS SHOWN AT 2 FOOT INTERVAL.
 - VERTICAL CONTROL ESTABLISHED USING HO. CO. MONUMENTS 4102 AND 4243 HORIZONTAL CONTROL ESTABLISHED FROM MARYLAND STATE COORDINATE SYSTEM.
 - WETLANDS DELINEATION PERFORMED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED FEB. 1995.
 - ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL 02.01 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
 - THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL, PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
 - 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 THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARDS. SUCH TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
 - STORMWATER MANAGEMENT QUANTITY CONTROL FOR THIS DEVELOPMENT IS A DETENTION FACILITY PROVIDED UNDER THIS PLAN AND MAINTAINED BY THE CONDOMINIUM ASSOCIATION.
 - STORMWATER QUALITY CONTROL WILL BE PROVIDED WITH THREE WATER QUALITY INLETS TO BE LOCATED NEAR EACH OUTFALL. THESE WATER QUALITY INLETS WILL BE MAINTAINED BY THE CONDOMINIUM ASSOCIATION.
 - ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
 - TRAFFIC STUDY PERFORMED BY THE TRAFFIC GROUP DATED SEPT. 1, 1995 AND APPROVED.
 - EXISTING UTILITIES LOCATED FROM WATER CONTRACT #847-W AND SEWER FROM SITE SURVEY. (SEWER CONTRACT N 54-1146-0)
 - ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
 - THE NOISE STUDY PERFORMED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED JUNE 1995.
 - WATER METERS ARE TO BE LOCATED INSIDE EACH RESIDENTIAL UNIT.
 - D.P.A.Z. FILE REFERENCES: ZB #045M
 - TRASH REMOVAL WILL BE PROVIDED BY PRIVATE CARRIER PICKUP AT CURB.
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - THE CONTRACTOR IS TO PROVIDE DEPRESSED CURBS AND 12:1 MAXIMUM RAMP SLOPE AT ALL HANDICAP RAMPS AT STREET INTERSECTIONS.
 - ALL OPEN SPACE TO BE OWNED & MAINTAINED BY THE CONDOMINIUM ASSOCIATION.
 - DRIVEWAYS SERVING TWO (2) UNITS TO BE 20' WIDE, SINGLE UNIT DRIVEWAYS TO BE 10' WIDE.

AREA "A" FOREST CONSERVATION EASEMENT LINE CHART

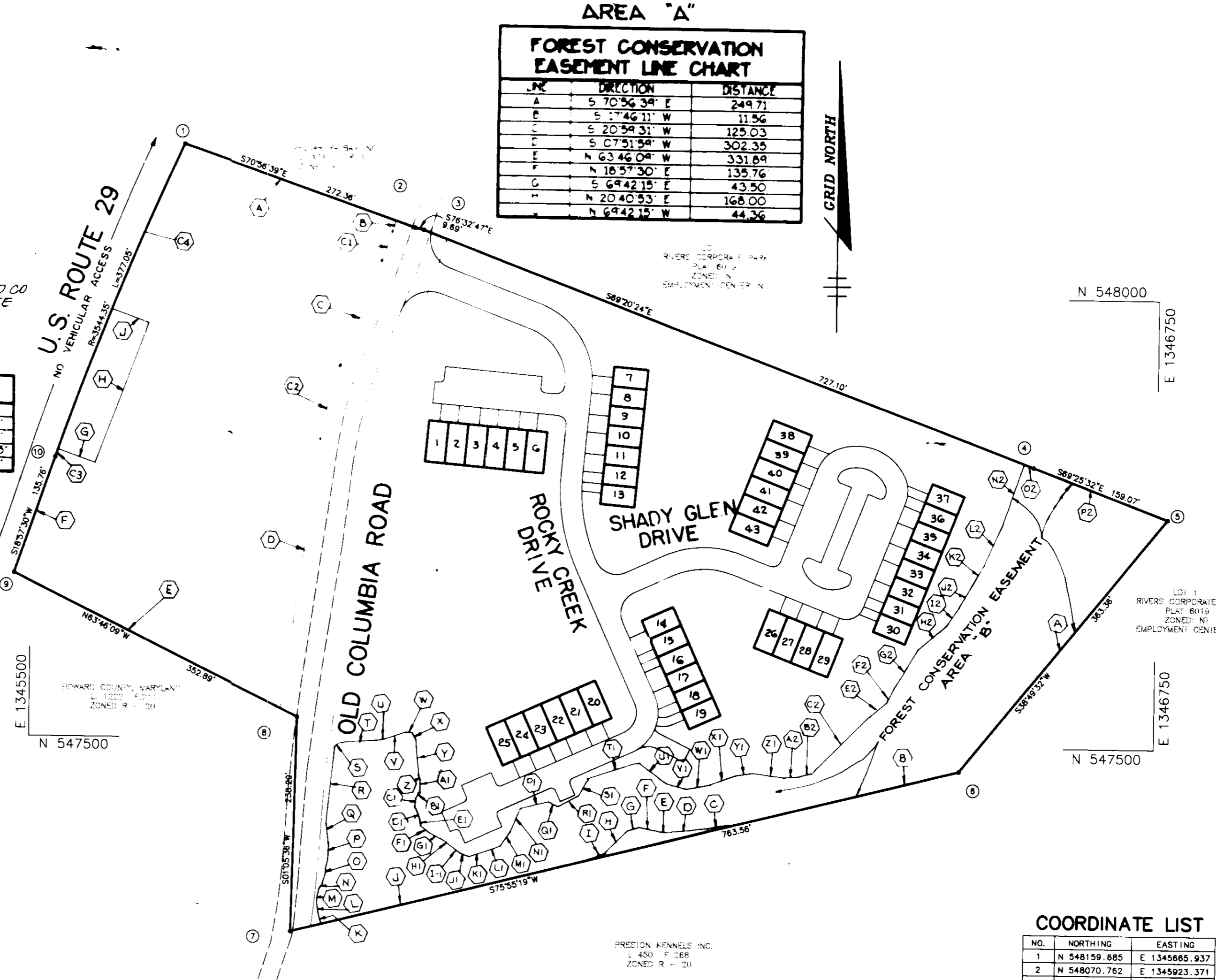
LINE	DIRECTION	LENGTH	BEARING	DE. IN.
A	S 70°56'34" E	249.71		
B	S 7°46'11" W	11.56		
C	S 20°54'31" W	125.03		
D	S 0°31'54" W	302.35		
E	N 63°46'04" W	331.69		
F	N 18°57'30" E	135.76		
G	S 6°42'15" E	43.50		
H	N 20°40'33" E	168.00		
I	N 6°42'15" W	44.36		

AREA "A" CURVE DATA

CURVE	RADIUS	LENGTH	CHORD	CHORD BEARING	DE. IN.
C1	610.01	34.31	17.16	S 34°31' W	03°35'32"
C2	378.35	86.67	43.53	S 66°40' W	5°14'25"45"
C3	3744.71	4.58	4.67	N 1°01'47" E	00°06'35"
C4	3744.71	194.67	194.64	N 2°31'38" E	03°03'18"

AREA "B" FOREST CONSERVATION EASEMENT LINE CHART

LINE	DIRECTION	LENGTH	BEARING	DE. IN.
A	S 38°44'52" W	363.36		
B	S 75°55'14" W	235.64		
C	S 80°38'01" W	45.58		
D	S 83°53'24" W	28.46		
E	N 84°36'11" W	22.47		
F	N 77°20'51" W	16.41		
G	S 73°24'23" W	12.07		
H	S 45°18'25" W	36.16		
I	S 67°57'19" W	16.41		
J	S 75°55'14" W	310.33		
K	N 1°44'18" E	16.41		
L	N 08°22'56" W	12.54		
M	N 08°06'18" E	16.41		
N	N 24°32'32" E	10.64		
O	N 02°23'03" E	32.92		
P	N 00°52'10" W	26.97		
Q	N 06°20'04" W	28.06		
R	N 25°40'56" E	80.69		
S	N 48°03'50" E	7.35		
T	N 88°45'03" E	41.57		
U	N 77°55'14" E	10.53		
V	N 1°21'33" E	12.96		
W	S 36°22'45" E	7.47		
X	S 25°48'44" E	8.73		
Y	S 35°42'51" E	35.26		
Z	S 16°52'35" E	6.53		
AA	S 20°48'51" W	13.04		
AB	S 29°18'33" W	23.42		
AC	S 28°24'23" W	10.36		
AD	S 14°27'03" E	14.33		
AE	S 28°45'15" E	7.18		
AF	S 82°31'53" E	10.11		
AG	S 63°35'01" E	14.37		
AH	S 57°52'04" E	16.48		
AI	S 51°02'11" E	12.08		
AJ	S 70°56'20" E	10.64		
AK	N 74°08'25" E	14.32		
AL	N 70°54'06" E	21.32		
AM	N 36°44'34" E	16.03		
AN	N 24°18'22" E	33.28		
AO	N 76°59'53" E	31.64		
AP	S 63°56'53" E	11.85		
AQ	N 92°10'34" E	25.92		
AR	N 74°52'23" E	22.87		
AS	N 71°48'14" E	24.74		
AT	S 82°24'08" E	36.54		
AU	S 74°18'03" E	31.46		
AV	N 80°12'53" E	25.50		
AW	N 70°14'50" E	31.31		
AX	N 80°42'25" E	20.06		
AY	S 82°25'51" E	35.65		
AZ	N 84°23'35" E	14.45		
BA	N 74°52'23" E	17.53		
BB	N 44°54'47" E	86.14		
BC	N 50°06'50" E	24.55		
BD	N 22°27'18" E	12.90		
BE	N 20°15'54" E	51.12		
BF	N 48°46'37" E	41.53		
BG	N 34°56'13" E	22.16		
BH	N 24°00'11" E	32.33		
BI	N 31°52'22" E	22.82		
BJ	N 23°37'41" E	52.04		
BK	N 14°11'37" E	71.46		
BL	S 64°20'24" E	11.51		
BM	S 64°22'32" E	124.07		



RECREATION AREA CHART

ITEM	AMOUNT
MULCHED PATH DIMENSIONS	2' x 420' x 2,100 SF
RECREATION AMENITIES CREDIT	4,000 SF
PROVIDED RECREATION OPEN SPACE	4,800 SF
TOTAL LAND PATH CREDIT	8,700 SF
REQUIRED RECREATION AREA	8,000 SF

PLAN ANALYSIS

ITEM	AMOUNT
AREA OF PARCEL	14.12 ac. (615,067 sq. ft.)
AREA OF 25% & GREATER SLOPES	1.20 ac.
AREA OF FLOODPLAIN	1.50 ac.
NET SITE AREA	11.42 ac. (519,235 sq. ft.)
NUMBER OF UNITS ALLOWED (4 UNITS / NET AREA IN AC.)	45
NUMBER OF UNITS PROPOSED	43
PROPOSED USE	CONDOMINIUM TOWNHOMES ALL GARAGE TYPE UNITS
REQUIRED PARKING (2 SPACES / UNIT)	86 SPACES
PROPOSED PARKING	43 SPACES GARAGES 43 SPACES FRONT DRIVEWAYS 43 SPACES COMMON PARKING STALLS 129 SPACES TOTAL (3 SPACES / UNIT)

ZONING BOARD CASE 945M

REQUEST DETAILS REQUESTED RECLASSIFICATION OF ZONING.
 ACTION: SITE WAS RECLASSIFIED TO R-SC ZONE
 ACTION DATE: SEPTEMBER 7, 1994

BENCHMARKS

BM #	ELEV.
BM #1	ELEV. 305.911
HO. CO. MON. 4102	
STAMPED CONCRETE MONUMENT	
MARYLAND ROUTE 32 EAST OF ROUTE 29	
NAD83 N 551,616.4029 E 1,348,104.214	
BM #2	ELEV. 364.347
HO. CO. MON. 4243	
STAMPED CONCRETE MONUMENT	
MARYLAND ROUTE 32 WEST OF ROUTE 29	
NAD83 N 550,257.6244 E 1,350,801.451	

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE _____

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

COUNTY HEALTH OFFICER DATE _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 4/19/96
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

[Signature] 4/25/96
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
 DATE

[Signature] 4/26/96
 DIRECTOR
 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

SHC CLARK'S CROSSING, LLC
 c/o KOREN DEVELOPMENT CORPORATION
 8818 CENTRE PARK DRIVE, SUITE 304
 COLUMBIA, MARYLAND 21045

PROJECT: CLARK'S CROSSING
 A TOWNHOME CONDOMINIUM COMMUNITY

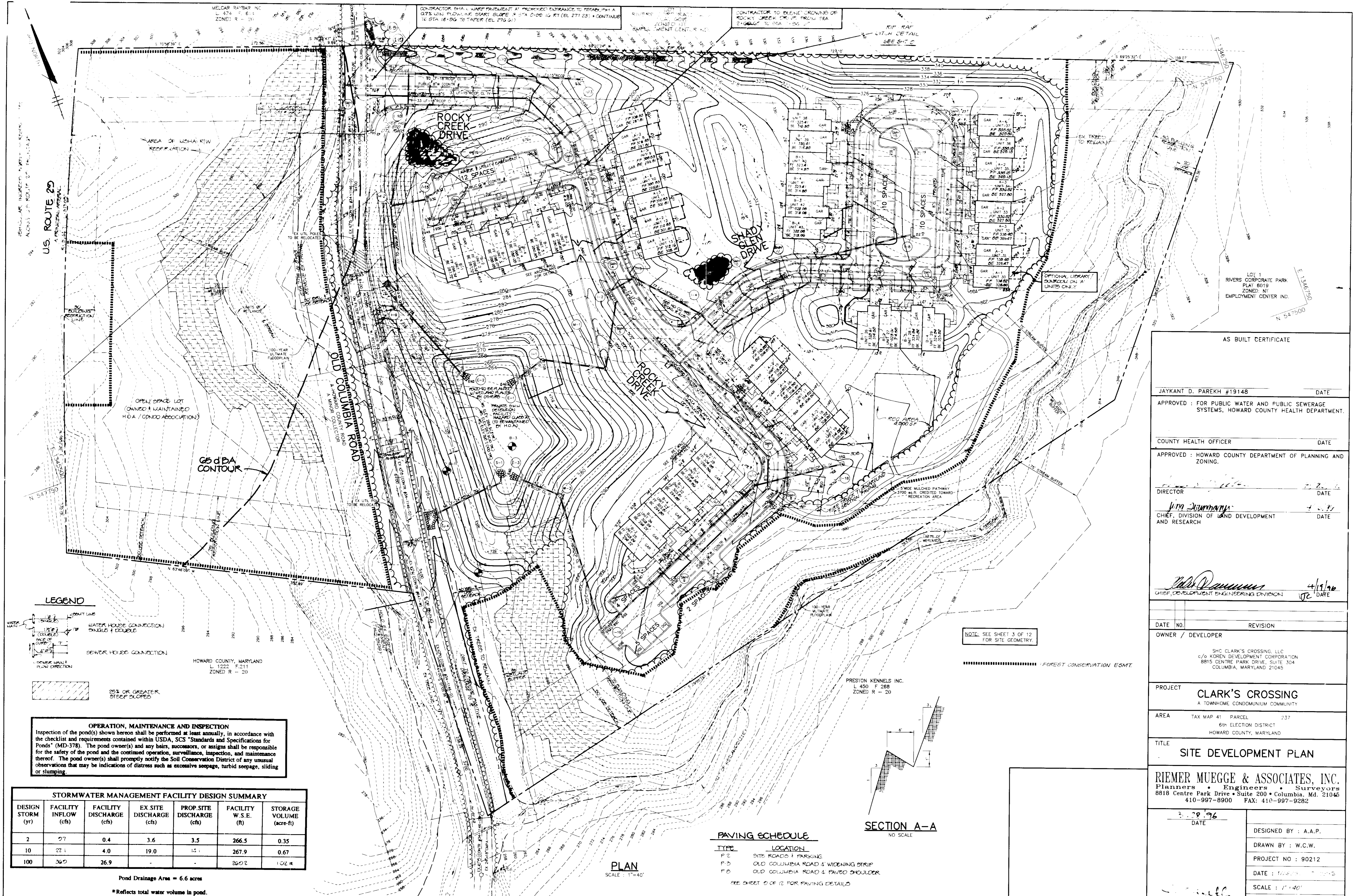
AREA: TAX MAP 41 PARCEL 237
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

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

3.28.96
 DATE

DESIGNED BY: A.A.P.
 DRAWN BY: W.C.W.
 PROJECT NO: 90212
 DATE: MAR 19 1996
 SCALE: AS SHOWN
 DRAWING NO. 1 OF 14



U.S. ROUTE 29
A NATIONAL HIGHWAY

MELGAR RAYBAR, INC.
L 474 F 611
ZONED R - 20

CONTRACTOR SHALL WARP PAVEMENT AT PROPOSED ENTRANCE TO PROPERTY AT
0.7% MIN. FLOWLINE SLOPE * STA 5+00 TO RT (EL 271.23) * CONTINUE
1% STA 16+90 TO TAPER (EL 276.91)

CONTRACTOR TO EXERCISE CROWNINGS OF
ROCKY CREEK DRIVE UP FROM STA
2+00 TO STA 1+50

RIP RAP
UTL. DETAIL
SEE SHT C

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR DATE

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION 4/15/96 DATE

DATE NO. REVISION

OWNER / DEVELOPER
SHC CLARK'S CROSSING, LLC
c/o KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT
CLARK'S CROSSING
A TOWNHOME, CONDOMINIUM COMMUNITY

AREA TAX MAP 41 PARCEL 237
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

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

DATE 2.28.96

DESIGNED BY: A.A.P.

DRAWN BY: W.C.W.

