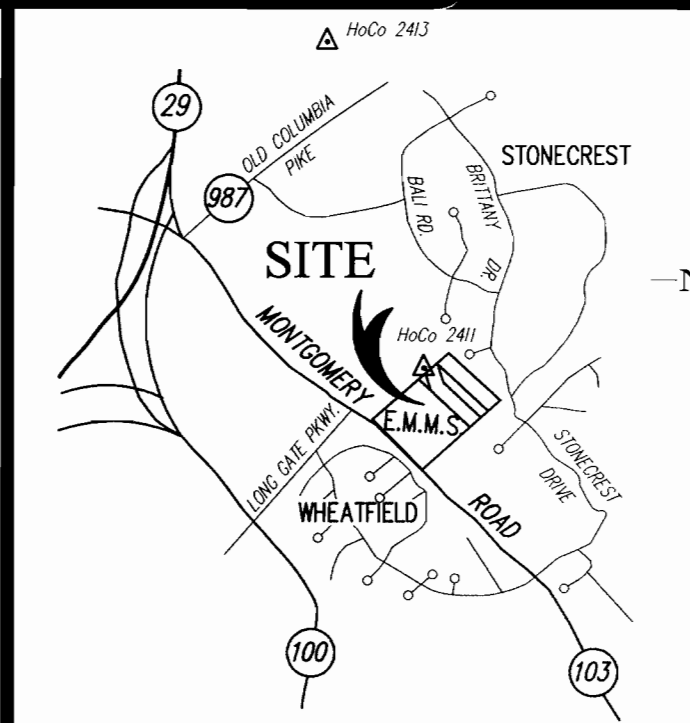


ELLICOTT MILLS MIDDLE SCHOOL

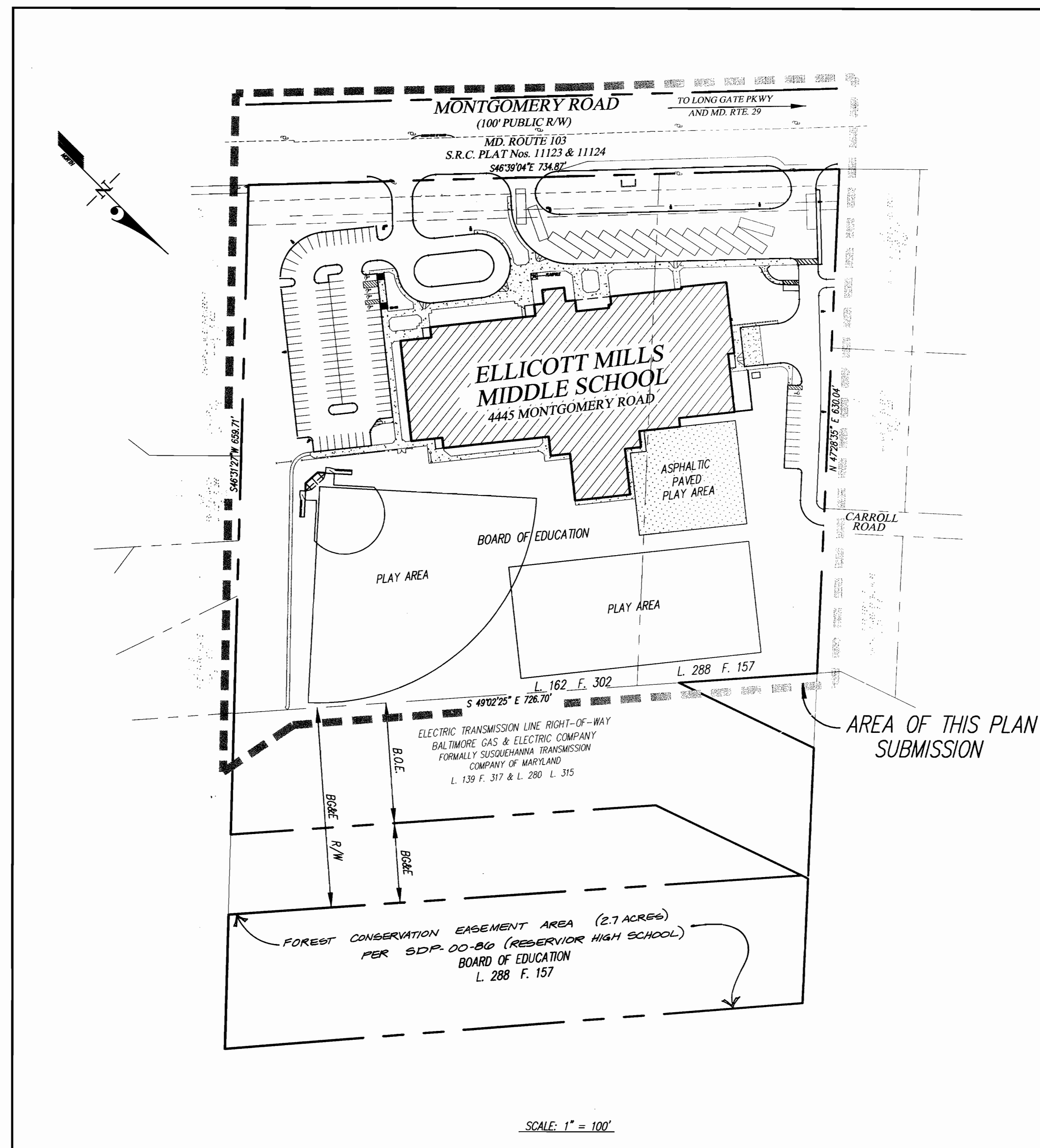
SECOND (2nd) ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE 1"=2,000'

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 Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48-hours prior to any excavation work.
- Project Background:
 - Location: Tax Map #31, Parcel 819
 - Zoning: R-20
 - Election District: 2nd Election District
 - Section/Area: N/A
 - Site Area: 16.0253 Ac.
 - Approved Name and OPZ Ref. #: GP-99-200, SDP-72-54
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- All plan dimensions are to the face of curb or face of building unless otherwise noted. Dimensions are measured perpendicular or radially between items unless otherwise noted.
- Existing topography and features were derived from survey by Gutschick, Little & Weber, P.A. done in February, 1999.
- Coordinates are based on NAD 83 Maryland Coordinate System as projected by Howard County Geodetic Control Sta. Nos. 2411 and 2413.
- Public water and sewer is to be utilized. Contract No. 12W & No-20-1069 (cap. project # S-6088), Little Patuxent Drainage Area.
- Stormwater Management is provided by an on-site bio-retention ponds that are to be privately maintained.
- All on-site storm drains proposed under this SDP are private.
- The existing utilities shown herein were derived from available public records. The contractor must dig test pits, by hand, at all utility crossings and connection points to verify exact location.
- All proposed ramps shall be in accordance with current A.D.A. Standards. Maximum sidewalk cross slope shall be (2%) two percent. Provide a (5'x5') five foot by five foot level (2% Max.) landing at the top and bottom of all ramps and building entrances and exits.
- All driveways and parking to be owned and maintained by Howard County Board of Education.
- Any damage to County & State owned right-of-way to be corrected at the contractor's expense.
- Trench bedding for storm drainage structures shall be in accordance with Howard County Standard G2.01, Class "C" Bedding, unless otherwise noted.
- Gutter of curbs shall be pitched to conform to adjacent drainage patterns.
- For details of building footprint/profile, parking, road section, handicap, curb and gutter see Sheets No. 3 & 4.
- All curb fillets are 5' radius unless noted otherwise. Curb spot elevations along curb line are at the flow line, unless noted otherwise.
- There are no known grave sites or cemeteries on this site.
- Other topics related to this site:
 - Traffic Study prepared by Lee Cunningham & Associates, Inc. in March, 1999.
 - GP-99-200
 - Soils analysis by Penman & Brown, Inc. Dated 6/3/99.
- All outside lighting shall comply with zoning section 134. See drawing sheet E-1 to be submitted with Building Permit Submission package.
- The water meter is located inside the building. The building will have an Automatic Fire Prevention Sprinkler System.
- Afforestation planting will be provided within the 2.7 ac. of Forest Conservation Easement.
- The existing driveway with the use-in-common easement (L. 306 F. 232) along the northern boundary is an existing non-conforming use. There is a net decrease in area of non-conforming use with the proposed new driveway alignment.
- There are no flood plains or wetlands on this site.
- The forest conservation easements in the amount of 2.7 acres of afforestation planting is to fulfill part of the 9.2 acre of off-site forest obligation for the Ilchester Elementary School (SDP-95-85) and the Bonnie Branch Middle School (SDP-98-85). The remainder of the forest obligation for the Ilchester Elementary School (SDP-95-85) and Bonnie Branch Middle School (SDP-98-85) is fulfilled by the establishment of the forest conservation easement for the afforestation/afforestation planting at the site with the Reservoir High School (SDP-00-86).



SHEET INDEX

SHEET No.	TITLE
1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	SITE DETAILS
4	SITE DETAILS
5	STORM DRAIN PROFILES & SCHEDULES
6	UTILITY PROFILES & SCHEDULES
7	DRAINAGE AREA MAP
8	SEDIMENT AND EROSION CONTROL PLAN
9	SEDIMENT CONTROL DETAILS & NOTES
10	S.W.M. NOTES & DETAILS
11	LANDSCAPE PLAN AND DETAILS
12	LANDSCAPE EDGE ANALYSIS
13	MD RTE 103 RESTRIPIING PLAN, NOTES, & POND SPECIFICATIONS

SITE ANALYSIS DATA CHART

1. GENERAL SITE DATA	
A. PRESENT ZONING:	R-20
B. PROPOSED USE OF SITE OR STRUCTURES:	INSTITUTIONAL (PUBLIC SCHOOLS)
C. PUBLIC WATER AND SEWER SYSTEMS:	
2. AREA TABULATION	
A. TOTAL SITE AREA:	16.0253 ACRES
B. AREA OF THIS PLAN SUBMISSION:	10.78 ACRES
C. LIMIT OF DISTURBED AREA BY THIS SDP:	10.1± ACRES
D. BUILDING COVERAGE OF SITE:	1.6± AC. (10% ±)
E. PAVED SURFACES:	3.1± AC. (29.4% ±)
F. GREEN AREA:	11.3± AC. (6.60±)
3. OPEN SPACE DATA	
A. OPEN SPACE REQUIRED ON SITE:	N/A
B. OPEN SPACE PROPOSED:	N/A
4. PARKING SPACE DATA	
A. NUMBER OF PARKING SPACES REQUIRED BY ZONING REGULATIONS:	N/A
B. TOTAL NUMBER OF PARKING SPACES PROVIDED BY THIS SDP:	108 CAR SPACES (INCLUDES 6 HANDICAPPED PARKING SPACES) TO MEET THE REQUIREMENT OF THE BOARD OF EDUCATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Richard Blood 2/23/00
Date

Richard Blood 2/16/00
Date

Chief, Development Engineering Division 2/14/00
Date



STREET ADDRESS	
4445 MONTGOMERY ROAD	
PERMIT INFORMATION	
SUBMISSION NAME	ELLICOTT MILLS MIDDLE SCHOOL
SECTION/AREA	494
PARCEL #	494
BLK	16
LOT	31
ZONING	R-20
SECTION	2nd
WATER CODE	5750638 & 1400520
FOA	

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
7-11-00	INCORPORATE FC EASEM. AREA PER SDP-00-86, REVISE GEN. NOTES #24 & 27.	HJ	

ARCHITECT
THOMAS CLARK ASSOC.'S ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MD. 21401
TEL: (301) 261-6700

