

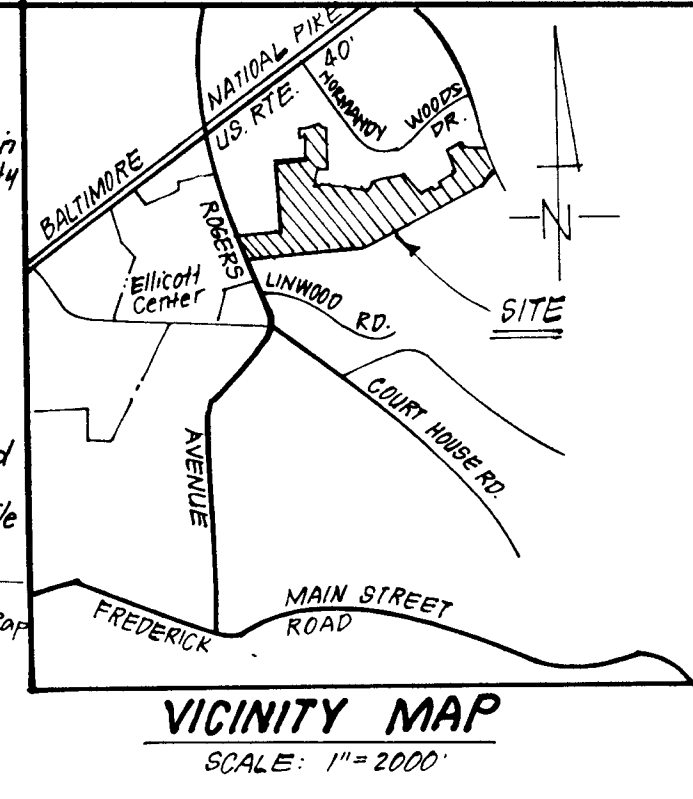
CURB & GUTTER LEGEND

Std 6" C&G	---
Rev 6" C&G	---
Std 7" C&G	---
Rev 7" C&G	---
Mod. Comb C&G	---

PLANT SCHEDULE

KEY	PLANT NAME	SIZE	QUANT	REMARKS
(G)	Zelkova Serr "Village Green"	2 1/4 CAL	20	8 1/2 B HEAVY HEADS
(R)	Acer Rubrum "Red Summer"	"	69	"
(M)	Red Sunset Maple	"	"	"

- STREET TREE NOTES:**
- Contractor shall verify location of underground utilities prior to digging.
 - Final location of trees may be adjusted slightly to accommodate field conditions.
 - Planting procedure shall comply with "Landscape Specs for Baltimore-Washington Metropolitan Areas".
 - Substitution of the approved species may be permitted provided that the planting is in accordance with the street tree and landscape requirements as specified in Section 16.131 of the Ho Co. Subdivision Regulations.



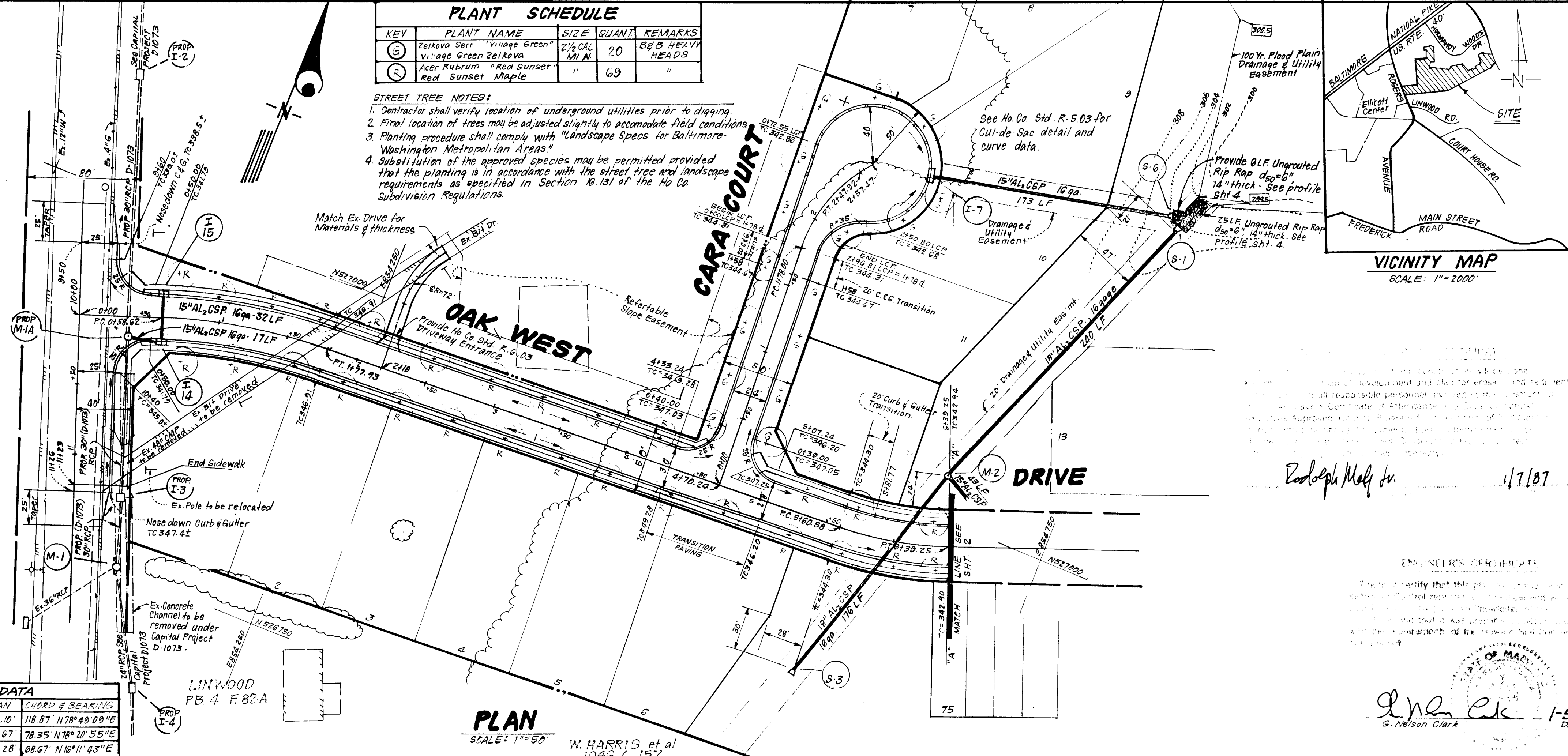
- GENERAL NOTES**
- All storm drain & paving shall be constructed in accordance with the latest edition and specifications of HOWARD COUNTY & MDSHA.
 - Types of storm drainage refer to the Standard Details of Ho Co & MDSHA.
 - Trench compaction for storm drains within road or street right-of-way limits shall be in accordance with "Ho Co Design Manual, Vol II" Std. G-2.01.
 - Information concerning underground utilities was obtained from available records but the contractor must determine the exact location and elevation of mains by digging test pits, by hand, at all utility crossings, well in advance of construction.
 - All utility companies shall be notified 24 hrs in advance of construction.
 - All traffic services, parking and signing to be done in accordance with the "Manual of Uniform Traffic Control Devices," 1978 Edition.
 - Box and Crest Vertical Curves were designed in accordance with "Ho Co Design Manual, Vol. III".
 - Provide Conc. Sidewalk Ramps Ho Co Std Type A, R 4.01 where shown in plan.
 - Design Speed: See table Sht. 3 Zoning: RSC.
 - The contractor or developer shall contact the Construction Inspection/Survey Division 24 hrs in advance of commencement of work. Ph. 772-7272.
 - Flood Plain Elevations derived from Normandy Woods Sect 1, Parcel A-1, PB 30 F-95 and Section 2, Plat 4472.
 - Denotes 100 year flood plain elevation.

Note: Extreme Care to be utilized When Working near Ex 4" Gas Main. Test pits to be dug by hand, at all crossings well in advance of construction.

Approved for _____ Date _____
Name _____
Title _____
Soil Conservation Service
Approved _____ Date _____
Name _____
Title _____
Soil Conservation Service

CENTERLINE CURVE DATA

STATIONS	RADIUS	Δ	ARC	TAN	CHORD & BEARING
PC 17+00.00	400.00	17°05'24"	119.31	60.10	118.87 N78°49'09"E
PT 17+00.00	250.00	18°01'51"	78.67	39.67	78.35 N78°21'55"E
PC 17+00.00	106.57	37°39'45"	69.92	36.28	68.67 N16°11'43"E



APPROVED: DEPARTMENT OF PUBLIC WORKS
Date _____
Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
Date _____
Chief, Division of Land Development & Zoning Administration

CLARK · FINEFROCK & SACKETT INC.
ENGINEERS · PLANNERS · SURVEYORS
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301)593-3400