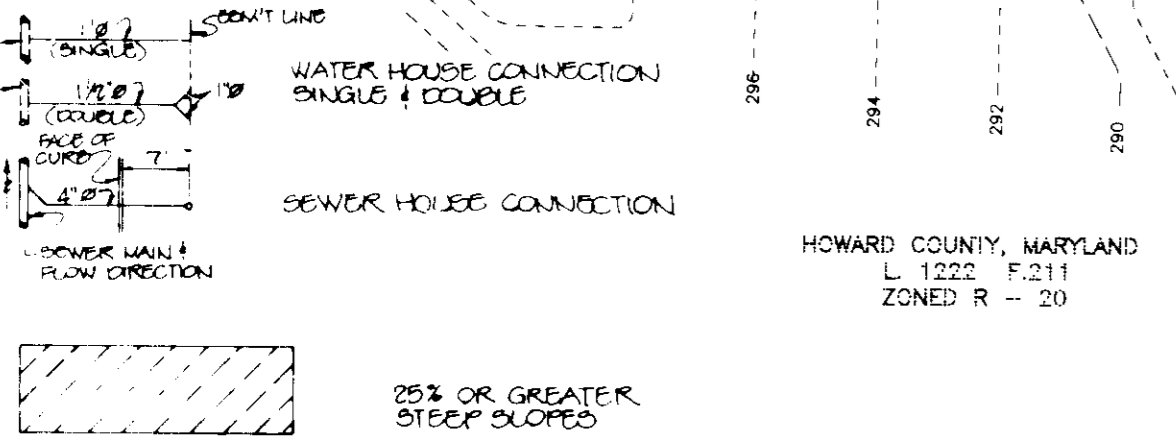
PROJECT NO: 90212

DATE: 10/2/95

SCALE: 1"=40'

JAYKANT D. PAREKH #19148 DRAWING NO. 2 OF 14

LEGEND



OPERATION, MAINTENANCE AND INSPECTION
Inspection of the pond(s) shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS "Standards and Specifications for Ponds" (MD-378). The pond owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

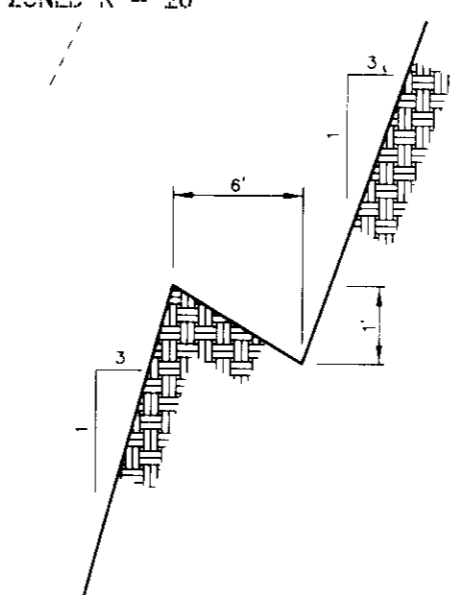
STORMWATER MANAGEMENT FACILITY DESIGN SUMMARY						
DESIGN STORM (yr)	FACILITY INFLOW (cfs)	FACILITY DISCHARGE (cfs)	EX. SITE DISCHARGE (cfs)	PROP. SITE DISCHARGE (cfs)	FACILITY W.S.E. (ft)	STORAGE VOLUME (acre-ft)
2	27	0.4	3.6	3.5	266.5	0.35
10	221	4.0	19.0	15.1	267.9	0.67
100	360	26.9	-	-	268.2	1.02

Pond Drainage Area = 6.6 acres
*Reflects total water volume in pond.

NOTE: SEE SHEET 3 OF 12 FOR SITE GEOMETRY.

FOREST CONSERVATION ESMT.

PRESTON KENNELS, INC.
L 450 F 268
ZONED R - 20



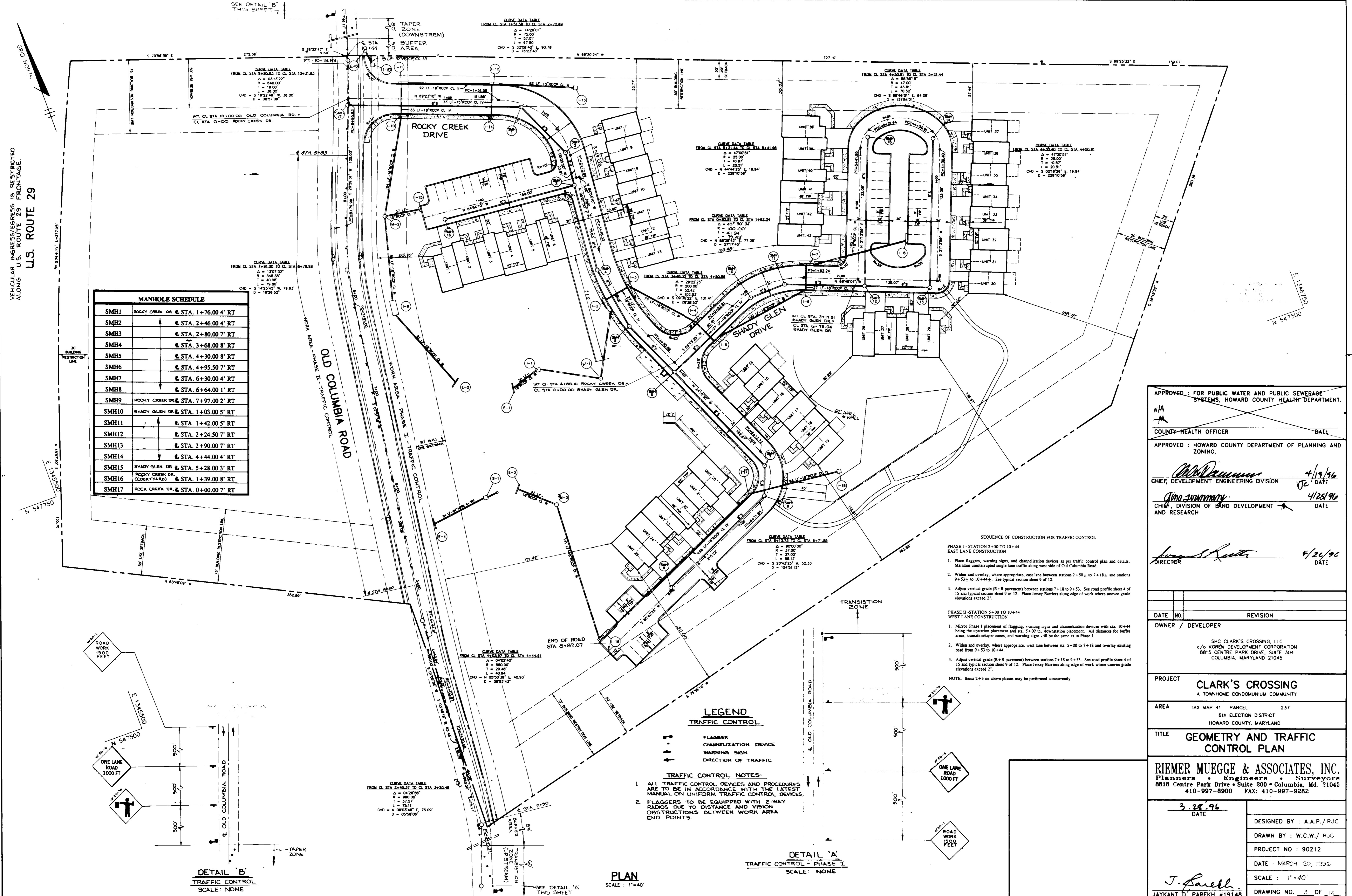
SECTION A-A
NO SCALE

PAVING SCHEDULE

TYPE	LOCATION
P-2	SITE ROADS & PARKING
P-3	OLD COLUMBIA ROAD 4' WIDENING STRIP
P-4	OLD COLUMBIA ROAD 4' PAVED SHOULDER

SEE SHEET 10 OF 12 FOR PAVING DETAILS

PLAN
SCALE: 1"=40'



MANHOLE SCHEDULE	
SMH1	ROCKY CREEK DR. & STA. 1+76.00 4' RT
SMH2	STA. 2+46.00 4' RT
SMH3	STA. 2+80.00 7' RT
SMH4	STA. 3+68.00 8' RT
SMH5	STA. 4+30.00 8' RT
SMH6	STA. 4+95.50 7' RT
SMH7	STA. 6+30.00 4' RT
SMH8	STA. 6+64.00 1' RT
SMH9	ROCKY CREEK DR. & STA. 7+97.00 2' RT
SMH10	SHADY GLEN DR. & STA. 1+03.00 5' RT
SMH11	STA. 1+42.00 5' RT
SMH12	STA. 2+24.50 7' RT
SMH13	STA. 2+90.00 7' RT
SMH14	STA. 4+44.00 4' RT
SMH15	SHADY GLEN DR. & STA. 5+28.00 3' RT
SMH16	ROCKY CREEK DR. (COURTYARD) & STA. 1+39.00 8' RT
SMH17	ROCKY CREEK DR. & STA. 0+00.00 7' RT

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

NA
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 4/19/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 4/25/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

[Signature] 4/26/96
DIRECTOR DATE

DATE NO.	REVISION

OWNER / DEVELOPER

SHC CLARK'S CROSSING, LLC
c/o KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT CLARK'S CROSSING
A TOWNHOME CONDOMINIUM COMMUNITY

AREA TAX MAP 41 PARCEL 237
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE GEOMETRY AND TRAFFIC CONTROL PLAN

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

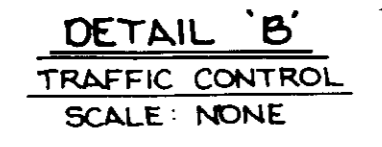
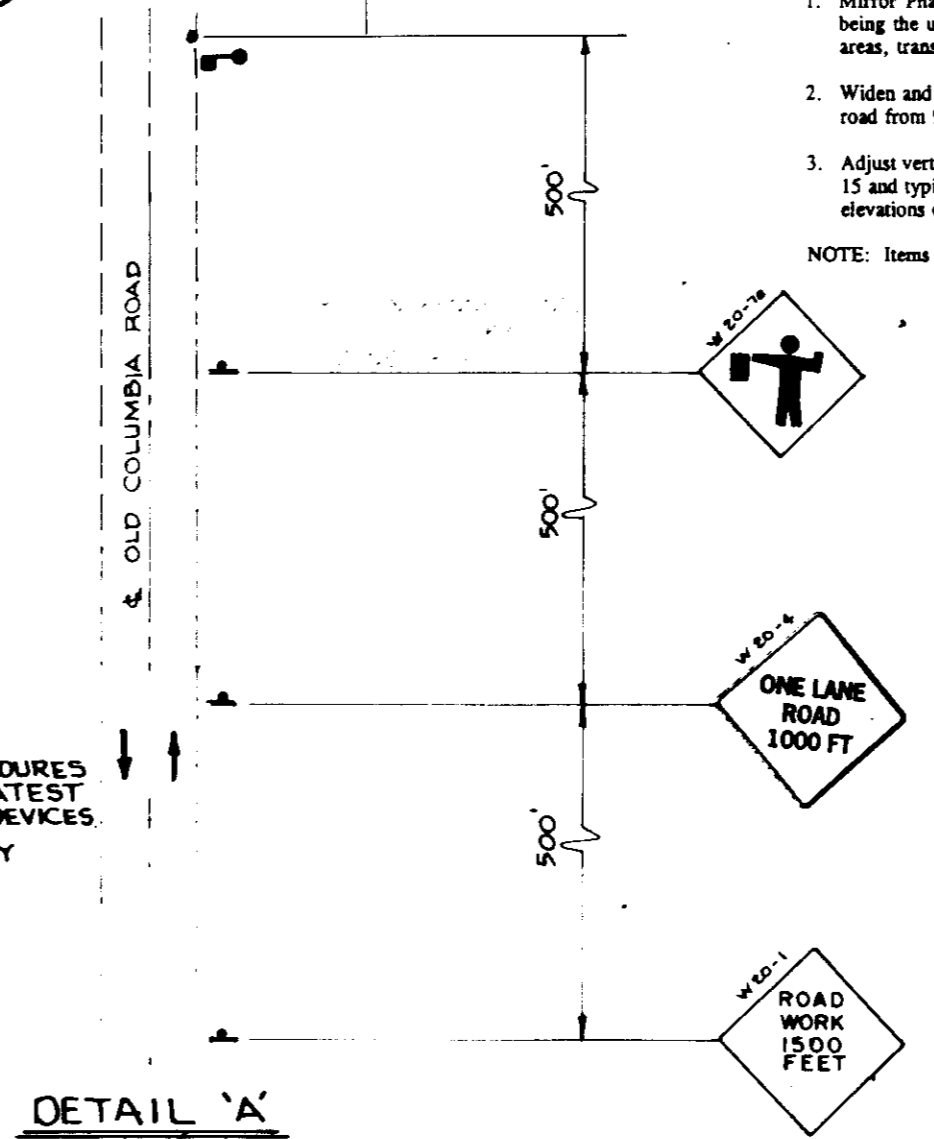
3.28.96
DATE

DESIGNED BY: A.A.P./RJC
DRAWN BY: W.C.W./RJC
PROJECT NO: 90212
DATE: MARCH 20, 1996
SCALE: 1"=40'
DRAWING NO. 3 OF 14

[Signature]
JAYKANT D. PAREKH #19148

- SEQUENCE OF CONSTRUCTION FOR TRAFFIC CONTROL
- PHASE I - STATION 2+50 TO 10+44
EAST LANE CONSTRUCTION
- Place flaggers, warning signs, and channelization devices as per traffic control plan and details. Maintain uninterrupted single lane traffic along west side of Old Columbia Road.
 - Widen and overlay, where appropriate, east lane between stations 2+50 to 7+18 and stations 9+53 to 10+44. See typical section sheets 9 of 12.
 - Adjust vertical grade (R+R pavement) between stations 7+18 to 9+53. See road profile sheet 4 of 15 and typical section sheet 9 of 12. Place Jersey Barriers along edge of work where uneven grade elevations exceed 2".
- PHASE II - STATION 5+00 TO 10+44
WEST LANE CONSTRUCTION
- Mirror Phase I placement of flagging, warning signs and channelization devices with sta. 10+44 being the upstation placement and sta. 5+00 the downstation placement. All distances for buffer areas, transition/taper zones, and warning signs shall be the same as in Phase I.
 - Widen and overlay, where appropriate, west lane between sta. 5+00 to 7+18 and overlay existing road from 9+53 to 10+44.
 - Adjust vertical grade (R+R pavement) between stations 7+18 to 9+53. See road profile sheets 4 of 15 and typical section sheet 9 of 12. Place Jersey Barriers along edge of work where uneven grade elevations exceed 2".
- NOTE: Items 2+3 on above phases may be performed concurrently.

- LEGEND
- TRAFFIC CONTROL
- FLAGGER
 - CHANNELIZATION DEVICE
 - WARNING SIGN
 - DIRECTION OF TRAFFIC
- TRAFFIC CONTROL NOTES:
- ALL TRAFFIC CONTROL DEVICES AND PROCEDURES ARE TO BE IN ACCORDANCE WITH THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 - FLAGGERS TO BE EQUIPPED WITH 2-WAY RADIOS DUE TO DISTANCE AND VISION OBSTRUCTIONS BETWEEN WORK AREA END POINTS.