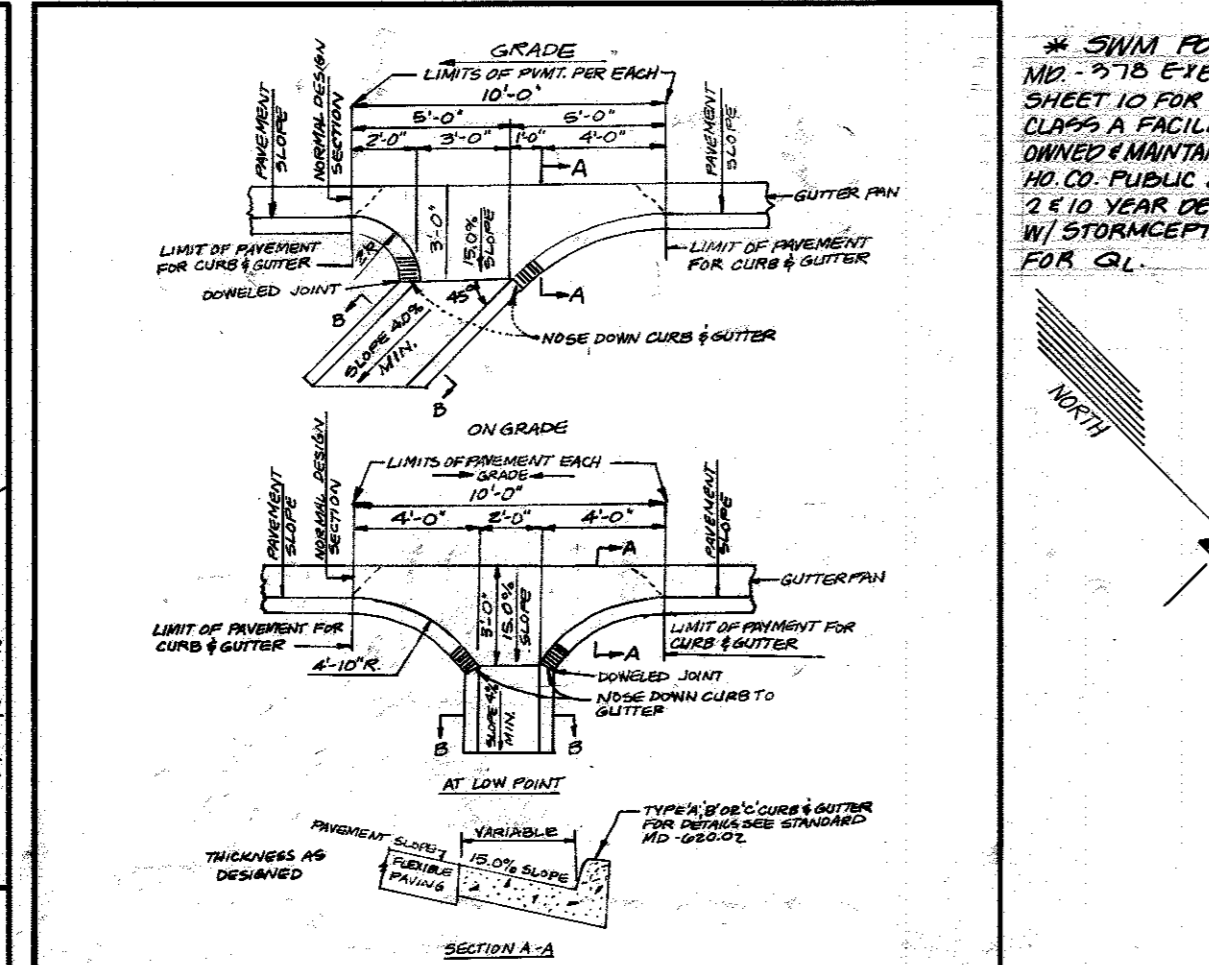
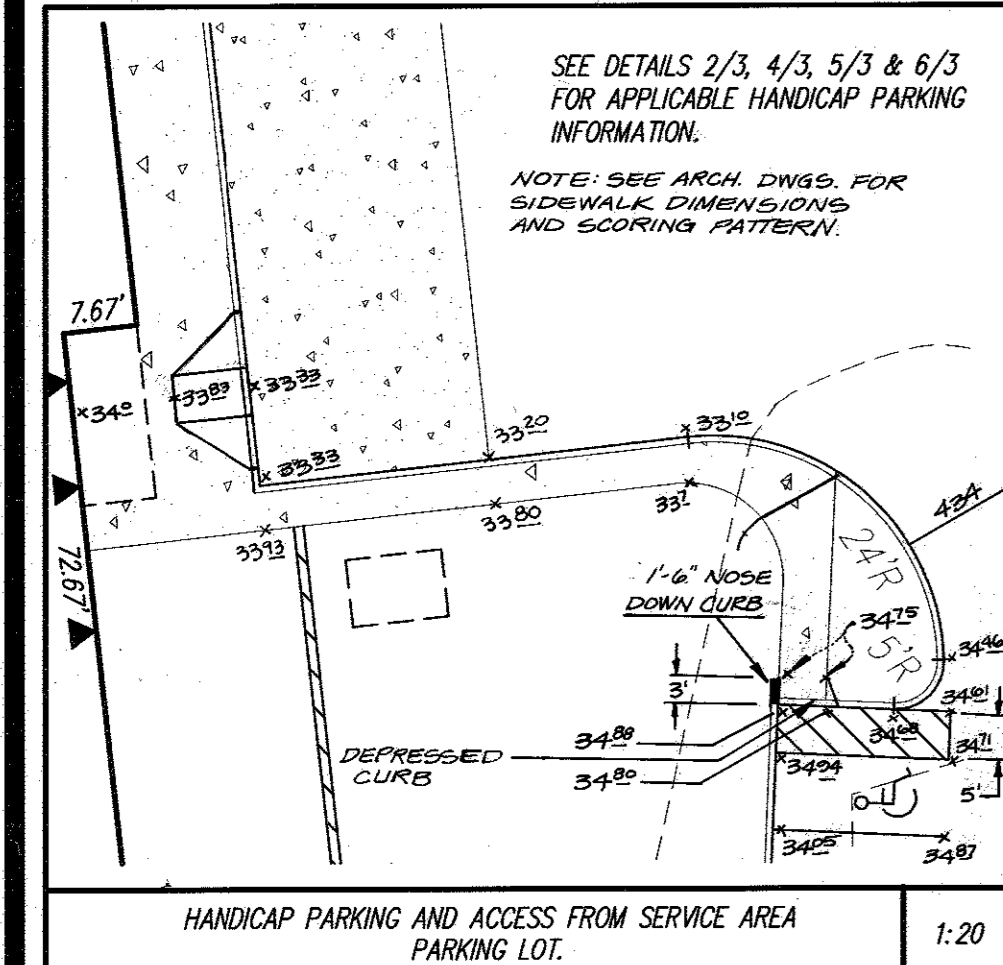
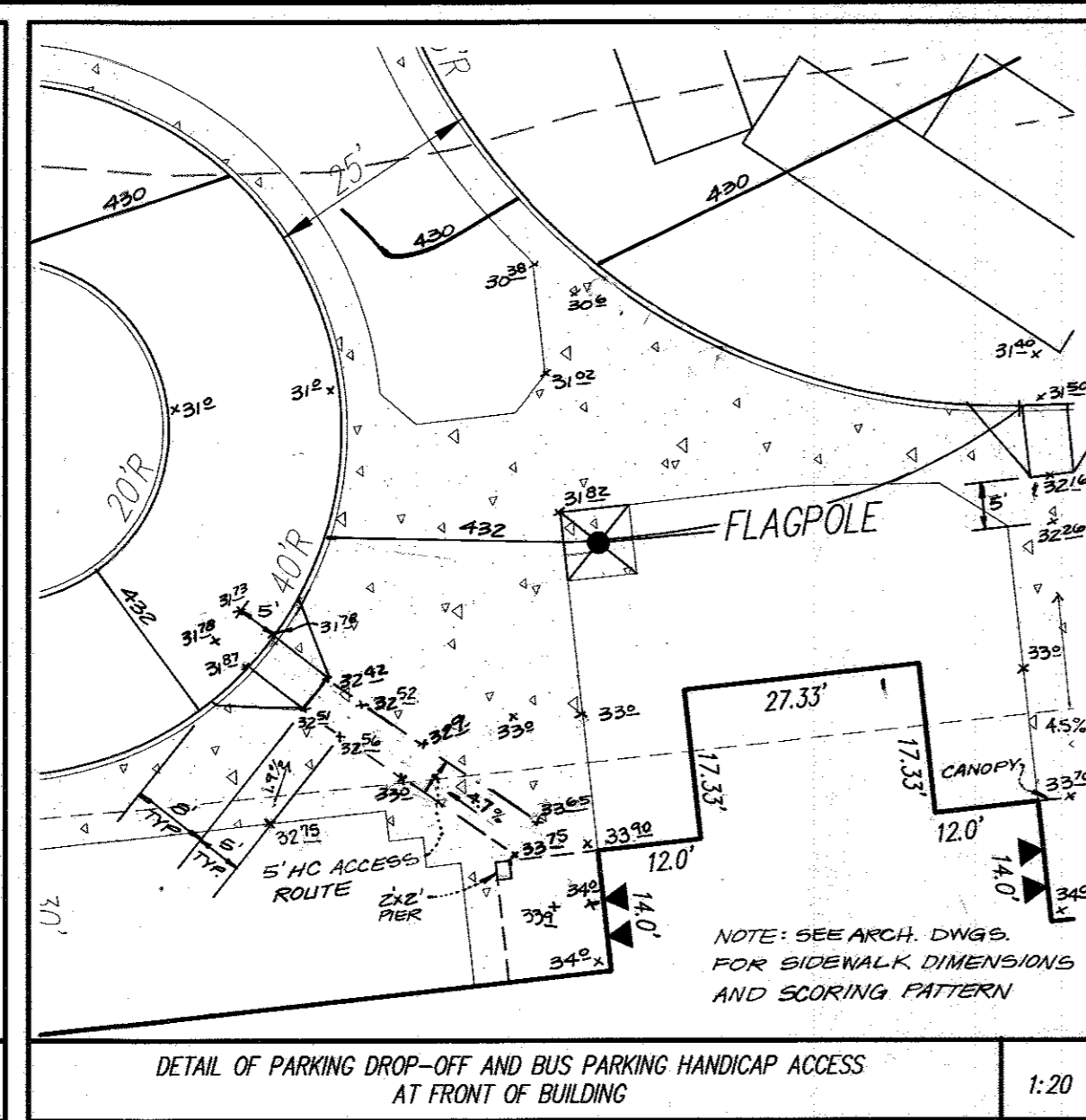
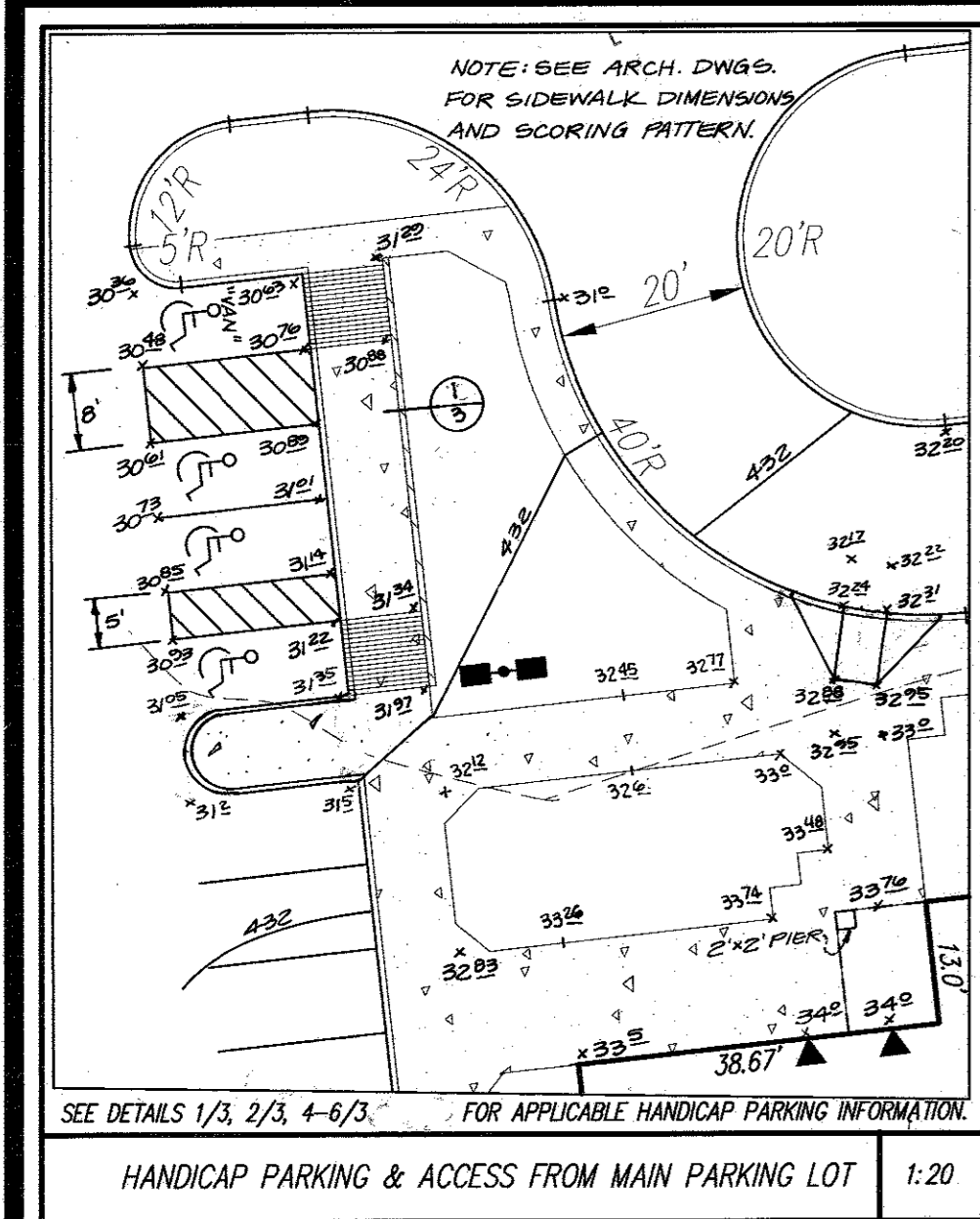
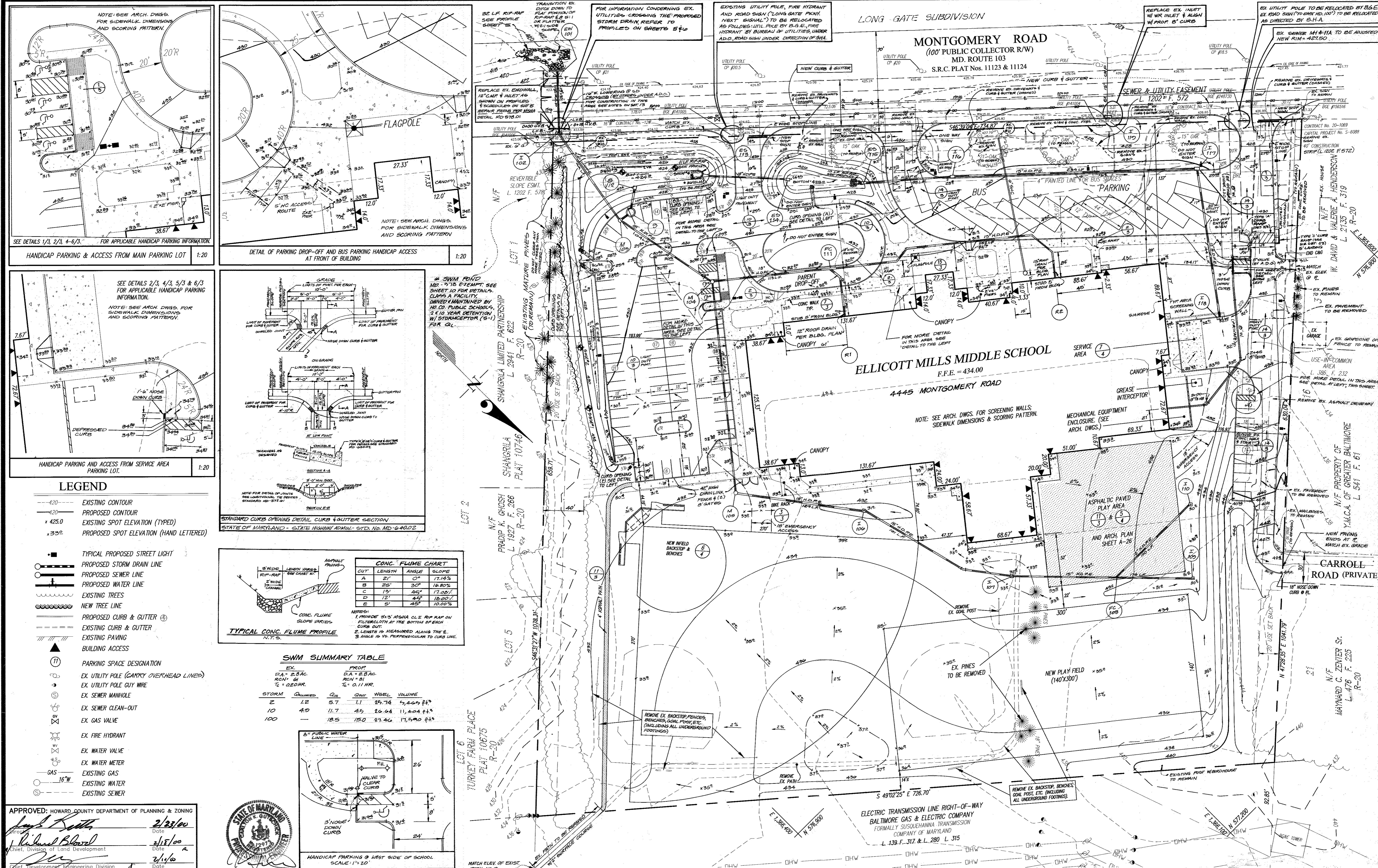
PREPARED FOR: OWNER
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RTE. 108
ELLICOTT CITY, MD. 21043
ATTN: MR. BILL BROWN
TEL: 410-313-6704

COVER SHEET

ELLICOTT MILLS MIDDLE SCHOOL
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157

ELLICOTT CITY ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20	98118
DATE	TAX MAP - GRID	SHEET
12-13-99	24,25,30 & 31	1 OF 13



- LEGEND**
- 420 --- EXISTING CONTOUR
 - - - 420 - - - PROPOSED CONTOUR
 - + 425.0 EXISTING SPOT ELEVATION (TYPED)
 - x 33.0 PROPOSED SPOT ELEVATION (HAND LETTERED)
 - TYPICAL PROPOSED STREET LIGHT
 - PROPOSED STORM DRAIN LINE
 - PROPOSED SEWER LINE
 - PROPOSED WATER LINE
 - EXISTING TREES
 - NEW TREE LINE
 - PROPOSED CURB & GUTTER
 - EXISTING CURB & GUTTER
 - EXISTING PAVING
 - ▲ BUILDING ACCESS
 - Ⓜ PARKING SPACE DESIGNATION
 - EX. UTILITY POLE (CANOPY OVERHEAD LINES)
 - EX. UTILITY POLE GUY WIRE
 - EX. SEWER MANHOLE
 - EX. SEWER CLEAN-OUT
 - EX. GAS VALVE
 - EX. FIRE HYDRANT
 - EX. WATER VALVE
 - EX. WATER METER
 - GAS EXISTING GAS
 - 16" W EXISTING WATER
 - EXISTING SEWER

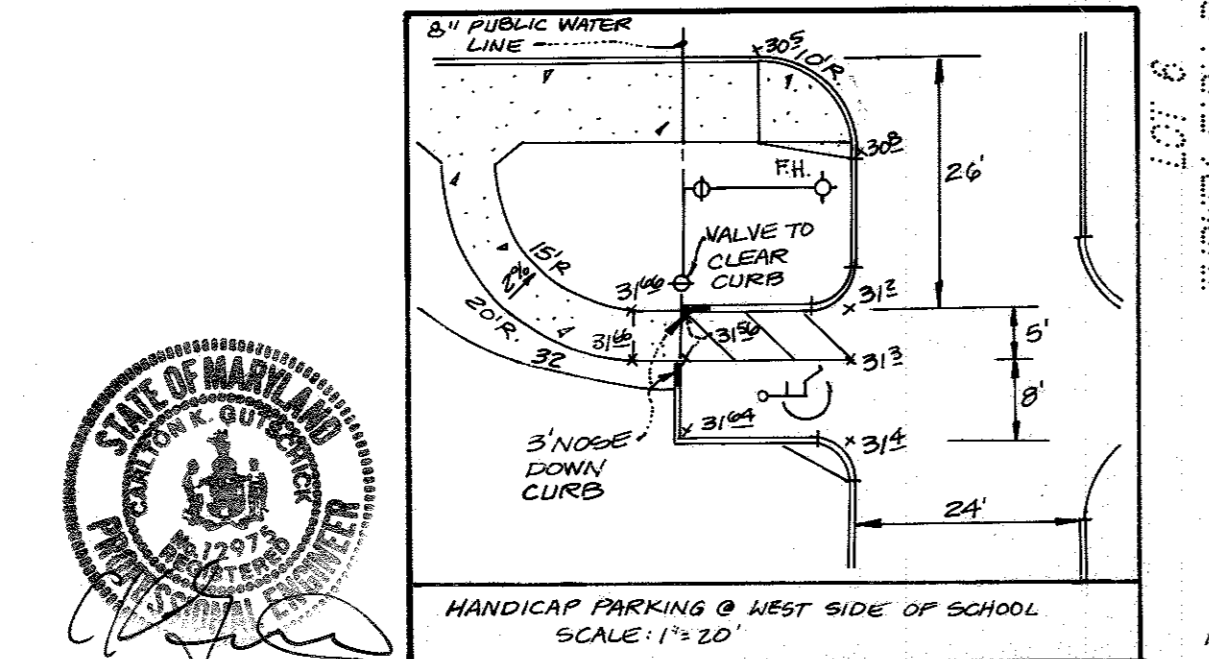
CONC. FLUME CHART

CUT	LENGTH	ANGLE	SLOPE
A	21"	0°	17.14%
B	25"	30°	18.80%
C	19"	45°	17.22%
D	12"	45°	18.20%
E	5"	45°	10.00%

NOTES:
 1. PROVIDE 3/4" MSHA CL 2 RIP RAP ON FILTERCLOTH AT THE BOTTOM OF EACH CURB CUT.
 2. LENGTH IS MEASURED ALONG THE E.
 3. ANGLE IS TO PERPENDICULAR TO CURB LINE.

SWM SUMMARY TABLE

STORM	COLLECTED	QIN	QOUT	WSBL	VOLUME
2	12	5.7	1.1	25.74	5,469 ft ³
10	40	11.7	4.5	26.04	11,404 ft ³
100	18.5	15.0	27.46	17,590 ft ³	



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Howard County Seal

2/23/00 Date
 2/18/00 Date
 2/14/00 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/Va: 301-989-2524 FAX: 301-421-4186

NO.	DATE	REVISION	BY	APPR.