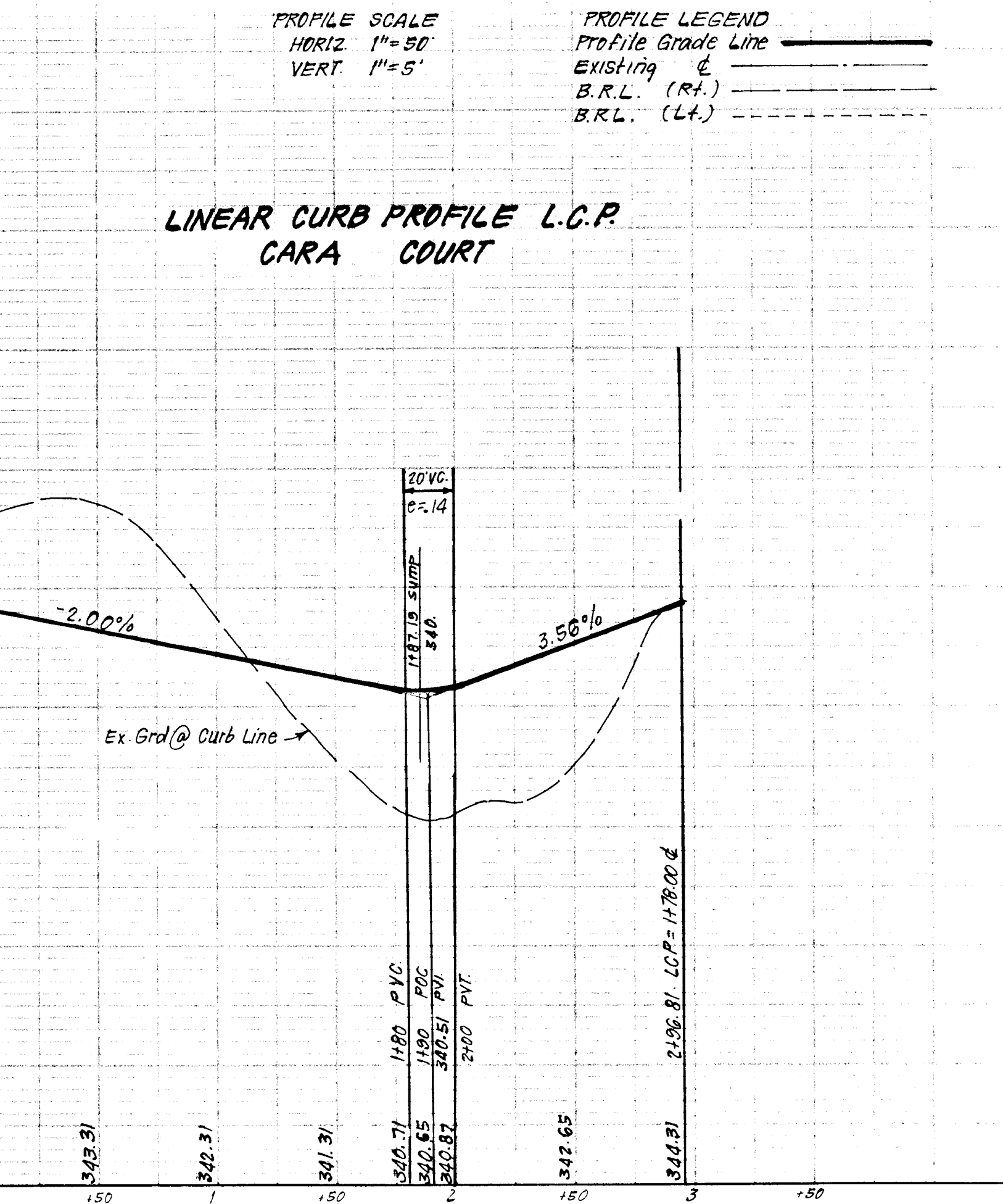
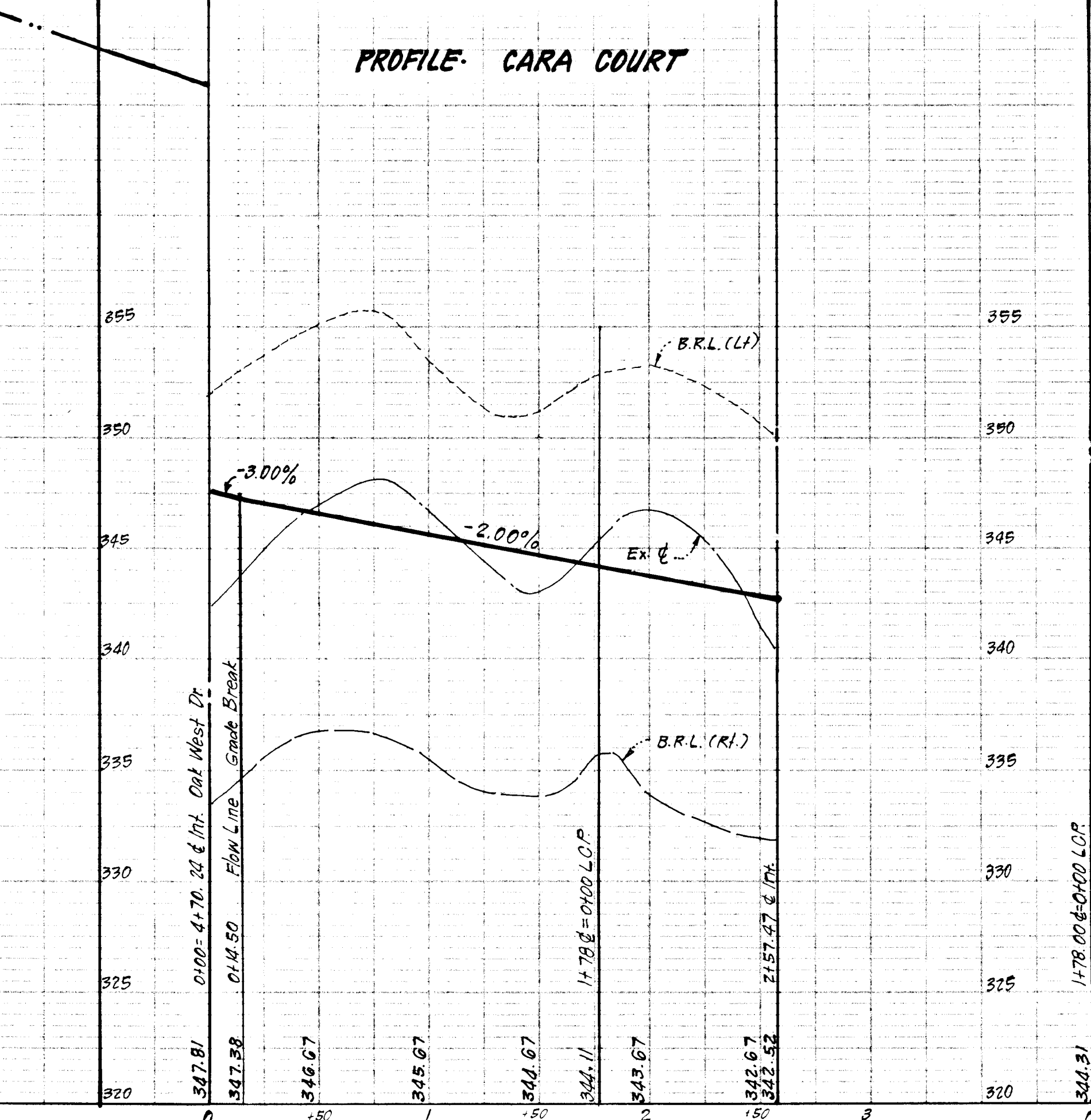
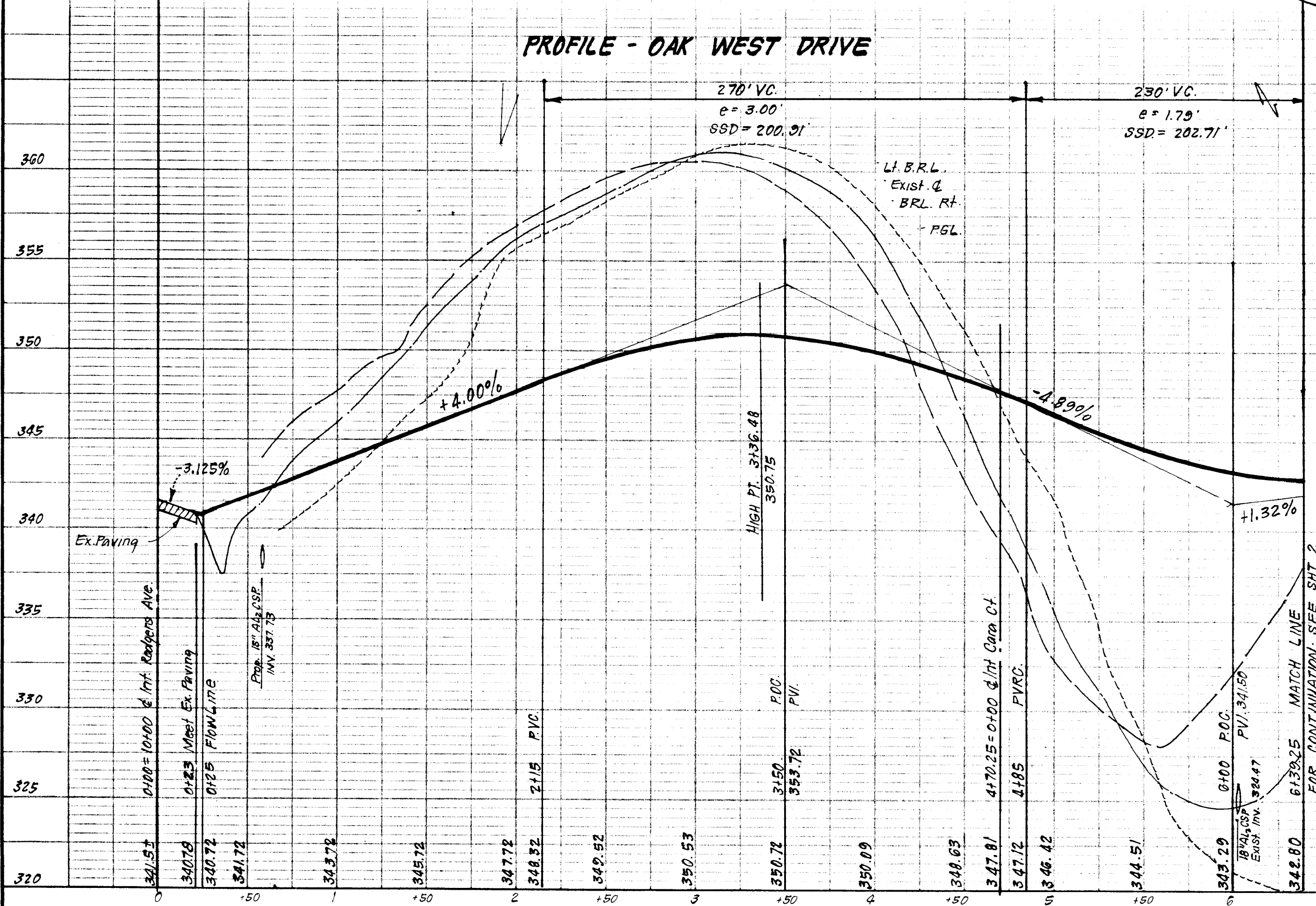
ROAD CONSTRUCTION PLANS
OAK WEST DRIVE AND CARA COURT

OAK WEST
2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: BRITAM DEVELOPMENT GROUP
9030 Red Branch Rd #250
Columbia, Md. 21045

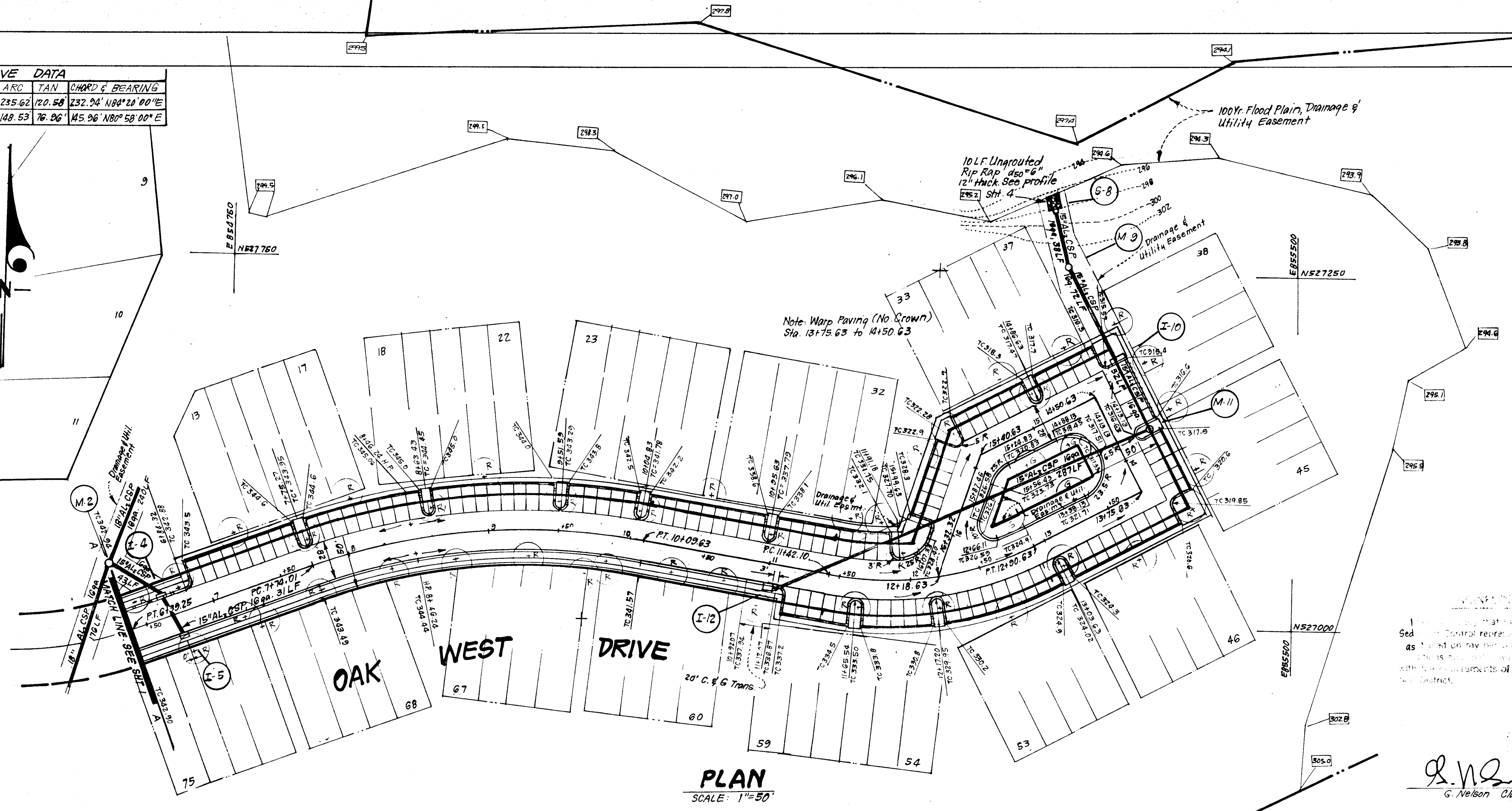
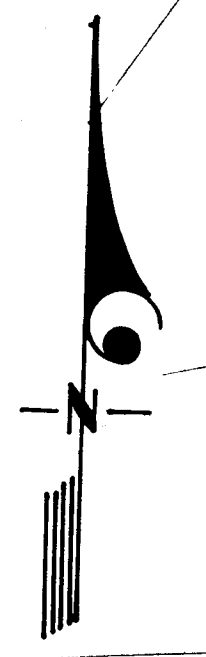
DESIGNED: GLB
DRAWN: KIW
CHECKED: GLB
DATE: 1-5-87

