

SHEET INDEX	
SHEET No.	DESCRIPTION
1	TITLE SHEET
2	ROCKBURN WOODS WAY PLAN AND PROFILE & STREAM VALLEY LANE PLAN AND PROFILE
3	BRANDONS WAY PLAN AND PROFILE
4	BRANDONS WAY PLAN AND PROFILE
5	STREET TREE, GRADING & SEDIMENT CONTROL PLAN AND S.W.M. POND ACCESS PROFILE
6	STREET TREE, GRADING & SEDIMENT CONTROL PLAN
7	STREET TREE, GRADING & SEDIMENT CONTROL PLAN
8	DRAINAGE AREA MAP
9	LANDSCAPE PLAN
10	STORM DRAIN PROFILES
11	STORM DRAIN PROFILES
12	DETAIL SHEET
13	STORMWATER MANAGEMENT DETAILS
14	SEDIMENT CONTROL NOTES AND DETAILS
15	FOREST CONSERVATION PLAN
16	MONTGOMERY RD. IMPROVEMENT DETAILS AND TRAFFIC CONTROL PLAN

APPROVED: DEPARTMENT OF PUBLIC WORKS
Howard's 6/23/00
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Pat Sheppard 6/29/00
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mike 6/27/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS ROCKBURN VIEW LOTS 4 THRU 41

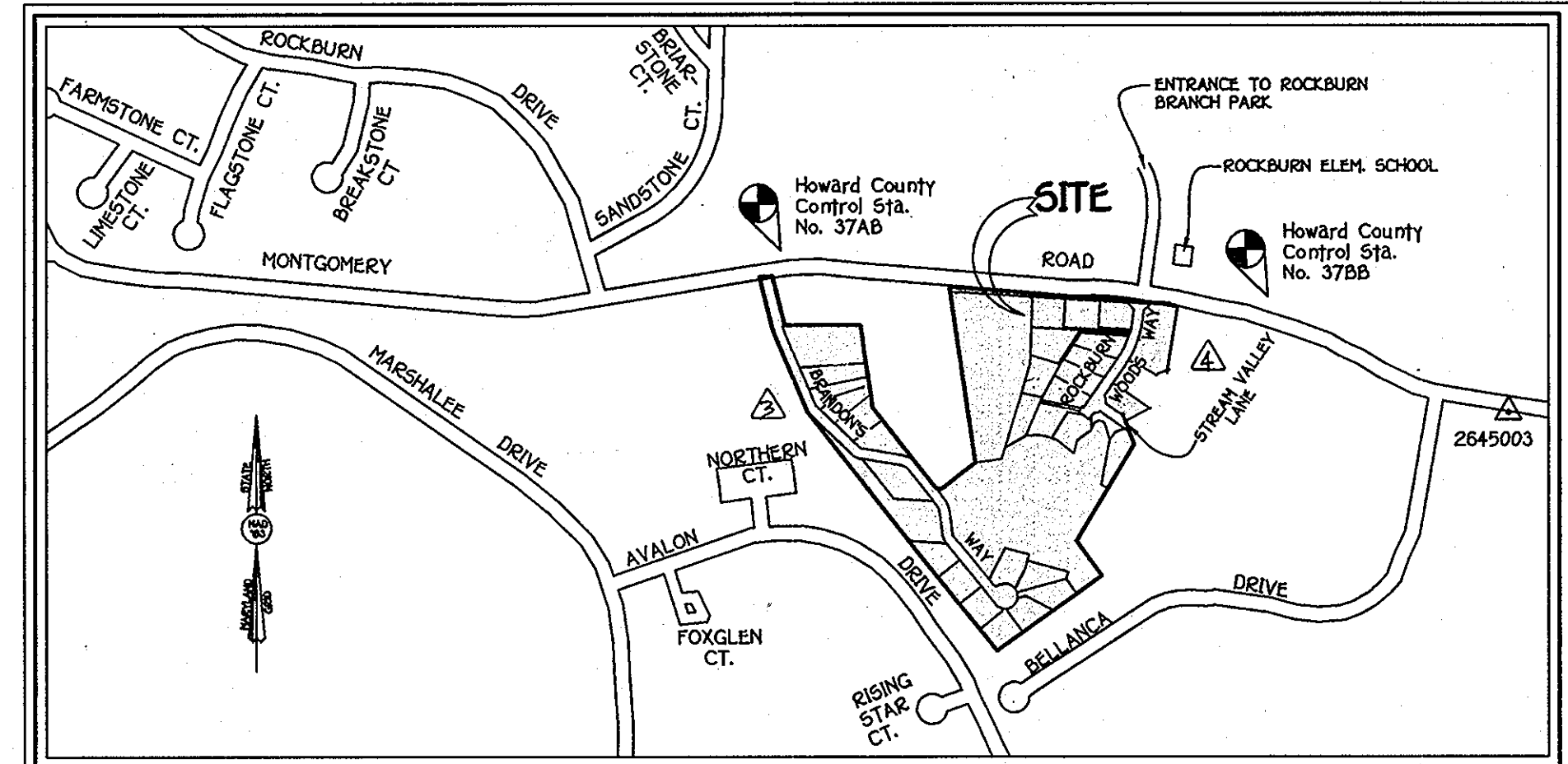
**(A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9888
 AND A SUBDIVISION OF PARCEL NO. 563)**

ZONED R-20

TAX MAP NO. 37 PARCEL NO. 563 AND PART OF PARCEL NO. 669 GRID NO. 4

TRAFFIC CONTROL SIGNS				
ROAD NAME	CL. STA.	OFFSET	POSTED SIGN	SIGN CODE
BRANDONS WAY	0+40	10'L	STOP	R1-1
ROCKBURN WOODS WAY	0+40	10'L	STOP	R1-1
STREAM VALLEY LANE	0+30	10'L	STOP	R1-1
BRANDONS WAY	1+00	12'R	SPEED LIMIT 25	R2-1
ROCKBURN WOODS WAY	2+60	12'R	SPEED LIMIT 25	R2-1
BRANDONS WAY	1+35	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	2+15	12'L	ROAD NARROWS	W5-1
BRANDONS WAY	3+10	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	3+90	12'L	ROAD NARROWS	W5-1
BRANDONS WAY	4+85	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	5+65	12'L	ROAD NARROWS	W5-1
BRANDONS WAY	6+60	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	7+40	12'L	ROAD NARROWS	W5-1
BRANDONS WAY	8+65	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	9+45	12'L	ROAD NARROWS	W5-1
BRANDONS WAY	10+75	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	11+55	12'L	ROAD NARROWS	W5-1
BRANDONS WAY	14+35	12'R	ROAD NARROWS	W5-1
BRANDONS WAY	15+15	12'L	ROAD NARROWS	W5-1
ROCKBURN WOODS WAY	1+35	12'R	ROAD NARROWS	W5-1
ROCKBURN WOODS WAY	2+15	12'L	ROAD NARROWS	W5-1
ROCKBURN WOODS WAY	3+10	12'R	ROAD NARROWS	W5-1
ROCKBURN WOODS WAY	3+90	12'L	ROAD NARROWS	W5-1

ROAD CLASSIFICATION CHART		
ROAD NAME	CLASSIFICATION	R/W WIDTH
BRANDONS WAY	PUBLIC ACCESS PLACE	40'
ROCKBURN WOODS WAY	PUBLIC ACCESS PLACE	40'
STREAM VALLEY LANE	PUBLIC ACCESS PLACE	40'

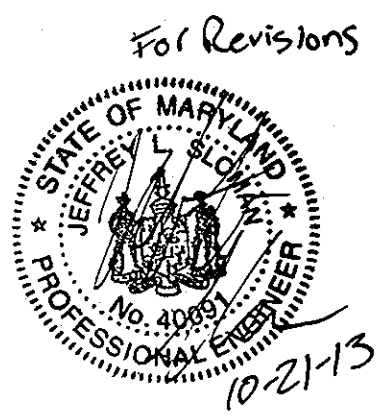


VICINITY MAP
 SCALE: 1"=600'

STREET LIGHT CHART				
DWG. No.	STREET NAME	STATION	OFF-SET	FIXTURE/POLE TYPE
2	ROCKBURN WOODS WAY	0+33	21'R	150-WATT H.P.S. VAPOR PENDANT (CUT-OFF) MOUNTED ON A 30-FOOT BRONZE FIBERGLASS POLE USING A 12' ARM
2	STREAM VALLEY LANE	0+25	10'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
3	BRANDONS WAY	0+32	10'R	150-WATT H.P.S. VAPOR PENDANT (CUT-OFF) MOUNTED ON A 30-FOOT BRONZE FIBERGLASS POLE USING A 12' ARM
3	BRANDONS WAY	3+50	12'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
3	BRANDONS WAY	5+63	14'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
4	BRANDONS WAY	6+39	14'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
4	BRANDONS WAY	10+33	14'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
4	BRANDONS WAY	13+14	12'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
4	BRANDONS WAY	16+10	13'R	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
2	ROCKBURN WOODS WAY	1+75	12'L	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE
2	ROCKBURN WOODS WAY	3+50	12'L	100-WATT "TRADITIONAIRE" H.P.S. VAPOR FIXTURE POST TOP FIXTURE MOUNTED ON A 14-FOOT BLACK FIBERGLASS POLE

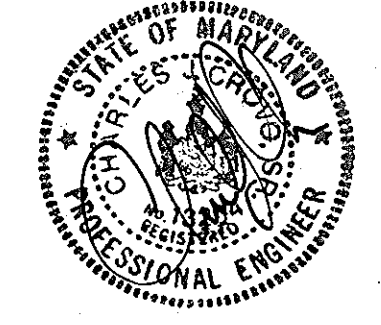
NOTE: MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.

FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 40091, Exp Date 2/13/15

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL OFFICE: 10275 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 484-2255



OWNER
 FRANCIS J. AND ELEANORA A. MICHAEL
 6090 MONTGOMERY ROAD
 ELK RIDGE, MARYLAND 21075

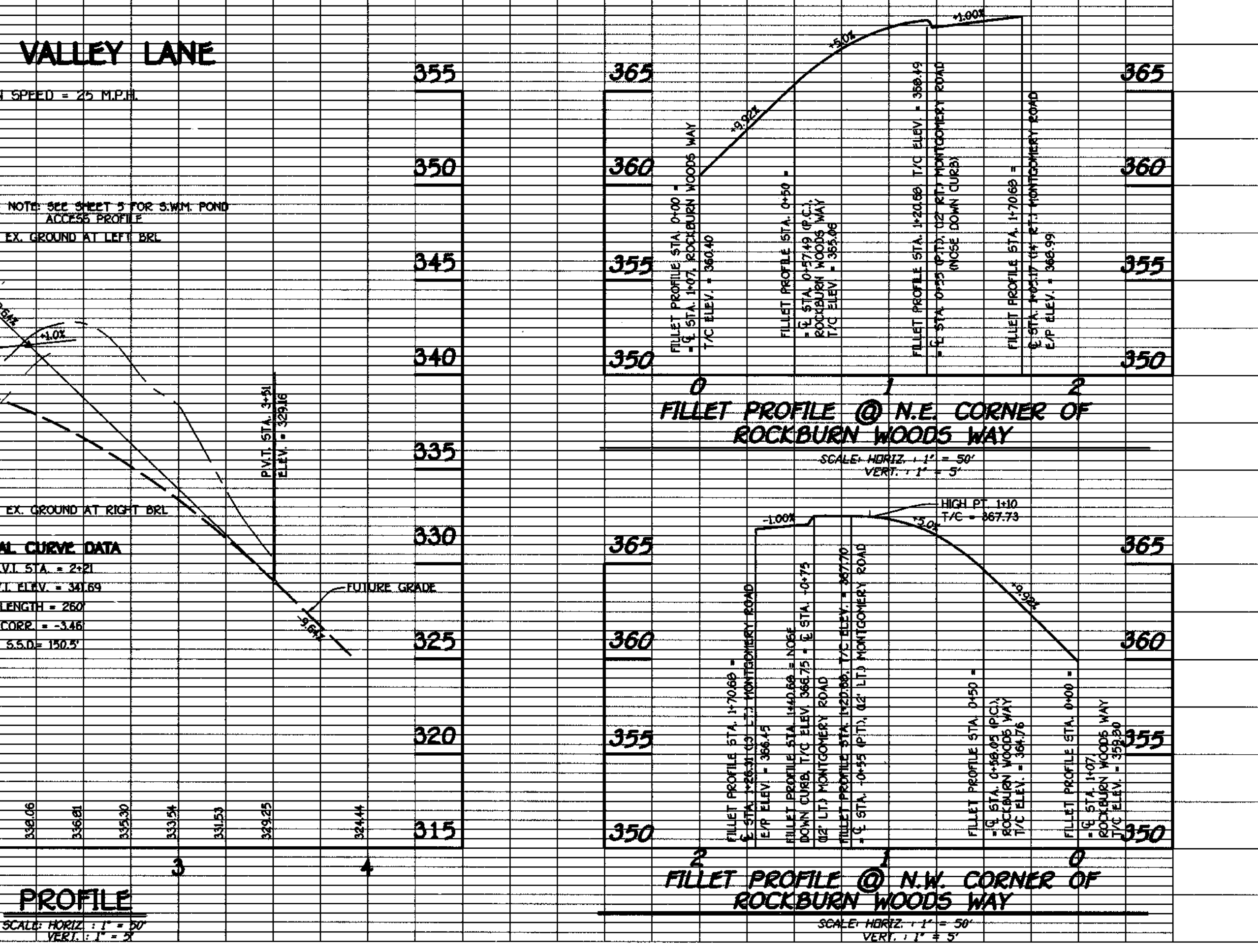
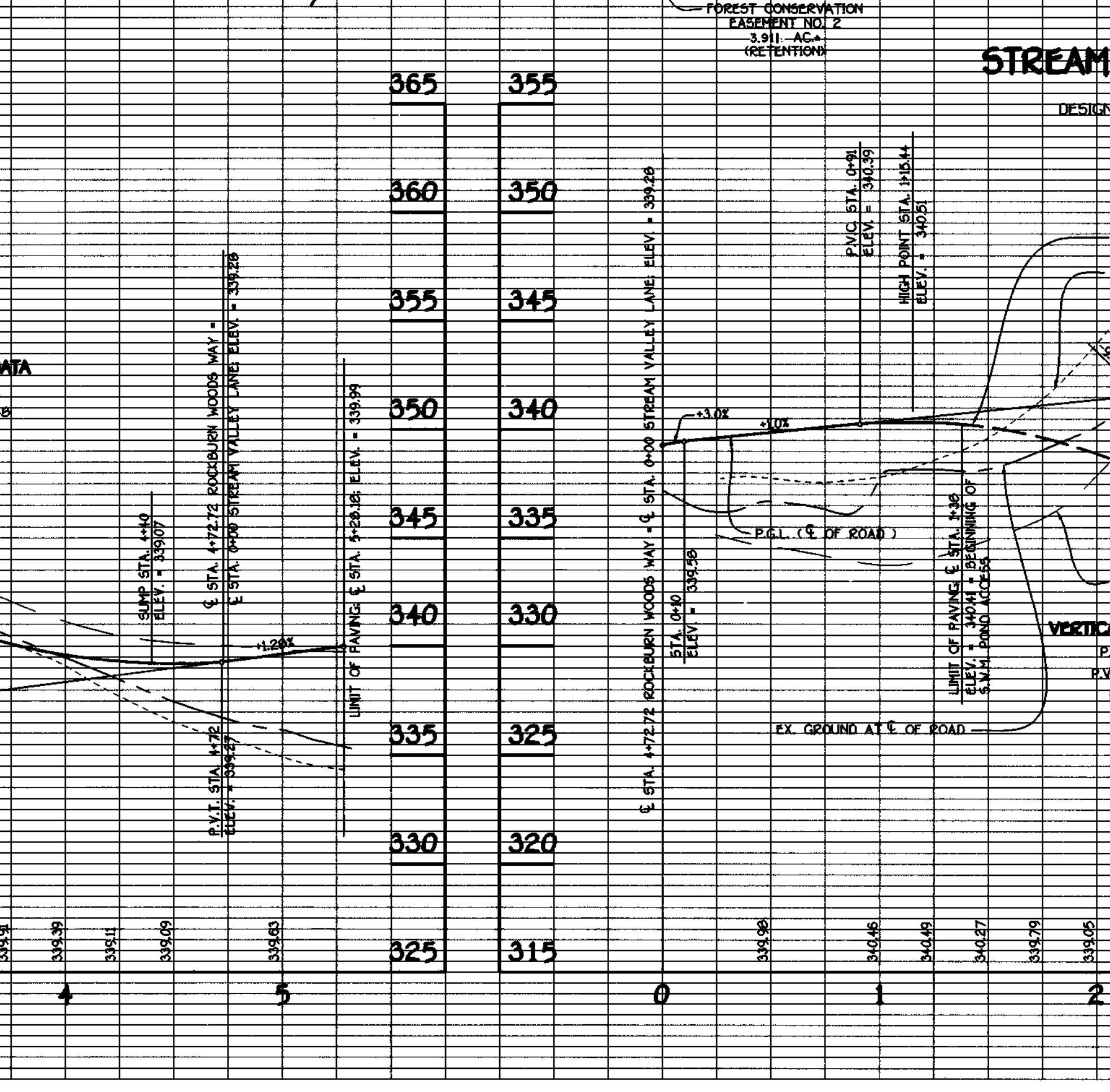
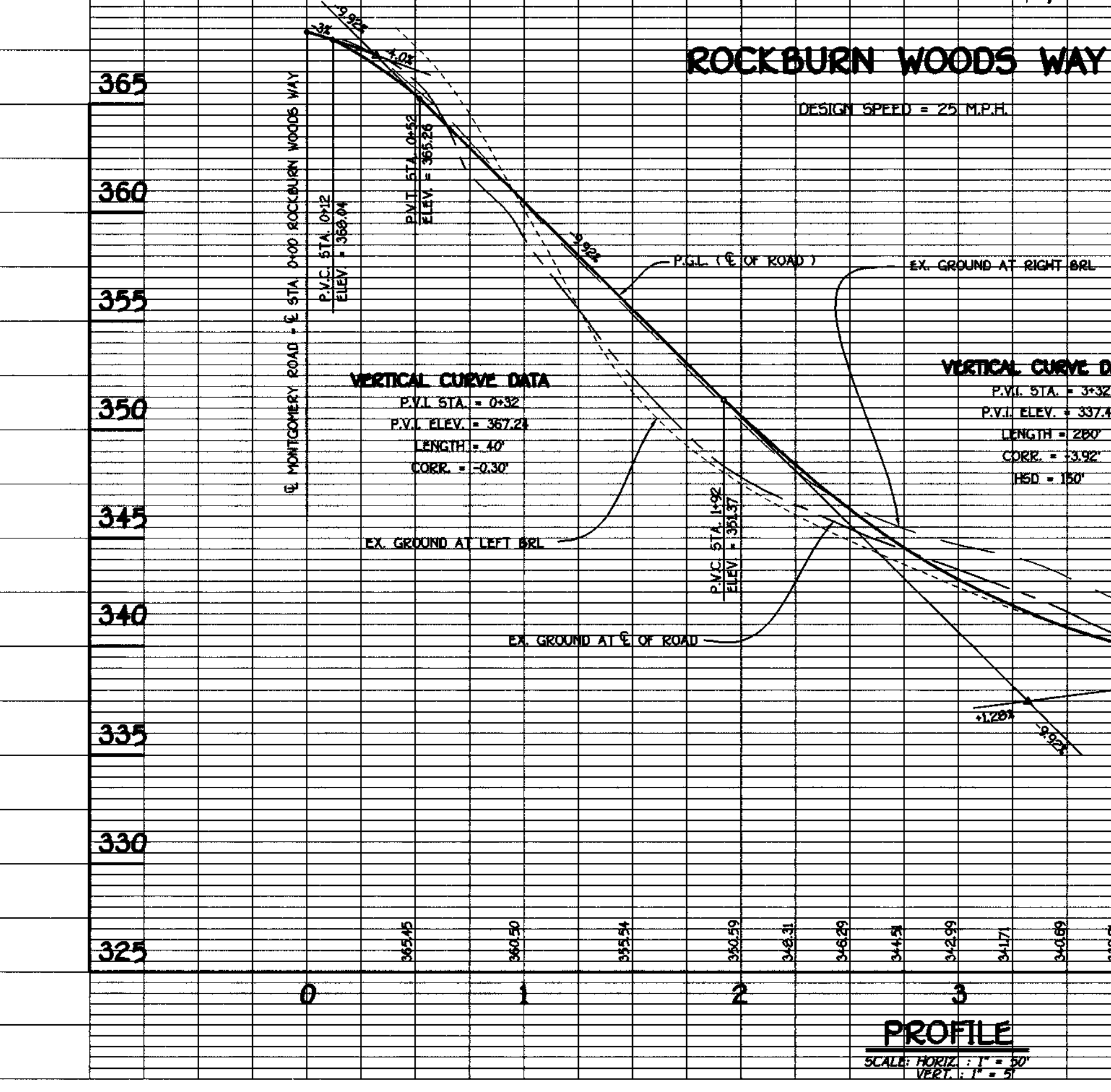
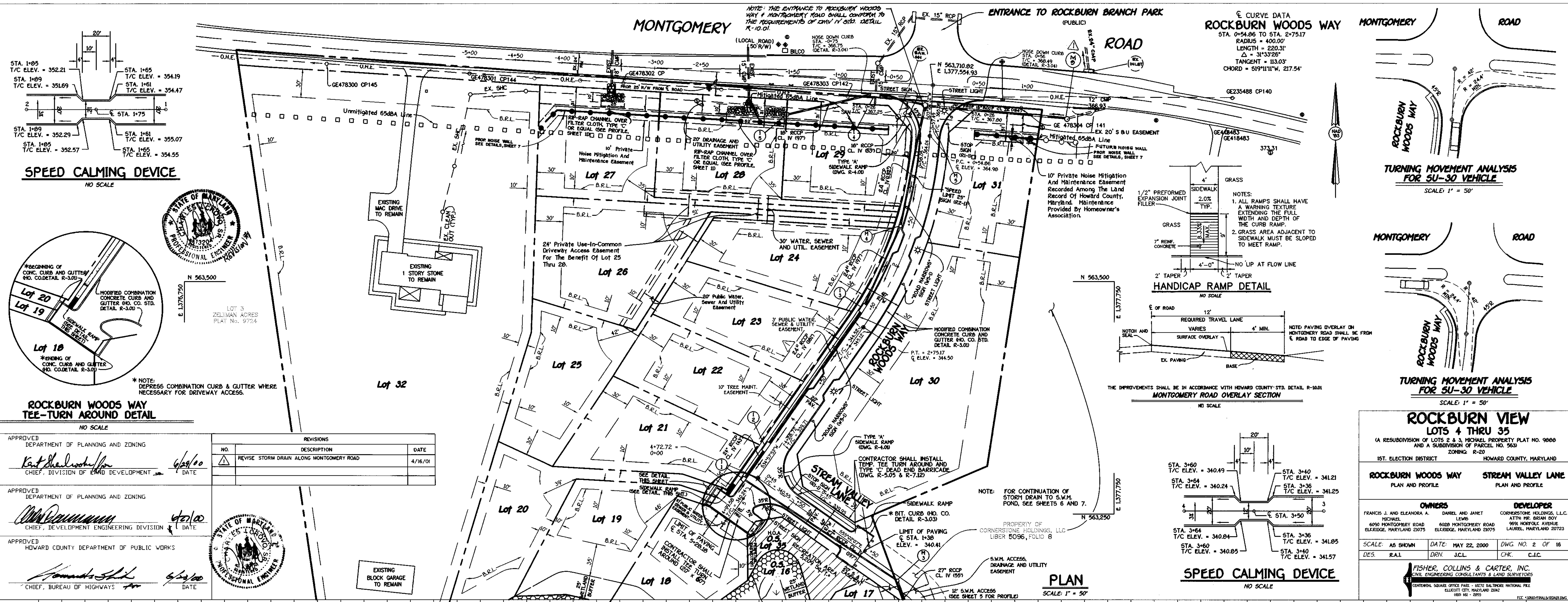
DEVELOPER
 CORNERSTONE HOLDINGS, L.L.C.
 ATTN: MR. BRIAN BOY
 9691 NORFOLK AVENUE
 LAUREL, MARYLAND 20723

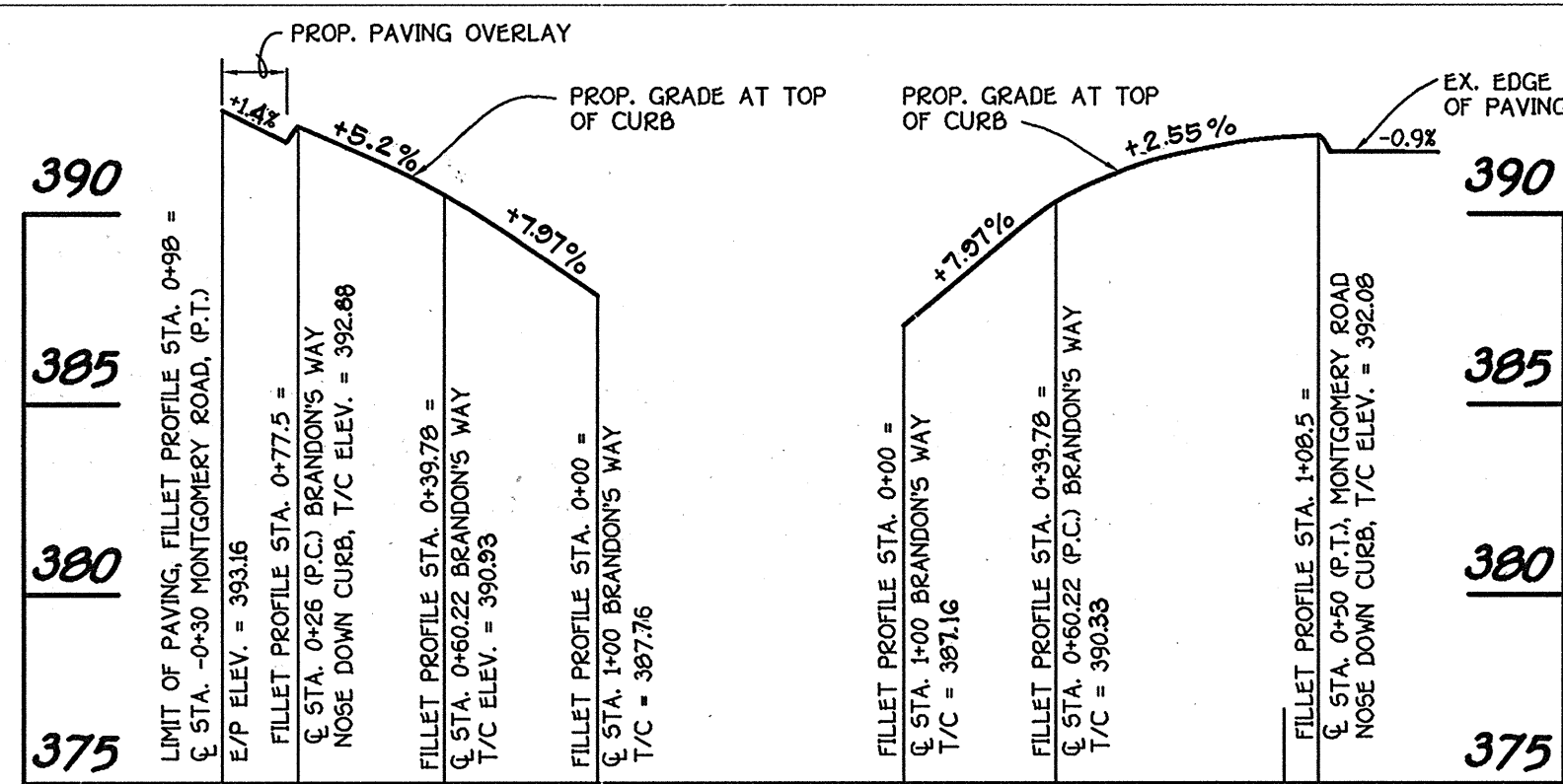
No.	DATE	DESCRIPTION
5	10/10/13	A 3.97% ST. AREA OF EXISTING FOREST CONSERVATION RESERVE AREA BEING REDESIGNED FOR LOT 10 AS APPROVED BY THE PLANNING DIVISION AND COUNTY EXECUTIVE ON 10/10/13. THIS RES. SEC. 204.000 FEET WAS PAID WITH THE BALANCE OF A PART OF REVISION, PLAT #.
1	7/19/02	ADD LOTS 40 AND 41
2	7/19/02	ADDED LOTS 36 THRU 39
3	7/19/02	ADD GENERAL NOTE NO. 27 REFERENCING PICNIC TABLES & BENCHES

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410) 313-1080 AT LEAST (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 BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)".
 NOTE: MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO (2) FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED AUGUST, 1997.
- THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 37BA AND 37BB WERE USED FOR THIS PROJECT.
 Sta. 37BA N 171042.2050 (meters) E 419510.2654 (meters)
 Sta. 37BB N 171004.9509 (meters) E 420027.5970 (meters)
- WATER IS PUBLIC, CONTRACT NO. 14-3794-D AND PATAPSCO DRAINAGE AREA.
- SEWER IS PUBLIC, CONTRACT NO. 14-3794-D AND PATAPSCO DRAINAGE AREA.
- S.W.M. WILL BE PROVIDED BY DETENTION. WATER QUALITY IS PROVIDED BY RETENTION & SHALLOW MARSH.
- EXISTING UTILITIES ARE BASED ON CONT. NO. 10-1602, 34-W AND 10-1215
- THE 100 YR. FLOODPLAIN AS SHOWN ON THESE PLANS IS BASED ON THE FLOODPLAIN STUDY PREPARED BY FISHER, COLLINS & CARTER, INC. DATED JUNE, 1998.
- THE WETLANDS STUDY WAS PREPARED BY AMERICAN LAND CONCEPTS, DATED NOV. 12, 1996 AND EXPLORATION RESEARCH DATED JUNE, 1998.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM ASSOC., INC., DATED NOV. 12, 1996.
- BACKGROUND INFORMATION:
 A. SUBDIVISION NAME: ROCKBURN VIEW
 B. TAX MAP NO.: 37
 C. PARCEL NO.: 563
 D. ZONING: R-20
 E. ELECTION DISTRICT: FIRST
 F. TOTAL TRACT AREA: 25,404 AC.*
 G. NO. OF BUILDABLE LOTS: 29 **
 H. NO. OF OPEN SPACE LOTS: 3
 I. OPEN SPACE REQUIRED: 30% x 22,797 AC. = 6,839 AC.*
 J. OPEN SPACE PROVIDED: 7,590 AC.*
 K. RECREATIONAL OPEN SPACE REQUIRED: 5,200 SQ. FT.
 L. RECREATIONAL OPEN SPACE PROVIDED: 5,209 SQ. FT.
 M. PRELIMINARY PLAN APPROVAL DATE: P 98-16 (DECEMBER 21, 1998)
 N. PREVIOUS FILE NOS.: 5 97-06, F 90-22, W 91-57 AND P 98-16
- REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE TO BE PROVIDED AT THE JUNCTION OF THE PIPE / FLAG STEM AND THE ROAD R/W AND NOT ONTO THE PIPE / FLAG STEM DRAINWAY.
- NO CEMETERIES EXIST ON THE PROPERTY.
- FOREST STAND DELINEATION PROVIDED BY ENVIRONMENTAL SYSTEMS ANALYSIS, INC., DATED NOV. 1996.
- FOREST CONSERVATION PLAN WAS PREPARED BY EXPLORATION RESEARCH, INC., DATED NOV. 1997.
- ON DECEMBER 19, 1990 THE PLANNING DIRECTOR APPROVED WAIVER PETITION WP-91-57 FROM THE FOLLOWING SECTIONS OF THE SUBDIVISION REGULATIONS: SECTION 16.102.B.3 NOT TO SHOW THE RESIDUE PROPERTY ON THE PLAT. SECTION 16.116.a.2 (i) (ii) (iii) NOT TO DELINEATE THE FLOODPLAIN ON THE RESIDUE SECTION 16.116.c.6 NOT TO SHOW STREAMS WETLANDS AND THEIR BUFFERS ON THE RESIDUE.
- THE PROPOSED NOISE BARRIERS SHALL ALONG MONTGOMERY ROAD SHALL BE OWNED AND MAINTAINED BY H.O.A.
- WETLAND ROAD CROSSING PERMIT TRACKING NO.: 199960994; DIVISION NO. 98-NT-0694.
 THE DEVELOPER WILL SUPPLY A COPY OF THE APPROVED WETLAND PERMIT PRIOR TO GETTING A GRADING PERMIT ISSUED.
- THE SIDEWALK/HANDICAP RAMPS SHALL BE IN ACCORDANCE WITH ADA REQUIREMENTS.
- ALL BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH AASHTO T-180 REQUIREMENTS.
- THE LIMIT OF DISTURBANCE ON PARCEL 329 FOR THE PURPOSE OF CONSTRUCTING THE S.W.M. POND = 1.45 AC.
 THE SHALLOW MARSH IS TO BE OWNED & MAINTAINED BY THE H.O.A. THE SWM FACILITY IS TO BE OWNED BY HO.CO. & MAINTAINED BY HO.CO. AND THE H.O.A.
- *NOTE: THE GROSS AREA OF THE SITE INCLUDES LOTS 33 AND 34 THAT WERE ADDED FOR ROAD ACCESS ONLY.
 **NOTE: THE OPEN SPACE OBLIGATIONS ARE BASED ON THE RESIDUE AREA OF THE MICHAEL PROPERTY THAT AMOUNTS TO 23.32 AC.*
 AND PART OF THE RESIDUE AREA OF THE MICHAEL PROPERTY THAT AMOUNTS TO 2.08 AC.*
- NOTE: THE TOTAL NUMBER OF 29 LOTS INCLUDE LOTS 33 AND 34 WHICH WERE ADDED FOR ROAD ACCESS ONLY.
 THE SUBDIVISION OF THE MICHAEL PROPERTY RESIDUE CONSISTS OF 27 LOTS, ONE LOT ASSOCIATED WITH THE EXISTING HOUSE AND 26 BUILDBLE LOTS.
- NOTE: ONE PICNIC TABLE AND BENCHES ARE LOCATED ON OPEN SPACE LOT 35 OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

ROCKBURN VIEW
 LOTS 4 THRU 41
 (A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9888
 AND A SUBDIVISION OF PARCEL NO. 563)
 ZONED R-20
 TAX MAP NO. 37 PARCEL NO. 563 AND PART OF PARCEL NO. 669 GRID NO. 4
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: MAY 22, 2000
 SHEET 1 OF 16





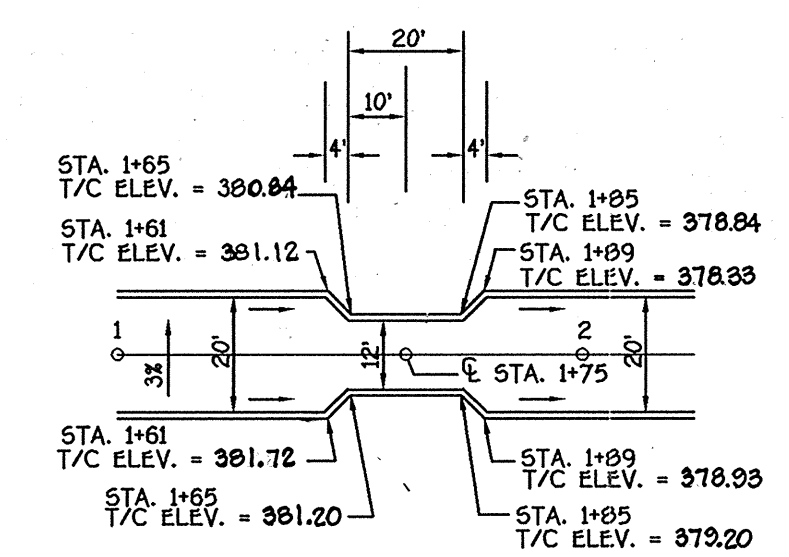
FILLET PROFILE @ N.W. CORNER OF BRANDON'S WAY
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

FILLET PROFILE @ N.E. CORNER OF BRANDON'S WAY
SCALE: HORIZ. : 1" = 50'
VERT. : 1" = 5'

BRANDON'S WAY
STA. 2+46.25 TO STA. 2+74.54
RADIUS = 163.13'
LENGTH = 28.29'
 $\Delta = 09^{\circ}51'07''$
TANGENT = 14.17'
CHORD = 518^{\circ}37'49'' E, 28.26'

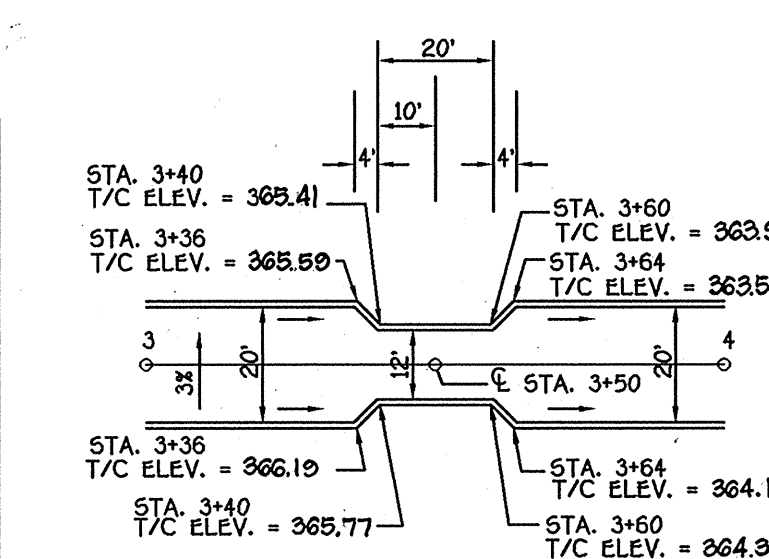
BRANDON'S WAY
STA. 0+27.44 TO STA. 0+62.51
RADIUS = 200.00'
LENGTH = 35.07'
 $\Delta = 10^{\circ}02'49''$
TANGENT = 17.58'
CHORD = 509^{\circ}10'51'' E, 35.03'

BRANDON'S WAY
STA. 5+72.45 TO STA. 5+93.01
RADIUS = 50.00'
LENGTH = 20.56'
 $\Delta = 23^{\circ}33'32''$
TANGENT = 10.43'
CHORD = 534^{\circ}50'08'' E, 20.41'



SPEED CALMING DEVICE
NO SCALE

Cornerstone Homes will eliminate drainage problems by closing the existing curb opening and providing a swale along the west side of Brandon's Way.