ARCHITECT: THOMAS CLARK ASSOC.'S ARCHITECTS
 2661 RIVA ROAD, SUITE 120 ANNAPOLIS, MD. 21401 TEL: (301) 261-8700

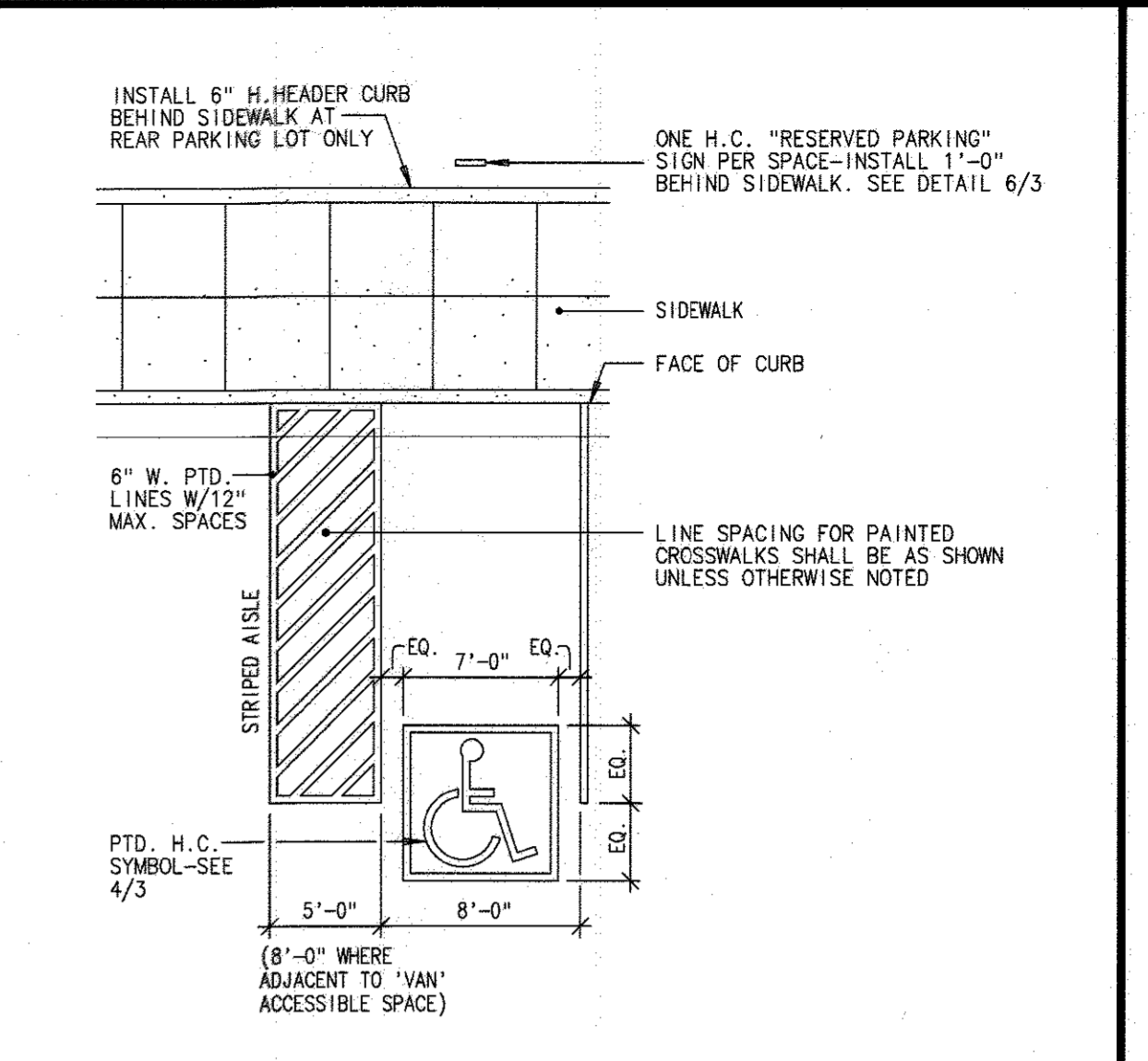
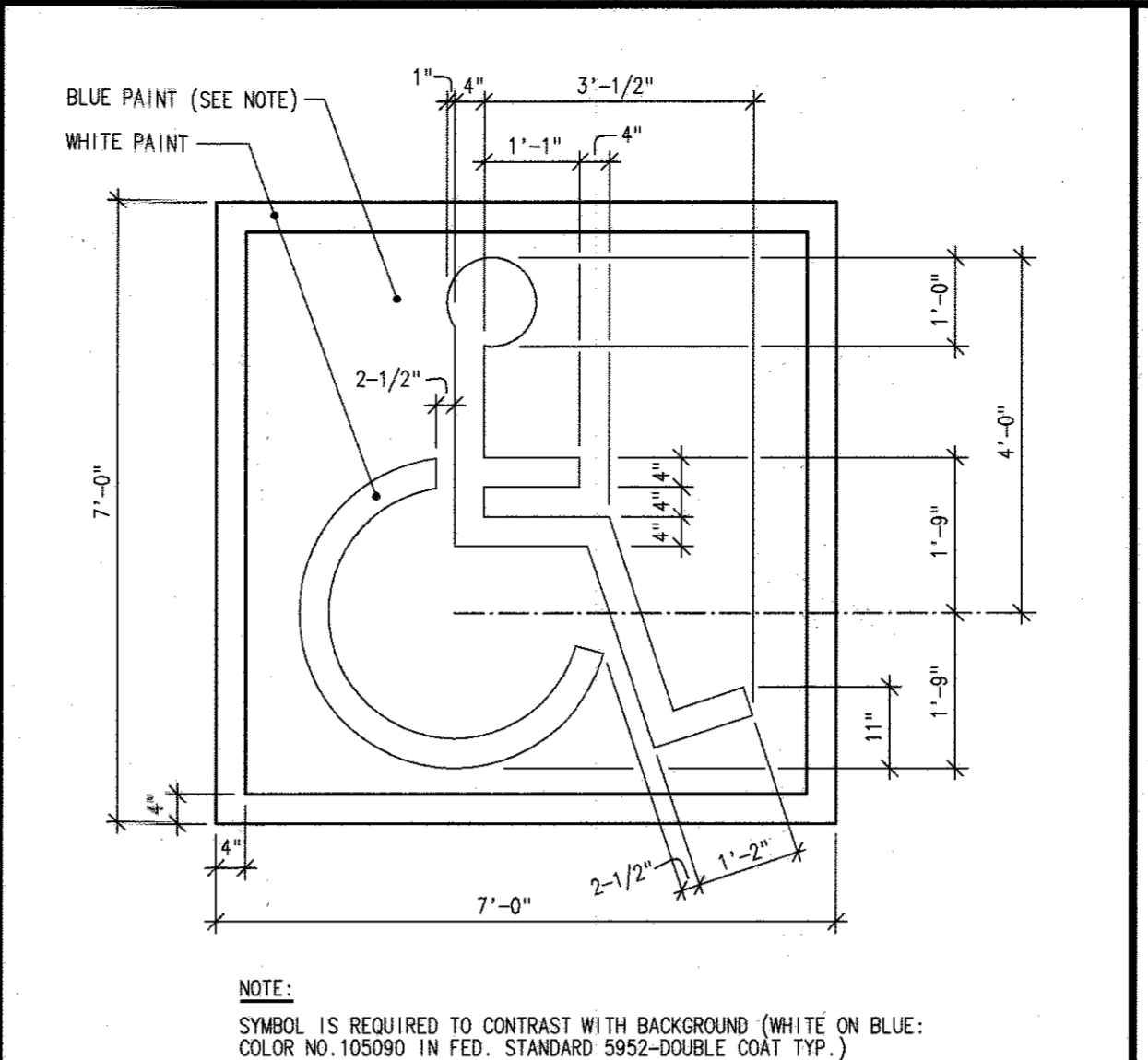
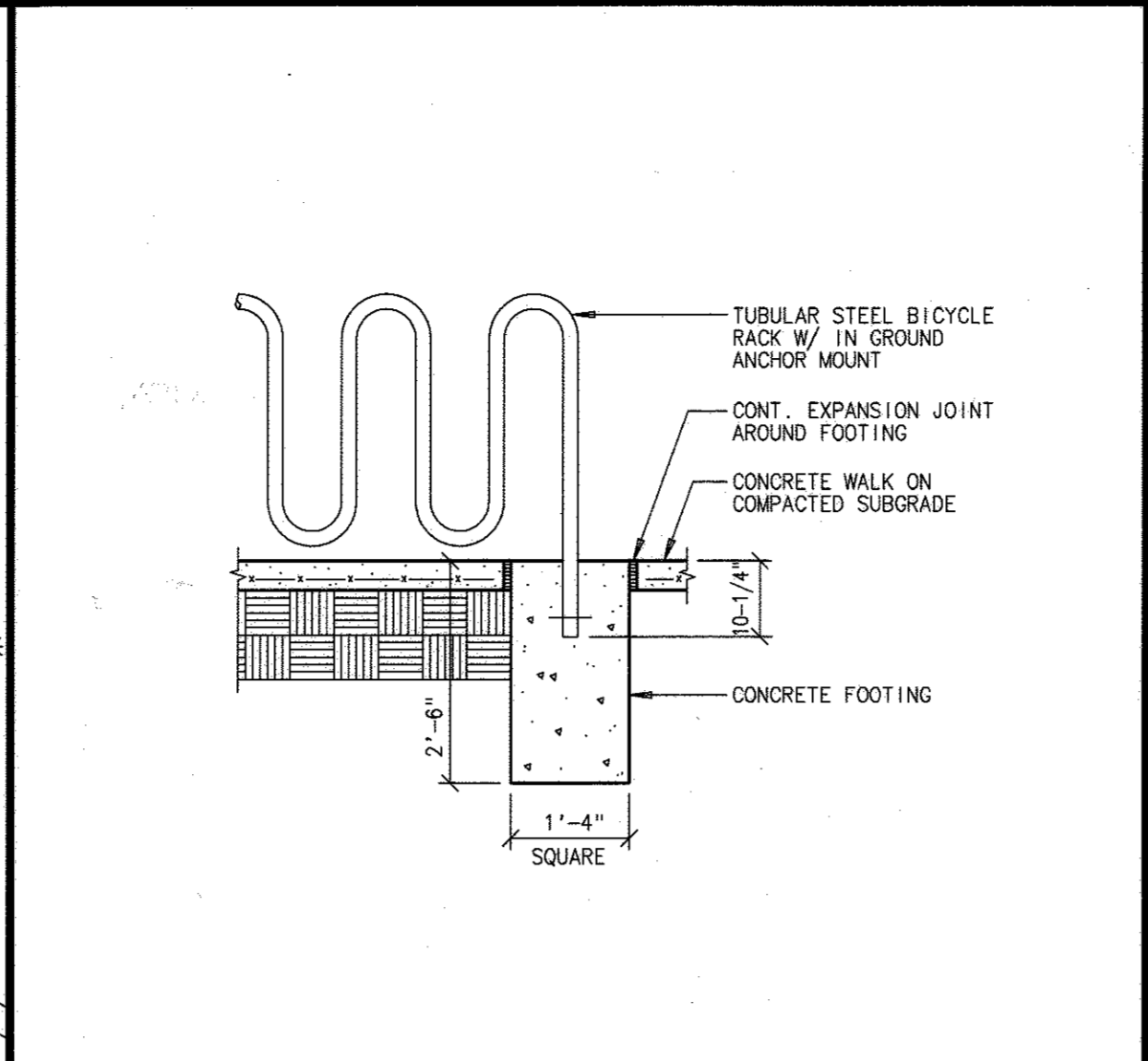
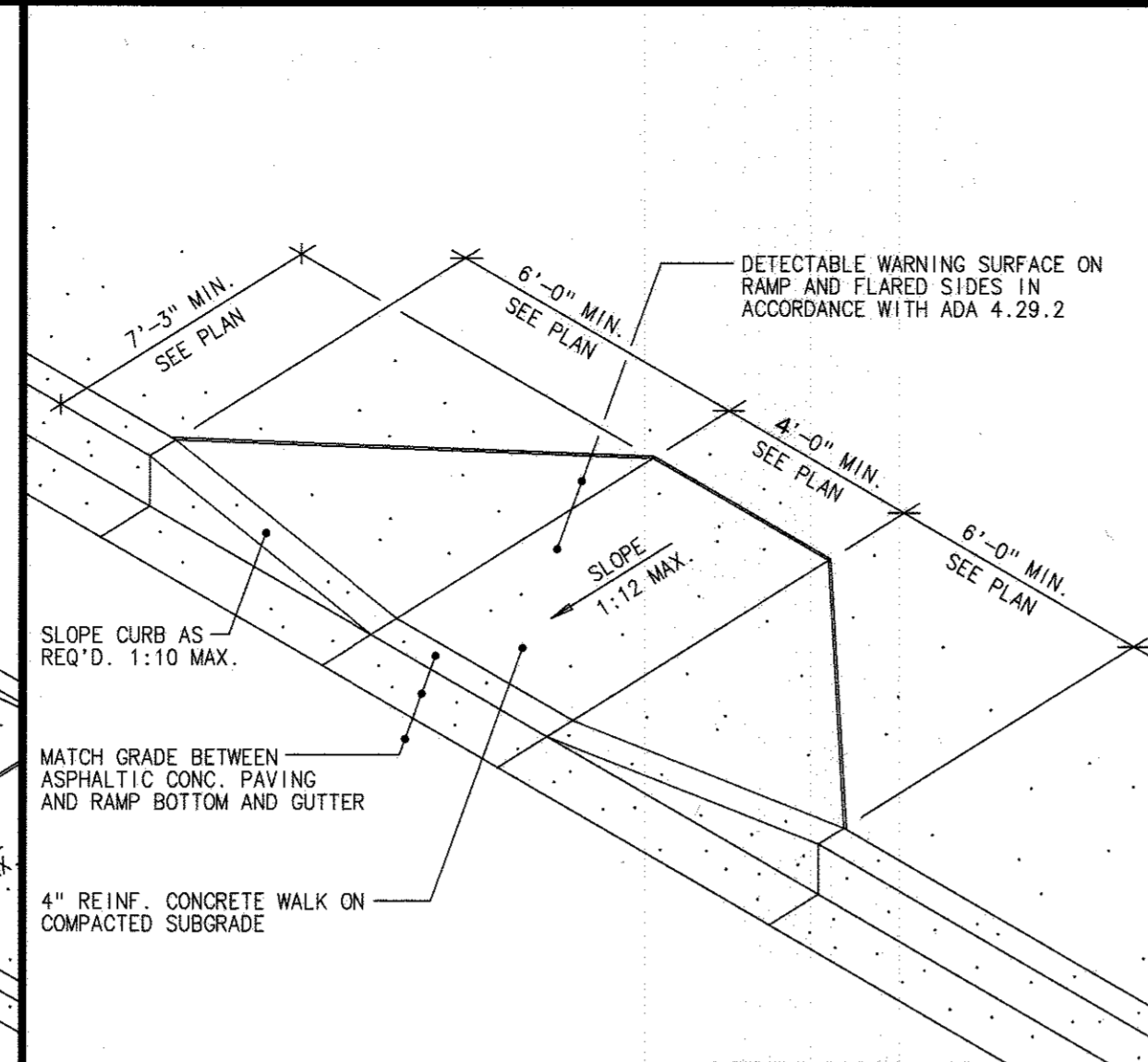
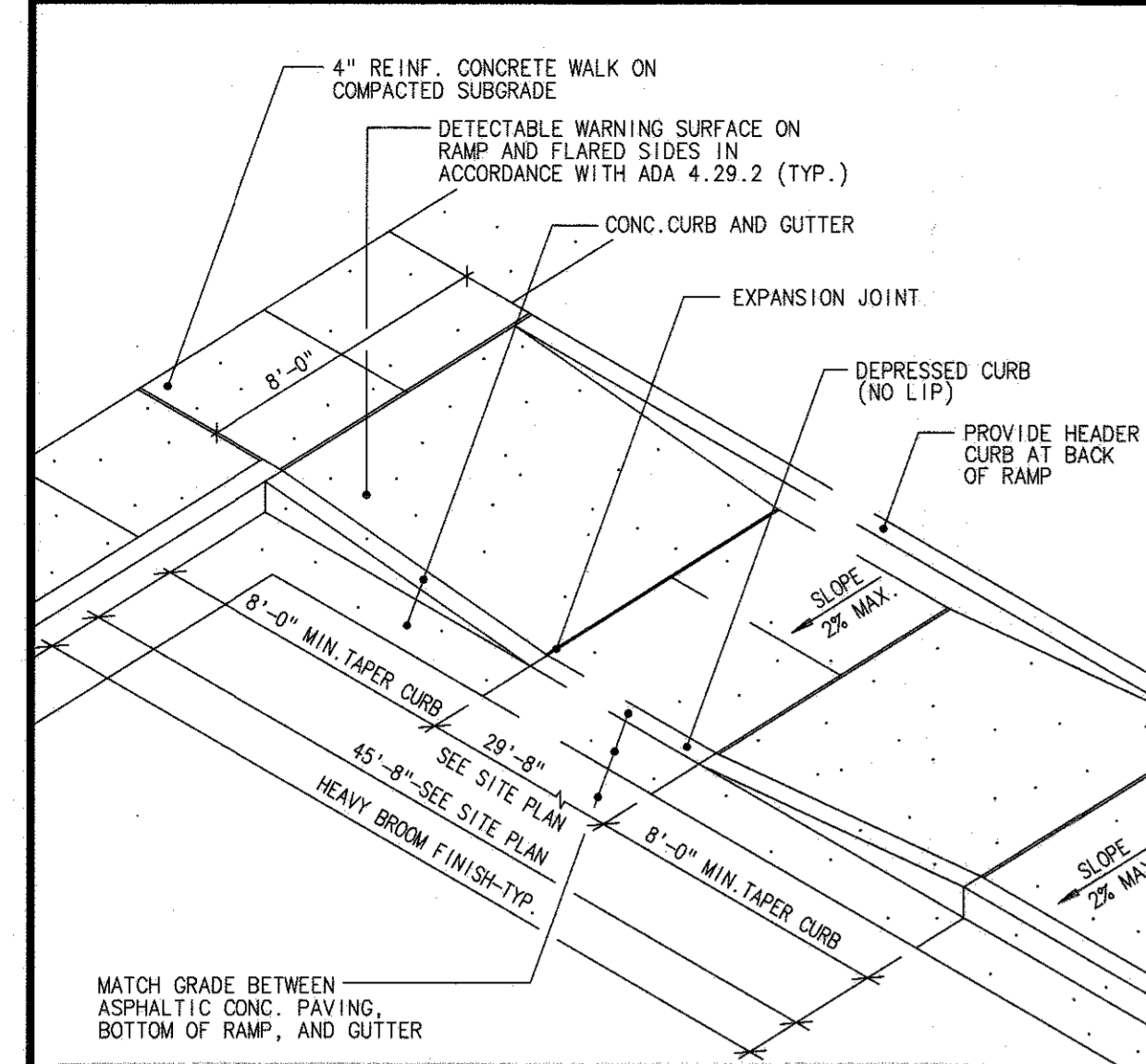
PREPARED FOR: OWNER
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RTE. 108 ELLICOTT CITY, MD. 21043 ATTN: MR. BILL BROWN TEL: 410-313-6704

SITE DEVELOPMENT PLAN

ELLICOTT MILLS MIDDLE SCHOOL
 PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
 L. 162 F. 302 & L. 288 F. 157

ELLICOTT CITY ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1" = 40'	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24,25,30 & 31	2 OF 13



