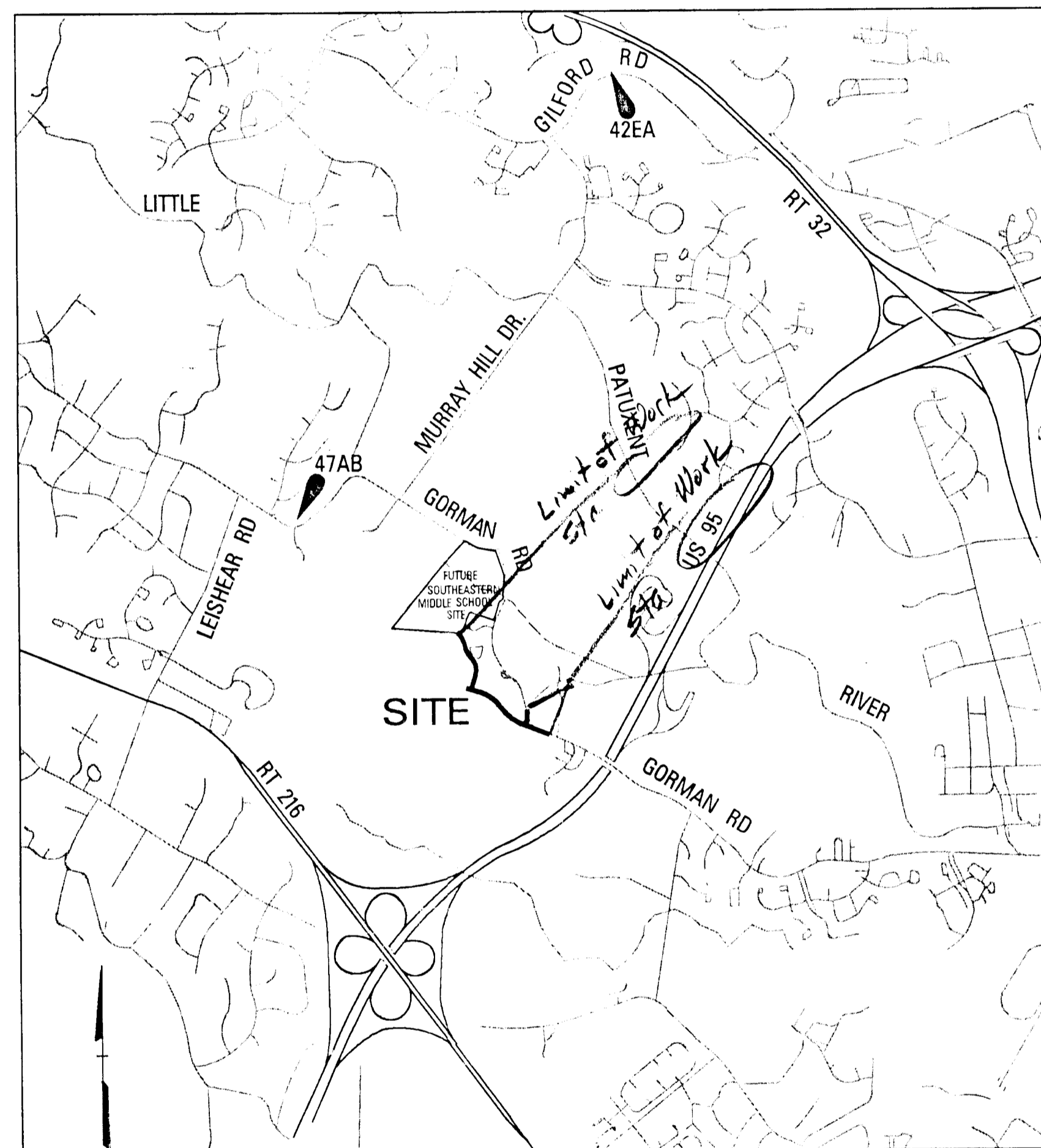


# INDEX OF DRAWINGS

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1	TITLE SHEET
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5	ROADWAY PLAN
6	SEDIMENT AND EROSION CONTROL PLAN
7	SEDIMENT AND EROSION CONTROL PLAN
8	SEDIMENT AND EROSION CONTROL DETAILS
9	ROADWAY PROFILES
10	ROADWAY PROFILES
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14	GRADING\WATER QUALITY PLAN
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# HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

## GORMAN ROAD REALIGNMENT CAPITOL PROJECT E-0935



### LOCATION MAP

SCALE: 1" = 2000'

#### General Notes

- All construction shall be performed in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications if applicable or as specified.
- Approximate location of existing utilities are shown from best available information. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- The contractor shall test all existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done, and shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual Uniform Traffic Control Devices (MUTCD). All street and regulatory signs be in place prior to the placement of any asphalt.
- Any damage caused by the Contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be at the Contractor's expense.
- The existing topography in the area of Road 'B' is taken from a field run survey with two foot contour intervals prepared by Schmidt Pfatiz & McDonald, Inc., dated January 1995. The existing topography in the area of Road 'A' is taken from field run survey with two foot contour intervals prepared by Daft McCune Walker Inc., dated October 1995.
- All inlets shall be constructed in accordance with Howard County Standards or MSHA Standards as specified on structure schedule.
- All hydraulic data is for the 10-year storm unless otherwise noted.
- Required siltation and sedimentation control measures shall be provided, installed and maintained.
- Gorman Road is a scenic road on the Howard County Scenic Road Inventory.
- The subsurface exploration and geotechnical engineering analysis for this project was prepared by Herbst & Associates, January 1996.
- All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-99.
- All plan dimensions are to face of curb unless otherwise noted.
- The coordinates shown hereon are based upon the Howard County geodetic control which is based upon the Maryland State plane coordination system. Howard County monument nos. 47E4 and 47E4 were used for this project.
- The Design Speed of Road 'A' and Road 'C' is 40 MPH. The Design Speed of Road 'B' is 30 MPH.

#### BENCHMARK

HORIZONTAL (NAD 83) AND VERTICAL (NVD 29)  
CONTROL BASED UPON HOWARD COUNTY TRAVERSE  
POINTS 47AB, 42EA, AND 194005

#### OWNER /DEVELOPERS CERTIFICATE:

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 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER  
PRINT NAME BELOW SIGNATURE

DATE

#### ENGINEERS CERTIFICATE:

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.

SIGNATURE OF ENGINEER  
PRINT NAME BELOW SIGNATURE

DATE

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

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

DATE

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

APPROVED: HOWARD SOIL CONSERVATION DISTRICT

DATE

*HOWARD COUNTY REVIEW 1/24/96*  
*Please return with REVISIONS.*  
**PENDING COUNTY APPROVAL**

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE

CHIEF, BUREAU OF ENGINEERING DATE

CHIEF, BUREAU OF HIGHWAYS DATE

CHIEF, DIVISION OF TRANSPORTATION  
PROJECTS AND WATERSHED MANAGEMENT DATE

**DMW**  
**Daft · McCune · Walker, Inc.**

A Team of Land Planners, 200 East Pennsylvania Avenue  
Landscape Architects, Towson, Maryland 21286  
Engineers, Surveyors & Environmental Professionals 410 296 3333  
Fax 296 4705