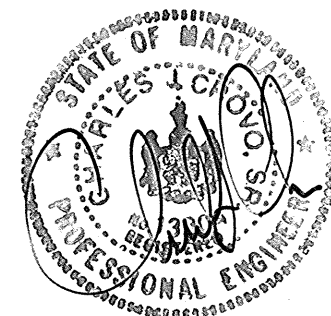
SPEED CALMING DEVICE
NO SCALE

APPROVED
DEPARTMENT OF PLANNING AND ZONING
Ket Sherlock 4/24/00
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE

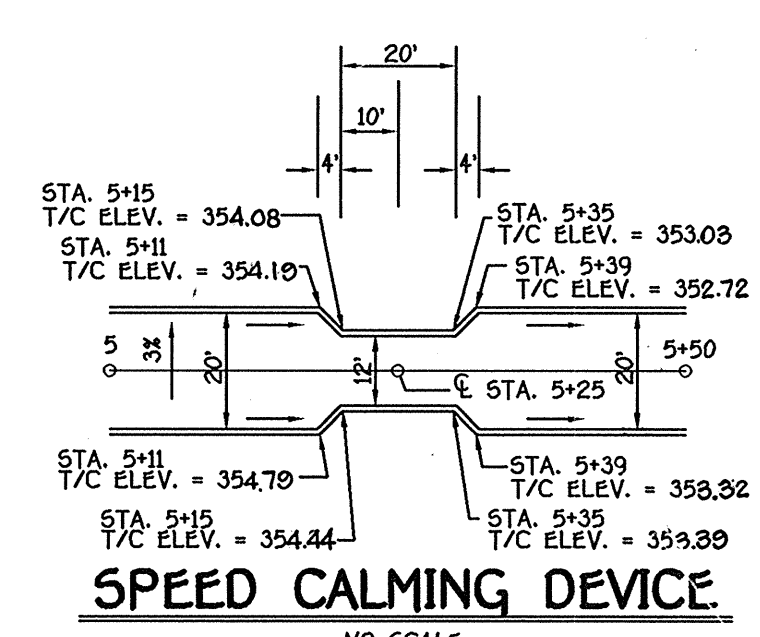
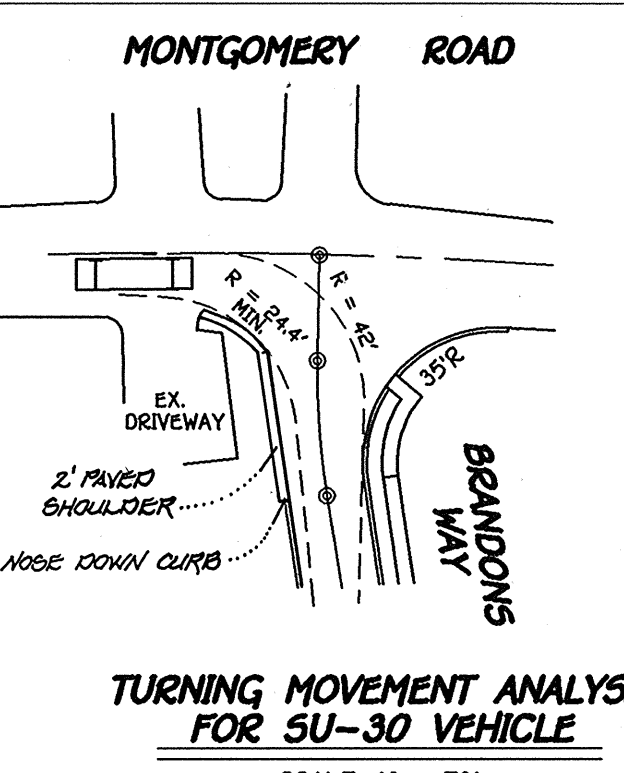
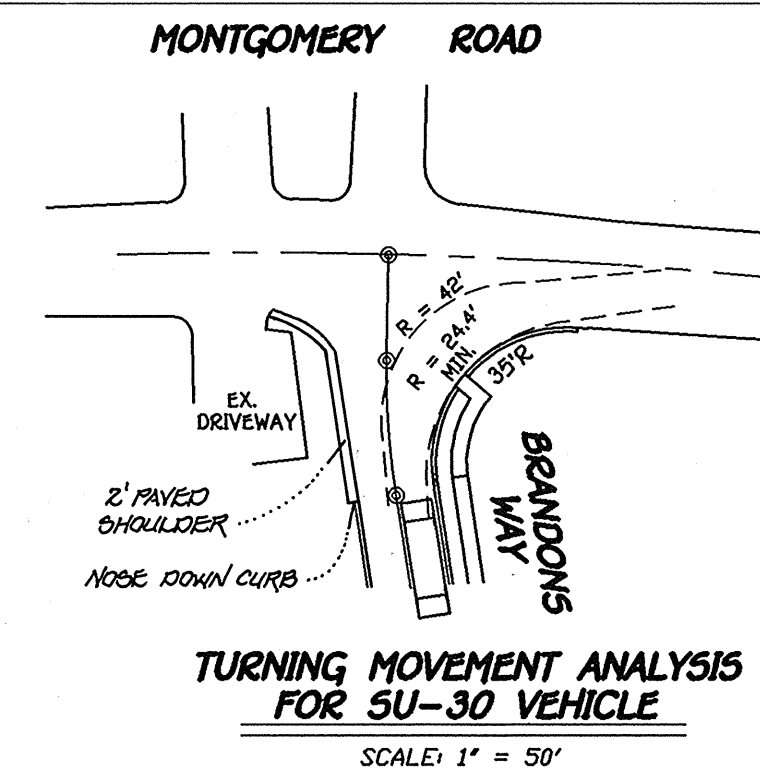
APPROVED
DEPARTMENT OF PLANNING AND ZONING
W.D. Dammann 4/27/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

APPROVED
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard Shick 4/27/00
CHIEF, BUREAU OF HIGHWAYS
DATE

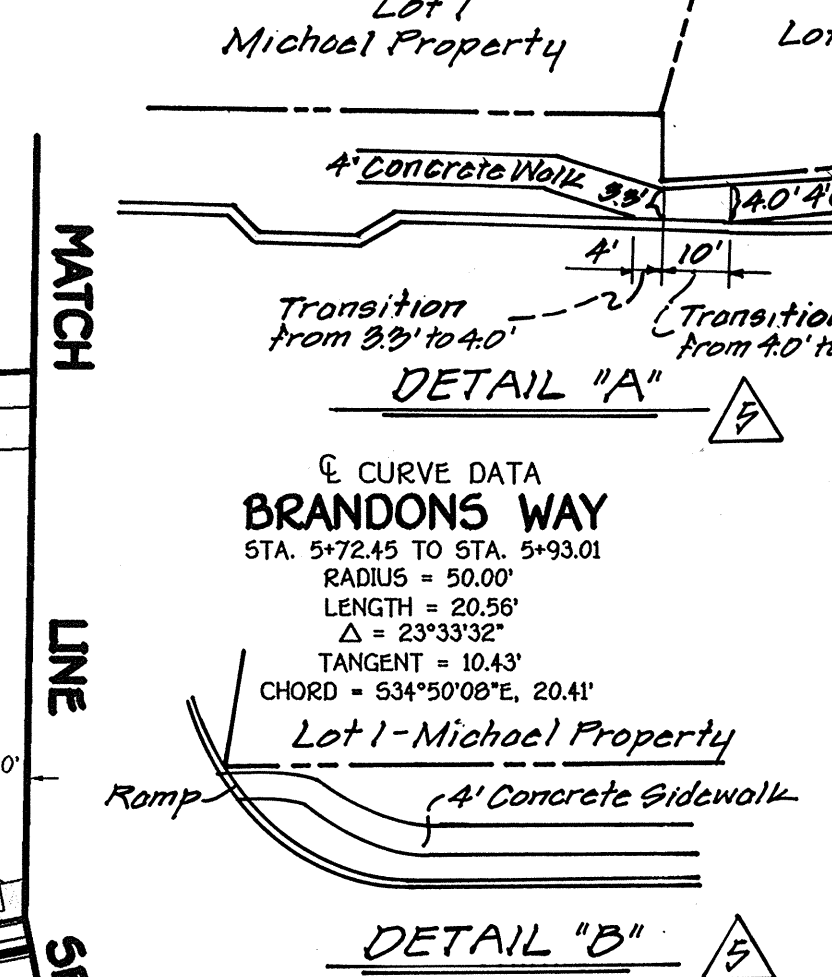
PROPERTY OF
FREDERICK ZELTMAN
PLAT BOOK 6, FOLIO 66



PLAN
SCALE: 1" = 50'



SPEED CALMING DEVICE
NO SCALE



SPEED CALMING DEVICE
NO SCALE

ROCKBURN VIEW
LOTS 4 THRU 41

IA RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9888 AND A SUBDIVISION OF PARCEL NO. 563

1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BRANDON'S WAY
PLAN AND PROFILE

OWNERS
FRANCIS J. AND ELEANORA A. MICHAEL
6029 MONTGOMERY ROAD
ELKSDRIDGE, MARYLAND 20775

DEVELOPER
CORNERSTONE HOLDINGS, L.L.C.
ATTN: MR. BRIAN BOY
659 HORTON AVENUE
LAUREL, MARYLAND 20723

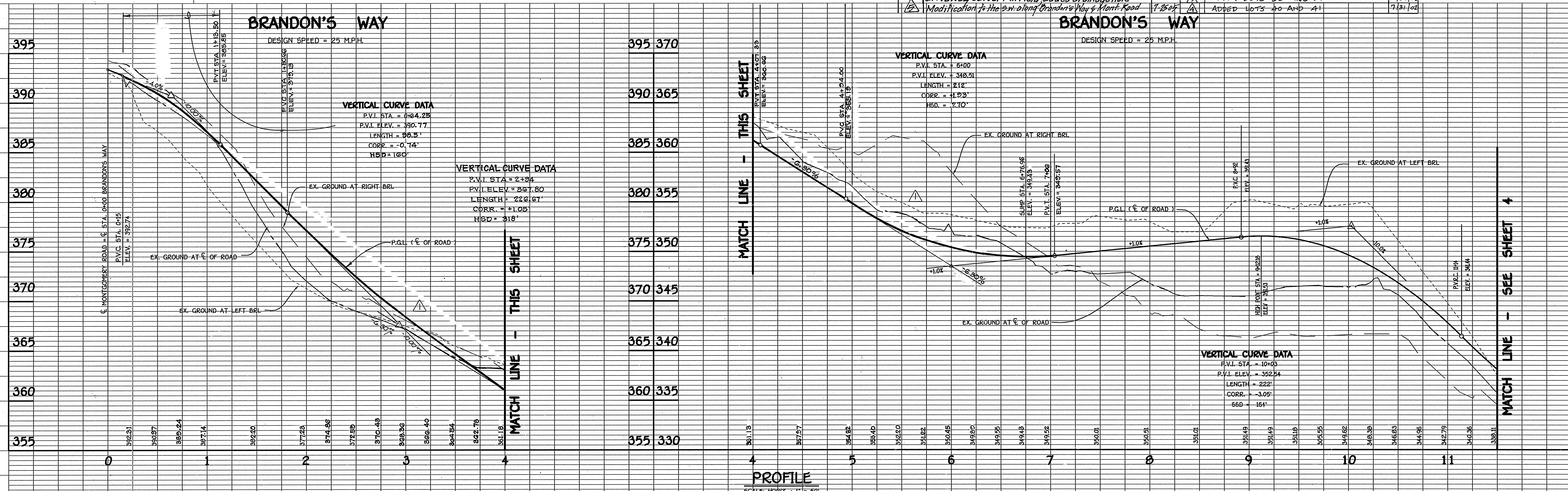
SCALE: AS SHOWN
DES. R.A.L. DEN. J.C.L.

DATE: MAY 22, 2000
CHK. C.J.C.

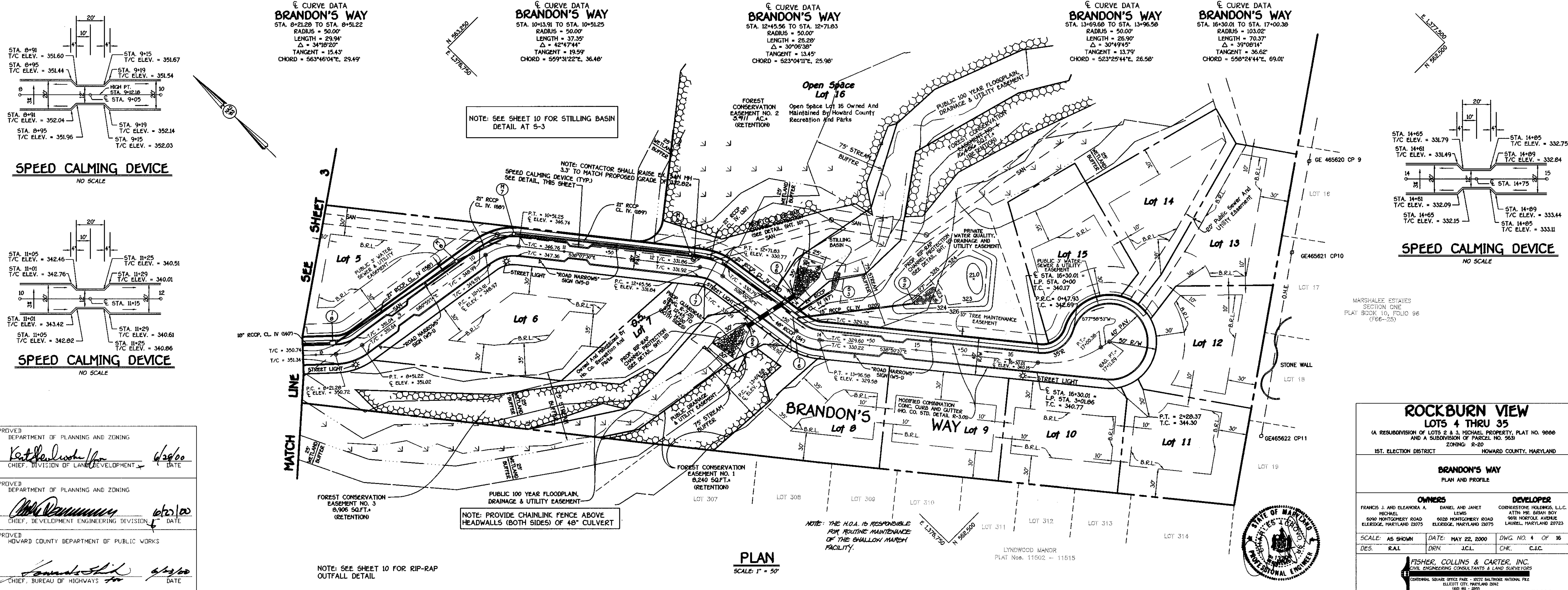
DWG. NO. 3 OF 16
C.J.C.

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CORPORAL SWANEE OFFICE PARK - 1072 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
MD REG. # 2855

No.	Revision	Date	No.	REVISIONS	DATE
1	Added bituminous curb; revised shoulder and driveway culvert in field; added drainage note	10/19/04	1	REVISE ROAD GRADE & HORIZ. ALIGNMENT WITHIN R/W ON BRANDON'S WAY	4/16/01
2	Modification to the plan along Brandon's Way & Mont. Road	9/25/05	2	ADDED LOTS 36 THRU 39	7/31/04
			3	ADDED LOTS 40 AND 41	7/31/04



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



SPEED CALMING DEVICE
NO SCALE

SPEED CALMING DEVICE
NO SCALE

SPEED CALMING DEVICE
NO SCALE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kurt Heilman 6/29/00
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John Pennington 6/29/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Canada Stiles 6/29/00
 CHIEF, BUREAU OF HIGHWAYS DATE

ROCKBURN VIEW
 LOTS 4 THRU 35
 (A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9000
 AND A SUBDIVISION OF PARCEL NO. 963)
 ZONING: R-20
 1ST. ELECTION DISTRICT: HOWARD COUNTY, MARYLAND

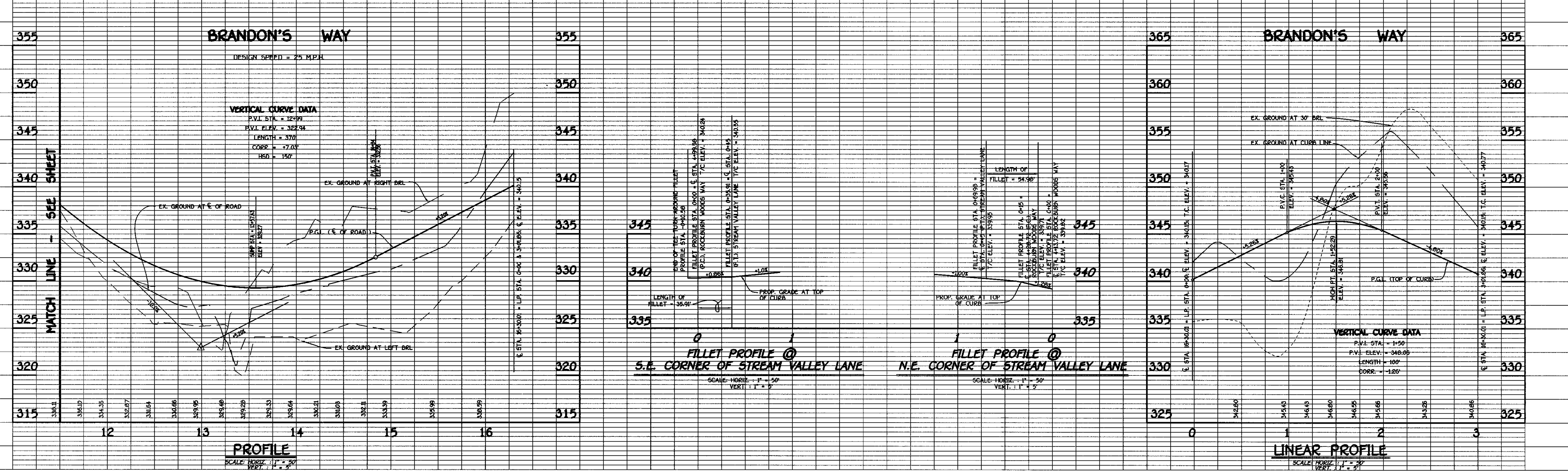
BRANDON'S WAY
 PLAN AND PROFILE

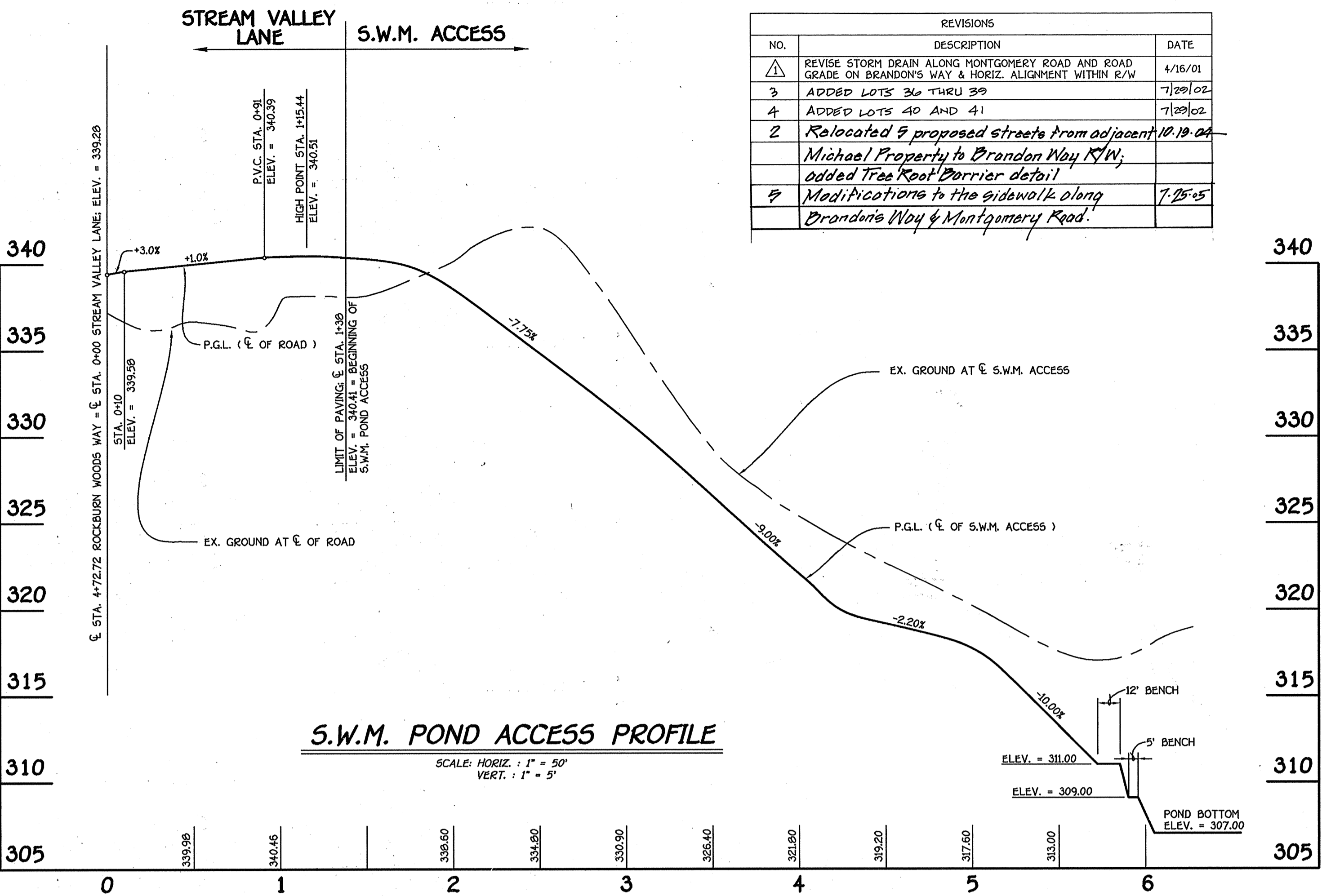
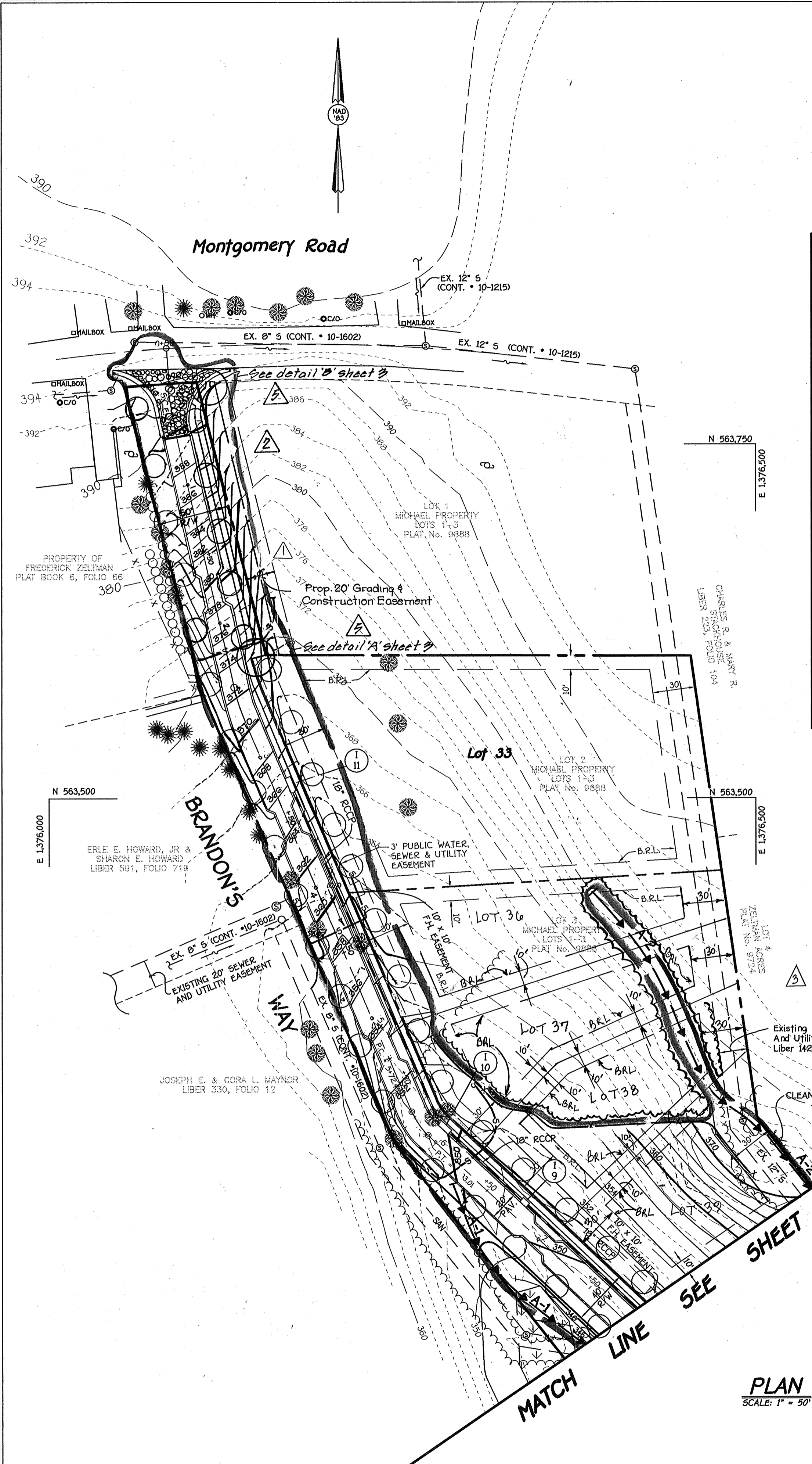
OWNERS: FRANCIS J. AND ELEANORA A. MICHAEL, 6090 MONTGOMERY ROAD, ELSDORGE, MARYLAND 21075

DEVELOPER: CORREOSIO HOLDINGS, L.L.C., ATTN: MR. BRIAN BOY, 969 HORTON AVENUE, LAUREL, MARYLAND 20723

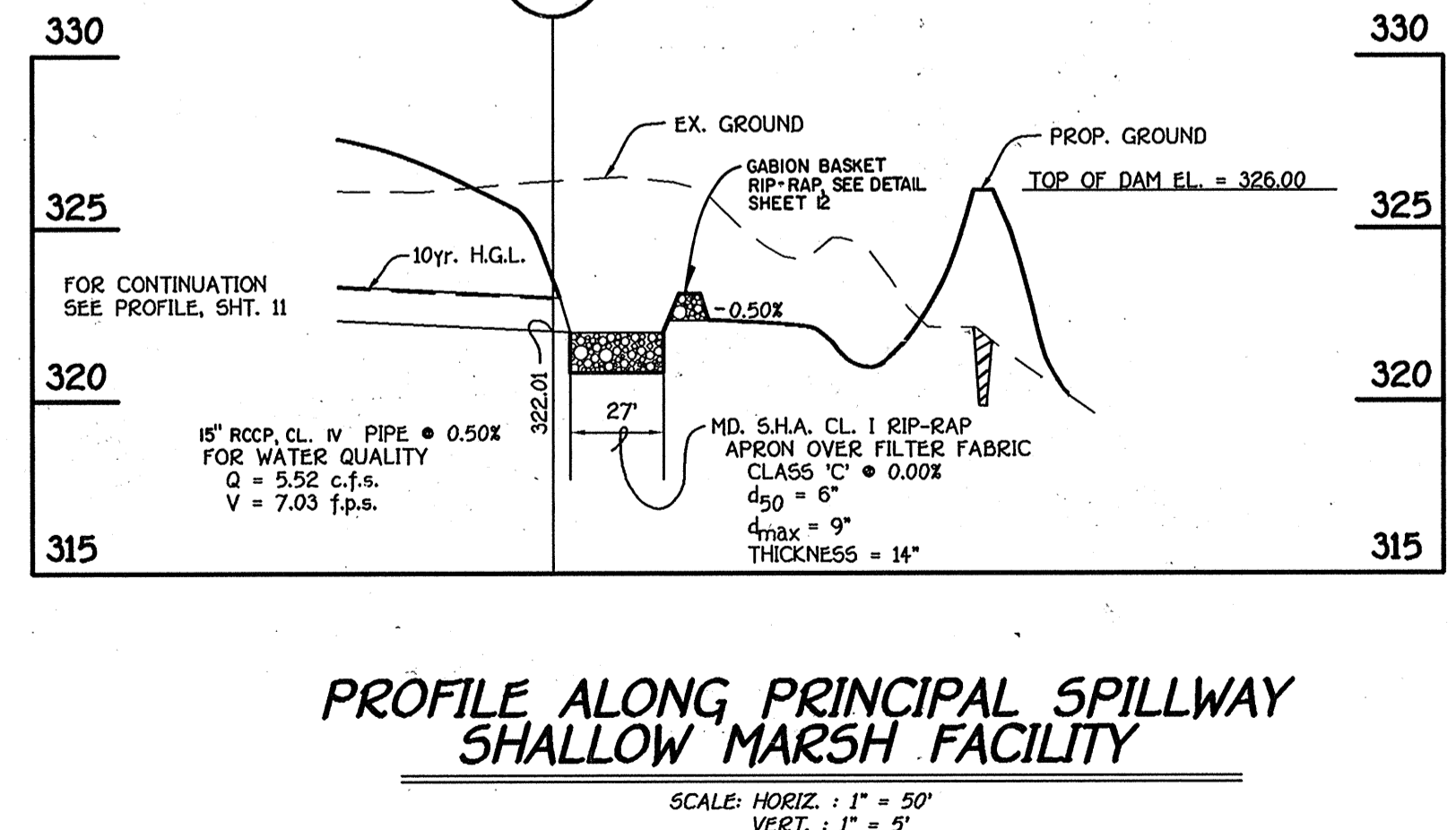
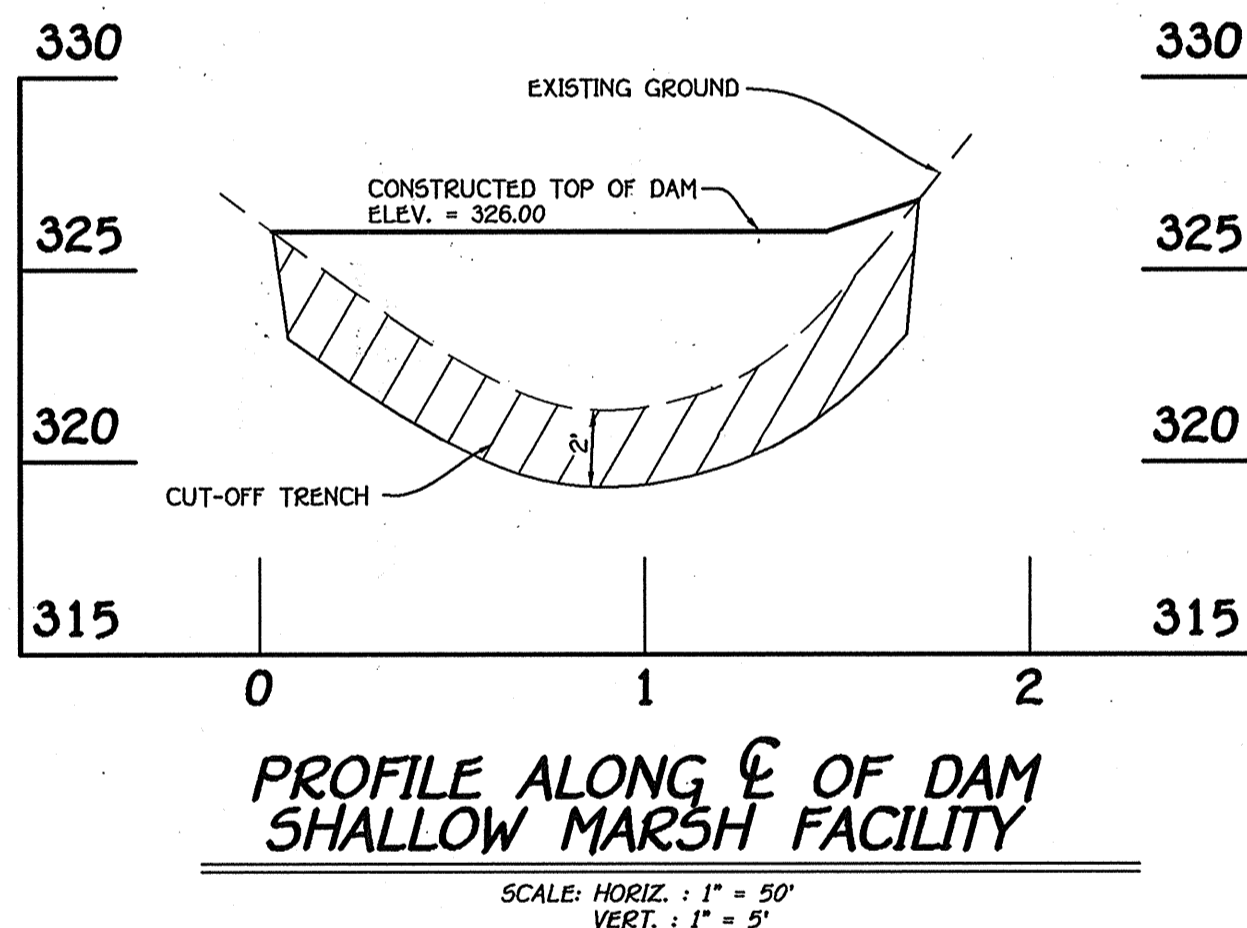
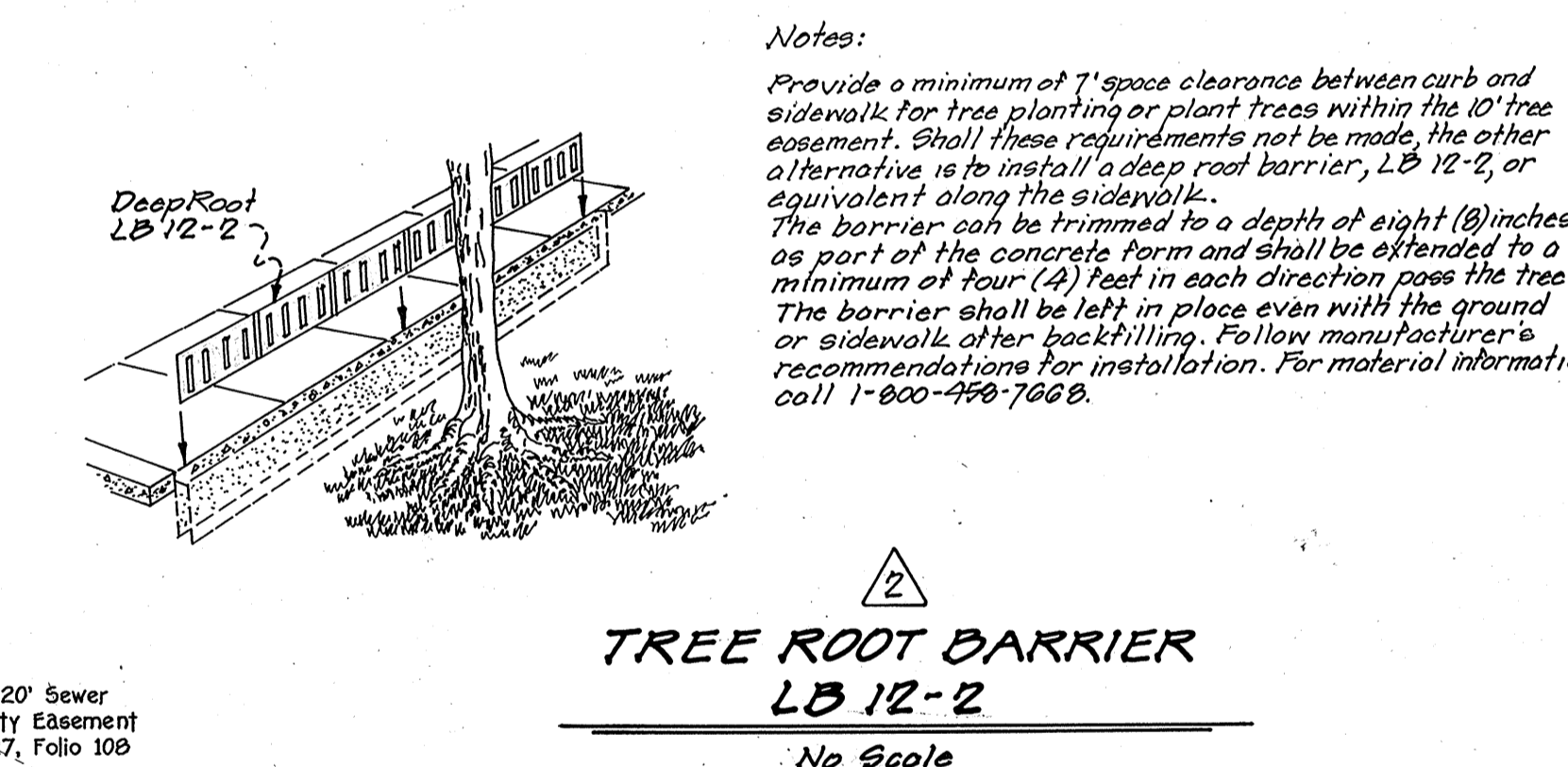
SCALE: AS SHOWN
DATE: MAY 22, 2000
DES.: R.A.L. **DRN.:** J.C.L. **DWG. NO.:** 4 OF 16
CHK.: C.J.C.

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENAL SQUARE OFFICE PARK - 1072 BALTIMORE NATIONAL FREE
 ELICOTT CITY, MARYLAND 21034
 (410) 461-2955





REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISE STORM DRAIN ALONG MONTGOMERY ROAD AND ROAD GRADE ON BRANDON'S WAY & HORIZ. ALIGNMENT WITHIN R/W	4/16/01
3	ADDED LOTS 36 THRU 39	7/29/02
4	ADDED LOTS 40 AND 41	7/29/02
2	Relocated 9 proposed streets from adjacent Michael Property to Brandon Way S/W, added Tree Root Barrier detail	10/19/04
5	Modifications to the sidewalk along Brandon's Way & Montgomery Road.	7/25/05



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.

Signature Of Developer: Brian D. Boy Date: 5/23/04
 Printed Name Of Developer: Brian D. Boy

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.

Signature Of Engineer: Charles J. Coombs Date: 5/23/04
 Printed Name Of Engineer: Charles J. Coombs

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.

Signature: Cheryl Samaras Date: 4/4/04
 Printed Name Of Engineer: Cheryl Samaras
 Title: USDA-Natural Resources Conservation Service

These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.

Signature: John A. ... Date: 6/4/04
 Printed Name Of Engineer: John A. ...
 Title: Howard Soil Conservation District

Signature: ... Date: 6/24/04
 Printed Name Of Engineer: ...
 Title: Approved Department Of Public Works Chief, Bureau Of Highways

Signature: ... Date: 6/24/04
 Printed Name Of Engineer: ...
 Title: Approved Department Of Planning And Zoning Chief, Division Of Land Development

Signature: ... Date: 6/27/04
 Printed Name Of Engineer: ...
 Title: Chief, Development Engineering Division

AS-BUILT CERTIFICATION

I Herby Certify That The Facility Shown On This Plan Was Constructed As Shown On The "As-Built" Plans And Meets The Approved Plans And Specifications.