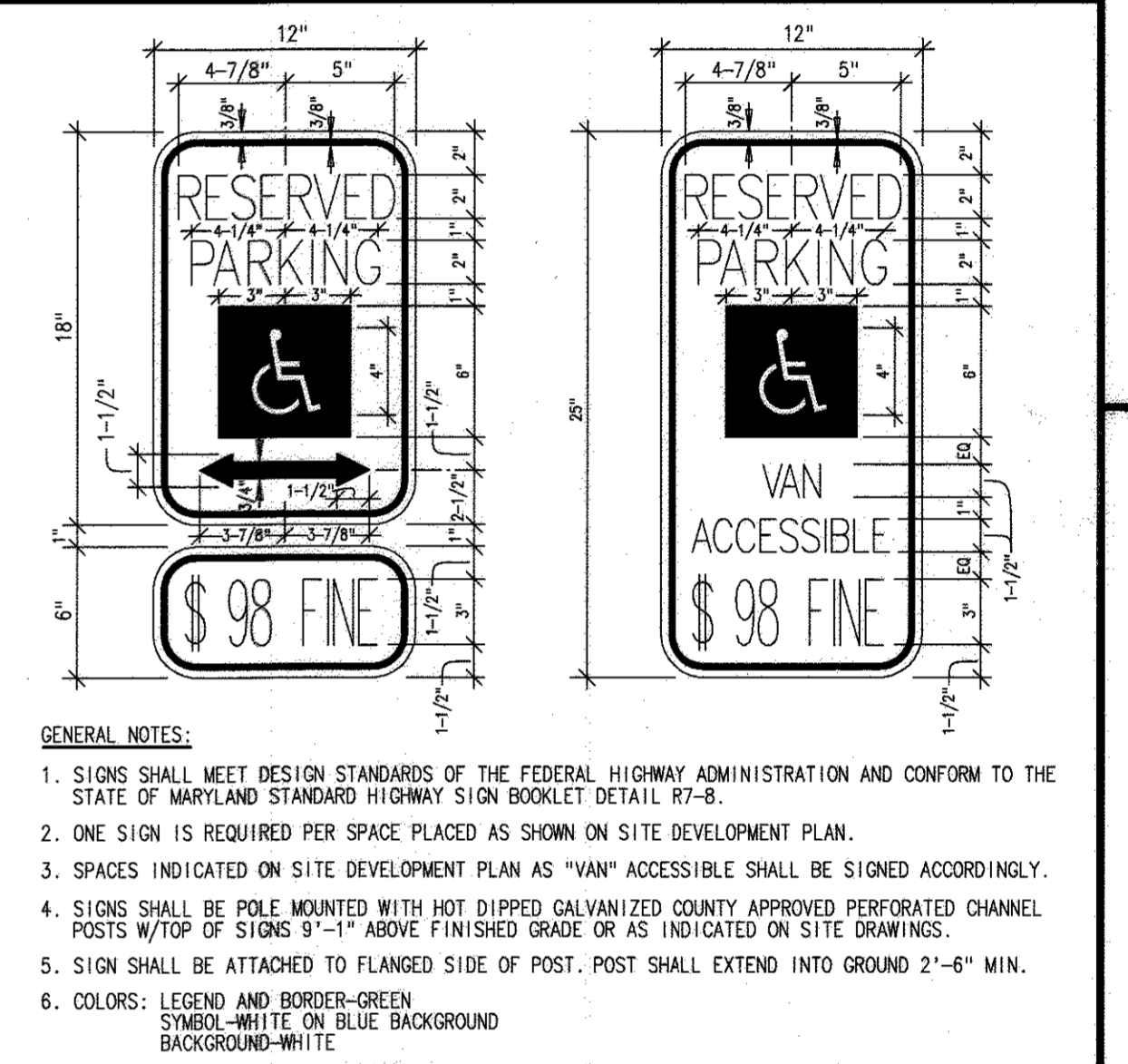
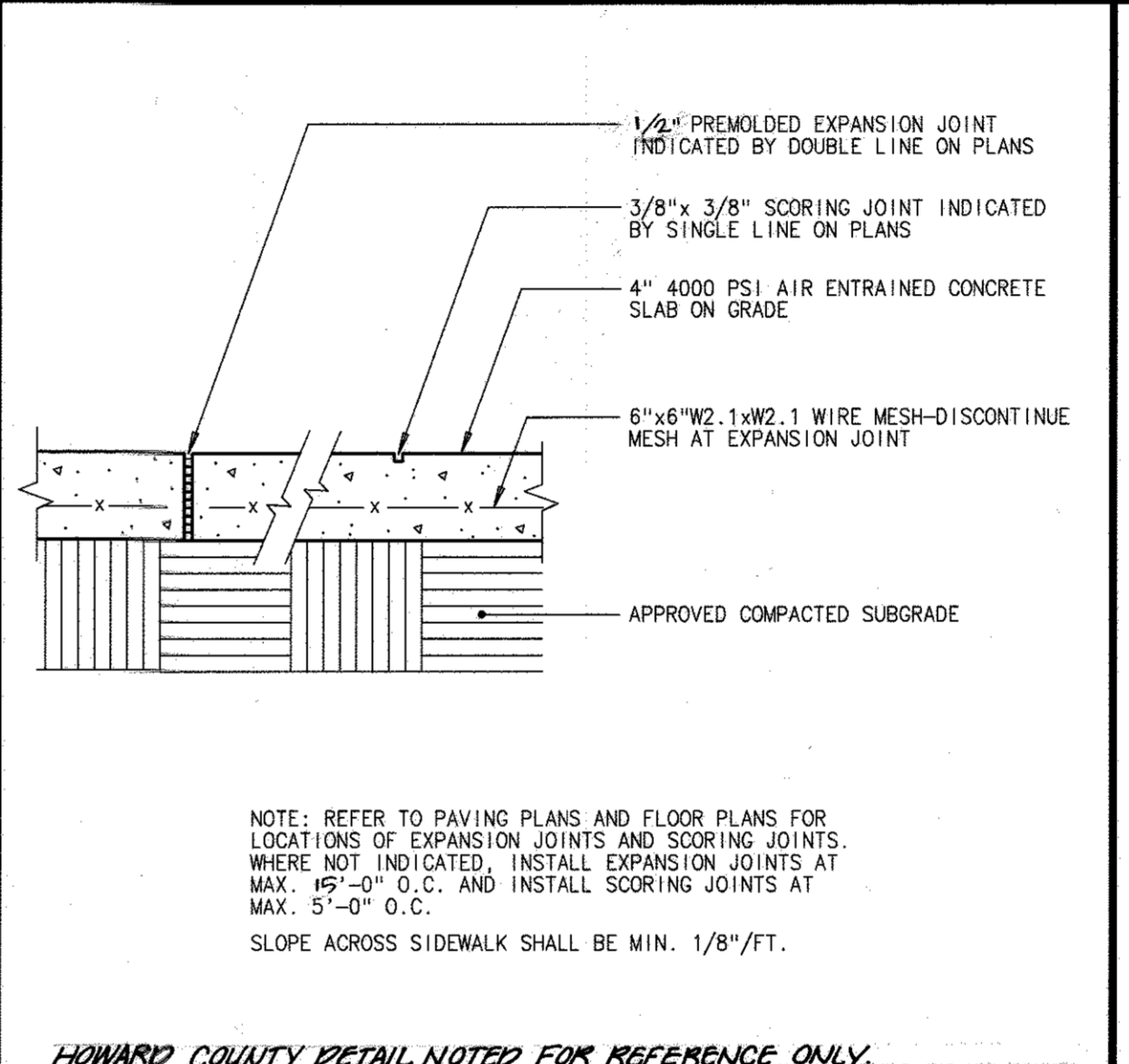
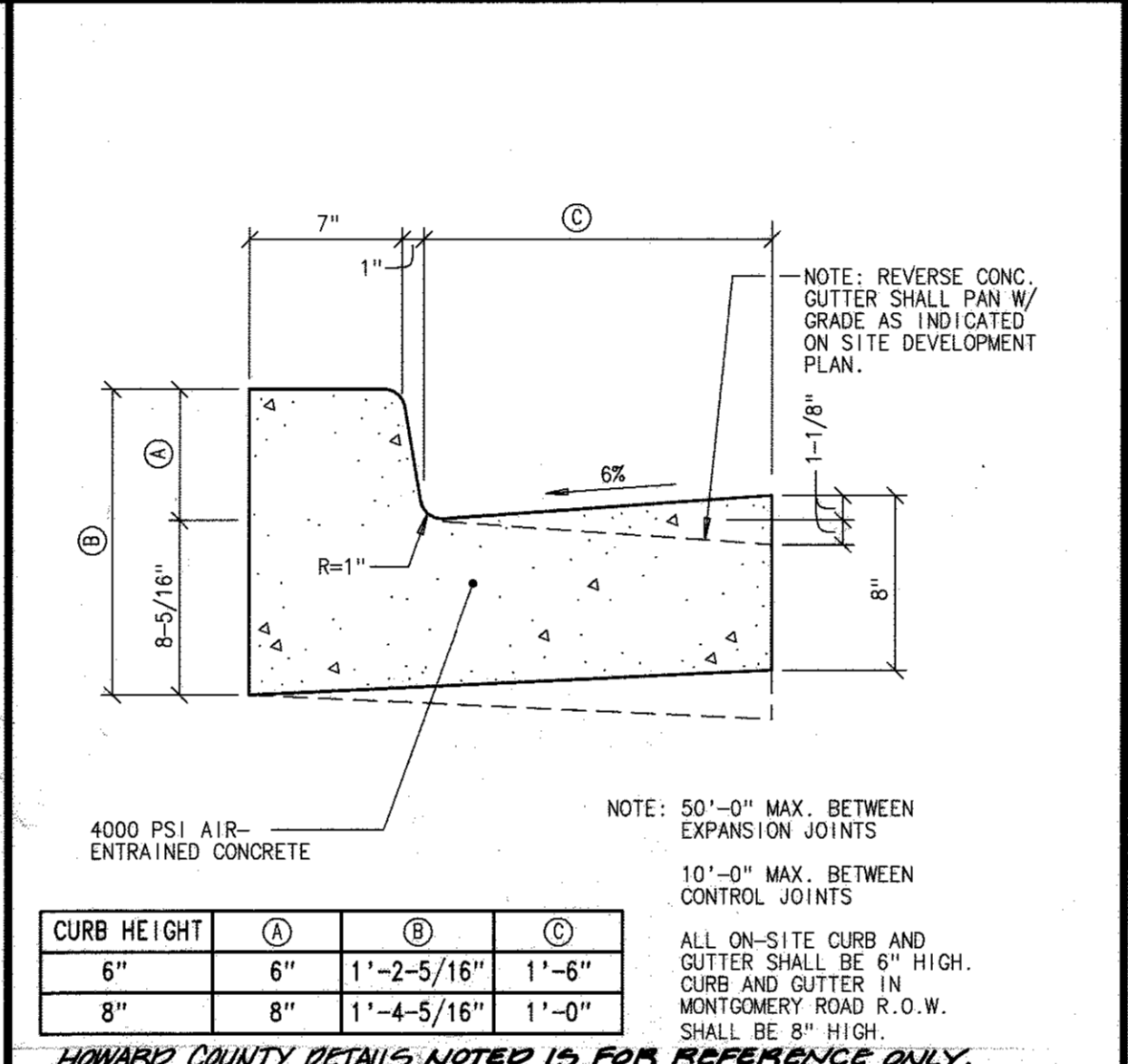
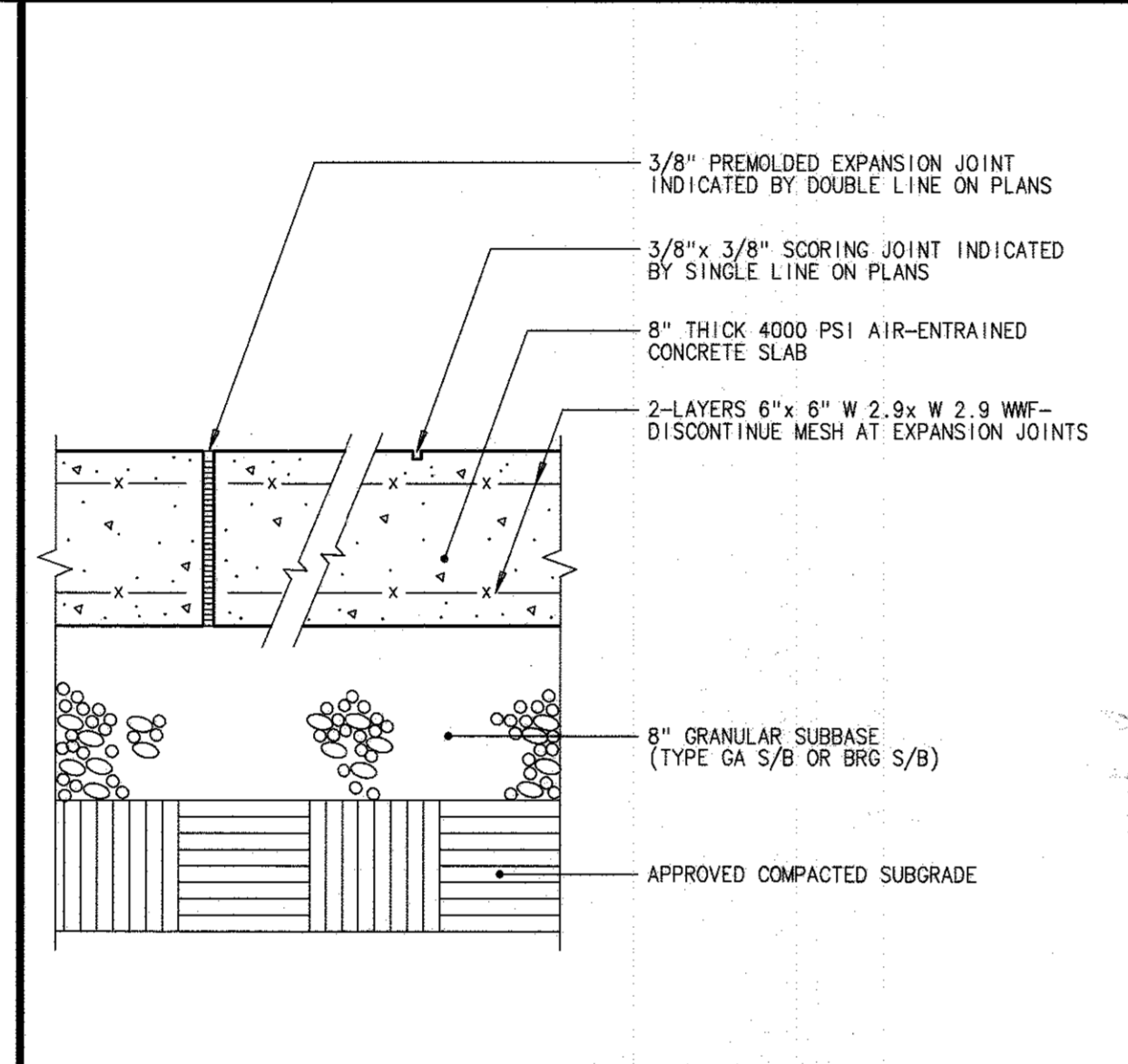
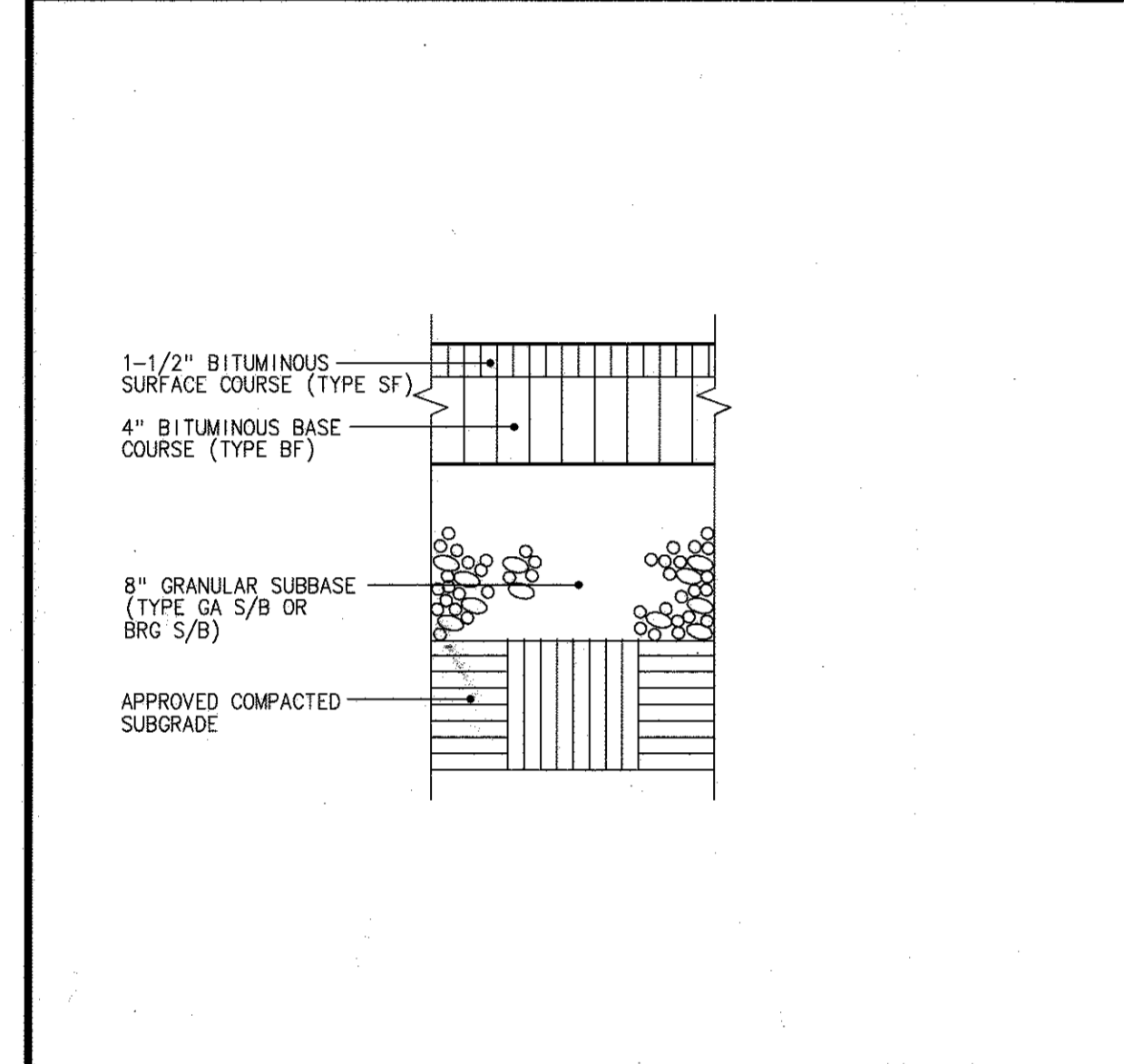
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2 TYPE A CURB RAMP DETAIL HO. CO. DETAIL R4.01 NO. SCALE 3