SCALE: As Shown
DRAWING: 1 OF 6
JOB NO.: 86-047
FILE NO.: 86-027 D



CENTERLINE CURVE DATA					
STATIONS	RADIUS	Δ	ARC	TAN	CHORD & BEARING
PC 1142.00	450.00	30° 00' 00"	235.62	232.24'	N84° 20' 00" E
PT 1172.00	230.00	37° 00' 00"	149.53	76.26'	N59° 59' 00" E

CURB & GUTTER LEGEND	
Std. 6" C & G	=====
Rev. 6" C & G	=====
Std. 7" C & G	=====
Rev. 7" C & G	=====
Mod. Comb. C & G	=====



PLAN
SCALE: 1"=50'

Approved for: Howard County
 Engineer: [Signature]
 U.S. Soil Conservation Service
 [Stamp]

Rodolph May Jr 1/1/87

APPROVED: DEPARTMENT OF PUBLIC WORKS

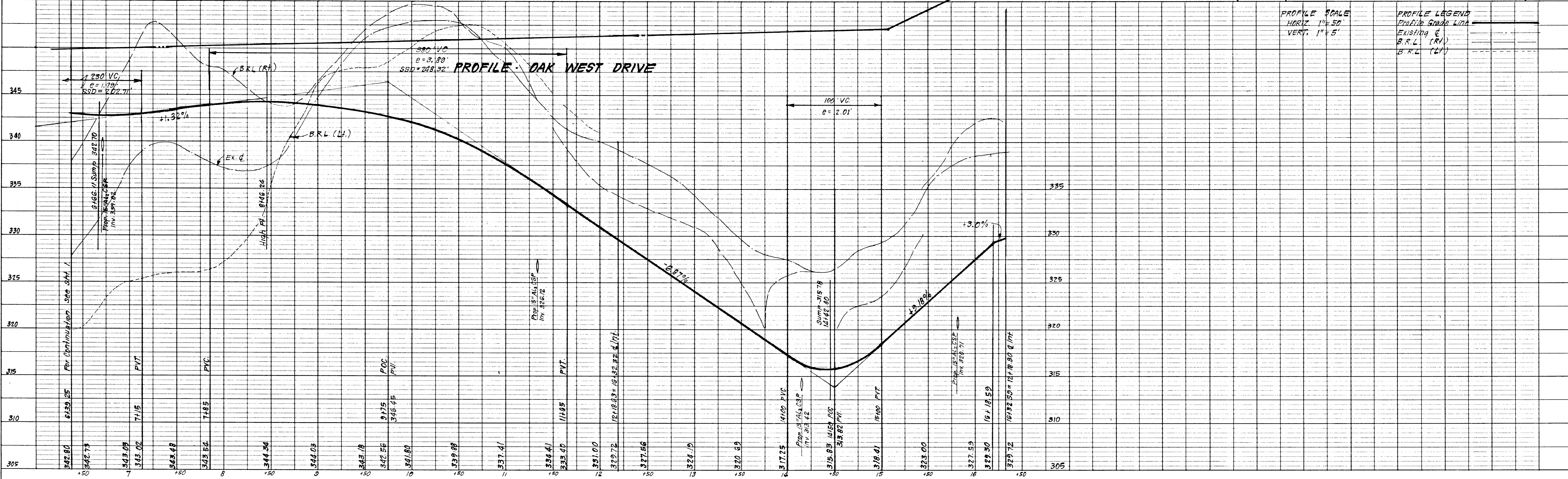
Chief, Bureau of Engineering _____ Date _____

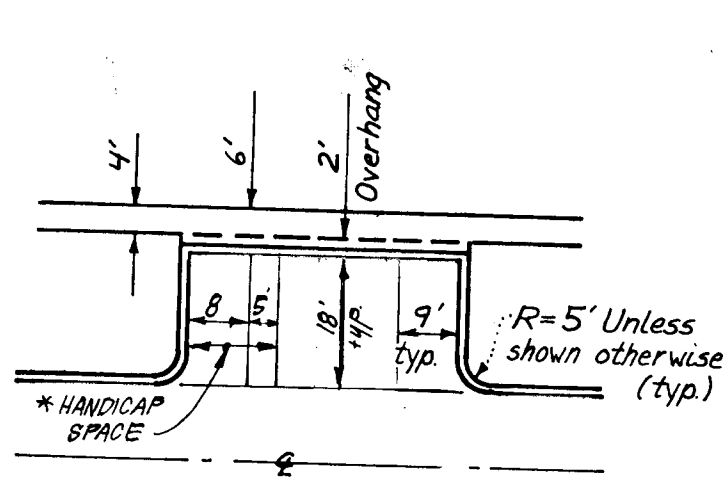
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Chief, Division of Land Development & Zoning Administration _____ Date _____

CLARK · FINEFROCK & SACKETT INC.
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED GLB	ROAD CONSTRUCTION PLANS OAK WEST DRIVE	SCALE As Shown
DRAWN KIW		DRAWING 2 OF 6
CHECKED GLB	OAK WEST 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 86-047
DATE 1-5-87		FOR: BRITAM DEVELOPMENT GROUP 9030 Red Branch Rd. #250 Columbia, Md. 21045





TYPICAL PARKING
NO SCALE

N/A for this project.

Bituminous Conc. Surface	1"
Bituminous Conc. Base	2"
Prime	
5" Crusher Run Base Course	5"
or	
4" Dense Graded Stabilized Aggregate Base Course	4"

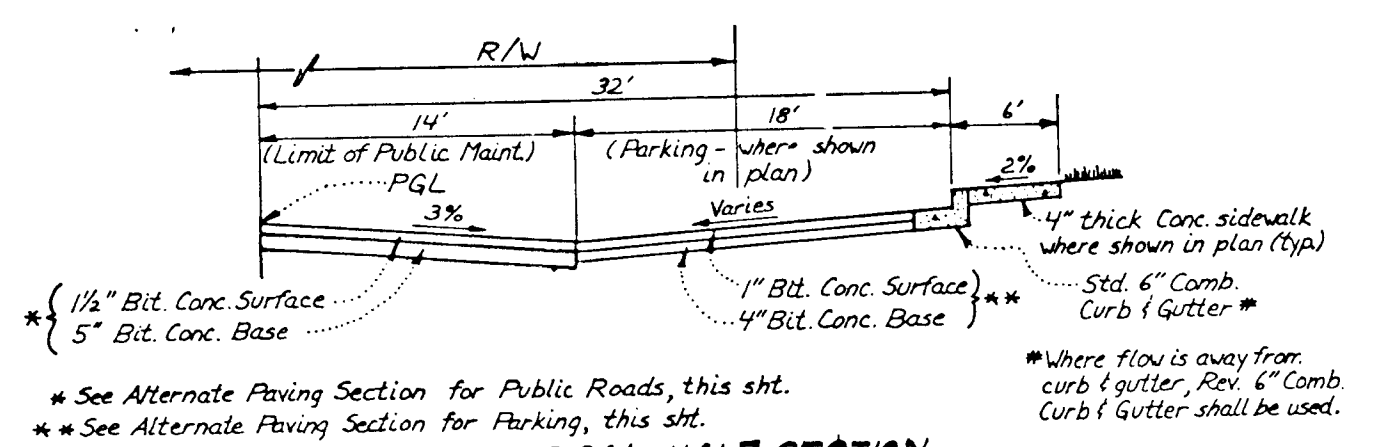
ALTERNATE PAVING SECTION FOR PARKING AREAS
(SECTION P-1)

Bituminous Conc. Surface	1 1/2"
Bituminous Conc. Base	2 1/2"
Prime	
8" Crusher Run Base (Placed in 2 Courses)	8"
or	
6" Dense Graded Stabilized Aggregate Base Course	6"

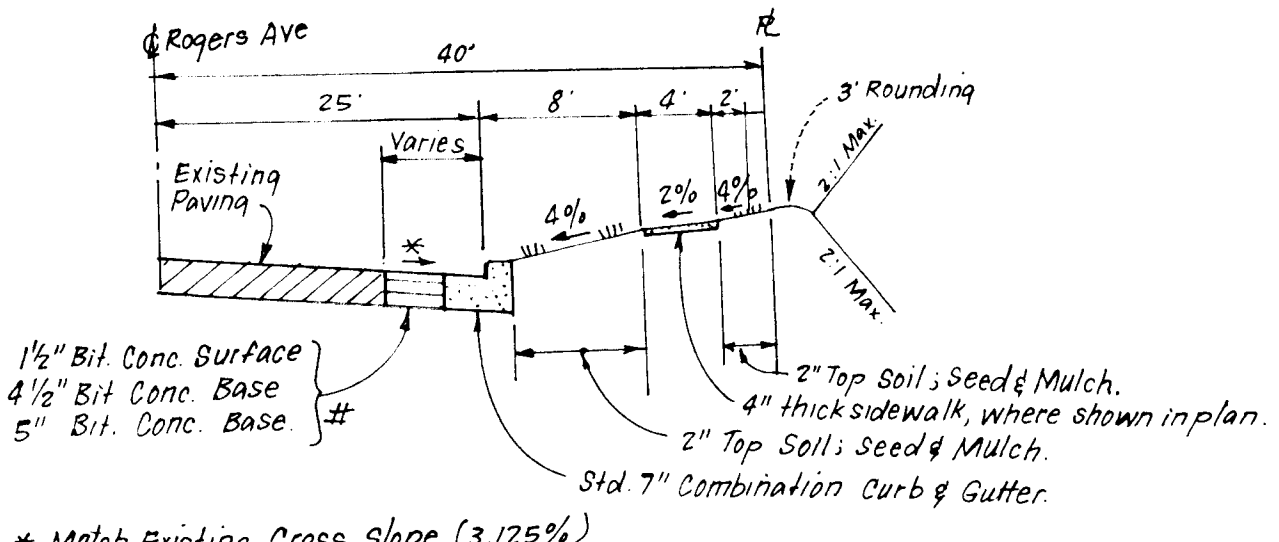
ALTERNATE PAVING SECTION FOR PUBLIC ROADS
(SECTION P-2)

1 1/2" Bituminous Conc. Surface	1 1/2"
1 1/2" Bituminous Conc. Base	1 1/2"
5" Bituminous Conc. Base	5"
Prime	
8" Crusher Run Base Course or 6" Dense Graded Stabilized Aggregate Base Course	8" or 6"

ALTERNATE PAVING SECTION FOR ROGERS AVENUE
(SECTION P-5)