Signature: _____ P.E. No. _____
 Date: _____

Certify Means To State Or Declare A Professional Opinion Based Upon Onsite Inspections And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Standards. Certify Does Not Mean Or Imply A Guarantee By The Engineer Nor Does An Engineer's Certification Relieve Any Other Party From Meeting Requirements Imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

LEGEND

- S—S—S— SUPER-SILT FENCE
- S—S—S— SILT FENCE
- X—X—X— TREE PROTECTION FENCE
- S.C.E. STABILIZED CONSTRUCTION ENTRANCE
- A-2 → A-2 → EARTH DIKE
- — — — — LIMIT OF DISTURBANCE
- ~~~~~ WOODS LINE TO REMAIN
- ⬇ ⬇ ⬇ DENOTES WETLANDS

STREET TREE SCHEDULE

SYMBOL	BOTANICAL AND COMMON NAME	SIZE	COMMENTS
○	QUERCUS COCCINEA SCARLET OAK	2 1/2"-3" CAL.	40' APART ON PUBLIC R/W

NOTE: STREET TREE TYPE IS ONLY A RECOMMENDATION. THIS MAY BE REVISED TO A COUNTY ACCEPTABLE EQUIVALENT FROM THE LANDSCAPE MANUAL. SEE SHEET 6 FOR STREET TREE TOTAL & SURETY NOTE.

○ - 38 TREES (THIS SHEET) } REQUIRED AND PROVIDED

STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

ROCKBURN VIEW

LOTS 4 THRU 41

(A RESUBDIVISION OF LOTS 2 & 3, PLAT NO. 9888 AND A SUBDIVISION OF PARCEL NO. 563)

ZONING: R-20

TAX MAP No: 37 PARCEL No: 563 GRID No: 4

1ST. ELECTION DISTRICT: HOWARD COUNTY, MARYLAND

DATE: MAY 22, 2000

SHEET 5 OF 16

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PKWY
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855

OWNERS

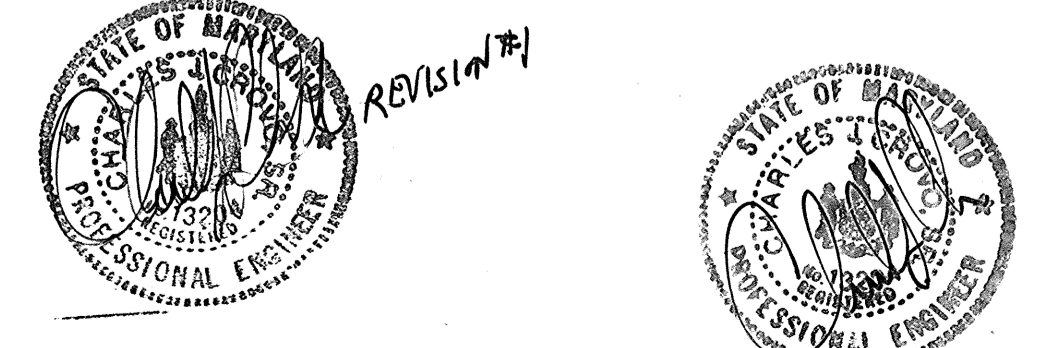
DANIEL AND JANET LEWIS
 6028 MONTGOMERY ROAD
 ELK RIDGE, MARYLAND 21075

OWNERS

FRANCIS J. AND ELEANORA A. MICHAEL
 6090 MONTGOMERY ROAD
 BALTIMORE, MARYLAND 21227

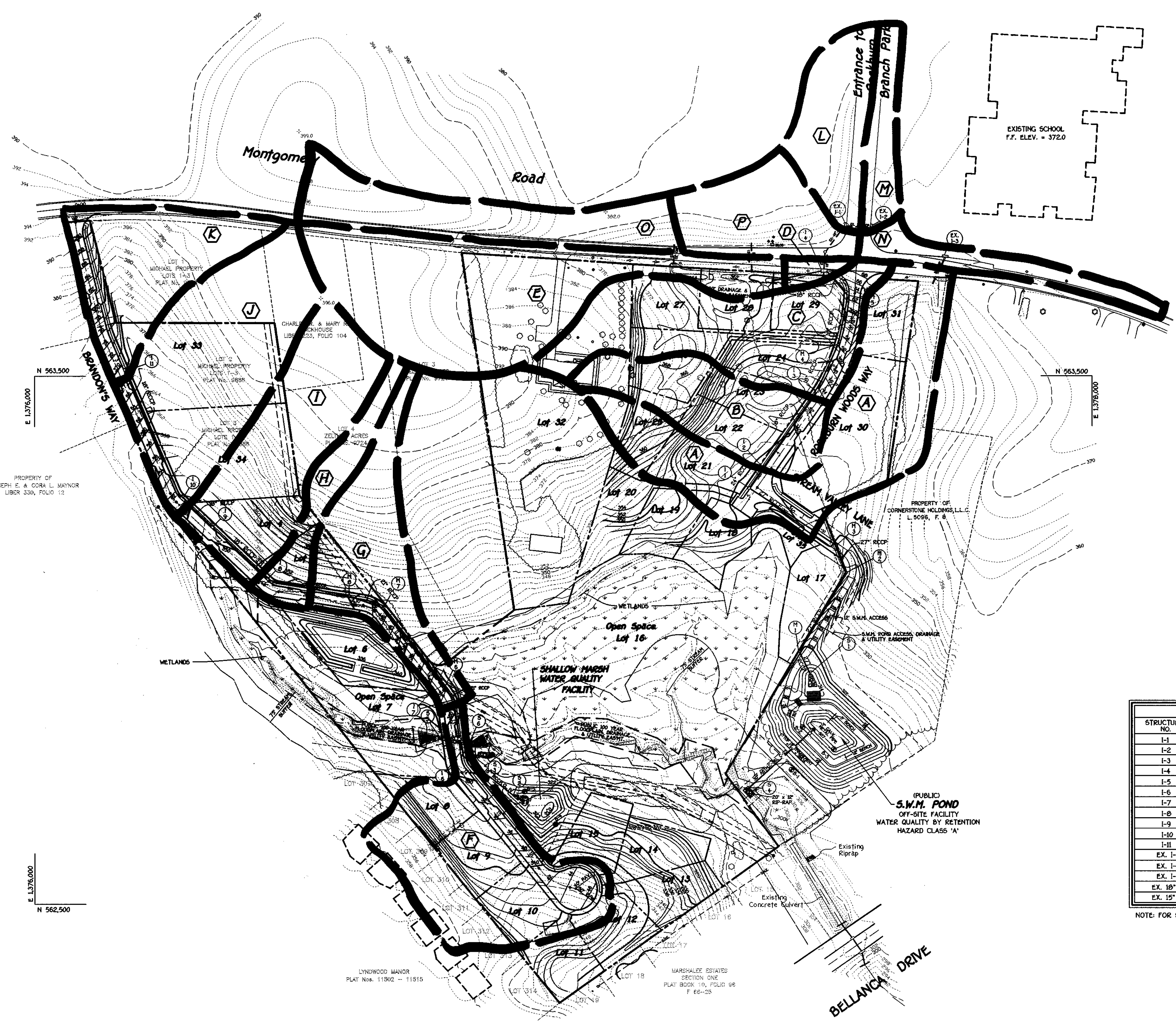
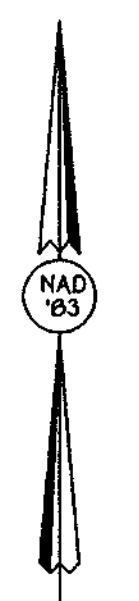
DEVELOPER

CORNERSTONE HOLDINGS, L.L.C.
 ATTN: MR. BRIAN BOY
 9691 NORFOLK AVENUE
 LAUREL, MARYLAND 20723



Approved: Department Of Planning And Zoning
 Chief, Division Of Land Development
 Chief, Development Engineering Division
 Approved: Howard County Department Of Public Works
 Chief, Bureau Of Highways

6/29/00
 Date
 6/27/00
 Date
 6/29/00
 Date



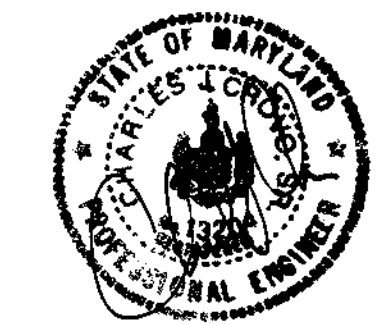
DRAINAGE AREA DATA					
STRUCTURE NO.	DRAINAGE AREA	AREA	'C'	ZONED	% IMP.
I-1	A	2.27 AC.	0.30	R-20	72%
I-2	B	1.41 AC.	0.32	R-20	11%
I-3	C	2.22 AC.	0.42	R-20	25%
I-4	D	0.10 AC.	0.95	R-20	99%
I-5	E	3.25 AC.	0.39	R-20	20%
I-6	F	2.77 AC.	0.36	R-20	15%
I-7	G	1.44 AC.	0.43	R-20	25%
I-8	H	0.79 AC.	0.57	R-20	48%
I-9	I	2.12 AC.	0.32	R-20	10%
I-10	J	2.40 AC.	0.31	R-20	8%
I-11	K	1.67 AC.	0.39	R-20	19%
EX. I-1	L	1.06 AC.	0.41	R-20	22%
EX. I-2	M	0.46 AC.	0.50	R-20	36%
EX. I-3	N	0.49 AC.	0.71	R-20	66%
EX. 10" D	O	1.30 AC.	0.44	R-20	27%
EX. 15" D	P	1.04 AC.	0.31	R-20	8%

NOTE: FOR STRUCTURE SCHEDULE, SEE SHEET 12

PLAN
 SCALE: 1" = 100'

DRAINAGE AREA MAP
ROCKBURN VIEW
 LOTS 4 THRU 35

(A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9000, AND A SUBDIVISION OF PARCEL NO. 563)
 ZONING: R-20
 TAX MAP No: 37 PARCEL No: 563 GRID No: 4
 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY 22, 2000
 SHEET 8 OF 16



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PRZ
 ELKLOTT CITY, MARYLAND 21292
 (410) 468 - 2255

OWNERS
 FRANCIS J. AND ELEANORA A. MICHAEL
 6090 MONTGOMERY ROAD
 ELKBRIDGE, MARYLAND 21075
 DANIEL AND JANET LEWIS
 6028 MONTGOMERY ROAD
 ELKBRIDGE, MARYLAND 21075

DEVELOPER
 CORNERSTONE HOLDINGS, L.L.C.
 ATTN: MR. BRIAN BOY
 6090 NORFOLK AVENUE
 LAUREL, MARYLAND 20723

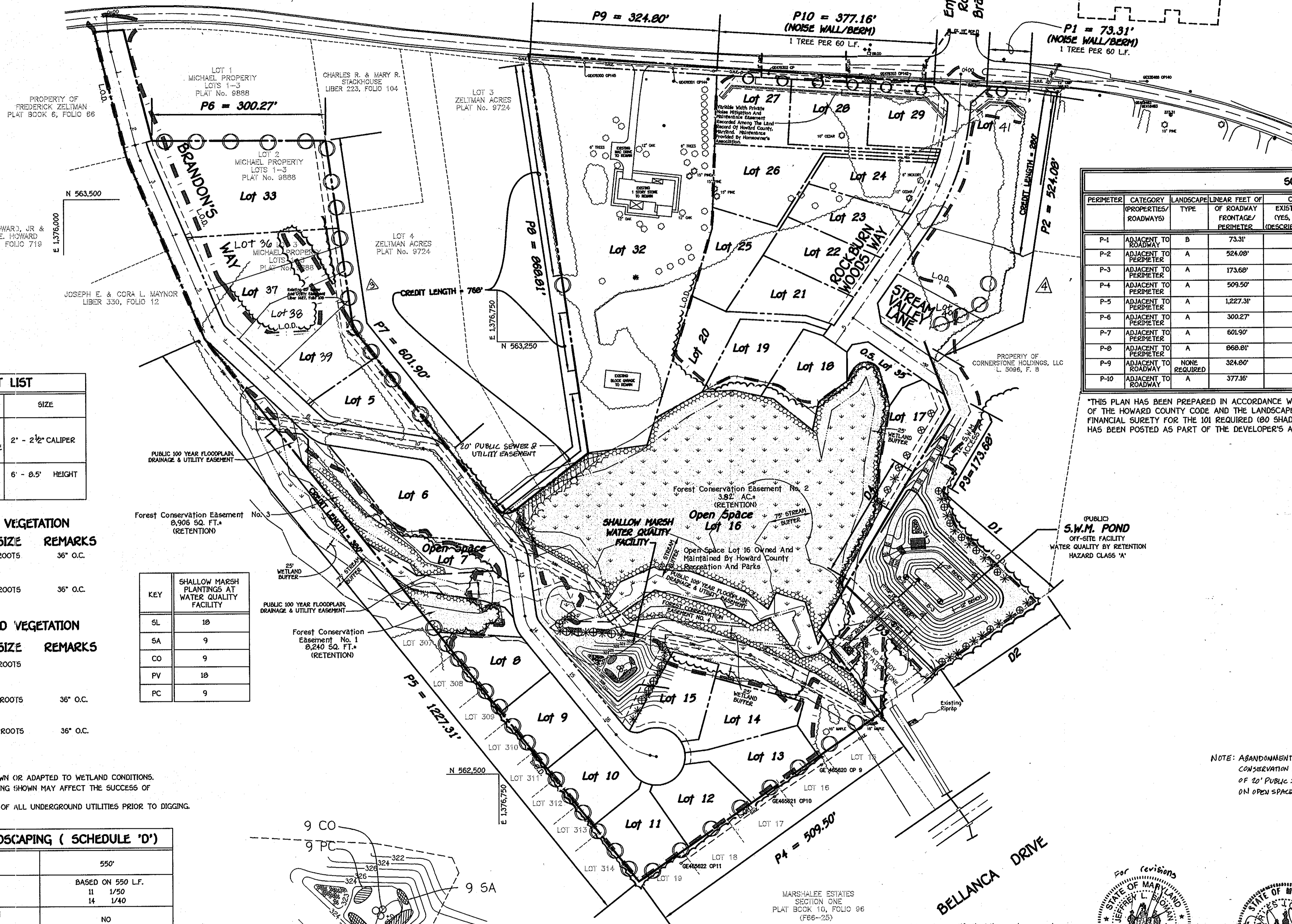
REVISIONS		
NO.	DESCRIPTION	DATE
3	ADDED LOTS 36 THRU 39	7/29/02
4	ADDED LOTS 40 AND 41	7/29/02

PERIMETER PLANT LIST			
QTY.	KEY	NAME	SIZE
53	○	ACER RUBRUM (OCTOBER GLORY) OCTOBER RED MAPLE	2" - 2 1/2" CALIPER

Approved: Department of Planning And Zoning
 Chief, Division of Land Development
 Approved: Development Engineering Division
 Chief, Bureau of Highways

6/29/00
 6/27/00
 6/29/00

MONTGOMERY ROAD



SCHEDULE A PERIMETER LANDSCAPE EDGE									
PERIMETER	CATEGORY	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	CREDIT FOR WALL, FENCE OR BORN (YES, NO, LINEAR FEET)	NUMBER OF PLANTS REQUIRED	SHADE TREES	EVERGREEN TREES	SHRUBS
P-1	ADJACENT TO ROADWAY	B	73.3'	NO	NO	1*	-	-	-
P-2	ADJACENT TO PERIMETER	A	524.08'	YES (290')	NO	4	-	4	-
P-3	ADJACENT TO PERIMETER	A	173.68'	NO	NO	3	-	3	-
P-4	ADJACENT TO PERIMETER	A	509.50'	NO	NO	8	-	8	-
P-5	ADJACENT TO PERIMETER	A	1227.31'	YES (380')	NO	14	-	14	-
P-6	ADJACENT TO PERIMETER	A	300.27'	NO	NO	5	-	5	-
P-7	ADJACENT TO PERIMETER	A	601.90'	NO	NO	10	-	10	-
P-8	ADJACENT TO PERIMETER	A	868.81'	YES (788')	NO	2	-	2	-
P-9	ADJACENT TO ROADWAY	NONE REQUIRED	324.80'	NO	NO	0	0	0	0
P-10	ADJACENT TO ROADWAY	A	377.16'	NO	NO	6*	-	6	-

* THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE 101 REQUIRED (80 SHADE TREES AND 21 EVERGREEN TREES) HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$28,950.00

WATER QUALITY PLANT LIST			
QTY.	KEY	NAME	SIZE
11	⊕	PLATANUS X ACERIFOLIA 'BLOODGOOD' BLOODGOOD LONDON PLANE	2" - 2 1/2" CALIPER
14	*	PINUS STROBUS (EASTERN WHITE PINE)	6' - 8.5' HEIGHT

PRIMARY WETLAND VEGETATION

PLANT SPECIES	SIZE	REMARKS
SAGITTARIA LATIFOLIA (SL)	ROOTS	36" O.C.
DUCK POTATO		
SCIRPUS AMERICANUS (SA)	ROOTS	36" O.C.
COMMON THREE SQUARE		

SECONDARY WETLAND VEGETATION

PLANT SPECIES	SIZE	REMARKS
CEPHALANTHUS OCCIDENTALS (CO)	ROOTS	
BUTTON BUSH		
PELTANDRA VIRGINICA (PV)	ROOTS	36" O.C.
ARROW - ARUM		
PONTEDERIA CORDATA (PC)	ROOTS	36" O.C.
PICKEREL WEED		

KEY	SHALLOW MARSH PLANTINGS AT WATER QUALITY FACILITY
SL	18
SA	9
CO	9
PV	18
PC	9

- NOTES:
- ALL PLANT MATERIAL TO BE WET GROWN OR ADAPTED TO WETLAND CONDITIONS.
 - ALTERATIONS TO THE PROPOSED GRADING SHOWN MAY AFFECT THE SUCCESS OF THE PLANT MATERIAL.
 - CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.

WATER QUALITY AREA LANDSCAPING (SCHEDULE 'D')	
LINEAR FEET OF PERIMETER	550'
NUMBER OF TREES REQUIRED	BASED ON 550 LF.
SHADE TREES	11 1/50
EVERGREEN TREES	14 1/40
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO
NUMBER OF TREES PROVIDED	
SHADE TREES	11
EVERGREEN TREES	14
OTHER TREES (21 SUBSTITUTION)	---

SCHEDULE D - S.W.M. AREA LANDSCAPING				
LINEAR FEET OF PERIMETER	D1: 284'	D2: 195'	D3: 217'	D4: 219'
NUMBER OF TREES REQUIRED				
SHADE TREES	6	4	4	2
EVERGREEN TREES	7	5	5	2
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	NO	NO	NO	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	NO	NO	YES 11'
NUMBER OF TREES PROVIDED				
SHADE TREES	6	4	4	2
EVERGREEN TREES	7	5	5	2
OTHER TREES (21 SUBSTITUTION)	---	---	---	---

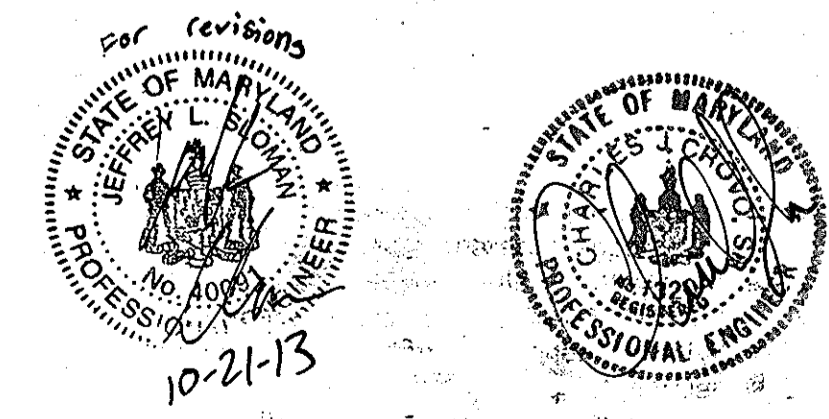
S.W.M. AREA PLANT LIST			
QTY.	KEY	NAME	SIZE
16	⊕	PLATANUS X ACERIFOLIA 'BLOODGOOD' BLOODGOOD LONDON PLANE	2 1/2" CALIPER MIN.
19	*	PINUS STROBUS (EASTERN WHITE PINE)	6' - 8.5' HEIGHT

NOTE: SEE SHEETS 5, 6 & 7 FOR STREET TREE LOCATIONS. SEE SHEET 5 FOR STREET TREE SURETY NOTE.

LANDSCAPE PLAN
ROCKBURN VIEW
 LOTS 4 THRU 41

(A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9888 AND A SUBDIVISION OF PARCEL NO. 563)
 ZONING: R-20
 TAX MAP No: 37 PARCEL No: 563 AND PART OF PARCEL NO. 669 GRID No: 4
 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY 22, 2000
 SHEET 9 OF 16

I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 40091, Exp Date 2/13/15

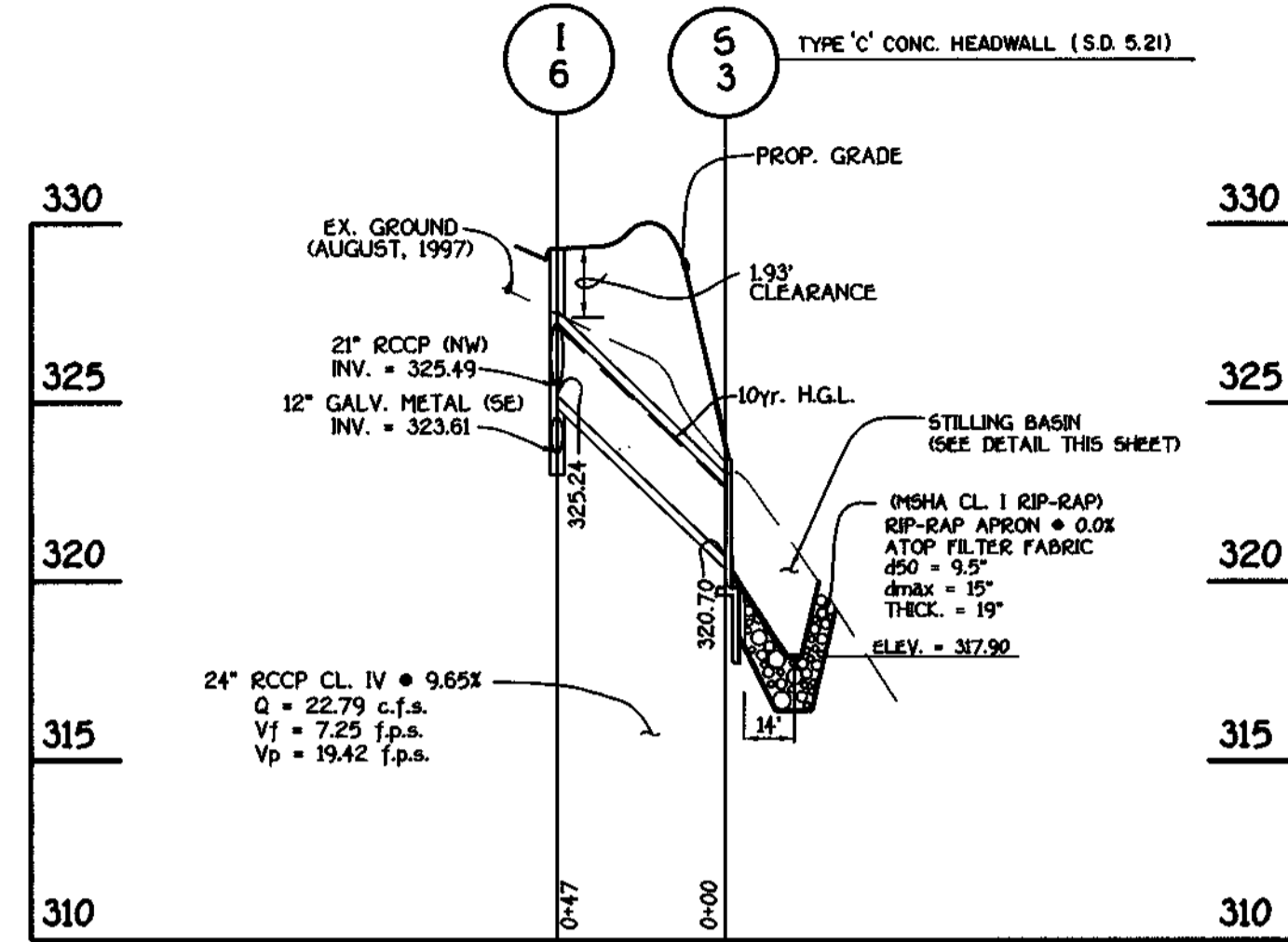


OWNERS
 FRANCIS J. AND ELEANORA A. MICHAEL
 6090 MONTGOMERY ROAD
 ELKDRIDGE, MARYLAND 21075

DEVELOPER
 CORNERSTONE HOLDINGS, L.L.C.
 ATTN: MR. BRIAN BOY
 9691 NORFOLK AVENUE
 LAUREL, MARYLAND 20723

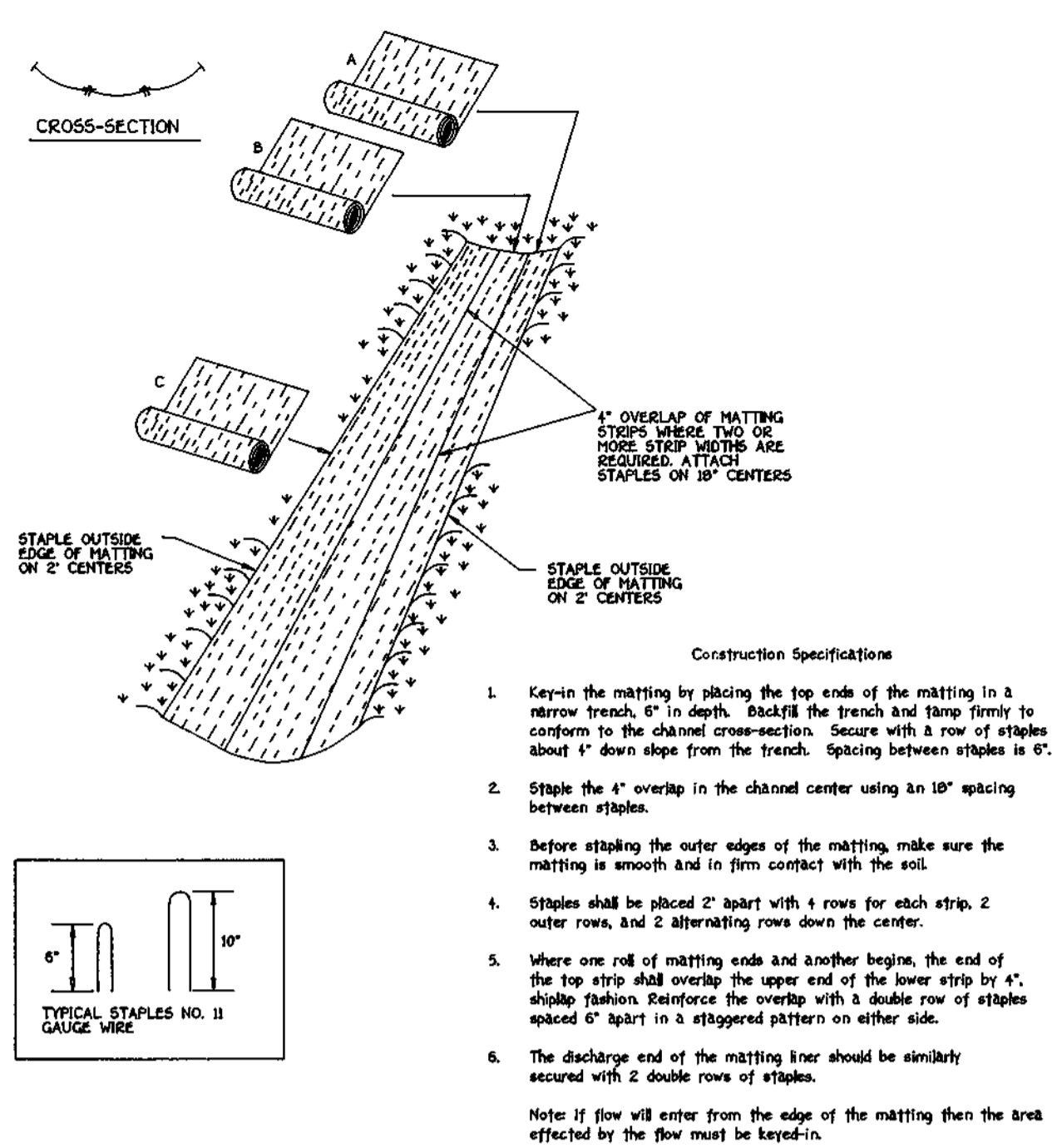
Approved: Department Of Planning And Zoning
 Chief, Division Of Land Development
 Date: 6/29/00

Approved: Howard County Department Of Public Works
 Chief, Bureau Of Highways
 Date: 6/28/00



PROFILE

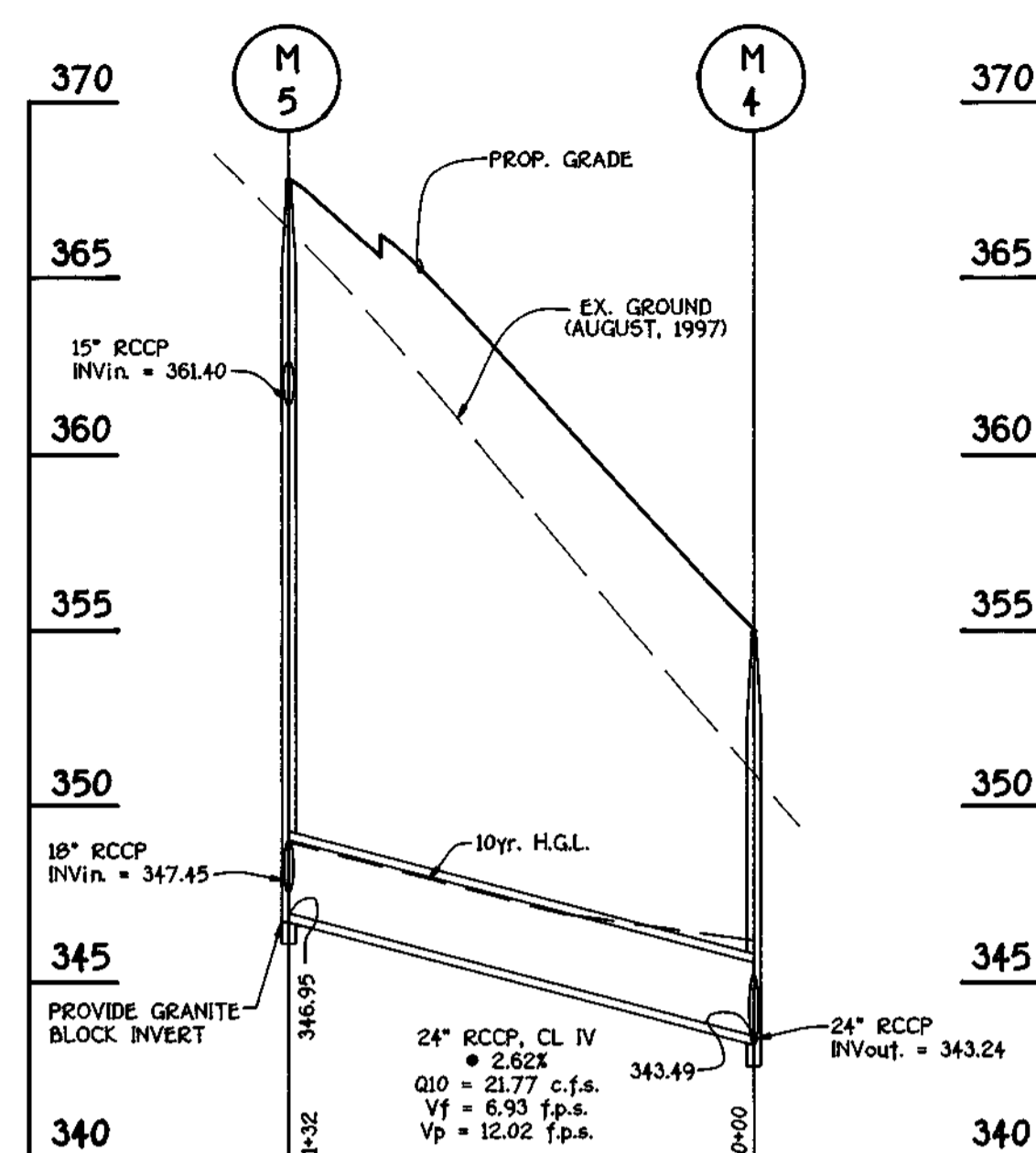
SCALE: HORIZ. : 1" = 50'
 VERT. : 1" = 5'



EROSION CONTROL MATTING

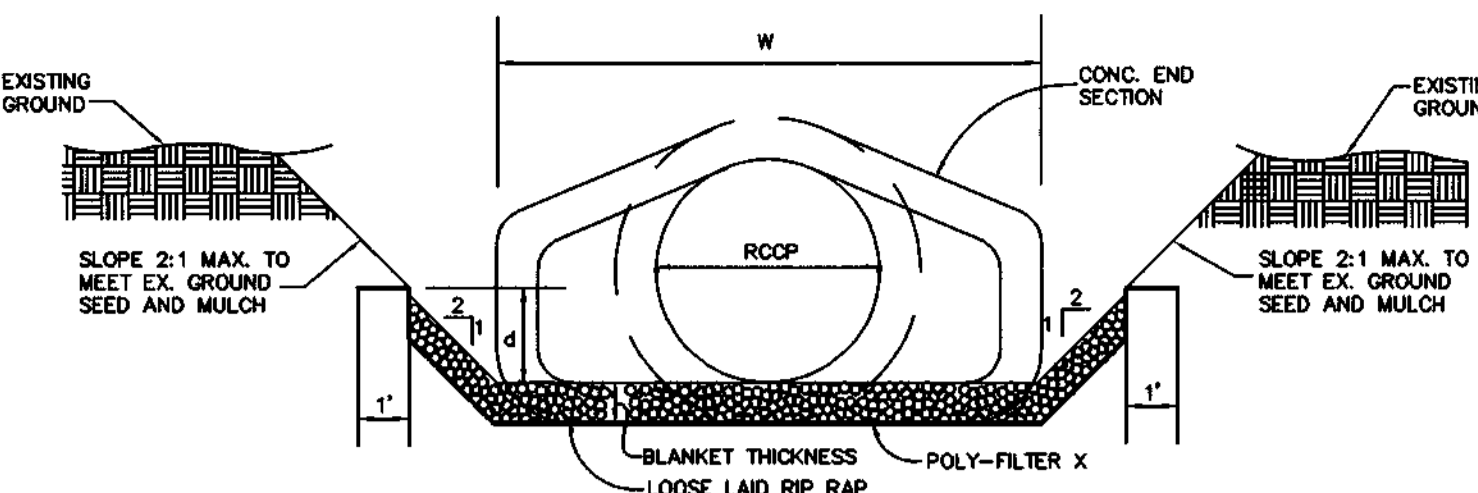
NOT TO SCALE

ROCKBURN WOODS WAY



PROFILE

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



RIP-RAP CHANNEL DETAIL

NO SCALE

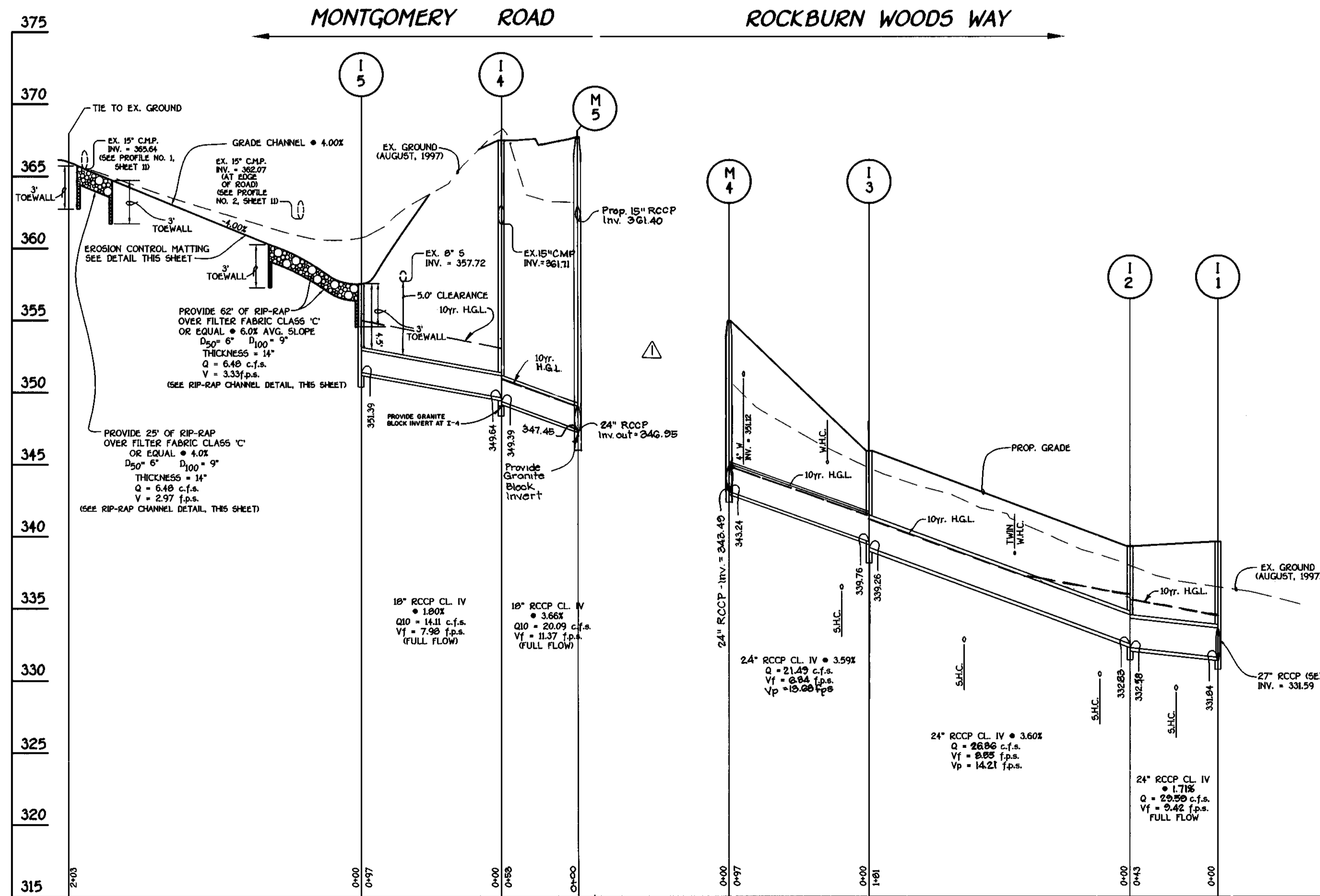
STRUCTURE	AREA (S.F.)	WETTED PERIMETER	R	R ^{2/3}	S	S ^{1/2}	W	d	N	V (F.P.S.)	Q (C.F.S.)	RIP-RAP SIZE	BLANKET THICKNESS	DIA.
S-1	11.46	11.46	0.998	0.999	0.005	0.0707	5.0	1.49	0.035	3.00	32.58	9.5"	15"	27"
* S-2	3.08	6.13	0.50	0.83	0.005	0.0707	3.0	0.7	0.035	1.89	5.82	6"	9"	12"
S-4	10.00	11.37	0.89	0.93	0.005	0.0707	6.0	1.2	0.035	2.79	22.12	16"	24"	30"
1-5	2.08	10.89	0.19	0.32	0.060	0.2449	10.0	0.30	0.035	3.33	14.11	9.5"	15"	19"
* S-5	38.22	23.39	1.63	1.39	0.005	0.0707	14.0	2.1	0.035	4.17	153.74	16"	24"	32"
* S-6	38.22	23.39	1.63	1.39	0.005	0.0707	14.0	2.1	0.035	4.17	153.74	16"	24"	32"

* - DENOTES DESIGN ON 100 YR. Q
 ** - DENOTES CONC. HEADWALL (S.D. 5.2)

CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