3 BICYCLE RACK DETAIL HO. CO. DETAIL R4.01 NO. SCALE 2

4 ACCESSIBLE SPACE STENCIL LAYOUT HO. CO. DETAIL R4.03 NO. SCALE 2

5 ACCESSIBLE SPACE LAYOUT HO. CO. DETAIL R4.03 NO. SCALE 8



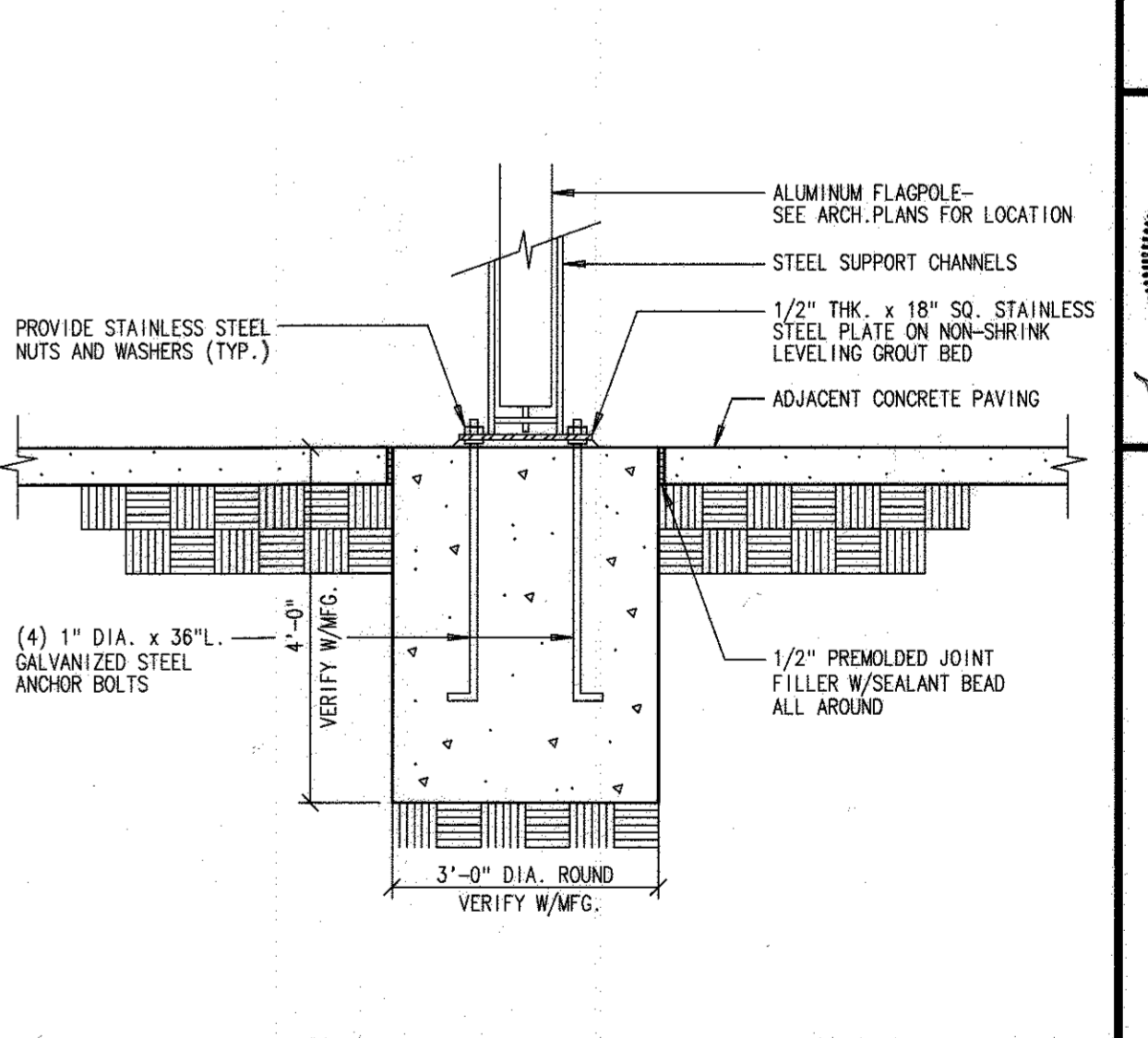
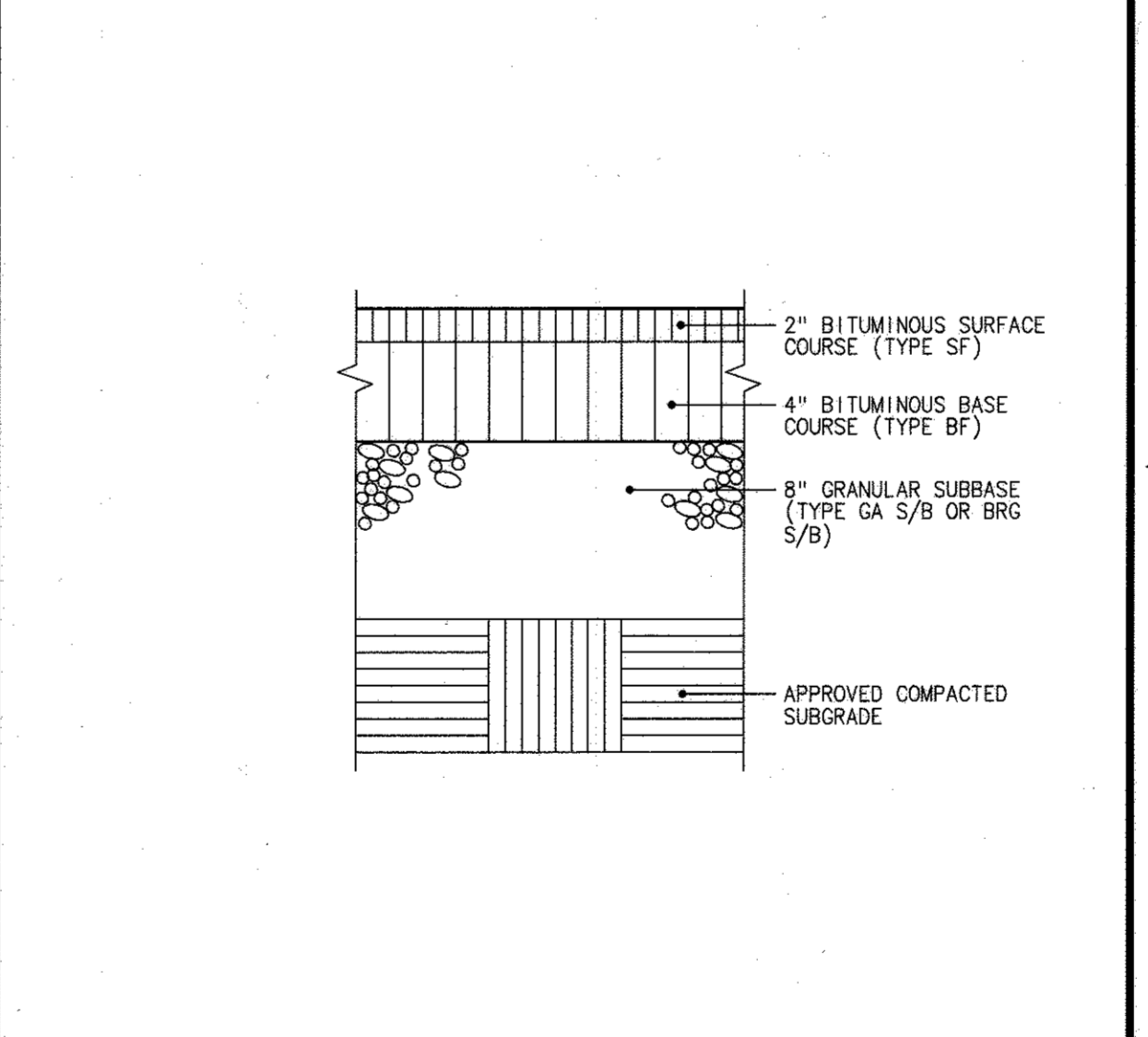
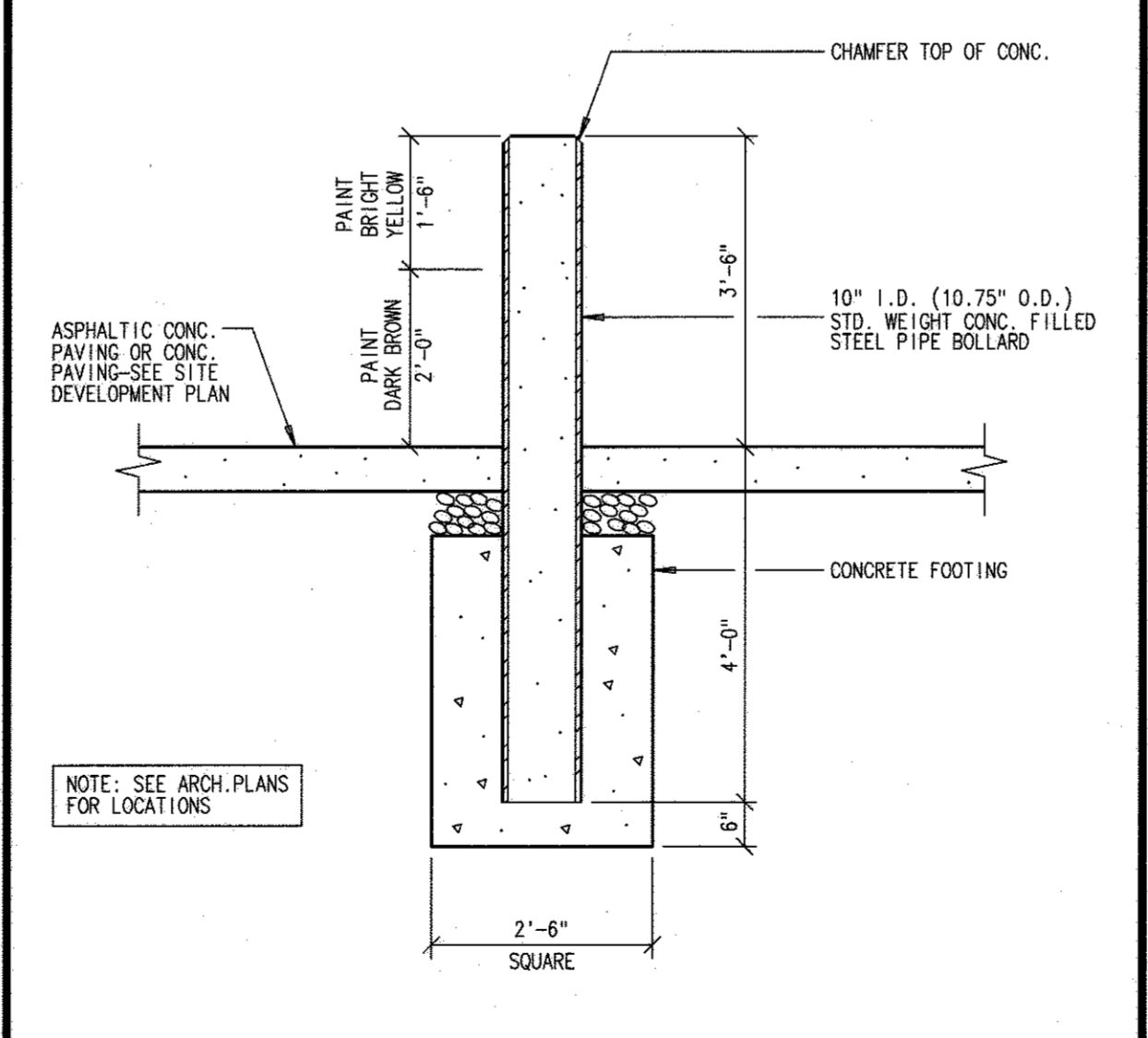
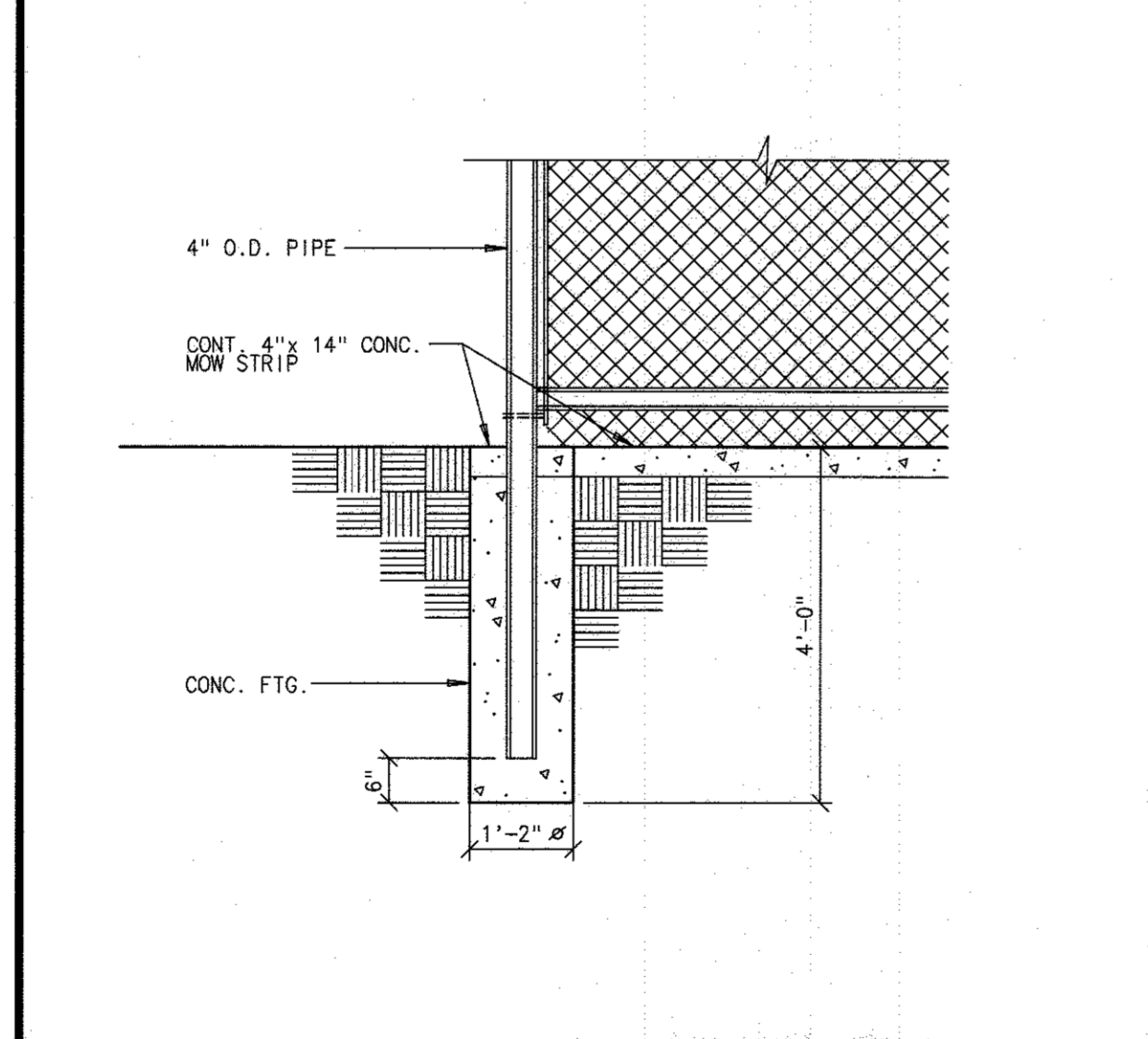
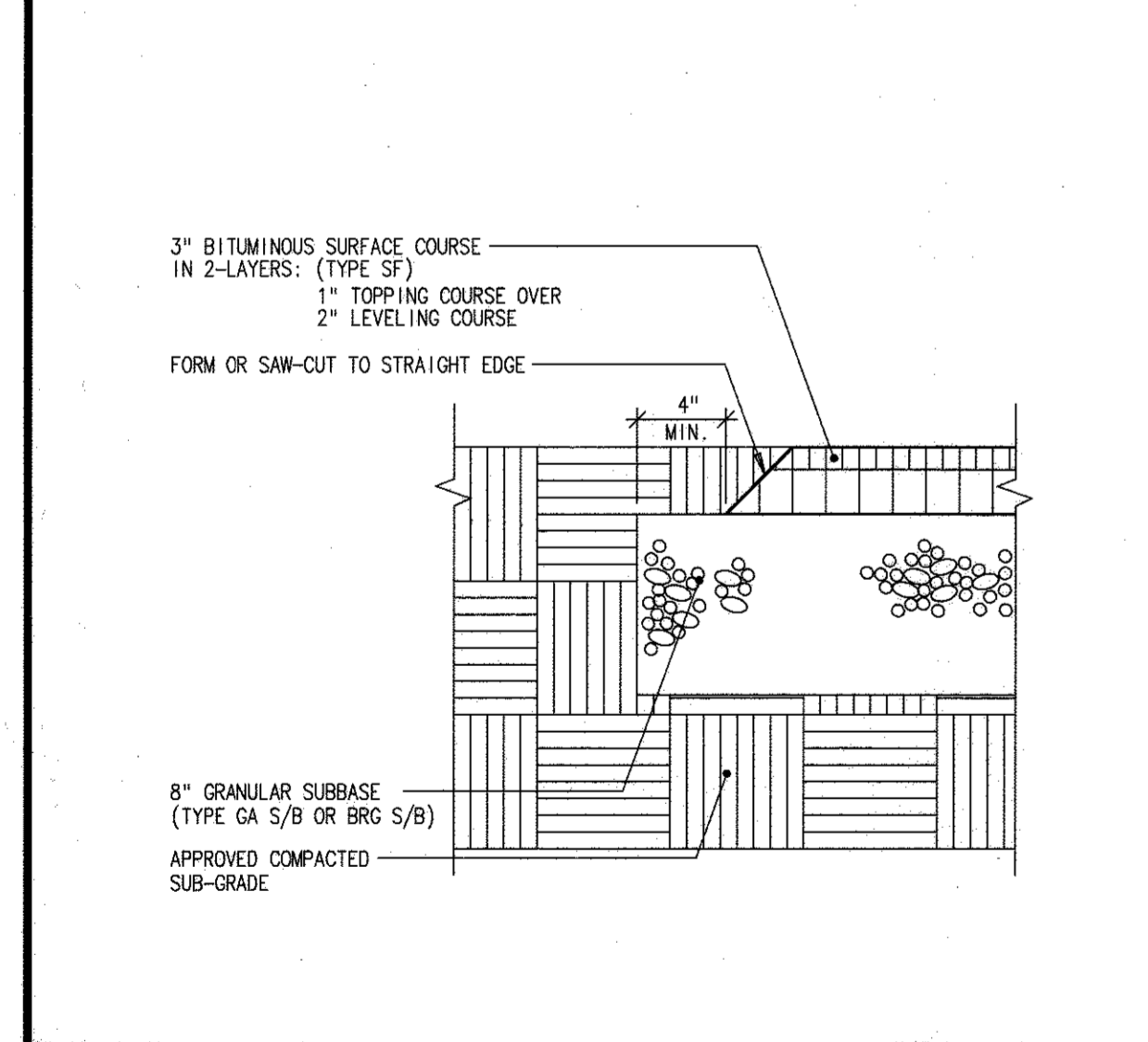
10 LIGHT DUTY PAVEMENT DETAIL HO. CO. DETAIL R4.03 NO. SCALE 1 1/2