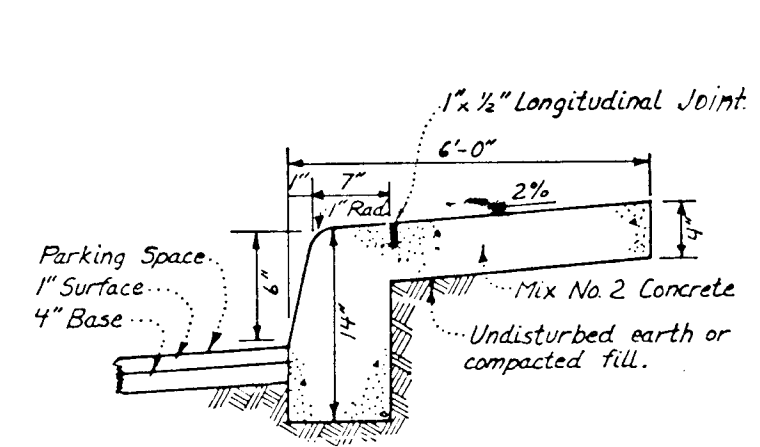


TYPICAL HALF SECTION PARKING ADJACENT TO PUBLIC ROADS
NO SCALE

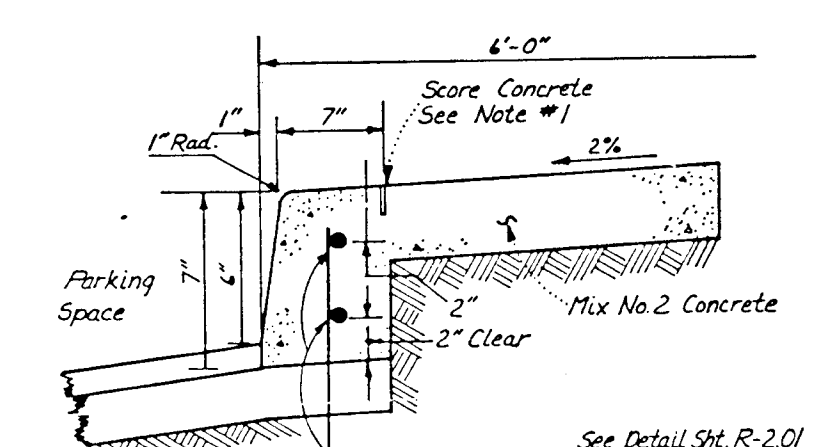


TYPICAL HALF SECTION ROGERS AVENUE
NO SCALE

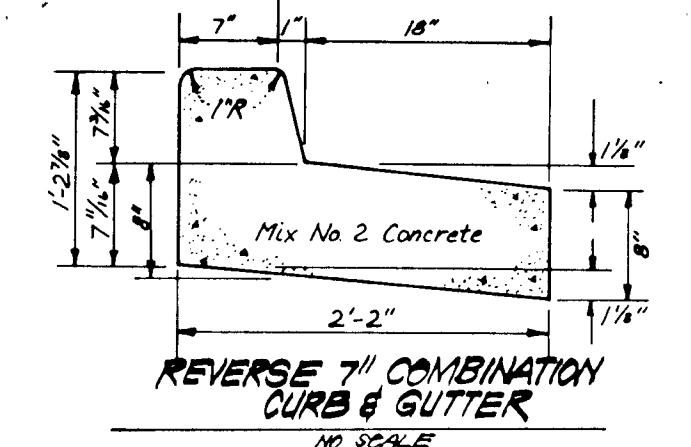
Notes:
1. Longitudinal Joint between sidewalk & curb shall be continuous and to a depth of 1/4 the thickness of the sidewalk or 1" Max. Longitudinal Joints shall run from back edge of sidewalk continuous to the bottom face of curb to a depth of 1/4" and spaced 5' apart.
2. Provide 1/4" expansion joints at 15' intervals. In longitudinal joints to full cross-section.