DESIGN BY:  
JWS  
DRAWN BY:  
JWS  
CHECKED BY:  
DATE:  
JAN. 18, 1996

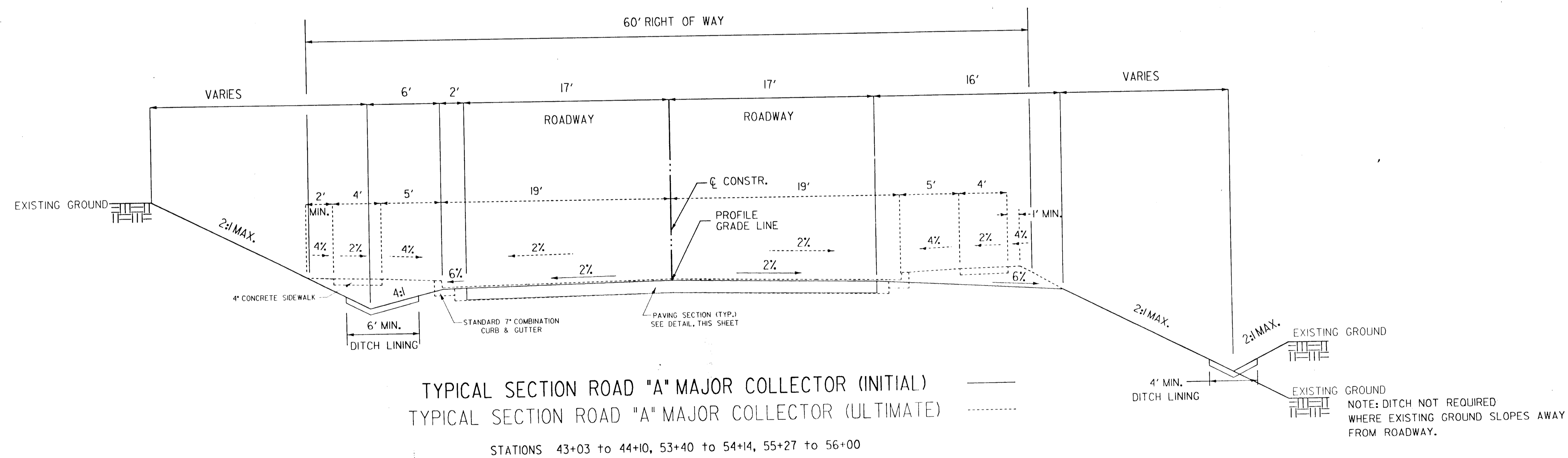
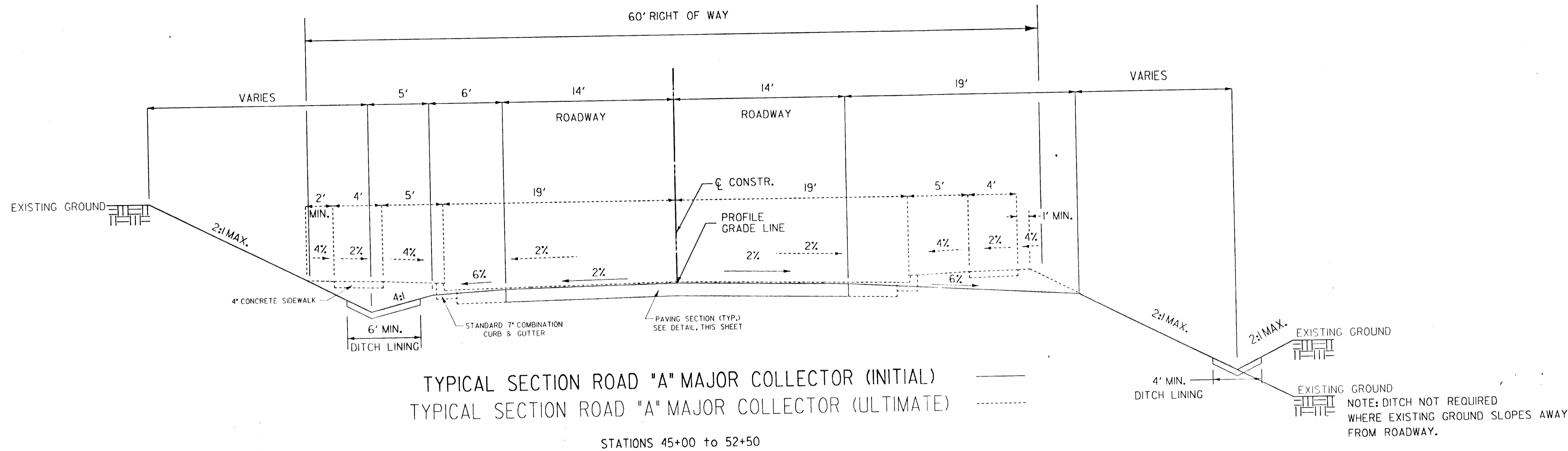
BY NO. REVISION DATE

TITLE SHEET

600 SCALE MAP NO. 47 BLOCK NO. 2

GORMAN ROAD REALIGNMENT  
CAPITOL PROJECT E-0935  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY MARYLAND

CO 416 201



BITUMINOUS CONC. SURFACE	1 1/2"
BITUMINOUS CONC. BASE	2"
BITUMINOUS CONC. BASE	4"
BITUMINOUS CONC. BASE	5"

FULL DEPTH ALTERNATE

BITUMINOUS CONC. SURFACE	1 1/2"
BITUMINOUS CONC. BASE	2 1/2"
BITUMINOUS CONC. BASE	5"
8" CRUSHER RUN BASE (PLACED IN 2 COURSES) OR 6" GRADED AGGREGATE BASE (GAB)	8" OR 6"

GRANULAR BASE ALTERNATE

ROAD "A" & ROAD "C" PAVING SECTION  
 NO TO SCALE

NOTE: SEE ROADWAY PLAN, SHEET 5, FOR DITCH LOCATIONS.

NOT FOR CONSTRUCTION  
 DID SET  
 DAFT-McCUNE-WALKER, INC.  
 DATE 1/18/96

PENDING COUNTY APPROVAL

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

**DMW**  
**Daft · McCune · Walker, Inc.**  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 410 296 5333  
 Fax 296 4705

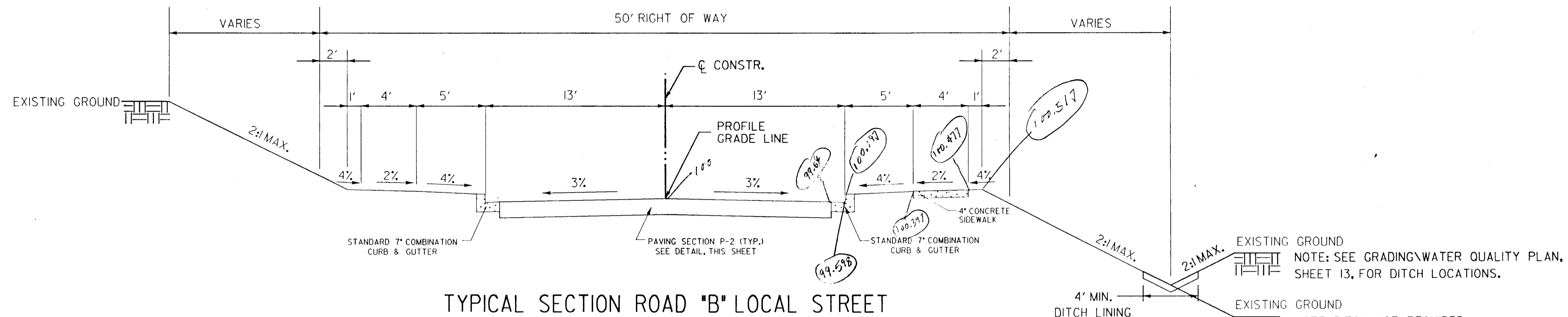
DESIGN BY:	JWS		
DRAWN BY:	JWS		
CHECKED BY:			
DATE:	JAN. 18, 1996		
BY	NO.	REVISION	DATE

TYPICAL SECTION

600 SCALE MAP NO. 47 BLOCK NO. 2

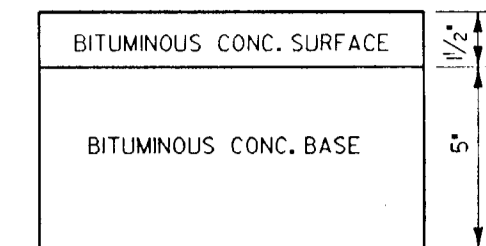
GORMAN ROAD REALIGNMENT  
 CAPITAL PROJECT E-0935  
 ELECTION DISTRICT NO. 6  
 HOWARD COUNTY MARYLAND

DIRECTOR OF PUBLIC WORKS	DATE	CHEF, BUREAU OF ENGINEERING	DATE
CHEF, BUREAU OF HIGHWAYS	DATE	CHEF, DIVISION OF TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT	DATE

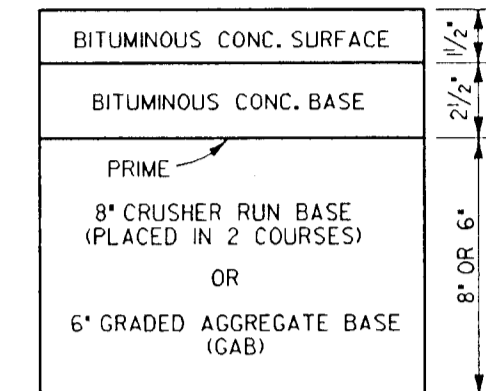


TYPICAL SECTION ROAD "B" LOCAL STREET

STATIONS 15+50 to 25+09



FULL DEPTH ALTERNATE

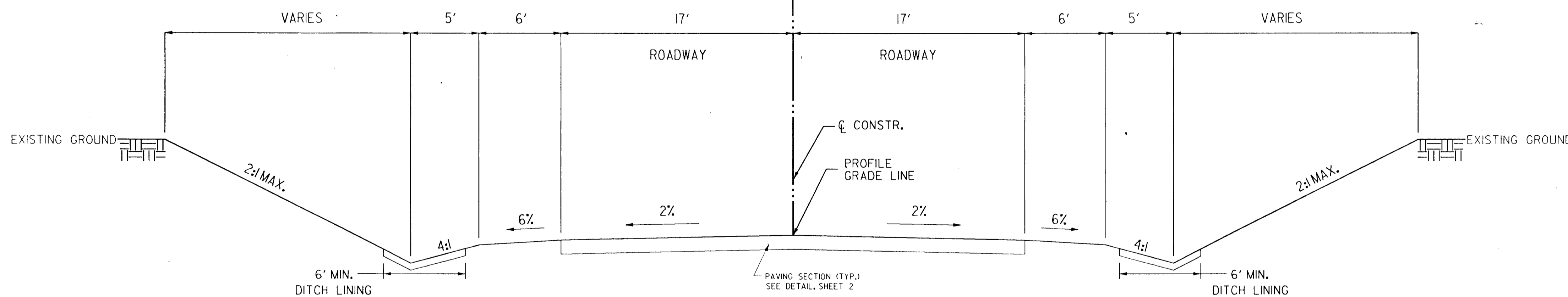


GRANULAR BASE ALTERNATE

PAVING SECTION P-2 (ROAD "B" PAVING SECTION)

NOT TO SCALE

*7/6 Add 20' to P&L  
 7/6 Sub 10' from P&L  
 7/6 Add 15' to P&L  
 12x.03 = 0.417 - 1.579  
 7/10*



TYPICAL SECTION ROAD "C" MAJOR COLLECTOR

STATIONS 100+75 to 100+90

NOTE: SEE ROADWAY PLAN, SHEET 5, FOR DITCH LOCATIONS.