9 SERVICE AREA CONCRETE PAVING HO. CO. DETAIL R4.01 NO. SCALE 3

8 CONCRETE CURB AND GUTTER HO. CO. DETAIL R4.01/2.01 NO. SCALE 1 1/2

7 CONCRETE WALK DETAIL HO. CO. DETAIL R4.03 NO. SCALE 1 1/2

6 HANDICAP PARKING SIGNS DETAIL HO. CO. DETAIL R4.03 NO. SCALE NO



11 PAVED PLAY AREA PAVEMENT DETAIL HO. CO. DETAIL R4.03 NO. SCALE 1 1/2

12 BACKSTOP FOOTING DETAIL HO. CO. DETAIL R4.01 NO. SCALE 3

13 PIPE BOLLARD DETAIL HO. CO. DETAIL R4.01 NO. SCALE 2

14 HEAVY DUTY PAVEMENT DETAIL HO. CO. DETAIL R4.03 NO. SCALE 3

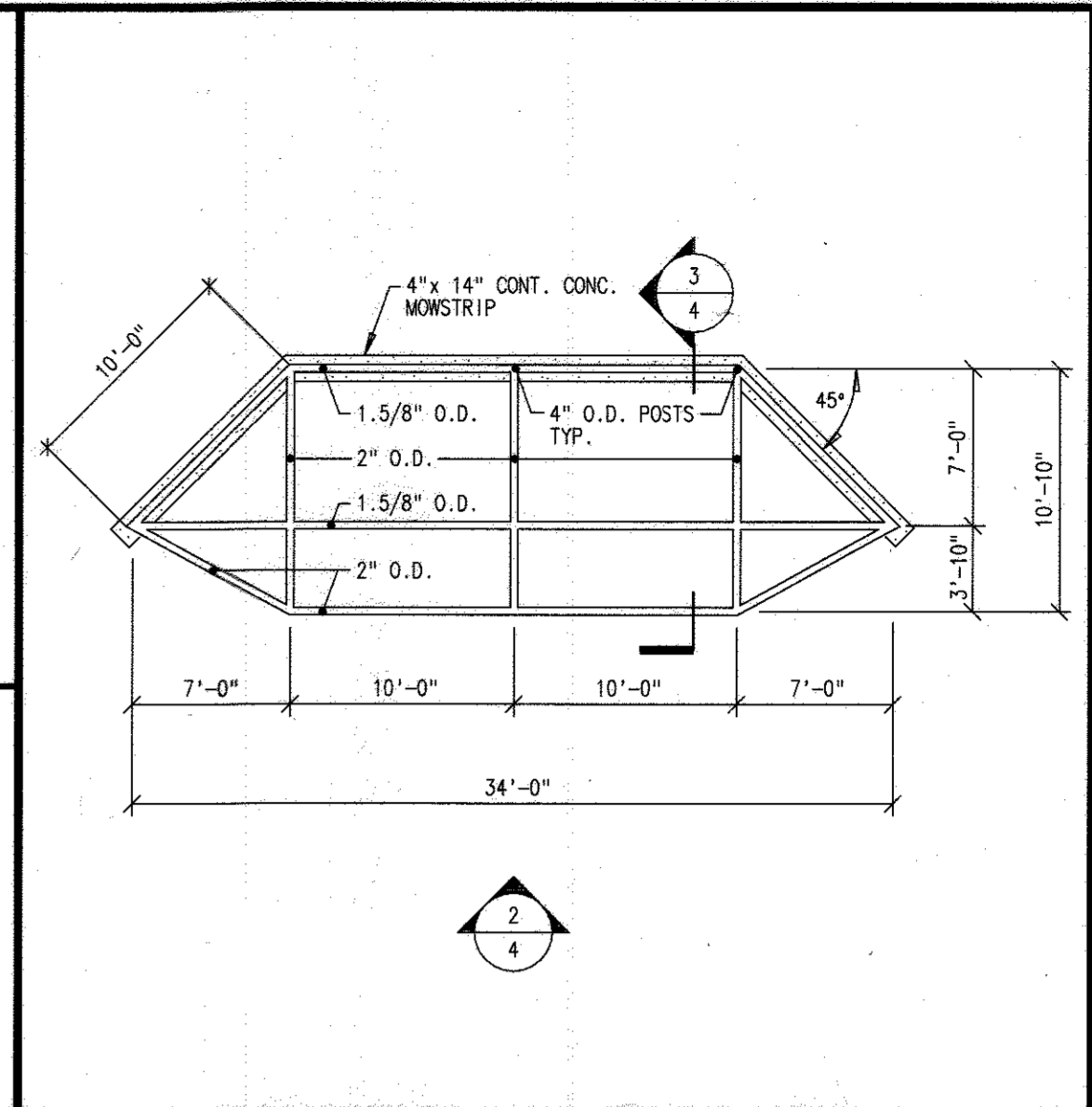
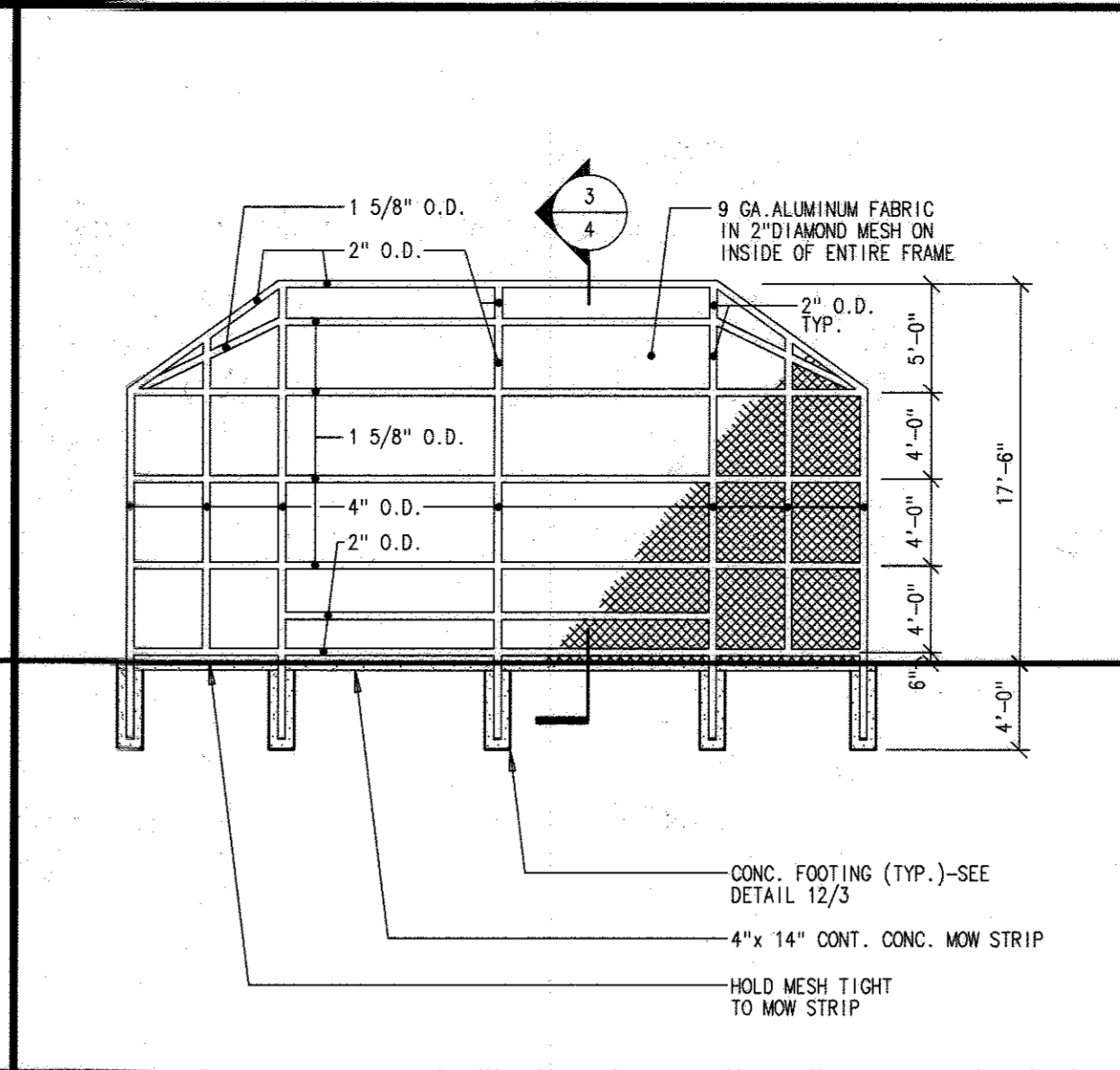
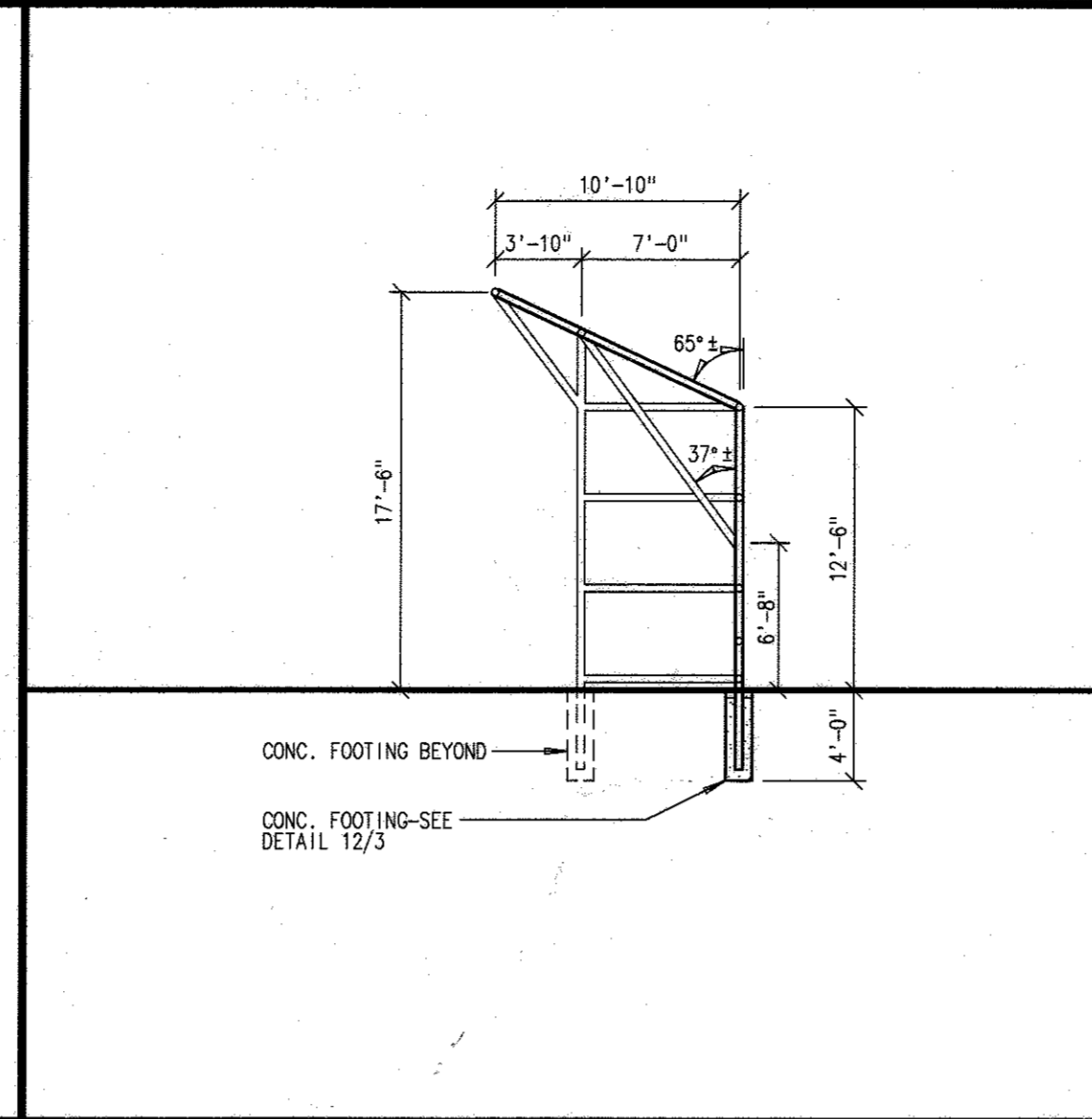
15 TILT FLAGPOLE DETAIL HO. CO. DETAIL R4.03 NO. SCALE 2

<p>TCA ARCHITECTS 2661 RIVA ROAD SUITE 120 ANNAPOLIS, MARYLAND 21401 410-841-6205</p>		<p>APPROVED: DEPARTMENT OF PLANNING AND ZONING</p> <p><i>[Signature]</i> 2/23/00 DATE</p> <p><i>[Signature]</i> 2/16/00 DATE</p> <p><i>[Signature]</i> 2/10/00 DATE</p>		<p>SITE DETAILS</p> <p>ELLICOTT MILLS MIDDLE SCHOOL</p> <p>TAX MAPS NO. 24, 25, 30, & 31 LIBER 162 FOLIO 302 & LIBER 288 FOLIO 157 2ND ELECTION DISTRICT: HOWARD COUNTY, MARYLAND SCALE: AS SHOWN</p>	
<p>OWNER</p> <p>HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043</p>		<p>SDP 12/13/99</p>		<p>3 of 13</p>	