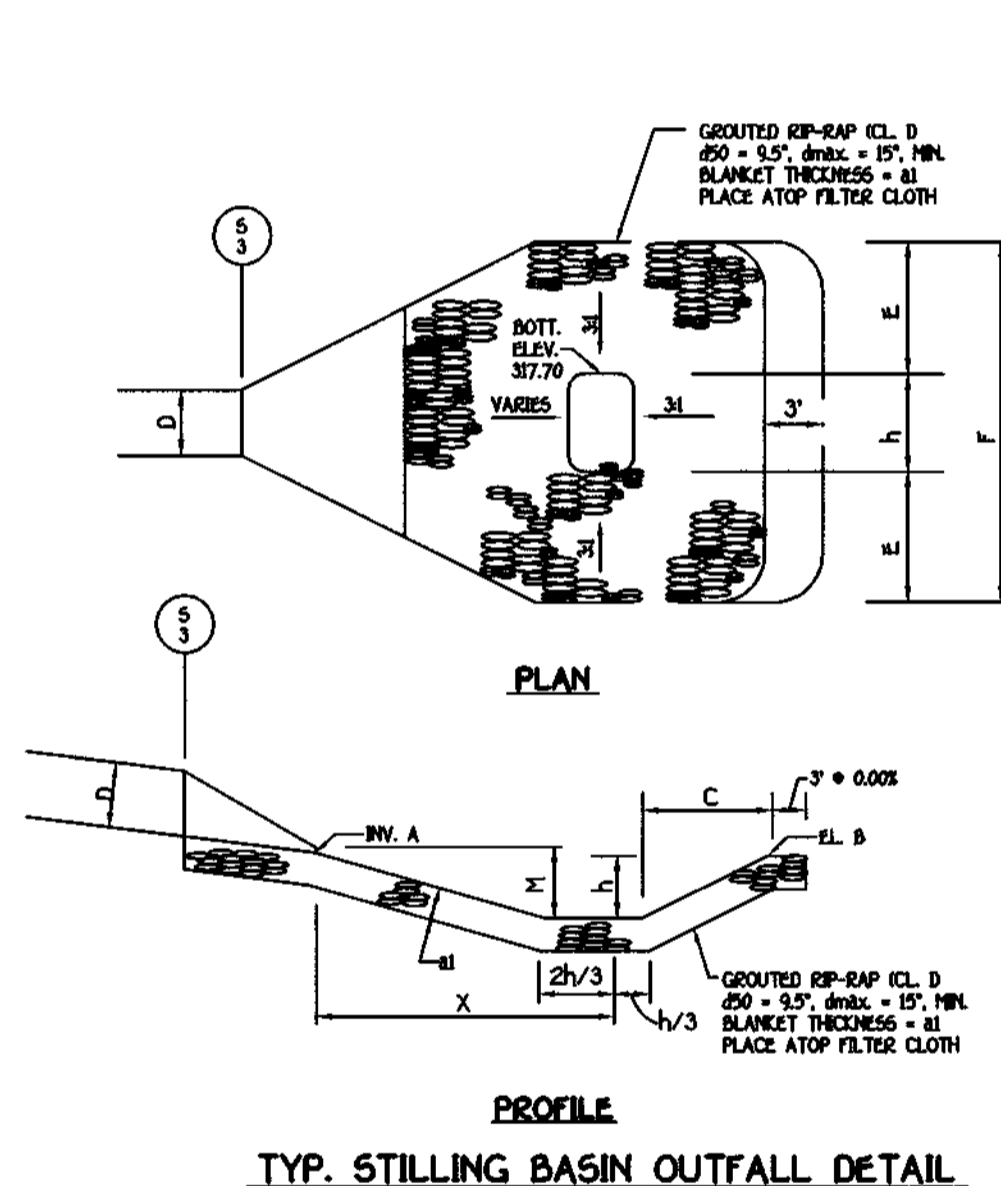
- The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
- Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
- Stones for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stones for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

SIZE	TYPE	CLASS	LENGTH
18"	RCCP	IV	150'
24"	RCCP	IV	568'
48"	RCCP	IV	54'



PROFILE

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

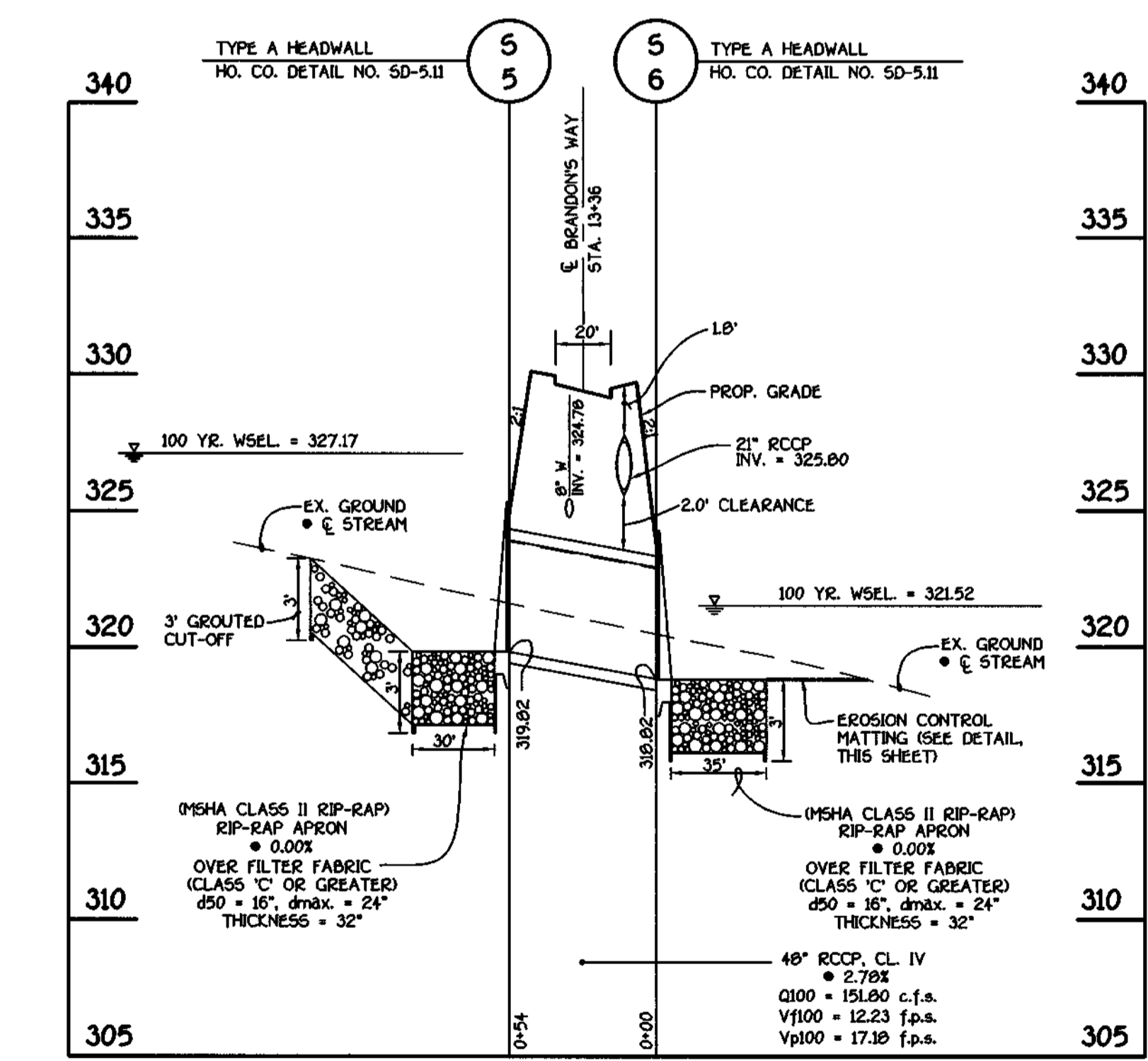


TYP. STILLING BASIN OUTFALL DETAIL

NO SCALE

STRUCTURE NO.	INV. A	EL. A	C	D	E	F	H	N	W	X
S-3	380.70	380.00	5.0	2.0	3.0	7.0	1.0	3.00	1.50	12.0

- NOTES:
- Q10 - DENOTES 10 YEAR Q
 - Vf - DENOTES FULL FLOW VELOCITY
 - Vp - DENOTES PARTIAL FLOW VELOCITY
 - THE FLOW FROM THE EXISTING CULVERTS FROM UNDER MONTGOMERY ROAD WILL BE CHANNELIZED AND WILL FLOW INTO INLET I-5. (SEE SHEET 7 FOR PLAN VIEW)



PROFILE

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

STORM DRAIN PROFILES
 ROCKBURN VIEW
 LOTS 4 THRU 35

(A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9000, AND A SUBDIVISION OF PARCEL NO. 563)
 ZONING: R-20
 TAX MAP No: 37 PARCEL No: 563 AND PART OF PARCEL NO. 669 GRID No: 4
 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY 22, 2000
 SHEET 10 OF 16

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
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 ELKRIEVE CITY, MARYLAND 21092
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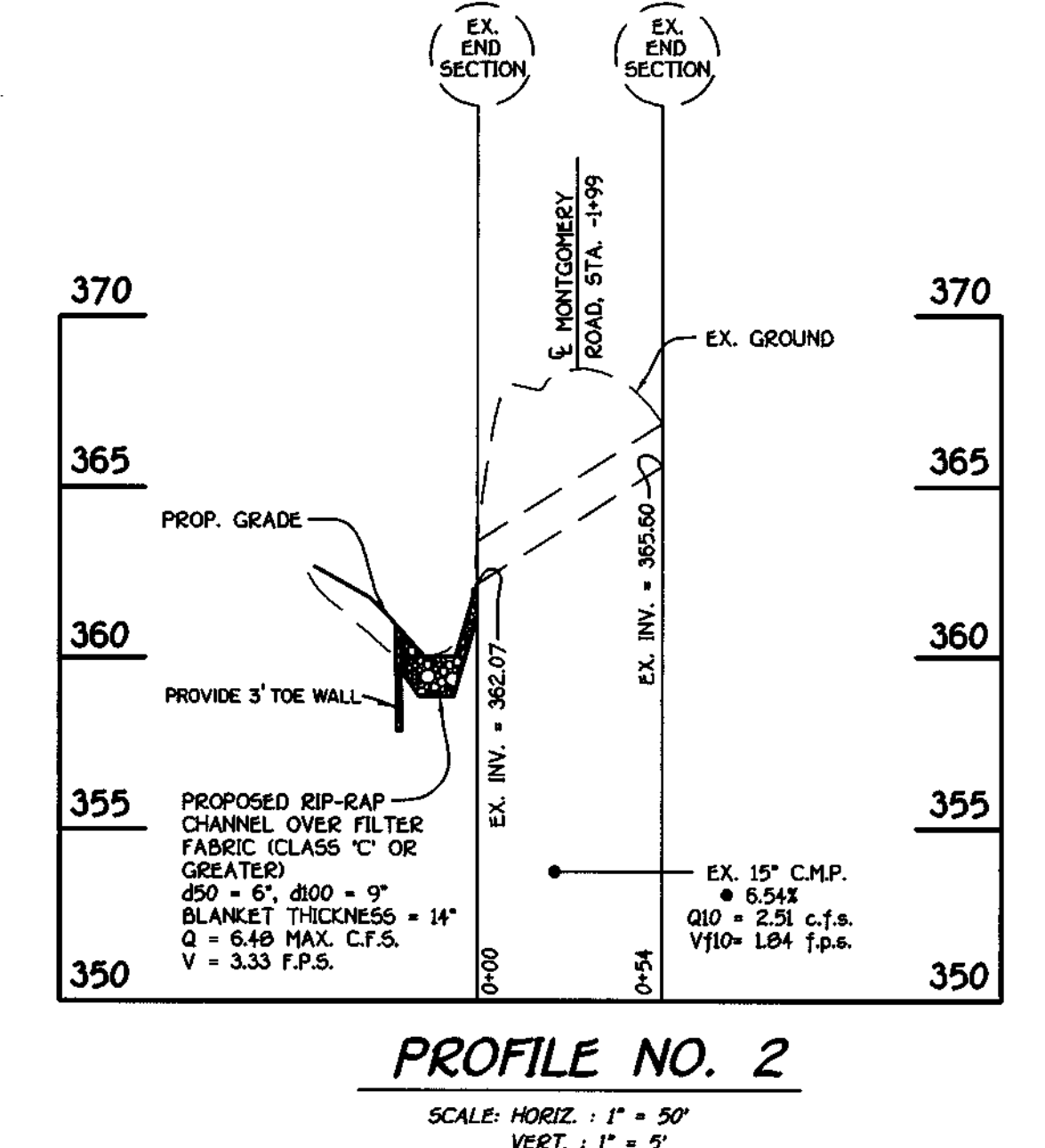
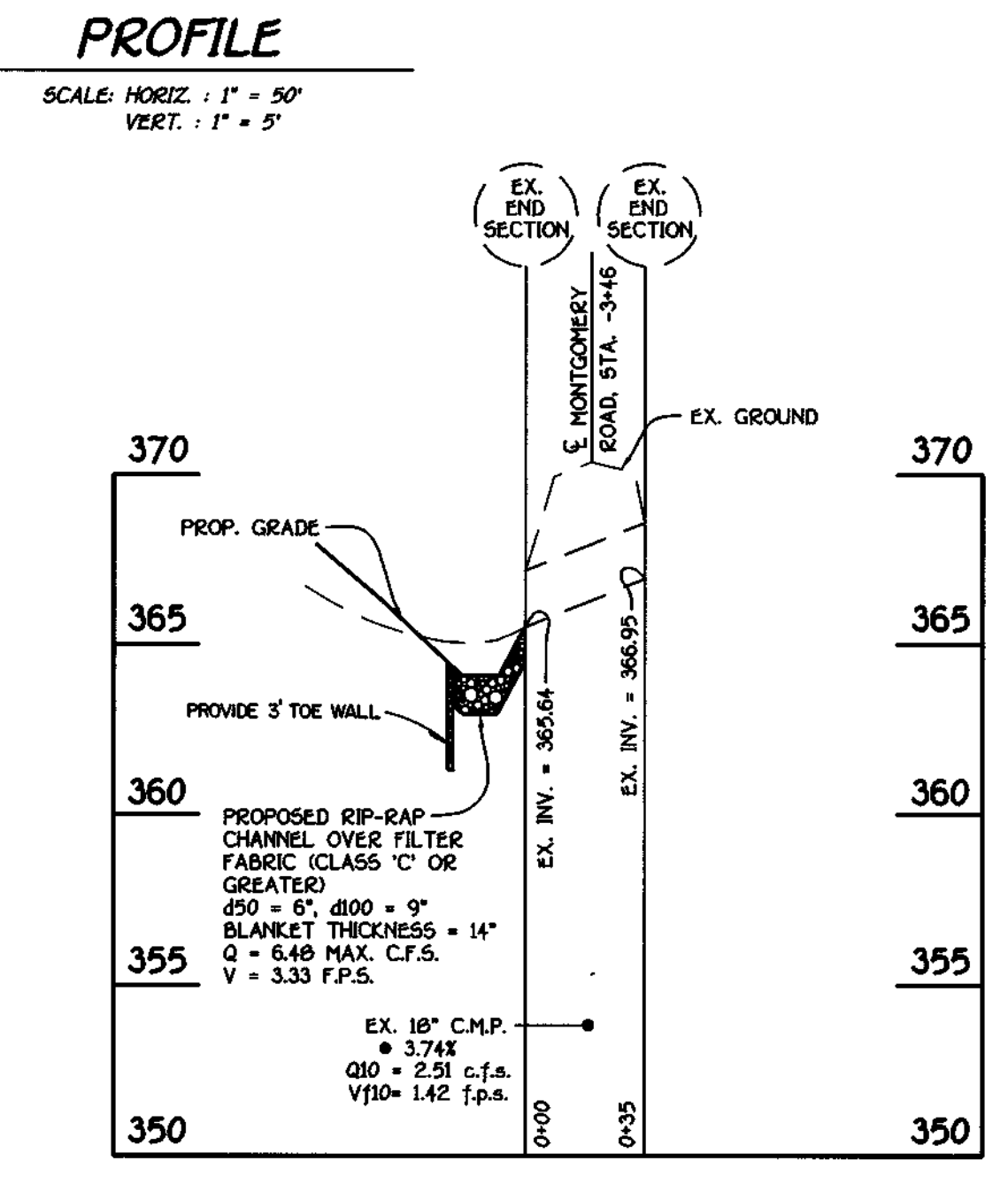
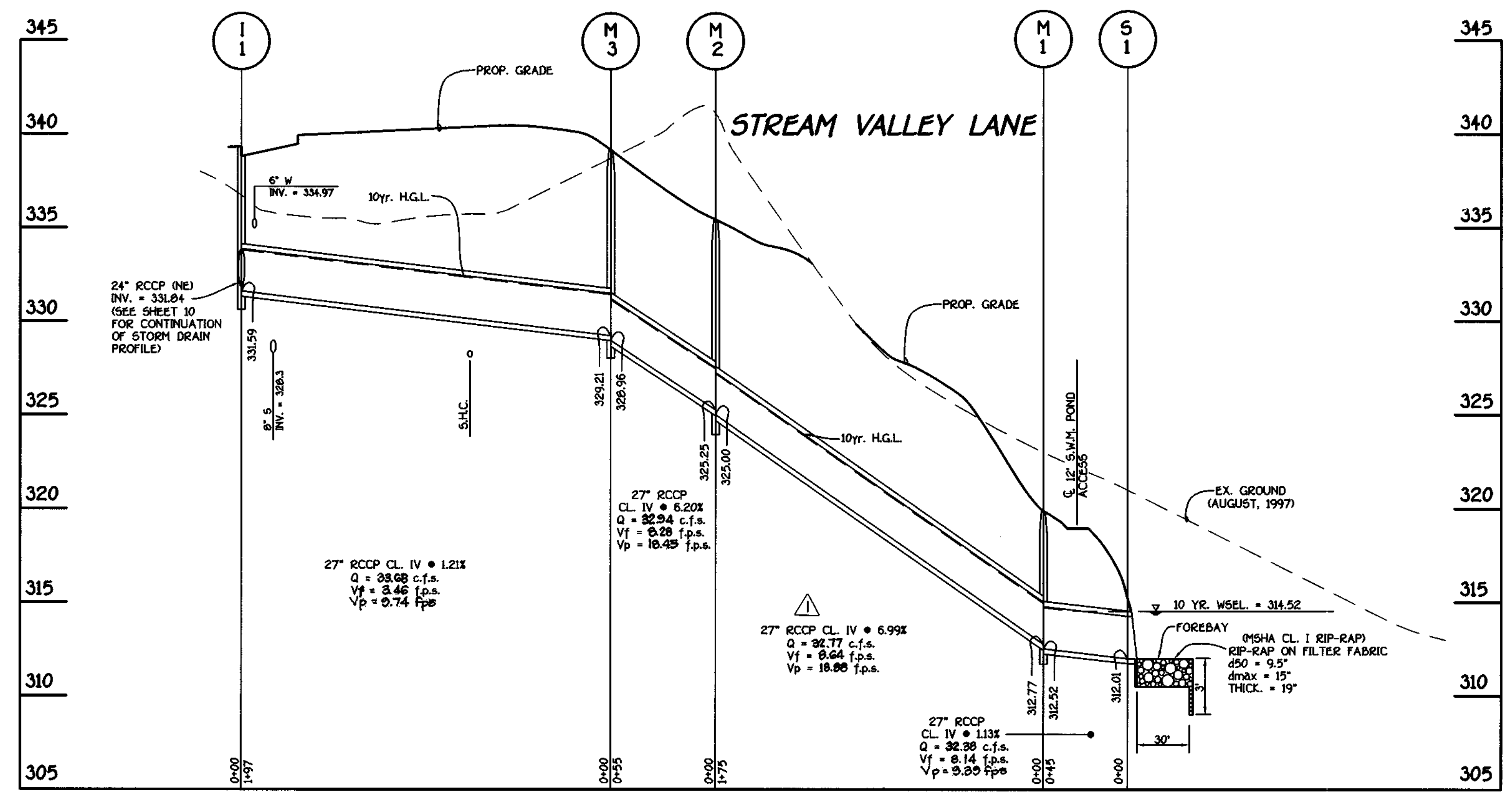
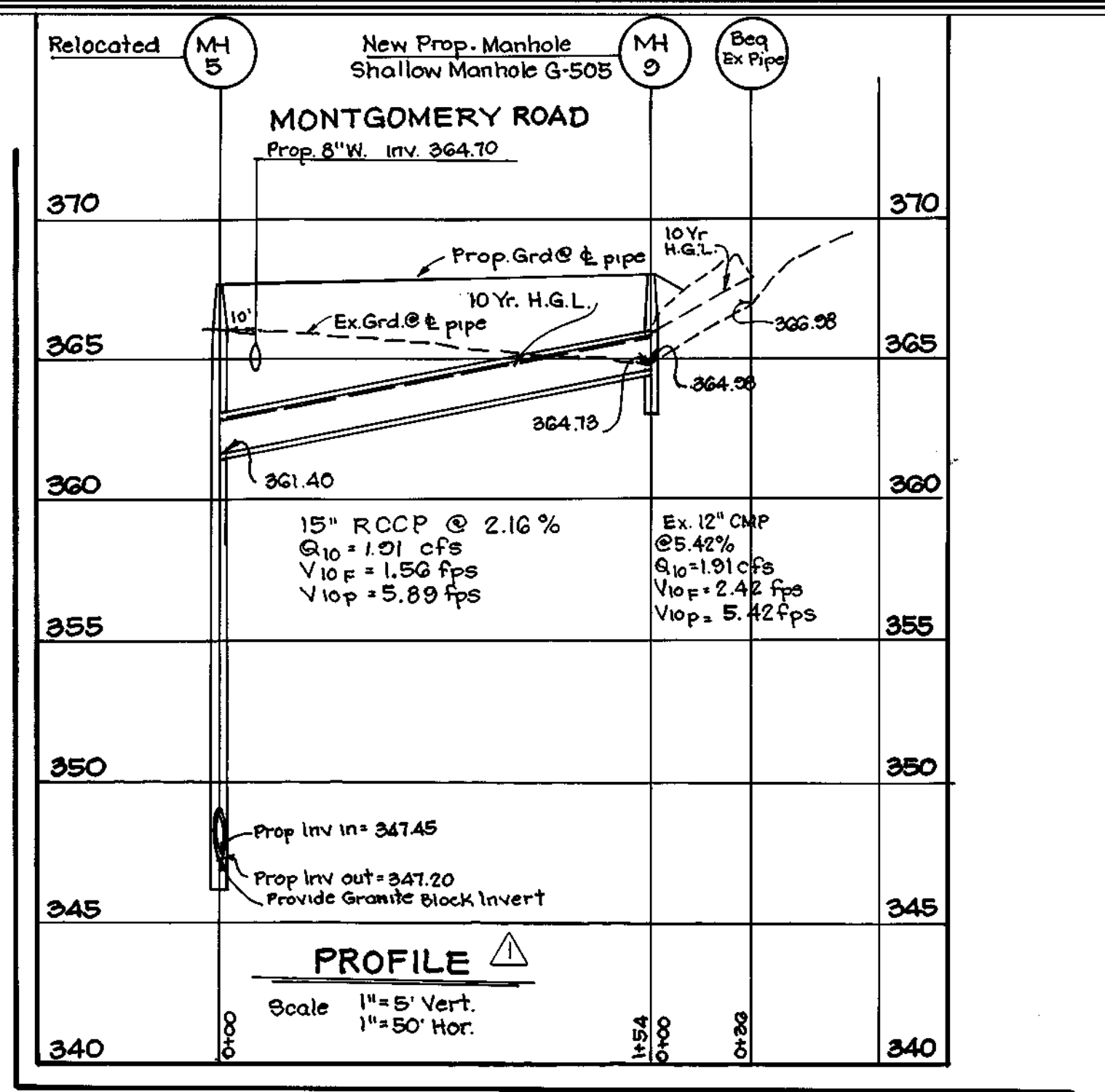
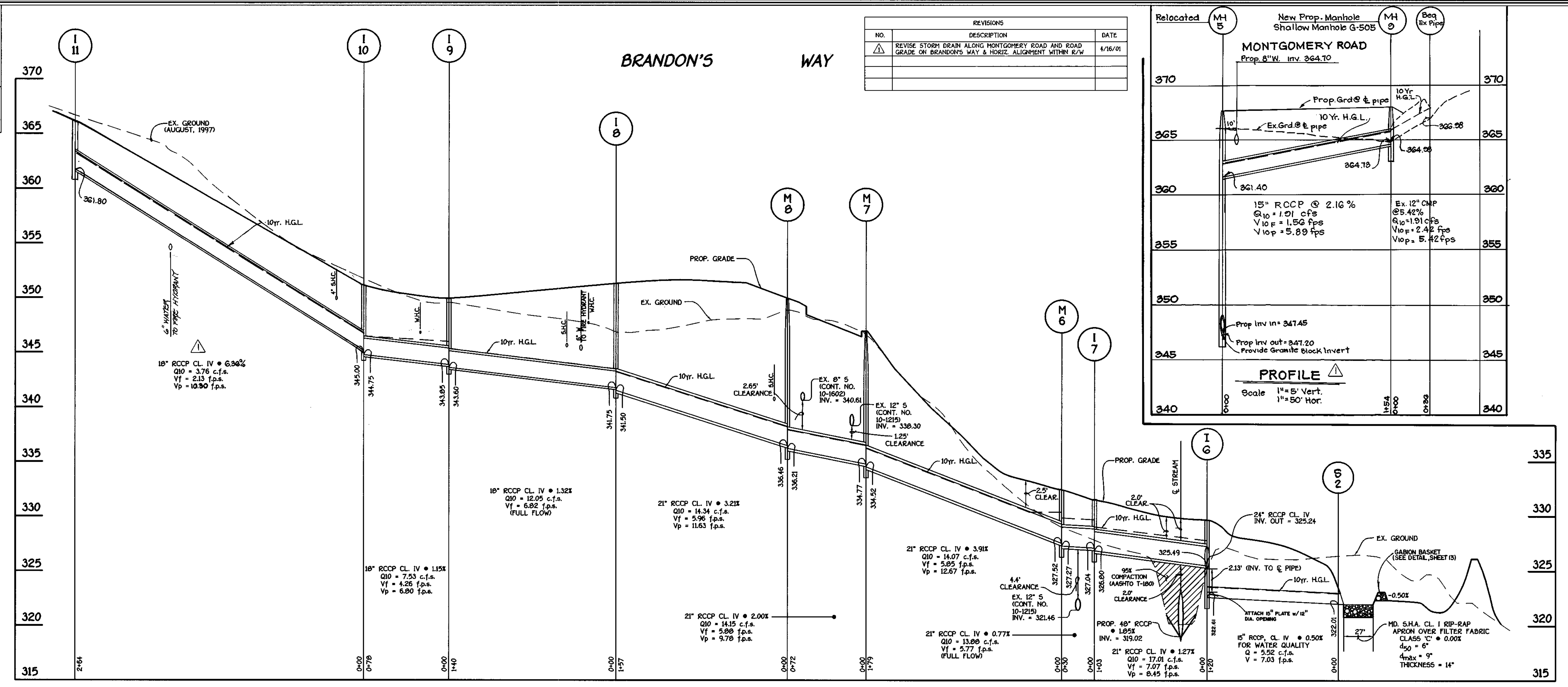
NO.	REVISIONS	DATE
1	REVISE STORM DRAIN ALONG MONTGOMERY ROAD AND ROAD GRADE ON BRANDON'S WAY & HORIZ. ALIGNMENT WITHIN R/W	4/16/01

Approved: Department Of Planning And Zoning
 Chief, Division of Land Development
 Approved: Howard County Department Of Public Works
 Chief, Bureau Of Highways

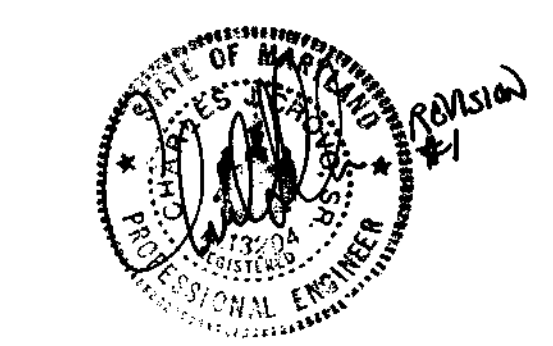
PIPE SCHEDULE (THIS SHEET)			
SIZE	TYPE	CLASS	LENGTH
18"	RCCP	IV	482'
21"	RCCP	IV	541'
27"	RCCP	IV	472'
15"	RCCP	IV	120'

- NOTES:
- Q10 - DENOTES 10 YEAR Q
 - Vf - DENOTES FULL FLOW VELOCITY
 - Vp - DENOTES PARTIAL FLOW VELOCITY

REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISE STORM DRAIN ALONG MONTGOMERY ROAD AND ROAD GRADE ON BRANDON'S WAY & HORIZ. ALIGNMENT WITHIN R/W	4/16/01



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DEVELOPER
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 ATTN: MR. BRIAN BOY
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STORM DRAIN PROFILES
ROCKBURN VIEW
 LOTS 4 THRU 35
 (A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9808,
 AND A SUBDIVISION OF PARCEL NO. 563)
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 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY 22, 2000
 SHEET 11 OF 16

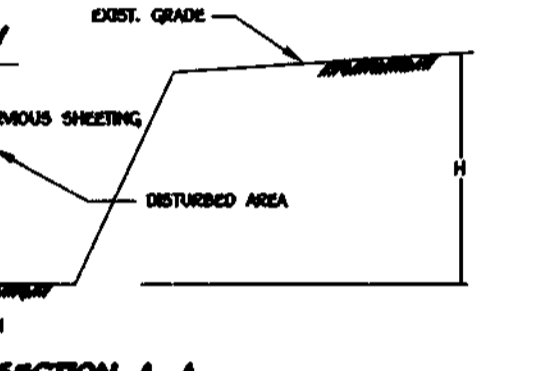
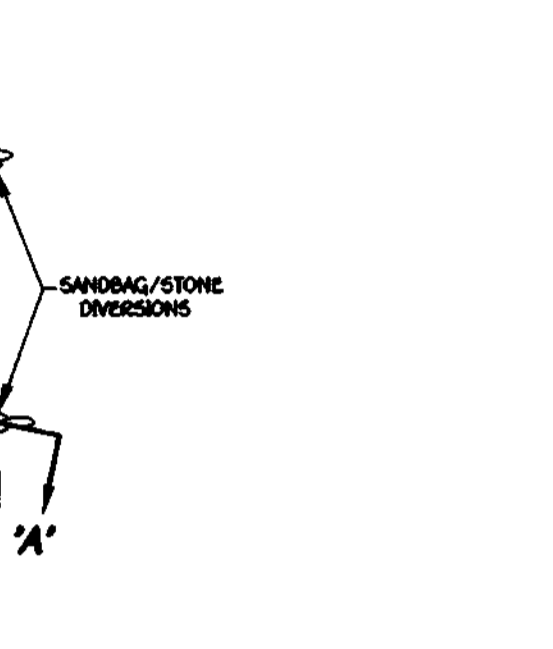
STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS	WIDTH
I-1	339.67	331.04	331.59	ROCKBURN WOODS WAY	C.L. STA. 4+02	* 10.43'R	A-5	S.D. 4.40	4'-6"
I-2	339.34	332.03	332.58	ROCKBURN WOODS WAY	C.L. STA. 4+40	* 10.43'R	A-10	S.D. 4.41	4'-6"
I-3	345.96	339.76	339.26	ROCKBURN WOODS WAY	C.L. STA. 2+58	* 10.43'R	A-10	S.D. 4.41	4'-6"
I-4	367.50	349.64	349.30	MONTGOMERY ROAD	C.L. STA. 0+61	* 12.74'L	A-10	S.D. 4.41	3'-10"
I-5	** 357.50	---	351.39	---	N. 963796.95 E. 1377446.38	---	'S' INLET	S.D. 4.22	N/A
I-6	329.54	325.49	322.61, 325.24	BRANDON'S WAY	C.L. STA. 13+57.43	* 10.43'L	*** MODIFIED A-10	S.D. 4.41	4'-6"
I-7	331.49	327.04	326.60	BRANDON'S WAY	C.L. STA. 12+60	* 10.43'L	A-5	S.D. 4.40	4'-6"
I-8	350.96	341.75	341.50	BRANDON'S WAY	C.L. STA. 8+48	* 10.43'L	A-5	S.D. 4.40	4'-6"
I-9	349.66	343.05	343.60	BRANDON'S WAY	C.L. STA. 6+76.99	* 10.43'L	A-10	S.D. 4.41	4'-6"
I-10	351.05	347.75	344.75	BRANDON'S WAY	C.L. STA. 5+97	* 10.43'L	A-5	S.D. 4.40	4'-6"
I-11	366.67	---	361.80	BRANDON'S WAY	C.L. STA. 3+26	* 10.43'L	A-5	S.D. 4.40	3'-10"
M-1	320.00	312.77	312.52	---	N. 962976.65 E. 1377446.38	---	SHALLOW MANHOLE	G - 5.05	---
M-2	335.50	325.25	325.00	---	N. 963297.91 E. 1377503.53	---	STD. MANHOLE	G - 5.01	---
M-3	339.35	329.21	328.96	---	N. 963787.74 E. 1377507.34	---	STD. MANHOLE	G - 5.01	---
M-4	354.96	343.49	343.24	ROCKBURN WOODS WAY	C.L. STA. 1+57	12.5'R	STD. MANHOLE	G - 5.01	---
M-5	367.67	347.45	347.20	ROCKBURN WOODS WAY	C.L. STA. 0+20	8'R	STD. MANHOLE	G - 5.01	---
M-6	332.57	327.52	327.27	BRANDON'S WAY	C.L. STA. 12+33	12.5'L	SHALLOW MANHOLE	G - 5.05	---
M-7	347.21	334.77	334.52	BRANDON'S WAY	C.L. STA. 10+46	12.5'L	STD. MANHOLE	G - 5.01	---
M-8	350.34	336.46	336.21	BRANDON'S WAY	C.L. STA. 9+05	12.5'L	STD. MANHOLE	G - 5.01	---
M-9	368.00	364.96	364.70	ROCKBURN WOODS WAY	C.L. STA. 0+20	14'6"	SHALLOW MANHOLE	G - B.O.S.	---
R-1	314.50	306.00	306.00	---	N. 962886.46 E. 1377466.66	---	CONC. RISER	---	---
S-1	314.00	312.01	312.01	---	N. 962986.11 E. 1377467.31	---	CONC. END SECTION	S.D. 5.52	---
S-2	323.01	322.01	322.01	---	N. 962976.91 E. 1377503.53	---	CONC. END SECTION	S.D. 5.52	---
S-3	322.70	320.70	320.70	---	N. 962976.91 E. 1377503.53	---	TYPE C HEADWALL	S.D. 5.21	---
S-4	320.50	300.00	300.00	---	N. 962976.91 E. 1377503.53	---	CONC. END SECTION	S.D. 5.52	---
S-5	323.02	319.02	---	---	N. 962976.91 E. 1377503.53	---	TYPE A HEADWALL	S.D. 5.11	---
S-6	322.84	---	318.02	---	N. 962976.91 E. 1377503.53	---	TYPE A HEADWALL	S.D. 5.11	---

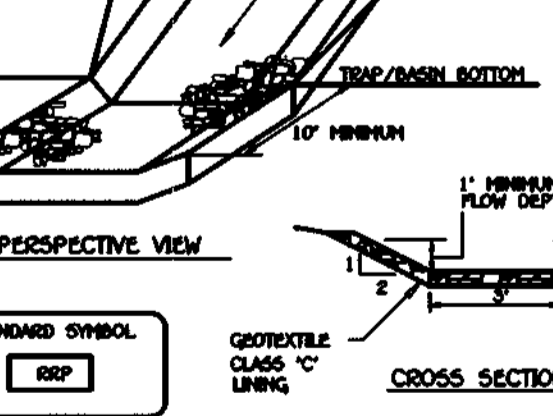
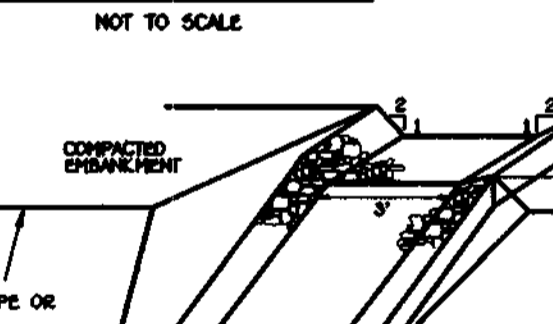
NOTE: USE RECTANGULAR GRATE WITH THE 'S' TYPE INLET.
 * DENOTES DIMENSION FROM CENTERLINE OF ROAD TO FACE OF INLET
 ** DENOTES TOP OF GRATE ELEVATION
 *** SEE DETAIL, THIS SHEET

OVERALL PIPE SCHEDULE

SIZE	TYPE	CLASS	LENGTH
15"	RCCP	IV	274'
18"	RCCP	IV	932'
21"	RCCP	IV	362'
24"	RCCP	IV	500'
30"	RCCP	IV	150'
48"	RCCP	IV	54'



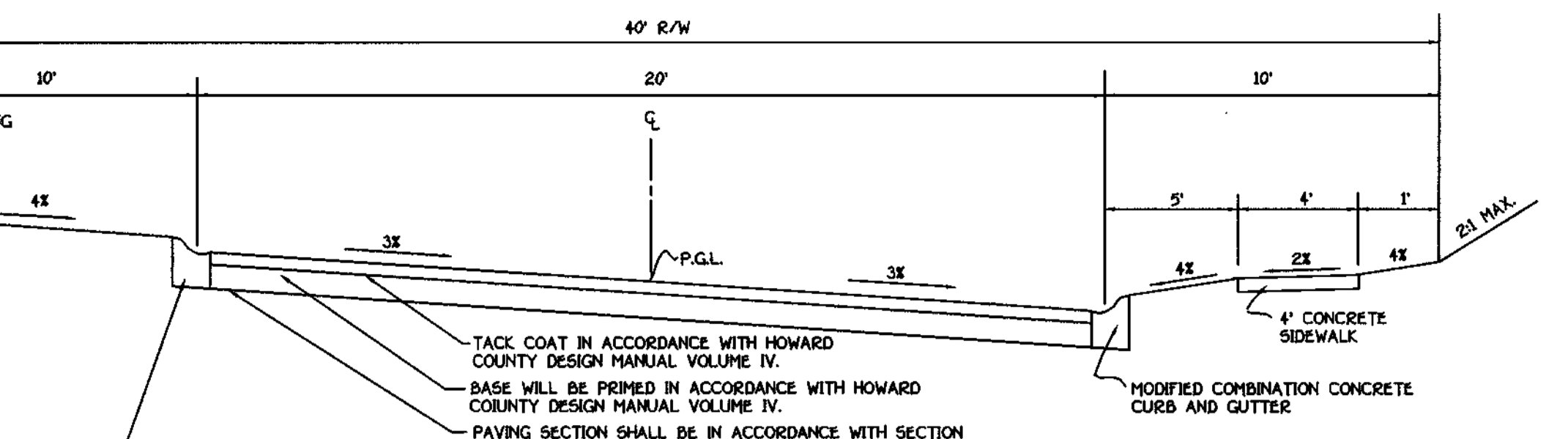
- #### CONSTRUCTION SPECIFICATIONS
- DESCRIPTION: THE WORK SHALL CONSIST OF INSTALLING A FLOW DIVERSION STRUCTURE WHEN CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN THE STREAM CHANNEL SUCH AS CHANNEL CONSTRUCTION OR CURRENT REPLACEMENT.
 - MATERIAL SPECIFICATIONS: SANDBAGS SHALL BE MADE OF POLYPROPYLENE OR OTHER MATERIAL WHICH IS IMPERVIOUS AND RESISTANT TO PUNCTURE AND TEARING.
 - CONSTRUCTION REQUIREMENTS: ALL DESIGN AND CONSTRUCTION CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF WORK.
 - THE INSET OF THE SANDBAG/STONE DIVERSION STRUCTURE SHALL BE ONE HALF THE DISTANCE FROM THE STREAM BED TO THE BANK, PLUS ONE FOOT AS INDICATED IN SECTION A-A. THE SANDBAGS SHALL BE PLACED ON A SMOOTH, PREPARED SURFACE.
 - ALL EXPOSED MATERIALS SHALL BE COVERED BY A 6" APPROVED GEOTEXTILE FABRIC OVER THE ENTIRE AREA UNLESS OTHERWISE APPROVED ON THE PLANS BY THE WPA.
 - ALL DIMENSIONS OF THE CONSTRUCTION AREA SHALL BE PERMITTED TO VARY FROM THE PLANS BY UP TO 10%.
 - THE DIVERSION PIPE SHALL BE MADE OF POLYPROPYLENE OR OTHER MATERIAL TO CONVEY THE NORMAL STREAM FLOW.
 - IF NECESSARY, SILT SCREENS OR STRAINERS SHALL BE INSTALLED AROUND THE PERIMETER OF THE WORK AREA.
 - SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED AND THE INSPECTING OFFICER APPROVES THEIR REMOVAL.



- #### CONSTRUCTION SPECIFICATIONS
- Rip-rap bed in-flow protection shall be 1' in depth, have a rip-rap cross section with 2:1 or flatter side slopes and 3" (min.) bottom width. The channel shall be lined with 4" to 12" rip-rap to a depth of 18".
 - Filter cloth shall be installed under all rip-rap. Filter cloth shall be Geotextile Class C.
 - Entrance and exit sections shall be installed as shown on the detail section.
 - Rip-rap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
 - Gabion in-flow protection may be used in lieu of rip-rap in-flow protection.
 - Rip-rap shall be placed in a 1' deep, 18" wide channel with 2:1 side slopes and 10% slope (steeper than 10% use 12" rip-rap or temporary stone being better).

GABION INFLOW PROTECTION

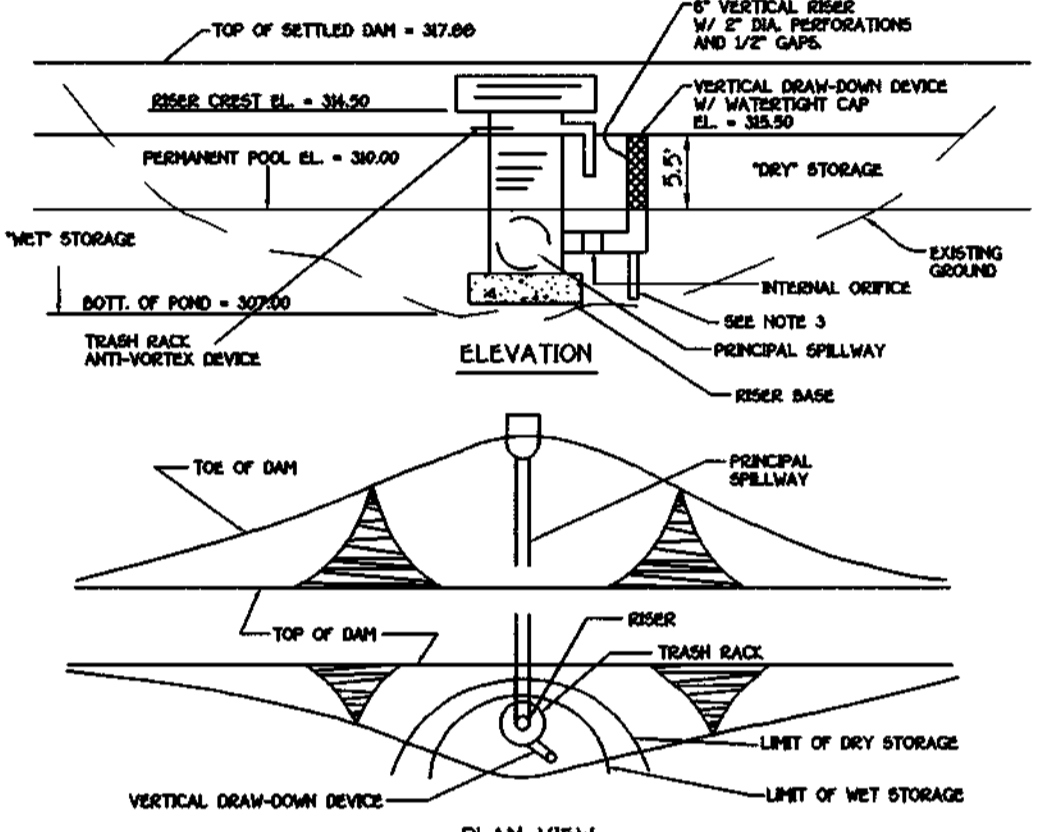
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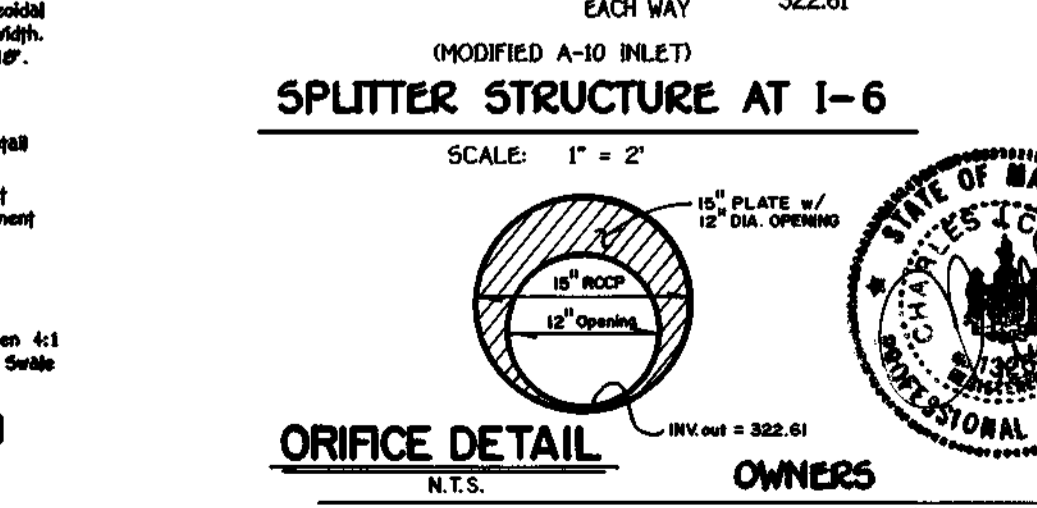
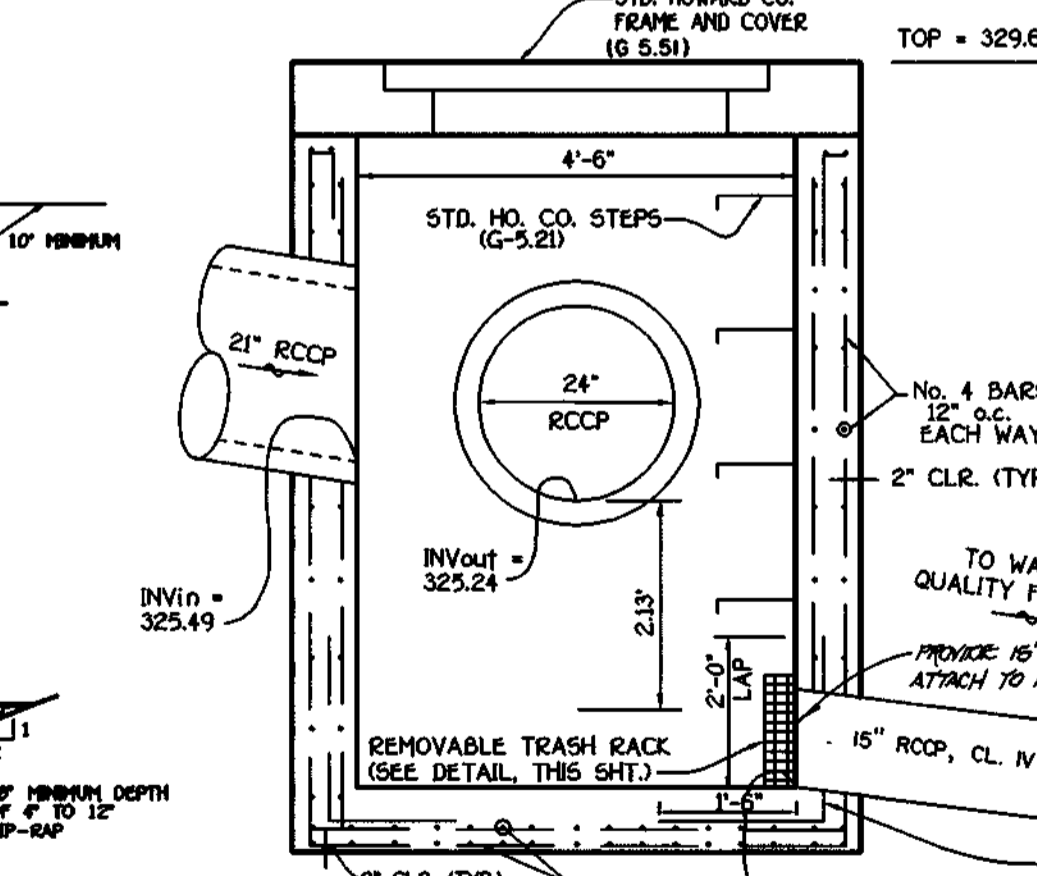
TACK COAT IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV.
 BASE LAYER TO BE PRIMED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV.
 PAVING SECTION SHALL BE IN ACCORDANCE WITH SECTION NUMBER P-2 DRAWING R-201.
 NOTE:
 ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATION AND DETAILS FOR CONSTRUCTION.

ROAD NAME	STA. TO STA.	CLASSIFICATION	DESIGN SPEED	R/W
* BRANDON'S WAY	0+00 TO 17+129	PUBLIC ACCESS PLACE	25 MPH	40'
ROCKBURN WOODS WAY	0+00 TO 5+236	PUBLIC ACCESS PLACE	25 MPH	40'
STREAM VALLEY LANE	0+00 TO 1+30	PUBLIC ACCESS PLACE	25 MPH	40'