*26' - 4"  
 27' - 4"  
 21' - 6"  
 29' - 10"*

NOT FOR CONSTRUCTION

BID SET  
 DATE 1-18-96

PENDING COUNTY APPROVAL

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS	DATE	CHEF, BUREAU OF ENGINEERING	DATE
CHEF, BUREAU OF HIGHWAYS	DATE	CHEF, DIVISION OF TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT	DATE

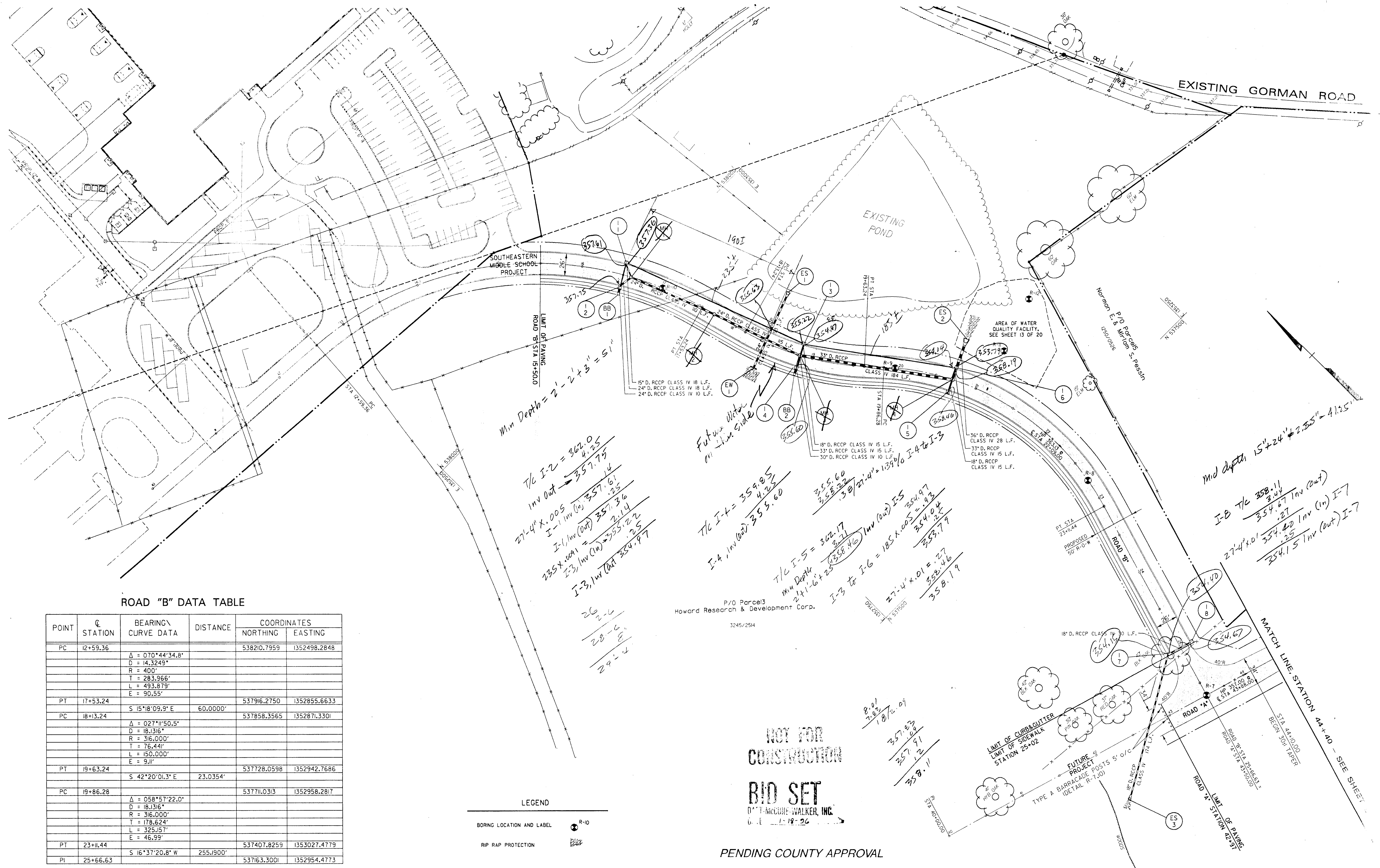
**DMW**  
**Daft McCune Walker, Inc.**  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals  
 200 East Pennsylvania Avenue  
 Towson, Maryland 21286  
 410 296 3333  
 Fax 296 4705

DESIGN BY:	JWS
DRAWN BY:	JWS
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DATE:	JAN. 18, 1996
BY NO.	
REVISION	
DATE	

TYPICAL SECTION

600 SCALE MAP NO. 47 BLOCK NO. 2

GORMAN ROAD REALIGNMENT  
 CAPITAL PROJECT E-0935  
 ELECTION DISTRICT NO. 6  
 HOWARD COUNTY MARYLAND



ROAD "B" DATA TABLE

POINT	STATION	BEARING \ CURVE DATA	DISTANCE	COORDINATES	
				NORTHING	EASTING
PC	12+59.36	$\Delta = 070^{\circ}44'34.8''$ $D = 14,324.9'$ $R = 400'$ $T = 283.966'$ $L = 493.879'$ $E = 90.55'$		538210.7959	1352498.2848
PT	17+53.24	$S 15^{\circ}18'09.9'' E$	60.0000'	537916.2750	1352855.6633
PC	18+13.24	$\Delta = 027^{\circ}11'50.5''$ $D = 18,131.6'$ $R = 316.000'$ $T = 76.441'$ $L = 150.000'$ $E = 9.11'$		537858.3565	1352871.3301
PT	19+63.24	$S 42^{\circ}20'01.3'' E$	23.0354'	537728.0598	1352942.7686
PC	19+86.28	$\Delta = 058^{\circ}57'22.0''$ $D = 18,131.6'$ $R = 316.000'$ $T = 178.624'$ $L = 325.157'$ $E = 46.99'$		537711.0313	1352958.2817
PT	23+11.44	$S 16^{\circ}37'20.8'' W$	255.1900'	537407.8259	1353027.4779
PI	25+66.63			537163.3001	1352954.4773

LEGEND

BORING LOCATION AND LABEL R-10

RIP RAP PROTECTION

P/O Parcel 3  
Howard Research & Development Corp.  
3245/2514

NOT FOR CONSTRUCTION

BID SET

D.A. McCune-Walker, Inc.

DATE 1-18-26

PENDING COUNTY APPROVAL

Wed Jan 17 02:46:24 1996 d:\hmc\m\hmc\road

Wed Jan 17 02:46:24 1996

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS \_\_\_\_\_ DATE \_\_\_\_\_

CHEF, BUREAU OF ENGINEERING \_\_\_\_\_ DATE \_\_\_\_\_

CHEF, BUREAU OF HIGHWAYS \_\_\_\_\_ DATE \_\_\_\_\_

CHEF, DIVISION OF TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT \_\_\_\_\_ DATE \_\_\_\_\_