ELLICOTT MILLS MIDDLE SCHOOL
 Howard County, Maryland
 Howard County Public School System

tca
 Thomas Clark Associates Architects
 Annapolis, Maryland

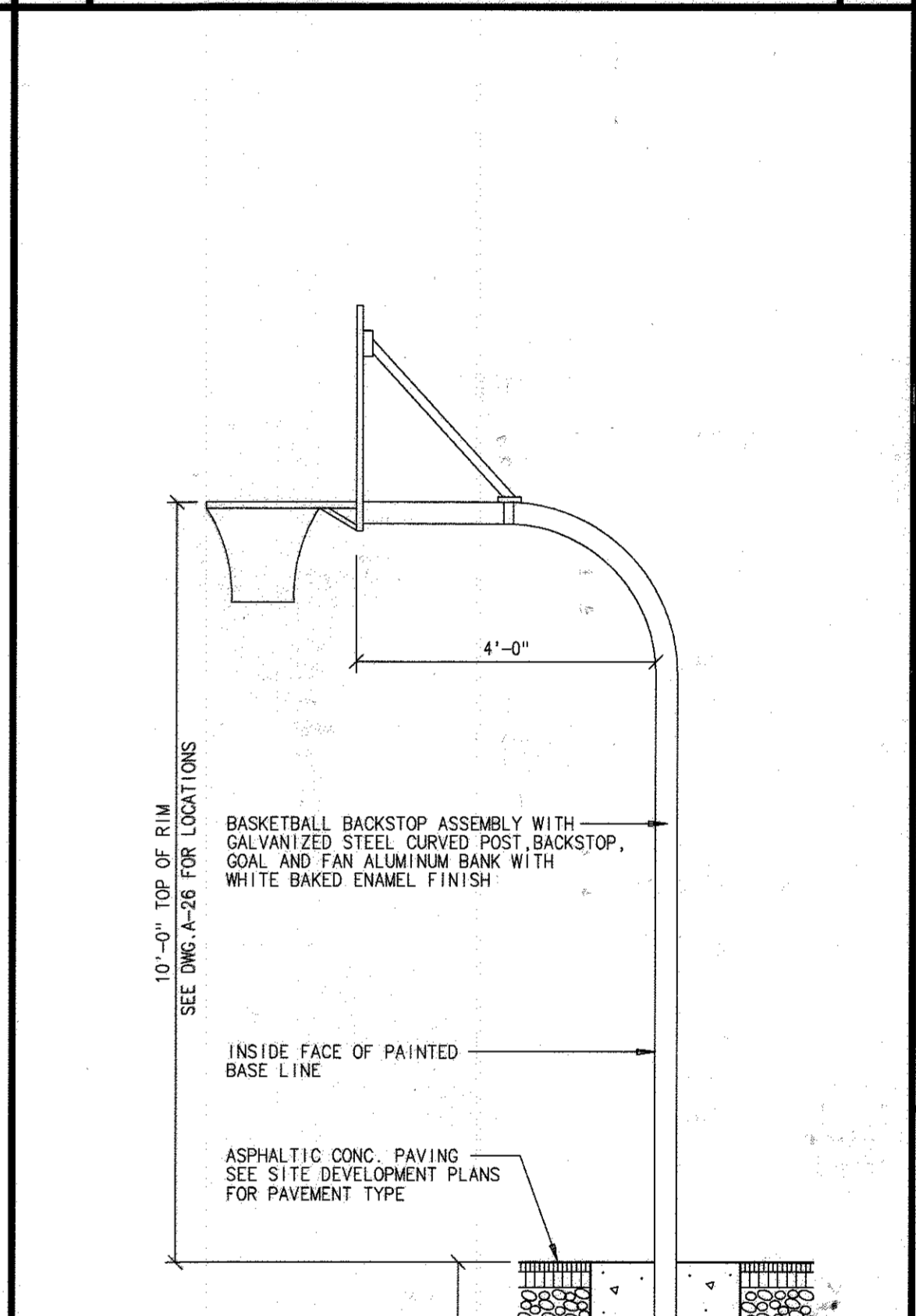
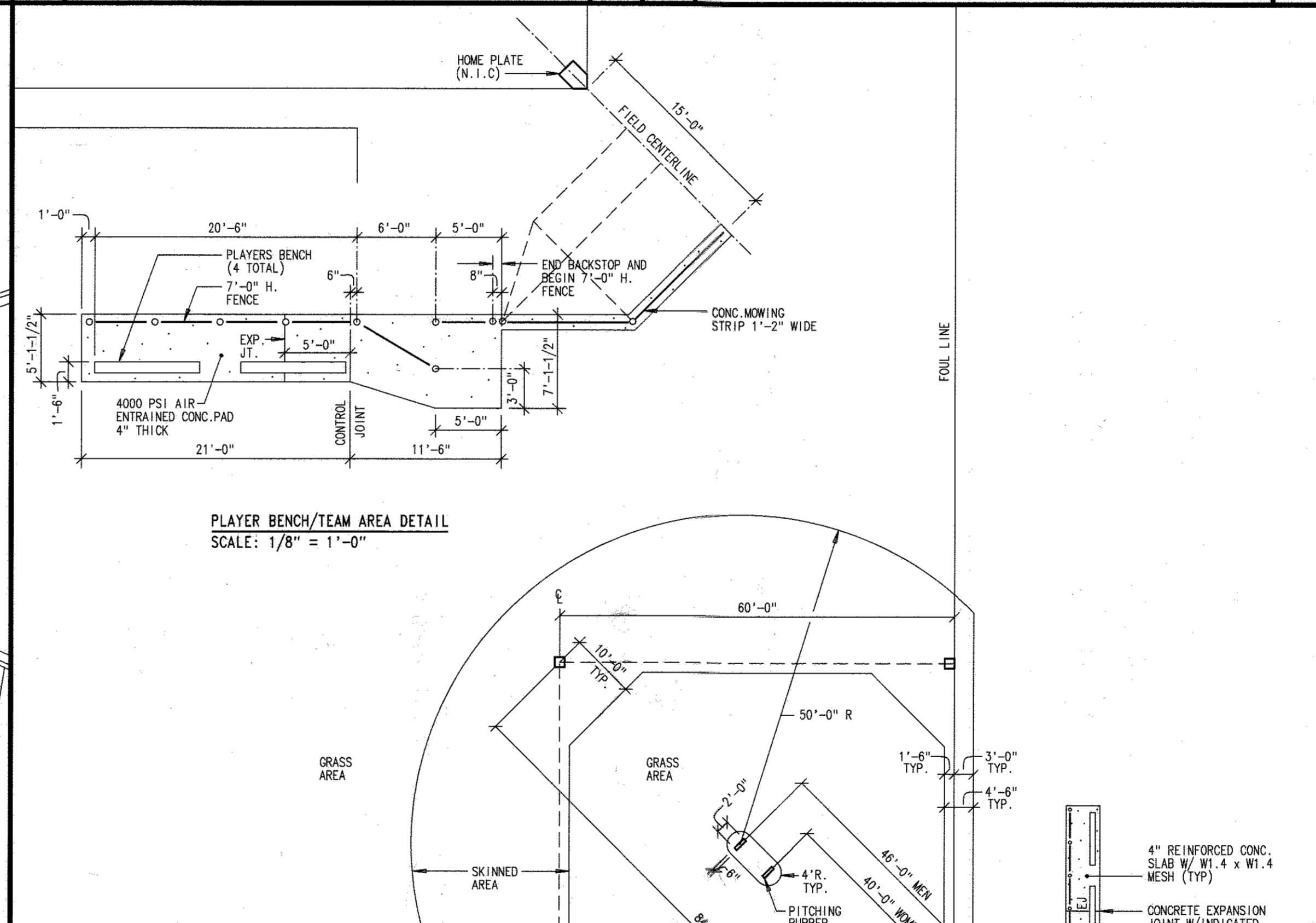
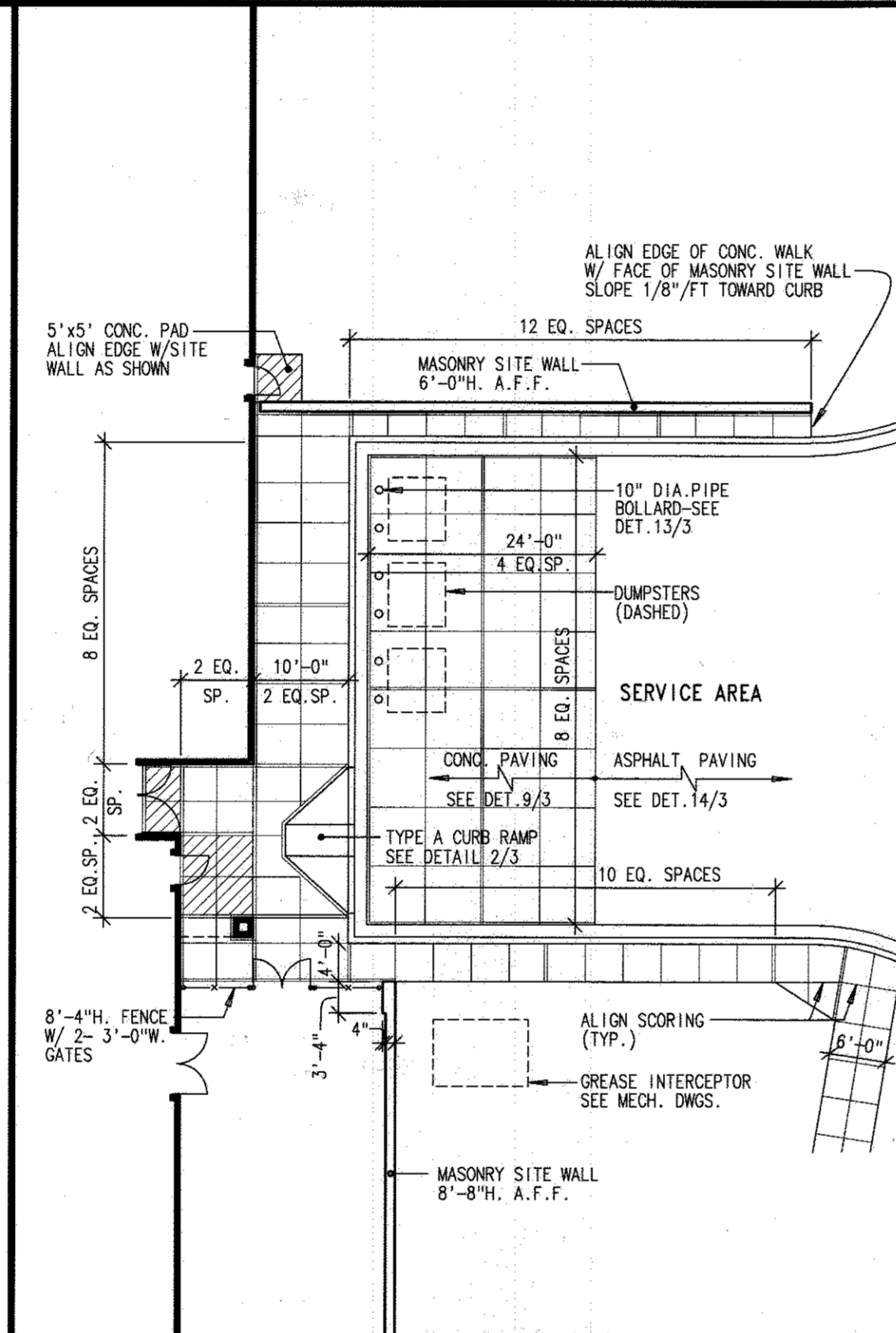
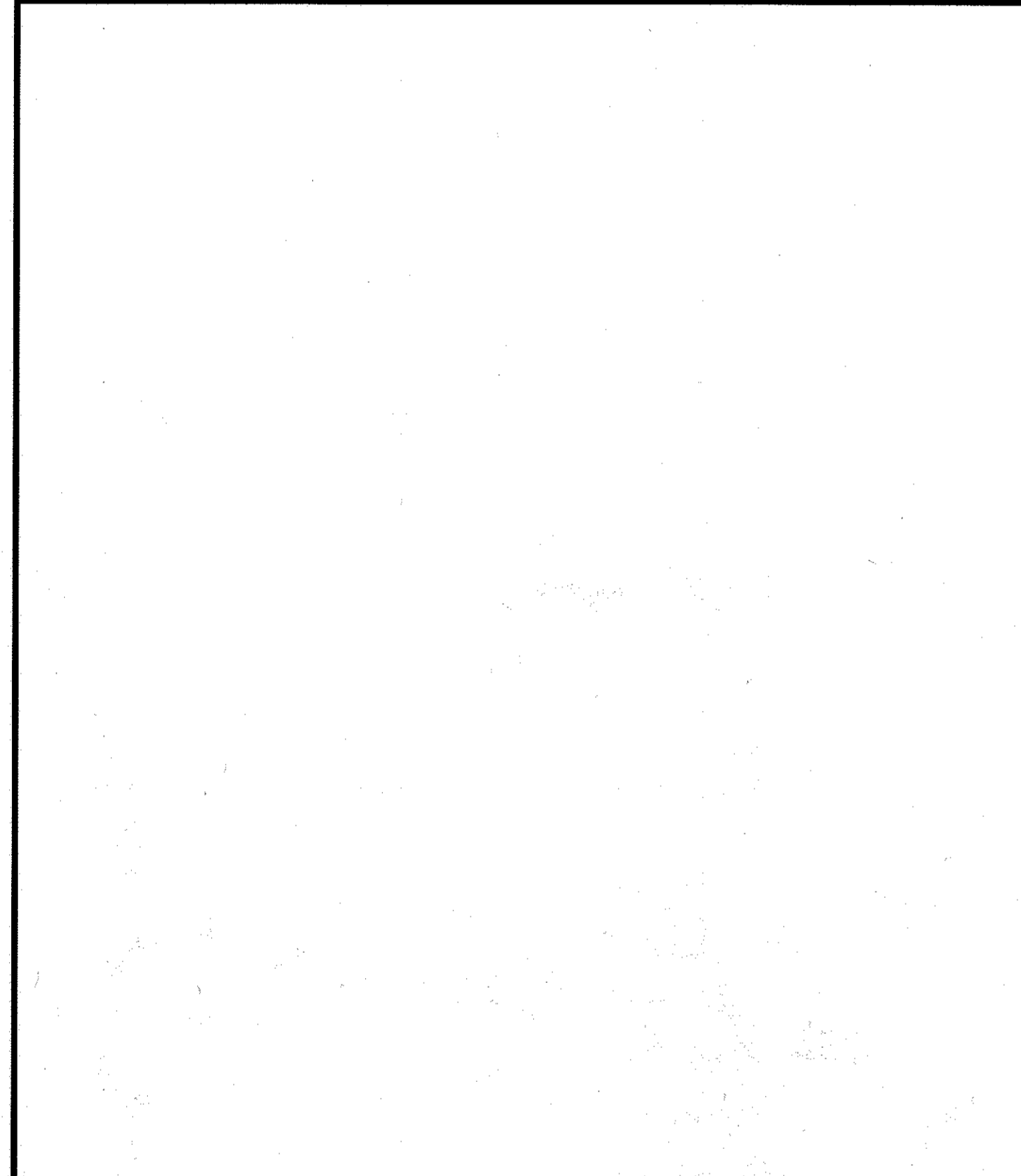
project no. 9801



3/4 SOFTBALL BACKSTOP SECTION 1 1/8 2/4

SOFTBALL BACKSTOP ELEVATION 1 1/8 1/4

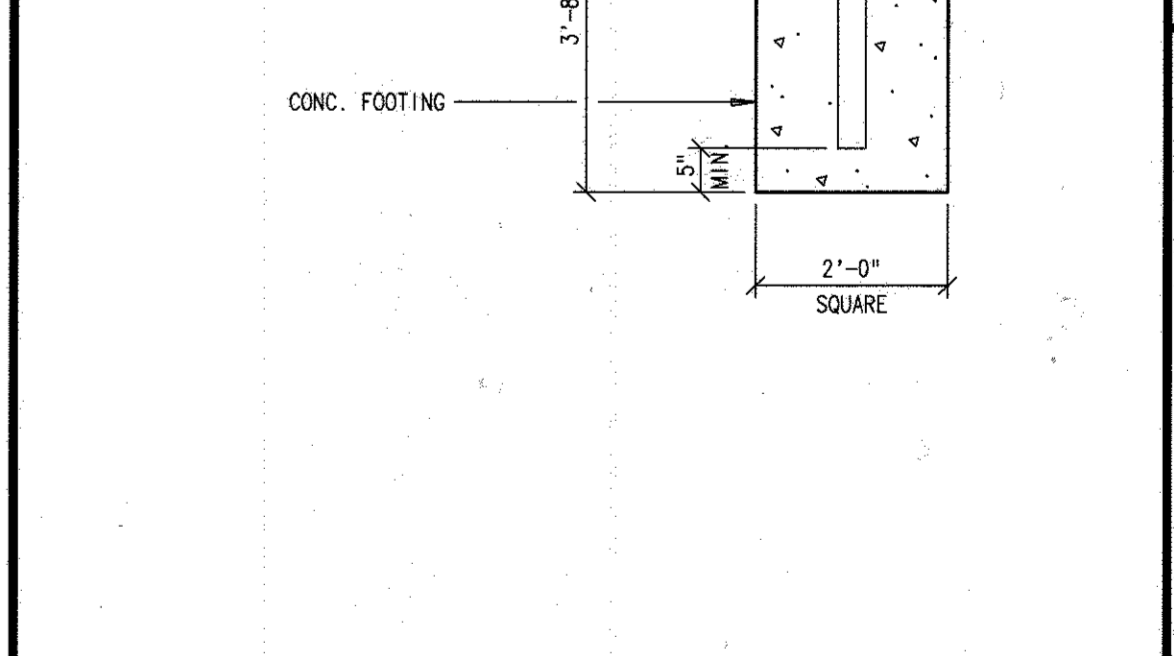
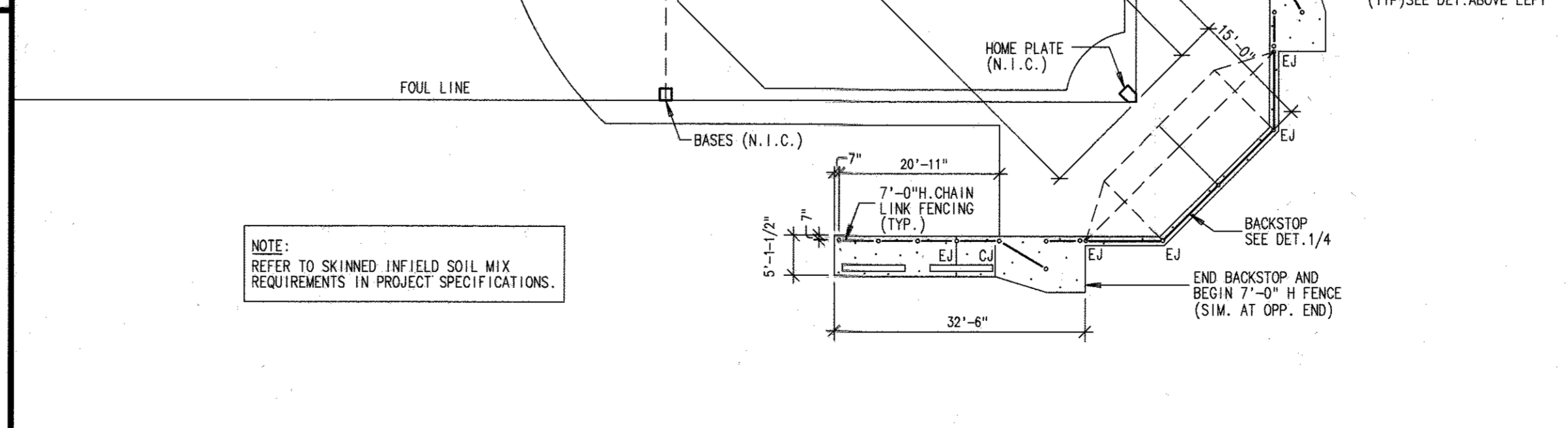
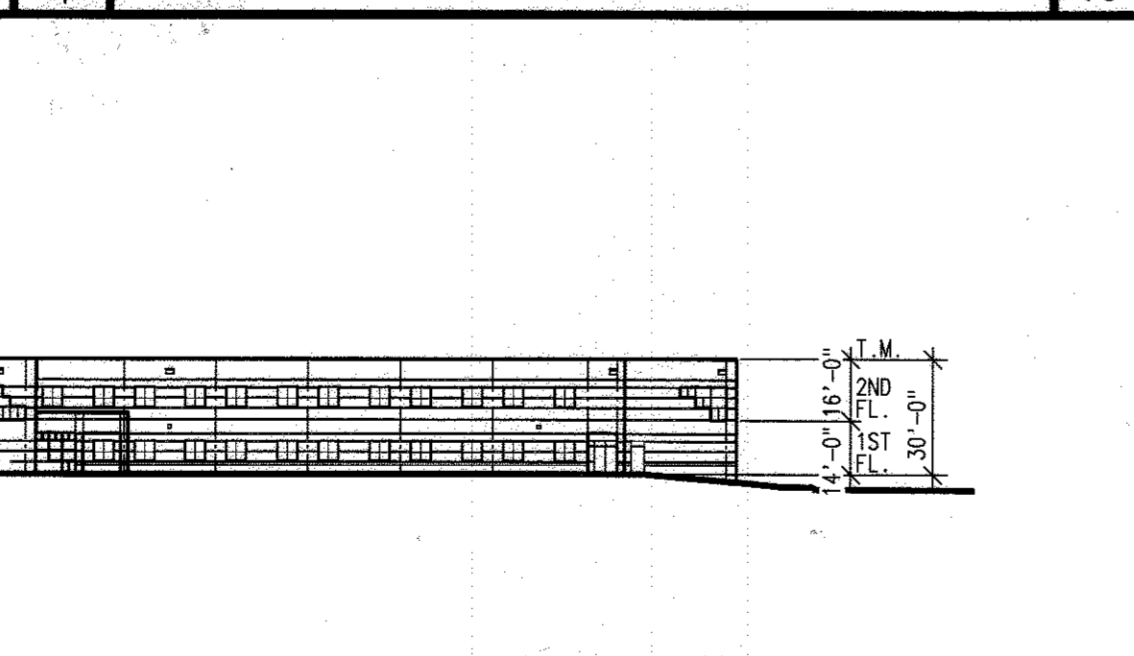
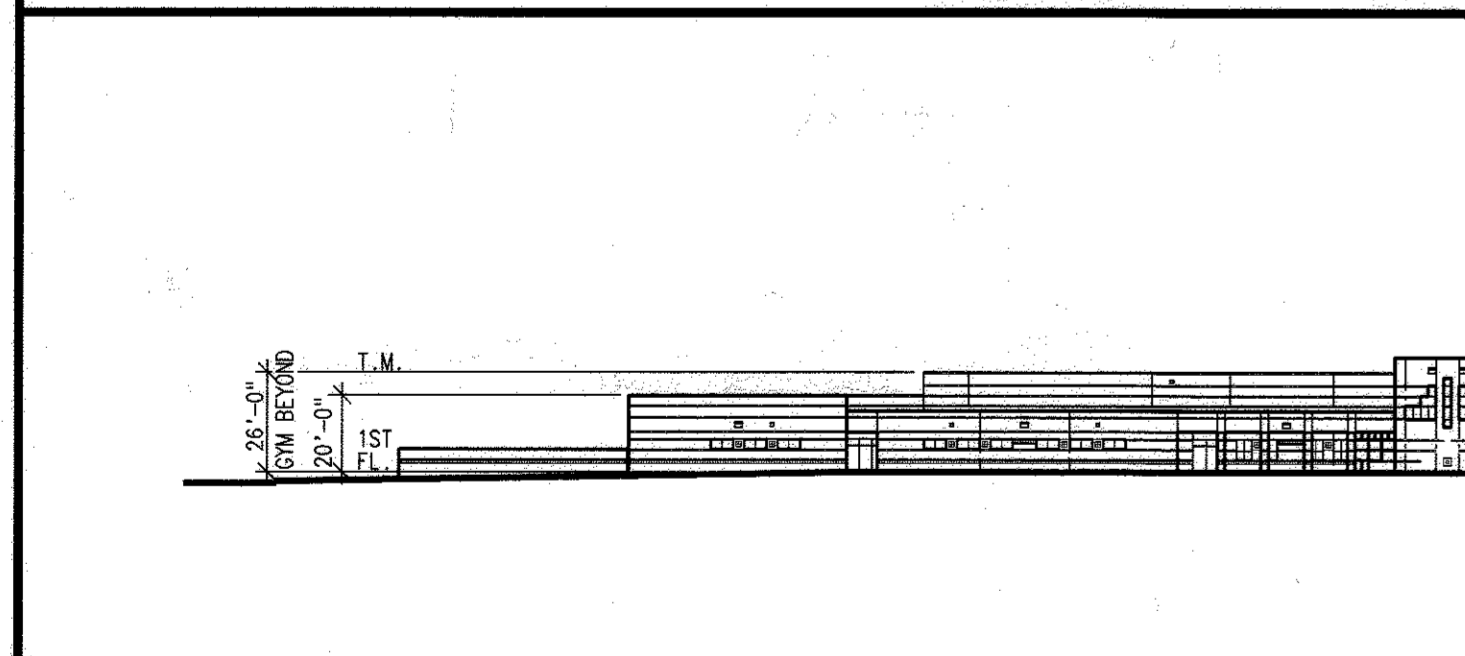
SOFTBALL BACKSTOP PLAN 1 1/8 1/8