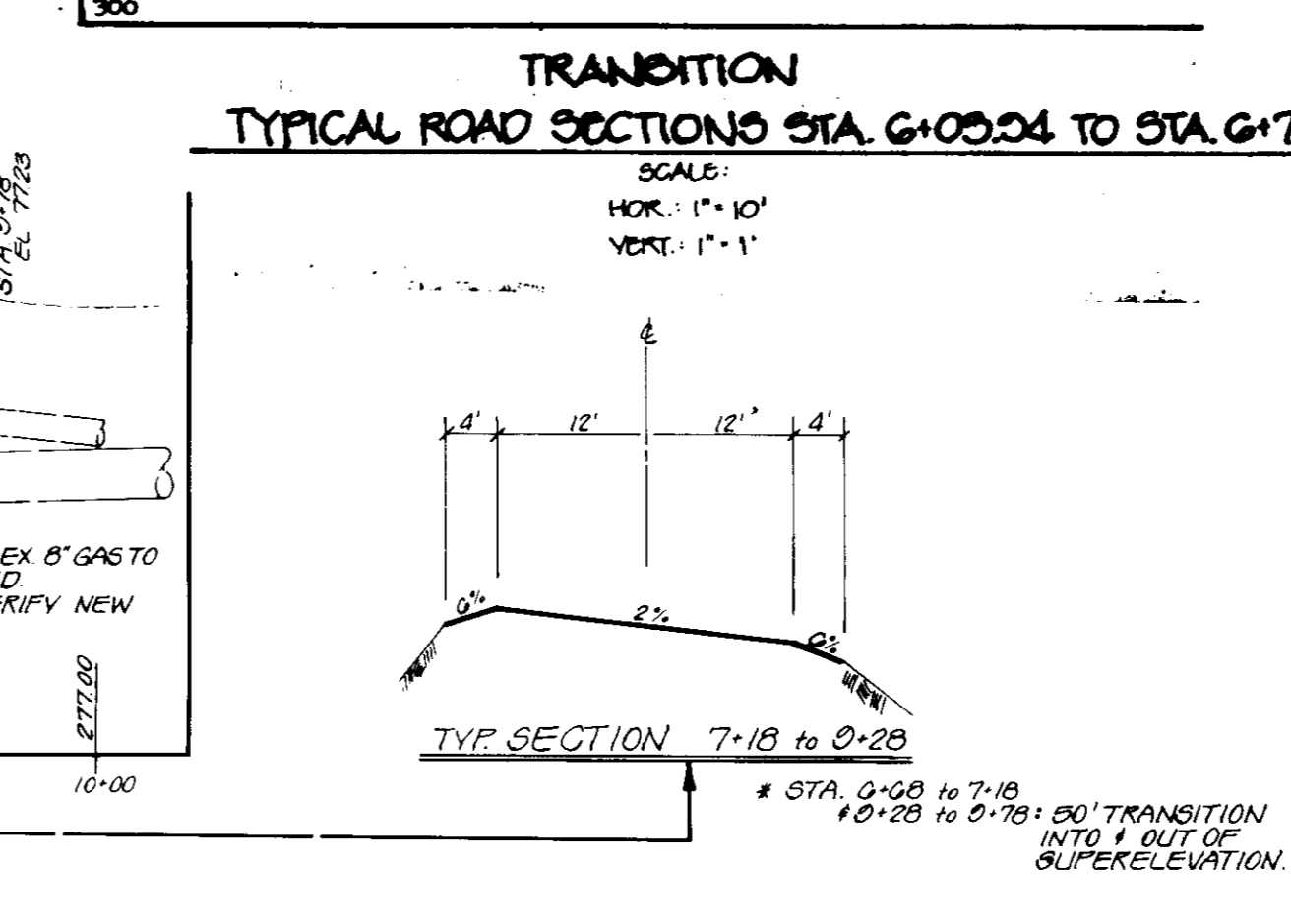
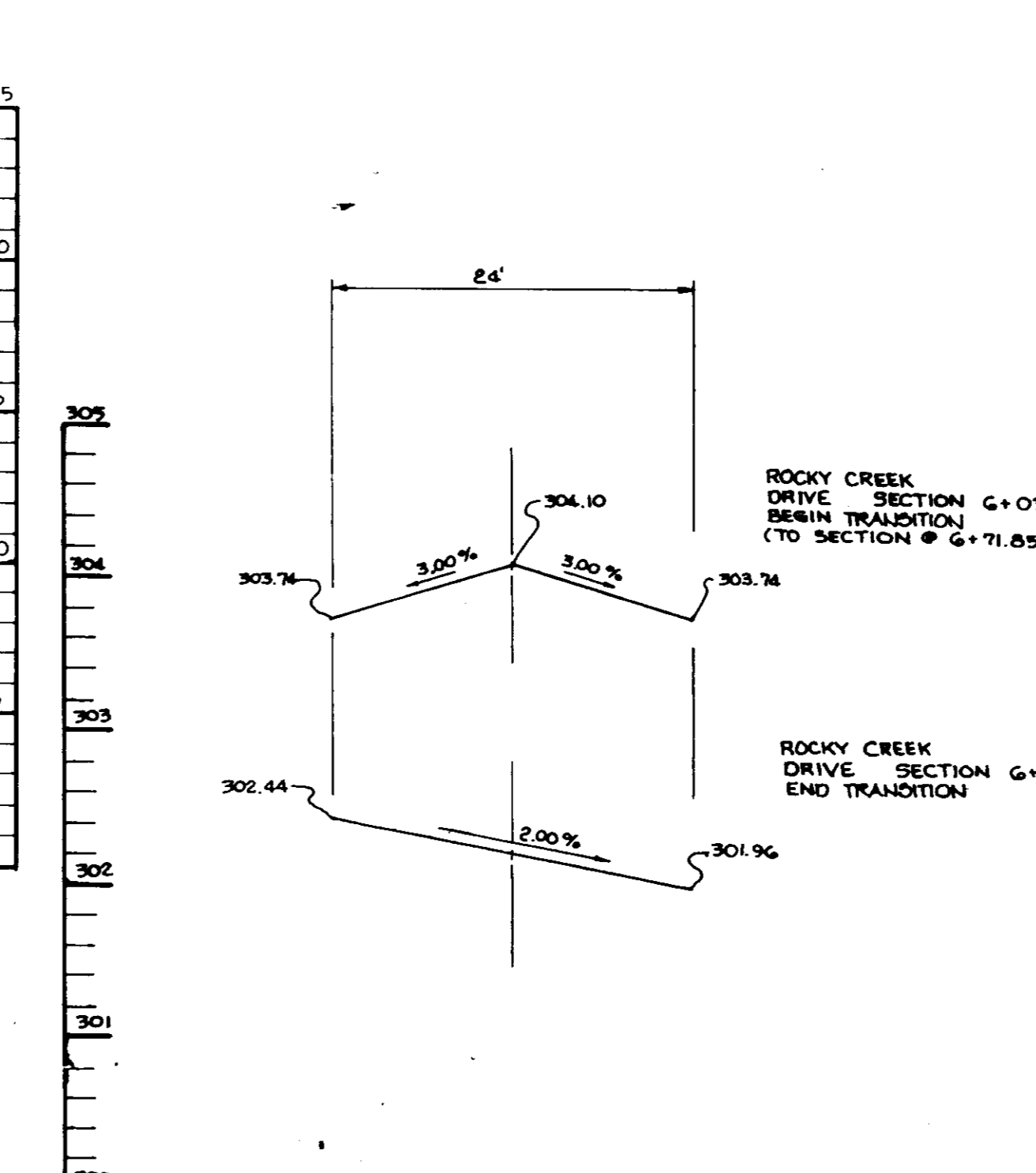
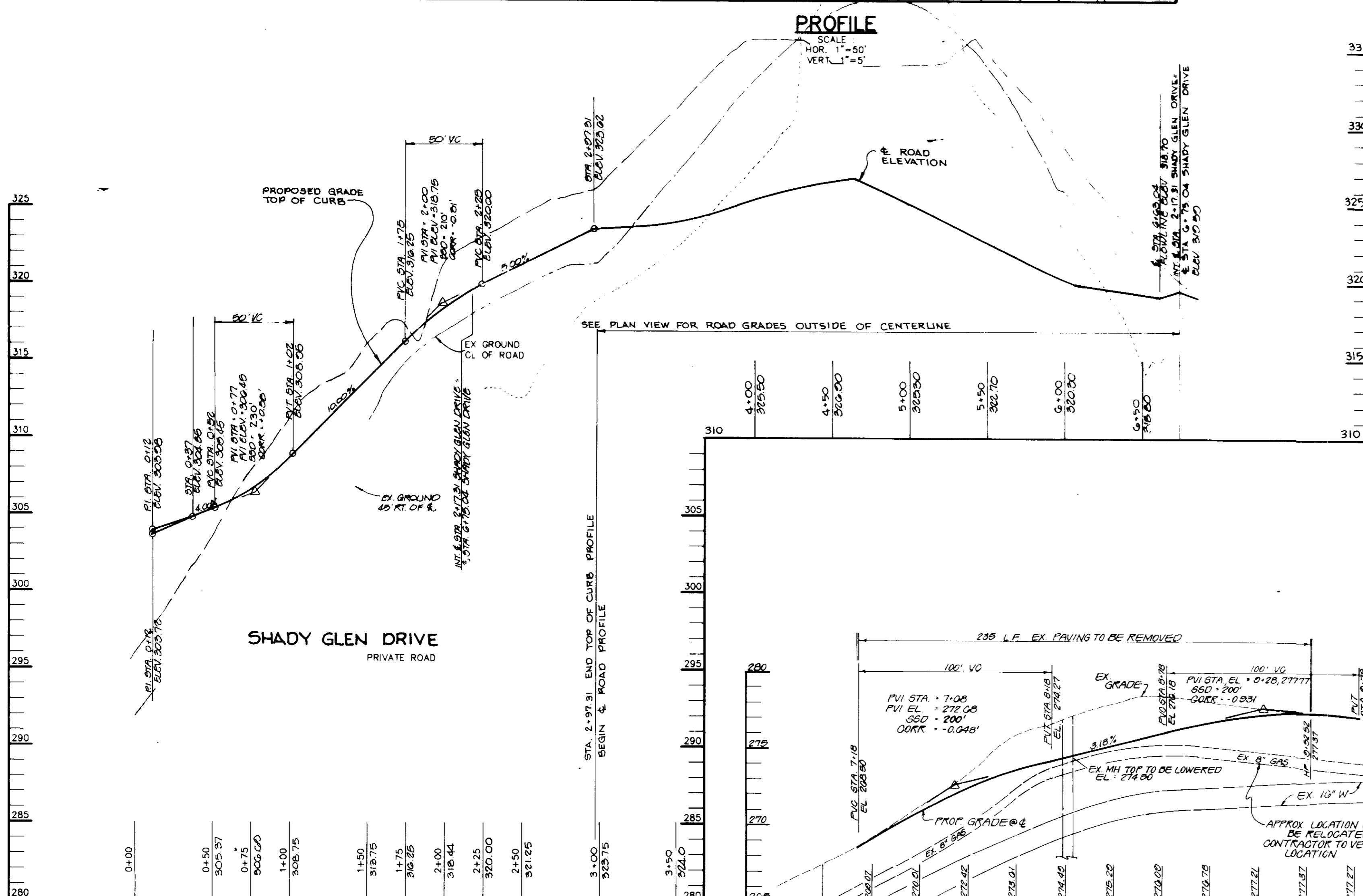
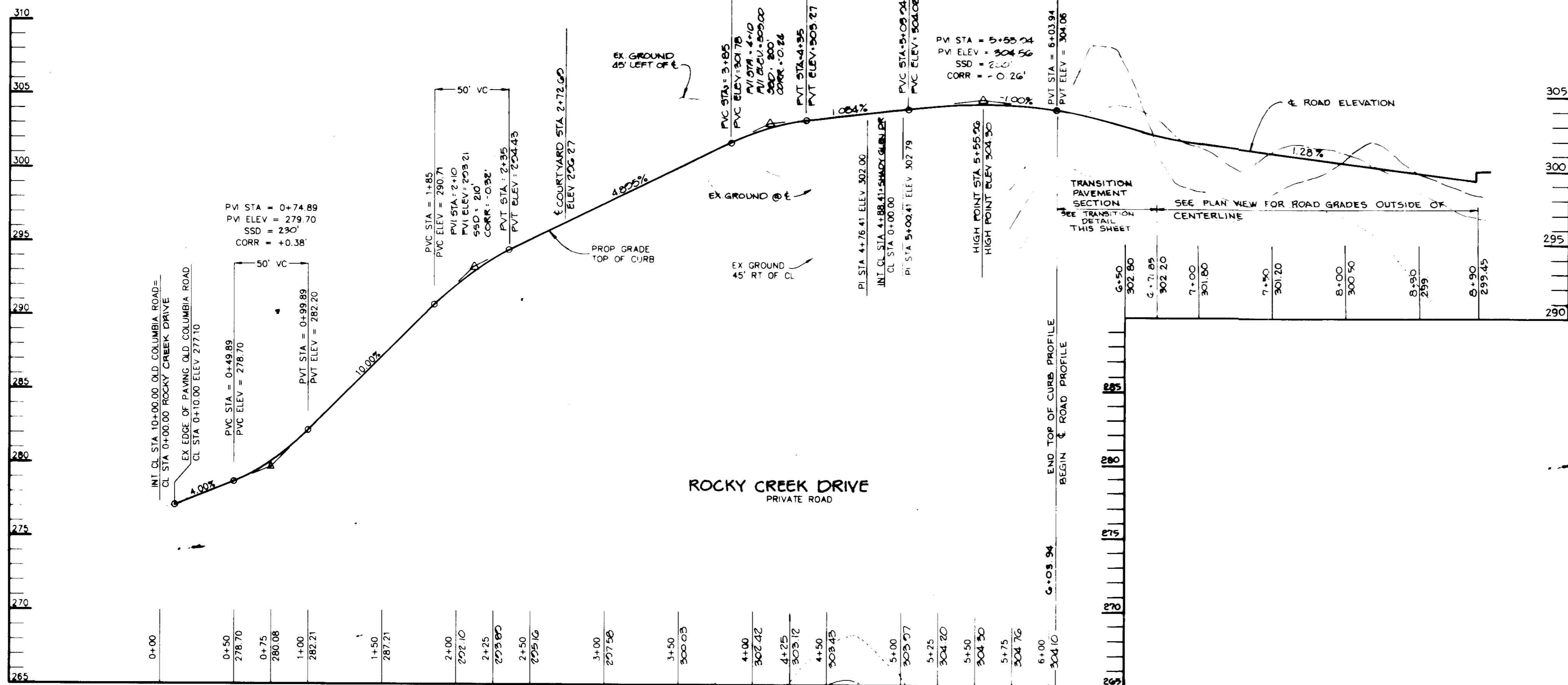
VEHICULAR INGRESS/EGRESS IS RESTRICTED ALONG U.S. ROUTE 29 FRONTAGE.

U.S. ROUTE 29

**OLD COLUMBIA ROAD
PAVEMENT WIDENING ELEVATIONS & OFFSETS**

Station	Ex. H. Elev.	Ex. H. Off.	Ex. L. Elev.	Ex. L. Off.	Prop. 12" H. Elev.	Prop. 12" L. Elev.	Prop. 16" H. Elev.	Prop. 16" L. Elev.
2+50	257.55	10.9	256.53	10.5	257.33	N/A	257.09	N/A
2+75	257.24	10.1	256.71	9.8	257.10	N/A	256.86	N/A
3+00	257.03	9.7	257.14	9.9	256.96	N/A	256.72	N/A
3+25	257.45	9.4	257.73	9.8	257.39	N/A	257.15	N/A
3+50	257.88	9.3	258.13	10	257.82	N/A	257.58	N/A
3+75	258.25	9.5	258344	9.9	258.18	N/A	257.94	N/A
4+00	258.76	9.7	258384	9.7	258.69	N/A	258.45	N/A
4+25	259.11	9.5	259.36	9.4	259.05	N/A	258.81	N/A
4+50	259.44	9.6	259.92	9.8	259.40	N/A	259.16	N/A
4+75	259.84	9.3	260.43	10.3	259.80	N/A	259.56	N/A
5+00	260.23	9.1	260.93	10.7	260.19	260.75	259.95	260.51
5+25	260.94	9.3	261.53	11	260.90	261.36	260.66	261.12
5+50	261.71	9.5	262.13	10.8	261.66	261.99	261.42	261.75
5+75	262.59	9.8	262.73	10.7	262.52	262.63	262.28	262.39
6+00	263.49	10.1	263.32	10.6	263.39	263.26	263.15	263.02
6+25	264.52	10.5	263.97	10.4	264.37	263.95	264.13	263.71
6+50	265.61	11	264.81	10.3	265.42	264.82	265.18	264.58
6+75	266.74	11.5	265.96	10.2	266.53	265.96	266.29	265.72
7+00	268.01	11.1	267.87	10.1	267.91	267.80	267.67	267.56
7+25	269.48	10.6	269.10	10	268.83	269.31	268.59	269.07
7+50	271.60	10.1	271.03	9.8	270.67	271.15	270.43	270.91
7+75	273.59	9.8	273.15	9.7	272.18	272.66	271.94	272.42
8+00	275.77	10.4	275.68	9.3	273.37	273.85	273.13	273.61
8+25	277.68	10.8	277.69	9.8	274.25	274.73	274.01	274.49
8+50	278.07	10.5	278.02	9.7	275.05	275.53	274.81	275.29
8+75	278.50	10	278.25	10.2	275.85	276.33	275.61	276.09
9+00	278.16	9.7	277.58	10.5	276.54	277.02	276.30	276.78
9+25	277.57	9.9	276.91	10	276.97	277.45	276.73	277.21
9+50	277.30	10.4	276.64	10	W	N/A	W	N/A
9+75	277.11	10.3	276.50	9.5	W	N/A	W	N/A
10+00	277.10	10.2	276.61	10.2	W	N/A	W	N/A
10+25	277.01	10	276.72	10.3	W	N/A	W	N/A

W = WARP PAVING - SEE PLAN
N/A = NOT APPLICABLE - HOLD EX. EDGE OF PAVEMENT IN LINE AND GRADE



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

[Signature]
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 4/19/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 4/25/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

[Signature] 4/26/96
DIRECTOR DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
SHE CLARK'S CROSSING, LLC
C/O KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT **CLARK'S CROSSING**
A TOWNHOME CONDOMINIUM COMMUNITY

AREA TAX MAP 41 PARCEL 237
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **ROAD PROFILES**

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

3.28.96
DATE

DESIGNED BY: W.C.W.
DRAWN BY: W.C.W./R.J.C.
PROJECT NO: 90212
DATE: MARCH 20, 1996
SCALE: AS SHOWN
DRAWING NO. 4 OF 14

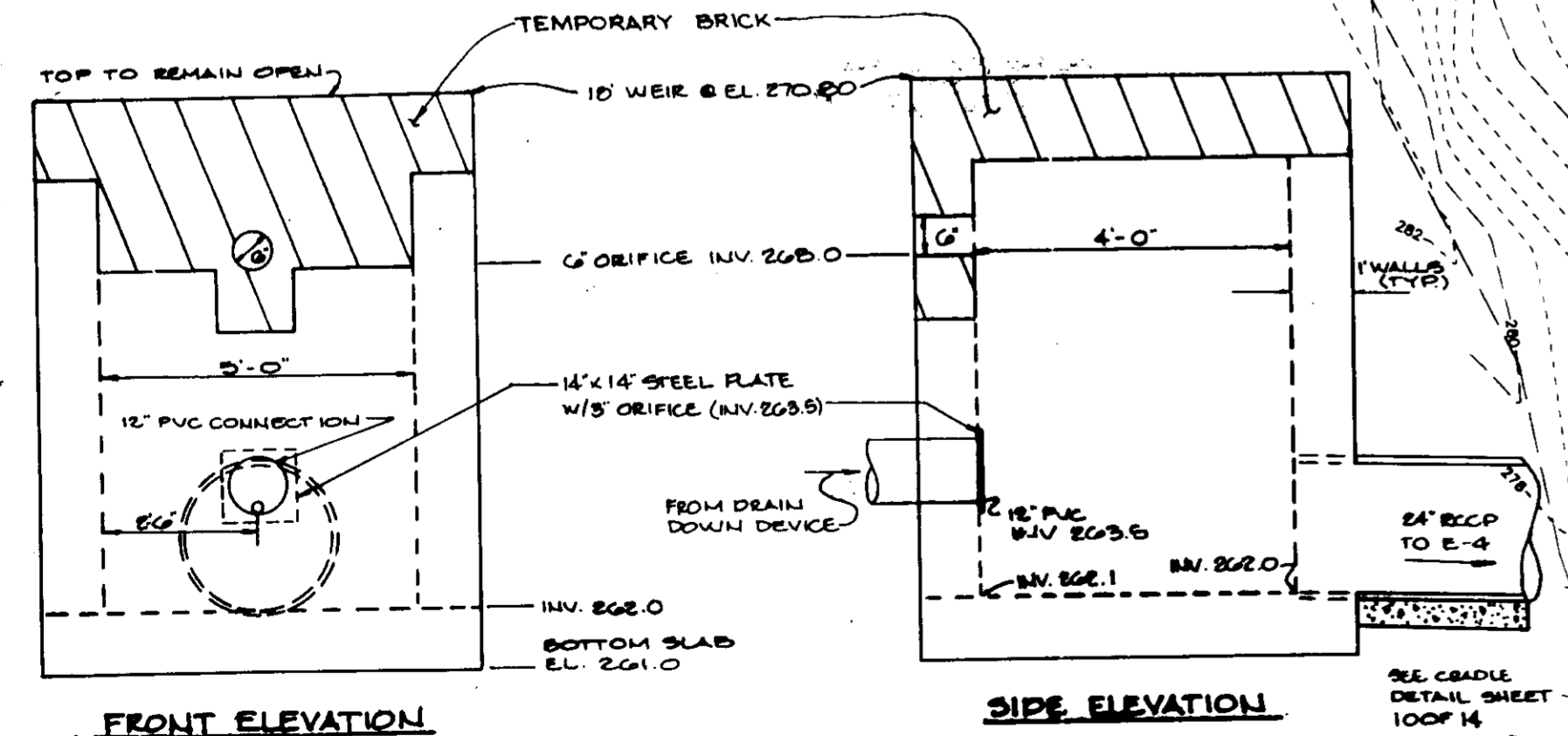
[Signature]
JAYKANT D. PAREKH #19148

SEE STORM SEWER COMPUTATIONS FOR OFF-SITE DRAINAGE

CLARK'S CROSSING DRAINAGE AREA THRESHOLDS	AREA	PERCENT	THRESHOLD
1	0.75	0.32	16
2	0.99	0.47	21
3	0.14	0.35	21
4	0.06	0.65	67
5	0.19	0.39	26
6	0.16	0.63	60
7	0.51	0.71	76
8	0.43	0.46	23
9	0.24	0.31	16
10	0.13	0.36	23
11	0.07	0.60	57
12	0.46	0.49	43
13	0.90	0.28	10
14	0.18	0.62	61
15	0.20	0.70	75
16	0.34	0.77	77
17	0.26	0.74	81
18	0.53	0.32	17
19	1.80	0.25	0

- ROAD WIDENING AND DITCH NOTES:**
- CONSTRUCT ONLY THAT PORTION OF WIDENING PAVEMENT AND DITCH THAT CAN BE COMPLETELY STABILIZED BY THE END OF EACH WORKING DAY.
 - DITCH BELOW SWM/SEC BASIN OUTFALL MUST BE IMMEDIATELY STABILIZED WITH SOD.