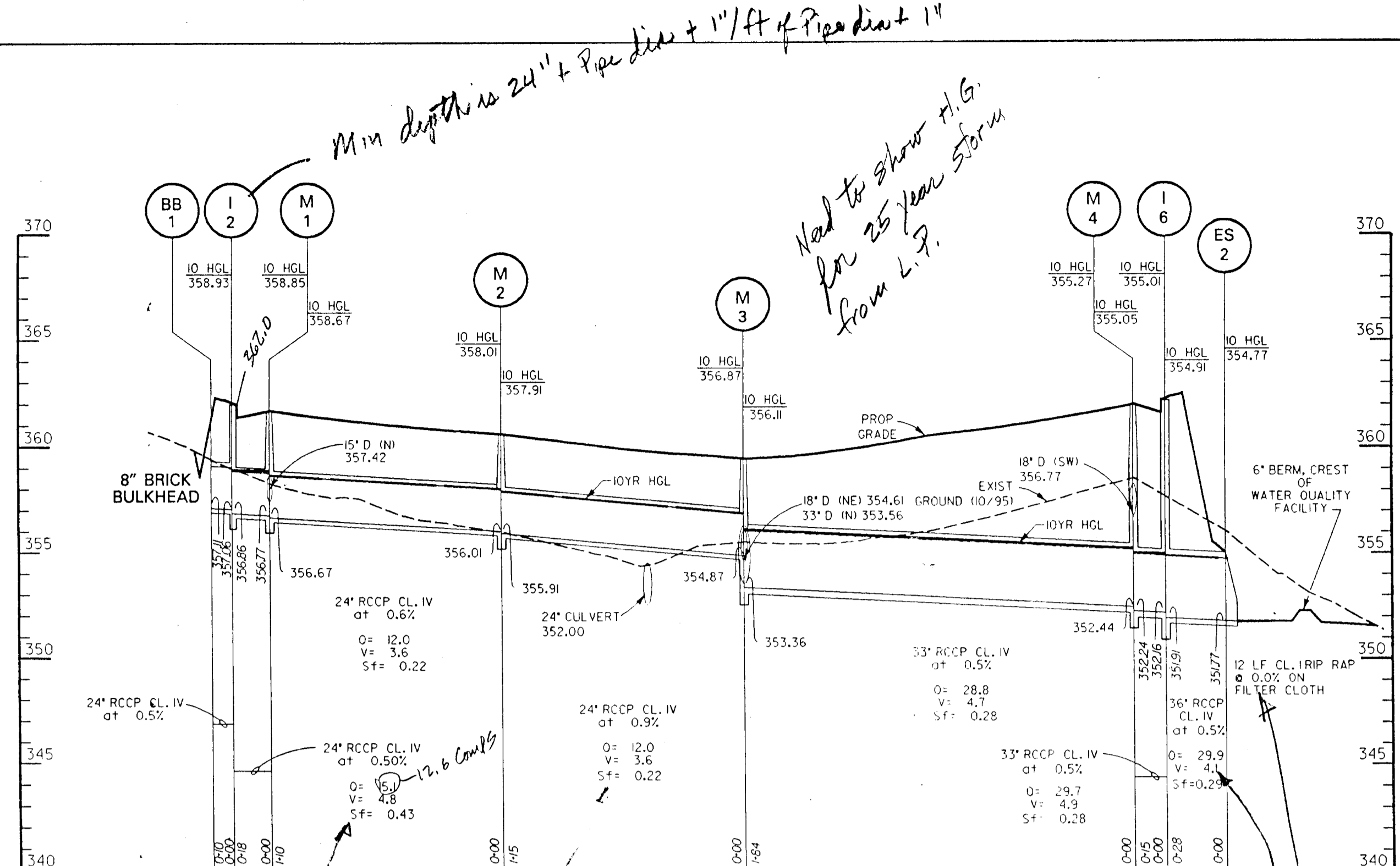
**DMW**  
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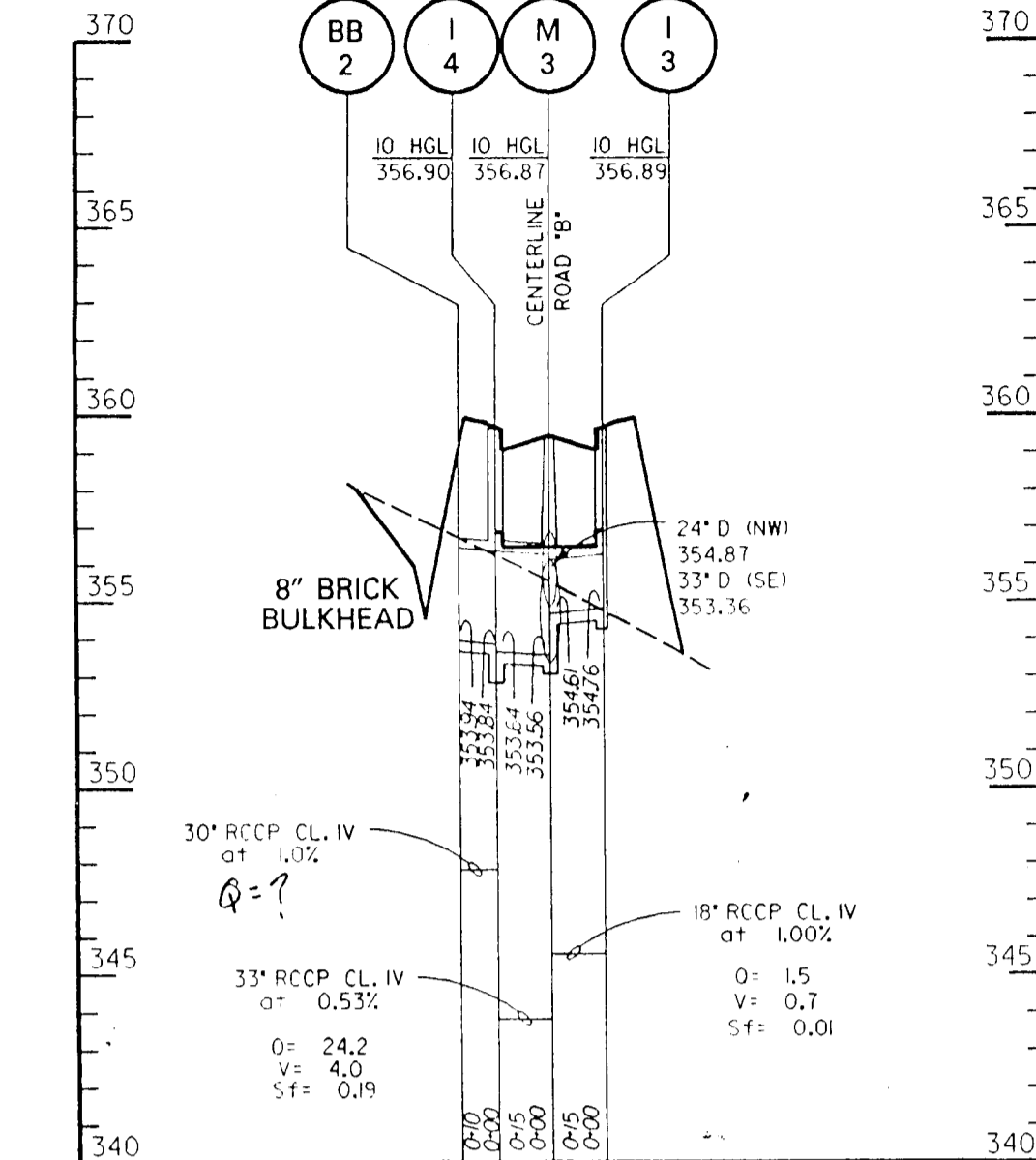
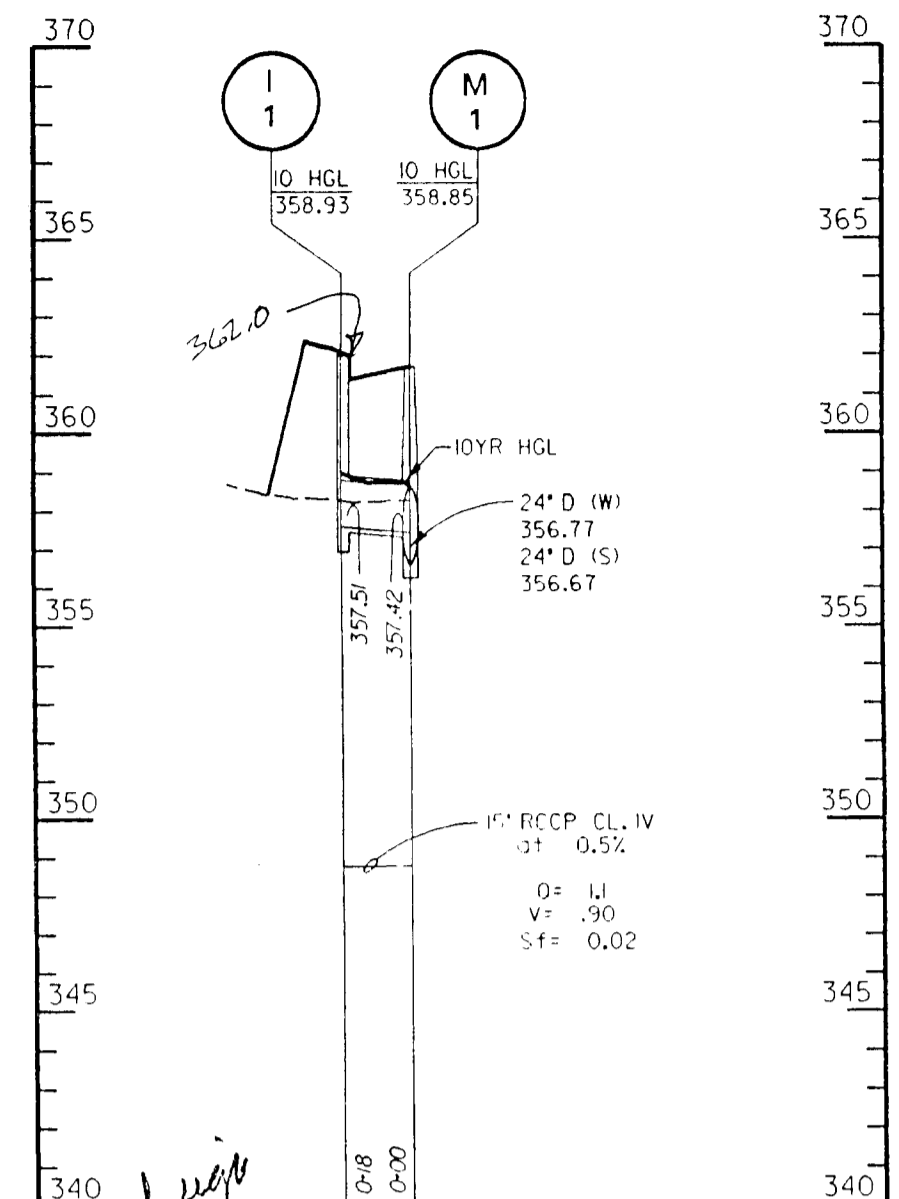
DESIGN BY:	JWS		
DRAWN BY:	JWS		
CHECKED BY:			
DATE:	JAN. 18, 1996	BY NO.	REVISION

DATE	600 SCALE MAP NO.	47	BLOCK NO.	2
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GORMAN ROAD REALIGNMENT  
CAPITAL PROJECT E-0935  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY MARYLAND



*Min depth is 24" + Pipe dia + 1" / ft of Pipe dia + 1"*  
*Had to show H.G. for 25 year storm from L.P.*