* FOR BRANDON'S WAY THE HIGH SIDE IS ON THE OPPOSITE SIDE OF THE ROAD, BUT THE SECTION REMAINS THE SAME AS IT PERTAINS TO CROSS SLOPE, ETC.

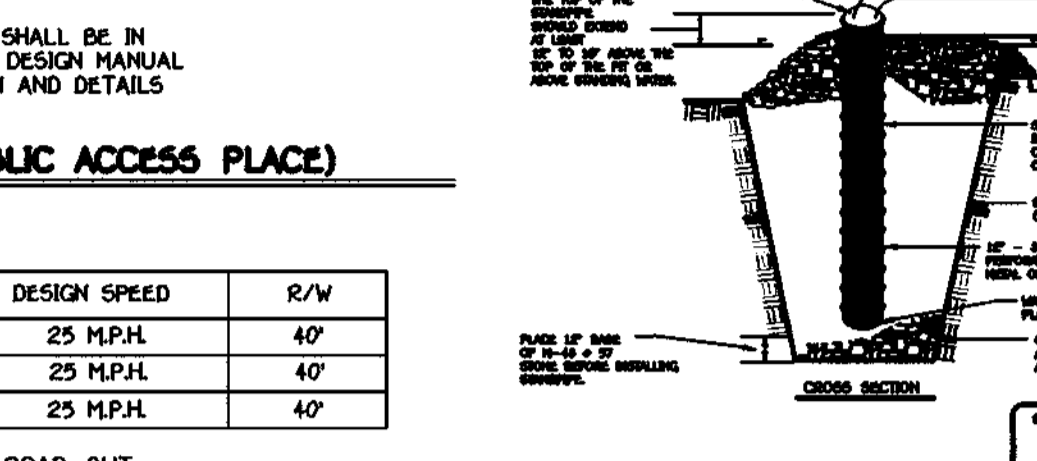


- #### CONSTRUCTION SPECIFICATIONS
- PERFORATIONS IN THE DRAIN-DOWN DEVICE MAY NOT EXCEED INTO THE WET STORAGE.
 - THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 2 TIMES THE AREA OF THE INTERNAL ORIFICE.
 - THE PERFORATED PORTION OF THE DRAIN-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HAVESAVE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
 - PROVIDE SUPPORT OF DRAIN-DOWN DEVICE TO PREVENT SAGGING AND FLATNESS. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAIN-DOWN DEVICE WITH 1" STEEL ANGLE OR 1" BY 4" SQUARE OR 2" ROUND WOODEN POSTS SET 3" MINIMUM INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 1/2" HAVESAVE CLOTH.
 - DESIGN DIAMETER = 6", MAX. = 6"
 - A₁ = TOTAL AREA OF PERFORATIONS 2.4 A₂
 - A₁ = π × (PERFORATION / FOOT) × 30 PERFORATION AREA FT. = 0.0209
 - PERFORATED SECTION LENGTH FT. = 5.000 A = 4.89 FT
 - A₂ = INTERNAL ORIFICE AREA
 - AREA = π × (D / 2) × (L / 2) = 0.0872
 - A₂ = 0.0865 × π × L = 0.0209
 - A₁ = 4A₂ = 4 × 0.0209 = 0.0836
 - OR 4.89 × 0.0209 = 0.1022

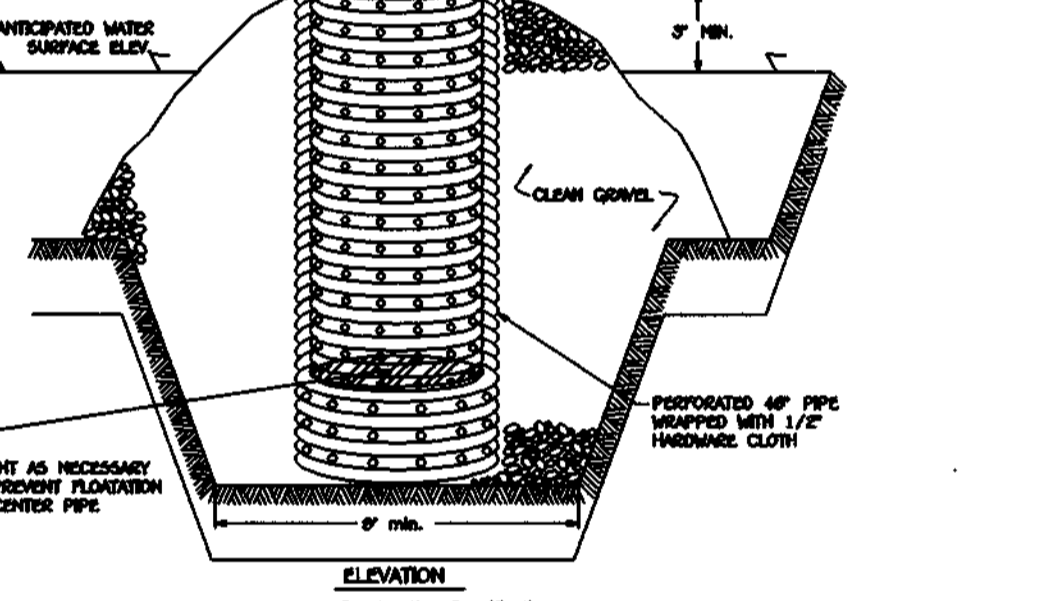
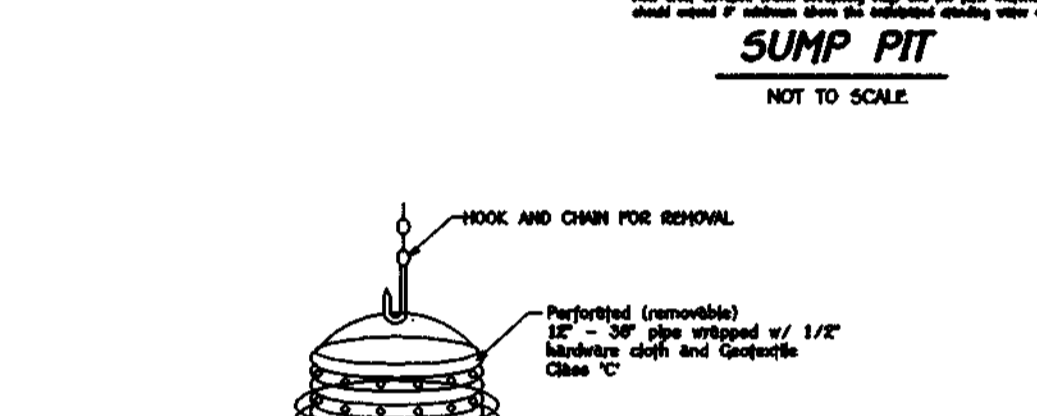


ORIFICE DETAIL

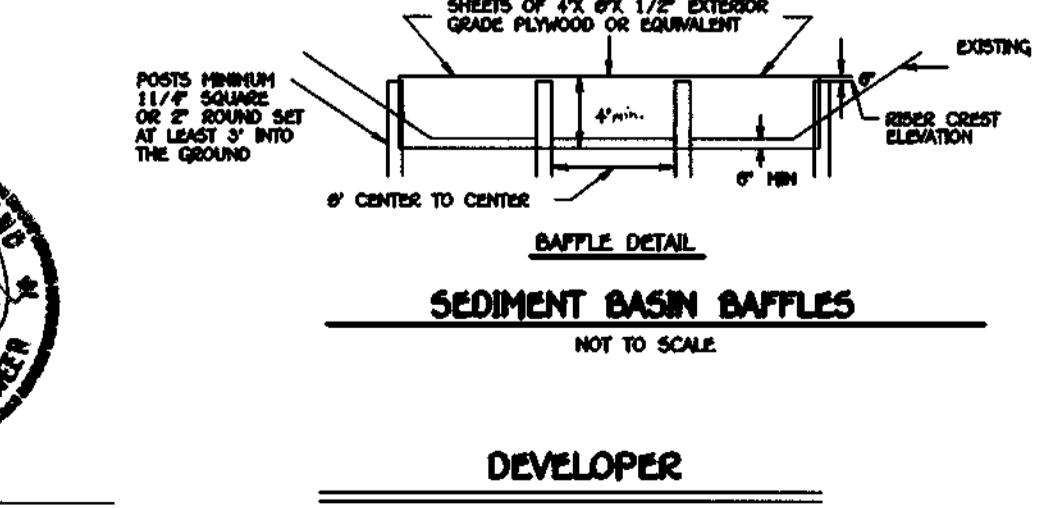
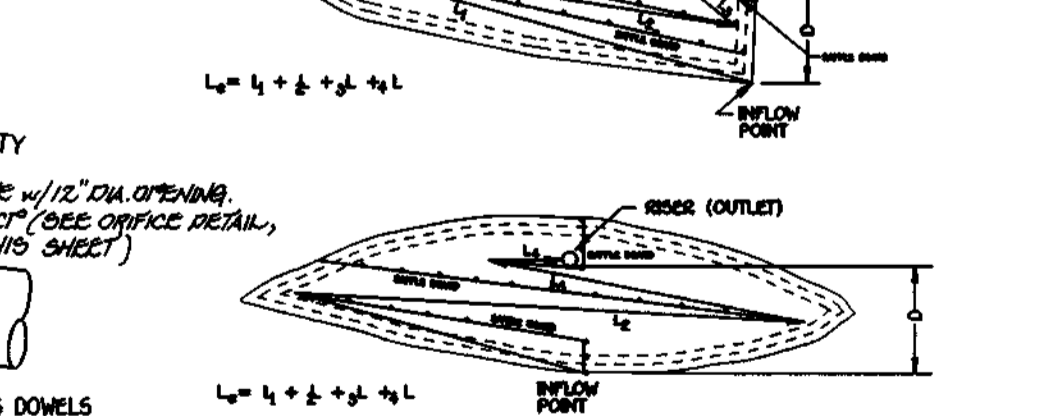
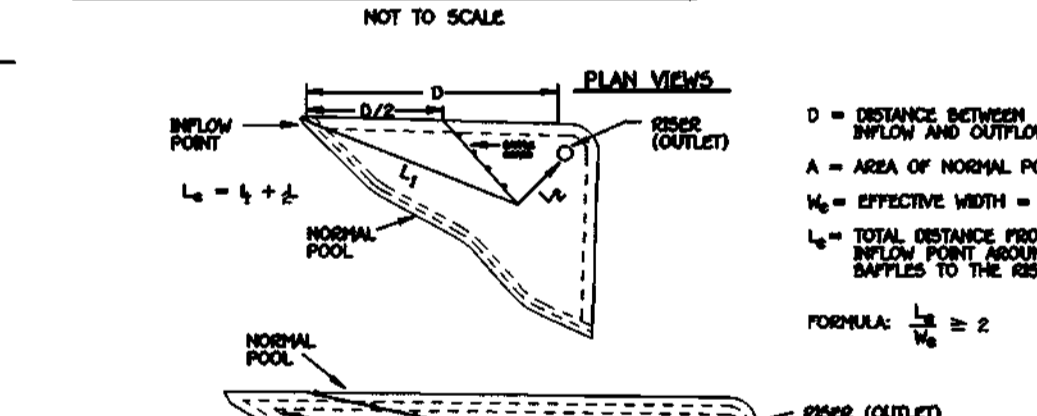
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:
 1. The sump pit shall be installed with the bottom resting 1' above the finished ground.
 2. The sump pit shall be constructed by installing a 15" x 15" x 15" RCCP pipe with 1/2" HAVESAVE CLOTH AND 1/2" GEOTEXTILE FABRIC.
 3. A 1/2" thick layer of compacted earth shall be placed on top of the pipe.
 4. A 1/2" thick layer of compacted earth shall be placed on the sides of the pipe.
 5. The sump pit shall be installed with the bottom resting 1' above the finished ground.



- #### CONSTRUCTION SPECIFICATIONS
- The outer pipe should be 18" dia. or more. In any case, be at least 6" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" HAVESAVE CLOTH TO PREVENT BLOCKAGE MATERIAL FROM ENTERING THE PERFORATION.
 - After installing the outer pipe, backfill around outer pipe with 3" aggregate of 1/2" max. size.
 - The inside of the pipe (center pipe) should be constructed by performing a 15" x 15" x 15" RCCP pipe with 1/2" HAVESAVE CLOTH AND 1/2" GEOTEXTILE FABRIC. The geotextile shall be wrapped with 1/2" HAVESAVE CLOTH TO PREVENT BLOCKAGE MATERIAL FROM ENTERING THE PERFORATION.
 - The center pipe should extend 12" to 18" above the undisturbed wet surface elevation of the wet storage.



SEDIMENT BASIN BAFFLES

NOT TO SCALE

ENGINEER'S CERTIFICATE

I hereby certify that this Plan for Erosion and Sediment Control represents a practical and suitable 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.

Signature of Engineer: *[Signature]* Date: 5/23/00

DEVELOPER'S CERTIFICATE

"I hereby certify that all development and construction will be done in accordance with this Plan for Development and Plan for Erosion and Sediment Control and that all responsible personnel involved in the construction project will have a Certificate of Attendance from a Department of Natural Resources Approved Training Program for the Control of Erosion and Sediment Before Starting the Project. Erosion Control on-site Inspection by the Howard Soil Conservation District or its Authorized Agents, as Deemed Necessary."

Signature of Developer: *[Signature]* Date: 5/23/00

Reviewed for Howard County Soil Conservation District and Meets Technical Requirements: *[Signature]* Date: 6/4/00

Approved: U.S. Army - Natural Resources Conservation Service: *[Signature]* Date: 6/4/00

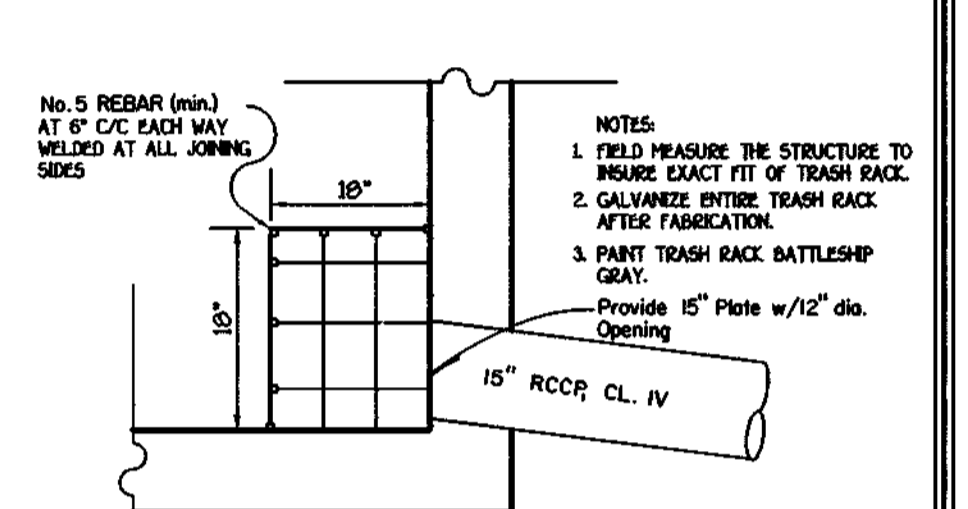
Approved: This Development is Approved for Erosion and Sediment Control by the Howard Soil Conservation District: *[Signature]* Date: 6/4/00

Approved: Department of Planning and Zoning: *[Signature]* Date: 6/24/00

Chief, Division of Land Development: *[Signature]* Date: 6/24/00

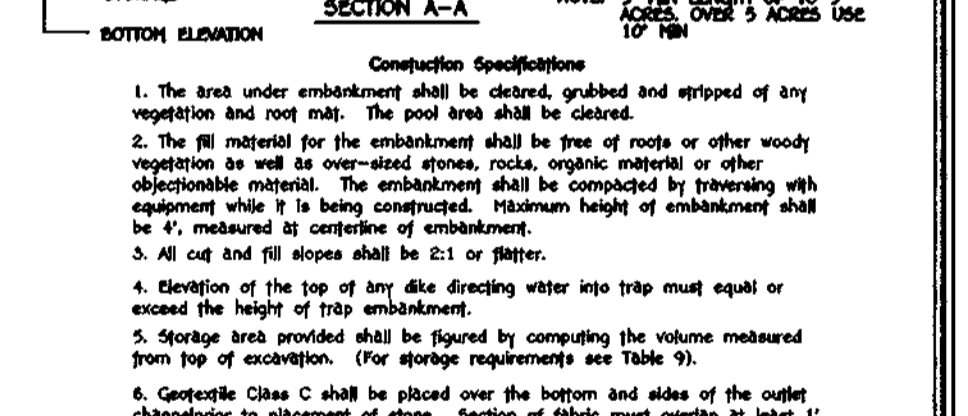
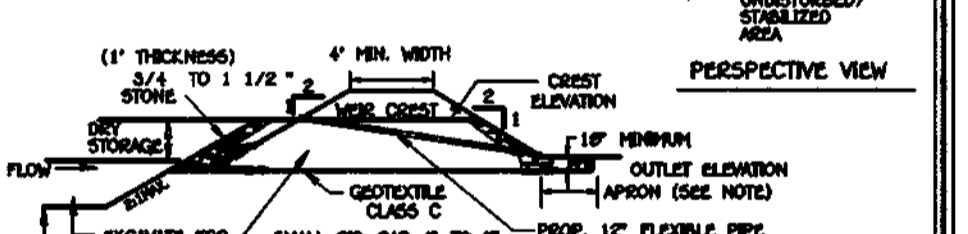
Approved: Howard County Department of Public Works: *[Signature]* Date: 6/24/00

Chief, Bureau of Highways: *[Signature]* Date: 6/24/00



REMOVABLE TRASH RACK DETAIL AT I-6

- #### NOTES
- FIELD MEASURE THE STRUCTURE TO ASSURE EXACT FIT OF TRASH RACK.
 - GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 - PAINT TRASH RACK BATTLESHIP GRAY.
 - Provide 15" Plate w/1/2" dia. Opening.



- #### CONSTRUCTION SPECIFICATIONS
- The area under embankment shall be cleared, grubbed and stripped of this vegetation and root mat. The pool area shall be graded.
 - The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rock, organic material or other objectionable material. The embankment shall be compacted by tamping with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at crestline of embankment.
 - All cut and fill slopes shall be 2:1 or flatter.
 - Division of the top of any dike directing water into trap must equal or exceed the height of this embankment.
 - Storage area provided shall be figured by computing the volume measured from top of embankment. (The storage requirements are Table 9).
 - Geotextile Class C shall be placed over the bottom and sides of the outlet channel to allow for placement of stone. Section of fabric must overlap at least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.
 - 7" x 7" stone shall be used to construct the wall and 4" - 12" Class 1 rip-rap shall be used to construct the outlet channel.
 - Outlet - An outlet shall include a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge point shall be provided as necessary.
 - Outlet channel must have positive drainage from the trap.
 - Outlet channel shall be removed and trap returned to its original dimensions when the sediment has accumulated to 1/2 of the storage depth of the trap (500 cu ft). Removed sediment shall be deposited in a suitable area and to a maximum depth of 18" at the end.
 - The structure shall be inspected periodically after each rain and repaired as needed.
 - Construction of traps shall be carried out in such a manner that sediment erosion is minimized. Once constructed the trap and outlet face of the embankment shall be stabilized with seed and mulch. Pockets of concentrated water shall be protected in accordance with Grate Distribution Structure criteria. The remainder of the interior slopes shall be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
 - The structure shall be developed by approved methods, removed and the area stabilized when the drainage basin has been properly established.

STONE / RIP-RAP OUTLET SEDIMENT TRAP - 5T IV

DETAIL SHEET ROCKBURN VIEW LOTS 4 THRU 35

(A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9800 AND A SUBDIVISION OF PARCEL NO. 563) ZONED R-20
 CORNERSTONE HOLDINGS, L.L.C.
 ATTN: H.C. BULAN BOY
 37 NORFOLK AVENUE
 LAUREL, MARYLAND 20723
 TAX MAP NO. 37 PARCEL NO. 563 AND PART OF PARCEL NO. 669 GRID NO. 4
 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: MAY 22, 2000
 SHEET 12 OF 16

FRANCIS J. AND ELEANORA A. MICHAEL
 6090 MONTGOMERY ROAD
 ELKBRIDGE, MARYLAND 21075

DANIEL AND JANET LEWIS
 6028 MONTGOMERY ROAD
 ELKBRIDGE, MARYLAND 21075

FRANCIS J. AND ELEANORA A. MICHAEL
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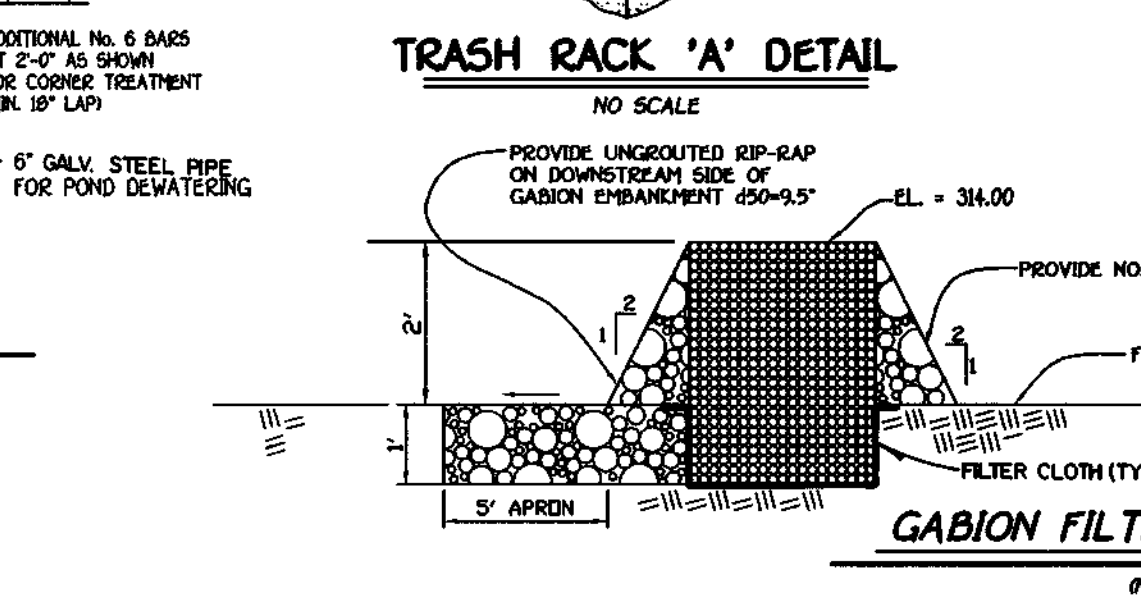
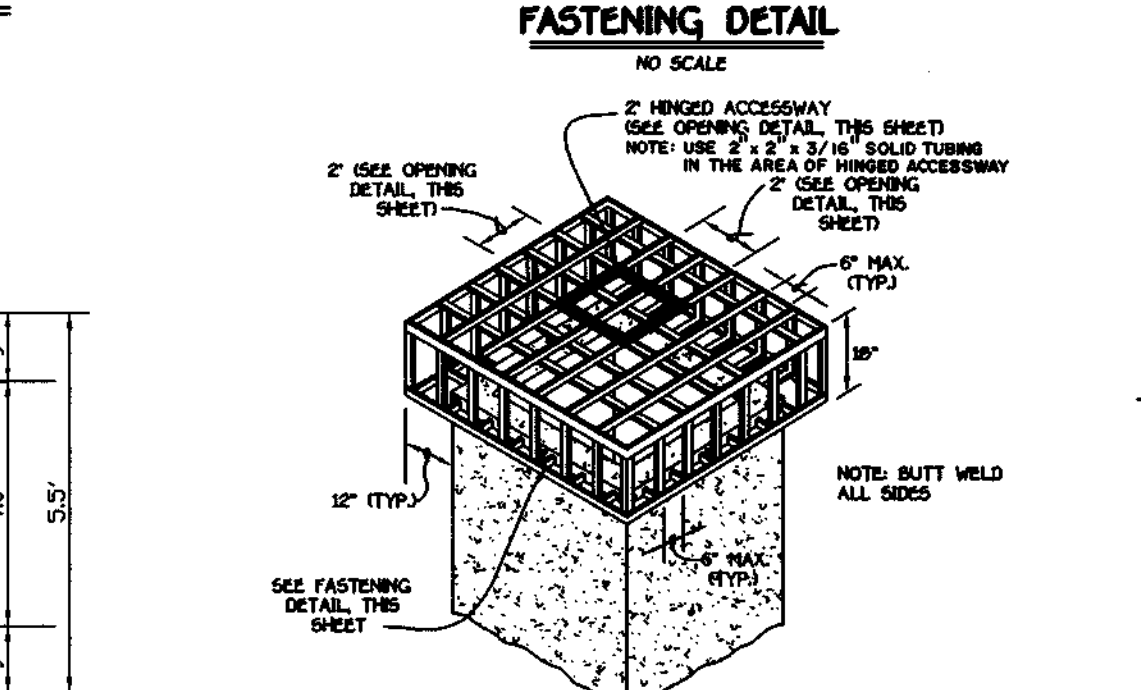
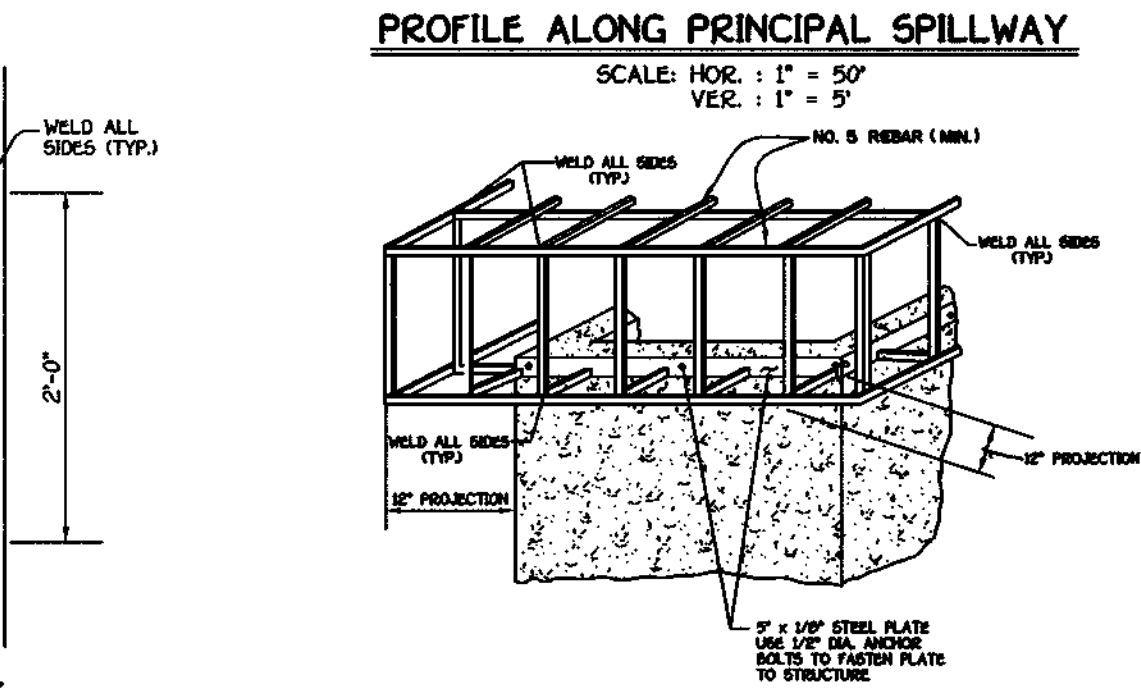
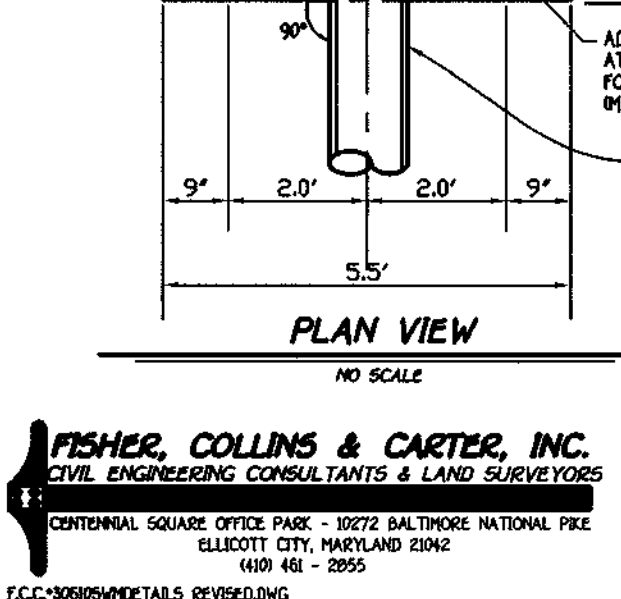
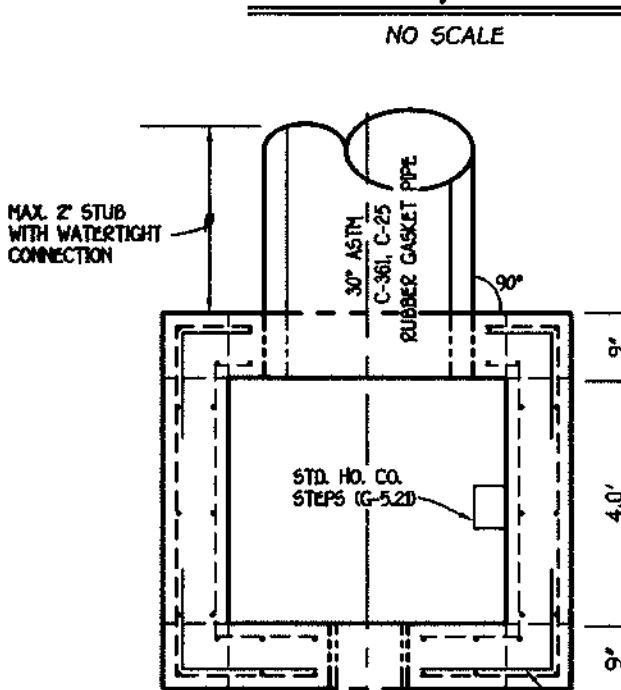
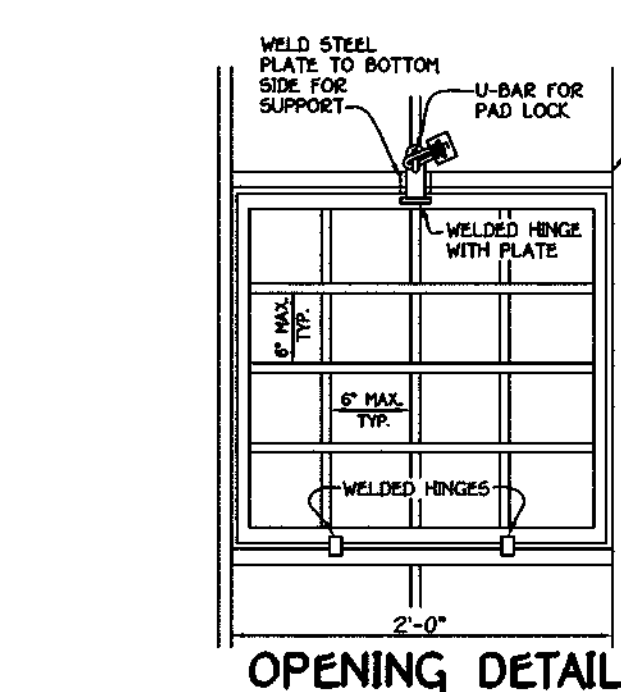
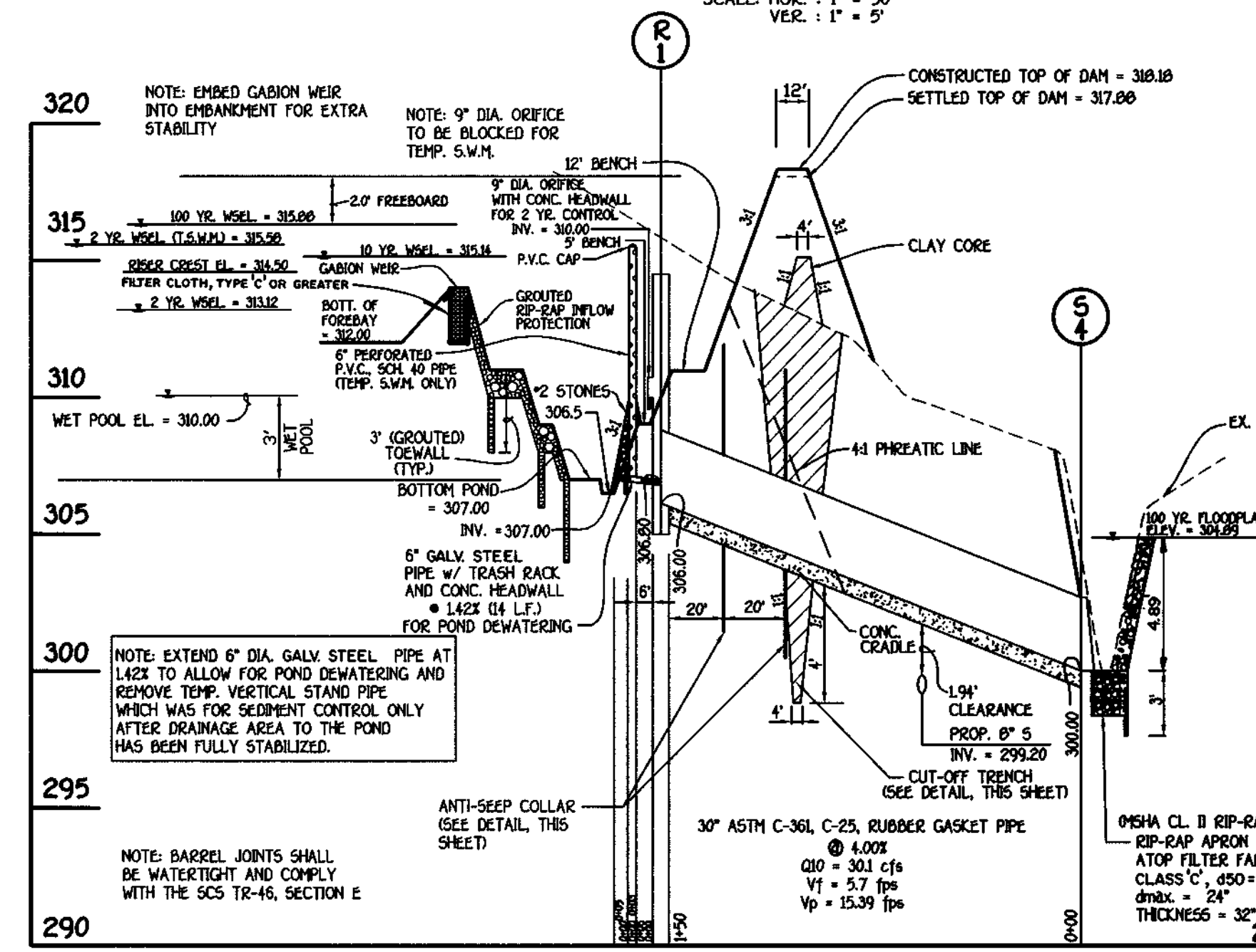
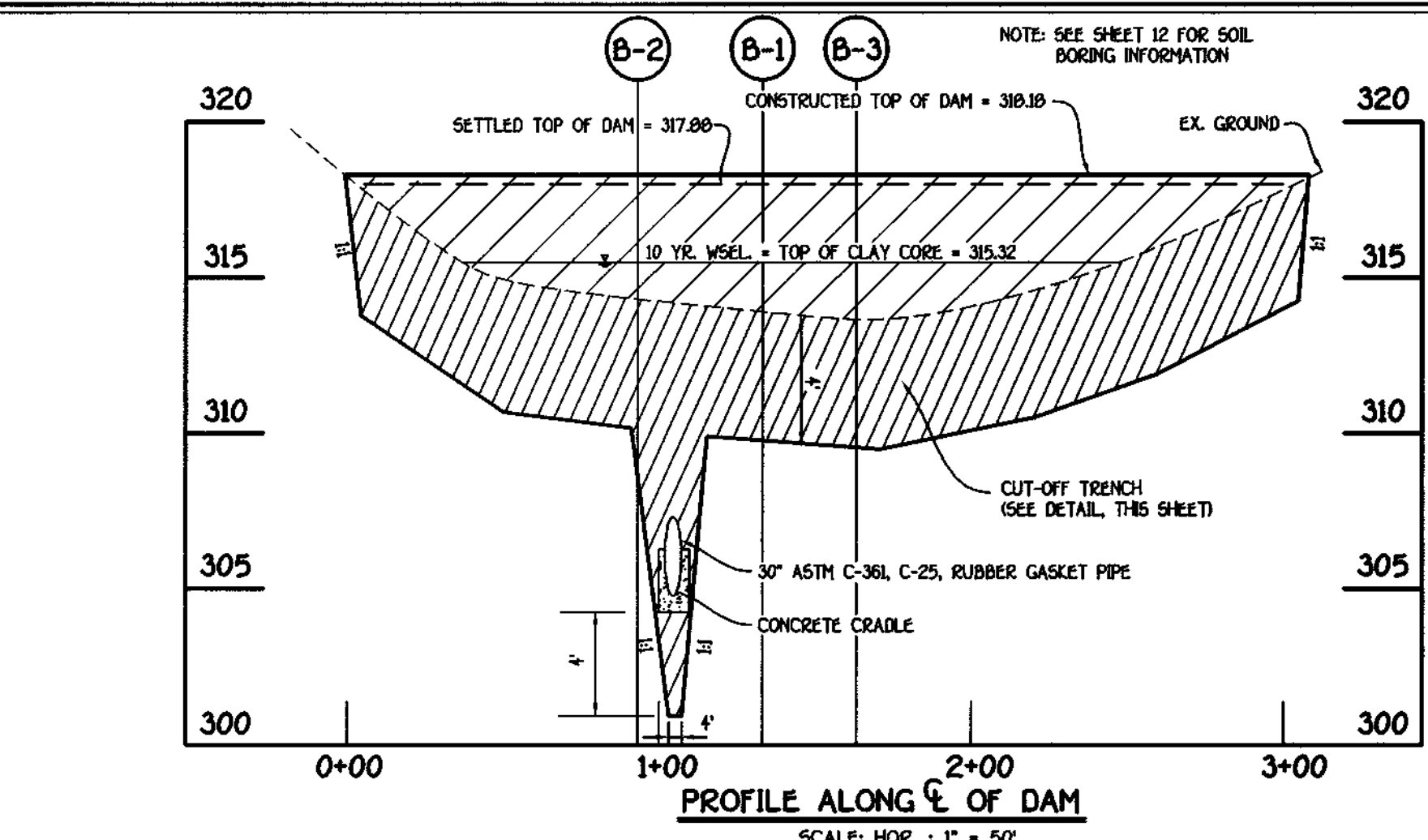
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378 - 12 Ford
 These specifications are appropriate to all ponds within the scope of the Standard for ponds 378. All references to ASTM and AASHTO specifications apply to the most recent editions.
Site Preparation
 Areas designated for borrow areas, embankment, and structural work shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 3:1.
 Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fence, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of 50 foot radius around the inlet structure shall be cleared.
 Placement - Areas on which fill is to be placed shall be identified prior to placement of fill. Fill material shall be placed in maximum 8 inch thick layers before compacted layers. Fill material shall be placed in the downstream portions of the embankment. The principal embankment shall be installed concurrently with fill placement and not excavated into the embankment.
 Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift will be traversed by not less than one track of the equipment or compaction shall be achieved by a minimum of four controlled passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not so wet that water can be squeezed out. Where a minimum required density is specified, it shall not be less than 95% dry density with a moisture content within 1% of optimum.
 Cut Off Trench - The cut off trench shall be constructed into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slope of the trench shall be 1 to 1 or flatter. The fill material shall be compacted with construction equipment, rollers or hand tampers to assure minimum density and minimum permeability.
 Structure Backfill
 Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material to be placed shall be placed under and adjacent to the pipe. At no time during the backfilling shall any other equipment be allowed to operate closer than four feet measured horizontally, to any part of a concrete structure or pipe, unless there is a compacted 12" or greater over the structure or pipe.
 Pipe Conduits
 All pipes shall be circular in cross section.

SHALLOW MARSH MAINTENANCE SCHEDULE
HOMER'S ASSOCIATION
MAINTENANCE RESPONSIBILITIES
FOR SHALLOW MARSH

- INSPECTION FOREBAY AFTER EACH STORM - IF SEDIMENT BUILDUP EXCEEDS FOUR (4) INCHES, NOTIFY THE DEPARTMENT OF PUBLIC WORKS, BUREAU OF HIGHWAYS TO FACILITATE CLEANOUT OPERATIONS.
- REMOVAL OF ACCUMULATED PAPER, TRASH AND DEBRIS AFTER EVERY STORM.
- ANNUAL INSPECTION AND REPAIR OF THE GABION STRUCTURES, AS NEEDED.
- VEGETATION GROWING ON THE EMBANKMENT TOP OR FACES IS NOT ALLOWED TO EXCEED 18 INCHES IN HEIGHT AT ANY TIME.
- CORRECTIVE MAINTENANCE IS REQUIRED ANYTIME THE FOREBAY DOES NOT DRAIN DOWN TO THE DESIRED SURFACE ELEVATION WITHIN 60 HOURS.

TRASH RACK 'A' DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

TRASH RACK 'B' DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

CONCRETE RISER DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

ANTI-SEEP COLLAR
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:
 1. Material - Reinforced concrete pipe shall have bed and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
 2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high strength concrete placed under the pipe and up the sides of the pipe at least 100% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
 3. Laying pipe - Bed and spigot joints shall be laid and spigots shall be placed so that all exterior under the pipe line is filled. Care shall be exercised to prevent deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
 4. Backfilling shall conform to "Structure Backfill".
 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.
polyvinyl chloride (PVC) PIPE - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:
 1. Material - PVC pipe shall be PVC-1220 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
 2. Joints and connections to anti-seep collars shall be completely watertight.
 3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
 4. Backfilling shall conform to "Structure Backfill".
 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.
Concrete
 Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608: 15a No. 3.
Rock Riprap
 Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.
 The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Riprap shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 982C.

CONCRETE HEADWALL DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

DISPOSITION OF BAR DETAIL
 NOTES:
 1. REINFORCING DEFORMED STEEL.
 2. CONC. SHALL BE S.H.A. MIX NO.2.

CONCRETE RISER DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

CONCRETE RISER DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
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ANTI-SEEP COLLAR
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

Care of Water during Construction
 All work on permanent structures shall be carried out in a manner free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The Contractor shall also install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for construction of any part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavation and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at each location which may require raising the water to a pump from which the water shall be pumped.
 Stabilization
 All borrow areas shall be graded to provide proper drainage and left in a slightly rough condition. All exposed surfaces of the embankment, spigot and borrow areas, and berms shall be established by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting 900-312 or as shown on the accompanying drawings.
 Erosion and Sediment Control
 Construction operations will be carried out in such a manner that erosion will be controlled and water and silt pollution minimized. State and local laws concerning pollution minimized. State and local laws concerning pollution minimized will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

TRASH RACK 'C' DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

DISPOSITION OF BAR DETAIL
 NOTES:
 1. REINFORCING DEFORMED STEEL.
 2. CONC. SHALL BE S.H.A. MIX NO.2.

CONCRETE RISER DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
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 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

CORE TRENCH DETAIL
 NOTES:
 1. FIELD MEASURE THE STRUCTURE TO INSURE EXACT FIT OF TRASH RACK.
 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

DISPOSITION OF BAR DETAIL
 NOTES:
 1. REINFORCING DEFORMED STEEL.
 2. CONC. SHALL BE S.H.A. MIX NO.2.

CONCRETE RISER DETAIL
 NOTES:
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 2. GALVANIZE ENTIRE TRASH RACK AFTER FABRICATION.
 3. PAINT TRASH RACK ASSEMBLY BATTLESHIP GRAY.

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.
 Signature of Developer: *Francis J. And Eleanora A. Michael* Date: 5/23/00
 Printed Name of Developer: Francis J. And Eleanora A. Michael
 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.
 Signature of Engineer: *Charles J. Crandall* Date: 5/23/00
 Printed Name of Engineer: Charles J. Crandall
 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.
 Signature of Engineer: *Charles J. Crandall* Date: 5/23/00
 USDA-Natural Resources Conservation Service
 These Plans For Small Pond Construction, Soil Erosion And Sediment Control Meet The Requirements Of The Howard Soil Conservation District.
 Signature of Engineer: *Charles J. Crandall* Date: 5/23/00
 Approved Department of Public Works: *Charles J. Crandall* Date: 5/23/00
 Chief, Bureau of Highway
 Approved Department of Planning And Zoning: *Charles J. Crandall* Date: 5/23/00
 Chief, Division of Land Development
 Approved Department of Engineering Division: *Charles J. Crandall* Date: 5/23/00
 Chief, Development Engineering Division

AS-BUILT CERTIFICATION
 I Herby Certify That The Plans Shown On This Plan Was Prepared As Shown On The "As-Built" Plan And Meets The Approved Plans And Specifications.
 Signature: _____ P.E. No. _____ Date: _____
 Certify Means To State Or Declare A Professional Opinion Based Upon One's Own Knowledge And Material Tests Which Are Conducted During Construction. The Onsite Inspections And Material Tests Are Those Inspections And Tests Deemed Sufficient And Appropriate Commonly Accepted Engineering Practice. Certify Does Not Mean Or Implies A Guarantee By The Engineer Nor Does An Engineer's Certification Release Any Other Parties From Meeting Requirements imposed By Contract, Employment, Or Other Means, Including Meeting Commonly Accepted Industry Practices.

OPERATION, MAINTENANCE AND INSPECTION
 Inspection of the ponds shown herein shall be performed at least annually, in accordance with the checklist and requirements contained within USCS, SCS Standards And Specifications For Ponds 900-378b. The pond owner and any lessee, successor, or assignee shall be responsible for the safety of the pond and the continued operation, surveillance, inspection and maintenance thereof. The pond owner shall promptly notify the Soil Conservation District of any unusual observation that may be indicative of distress such as excessive seepage, turbid effluent, sluffing or slumping.

STORMWATER MANAGEMENT POND MAINTENANCE SCHEDULE

- ROUTINE MAINTENANCE**
 1. Facility shall be inspected annually and after major storms. Inspections should be performed during wet weather or determine if the pond is functioning properly.
 2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
 3. Debris and litter used to protect the structure shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as rip-rap outlet area shall be repaired as soon as it is noticed.