- NOTES:**
- WEIR TO BE TEMPORARILY EXTENDED TO ELEVATION 270.5 WITH BRICK & MORTAR. INSTALL 6" DRIFICE @ ELEVATION SHOWN. INSTALL PERMANENT TRASH RACK TO MODIFIED RISER & COVER WITH 4"x4" WELDED WIRE FABRIC.
 - FOR DETAILS NOT SHOWN REFER TO SWM DETAIL SHEET 10 OF 14.



MODIFIED S-1 STRUCTURE DETAIL FOR TEMPORARY SEC/SWM ONLY
NO SCALE

PLAN
SCALE: 1"=40'

THIS SHEET FOR SEDIMENT & EROSION CONTROL ONLY

- LEGEND**
- DRAINAGE DIVIDES
 - SILT FENCE
 - SUPER SILT FENCE
 - LIMIT OF DISTURBANCE
 - EARTH DIKE
 - TEMPORARY SWALE
 - STABILIZED CONSTRUCTION ENTRANCE
 - DRAINAGE AREA No. 1
 - SOILS DIVIDE

SEDIMENT BASIN

DRAINAGE AREA (Ac)	8.3
STORAGE REQUIRED (cf)	29,880
STORAGE PROVIDED (cf)	30,050
WET STORAGE (cf)	15,025
DRY STORAGE (cf)	15,025
TOP BERM ELEVATION	272.5
WEIR LENGTH	18'
CLEAN OUT ELEVATION	265.6
DEPTH (Ft.)	4' (from 6" Inv.)
SIDE SLOPES	3:1

- NOTES:**
- SEE SHEET 11 OF 14 FOR SEDIMENT CONTROL DETAILS
 - CONTRACTOR MUST INSTALL TREE PROTECTIVE FENCING ACCORDING TO THE FOREST CONSERVATION PLAN ON SHEETS 15 & 14 OF 14.
 -: LOCATION OF FOREST CONSERVATION EASEMENT.

* REFER TO SHEET 2 (S.O.P.) FOR GRADING & STORM DRAIN ALIGNMENT

BY THE DEVELOPER:

I/WE 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 THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

J. Parekh 3/28/96
DEVELOPER DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

J. Parekh 3.28.96
ENGINEER 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.

J. H. Warfield 4/15/96
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

J. Parekh 4/15/96
HOWARD SOIL CONSERVATION DISTRICT DATE

JAYKANT D. PAREKH #19148 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

J. Parekh 4/22/96
DIRECTOR DATE

J. Parekh 4/19/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

J. Parekh 4/25/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

DATE NO. REVISION

OWNER / DEVELOPER

SHC CLARK'S CROSSING, LLC
C/O KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT CLARK'S CROSSING
A TOWNHOME CONDOMINIUM COMMUNITY

AREA TAX MAP 41 PARCEL 237
8TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP

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

3.28.96
DATE

DESIGNED BY: A.A.P.

DRAWN BY: W.C.W.

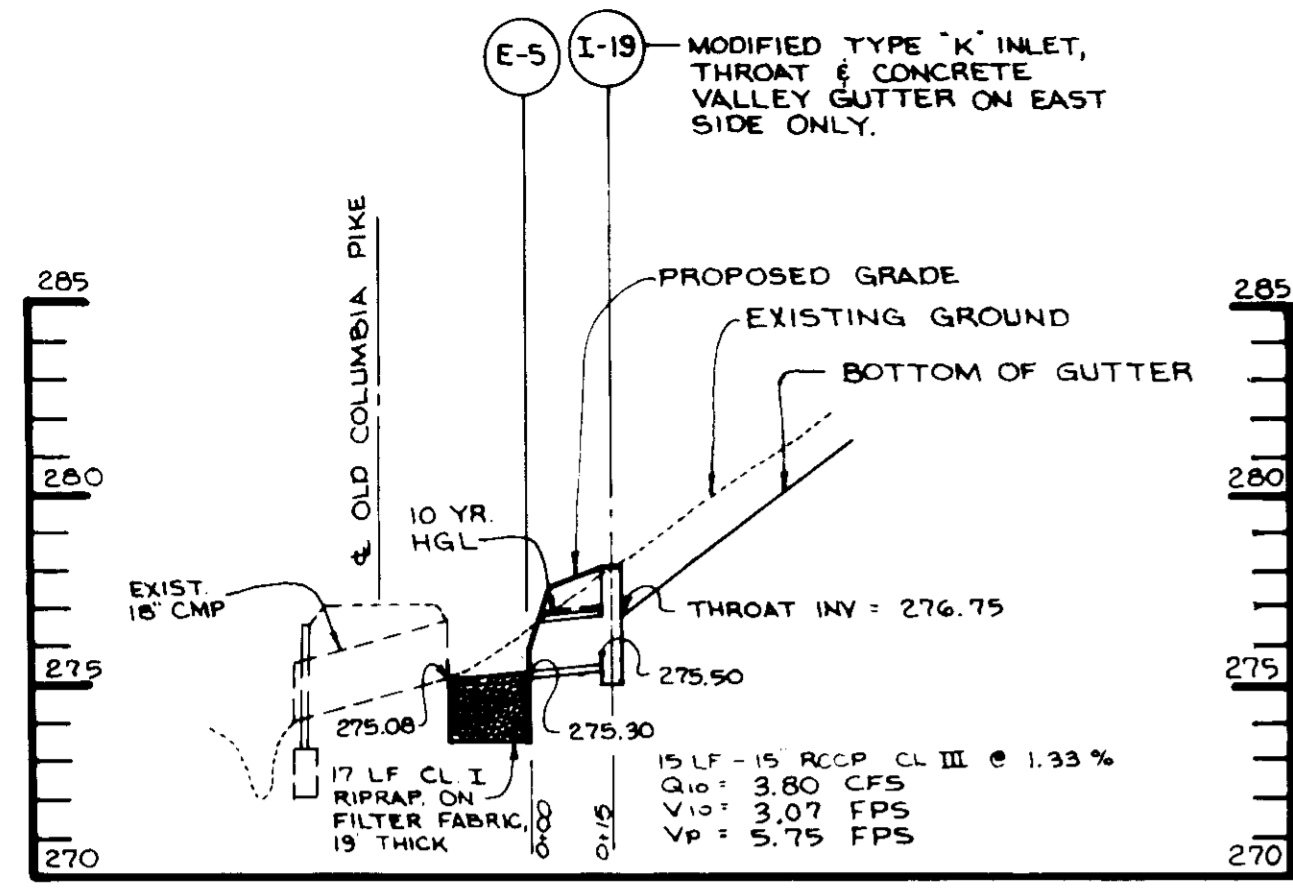
PROJECT NO: 90212

DATE: MARCH 20, 1996

SCALE: 1"=40'

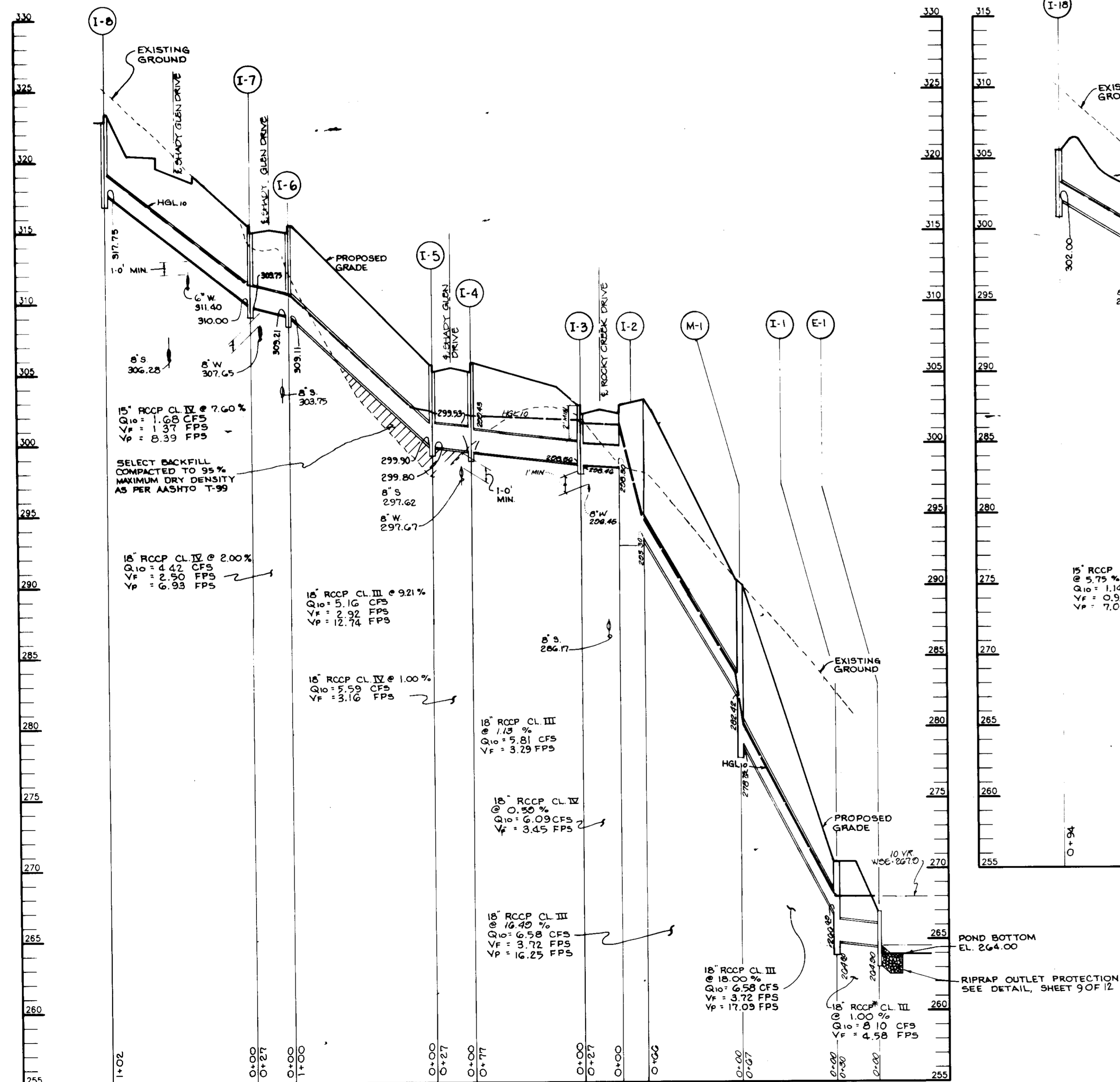
J. Parekh
JAYKANT D. PAREKH #19148

DRAWING NO. 5 OF 14



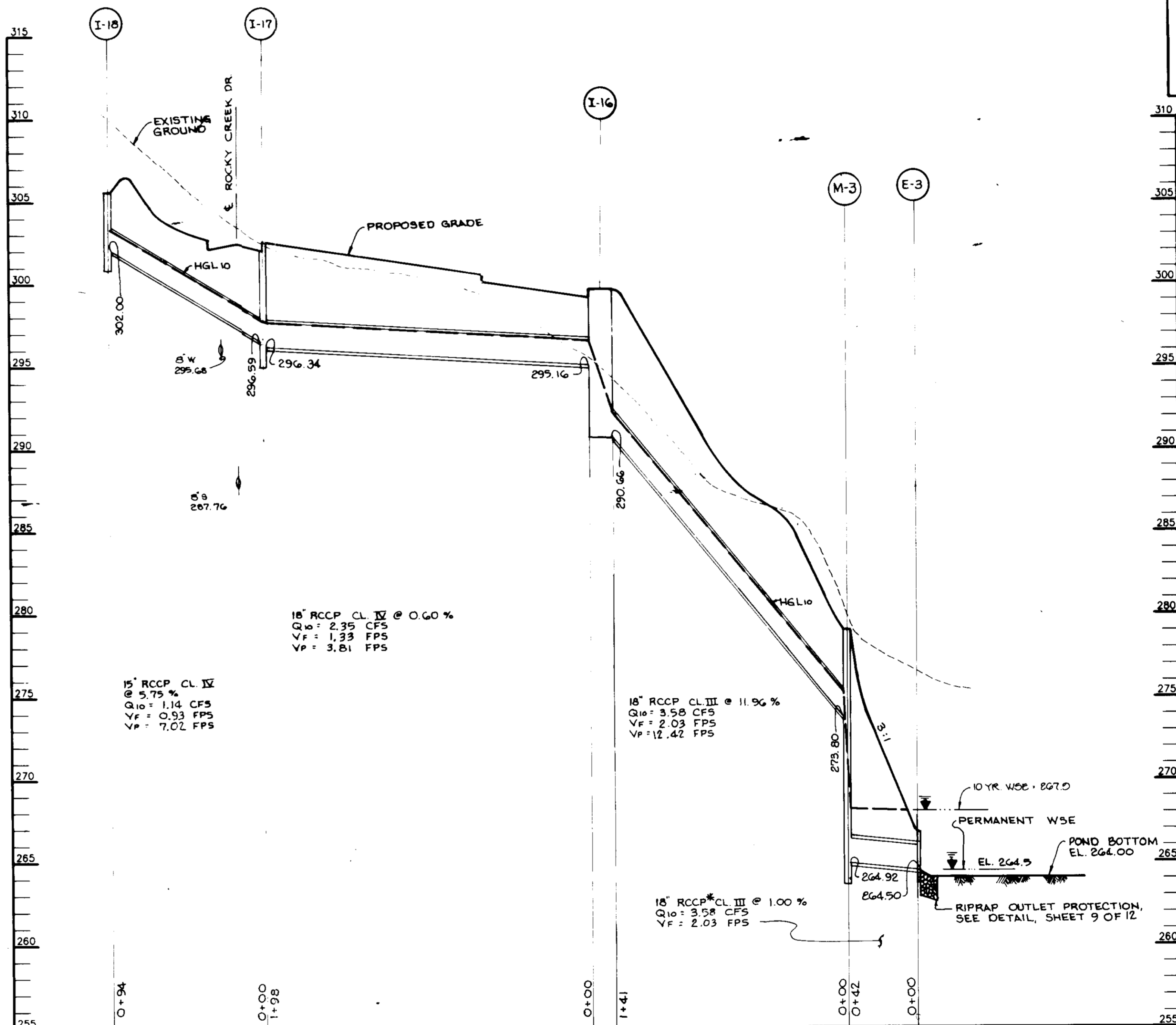
PROFILE

SCALE:
HOR: 1"=40'
VERT: 1"=5'



PROFILE

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



PROFILE

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

NO.	DESCRIPTION	DATE	BY	CHKD.	REVISION
I-1	15\"/>				
I-2	15\"/>				
I-3	15\"/>				
I-4	15\"/>				
I-5	15\"/>				
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E-19	15\"/>				

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

DIRECTOR

DATE	NO.	REVISION

OWNER / DEVELOPER
SHC CLARK'S CROSSING, LLC
c/o KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT
CLARK'S CROSSING
A TOWNHOME CONDOMINIUM COMMUNITY