NO.	TYPE	Q/2 yr	INV. OUT	TOP ELEV. +	DETAIL	WIDTH	STATION	OFFSET
I-1	A-5	0.8	357.51	362.00	S.D. 4.01	2'-6"	16+50.00	13' R
I-2	A-5	0.5	356.86	362.00	S.D. 4.01	2'-6"	16+50.00	13' L
I-3	A-5	0.9	354.76	359.65	S.D. 4.01	2'-6"	18+85.00	13' L
I-4	A-5	1.0	353.64	359.65	S.D. 4.01	2'-6"	18+85.00	13' R
I-5	A-5	1.4	357.07	362.17	S.D. 4.01	2'-6"	20+70.00	13' R
I-6	A-5	0.2	351.91	362.17	S.D. 4.01	2'-6"	20+70.00	13' L
I-7	A-5	0.6	351.57	357.77	S.D. 4.01	2'-6"	25+02.00	13' R
I-8	A-5	0.5	353.42	357.77	S.D. 4.01	2'-6"	25+02.00	13' L

\* NOTE: ELEVATIONS REPRESENT TOP OF CURB @ HEADPIECE FOR A-5 INLETS  
 NOTE: OFFSETS REPRESENT DISTANCE FROM ROADWAY CENTERLINE TO FACE OF CURB

NO.	TYPE	SIZE	INV. OUT	DETAIL NO.	STATION	OFFSET
ES1	CONC END SECTION	24"	352.00	SD5.52	18+40.00	60' L
ES2	CONC END SECTION	36"	351.77	SD5.52	20+70.00	43.5' L
ES3	CONC END SECTION	18"	346.00	SD5.52	42+14.72	61' R
ES4	CONC END SECTION	24"	334.20	SD5.52	50+35.00	36' L
EW1	"C" END WALL	24"	352.47	SD5.21	18+40.00	33' R
EW2	"C" END WALL	24"	336.16	SD5.21	50+35.00	34' R

NO.	TYPE	INV. OUT	TOP ELEV.	DETAIL NO.	STATION	OFFSET
1	48" DIA	356.67	361.70	C 5.12	16+60.00	0
2	48" DIA	355.91	360.80	C 5.12	17+70.00	0
3	60" DIA	353.36	359.45	C 5.13	18+85.00	0
4	60" DIA	352.24	361.97	C 5.13	20+70.00	0

BB-1 TO I-2 TO M-1  
 N=0.013  
 S=0.502  
 D=24 IN  
 QD=12.601CFS  
 DN=1.34 FT  
 VN=5.64 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.57 %  
 Q=MX=16.001CFS  
 V=FL=4.01 F/S  
 SF=0.31 %

M-1 TO M-2  
 N=0.013  
 S=0.502  
 D=24 IN  
 QD=12.601CFS  
 DN=1.25 FT  
 VN=6.07 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.57 %  
 Q=MX=17.521CFS  
 V=FL=4.01 F/S  
 SF=0.31 %

M-2 TO M-3  
 N=0.013  
 S=0.502  
 D=24 IN  
 QD=12.601CFS  
 DN=1.18 FT  
 VN=6.35 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.57 %  
 Q=MX=21.461CFS  
 V=FL=4.01 F/S  
 SF=0.31 %

M-3 TO M-4  
 N=0.013  
 S=0.502  
 D=33 IN  
 QD=27.01CFS  
 DN=1.91 FT  
 VN=6.35 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.52 %  
 Q=MX=37.391CFS  
 V=FL=4.01 F/S  
 SF=0.32 %

M-4 TO I-6  
 N=0.013  
 S=0.502  
 D=33 IN  
 QD=27.01CFS  
 DN=1.85 FT  
 VN=6.35 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.52 %  
 Q=MX=47.161CFS  
 V=FL=4.01 F/S  
 SF=0.32 %

I-6 TO ES-2  
 N=0.013  
 S=0.502  
 D=36 IN  
 QD=36.01CFS  
 DN=1.74 FT  
 VN=6.35 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.52 %  
 Q=MX=53.91CFS  
 V=FL=4.01 F/S  
 SF=0.32 %

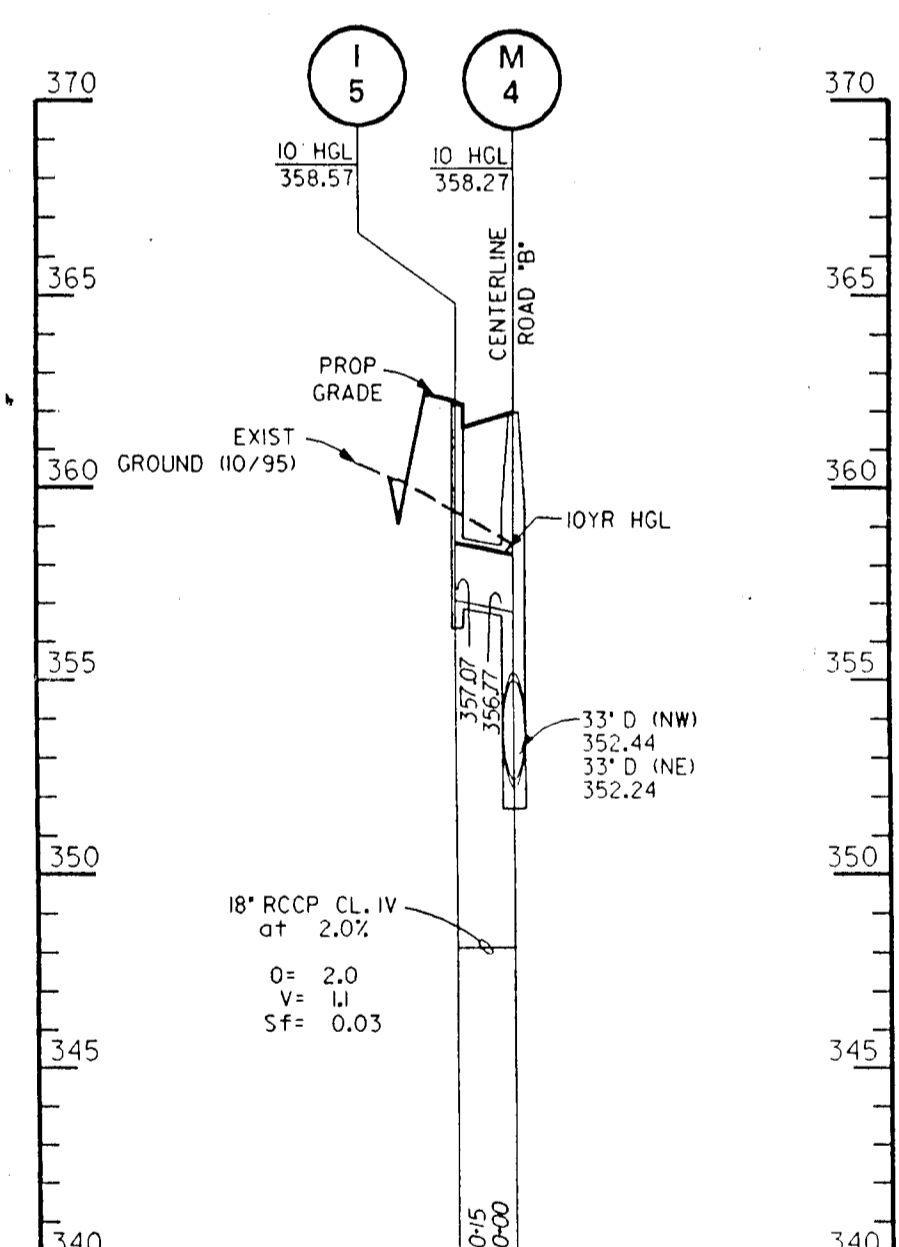
Are these pipe sized for the 25 yr H.G. from M-3 to ES-2? If they are they appear to be over sized.