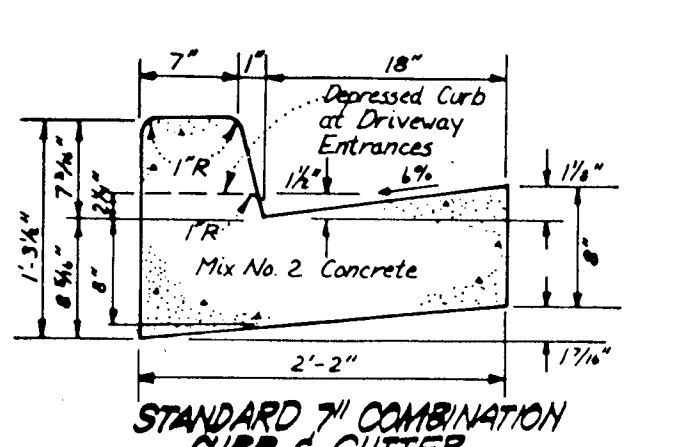
MONOLITHIC CURB & SIDEWALK - PRIVATE PARKING AREA
NO SCALE



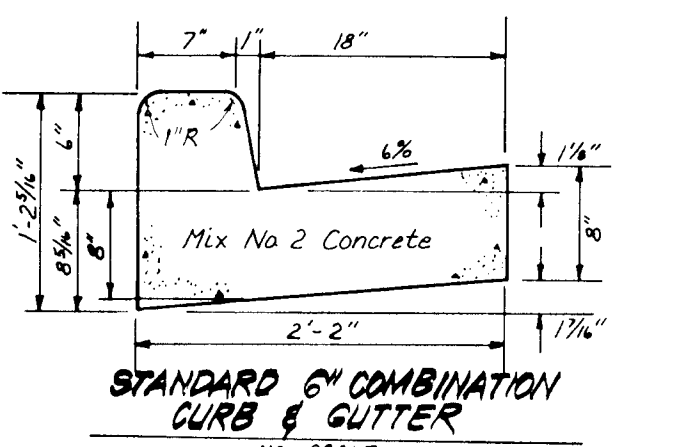
ALTERNATE SECTION
NO SCALE



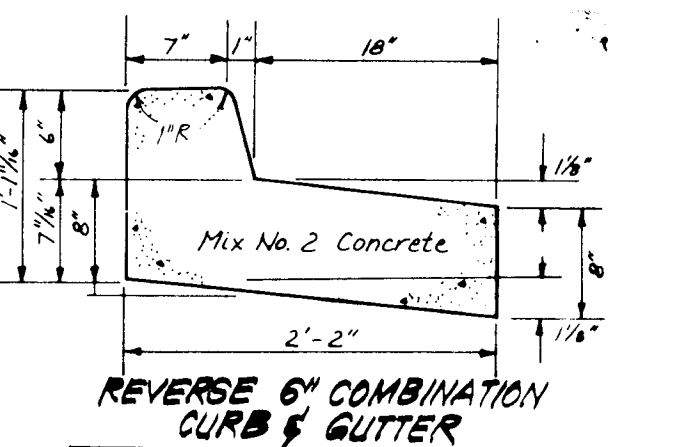
REVERSE 7" COMBINATION CURB & GUTTER
NO SCALE



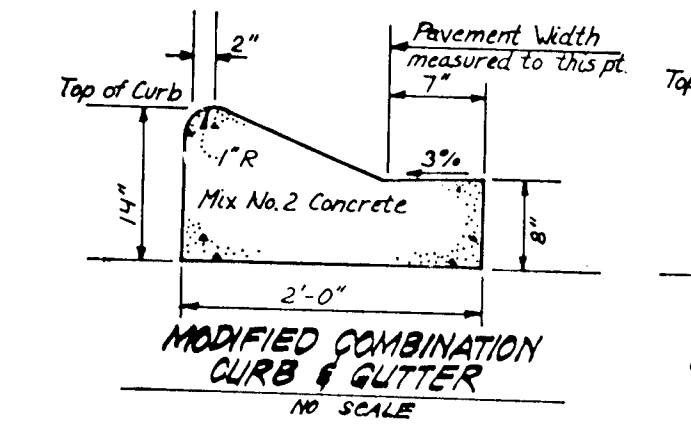
STANDARD 7" COMBINATION CURB & GUTTER
NO SCALE



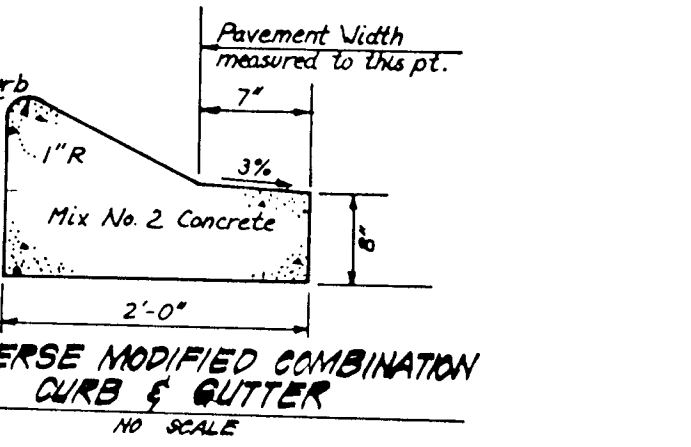
STANDARD 6" COMBINATION CURB & GUTTER
NO SCALE



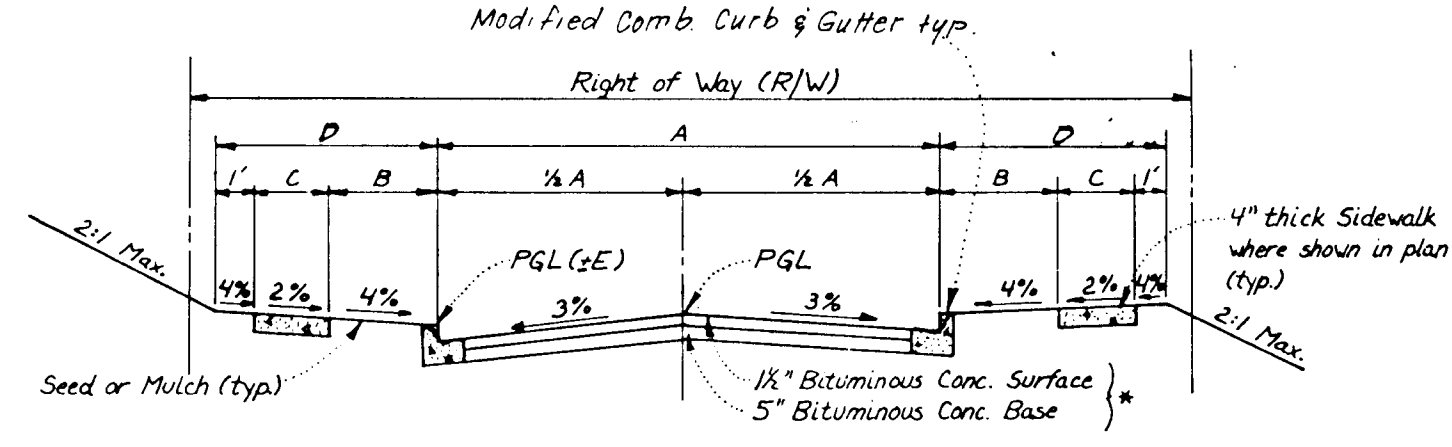
REVERSE 6" COMBINATION CURB & GUTTER
NO SCALE



MODIFIED COMBINATION CURB & GUTTER
NO SCALE



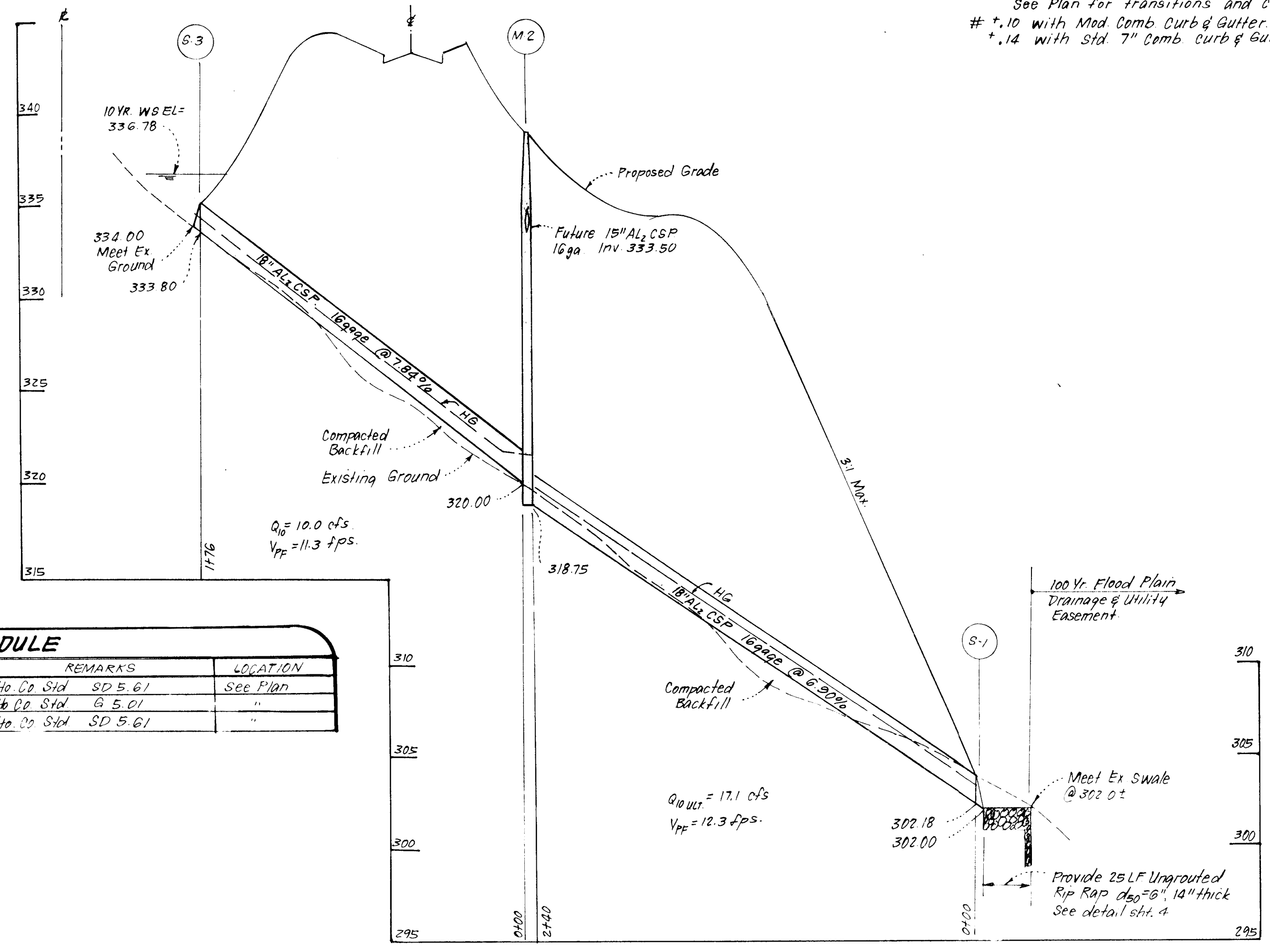
REVERSE MODIFIED COMBINATION CURB & GUTTER
NO SCALE



TYPICAL PAVING SECTION - PUBLIC ROADS
NO SCALE

STREET NAME & STATION	TYPE OF TRAFFIC	A	B	C	D	R/W	ZONING	DESIGN SPEED	E
OAK WEST DRIVE @ Sta. 0100 to 0133.24	LOCAL	30'	4'	4'	0'	50'	RSC	30 MPH	107
OAK WEST DRIVE @ Sta. 0133.24 to 0161.52.32	OUL DE SAC	28'	4'	4'	0'	50'	RSC	30 MPH	#
OAK WEST DRIVE @ Sta. 0161.52.32 to 0178	OUL DE SAC	28'	4'	4'	0'	50'	RSC	25 MPH	116

* Place curb and gutter as follows (See Plan):
- Oak West Drive, Right Side: Mod. Comb. C&G to Sta. 10+02.07
- Oak West Drive, Left Side: Mod. Comb. C&G to Sta. 5+60.58
See Plan for transitions and C&G for Parking Areas.
* .10 with Mod. Comb. Curb & Gutter.
* .14 with Std. 7" Comb. curb & Gutter.



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

No.	TYPE	INV. IN	INV. OUT	TOP ELEVATION	REMARKS	LOCATION
S-1	Metal End Section	302.18	302.00		Ho. Co. Sid. SD 5-G1	See Plan
M-2	BRICK MH	320.00	318.75	338.75	Ho. Co. Sid. G 5-G1	"
S-3	Metal End Section	334.00	333.80		Ho. Co. Sid. SD 5-G1	"

SIZE	TYPE	LENGTH
18"	AL ₂ CSF 16 gage	416 LF

* 22 1/2" x 1/2" Corrugations & CMP with aluminum coating may be substituted for AL₂CSF.

Approved: *Richard May Jr* 1/7/87

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Engineering _____ Date _____

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

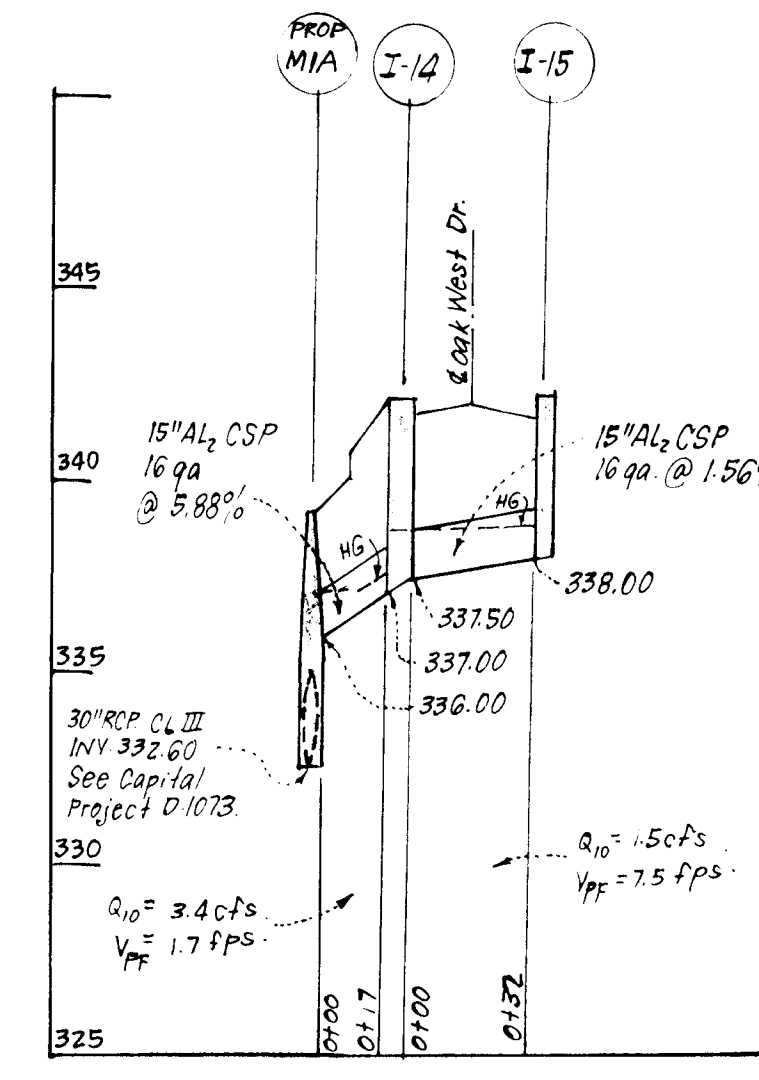
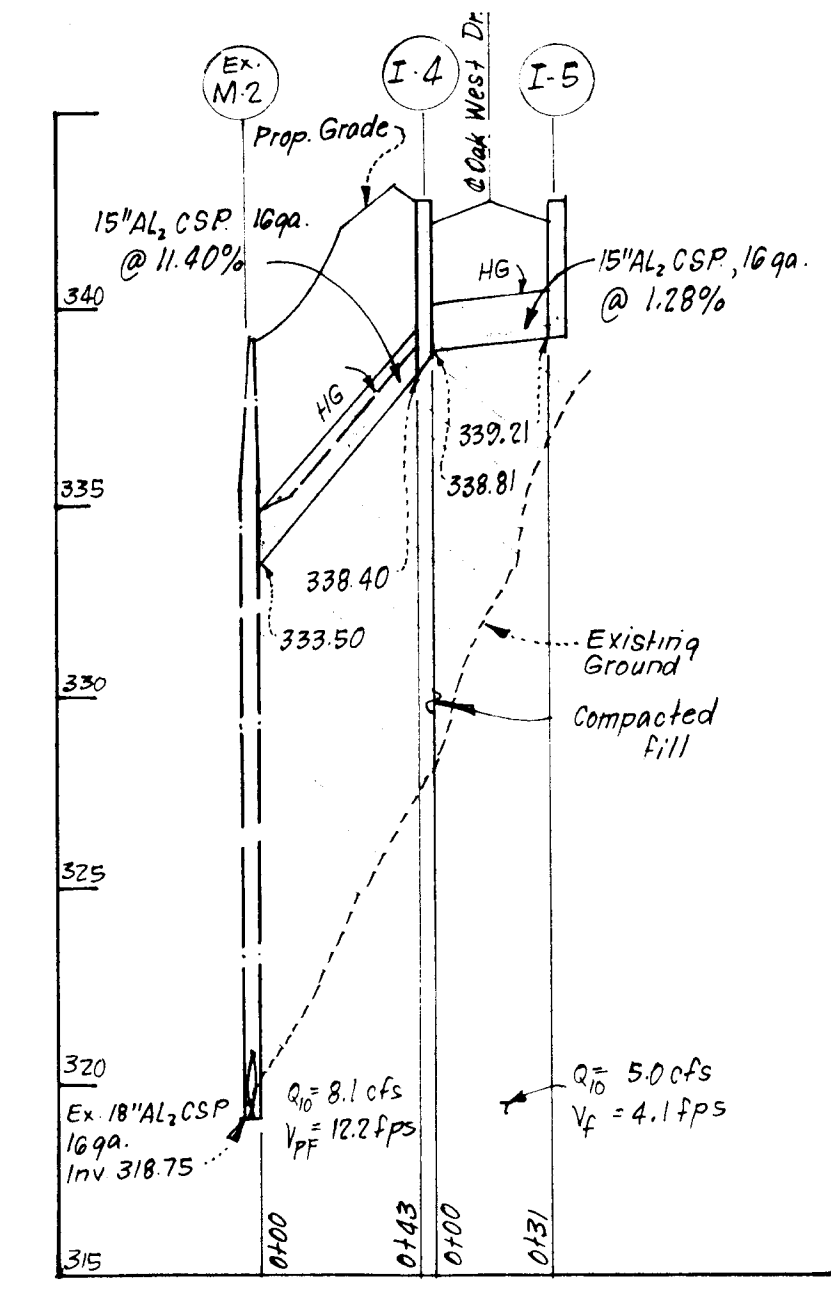
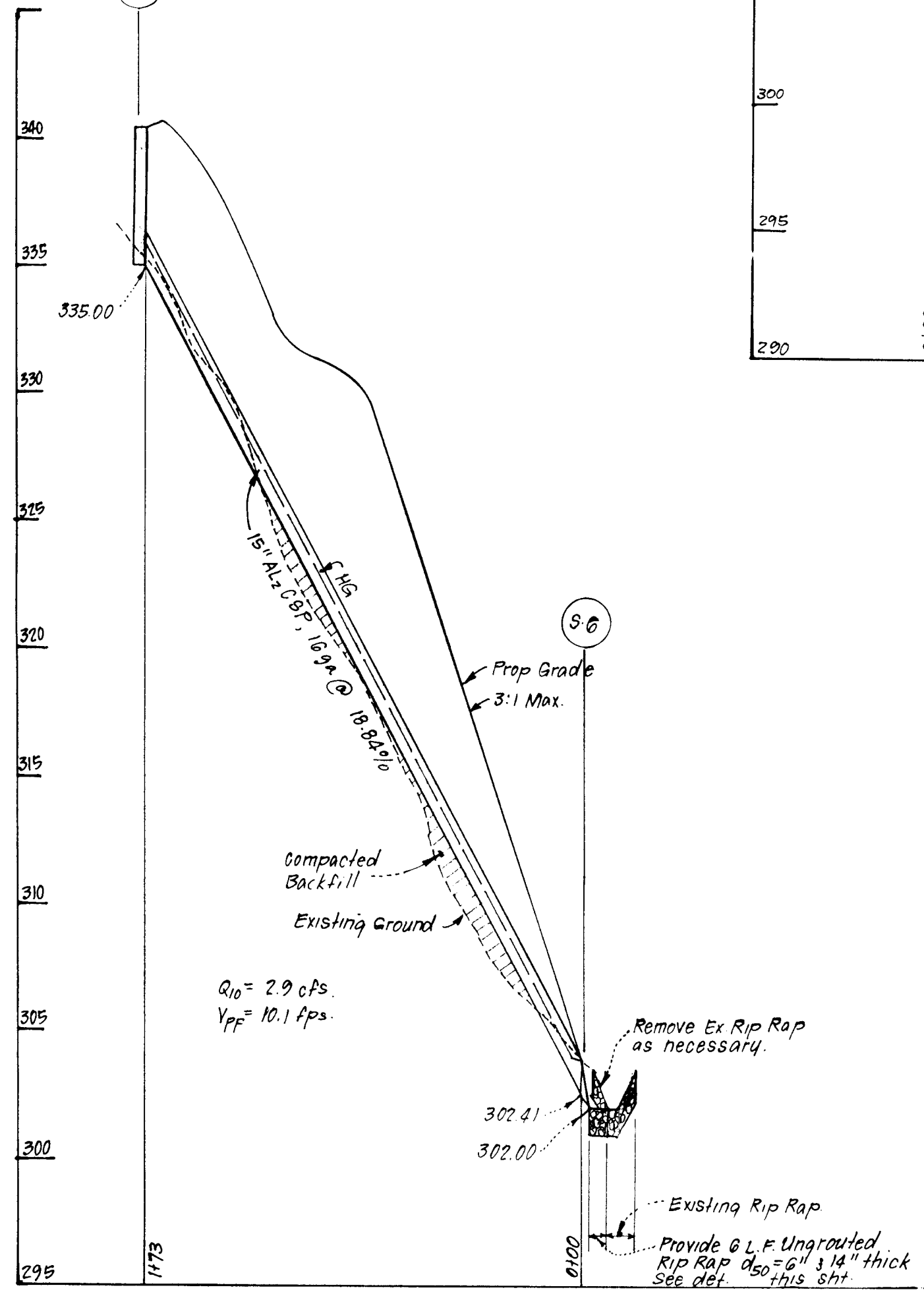
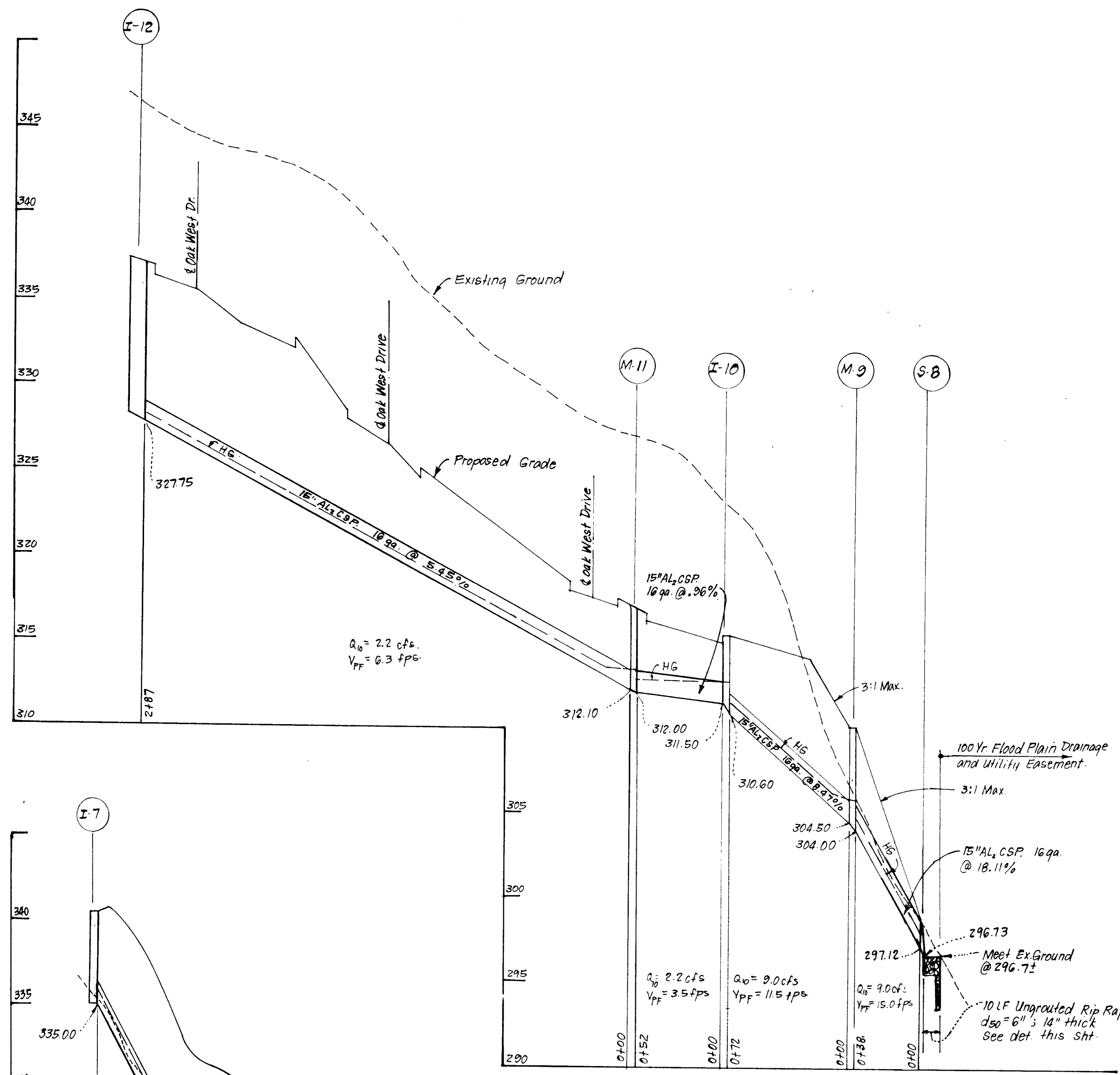
Chief, Division of Land Development & Zoning Administration _____ Date _____