AREA
TAX MAP 41 PARCEL 237
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
STORM DRAIN PROFILES AND DETAILS

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

DATE: 3-23-96

DESIGNED BY: RPP

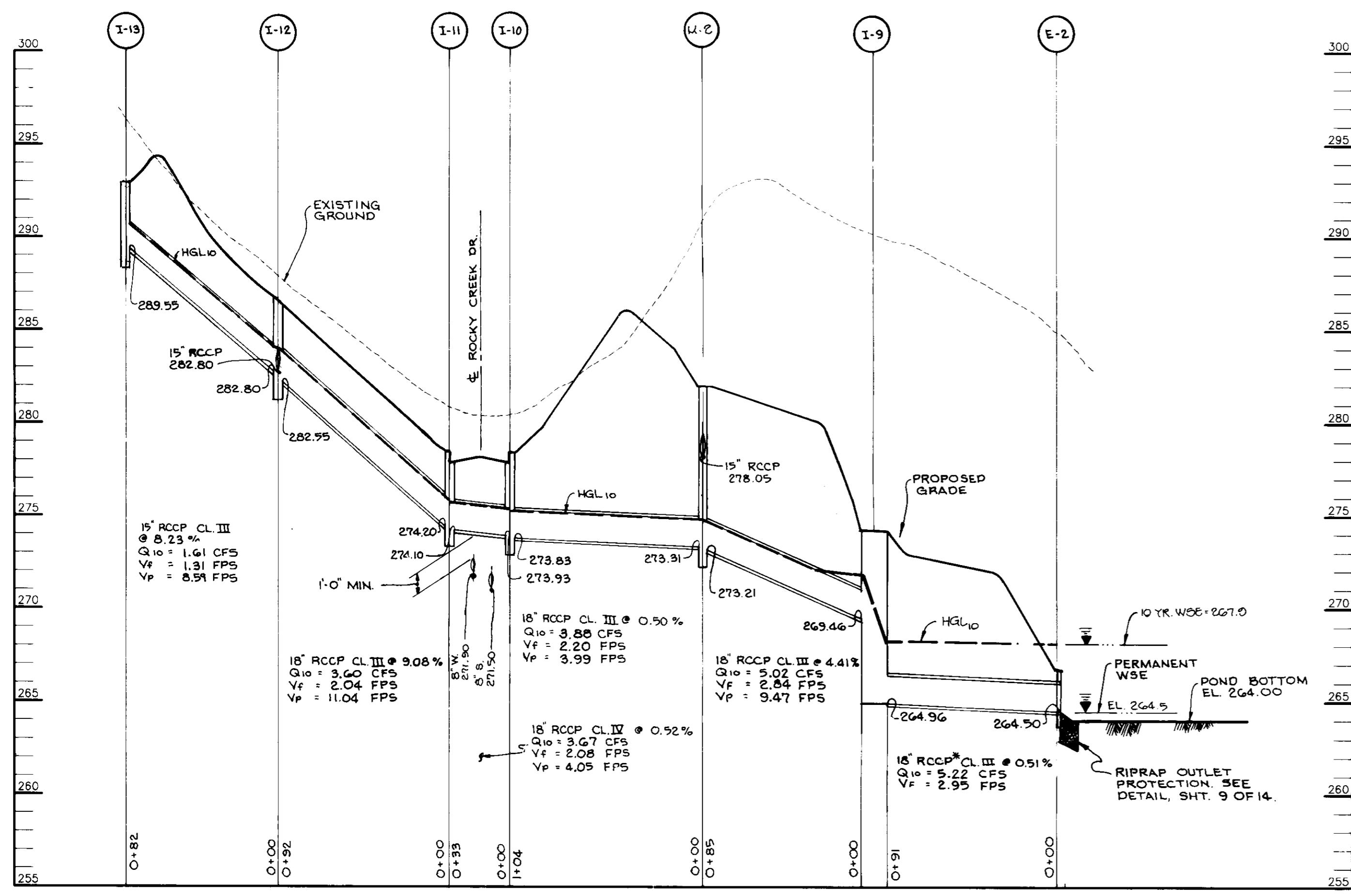
DRAWN BY: RJC

PROJECT NO: 90212

DATE: MARCH 20, 1996

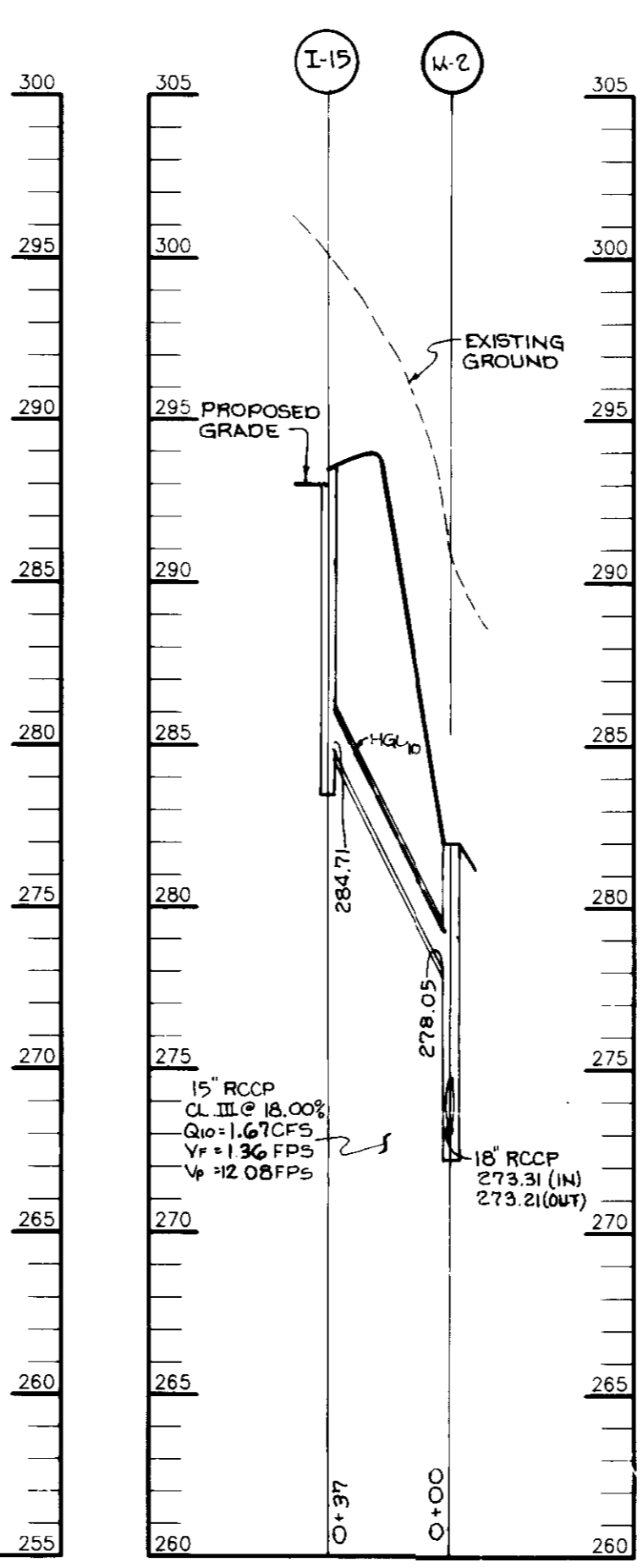
SCALE: AS SHOWN

DRAWING NO. 6 OF 14

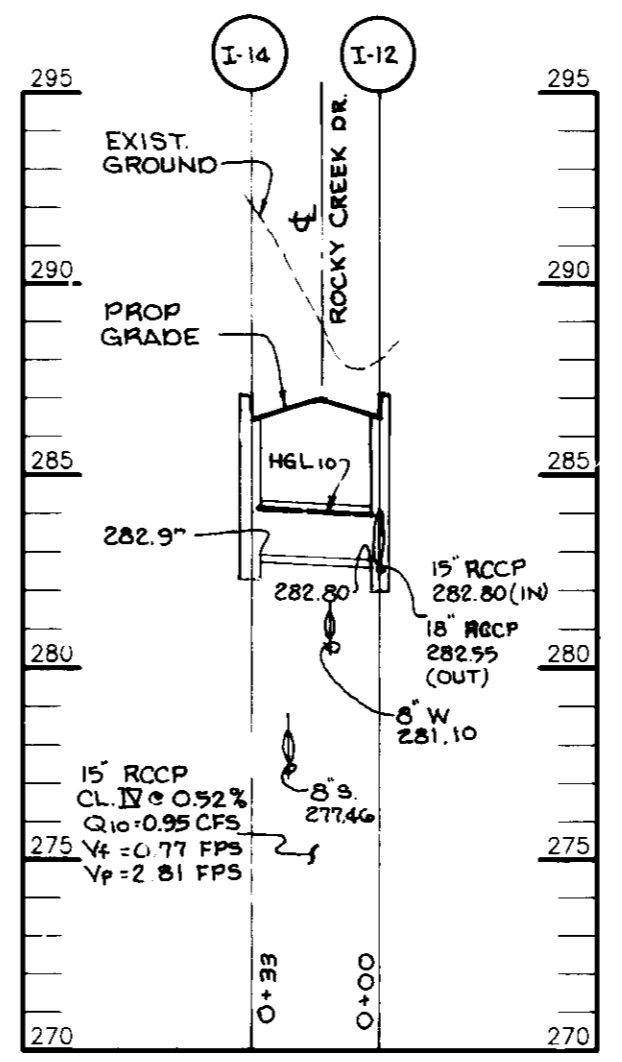


PROFILE
SCALE:
HOR. - 1"=50'
VERT. - 1"=5'

* PIPE TO HAVE ASTM C 445 O-RING GASKET JOINTS



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



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

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

COUNTY HEALTH OFFICER _____ DATE _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE 4/19/96

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH _____ DATE 4/25/96

DIRECTOR _____ DATE 4/26/96

DATE	NO.	REVISION

OWNER / DEVELOPER

SBC CLARK'S CROSSING, LLC
c/o KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT CLARK'S CROSSING
A TOWNHOME CONDOMINIUM COMMUNITY

AREA TAX MAP 41 PARCEL 237
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE STORM DRAIN PROFILES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyor
8818 Centre Park Drive • Suite 200 • Columbia, Md. 2104
410-997-8900 FAX: 410-997-9282

3.28.96
DATE

DESIGNED BY: R.P.P.

DRAWN BY: R.J.C.

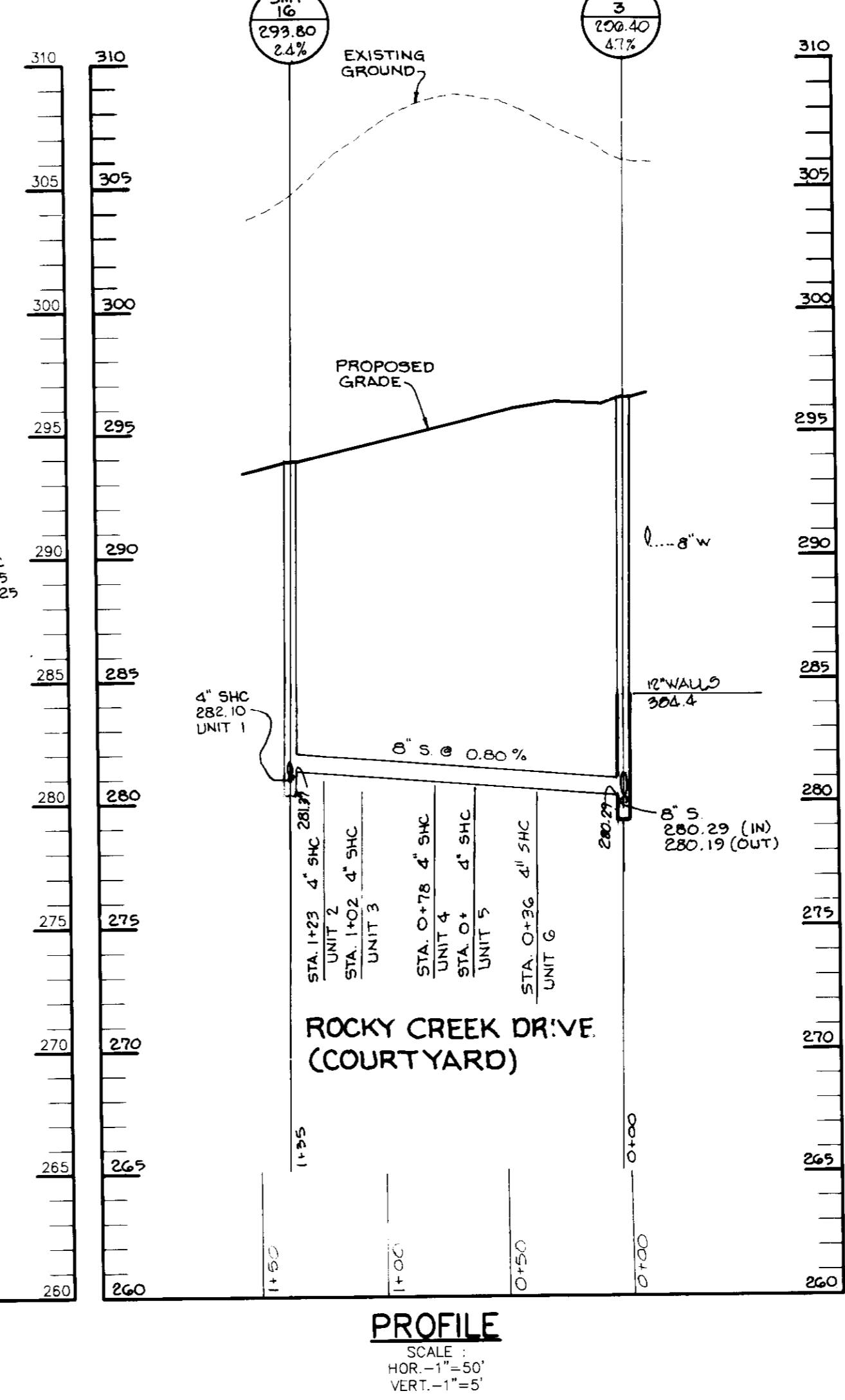
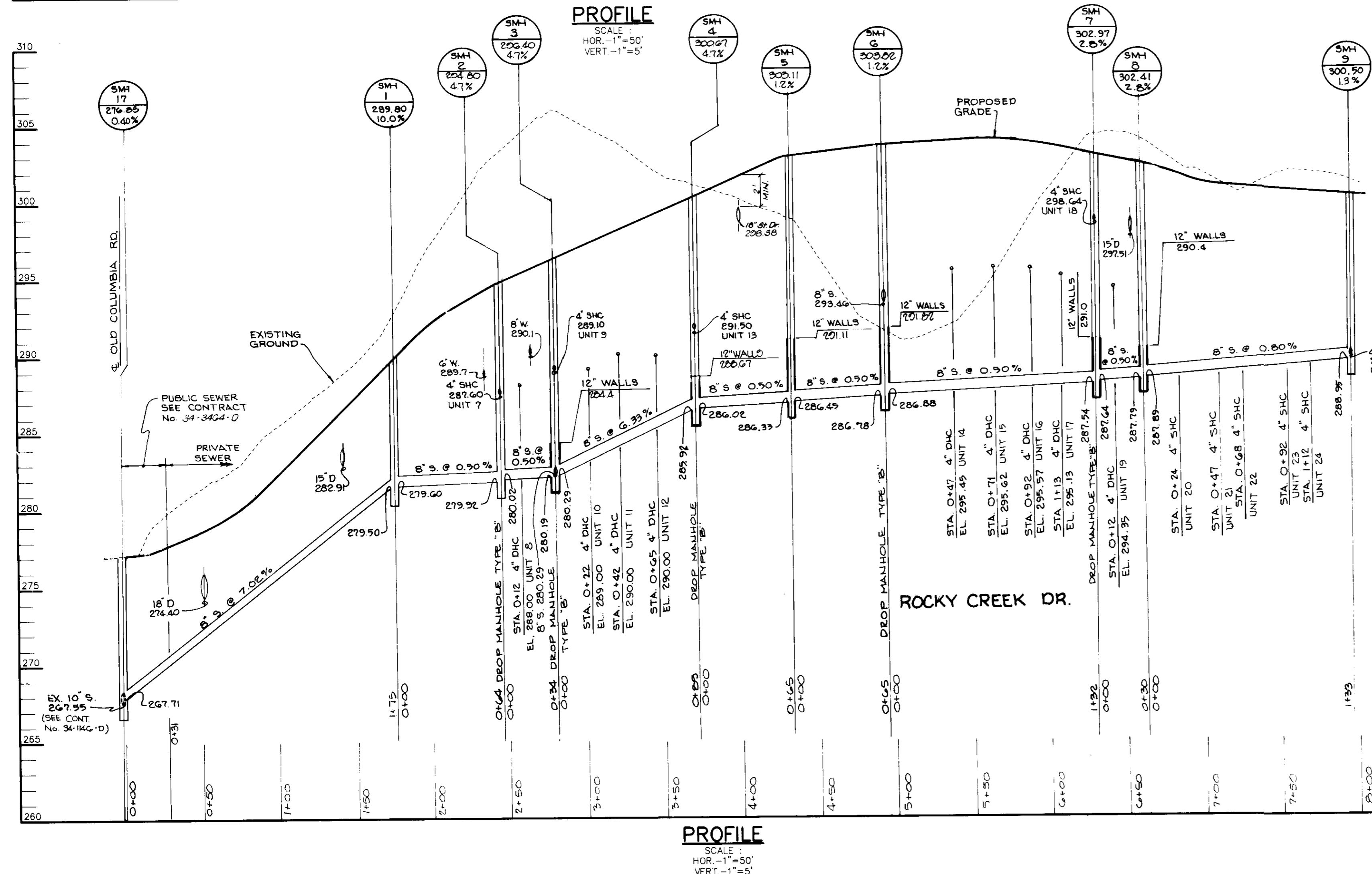
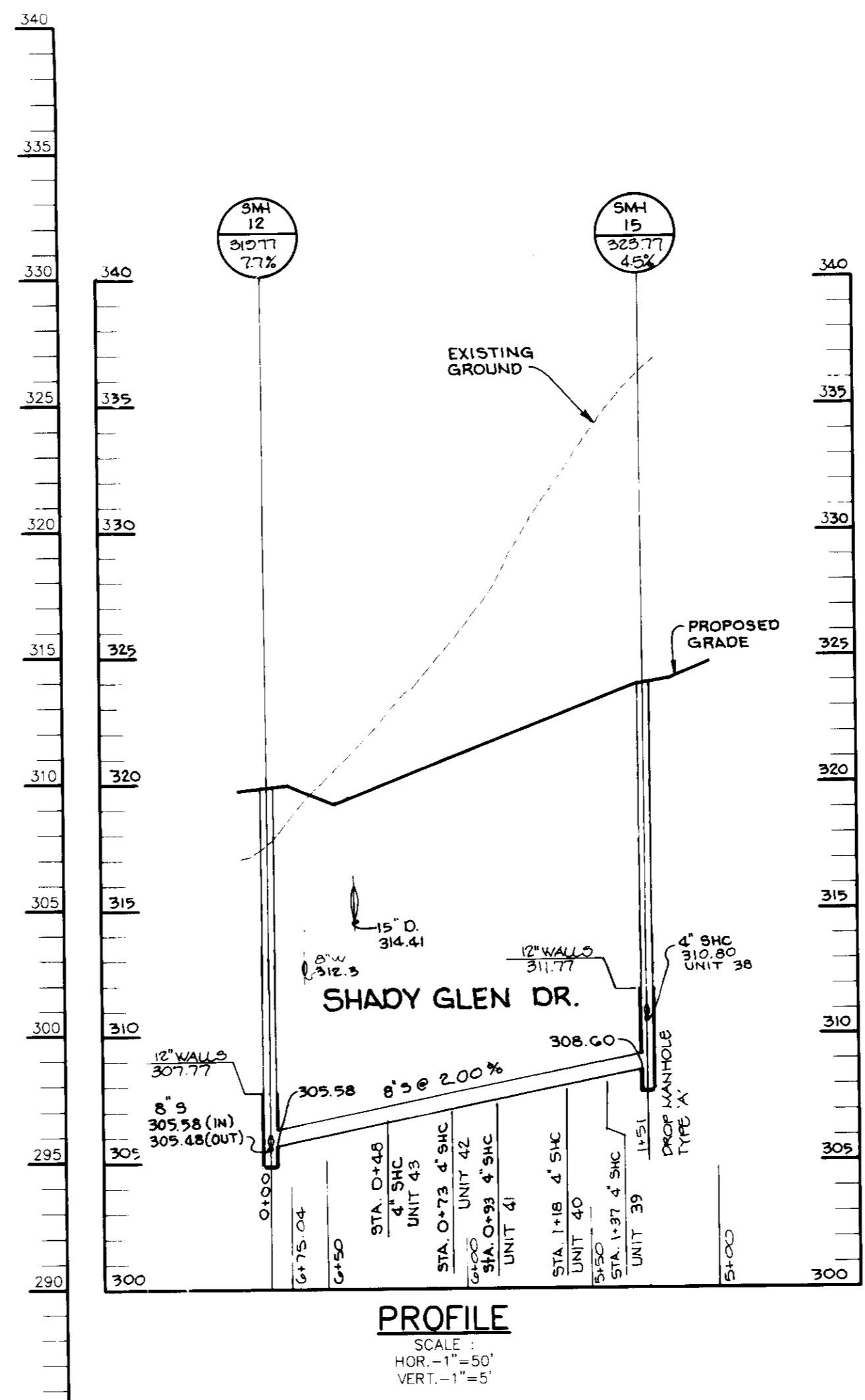
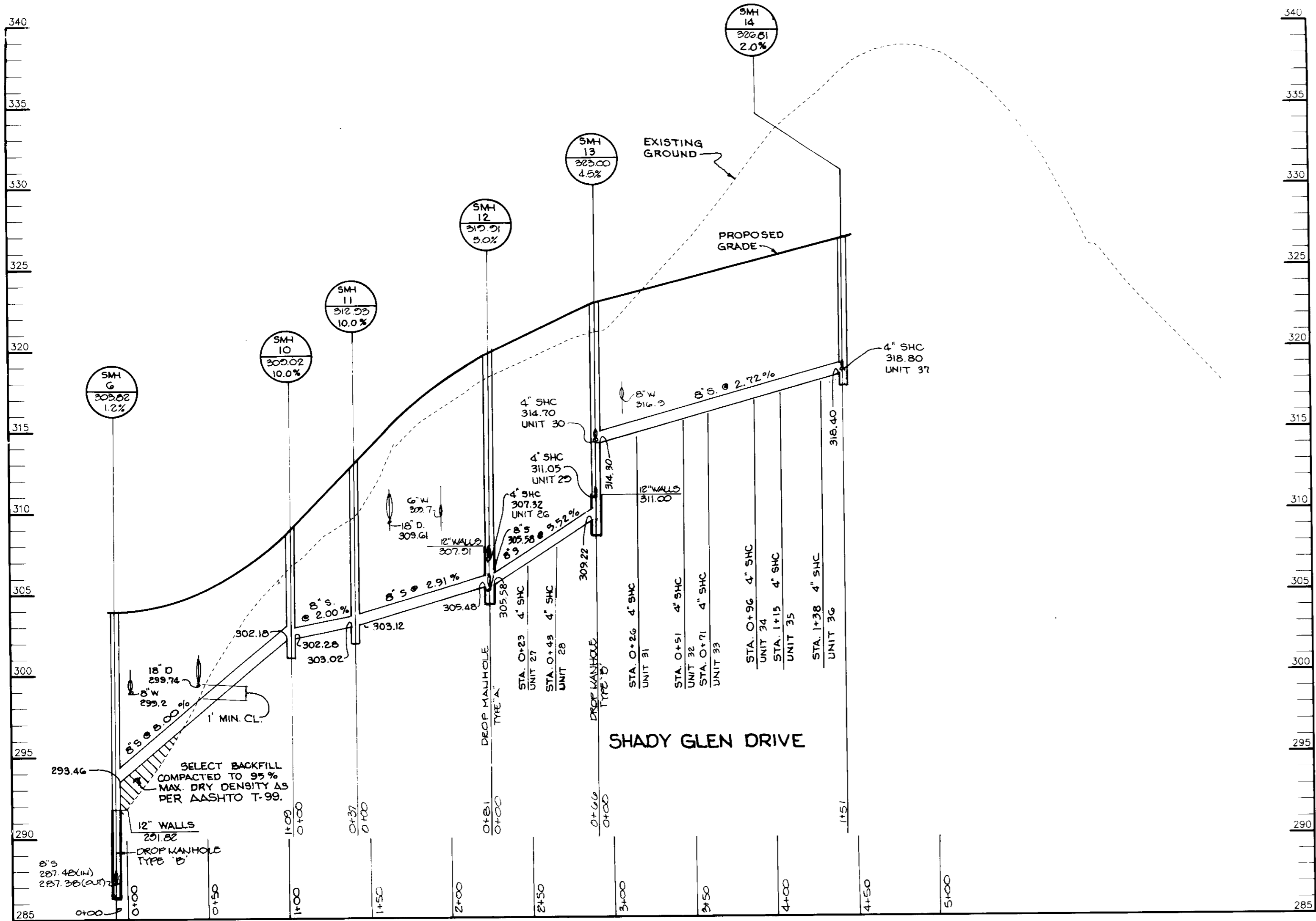
PROJECT NO: 90212