*24" 15" 2.25" min depth of inlet*  
*41.25" min depth of inlet*

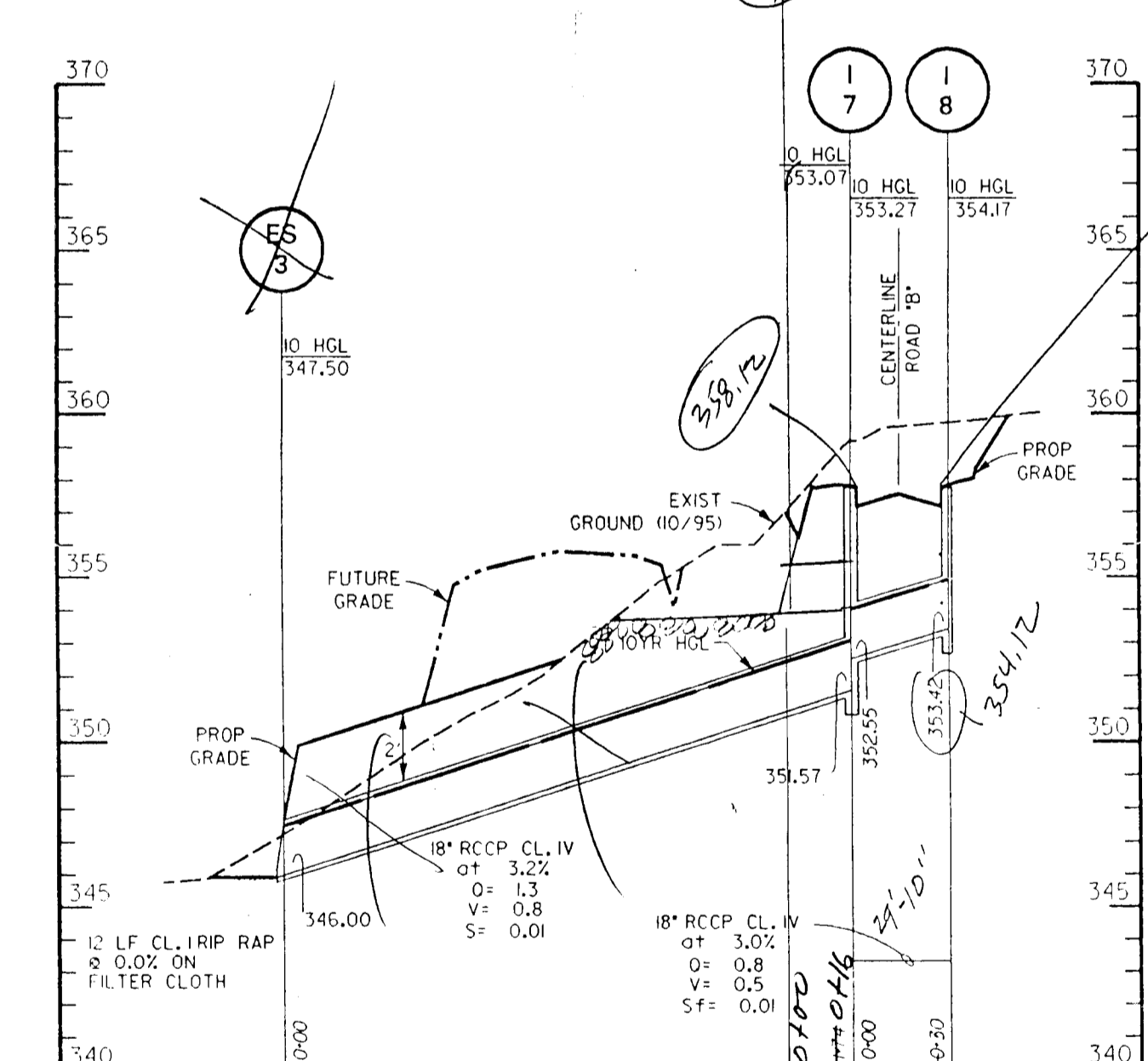
BB-2 TO I-4  
 N=0.013  
 S=1.002  
 D=30 IN  
 QD=24.261CFS  
 DN=1.38 FT  
 VN=8.70 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.56 %  
 Q=MX=41.01CFS  
 V=FL=4.01 F/S  
 SF=0.35 %

I-4 TO M-3  
 N=0.013  
 S=0.502  
 D=33 IN  
 QD=27.01CFS  
 DN=1.53 FT  
 VN=6.04 F/S  
 DC=1.28 FT  
 VCS=39 F/S  
 SC=0.49 %  
 Q=MX=38.501CFS  
 V=FL=4.01 F/S  
 SF=0.21 %

I-3 TO M-3  
 N=0.013  
 S=1.002  
 D=18 IN  
 QD=11.501CFS  
 DN=0.38 FT  
 VN=4.22 F/S  
 DC=0.46 FT  
 VCS=27 F/S  
 SC=0.49 %  
 Q=MX=10.501CFS  
 V=FL=0.81 F/S  
 SF=0.02 %

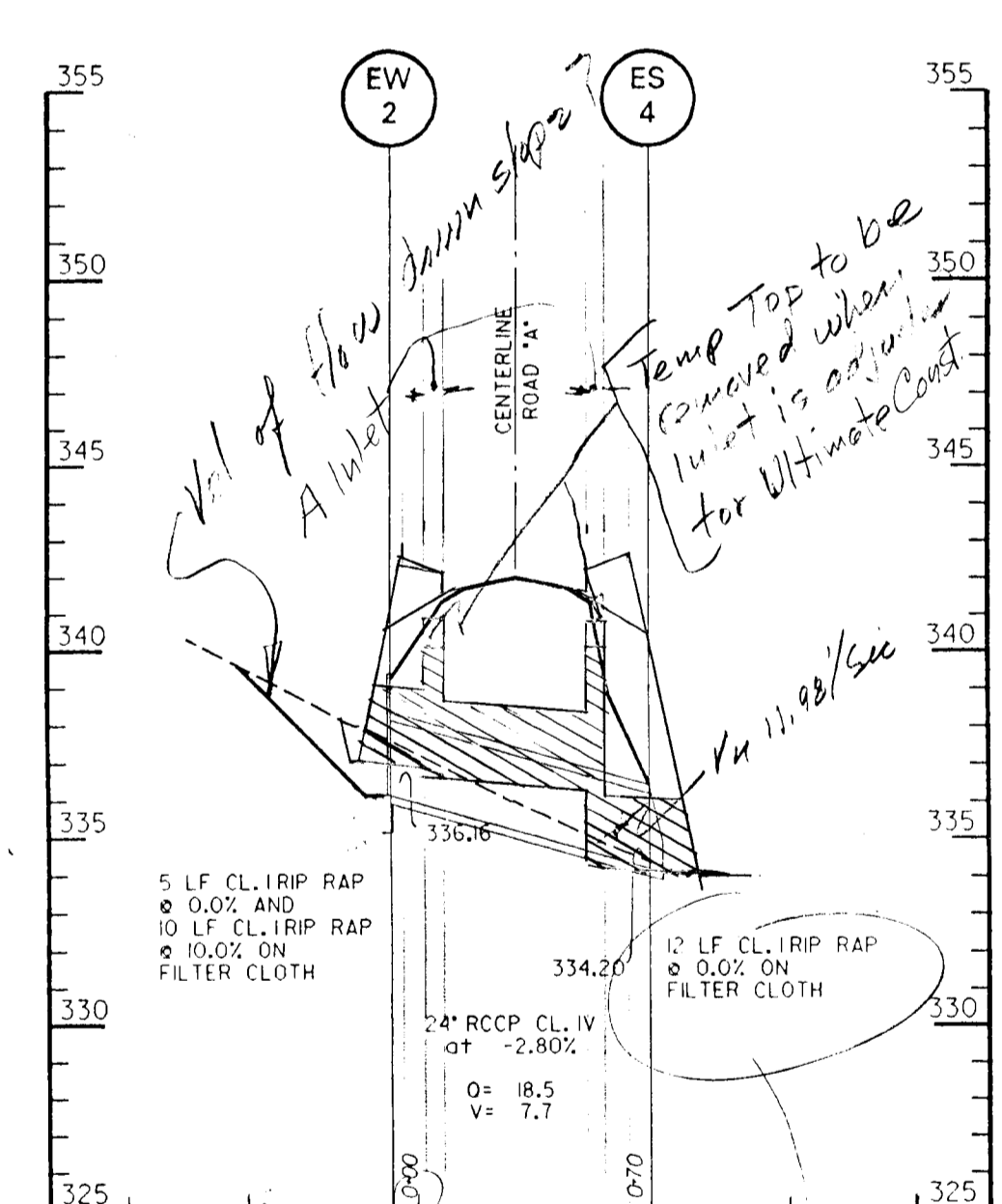


I-5 TO M-4  
 N=0.013  
 S=2.002  
 D=18 IN  
 QD=8.001CFS  
 DN=0.80 FT  
 VN=5.86 F/S  
 DC=0.50 FT  
 VCS=35 F/S  
 SC=0.45 %  
 Q=MX=14.851CFS  
 V=FL=1.13 F/S  
 SF=0.04 %



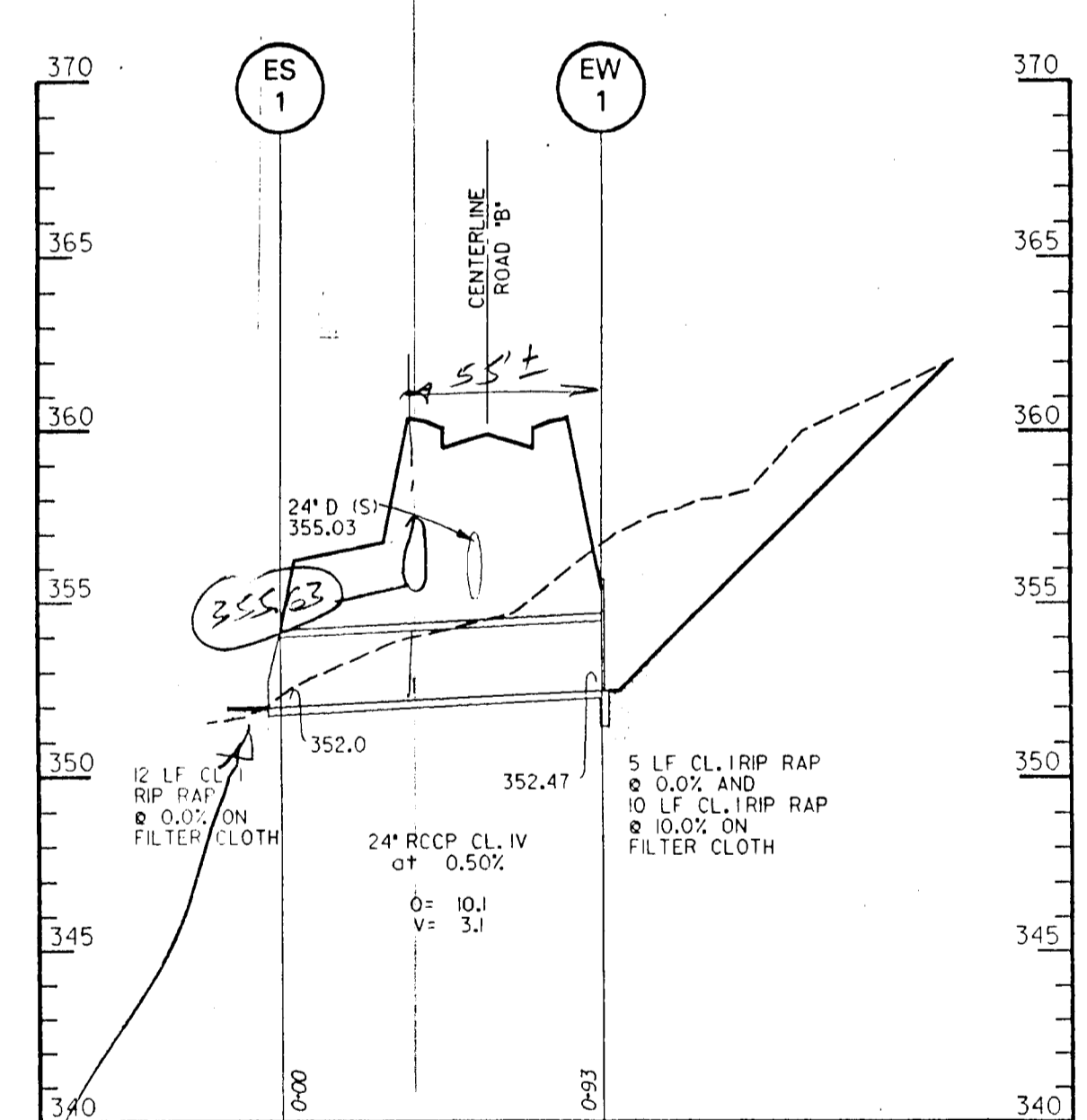
I-7 TO ES-3  
 N=0.013  
 S=3.202  
 D=18 IN  
 QD=8.001CFS  
 DN=0.27 FT  
 VN=5.10 F/S  
 DC=0.43 FT  
 VCS=14 F/S  
 SC=0.49 %  
 Q=MX=15.791CFS  
 V=FL=0.74 F/S  
 SF=0.02 %