- NON-ROUTINE MAINTENANCE**
 1. Structural components of the pond such as the dam, riser structure and the pipes shall be inspected upon the detection of any damage. The components should be inspected during maintenance operations.
 2. Sediment should be removed when its accumulation significantly reduces the design storage. Interference with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public Works.

GEOTECHNICAL RECOMMENDATIONS FOR EMBANKMENT AND CUT-OFF TRENCH CONSTRUCTION
 THE SITE SHOULD BE STRIPPED OF TOPSOIL AND ANY OTHER UNSUITABLE MATERIALS FROM THE EMBANKMENT OR STRUCTURE AREA IN ACCORDANCE WITH SOIL CONSERVATION DISTRICT STANDARDS AND SPECIFICATIONS. THE EMBANKMENT AND CUT-OFF TRENCH SHOULD BE CONSTRUCTED WITH A MINIMUM OF 18 INCHES OF EXPOSED SUBGRADE MATERIALS SHOULD BE PROTECTED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT IN THE PRESENCE OF A GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE. THE AREA OF EMBANKMENT AND CUT-OFF TRENCH SHOULD BE PROTECTED WITH A LOADED DUMP TRUCK OR SIMILAR EQUIPMENT. ANY EXCESSIVELY SOFT OR LOOSE MATERIALS IDENTIFIED BY PROTECTIVE OR PROBE TESTING SHOULD BE EXCAVATED TO SUITABLE FIRM SOIL, AND THEN REPAIRED OR ESTABLISHED BY BACKFILLING WITH SUITABLE SOIL.
 A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO MONITOR PLACEMENT AND COMPACTION OF FILL FOR THE EMBANKMENT AND CUT-OFF TRENCH IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION DISTRICT SCS STANDARDS AND SPECIFICATIONS. THE RATE OF EMBANKMENT AND CUT-OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION GC, SC, CH OR CL. ALL MATERIALS MUST BE PLACED AND COMPACTED IN ACCORDANCE WITH MD SCS 378 SPECIFICATIONS.

STORMWATER MANAGEMENT DISCHARGE SUMMARY AT STUDY POINT

DESIGN STORM	EXISTING CONDITIONS Q (cfs)	PROPOSED CONDITIONS Q (cfs)
* 2 YEAR	46.7	47.7
* 10 YEAR	105.0	114.5
100 YEAR	243.0	265.9

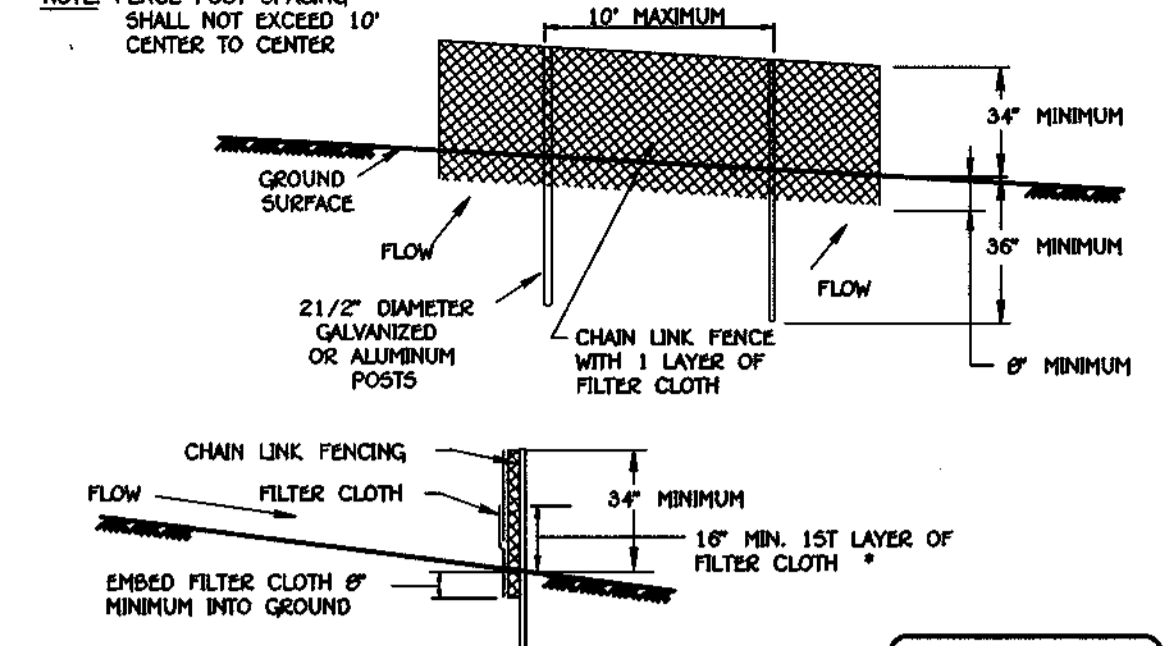
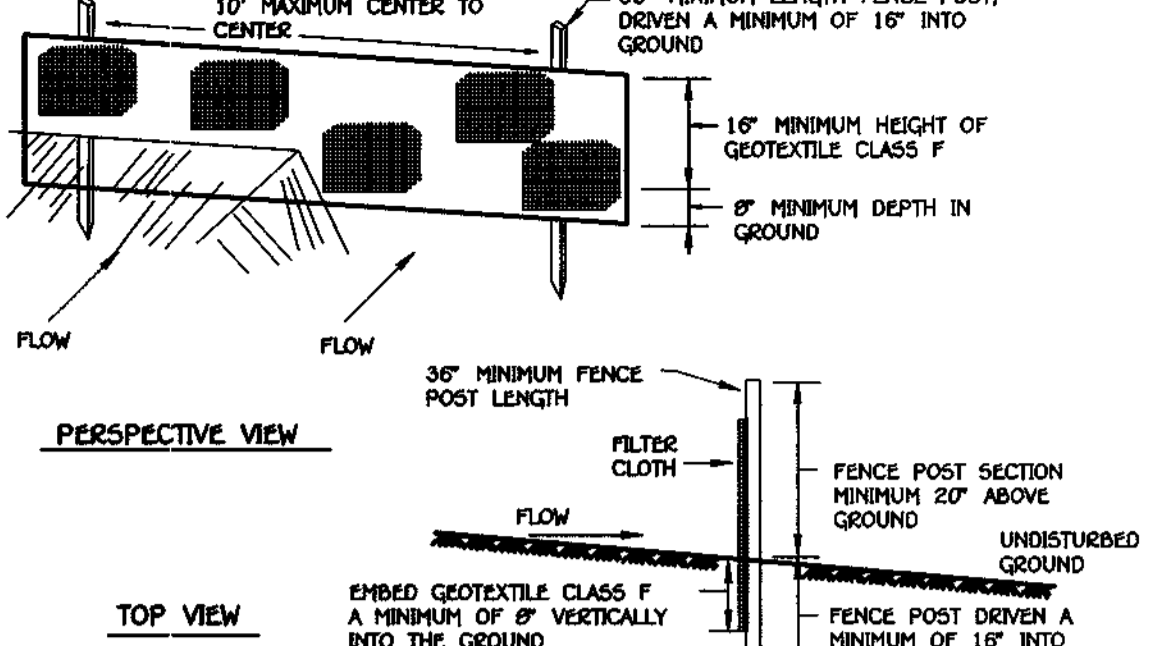
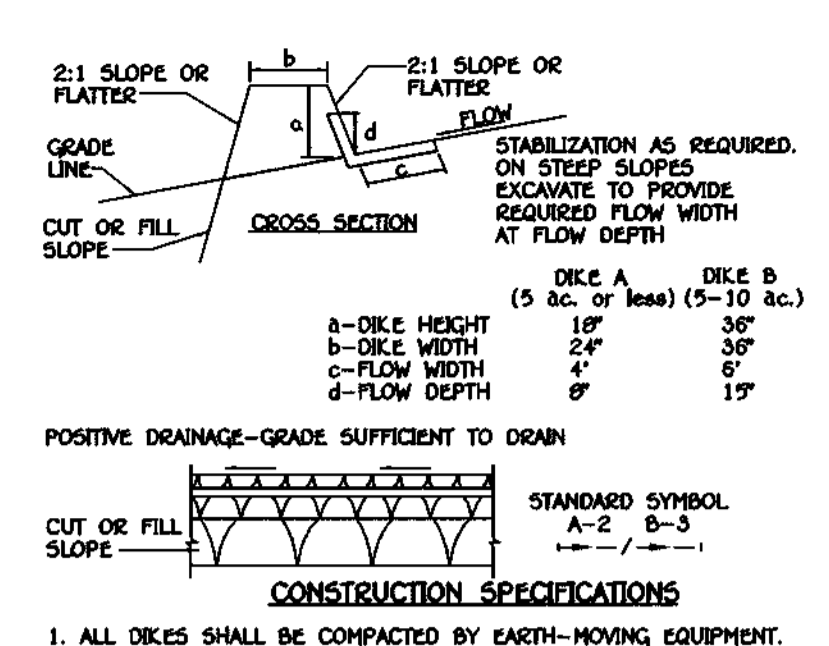
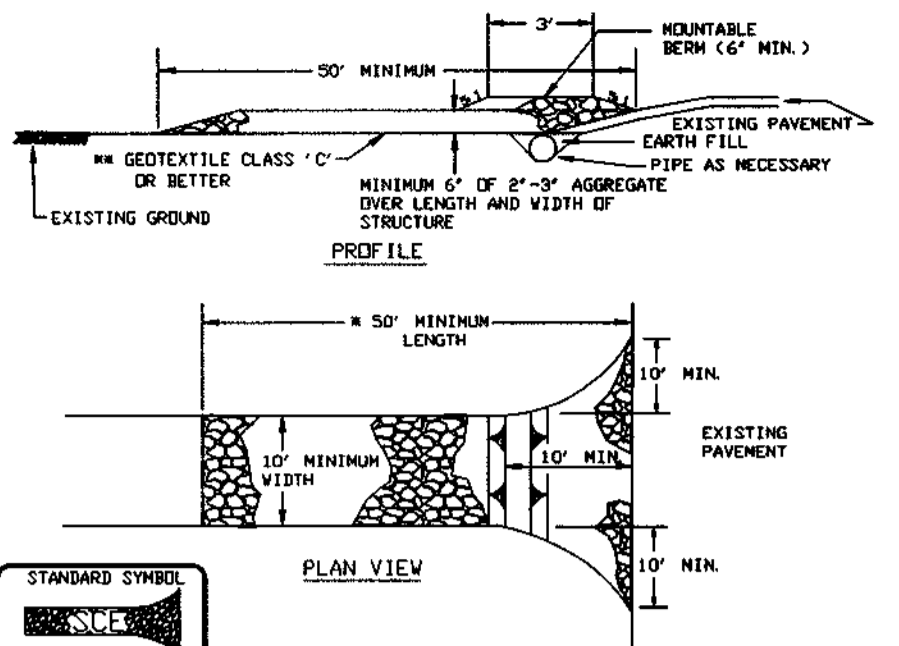
* - 2 AND 10 YEAR MANAGEMENT IS REQUIRED

S.W.M. NOTES AND DETAILS
ROCKBURN VIEW
 LOTS 4 THRU 35
 (A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9980, SUBDIVISION OF PARCEL NO. 563 AND THE RESIDUE OF LIBER 1573 AT FOLIO 568)
 ZONING: R-20
 TAX MAP NO. 37 PARCEL NO. 563 AND PART OF PARCEL NO. 669 GRID NO. 4
 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: MAY 22, 2000
 SHEET 13 OF 16

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 CLARKS CREEK, MARYLAND 21041
 (410) 461-2855
 FAX: (410) 461-2855

OWNERS
 FRANCIS J. AND ELEANORA A. MICHAEL
 6090 HOMOCHERRY ROAD
 ELKIDGE, MARYLAND 21075

DEVELOPER
 DANIEL AND JANET LEVINS
 6028 MONTGOMERY ROAD
 ELKIDGE, MARYLAND 21075



DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND THAT ANY RESPONSIBLE PERSONNEL IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Signature of Developer: *[Signature]* Date: 5/23/00

ENGINEER'S CERTIFICATE

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

Signature of Engineer: *[Signature]* Date: 5/23/00

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

Signature: *[Signature]* Date: 6/6/00

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

Signature: *[Signature]* Date: 6/6/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

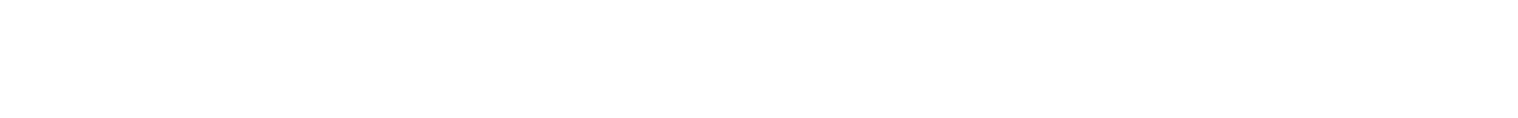
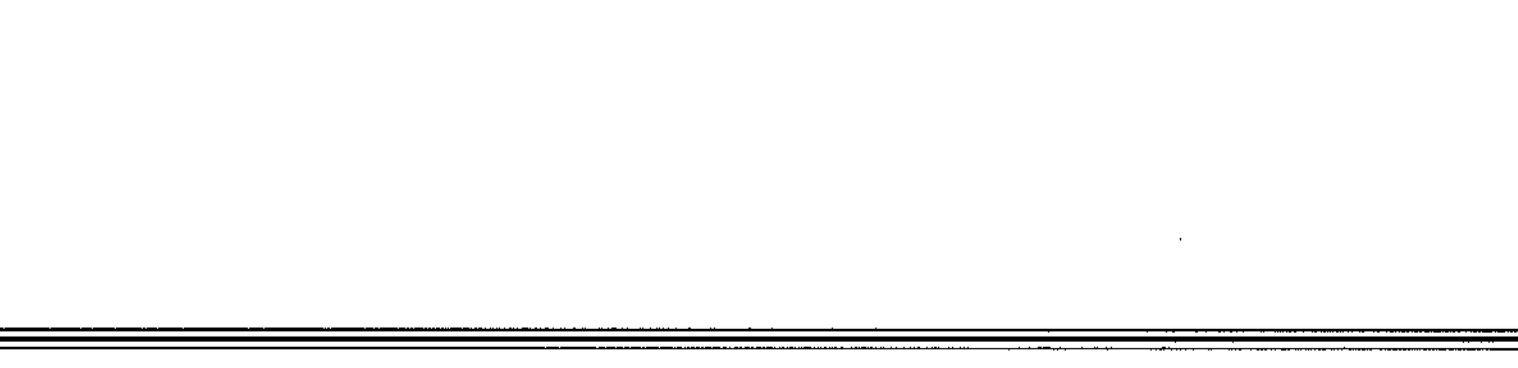
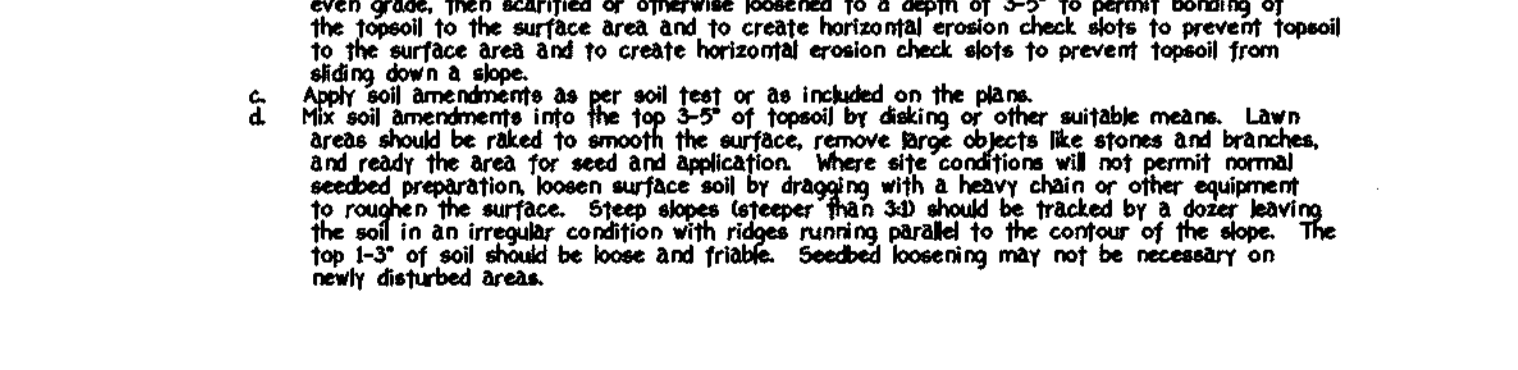
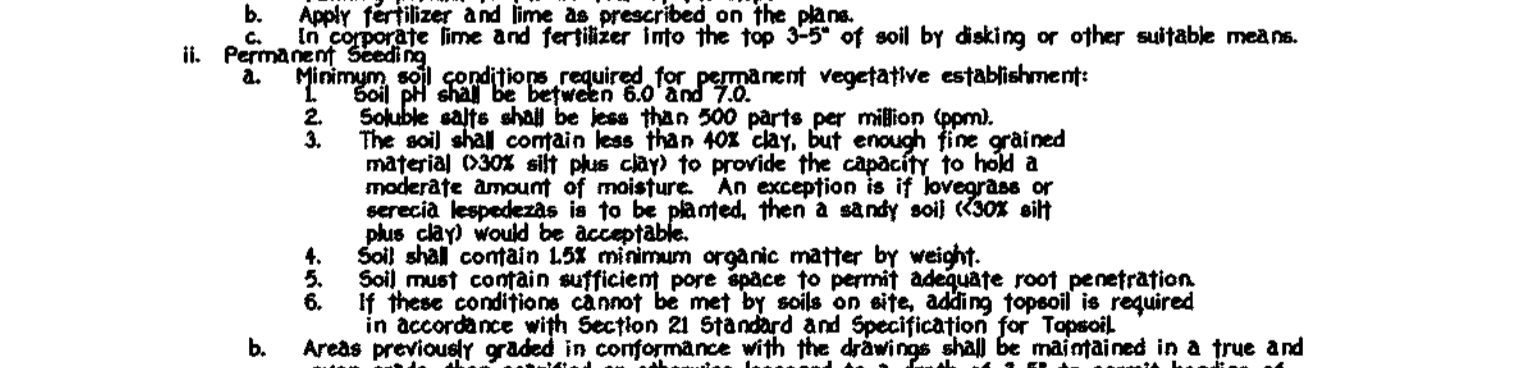
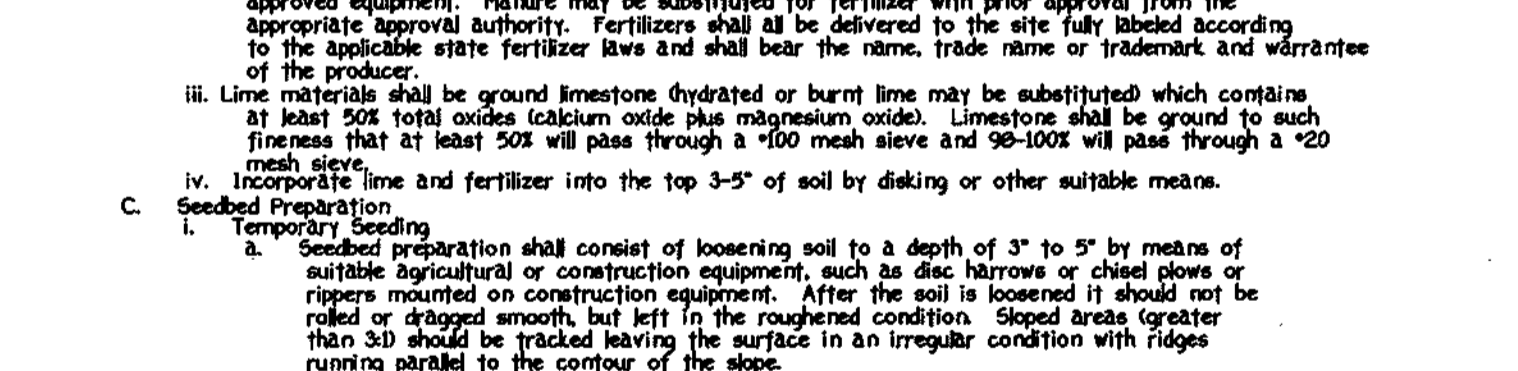
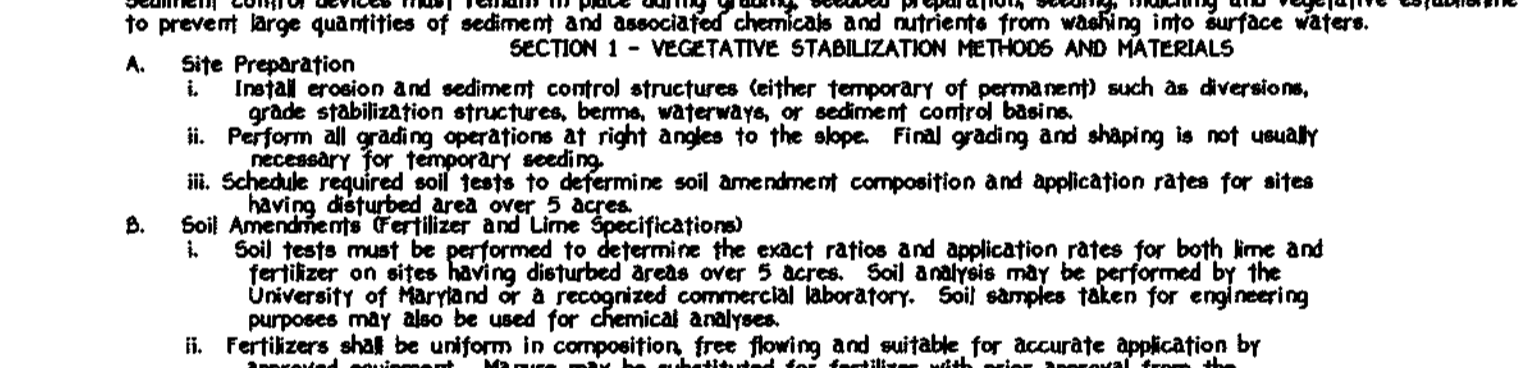
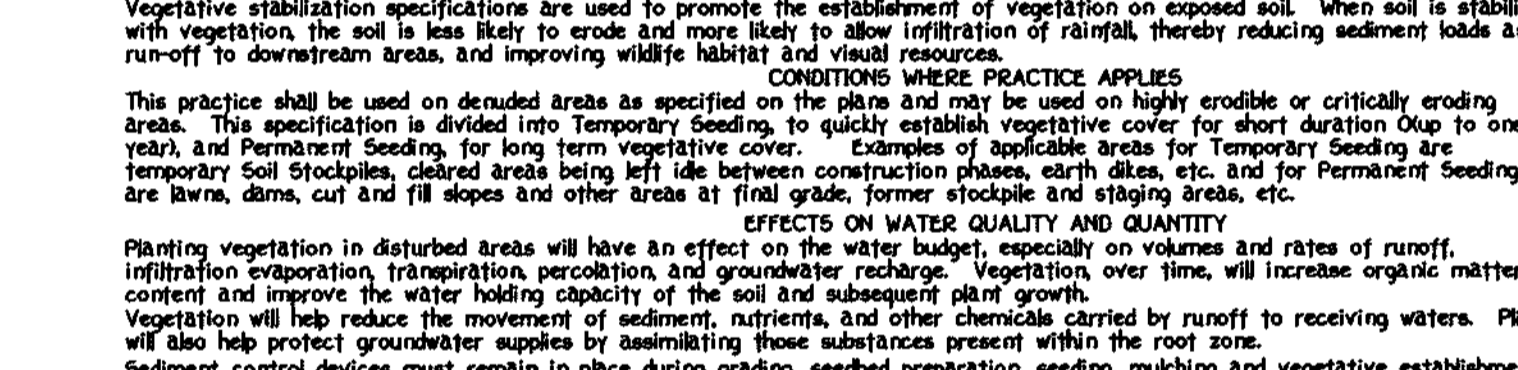
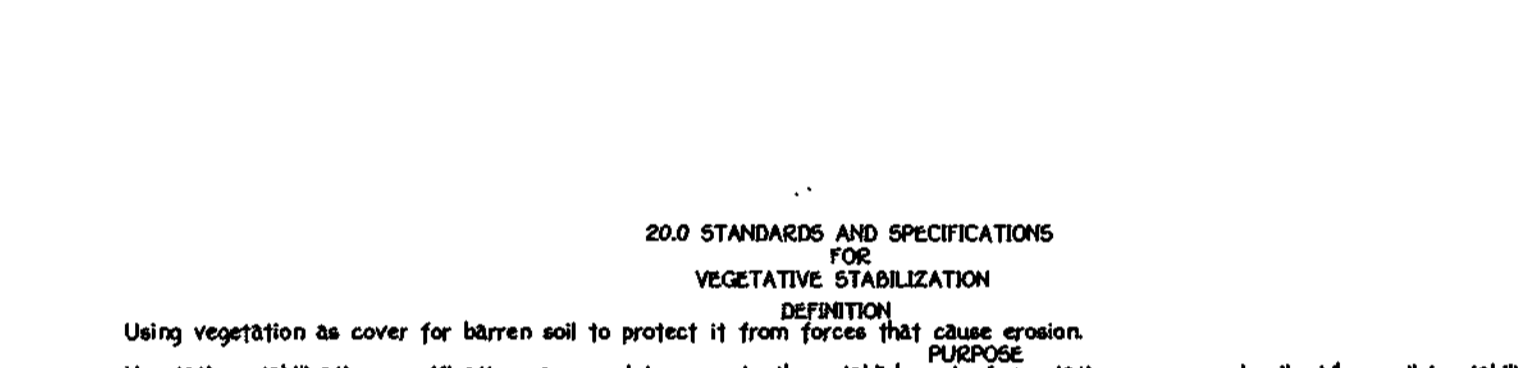
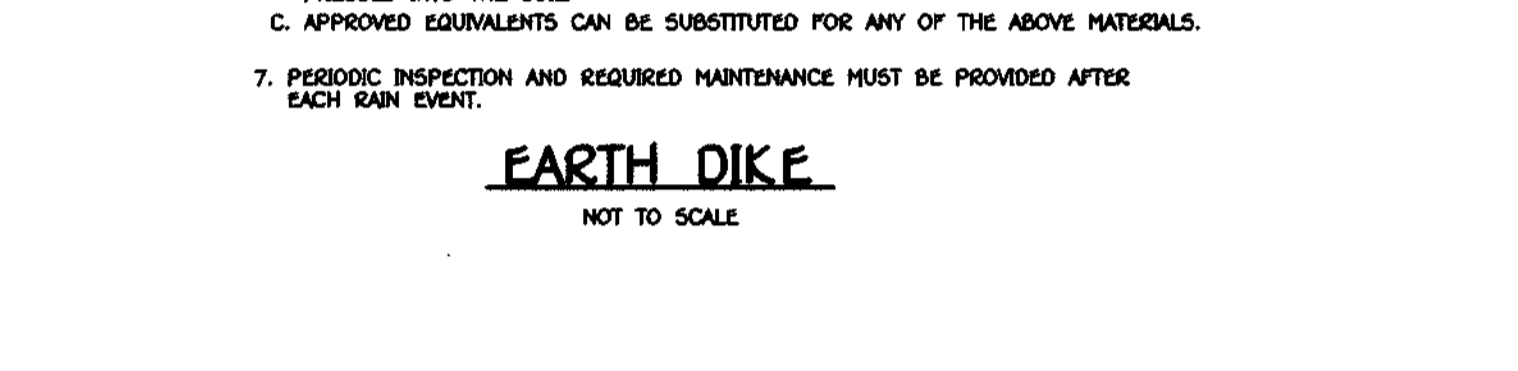
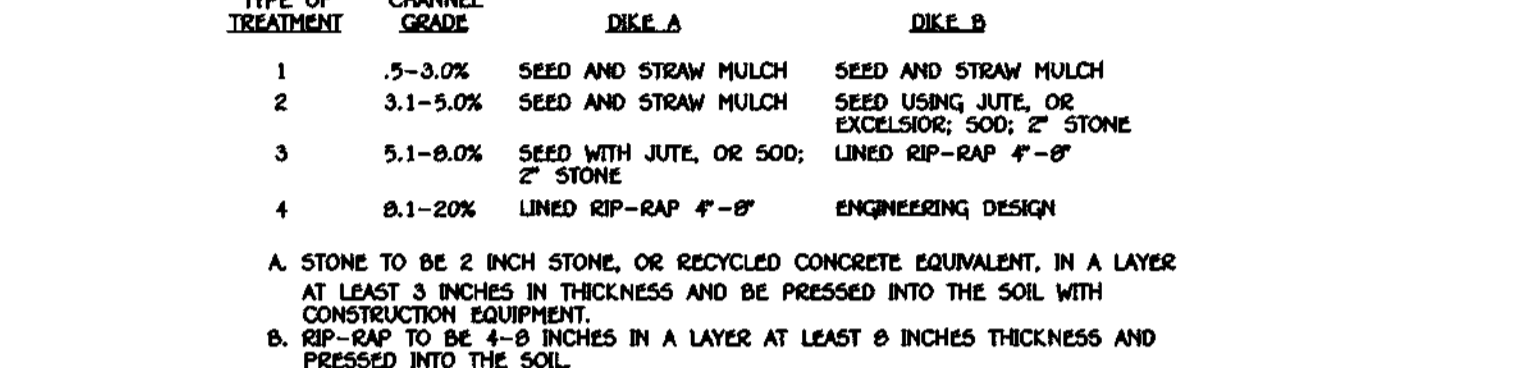
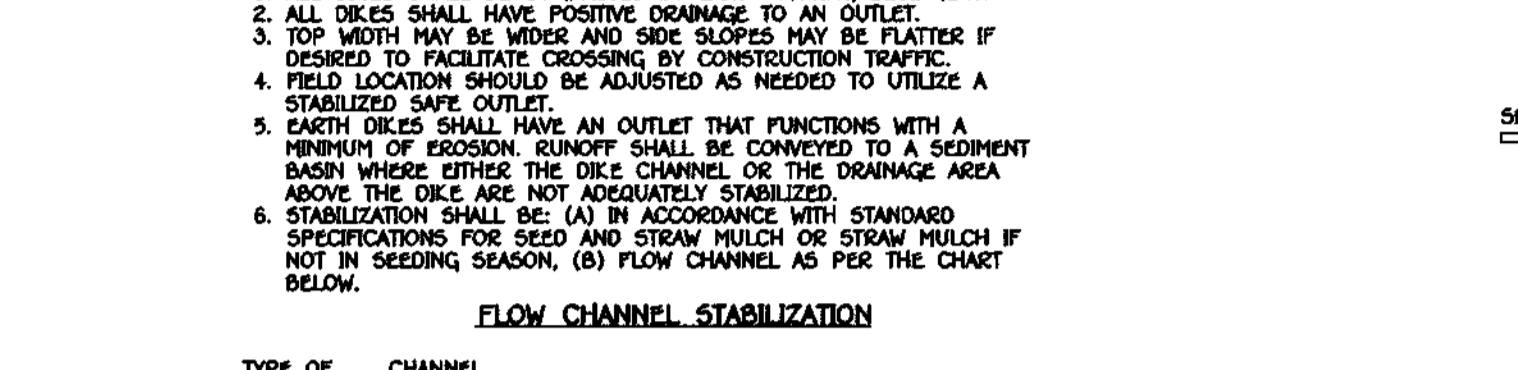
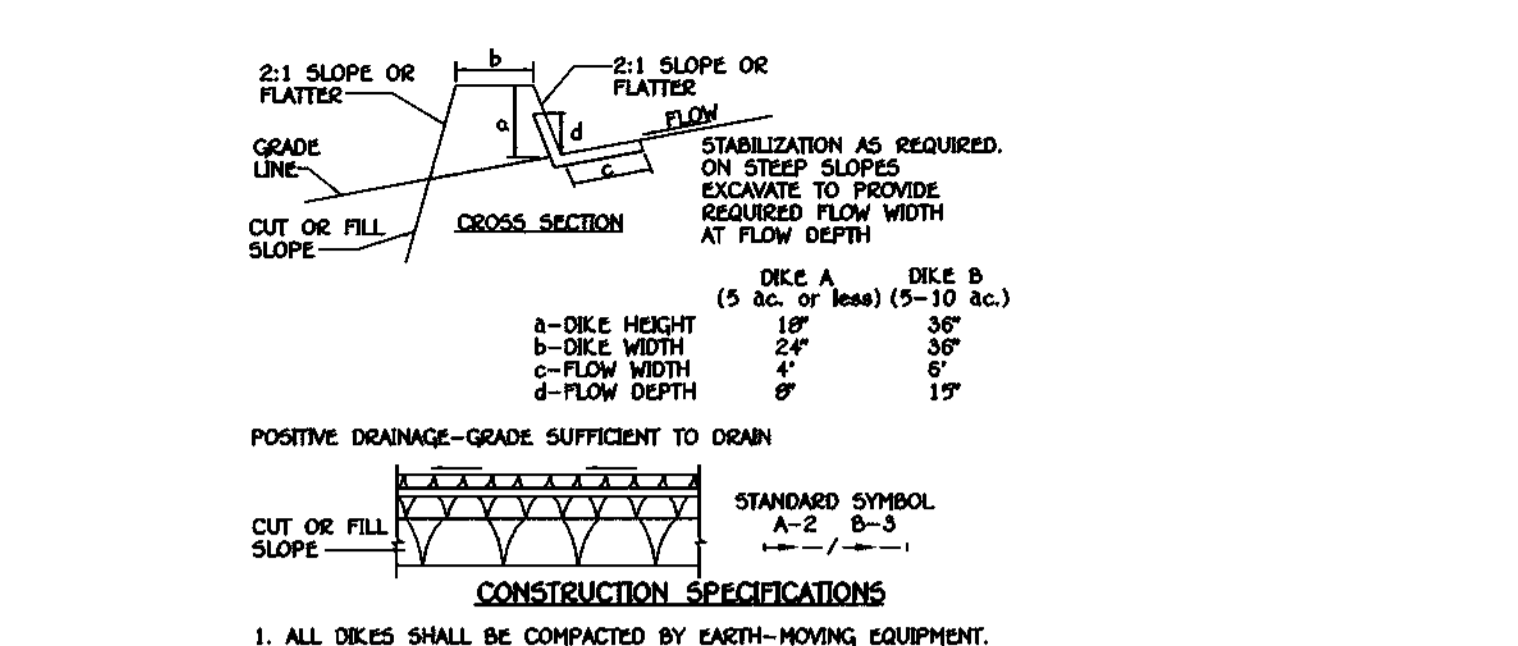
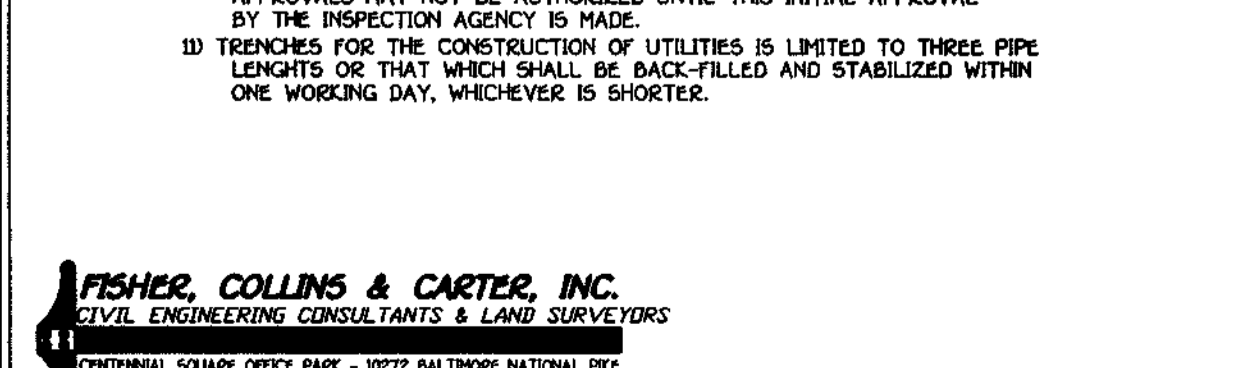
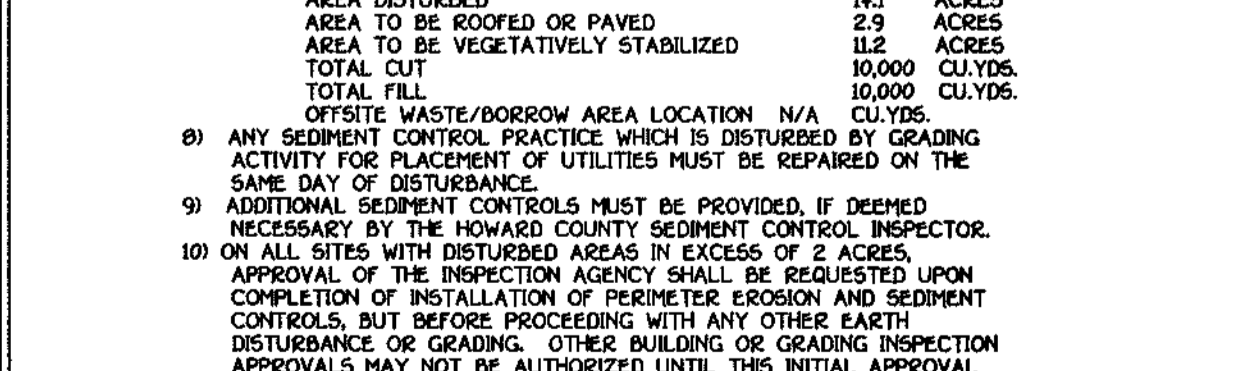
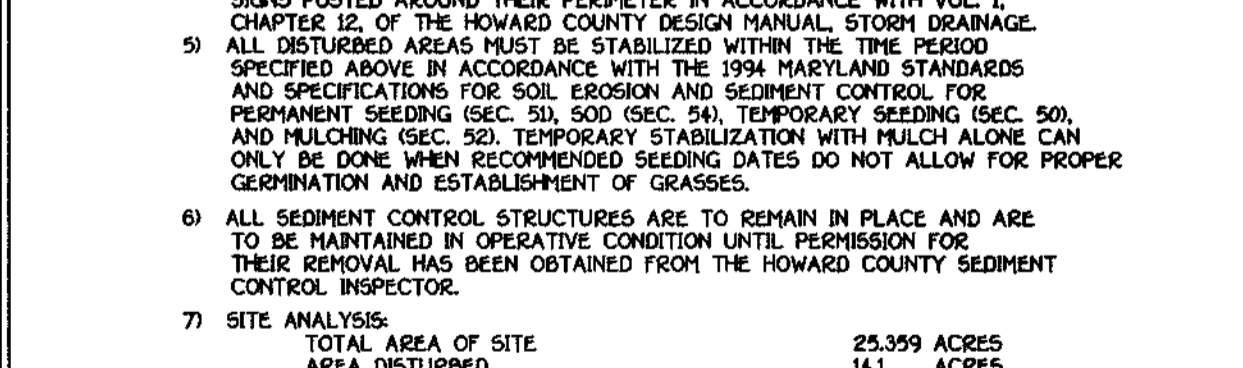
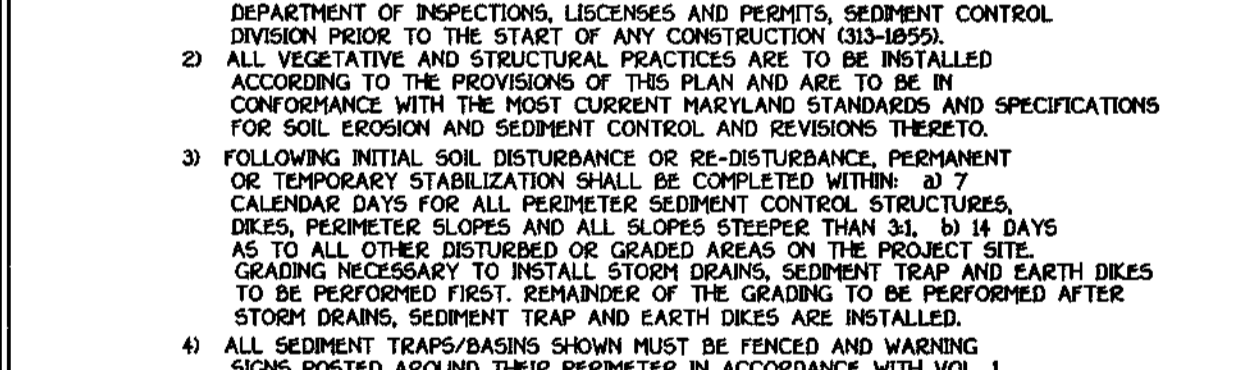
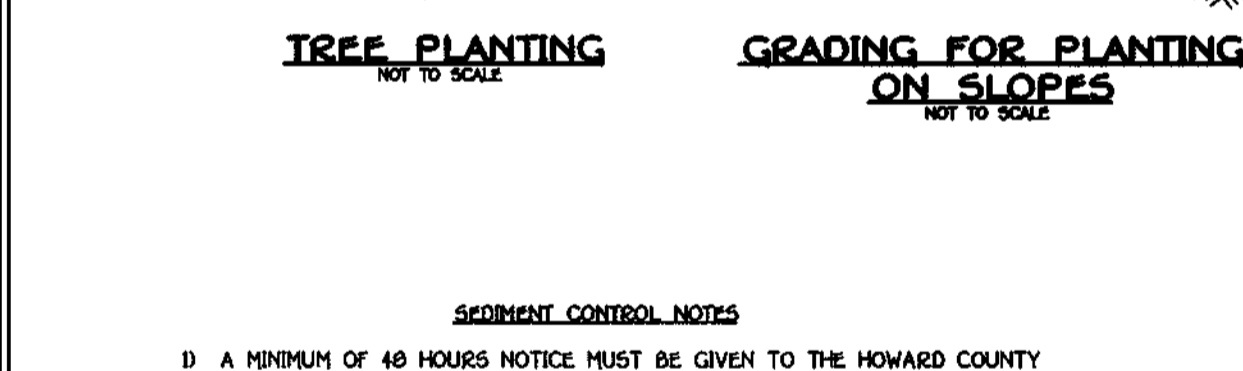
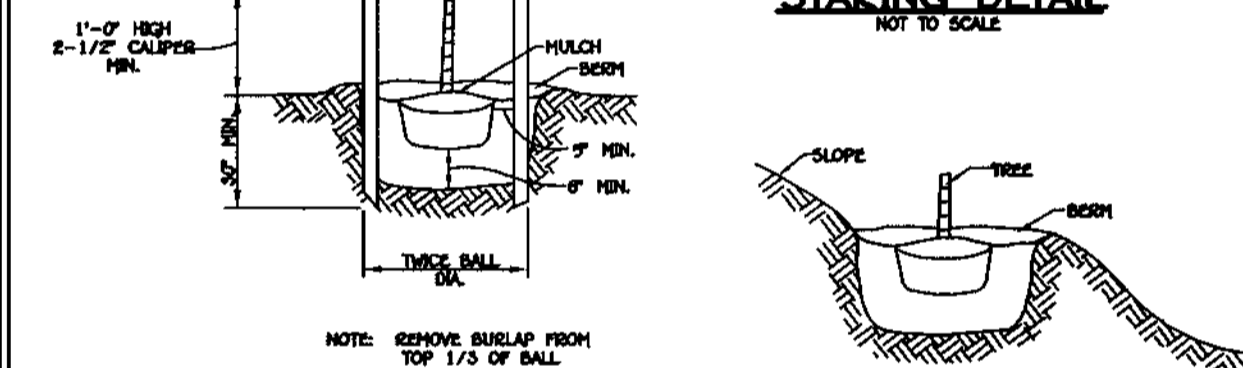
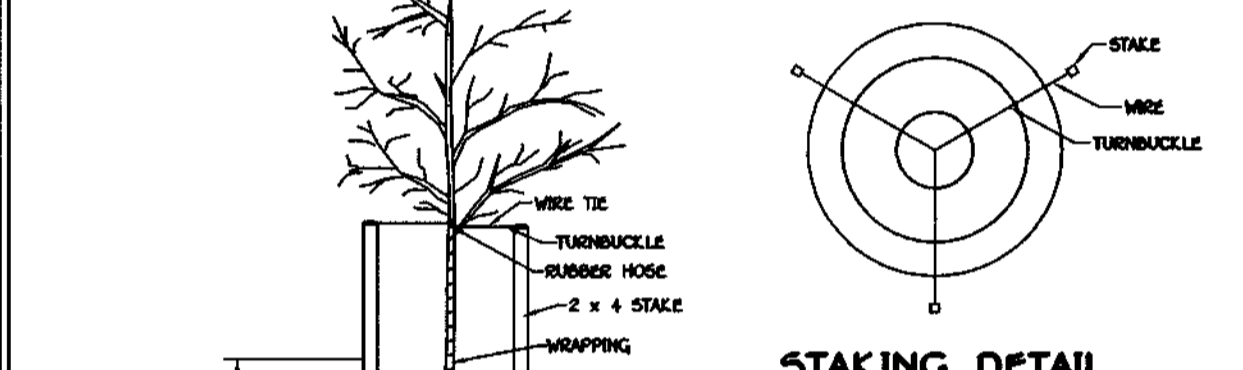
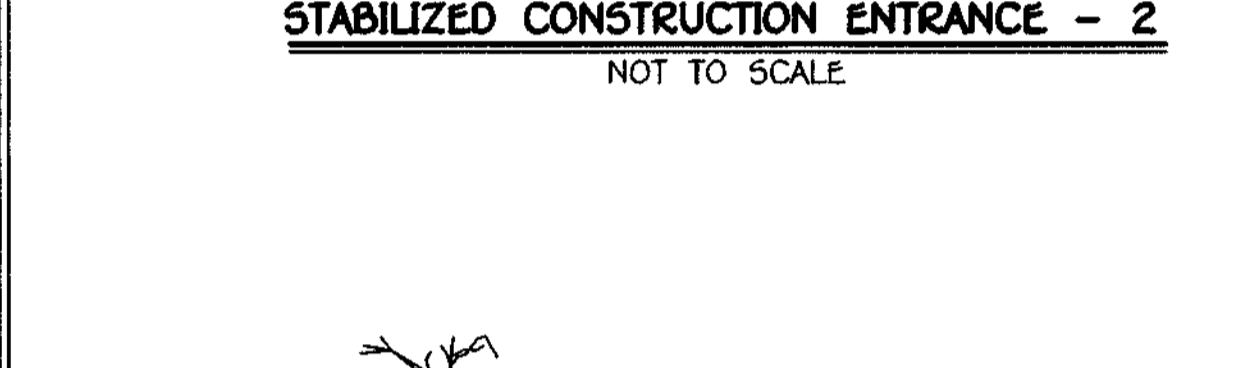
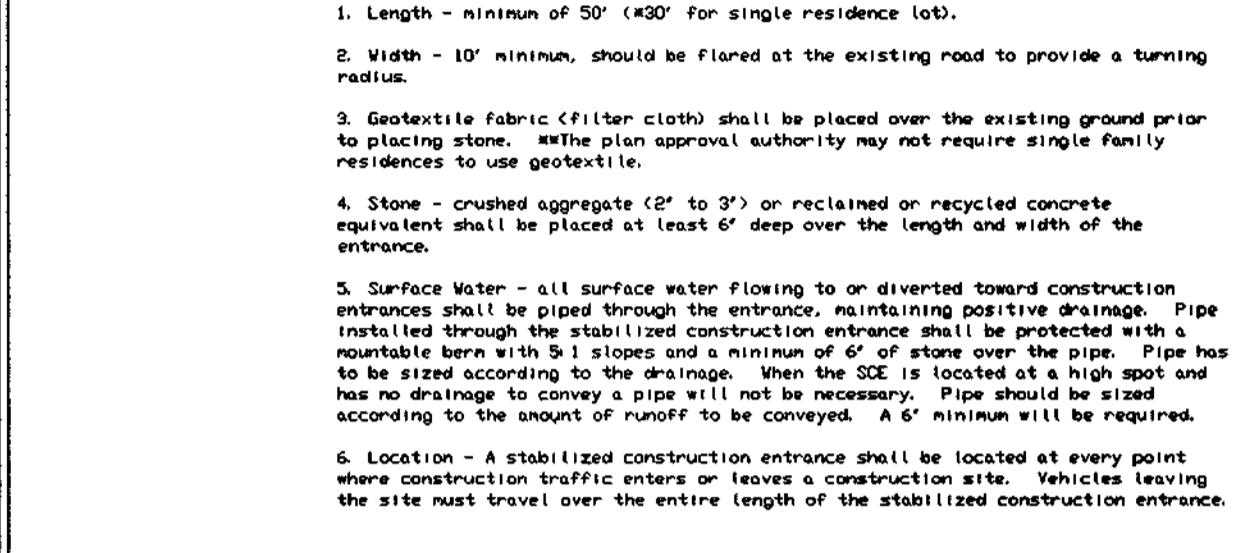
Signature: *[Signature]* Date: 6/29/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* Date: 6/29/00

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Signature: *[Signature]* Date: 6/29/00



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

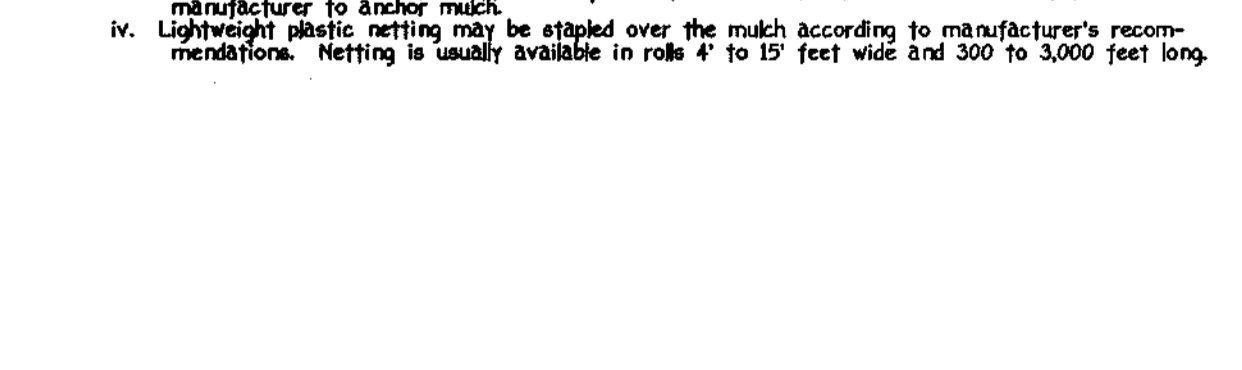
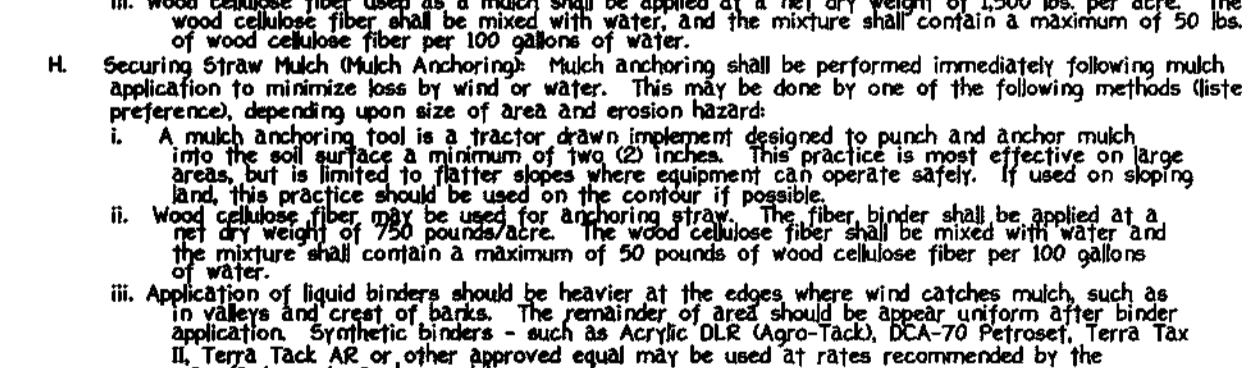
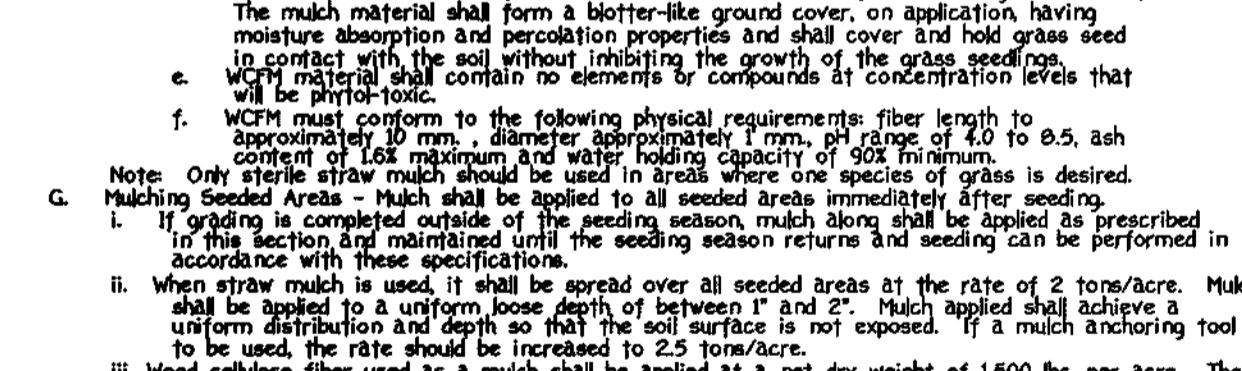
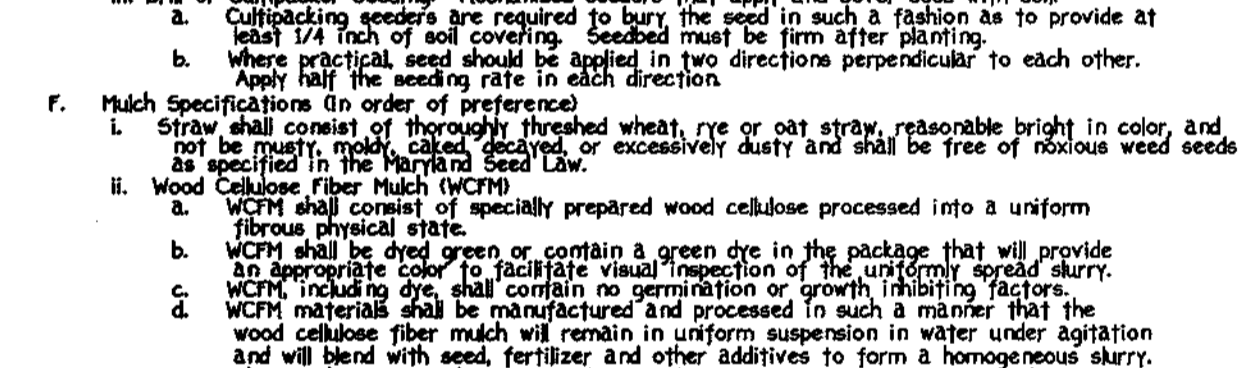
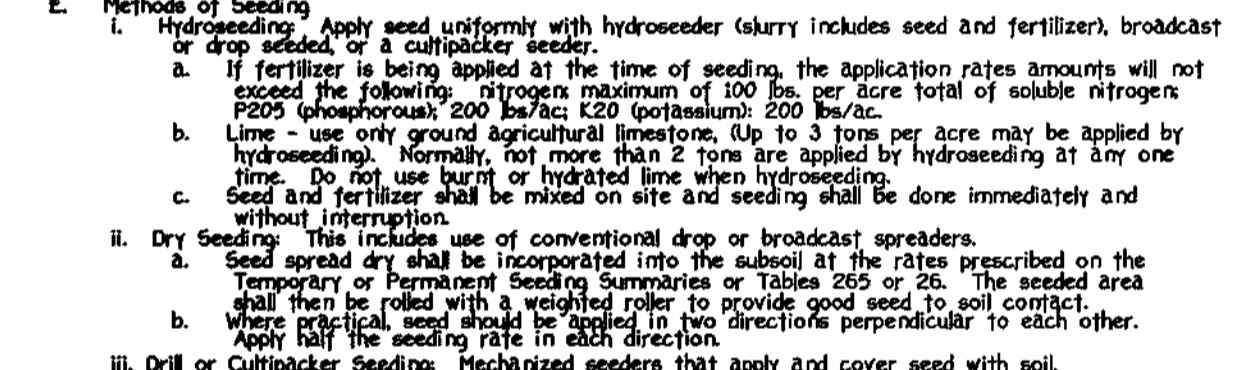
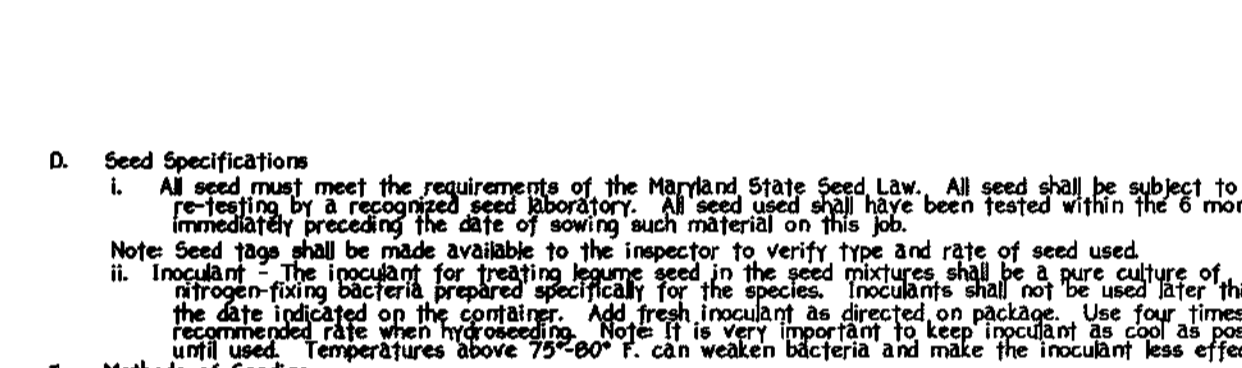
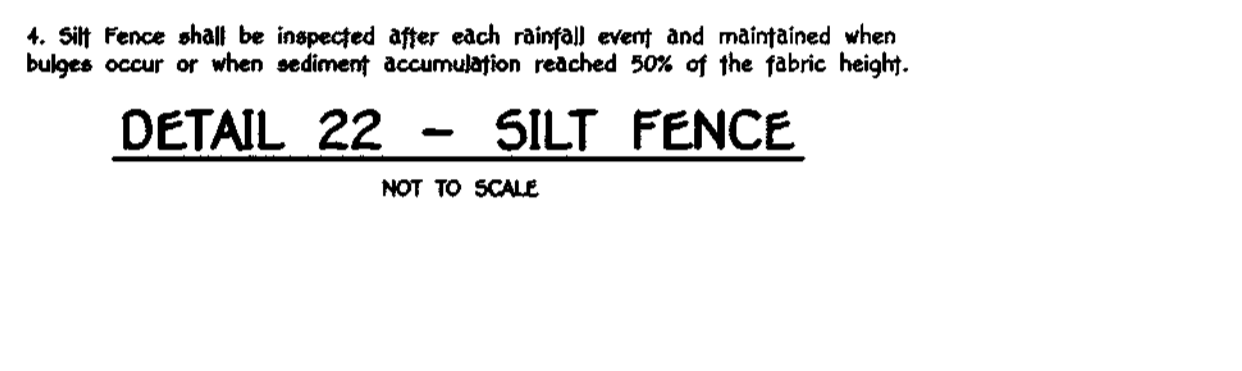
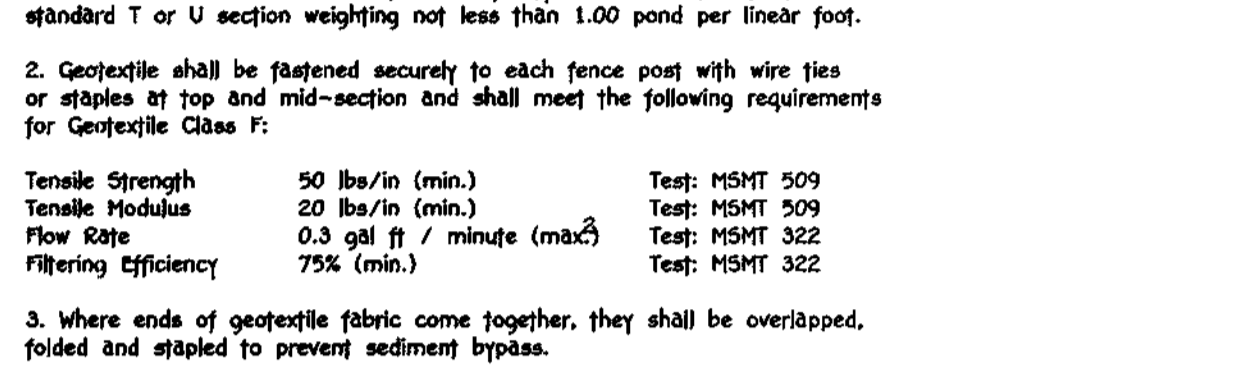
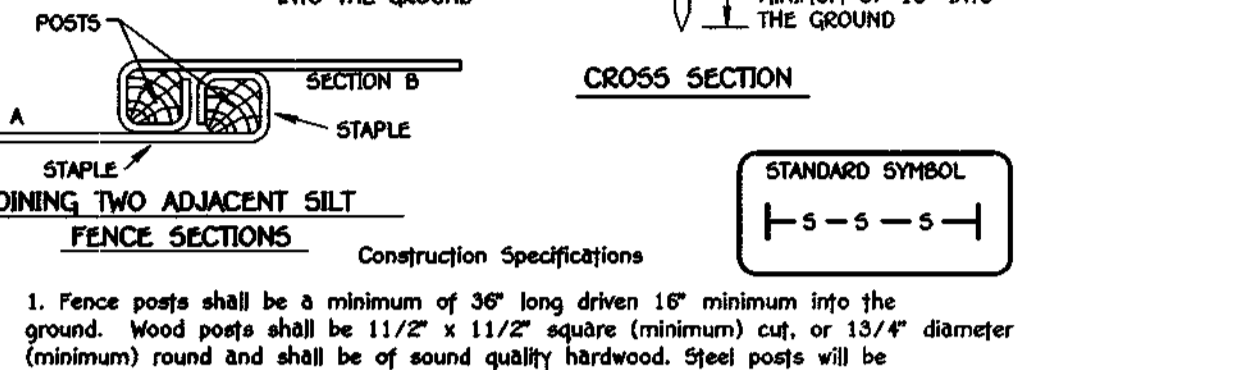
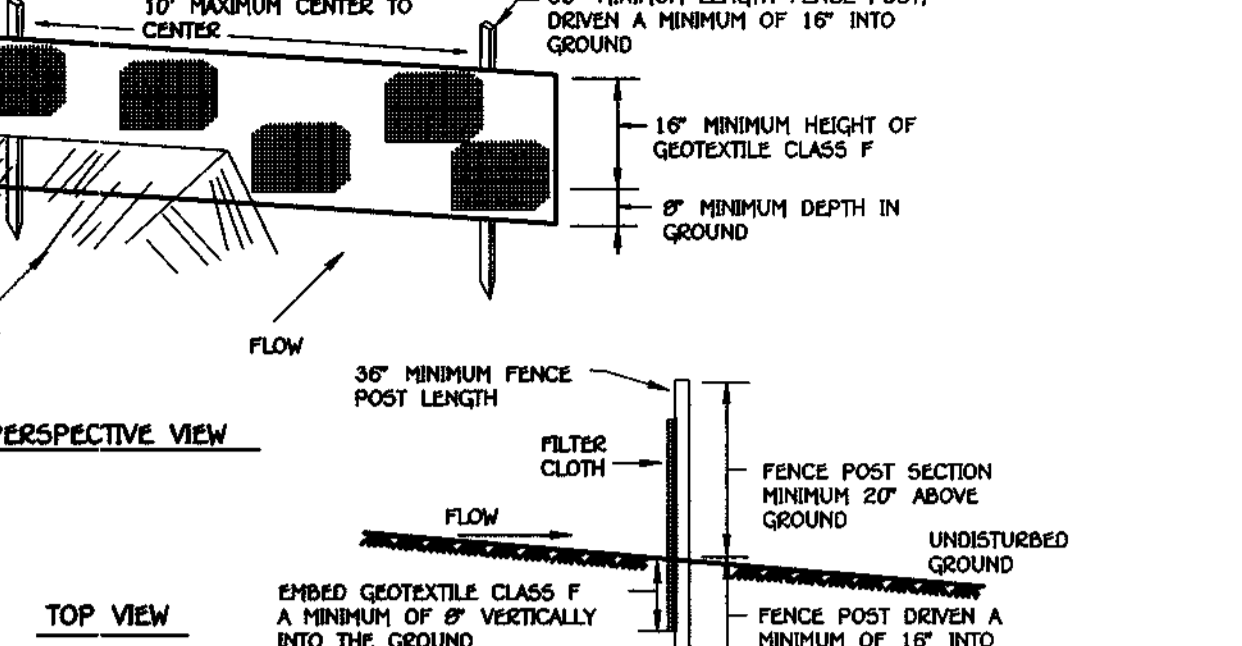
CENTRAL SQUARE OFFICE PARK - 1877 SALLIOTT NATIONAL FEE
ELICOTT CITY, MARYLAND 21117
410-941-2999

OWNERS

FRANCIS J. AND ELEANORA A. MICHAEL
6028 HONTGOMERY ROAD
ELKDRIDGE, MARYLAND 21075

DEVELOPER

CORNERSTONE HOLDINGS, L.L.C.
ATTN: MR. BRIAN BOY
6091 HORTON AVENUE
LAUREL, MARYLAND 20723

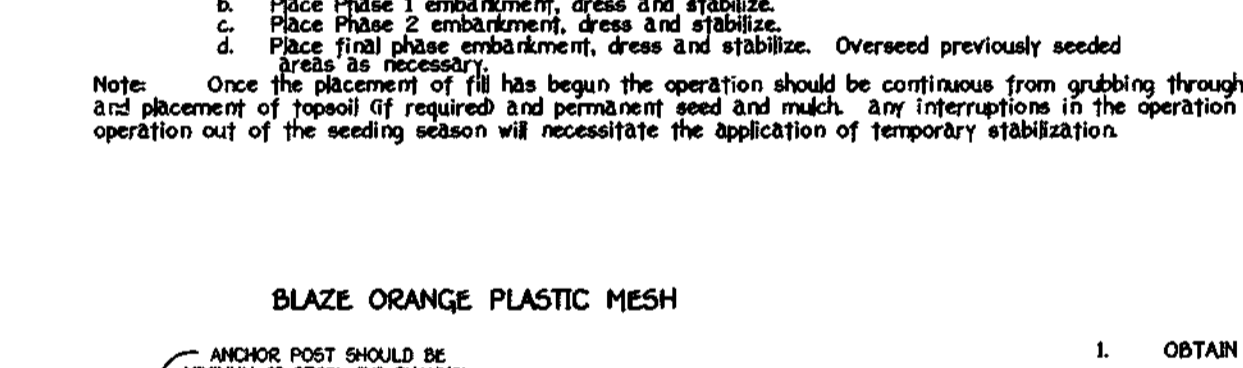
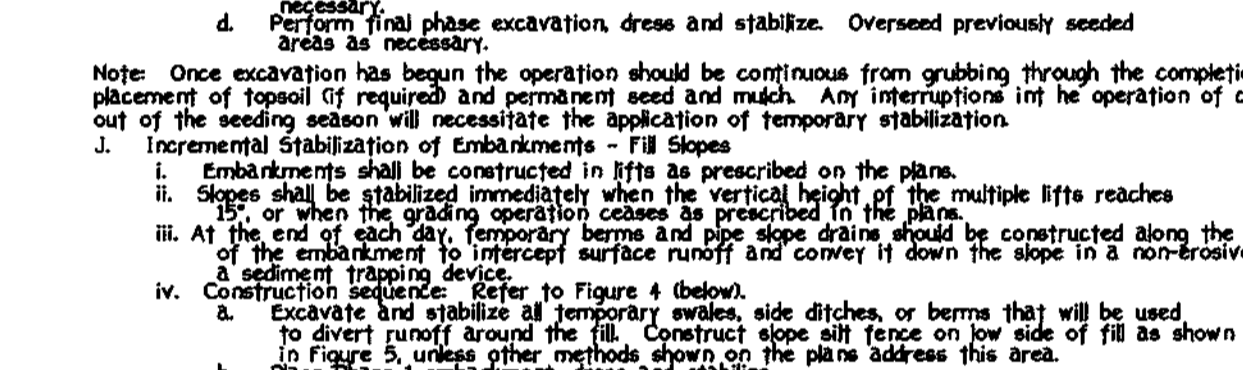
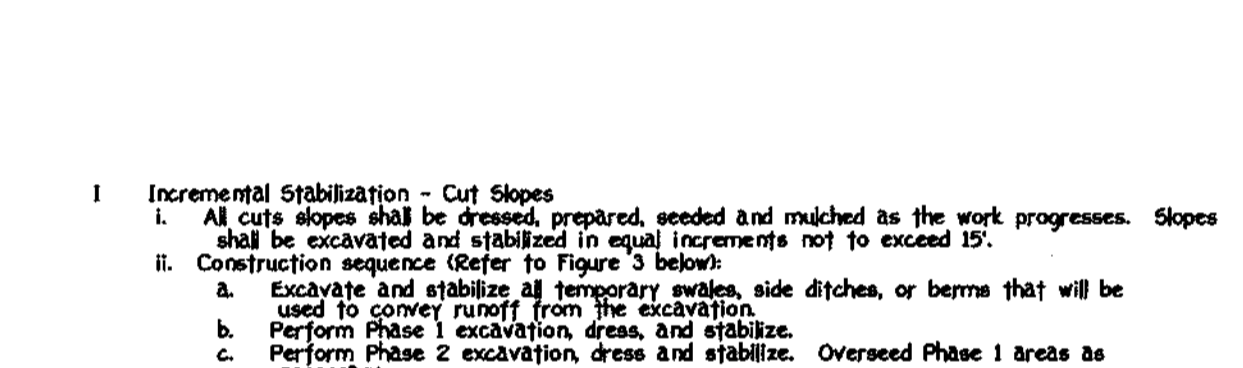
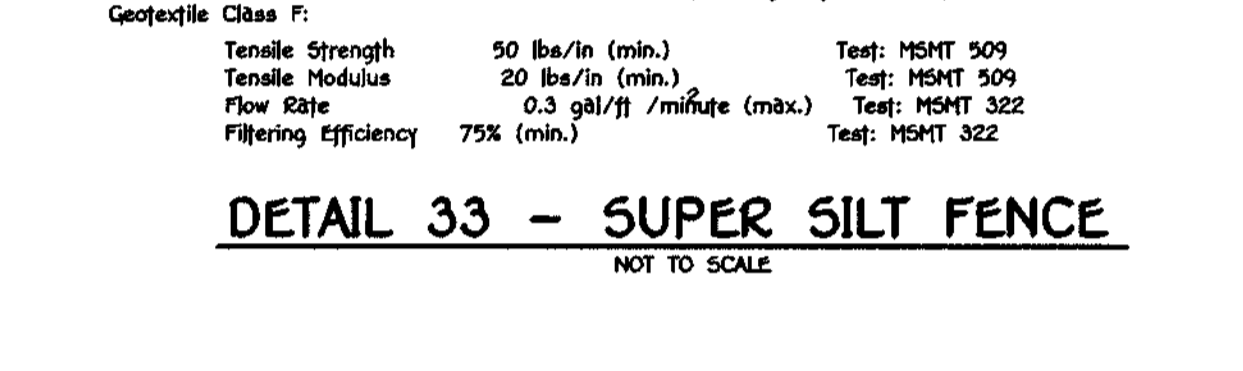
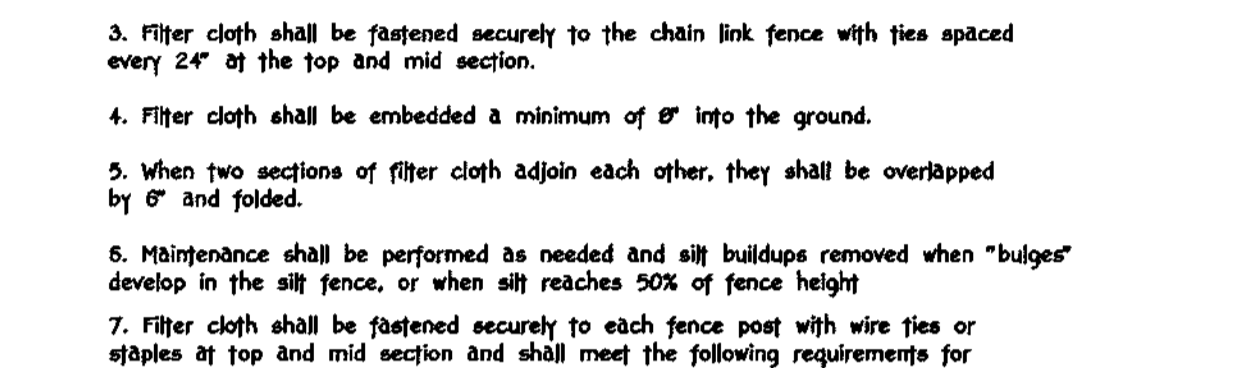
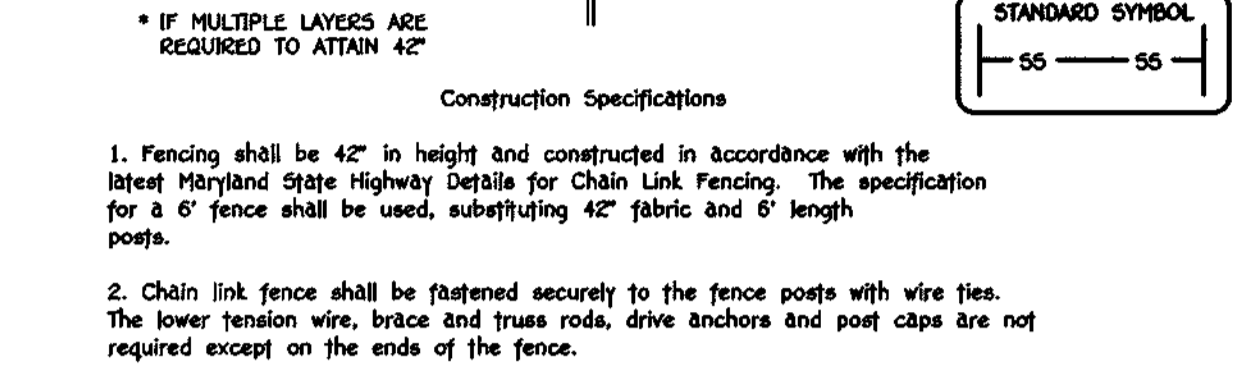
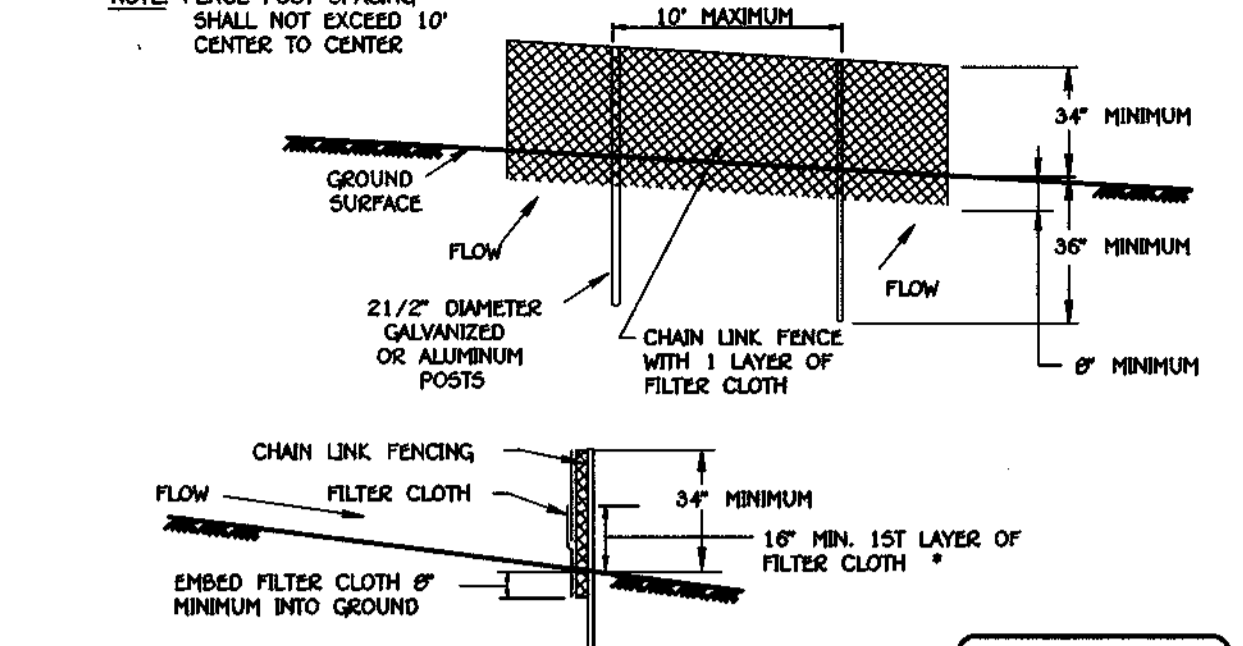


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ATTN: MR. BRIAN BOY
6091 HORTON AVENUE
LAUREL, MARYLAND 20723



PROPOSED SIGNAGE

FOREST RETENTION AREA
 MACHINERY, DUMPING OR STORAGE OF ANY MATERIAL IS PROHIBITED
 VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

SPECIMEN TREE DO NOT REMOVE
 MACHINERY, DUMPING OR STORAGE OF ANY MATERIAL IS PROHIBITED
 VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

REVISIONS		
No.	DESCRIPTION	DATE
1	ADDED LOTS 36 THRU 39	7/29/02
2	ADDED LOTS 40 AND 41	7/29/02

Approved Department Of Planning And Zoning
 Chief, Division Of Land Development
 Approved Howard County Department Of Public Works
 Chief, Bureau Of Highways

FOREST TREE PROTECTION AND MANAGEMENT NOTES

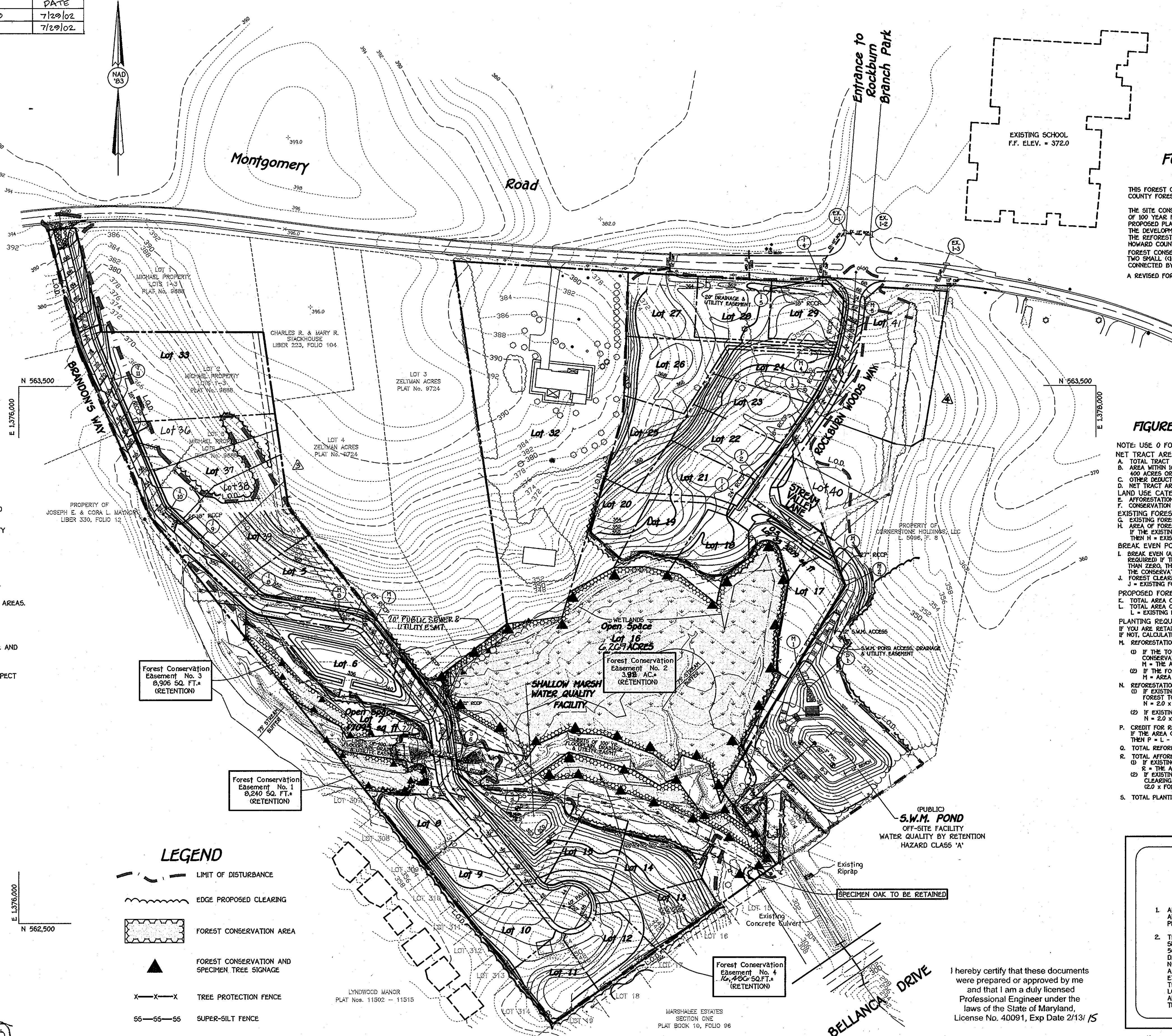
- TREE PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO ANY GRADING OR LAND CLEARING.
- AFTER THE BOUNDARIES OF THE RETENTION AREAS HAVE BEEN STAKED AND FLAGGED AND BEFORE ANY DISTURBANCE HAS TAKEN PLACE A PRE-CONSTRUCTION MEETING WITH THE HOWARD COUNTY INSPECTOR IS REQUIRED.
- NO GRADING, STORAGE OF EQUIPMENT, VEHICLES, EQUIPMENT STAGING OR DUMPING IS PERMITTED WITHIN FOREST CONSERVATION EASEMENT AREAS.
- PROVIDE MAINTENANCE TO TREE PROTECTION DEVICES AND SIGNAGE TO MAINTAIN THEIR INTEGRITY THROUGHOUT THE DURATION OF THE PROJECT.
- ATTACHMENT OF SIGNS OR ANY OTHER OBJECTS TO TREES IS PROHIBITED.
- ROOT PRUNING WILL BE PERFORMED WITH ROTARY DITCHING EQUIPMENT OR VIBRATORY KNIFE AS CONDITIONS WARRANT.
- ANY SIGNIFICANT CHANGES MADE TO THE FOREST CONSERVATION PLAN SHALL BE MADE WITH THE PRIOR CONSENT OF THE HOWARD COUNTY INSPECTOR.
- NO BURIAL OF DISCARDED MATERIAL IS PERMITTED WITHIN FOREST CONSERVATION AND PLANTING AREAS.
- NO OPEN BURNING WITHIN 100 FEET OF WOODS AREAS IS PERMITTED.
- POST CONSTRUCTION PHASE
 - INSPECT EXISTING TREES AROUND PERIMETER OF SITE FOR SIGNS OF ROOT OR TRUNK DAMAGE AND EXCESSIVE SOIL COMPACTION.
 - REMOVE DEAD OR DYING TREES AND EVALUATE FOR HAZARD TREE REMOVAL.
 - ALL TEMPORARY FOREST PROTECTION DEVICES WILL BE REMOVED AFTER CONSTRUCTION.
 - FOLLOWING COMPLETION OF CONSTRUCTION, PRIOR TO USE, THE COUNTY INSPECTOR SHALL INSPECT THE ENTIRE SITE FOR COMPLIANCE WITH THIS FOREST CONSERVATION PLAN.
- A LICENSED ARBORIST OR FORESTER SHOULD BE RETAINED FOR THIS SERVICE AS NEEDED.

FOREST CONSERVATION PLAN NARRATIVE
 THIS FOREST CONSERVATION PLAN HAS BEEN DEVELOPED IN ACCORDANCE WITH THE HOWARD COUNTY FOREST CONSERVATION MANUAL, AND THE 1991 FOREST CONSERVATION ACT.
 THE SITE CONSISTS OF 25.405 ACRES OF LAND, OF WHICH 14.22 ACRES OF LAND IS FORESTED WITH 0.833 ACRES OF 100 YEAR FLOODPLAIN AREA TO BE DEDUCTED FROM THESE FIGURES TO OBTAIN THE NET TRACT AREA. THE PROPOSED PLAN WILL CLEAR 9.54 ACRES OF THE EXISTING FOREST AND RETAIN 6.23 ACRES FORESTED AREA. THE DEVELOPMENT HAS BEEN DIVIDED INTO TWO AREAS, BOTH AREAS ARE ACCESSIBLE BY MONTGOMERY ROAD. THE REFORESTATION REQUIREMENT IS 2.79 ACRES AND A FEE-IN LIEU OF 436,459.72 WILL BE PAID TO THE HOWARD COUNTY FOREST CONSERVATION FUND TO SATISFY THIS OBLIGATION.