DATE: MARCH 20, 1996

SCALE: AS SHOWN

DRAWING NO. 7 OF 14

J. Parekh
JAYKANT D. PAREKH #19148



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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 4/19/96

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 4/25/96

DIRECTOR DATE 4/26/96

DATE	NO.	REVISION

OWNER / DEVELOPER
SIC CLARK'S CROSSING, LLC
c/o KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT
CLARK'S CROSSING
A TOWNHOME CONDOMINIUM COMMUNITY

AREA
TAX MAP 41 PARCEL 237
8th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

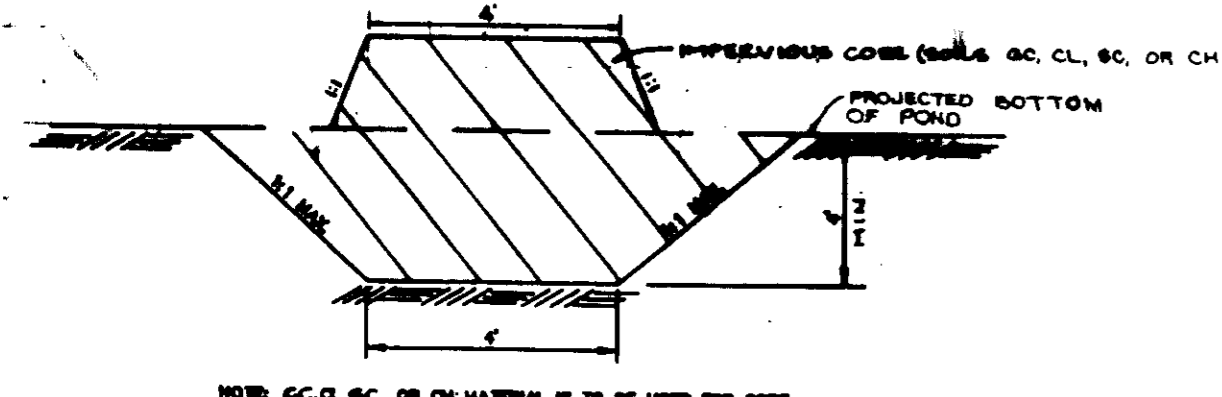
TITLE
SEWER PROFILES

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

3-28-96
DATE

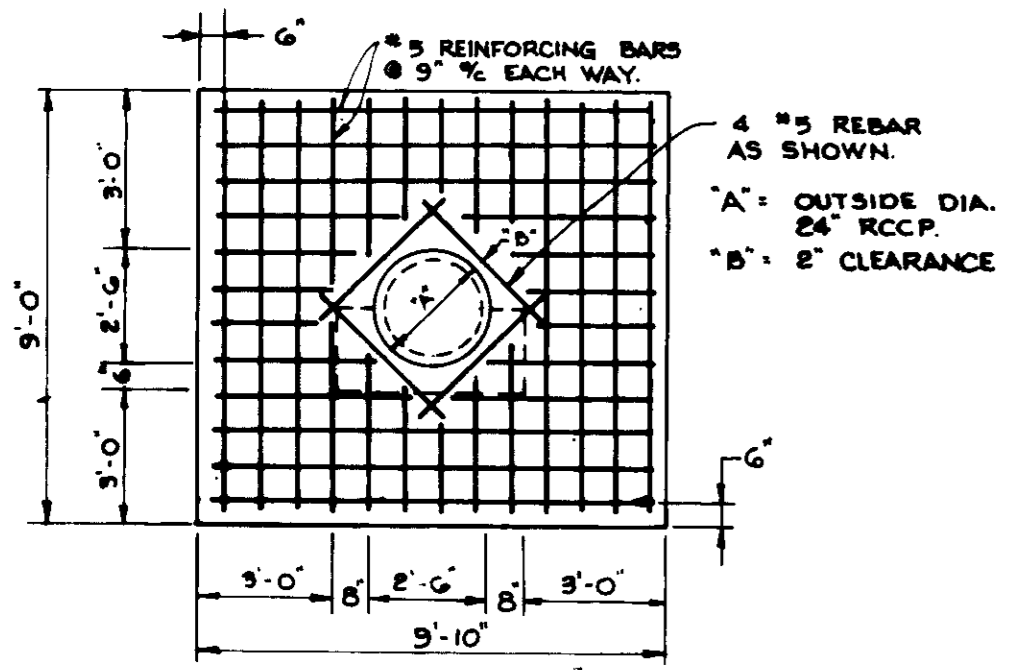
DESIGNED BY: R.P.P.
DRAWN BY: R.J.C.
PROJECT NO: 90212
DATE: MARCH 20, 1996
SCALE: AS SHOWN
DRAWING NO. 8 OF 14

J. Parekh
JAYKANT D. PAREKH #19148



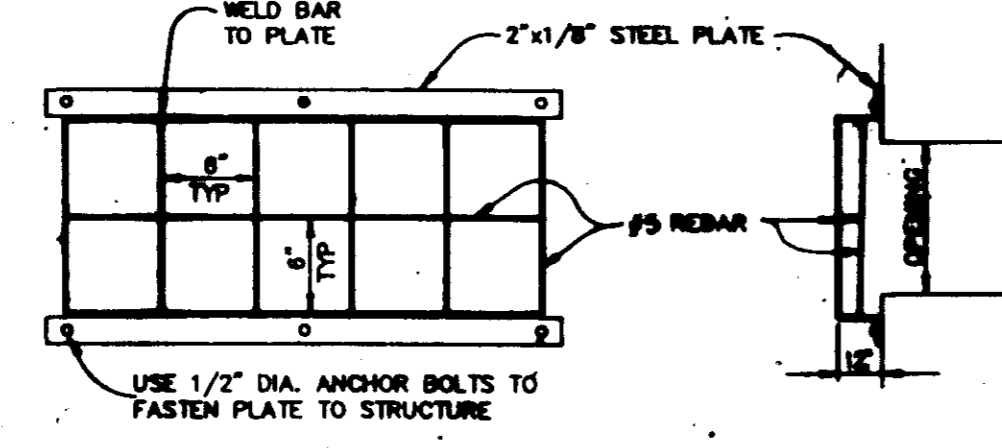
IMPERVIOUS CORE & CORE TRENCH DETAIL
NO SCALE

- NOTES:
1. CORE TRENCH TO BE A MINIMUM OF FOUR (4) FEET BELOW EXISTING GROUND OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. CORE TRENCH MUST BE KEPT INTO EXISTING GROUND.
 2. CORE TRENCH MUST BE KEPT PUMPED DRY DURING CONSTRUCTION.



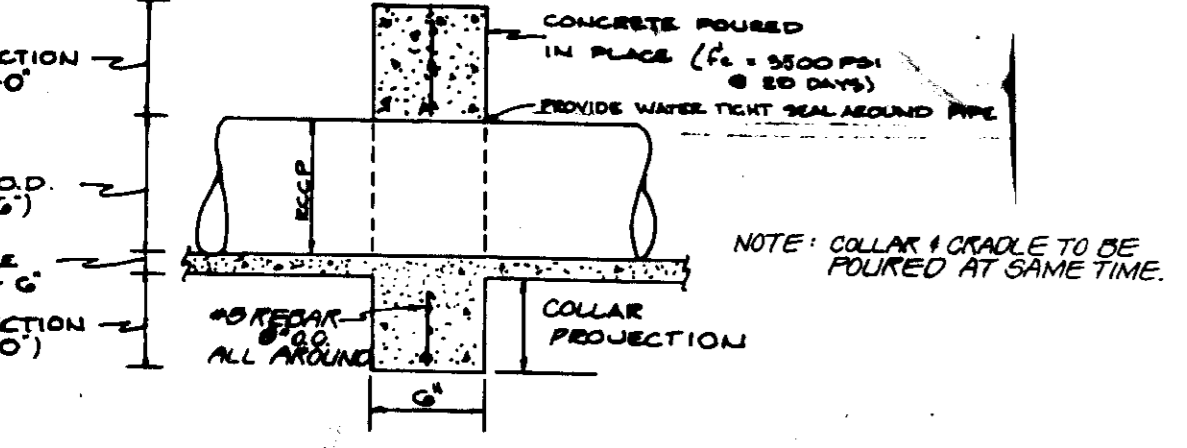
TRASH RACK DETAIL
NO SCALE

GALVANIZE RACK AFTER FABRICATION RACK TO BE EPOXY COATED AND PAINTED BATTLESHIP GRAY.



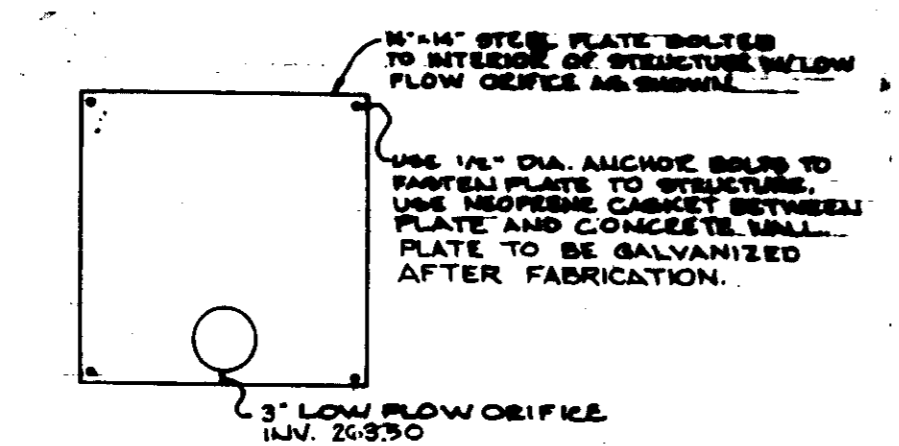
CRADLE DETAIL
NO SCALE

USE 1/2" DIA. ANCHOR BOLTS TO FASTEN PLATE TO STRUCTURE



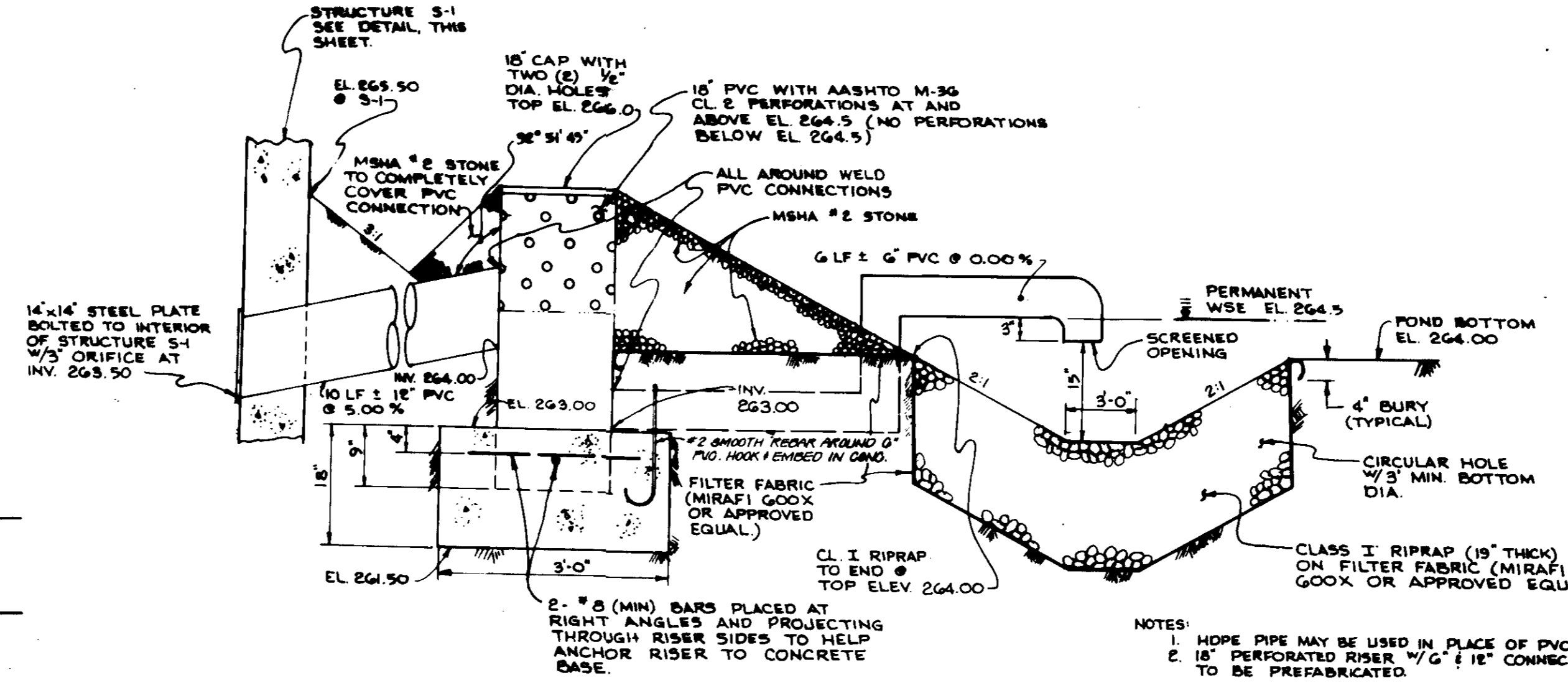
CONCRETE ANTI-SEEP COLLAR
NO SCALE

NOTE: LOCATE COLLARS 2' MINIMUM FROM PIPE JOINTS.



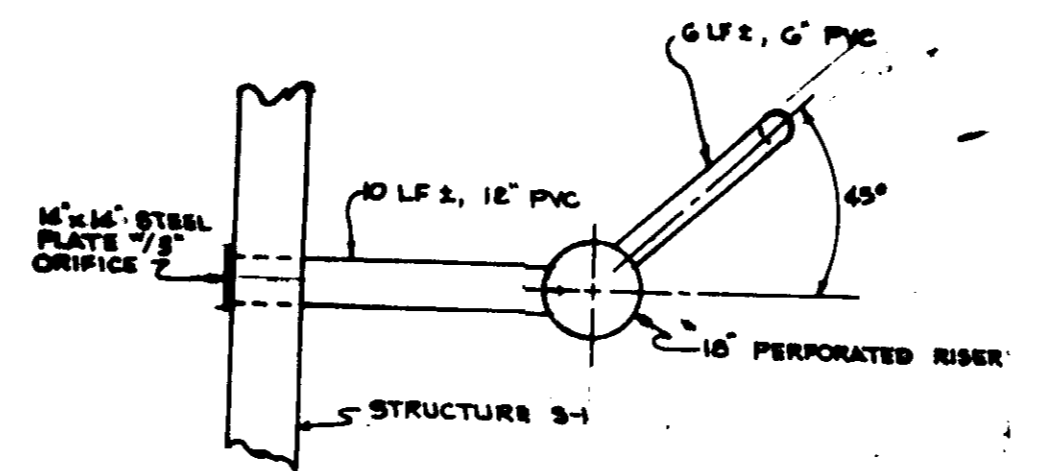
ORIFICE PLATE DETAIL
NO SCALE

USE 1/2" DIA. ANCHOR BOLTS TO FASTEN PLATE TO STRUCTURE. USE REINFORCING CEMENT BETWEEN PLATE AND CONCRETE. SMALL PLATE TO BE GALVANIZED AFTER FABRICATION.