CLARK · FINEFROCK & SACKETT INC.
ENGINEERS · PLANNERS · SURVEYORS
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED GLB	ROAD CONSTRUCTION PLANS STORM DRAIN AND PAVING DETAILS	SCALE As Shown
DRAWN KIW		DRAWING 3 OF 6
CHECKED GLB	OAK WEST 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 88-047
DATE 1-5-87		FILE NO. 86-047-D

FOR: 84 TAM DEVELOPMENT GROUP
9030 Red Branch Rd #250
Columbia Md 21045

Approved: *G. Nelson Clark* 1-26-87 Date _____



STRUCTURE SCHEDULE

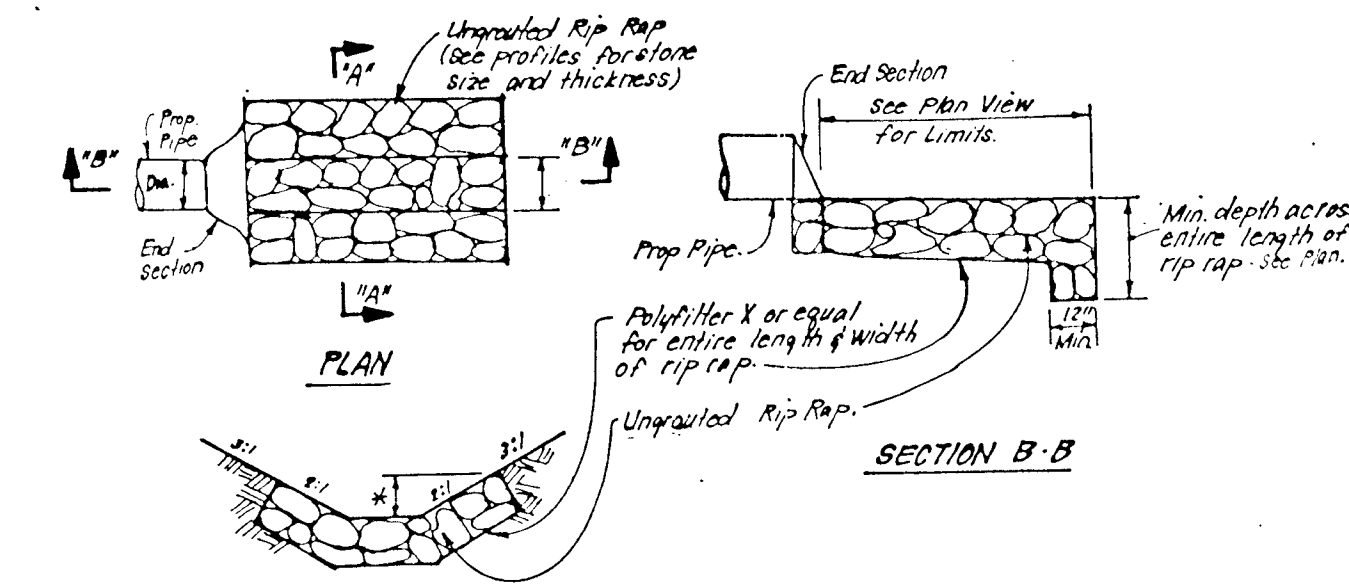
NO	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS	LOCATION
				UPPER	LOWER		
I-4	A-5 Inlet	338.81	338.40	342.83	-	Ho. Co. Std. SD 4.01 W=2'6"	Inlet Sta. 0+66.11 Oak West Dr. 14.83 LL
I-5	A-5 Inlet	-	339.21	342.84	-	" SD 4.01 W=2'6"	See Plan
S-6	Metal End Section	302.41	302.00	-	-	SD 5.61	See Plan
I-7	A-10 Inlet	-	335.00	340.64	-	" SD 4.02 W=2'6"	" "
S-8	Metal End Section	297.12	296.73	-	-	SD 5.61	" "
M-9	Brick Manhole	304.50	304.00	310.00	-	G 5.01	" "
I-10	A-10 Inlet	311.50	310.60	315.40	-	" SD 2.02 W=2'6"	" "
M-11	Brick Manhole	312.10	312.00	317.00	-	G 5.01	" "
I-12	A-5 Inlet w/Deflec.	-	327.75	337.38	337.04	" SD 4.01 W=2'6"	Inlet Sta. 1106.07 Oak West Dr. 14.83 R+
M-1A	Brick Manhole	333.10	336.00	332.60	339.20	G 5.01	See Plan
I-14	A-5 Inlet w/Deflectors	337.50	337.00	342.23	341.99	" SD 4.01 W=2'6"	Inlet Sta. 0156 Oak West Dr. 15.83 LL
I-15	A-5 Inlet w/Deflectors	-	338.00	342.23	341.99	" SD 4.01 W=2'6"	Inlet Sta. 0156 Oak West Dr. 15.83 R+

- Structure Notes:**
- All inverts to be fully developed.
 - For C & G Transitions @ Applicable Inlets, See Ho. Co. Std. R-306.
 - See Ho. Co. Std. SD 4.83 for Inlet Deflectors.
 - Pre-cast Concrete Manholes may be substituted for brick manholes. See Ho. Co. Std. 7-5.12.

PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	AL2 CSP 16 ga.	749 LF

* 2 3/8" x 1/2" Corrugations
 Notes: 1. CMP w/aluminized coating may be substituted for AL2 CSP



STORM DRAINAGE PROFILES

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

Approved: *Radolph Mayt* Date: 1/1/07

APPROVED: DEPARTMENT OF PUBLIC WORKS

Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Chief, Division of Land Development & Zoning Administration Date

CLARK · FINEFROCK & SACKETT INC.
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED GLB	ROAD CONSTRUCTION PLANS STORM DRAIN PROFILES OAK WEST 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
DRAWN KIW		DRAWING 4 OF 6
CHECKED GLB		JOB NO. 86 047
DATE 1-5-87		FILE NO. 86 047 D
FOR: BRITAM DEVELOPMENT GROUP 9030 Red Branch Rd. # 250 Columbia Md 21045		

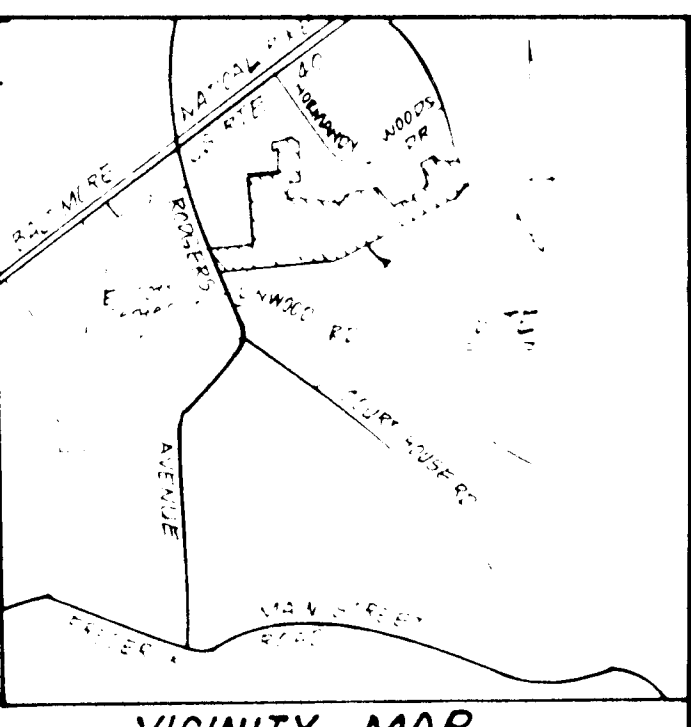
G. Nelson Clark 1-5-87 Date

LEGEND:

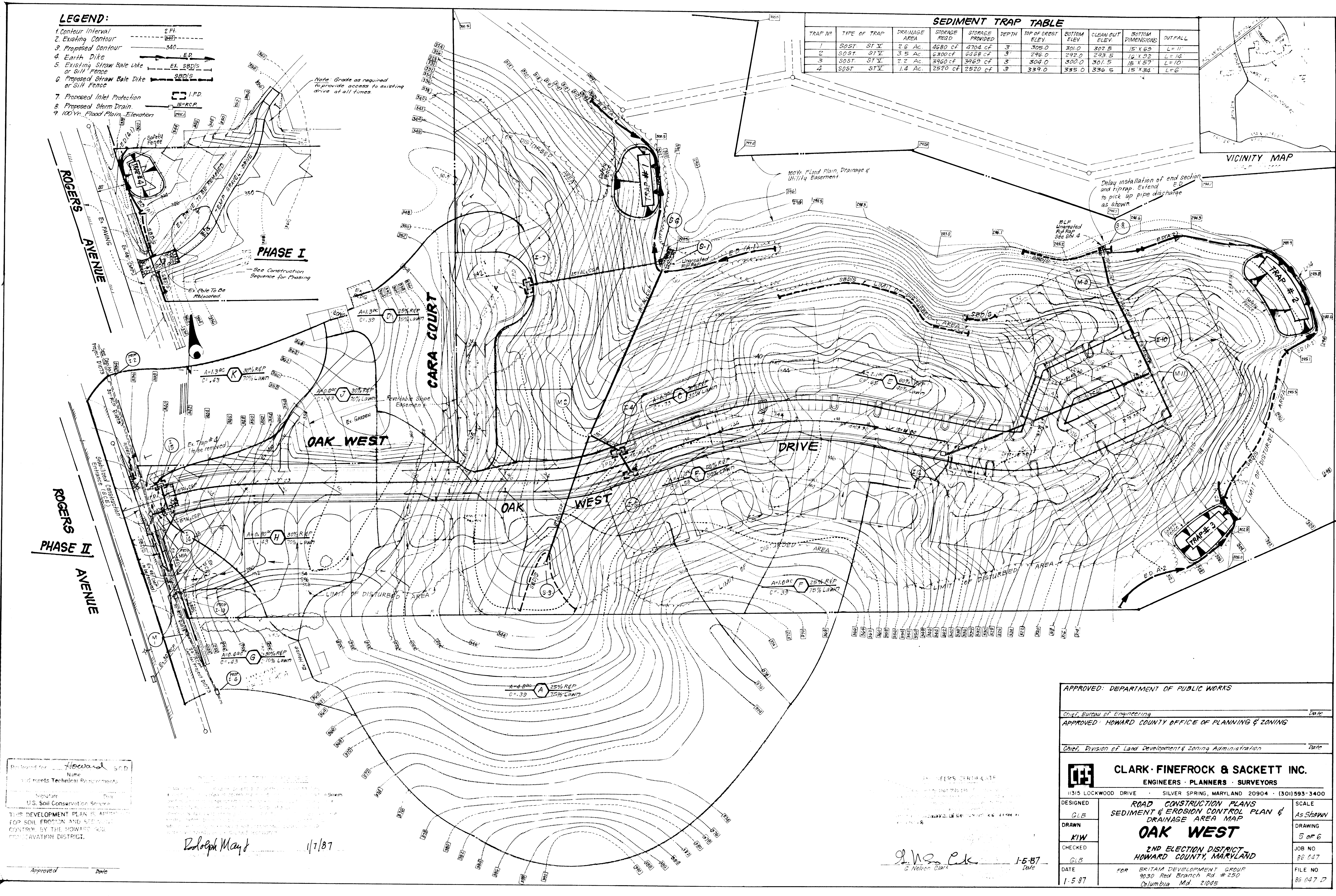
- 1. Contour Interval 2 FT.
- 2. Existing Contour
- 3. Proposed Contour
- 4. Earth Dike
- 5. Existing Straw Bale Dike or Silt Fence
- 6. Proposed Straw Bale Dike or Silt Fence
- 7. Proposed Inlet Protection
- 8. Proposed Storm Drain
- 9. 100 Yr. Flood Plain Elevation

SEDIMENT TRAP TABLE

TRAP NO	TYPE OF TRAP	DRAINAGE AREA	STORAGE REQ.	STORAGE PROVIDED	DEPTH	TOP OF CREST ELEV.	BOTTOM ELEV.	CLEAN OUT ELEV.	BOTTOM DIMENSIONS	OUTFALL
1	SOST STV	2.6 AC	4680 cf	4704 cf	3'	305.0	301.0	302.5	15' X 6.5'	L=11'
2	SOST STV	3.5 AC	6300 cf	6468 cf	3'	296.0	292.0	293.5	12' X 9.2'	L=14'
3	SOST STV	2.2 AC	3960 cf	3969 cf	3'	304.0	300.0	301.5	15' X 5.7'	L=10'
4	SOST STV	1.4 AC	2520 cf	2520 cf	3'	339.0	335.0	336.5	15' X 3.4'	L=6'



Note: Grade as required to provide access to existing drive at all times.



Prepared for: Howard S&B
 Name: _____
 and meets Technical Requirements
 Signature: _____
 U.S. Soil Conservation Service
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved: _____ Date: _____

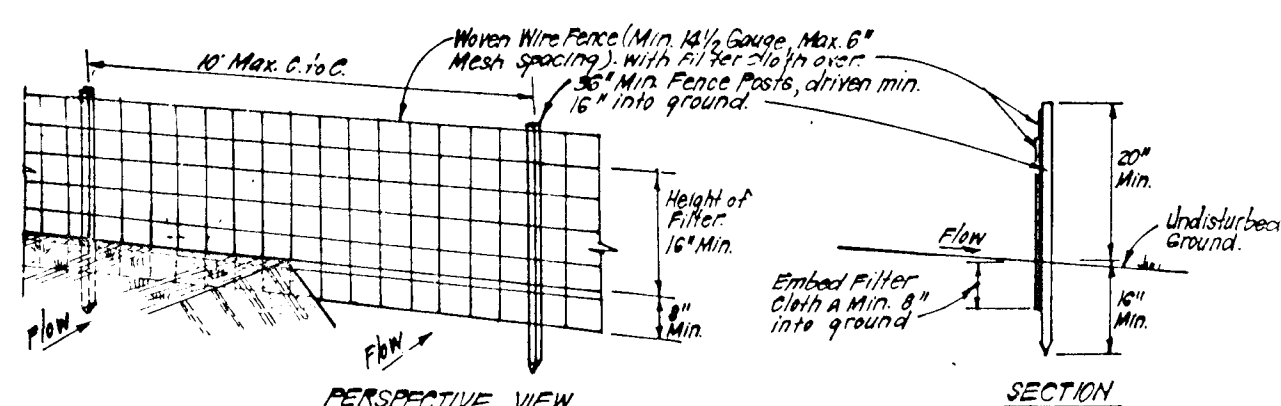
Rolph May 11/77

G. Nelson Clark 1-5-87
 G. Nelson Clark Date

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering Date: _____
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 Chief, Division of Land Development & Zoning Administration Date: _____

CLARK · FINEFROCK & SACKETT INC.
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

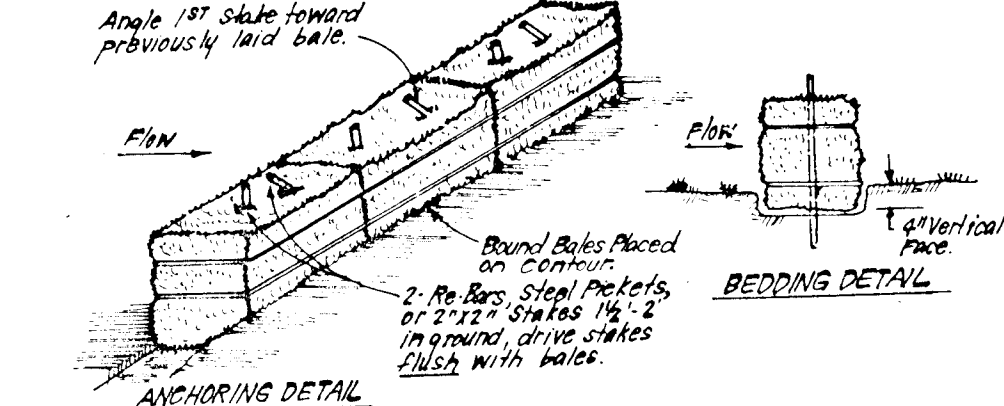
DESIGNED GLB	ROAD CONSTRUCTION PLANS SEDIMENT & EROSION CONTROL PLAN & DRAINAGE AREA MAP OAK WEST 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR BRITAM DEVELOPMENT GROUP 9030 Red Branch Rd #250 Columbia, Md. 21045	SCALE As SHOWN
DRAWN KIW		DRAWING 5 OF 6
CHECKED GLB		JOB NO 86 047
DATE 1-5-87		FILE NO 86 047 D



SILT FENCE DETAIL (S)
NO SCALE

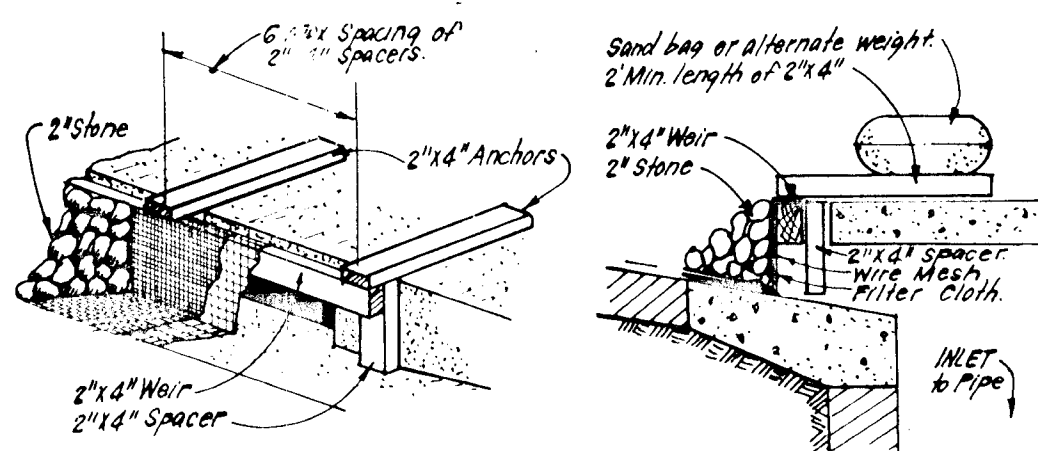
- CONSTRUCTION SPECIFICATIONS:**
1. Weave wire fence to be fastened securely to fence posts with wire ties or staples.
 2. Filter Cloth to be fastened securely to woven wire fence with ties spaced every 8" at top and mid section.
 3. When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and stapled.
 4. Maintenance shall be performed as needed and material removed when "blowups" develop in Silt Fence.