 FOREST CONSERVATION EASEMENTS WILL BE ESTABLISHED TO PROTECT THE FOREST AREA TO BE RETAINED. TWO SMALL (10,000 sq ft) EASEMENTS ARE BEING ESTABLISHED IN OPEN SPACE LOT 7. THESE AREAS ARE CONNECTED BY THE FORESTED FLOODPLAIN. TO CREATE A CONTIGUOUS AREA OF APPROXIMATELY 23,000 sq ft. A REVISED FOREST CONSERVATION WORKSHEET IS ON THIS SHEET.

FIGURE B-5 FOREST CONSERVATION WORKSHEET 2.0

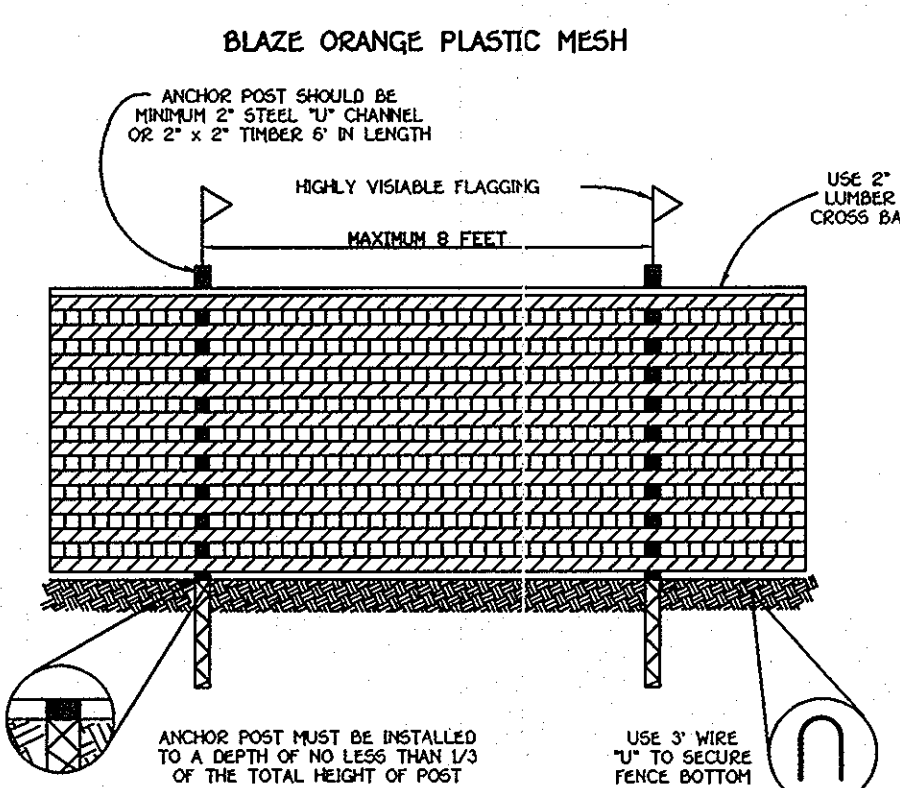
NOTE: USE 0 FOR ALL NEGATIVE NUMBERS THAT RESULT FROM THE CALCULATIONS.

A. NET TRACT AREA	A = 25.405
B. AREA WITHIN 100 YEAR FLOODPLAIN DRAINAGE AREA GREATER THAN 400 ACRES OR CLASS III WATER	B = 0.833
C. OTHER DEDUCTIONS	C = 0
D. LAND USE CATEGORY: NET TRACT AREA x (A - B - C)	D = 24.572
E. AFFORESTATION THRESHOLD (NET TRACT AREA x 150)	E = 3.686
F. CONSERVATION THRESHOLD (NET TRACT AREA x 200)	F = 4.914
G. EXISTING FOREST COVER	G = 14.22
H. AREA OF FOREST ABOVE CONSERVATION THRESHOLD IF THE EXISTING FOREST COVER IS GREATER THAN THE CONSERVATION THRESHOLD, THEN H = EXISTING FOREST COVER (G) - CONSERVATION THRESHOLD (F)	H = 9.31
I. BREAK EVEN POINT	I = 6.77
J. FOREST CLEARING PERMITTED WITHOUT MITIGATION J = EXISTING FOREST COVER (G) - BREAK EVEN POINT (I)	J = 7.45
K. PROPOSED FOREST CLEARING	K = 9.54
L. TOTAL AREA OF FOREST REMAINING L = EXISTING FOREST COVER (G) - FOREST TO BE CLEARED (K)	L = 4.69
M. PLANTING REQUIREMENTS IF YOU ARE RETAINING FOREST AT OR ABOVE THE BREAK EVEN POINT (I), NO PLANTING IS REQUIRED. IF NOT, CALCULATE THE PLANTING REQUIREMENT BELOW: M. REFORESTATION FOR CLEARING ABOVE THE CONSERVATION THRESHOLD (1) IF THE TOTAL AREA OF FOREST TO BE RETAINED (L) IS GREATER THAN OR EQUAL TO THE CONSERVATION THRESHOLD (F) THEN M = AREA OF FOREST TO BE CLEARED (K) x 0.25, OR (2) IF THE FOREST TO BE RETAINED (L) IS LESS THAN THE CONSERVATION THRESHOLD (F), THEN M = AREA OF FOREST ABOVE CONSERVATION THRESHOLD (H) x 0.25 N. REFORESTATION FOR CLEARING BELOW THE CONSERVATION THRESHOLD (1) IF EXISTING FOREST COVER (G) IS GREATER THAN CONSERVATION THRESHOLD (F), AND THE FOREST TO BE RETAINED (L) IS LESS THAN THE CONSERVATION THRESHOLD (F), THEN N = 2.0 x (THE CONSERVATION THRESHOLD (F) - THE FOREST TO BE RETAINED (L)) (2) IF EXISTING FOREST IS LESS THAN OR EQUAL TO THE CONSERVATION THRESHOLD, THEN N = 2.0 x FOREST TO BE CLEARED (K)	M = 0.46
P. CREDIT FOR RETENTION ABOVE THE CONSERVATION THRESHOLD IF THE AREA OF FOREST TO BE RETAINED (L) IS GREATER THAN THE CONSERVATION THRESHOLD (F), THEN P = L - F	P = 0
Q. TOTAL REFORESTATION REQUIRED Q = M + N + P	Q = 2.79
R. TOTAL AFFORESTATION REQUIRED (1) IF EXISTING FOREST COVER (G) IS LESS THAN THE AFFORESTATION THRESHOLD (E) THEN R = THE AFFORESTATION THRESHOLD (E) - THE EXISTING FOREST COVER (G) (2) IF EXISTING FOREST COVER (G) IS LESS THAN THE AFFORESTATION THRESHOLD (E) AND YOU ARE CLEARING FOREST, THEN R = THE AFFORESTATION THRESHOLD (E) - THE EXISTING FOREST COVER (G) + 0.2 x FOREST TO BE CLEARED (K)	R = 0
S. TOTAL PLANTING REQUIREMENT S = Q + R	S = 2.79

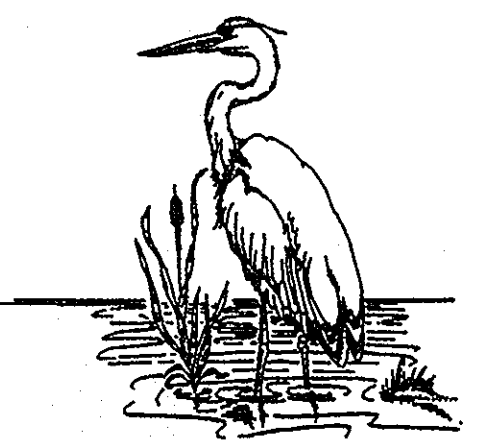


LEGEND

- LIMIT OF DISTURBANCE
- EDGE PROPOSED CLEARING
- FOREST CONSERVATION AREA
- ▲ FOREST CONSERVATION AND SPECIMEN TREE SIGNAGE
- x-x-x TREE PROTECTION FENCE
- SUPER-SILT FENCE



TREE PROTECTION DETAIL



PRESERVATION AREA NOTES

- ALL PROPOSED ACTIVITIES SHALL CONFORM TO THE TERMS, CONDITIONS AND SCHEDULES OF AN APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
- TREE PROTECTION FENCING (TYPICAL SECTION SHOWN ON THIS SHEET) SHALL BE INSTALLED ALONG ALL TREE SAVE AREAS THAT ARE WITHIN 50 FEET OF PROPOSED CONSTRUCTION ACTIVITIES. TREE PROTECTIVE DEVICES SHALL BE IN PLACE AT THE CONSTRUCTION ACTIVITIES COMMENCE. NO PROTECTIVE DEVICES SHALL BE INSTALLED ALONG TREE SAVE AREAS THAT ARE GREATER THAN 50 FEET FROM CONSTRUCTION ACTIVITY WITH THE FOLLOWING EXCEPTIONS: SPECIMEN TREES SHALL HAVE FENCE REGARDLESS OF LOCATION. ANY TREE REMOVAL ALONG A PROPERTY BOUNDARY SHALL HAVE FENCING. THE LOCATION OF ALL TREE PROTECTIVE DEVICES ARE SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN DRAWINGS WHICH WILL BE INCORPORATED INTO THIS TREE CONSERVATION PLAN BY REFERENCE.

I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 40091, Exp Date 2/13/15

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 12725 BALTIC NATIONAL Fwy
 ELKRTD CITY, MARYLAND 21042
 (410) 461-2895

EXPLORATION RESEARCH, INC.
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS
 6818 FOREST STREET
 BELLEVILLE CITY, MARYLAND 21043
 TEL: (410) 760-1150 FAX: (410) 760-7350

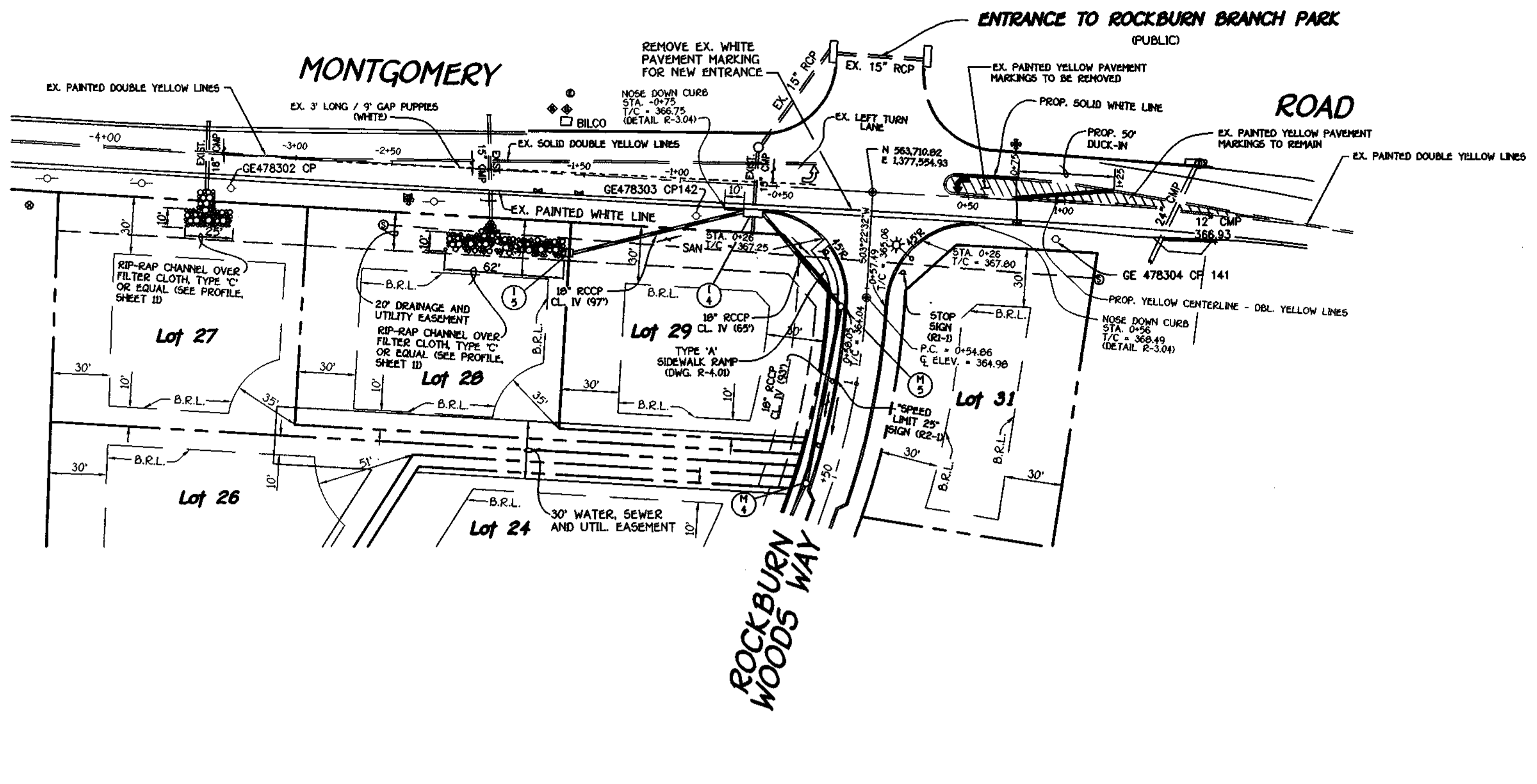
OWNERS
 FRANCIS J. AND ELEANORA A. MICHAEL
 6090 MONTGOMERY ROAD
 ELKRTDGE, MARYLAND 21075

DANIEL AND JANET LEWIS
 6028 MONTGOMERY ROAD
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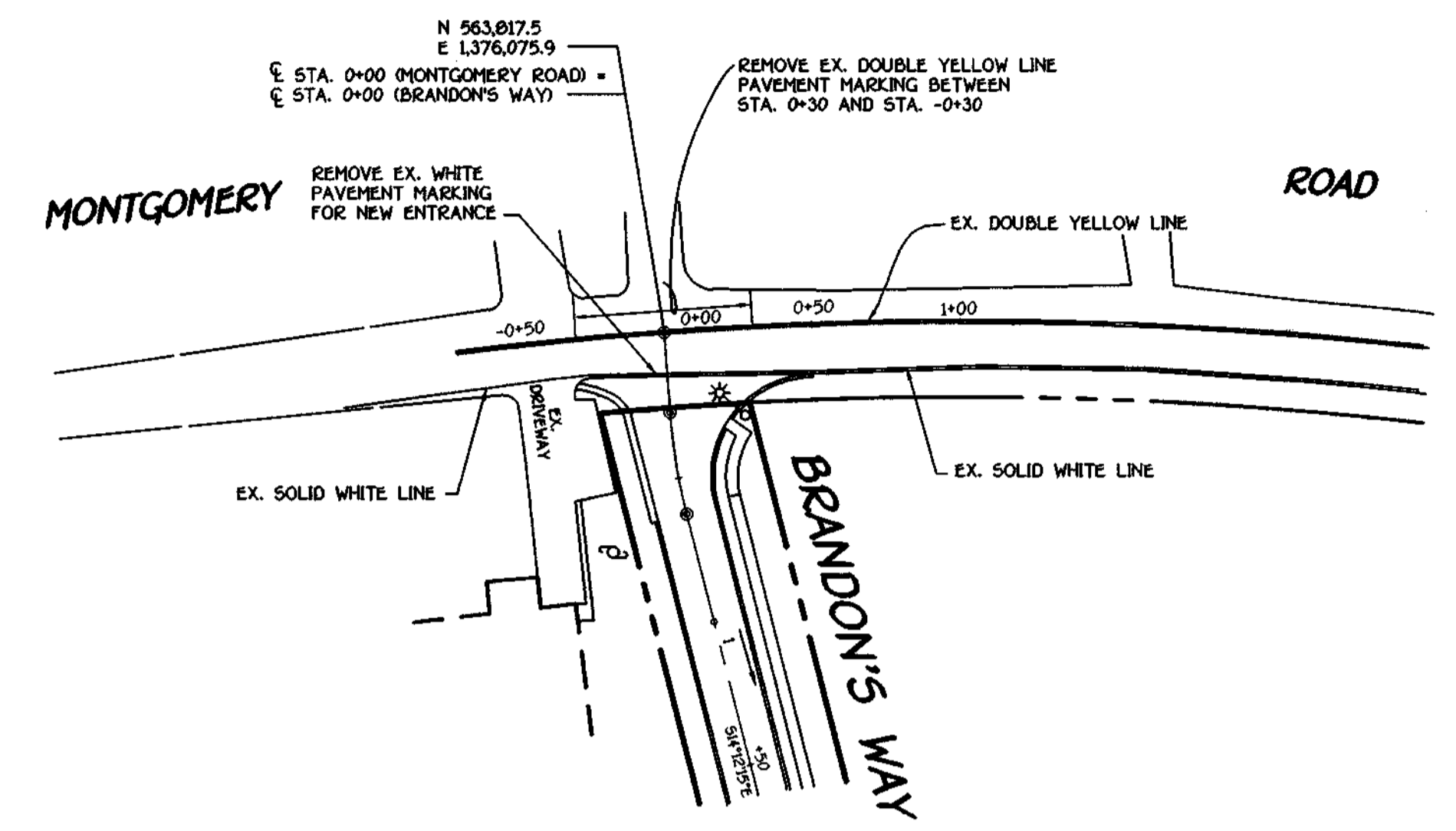
DEVELOPER
 CORNERSTONE HOLDINGS, L.L.C.
 ATTN: MR. BRIAN BOY
 9691 NORFOLK AVENUE
 LAUREL, MARYLAND 20723

NOTE: THE ACREAGE OF THE LIMIT OF DISTURBANCE ON PARCEL 329 IS 1.45 AC.
 STATE OF MARYLAND PROFESSIONAL ENGINEER
 STATE OF MARYLAND PROFESSIONAL ENGINEER
 For revisions
 10-21-13

FOREST CONSERVATION PLAN
ROCKBURN VIEW
 LOTS 4 THRU 41
 RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9880 AND A SUBDIVISION OF PARCEL NO. 563
 ZONING: R-20
 TAX MAP No. 37 PARCEL No. 563 AND PART OF PARCEL No. 669 GRID No. 4
 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: MAY 31, 2000
 SHEET 15 OF 16



STRIPING PLAN
SCALE: 1" = 50'

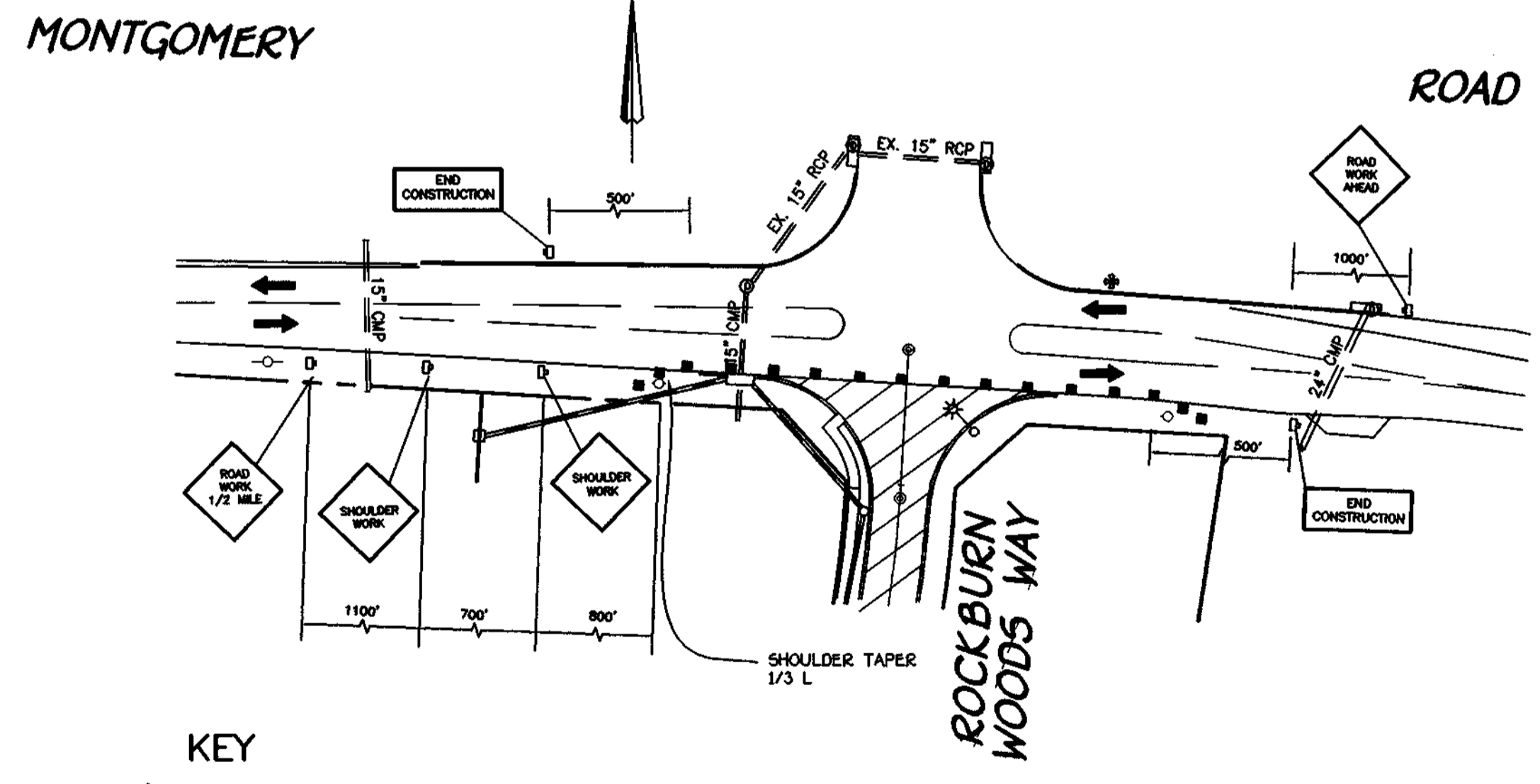


STRIPING PLAN
SCALE: 1" = 50'

Approved Department Of Public Works
 Chief, Bureau Of Highways
 Approved Department Of Planning And Zoning
 Chief, Division Of Land Development
 Chief, Development Engineering Division

MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS

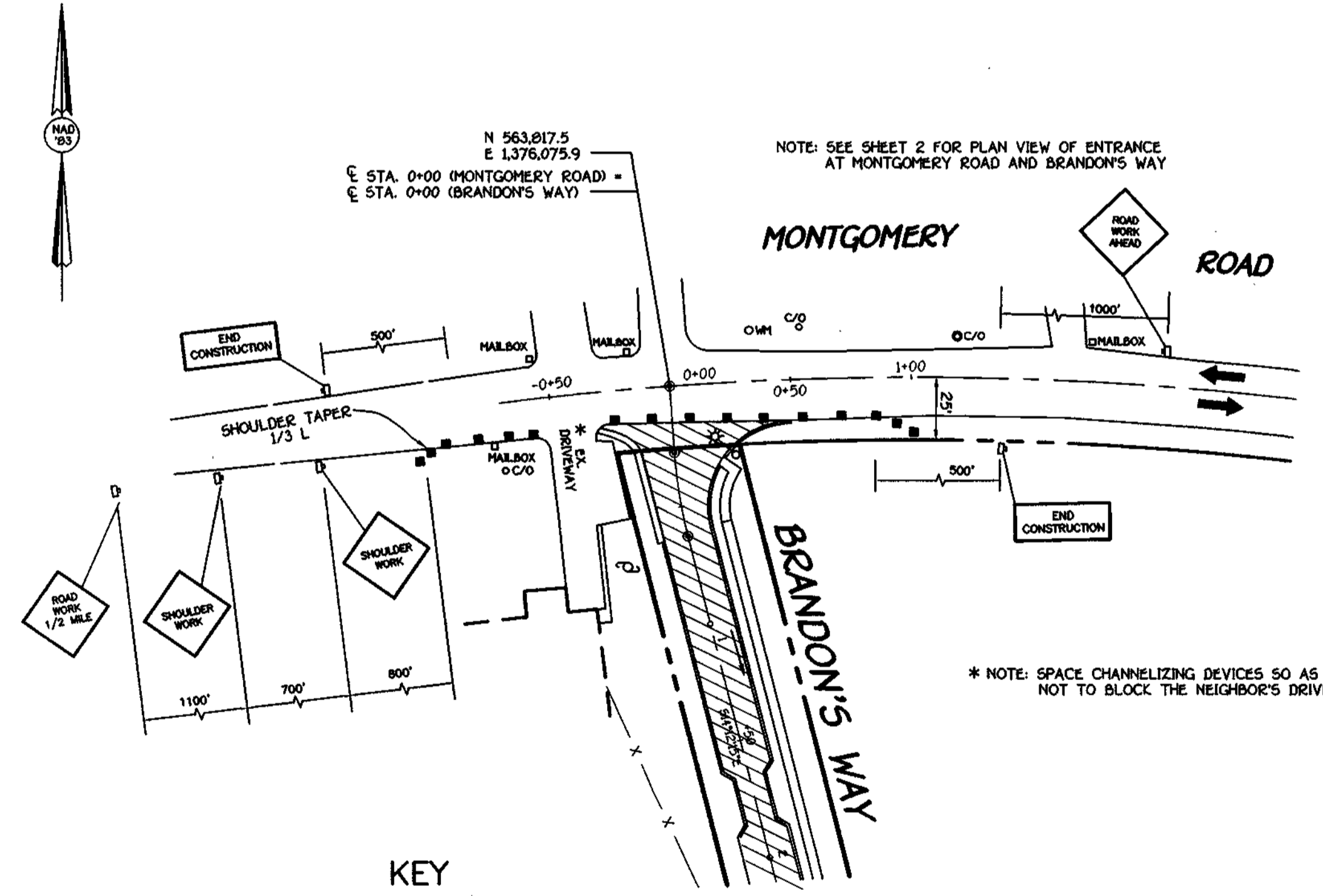
- GENERAL**
1. THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISION IS TO SET FOR THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITTEE.
 2. PROPERLY TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
 3. THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
 4. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1989 EDITION, ESPECIALLY PART VI, AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1992), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
 5. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FOR IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THIRTY (30) DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITTEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
 6. NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE TO HAVE BEEN CHECKED FOR APPROVED USAGE.
 7. GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC, AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
 8. THE CONTRACTOR AND/OR PERMITTEE SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
 9. ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 814 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 50% OF THE VISIBLE REFLECTIVE SURFACE.
 10. ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
 11. THROUGHOUT THE PERIODS OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP. IN LIEU OF THE TCP PREPARED FOR THIS PROJECT, AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS, THE CONTRACTOR AND/OR PERMITTEE HAS THE OPTION OF PREPARING AND SUBMITTING A TCP, WHOLLY OR IN PART, OF HIS OWN DESIGN, FOLLOWING GUIDELINES SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TCP DEVELOPED BY THE CONTRACTOR AND/OR PERMITTEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCE WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TCP'S MAY BE IMPLEMENTED WITHIN A SINGLE PROJECT OR JOINTLY BETWEEN TWO OR MORE PROJECTS. IN SITUATIONS WHERE TCP'S JOINTLY IMPLEMENTED, CARE SHALL BE EXERCISED TO PRESENT CORRECT AND NON-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.
 12. THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
 13. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTED. NO TRAVEL LANES OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR AND/OR PERMITTEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.



KEY
 → DIRECTION OF TRAFFIC
 □ SIGN SUPPORT
 □ FACE OF SIGN
 ■ CHANNELIZING DEVICES
 ▨ WORK SITE

TEMPORARY TRAFFIC CONTROL PLAN
NO SCALE

NOTE: THIS DETAIL IS INTENDED TO BE USED FOR TRAFFIC CONTROL DEVICE PLACEMENT ONLY.



KEY
 → DIRECTION OF TRAFFIC
 □ SIGN SUPPORT
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TEMPORARY TRAFFIC CONTROL PLAN
NO SCALE

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 LAUREL, MARYLAND 20723



MONTGOMERY ROAD IMPROVEMENT DETAILS AND TRAFFIC CONTROL PLAN
ROCKBURN VIEW
 LOTS 4 THRU 35
 (A RESUBDIVISION OF LOTS 2 & 3, MICHAEL PROPERTY, PLAT NO. 9000 AND A SUBDIVISION OF PARCEL NO. 563)
 ZONING: R-20
 TAX MAP No. 37 PARCEL No. 563 GRID No. 4
 1ST. ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATE: MAY 22, 2000
 SHEET 16 OF 16