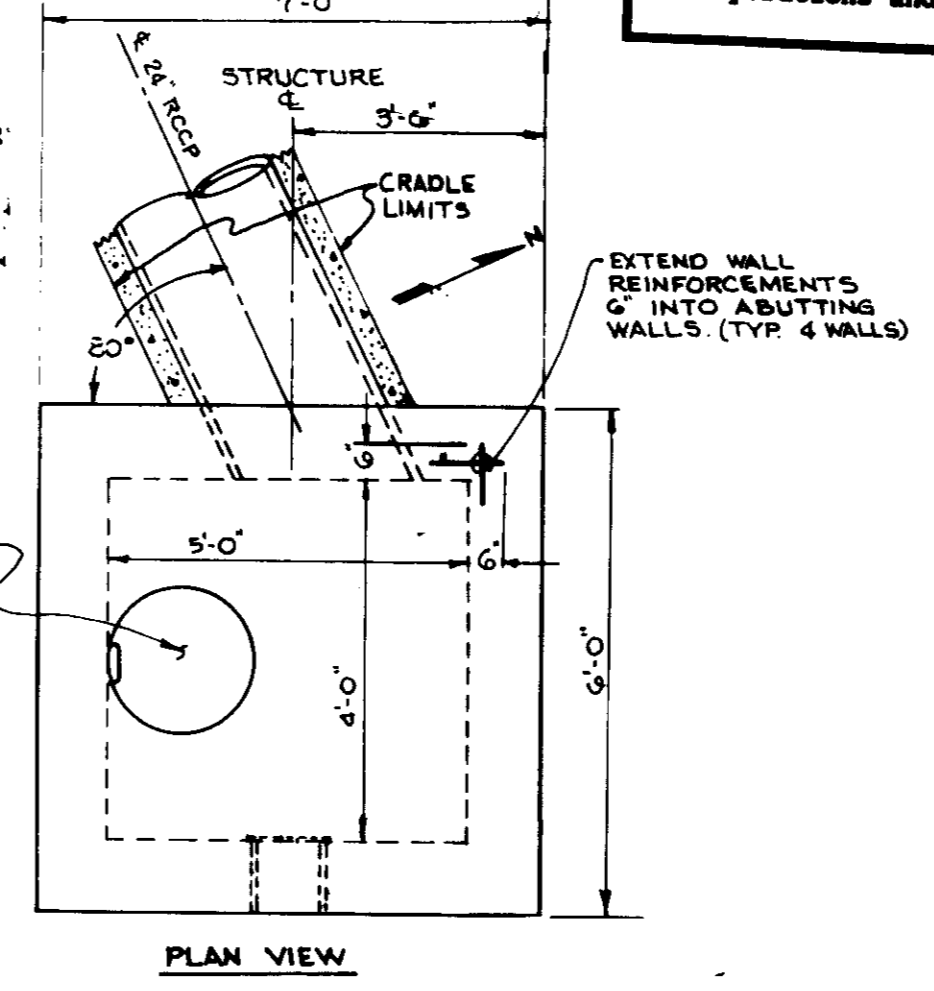


DETAIL PERMANENT LOW-FLOW DEVICE
NO SCALE

- NOTES:
1. HOPE PIPE MAY BE USED IN PLACE OF PVC PIPE
 2. 18" PERFORATED RISER W/ 1/2" DIA. CONNECTIONS TO BE PREFABRICATED.

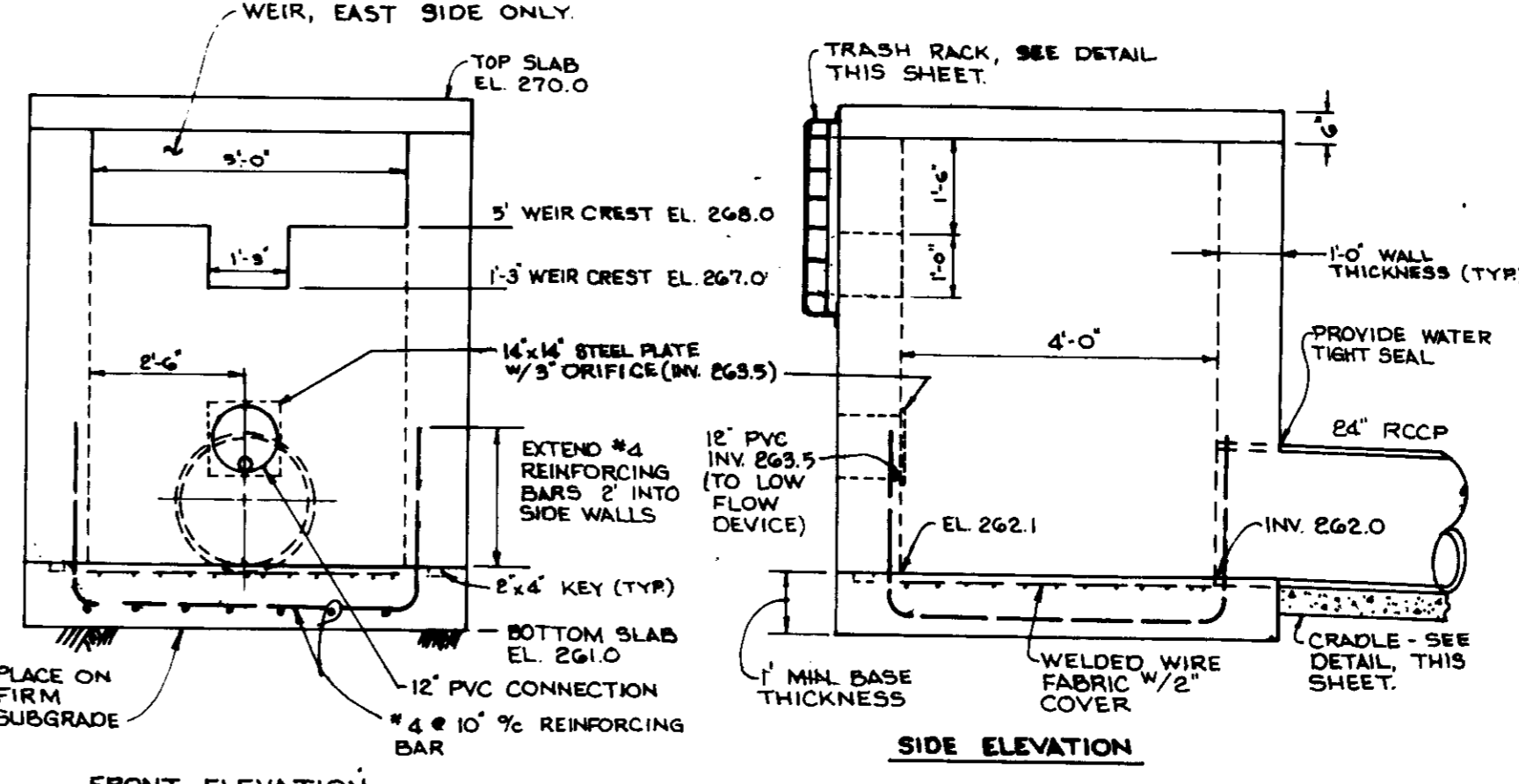


PLAN PERMANENT LOW-FLOW DEVICE
NO SCALE

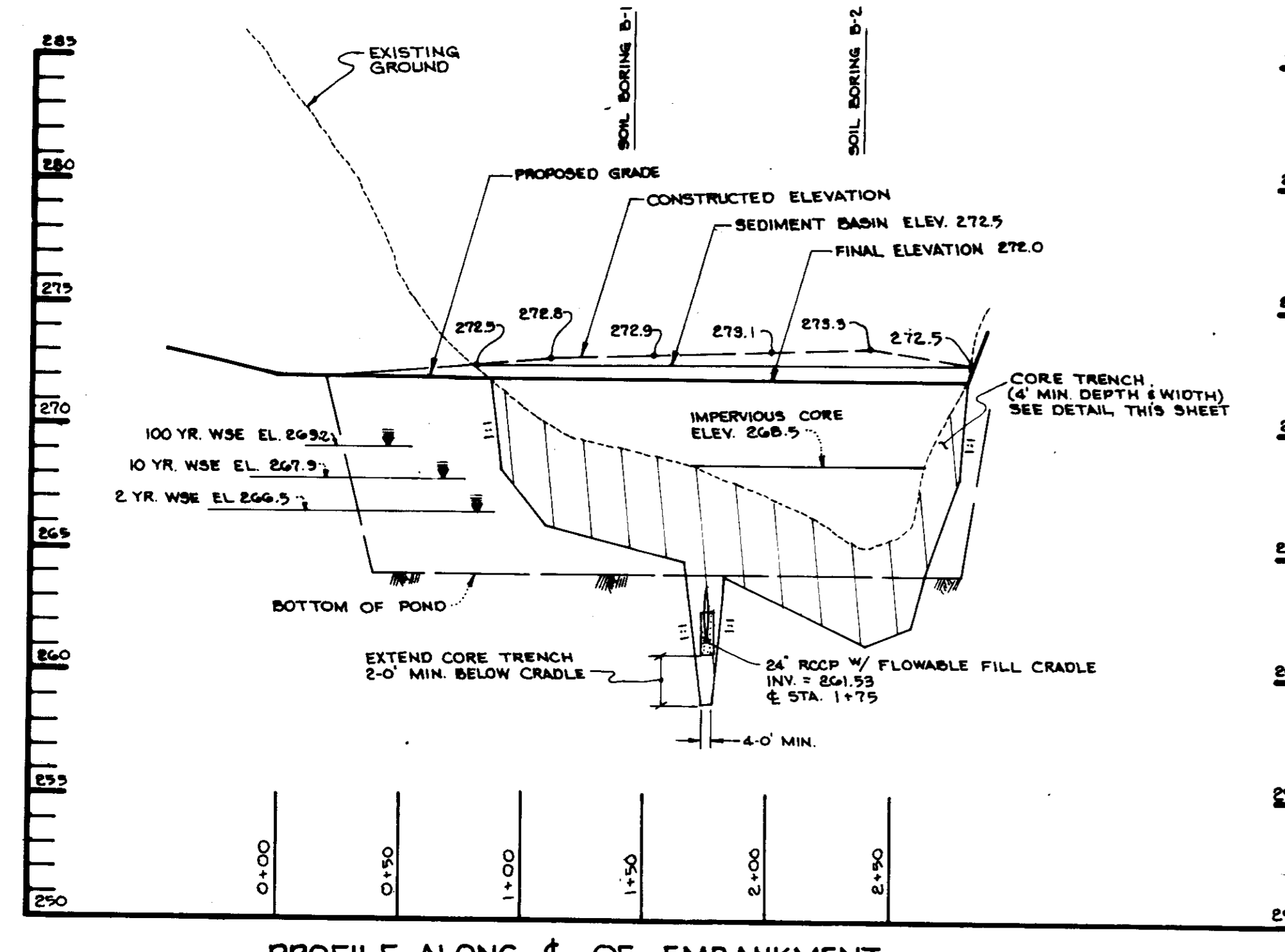


PLAN VIEW

- NOTES: STRUCTURE S-1
1. THIS STRUCTURE IS A MODIFIED A-5 INLET. REFER TO HOWARD COUNTY STANDARD DETAILS, SD-4.02, FOR DETAILS NOT SHOWN.
 2. STRUCTURE MATERIAL IS TO BE REINFORCED CONCRETE.
 3. ALL CONSTRUCTION TO MEET HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
 4. UNLESS STATED OTHERWISE, WEIR IS SHOWN WITHOUT TRASH RACK.

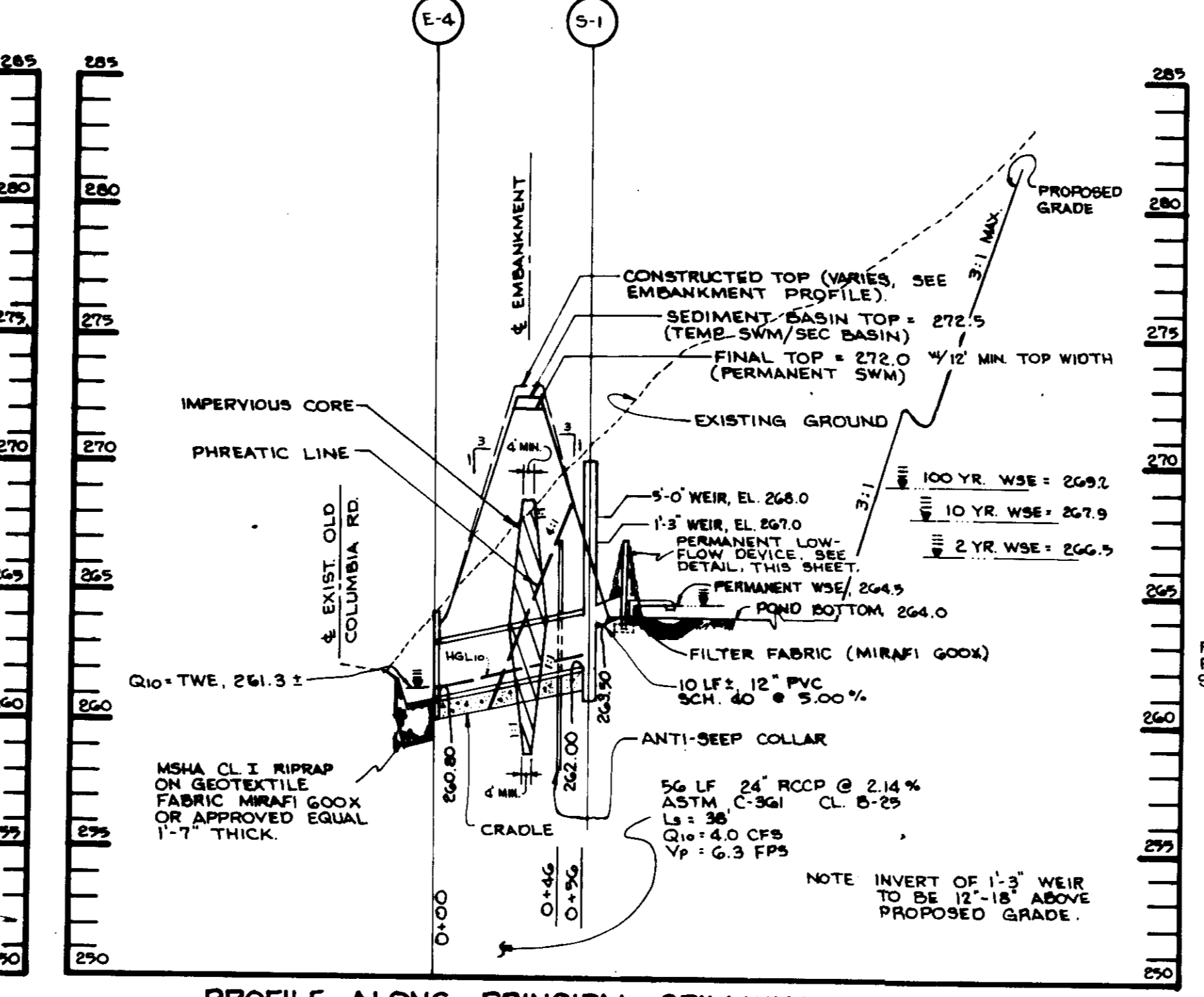


DETAIL STRUCTURE S-1
NO SCALE



PROFILE ALONG EMBANKMENT

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



PROFILE ALONG PRINCIPAL SPILLWAY

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

OPERATION AND MAINTENANCE SCHEDULE
OF HOME OWNERS ASSOCIATION OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY

HOME OWNERS' ASSOCIATION MAINTENANCE RESPONSIBILITIES:

1. Area inside and around stormwater management facility shall be mowed a minimum 2 times per year, once in June and once in September.
2. Debris and litter shall be removed during regular mowing operations and as needed.

AS-BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION SHALL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBILITY PERFORMED BY THE CONSTRUCTION BEFORE BECOMING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND 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 INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *J. L. Waugh* DATE: *3/28/96*

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/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ENGINEER: *J. L. Waugh* DATE: *3/28/96*

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.

J. L. Waugh DATE: *4/25/96*

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

Robert W. Z... DATE: *4/25/96*

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

... DATE: *4/25/96*

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

... DATE: *4/19/96*

CHIEF, DEVELOPMENT, ENGINEERING DIVISION

... DATE: *4/28/96*

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

DATE NO. REVISION

OWNER / DEVELOPER: SHC CLARK'S CROSSING, LLC c/o KOREN DEVELOPMENT CORPORATION 8815 CENTRE PARK DRIVE, SUITE 304 COLUMBIA, MARYLAND 21045

PROJECT: CLARK'S CROSSING A TOWNHOME CONDOMINIUM COMMUNITY

AREA: TAX MAP 41 PARCEL 237 8TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: STORMWATER MANAGEMENT DETAILS

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

DATE: 3.28.96

DESIGNED BY: AAP

DRAWN BY: RJC

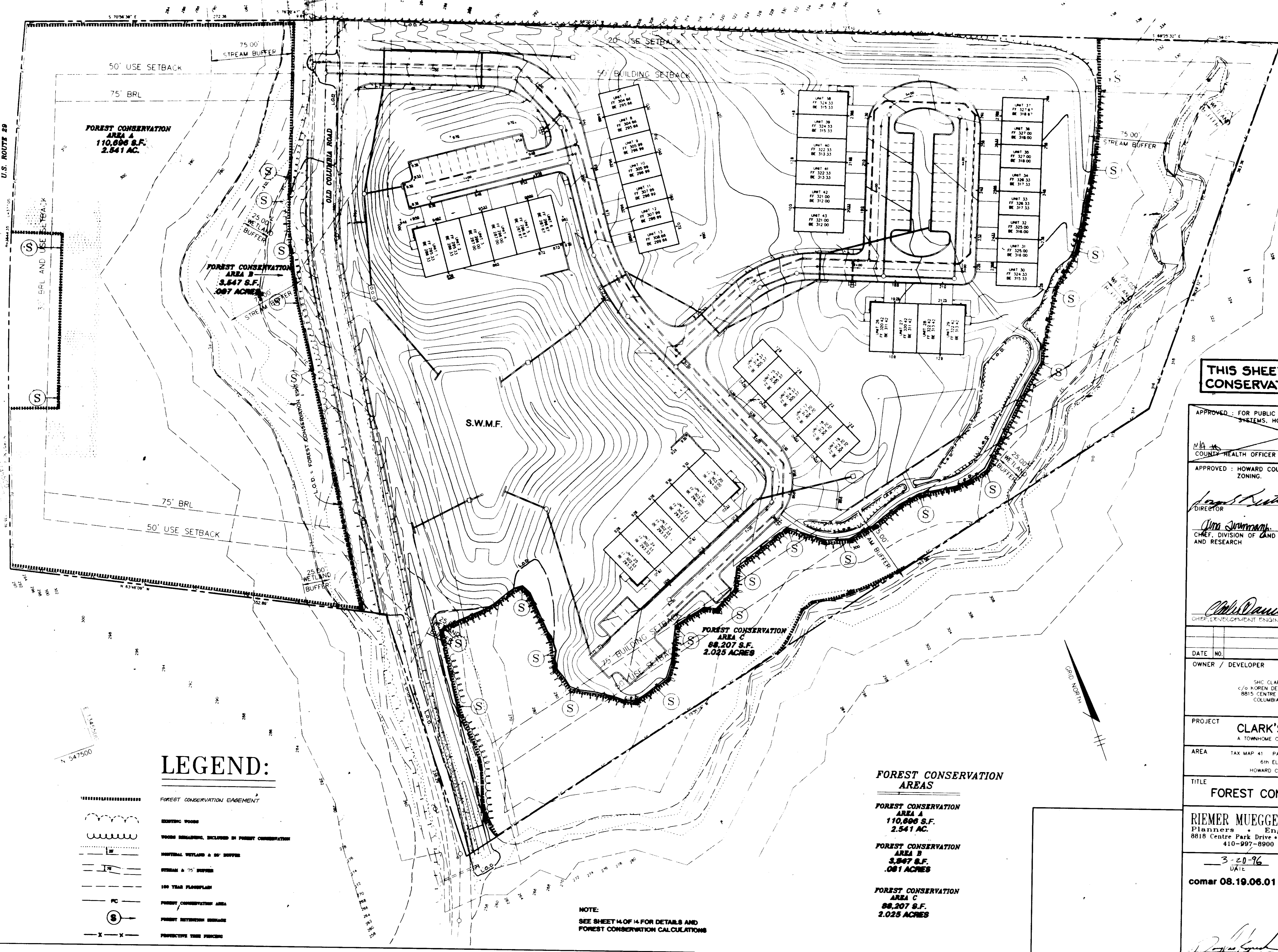
PROJECT NO: 90212

DATE: MARCH 20, 1996

SCALE: AS SHOWN

J. L. Waugh DATE: *3/28/96*

JAYKANT D. PAREKH #19148 DRAWING NO. 10 OF 14



FOREST CONSERVATION
AREA A
110,696 S.F.
2.541 AC.