I-8 TO I-7  
 N=0.013  
 S=0.002  
 D=18 IN  
 QD=8.001CFS  
 DN=0.23 FT  
 VN=5.10 F/S  
 DC=0.33 FT  
 VCS=7.5 F/S  
 SC=0.50 %  
 Q=MX=16.111CFS  
 V=FL=0.45 F/S  
 SF=0.01 %



EW-2 TO ES-4  
 N=0.013  
 S=2.802  
 D=24 IN  
 QD=18.001CFS  
 DN=0.23 FT  
 VN=5.10 F/S  
 DC=0.35 FT  
 VCS=7.5 F/S  
 SC=0.52 %  
 Q=MX=37.511CFS  
 V=FL=0.51 F/S  
 SF=0.62 %

I-8 TO I-7 IS RCP  
 N=0.013  
 S=2.802  
 D=15 IN  
 QD=10.101CFS  
 DN=0.42 FT  
 VN=5.07 F/S  
 DC=0.41 FT  
 VCS=11 F/S  
 SC=0.52 %  
 Q=MX=44.321CFS  
 V=FL=0.39 F/S  
 SF=0.03 %



EW-1 TO ES-1  
 N=0.013  
 S=0.502  
 D=24 IN  
 QD=12.601CFS  
 DN=1.15 FT  
 VN=5.38 F/S  
 DC=1.14 FT  
 VCS=40 F/S  
 SC=0.52 %  
 Q=MX=16.001CFS  
 V=FL=0.21 F/S  
 SF=0.20 %

EXISTING GROUND - - - - -  
 PROPOSED GRADE - - - - -

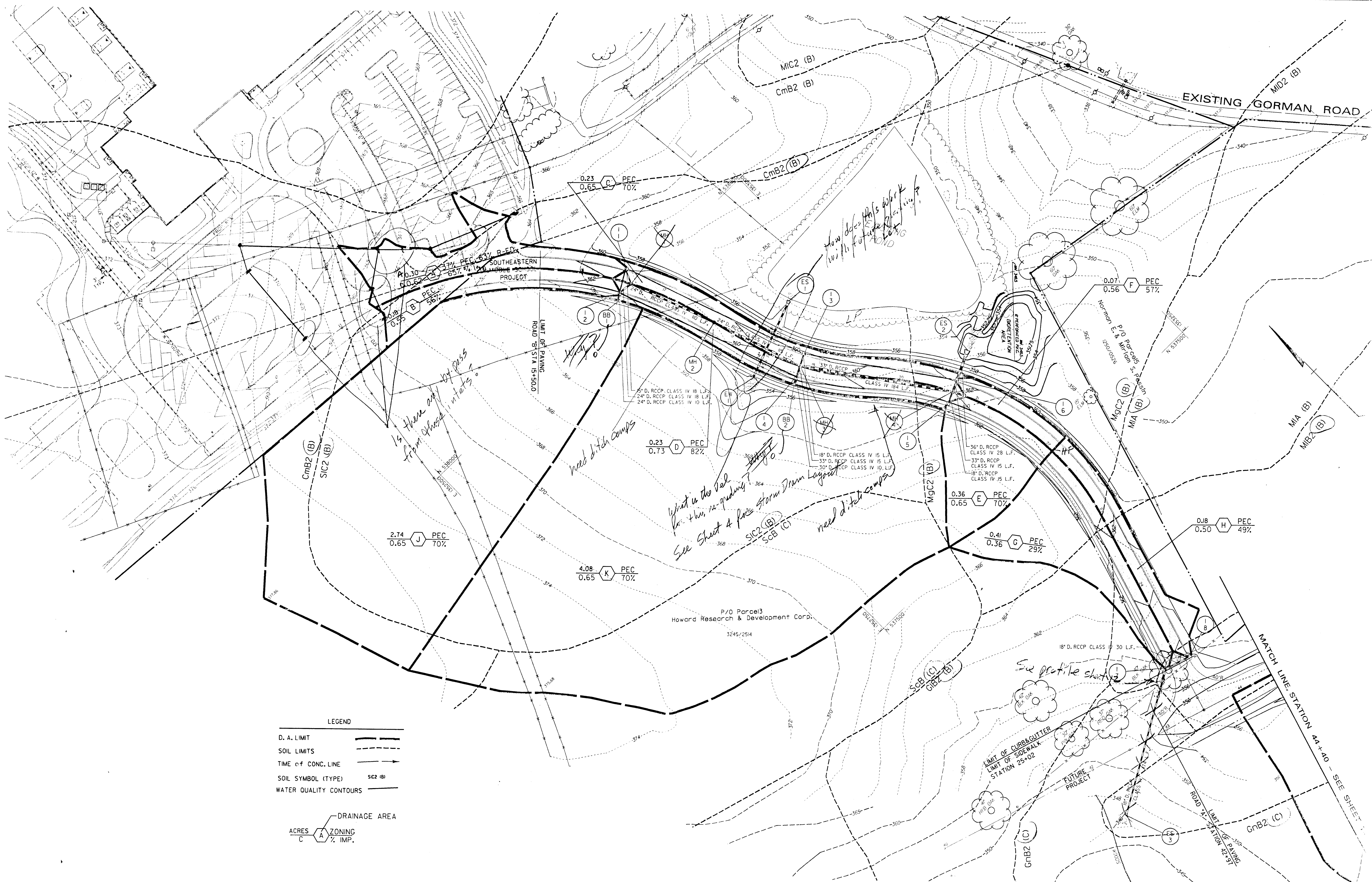
DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

**DMW**  
 Daft McCune Walker, Inc.  
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

DESIGN BY: JWS  
 DRAWN BY: JWS  
 CHECKED BY:  
 DATE: JAN. 18, 1996

STORM DRAIN PROFILES  
 600 SCALE MAP NO. 47 BLOCK NO. 2

GORMAN ROAD REALIGNMENT  
 CAPITAL PROJECT E-0935  
 ELECTION DISTRICT NO. 6  
 HOWARD COUNTY MARYLAND



**LEGEND**

D. A. LIMIT	—
SOIL LIMITS	- - -
TIME OF CONC. LINE	—>
SOIL SYMBOL (TYPE)	SIC2 (B)
WATER QUALITY CONTOURS	—

ACRES	ZONING	DRAINAGE AREA
C	A	
	% IMP.	