POSTS: Steel, galvanized T-14 Type or 2" x 4" Hardwood
FENCE: Woven Wire, 1/4" Gauge, 2" Max. Mesh Opening
FILTER CLOTH: Filter, 1/2" Mesh, 100% Efficiency, TARPON or Approved Substitute, TARPON or Approved Substitute
PREFABRICATED UNIT: GenFab, EnviroFence, or Approved Equal



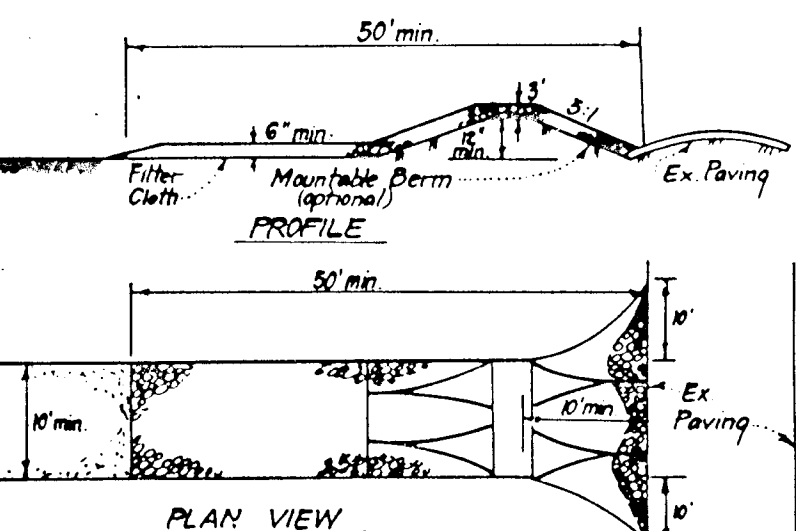
STRAW BALE DIKE DETAIL (SBD)
NO SCALE

- CONSTRUCTION SPECIFICATIONS:**
1. Bales shall be placed at the top of a slope or on the contour and in a row with ends slightly abutting the adjacent bales.
 2. Each bale shall be embedded in the soil a minimum of 4" and placed so the bindings are horizontal.
 3. Bales shall be secured in place by either 2 stakes or bars driven thru the bale. The 1st stake in each row shall be driven toward the previously laid bale at an angle to the bales together. Stakes shall be driven flush with the bale.
 4. Inspection shall be frequent and repair/replacement shall be made promptly as needed.
 5. Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.



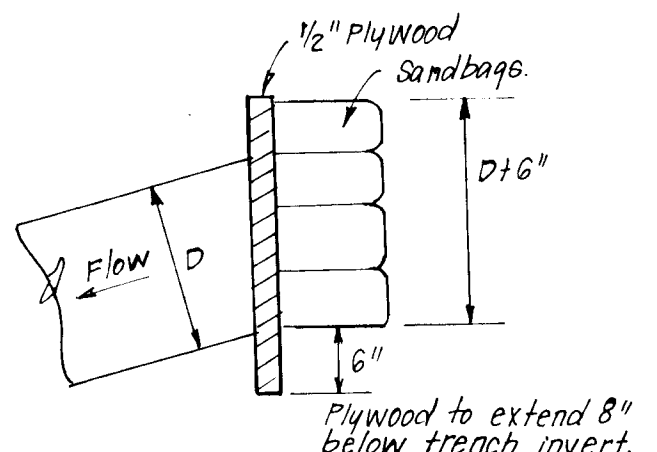
CURB INLET PROTECTION DETAIL

- CONSTRUCTION SPECIFICATIONS:**
1. A wooden frame is to be constructed of 2x4" construction grade lumber.
 2. Wire mesh must be of sufficient strength to support filter fabric, and slope for curb inlets, with water fully impounded against it.
 3. Filter cloth must be of a type approved for this purpose resistant to sunlight with sieve size, #20, #30, #40, to allow sufficient passage of water and removal of sediment.
 4. Slope is to be 2" on size and close since firms would clog the cloth.



STABILIZED CONSTRUCTION ENTRANCE (SCE)
NO SCALE

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



PIPE BLOCKING DETAIL
NO SCALE

- CONSTRUCTION SPECIFICATIONS:**
1. All sites shall be compacted by earth-moving equipment.
 2. All dikes shall have positive drainage to an outlet.
 3. Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
 4. Final location should be adjusted as needed to utilize a stabilized side outlet.
 5. Earth dikes only 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 outlet, the dike channel, or the drainage area above the dike are not adequately stabilized.
 6. Stabilization shall be: (A) In accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) Flow channel as per chart below.

TYPE OF TREATMENT	CHANNEL WIDTH	DYKE A	DYKE B
1	0.5 - 2.0%	Seed & Straw Mulch	Seed or Straw Mulch
2	3.1 - 5.0%	Seed & Straw Mulch	Seed or Straw Mulch
3	5.1 - 8.0%	Seed & Straw Mulch	Seed or Straw Mulch
4	8.1 - 20.0%	Lined Rip Rap	Lined Rip Rap

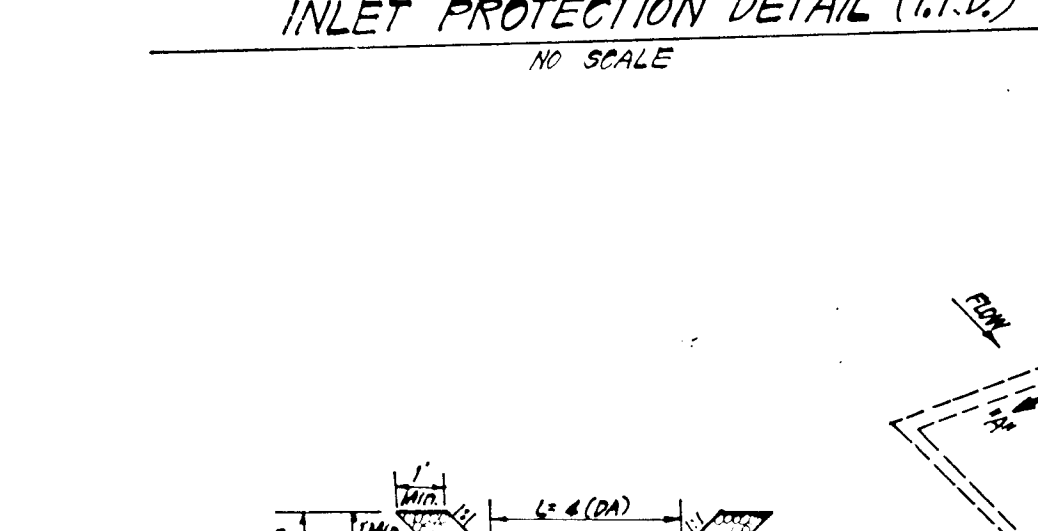
- FLOW CHANNEL STABILIZATION**
1. Stone to be 2" stone, or recycled concrete equivalent, in a layer at least 3" thick and be pressed into soil with construction equipment.
 2. Rip Rap to be 4" in a layer at least 3" thick, pressed into soil.
 3. Approved equivalents can be substituted for any of the above materials.
 4. Periodic inspection and required maintenance must be provided after each rain.

EARTH DIKE DETAIL (E.D.)
NO SCALE

- II. PROCEDURE: SWALE, DITCHLINE OR YARD INLET PROTECTION**
1. Excavate completely around inlet to a depth of 18" below notch elevation.
 2. Drive 2x4 nail (1" diameter) at four corners of inlet. Place battens between ends of inlet. Assemble top portion of 2x4 frame using over lap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
 3. Stretch wire mesh tightly around frame and fabric securely. Cloth must meet at post.
 4. Stretch filter cloth tightly over wire mesh. Cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and riveted. Then fastener down.
 5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation and top elevation of a compacted earthlike in the ditchline below to the top of the earthlike is at least 6" higher than the top of frame (weir).
 6. The structure must be inspected frequently and filter fabric replaced when clogged.

- II. PROCEDURE: CURB INLET PROTECTION**
1. Attach a continuous piece of wire mesh (30" min width by throat length plus 4") to the 2x4" weir (measuring throat length plus 2") as shown on drawing.
 2. Place a piece of suspended filter cloth (60" wide) of the same dimensions as the wire mesh and securely attach to the 2x4" weir.
 3. Securely nail the 2x4" weir to or one vertical spacers to be located between the weir and inlet face (max. 6" apart).
 4. Place the assembly against the inlet throat and nail (min 2" lengths of 2x4" to the top of the weir at spacer locations. These 2x4" anchors shall extend across the inlet top and be held in place by sawtooths or alternate weight or asphalt dikes directing flow to inlet.
 5. The assembly must be placed so that the end spacers are a min 1' beyond both ends of throat opening.
 6. From the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" fabric over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
 7. This type of construction must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 8. Assume that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow to inlet.

INLET PROTECTION DETAIL (I.R.D.)
NO SCALE



STONE OUTLET SEDIMENT TRAP (S.O.S.T.)
NO SCALE

- CONSTRUCTION SPECIFICATIONS:**
1. Flow under embankment shall be cleared, grubbed and stripped of any vegetation and roof mat. The soil shall be compacted.
 2. The fill material for the embankment shall be free of rocks and other heavy vegetation as well as over sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
 3. All cut and fill slopes shall be 2:1 or flatter.
 4. The stone used in the outlet shall be small rip rap 4" - 8" along with 1" thickness of 2" aggregate placed on the up-slope side on the small rip rap or embedded filter cloth in the rip rap.
 5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
 6. The structure shall be inspected after each rain and repairs made as needed.
 7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits (992-2437) prior to the start of any construction.
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or 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 their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 50) and (Sec. 51) and (Sec. 52), temporary seeding (Sec. 50) and (Sec. 51) and (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- 7) Site Analysis:
 Total Area of Site: 24.66 Acres
 Area Disturbed: 11.95 Acres
 Area to be roofed or paved: 1.67 Acres
 Area to be vegetatively stabilized: 10.80 Acres
 Total Cut: Cu. yds
 Total Fill: Cu. yds
 Off-site waste/borrow area location: N/A
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment control must be provided, if deemed necessary by the Howard County DWS sediment control inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment control, but before proceeding with any other earth disturbance. Other building or grading disturbance or grading, other building or grading, initial approval by the inspection agency is needed. Inspection approval may not be authorized until this initial approval by the inspection agency is made.
- 11) If houses are to be constructed on "fill" areas, at random, Single Lot Sediment Control as shown below shall be implemented. (1/2)
- 12) All pipes to be blocked at the end of each day (see detail below).
- 13) The total amount of straw bale dikes/silt fence equals 1,025 L.F.

PERMANENT SEEDING NOTES

- Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
- Seedbed Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.
- Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:
- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding.
 - 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding.
 - 3) Harrow or disk into upper three inches of soil.
- Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.**
- Mulching - Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/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/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.**
- Maintenance -** Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.
- Seedbed Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.
- Soil Amendment:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
- Seeding - For the periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 15, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.**
- Mulching:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.
- Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.**

CONSTRUCTION REQUIREMENT	NO. OF DAYS
PHASE I	
1. Obtain Grading permit.	2
2. Clear and Grub for installation of Phase I sediment controls.	2
3. Install Phase I sediment controls and stabilize.	5
4. Install storm drainage S-1 to S-3.	10
5. Rough grade and temporarily stabilize site.	60
6. Install storm drainage. Protect inlets I-4, I-5, and I-7; Delay construction of I-14 to MIA.	30
7. Construct Utilities.	150
8. Construct paving, sidewalks, curb and gutter; Delay construction in area of Trap #4.	180
9. Fine grade and stabilize site.	20
PHASE II (to be coordinated with Capital Project D1073)	
1. Upon approval of the sediment control inspector, remove Trap #4 and install Phase II S.C.E.	2
2. Install Phase II SBD/S.	2
3. Construct remaining storm drainage; Protect I-14 and I-15.	5
4. Construct remaining utilities, paving, sidewalk and curb and gutter.	10
5. Fine grade as necessary and stabilize.	10
6. Upon approval of the sediment control inspector, remove sediment controls and stabilize.	15

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 Chief, Division of Land Development & Zoning Administration

CLARK · FINEFROCK & SACKETT INC.
 ENGINEERS · PLANNERS · SURVEYORS
 11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 · (301) 993-3400

DESIGNED: GLB
 DRAWN: KIW
 CHECKED: GLB
 DATE: 1.5.87

ROAD CONSTRUCTION PLANS
 SEDIMENT & EROSION CONTROL DETAILS
OAK WEST
 2ND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: As Shown
 DRAWING: 6 OF 6
 JOB NO: 86 047
 FILE NO: 86 047 D

DATE: 1.5.87 FOR BRITAM DEVELOPMENT GROUP
 9030 Red Branch Rd #250
 Columbia Md. 21045

Rodolph May Jr. 1/7/87

G. Nelson Clark 1-26-87