FOREST CONSERVATION
AREA B
3,547 S.F.
.081 ACRES

FOREST CONSERVATION
AREA C
88,207 S.F.
2.025 ACRES

LEGEND:

- FOREST CONSERVATION EASEMENT
- EXISTING WOODS
- WOODS REMAINING, INCLUDED IN FOREST CONSERVATION
- RIPARIAN WETLAND & 50' BUFFER
- STREAM & 75' BUFFER
- 100 YEAR FLOODPLAIN
- FOREST CONSERVATION AREA
- FOREST BETWEEN BUILDINGS
- PROPOSED TREE PLANTING

NOTE:
SEE SHEET 14 OF 14 FOR DETAILS AND
FOREST CONSERVATION CALCULATIONS

**FOREST CONSERVATION
AREAS**

FOREST CONSERVATION
AREA A
110,696 S.F.
2.541 AC.

FOREST CONSERVATION
AREA B
3,547 S.F.
.081 ACRES

FOREST CONSERVATION
AREA C
88,207 S.F.
2.025 ACRES

**THIS SHEET FOR FOREST
CONSERVATION ONLY.**

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

M.A. [Signature]
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND
ZONING.

[Signature] 4/26/96
DIRECTOR DATE

[Signature] 4/25/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

[Signature] 4/19/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER
SHC CLARK'S CROSSING, LLC
C/O KOREN DEVELOPMENT CORPORATION
8815 CENTRE PARK DRIVE, SUITE 304
COLUMBIA, MARYLAND 21045

PROJECT **CLARK'S CROSSING**
A TOWNHOME CONDOMINIUM COMMUNITY

AREA TAX MAP 41 PARCEL 237
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE **FOREST CONSERVATION PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045
410-997-8800 FAX: 410-997-9282

3-20-96
DATE

comar 08.19.06.01

DESIGNED BY: DRK
DRAWN BY: CADD
PROJECT NO.: 90214
DATE: MARCH 1996
SCALE: 1" = 40'
DRAWING NO. 19 OF 14

[Signature]
DOUGLAS R. KOPECK

HOWARD COUNTY FOREST CONSERVATION WORKSHEET

I. BASIC SITE DATA

GROSS SITE AREA
 AREA WITHIN 100 YEAR FLOODPLAIN
 AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL
 (IF APPLICABLE)
 NET TRACT AREA
 LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/1/0, I)

14.1 AC	14.1 AC
1.3 AC	1.3 AC
0.00 AC	0.00 AC
12.80 AC	12.80 AC
R-SC	R-SC

II. INFORMATION FOR CALCULATIONS

NET TRACT AREA
 REFORESTATION THRESHOLD (20% X A)
 EXISTING FOREST ON NET TRACT AREA
 FOREST AREAS TO BE CLEARED
 FOREST AREAS TO BE RETAINED

12.80 AC	12.80 AC
2.60 AC	2.60 AC
12.60 AC	12.60 AC
7.50 AC	8.00 AC
5.10 AC	4.60 AC

III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION

1. REFORESTATION

IF EXISTING FOREST AREAS EQUAL OR EXCEED THE AFFORESTATION MINIMUM (IF D EQUALS OR IS MORE THAN C), AND CLEARING OF FOREST AREAS IS PROPOSED, REFORESTATION REQUIREMENTS MAY APPLY.

GO TO SECTION IV

IF EXISTING FORESTS EXCEED THE AFFORESTATION MINIMUM (IF D EQUALS OR IS MORE THAN C) AND NO CLEARING OF EXISTING FOREST RESOURCES IS PROPOSED, NO REFORESTATION IS REQUIRED. NO FURTHER CALCULATIONS ARE NEEDED.

2. AFFORESTATION

IF EXISTING FOREST AREAS ARE LESS THAN THE AFFORESTATION MINIMUM (IF D IS LESS THAN C), AFFORESTATION REQUIREMENTS APPLY.

GO TO SECTION V

IV. REFORESTATION CALCULATIONS

- A. NET TRACT AREA
- B. REFORESTATION THRESHOLD (20% X A)
- D. EXISTING FOREST ON NET TRACT AREA
- E. FOREST AREAS TO BE CLEARED
- F. FOREST AREAS TO BE RETAINED
- G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D-F, IF F EQUALS OR IS GREATER THAN B, ALTERNATE 1) (D-B, IF F IS LESS THAN B, ALTERNATE 2)
- H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B-F, IF APPLICABLE)
- I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F-B, RETENTION CREDIT, IF APPLICABLE)

12.80 AC	12.80 AC
2.60 AC	2.60 AC
12.60 AC	12.60 AC
7.50 AC	8.00 AC
5.10 AC	4.60 AC
0.00 AC	0.00 AC
2.50 AC	2.00 AC

SELECT THE ALTERNATIVE THAT APPLIES:

1. CLEARING ABOVE THE THRESHOLD ONLY

IF FOREST AREAS TO BE RETAINED EQUAL OR ARE GREATER THAN THE REFORESTATION THRESHOLD (IF F EQUALS OR IS GREATER THAN B), THE FOLLOWING CALCULATIONS APPLY:

REFORESTATION FOR CLEARING ABOVE THRESHOLD $G \times 1/4$	1.90 AC	2.00 AC
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD $I = \text{RETENTION CREDIT}$	2.50 AC	2.00 AC
TOTAL REFORESTATION REQUIRED $(G \times 1/4) - I$	-0.60 AC	0.00 AC

IF THE TOTAL REFORESTATION REQUIREMENT IS EQUAL TO OR LESS THAN 0, NO REFORESTATION IS REQUIRED

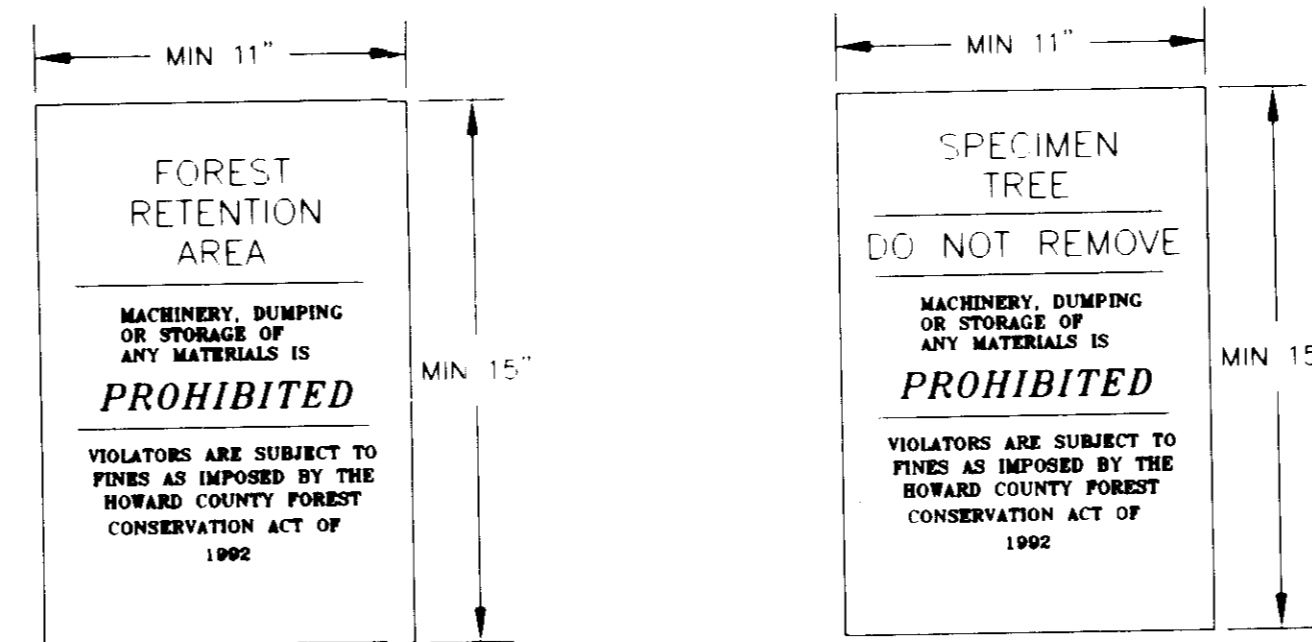
2. CLEARING BELOW THE THRESHOLD

IF FOREST AREAS TO BE RETAINED ARE LESS THAN THE REFORESTATION THRESHOLD (IF F IS LESS THAN B), THE FOLLOWING CALCULATIONS APPLY:

REFORESTATION FOR CLEARING ABOVE THRESHOLD $G \times 1/4$	-	-
REFORESTATION FOR CLEARING BELOW THRESHOLD $H \times 2$	-	-
TOTAL REFORESTATION REQUIRED $(G \times 1/4) + (H \times 2)$	-	-

NOTE: BREAK-EVEN POINT IS SHOWN IN FOREST CONSERVATION EASEMENT.

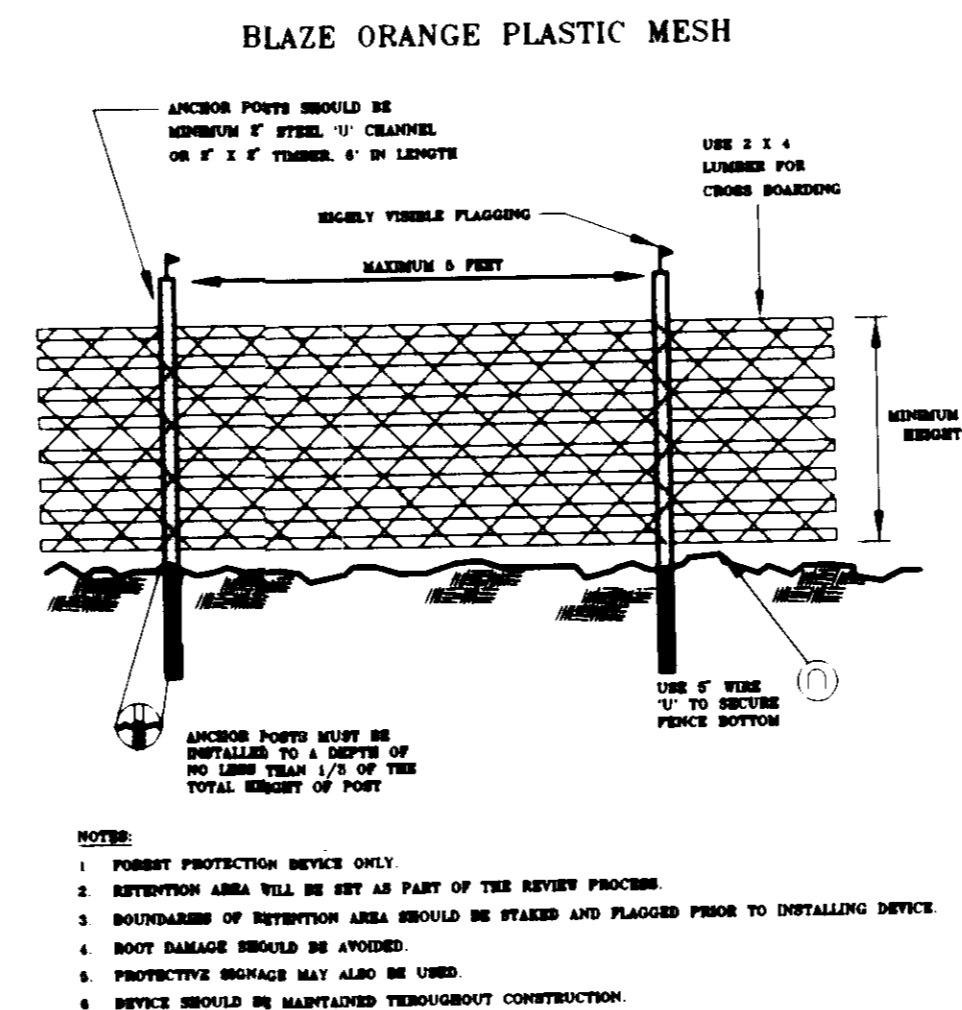
BREAK-EVEN PT.



N.T.S.

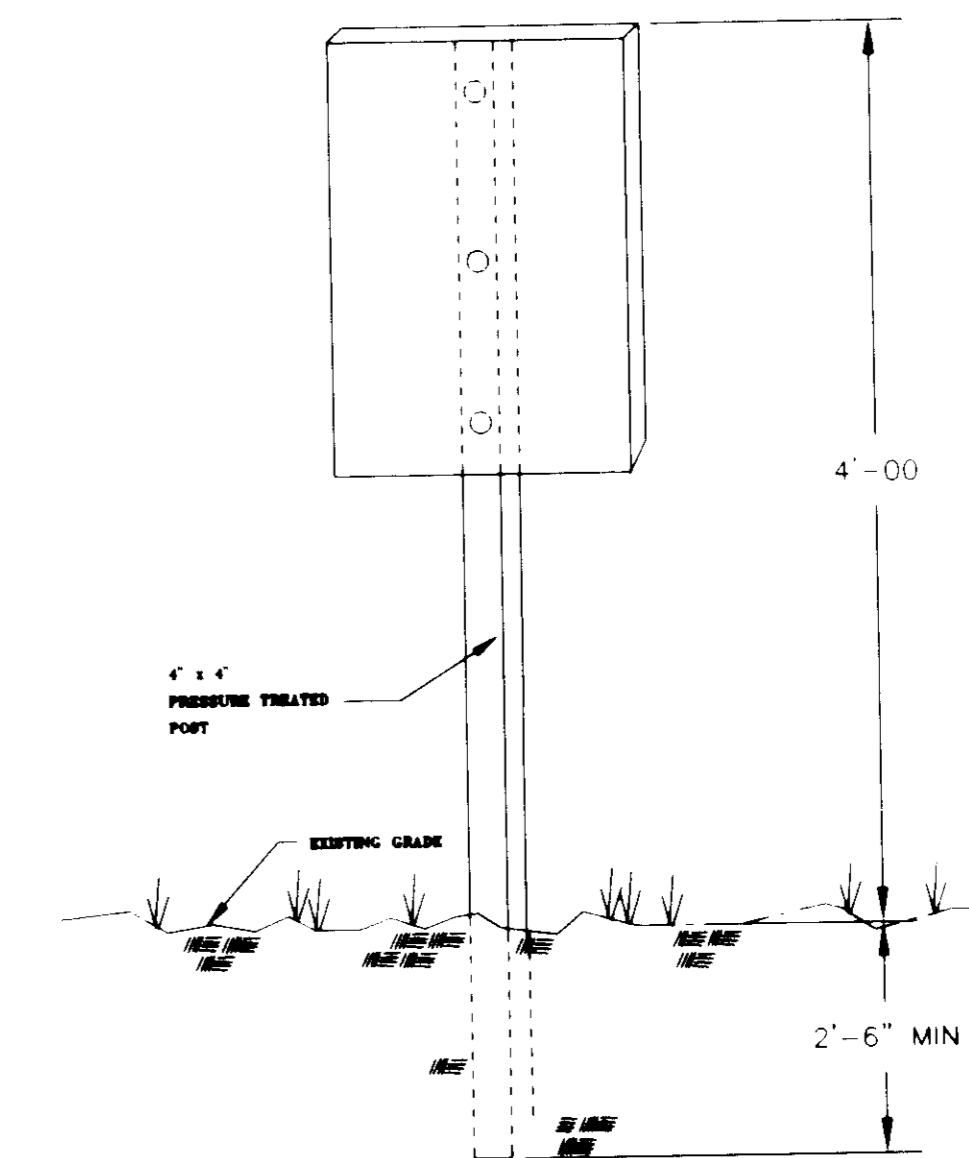
FOREST RETENTION & SPECIMEN SIGN DETAIL

INSTALL SPECIMEN TREE PROTECTION SIGNAGE A MAXIMUM OF 20' AND A MINIMUM OF 10' FROM THE BASE OF ALL 30" OR GREATER CALIPER TREES TO BE SAVED WITHIN 30' OF THE L.O.D.



PROTECTIVE TREE FENCING

N.T.S.



FOREST RETENTION DETAIL

N.T.S.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Mike Daneman</i>	4/19/96
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>David Smith</i>	4/26/96
DIRECTOR	DATE
<i>Qua Jaraman</i>	4/28/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
DATE NO.	REVISION
OWNER / DEVELOPER	
SHC CLARK'S CROSSING, LLC C/O KOREN DEVELOPMENT CORPORATION 8815 CENTRE PARK DRIVE, SUITE 304 COLUMBIA, MARYLAND 21045	
PROJECT CLARK'S CROSSING A TOWNHOME CONDOMINIUM COMMUNITY	
AREA	TAX MAP 41 PARCEL 237 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE FOREST CONSERVATION PLAN	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045 410-997-8900 FAX: 410-997-9282	
3-20-96 DATE	DESIGNED BY : DRK
comar 08.19.06.01	DRAWN BY : CADD
	PROJECT NO : 90214
	DATE : MARCH 20, 1996
	SCALE : AS SHOWN
	DRAWING NO. 14 OF 14