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS	DATE	CHEF, BUREAU OF ENGINEERING	DATE
CHEF, BUREAU OF HIGHWAYS	DATE	CHEF, DIVISION OF TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT	DATE

**DMW**  
**Daft · McCune · Walker, Inc.**  
A Team of Land Planners, 200 East Pennsylvania Avenue, Towson, Maryland 21286  
Landscape Architects, 410 296 3333  
Engineers, Surveyors & Environmental Professionals, Fax 296 4705

DESIGN BY:	JWS/RLH
DRAWN BY:	JWS
CHECKED BY:	
DATE:	JAN. 18, 1996

BY	NO.	REVISION	DATE

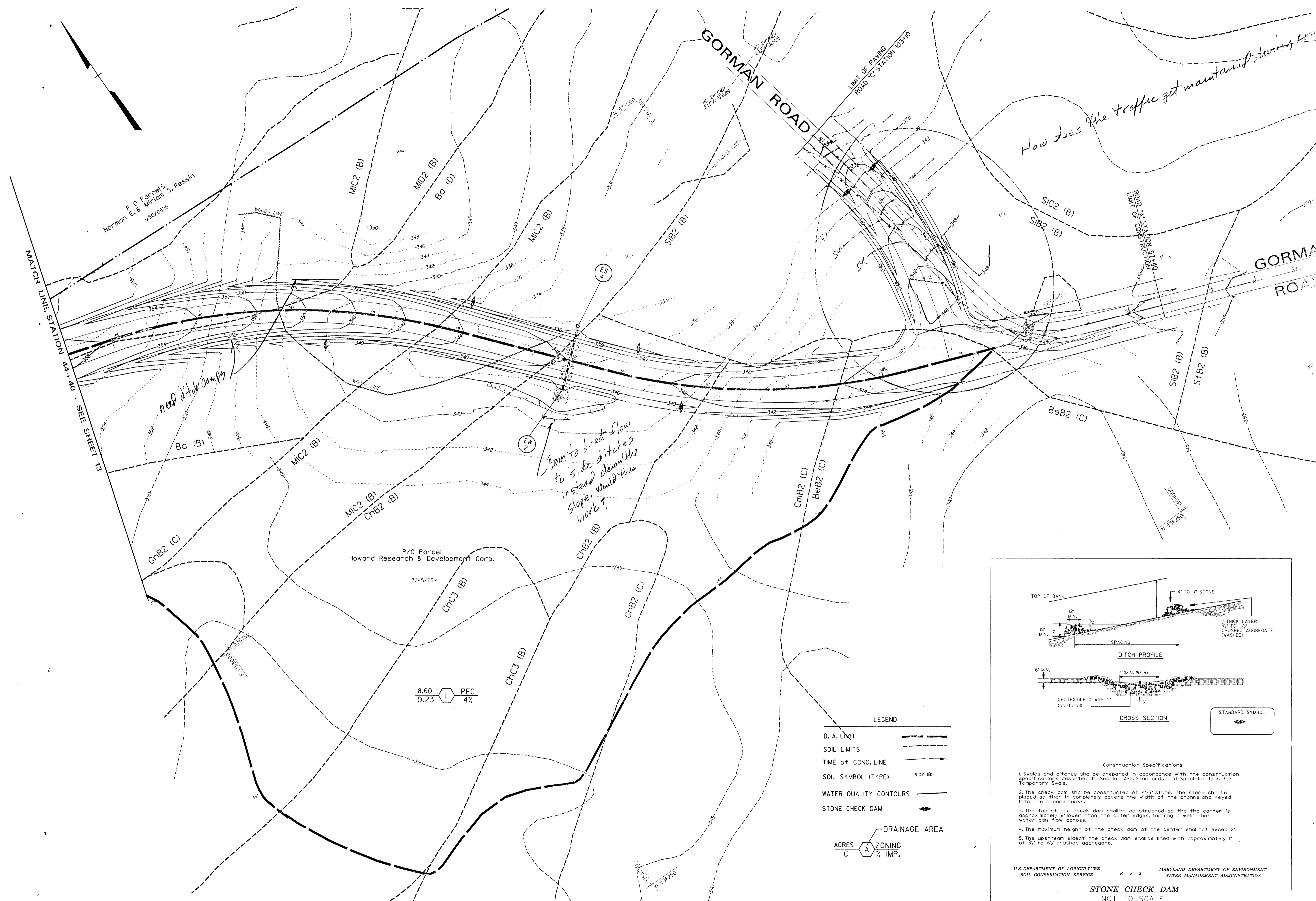
GRADING \ WATER QUALITY PLAN

600 SCALE MAP NO. 47 BLOCK NO. 2

GORMAN ROAD REALIGNMENT  
CAPITAL PROJECT E-0935  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY MARYLAND

Thu Jan 18 22:06:53 1996 d:\VMP\HW\GORMAN

Thu Jan 18 22:06:53 1996 d:\VMP\HW\GORMAN



MATCH LINE STATION 44+00 SEE SHEET 13

Norman P/O Parcel 5  
E. & Miriam S. Pessin  
1250/09326

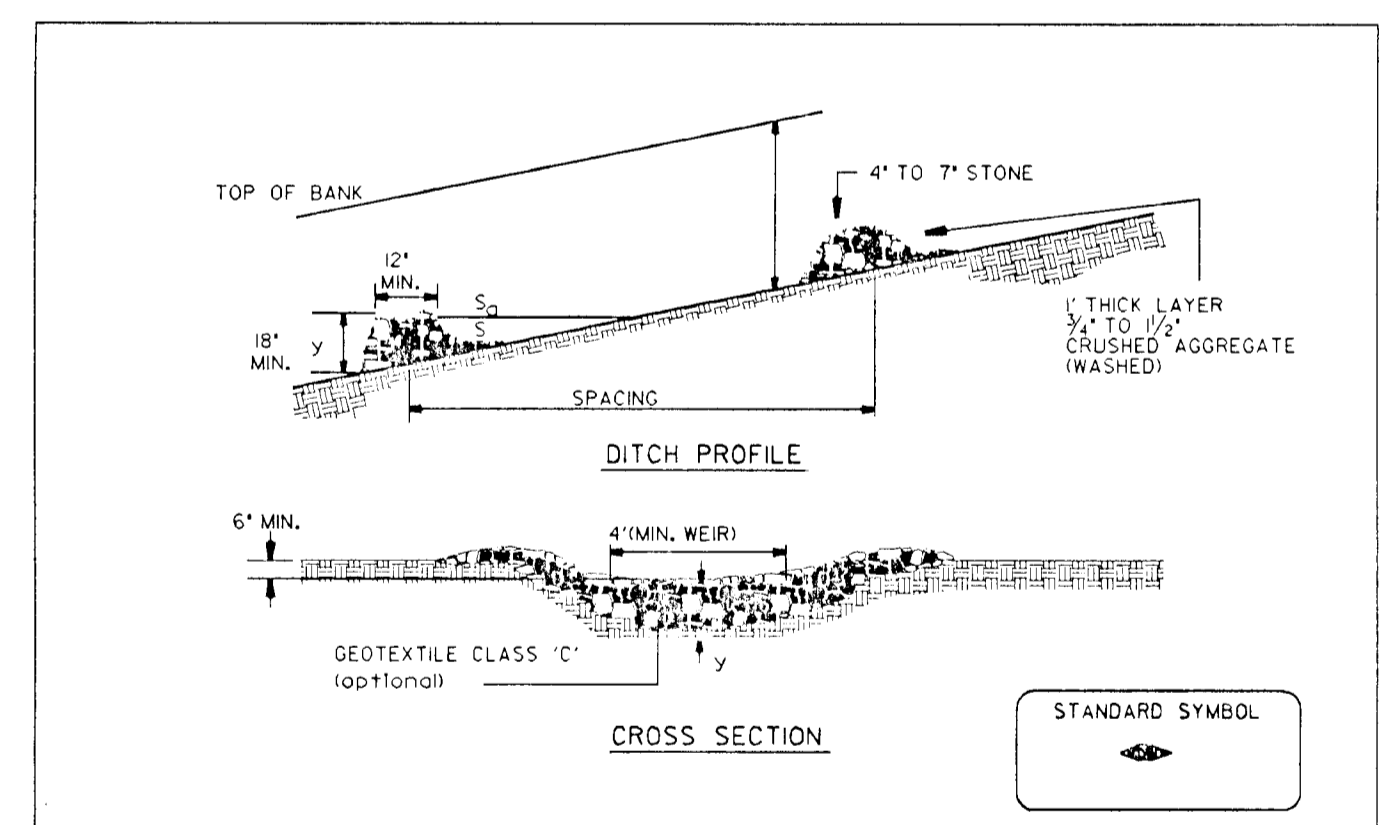
P/O Parcel  
Howard Research & Development Corp.  
3245/2514

8.60  
0.23  
PEC  
4%

*How does the traffic get maintained during construction?*

*Need to direct flow to side ditches instead of down the slope. Would this work?*

- LEGEND**
- D. A. LIMIT
  - SOIL LIMITS
  - TIME OF CONC. LINE
  - SOIL SYMBOL (TYPE) SIC2 (B)
  - WATER QUALITY CONTOURS
  - STONE CHECK DAM
  - DRAINAGE AREA
  - ACRES ZONING % IMP.



**Construction Specifications**

- Swales and ditches shall be prepared in accordance with the construction specifications described in Section A-2, Standards and Specifications for Temporary Swale.
- The check dam shall be constructed of 4"-7" stone. The stone shall be placed so that it completely covers the width of the channel and keyed into the channelbanks.
- The top of the check dam shall be constructed so the the center is approximately 6" lower than the outer edges, forming a weir that water can flow across.
- The maximum height of the check dam at the center shall not exceed 2'.
- The upstream side of the check dam shall be lined with approximately 1" of 3/4" to 1/2" crushed aggregate.

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT  
WATER MANAGEMENT ADMINISTRATION

**STONE CHECK DAM**  
NOT TO SCALE

Thu Jan 18 22:20:43 1996

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF ENGINEERING	DATE
CHIEF, BUREAU OF HIGHWAYS	DATE	CHIEF, DIVISION OF TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT	DATE

**DMW**  
**Daft · McCune · Walker, Inc.**

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

200 East Pennsylvania Avenue  
Towson, Maryland 21286  
410 296 3333  
Fax 296 4705

DESIGN BY:	JWS\RLH			
DRAWN BY:	JWS\PSN			
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GRADING \ WATER QUALITY PLAN

600 SCALE MAP NO. 47 BLOCK NO. 2

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