7/4 SERVICE AREA DETAIL 1 1/16

SOFTBALL FIELD 1 1/16 5/4

BACKBOARD DETAIL 1 1/2



4/4 FRONT ELEVATION 1 1/50 6/4

SOFTBALL FIELD 1 1/16 5/4

BACKBOARD DETAIL 1 1/2

TCA ARCHITECTS
2661 RIVA ROAD SUITE 120
ANNAPOLIS, MARYLAND 21401
410-841-6205

OWNER
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 ROUTE 108
ELLCOTT CITY, MARYLAND 21043

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: *[Signature]* DATE: 2/23/00
APPROVED: *[Signature]* DATE: 2/18/00
APPROVED: *[Signature]* DATE: 2/18/00

SITE DETAILS

ELLCOTT MILLS MIDDLE SCHOOL

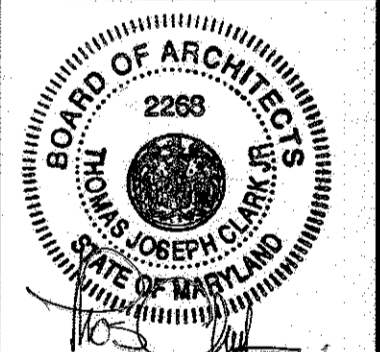
TAX MAPS NO: 24, 25, 30, & 31
LIBER 162 FOLIO 302 & LIBER 288 FOLIO 157
2ND ELECTION DISTRICT: HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN

SDP 12/13/00

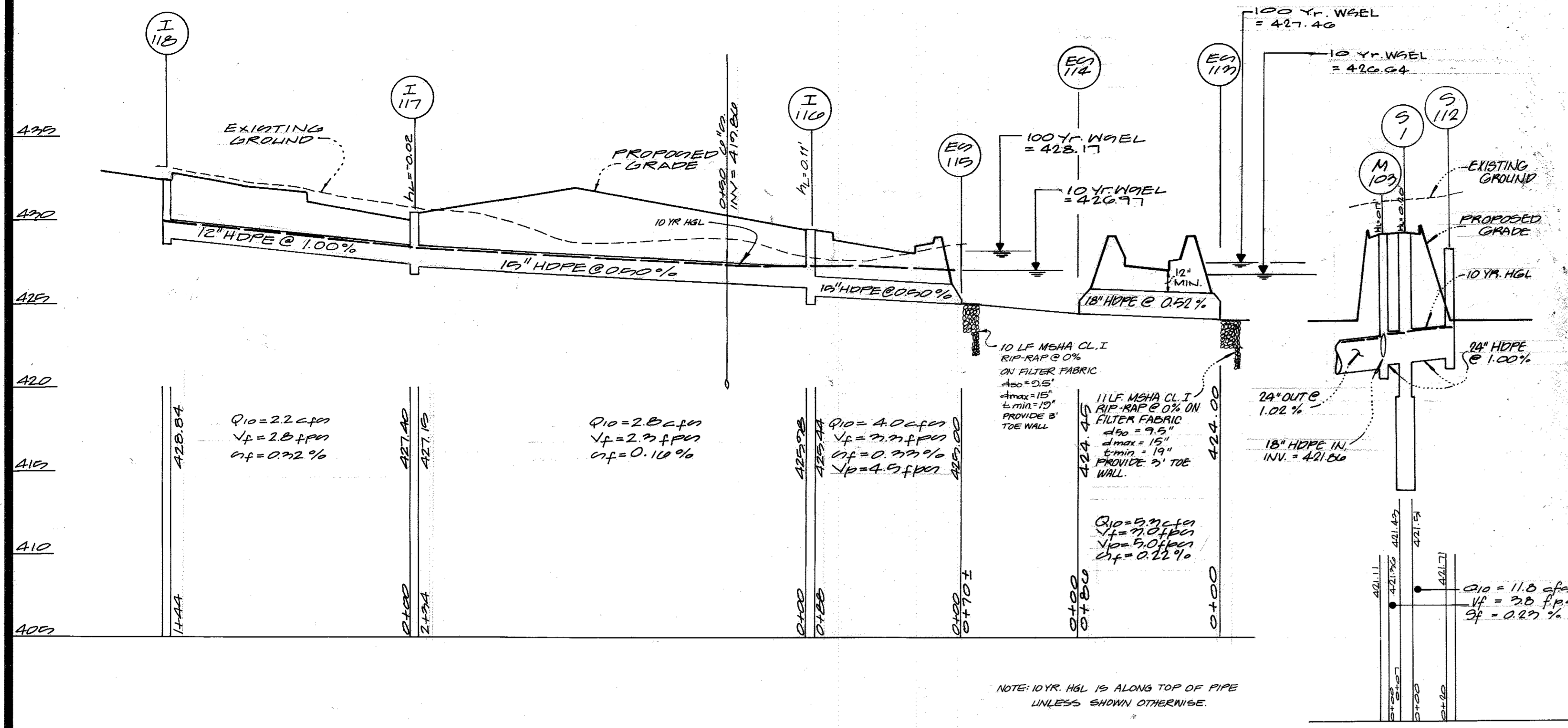
4 of 13

project no. 9801

ELLCOTT MILLS MIDDLE SCHOOL
Howard County, Maryland
Howard County Public School System



tca
Thomas Clark Associates Architects
Annapolis, Maryland

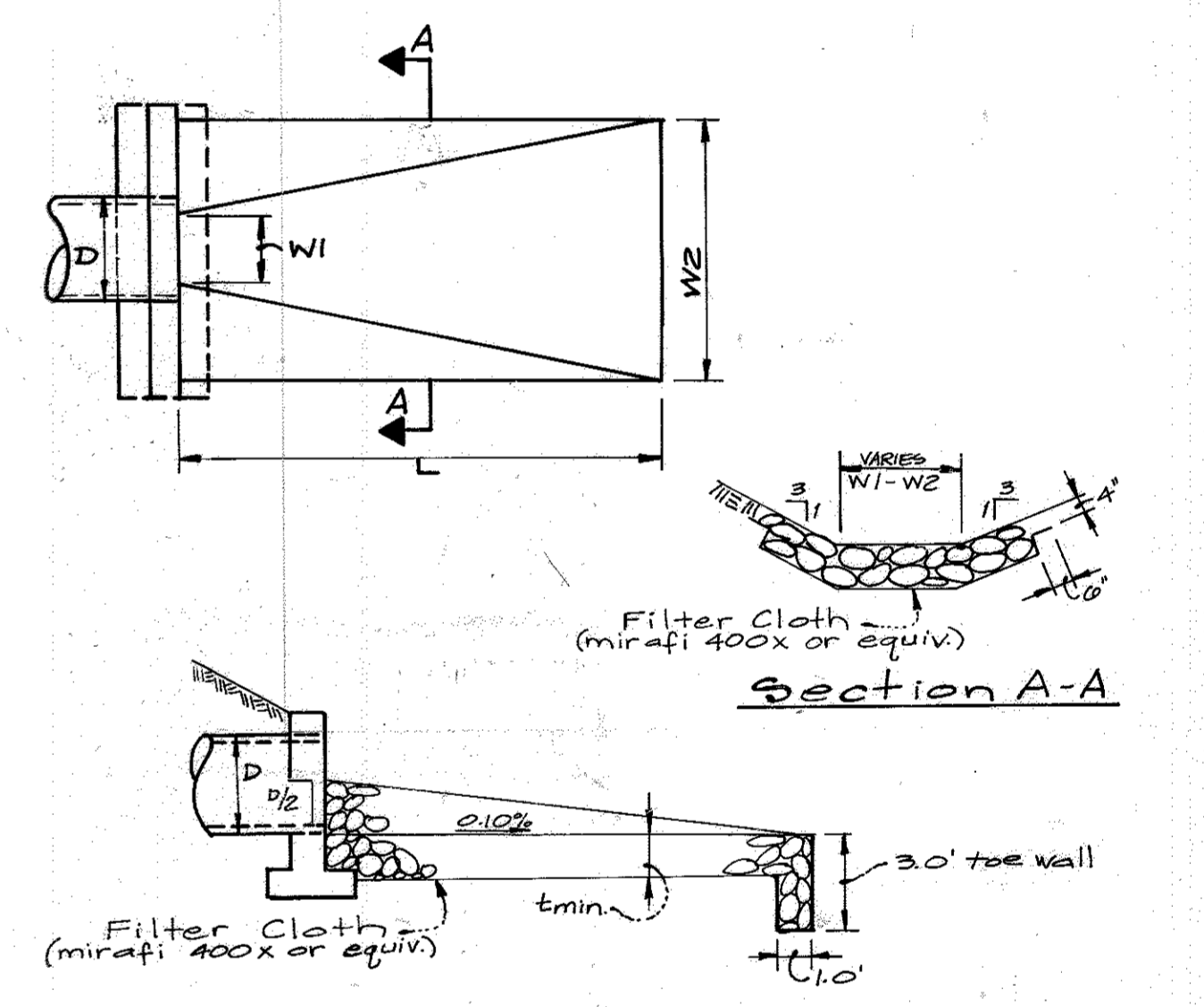
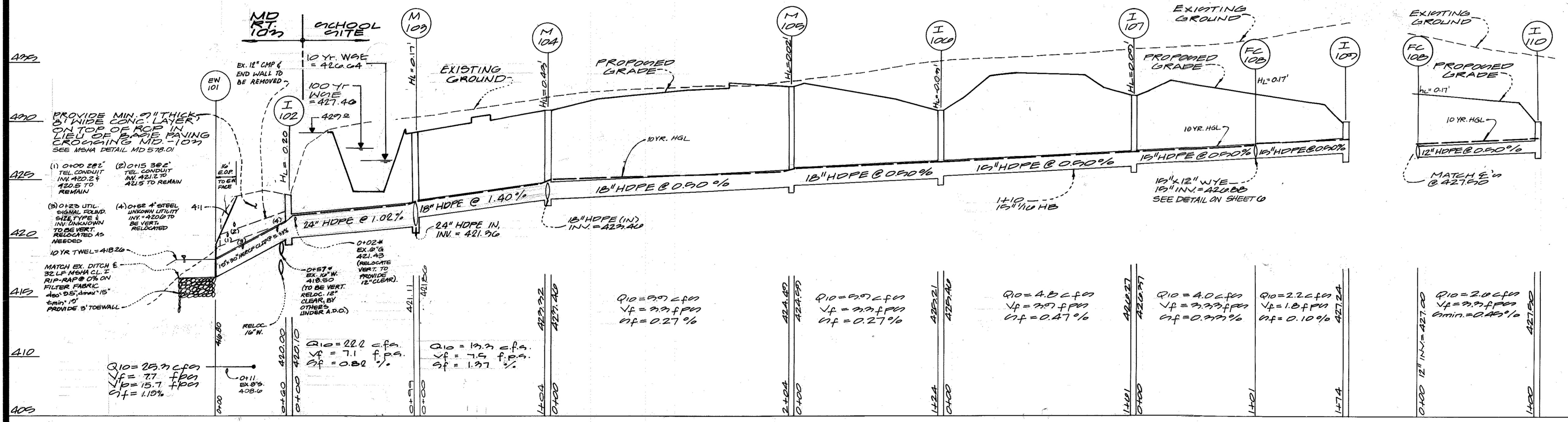


STRUCTURE SCHEDULE

NO.	TYPE	WIDTH DIAM.	TOP ELEVATION		INV. ELEV.	STD. DETAIL	LOCATION
			UPPER	LOWER			
EN-101	ENDWALL (30")	14'-2"	419.38	419.38	419.80	M2-274.01 or 02	SOUTH of MD-102
I-101	W/R INLET	2'-0"	429.90	429.90	430.00	M2-274.04 or 21	MD-102, SOUTH CORNER
M-103	PRECAST MANHOLE	4'-0"	429.11	429.11	429.11	G-212	MAIN PARKING LOT
M-104	PRECAST MANHOLE	4'-0"	429.94	429.94	429.94	G-212	MAIN PARKING LOT
M-109	PRECAST MANHOLE	4'-0"	429.00	429.00	424.49	G-212	RIGHT REAR OF BLDG.
I-102	S- INLET	2'-7"	429.00	429.00	425.81	S-2 4.02	RIGHT REAR OF BLDG.
I-103	S- INLET	2'-7"	429.00	429.00	426.27	S-2 4.02	CENTER REAR OF BLDG.
FC-108	FIELD CONNECTION	15'-12"	N/A	N/A	426.25	AD2-DN-222	ASPHALT PLAY AREA
I-104	S- INLET	2'-7"	429.00	429.00	427.44	S-2 4.02	LEFT REAR OF BLDG.
I-110	S- INLET	2'-7"	429.00	429.00	427.50	S-2 4.02	LEFT REAR OF BLDG.
FC-111	FIELD CONNECTION	18'-12"	N/A	N/A	424.53	AD2-DN-222	PAVEMENT LOOP
S-112	SWIM RIDER	3'-0"	428.33	428.33	421.71	SEE SWIM DETAIL SH	SWIM POOL
ES-115	END SECTION	18"	429.01	429.01	429.00	PER MANUFACTURER	MAIN SWIM POOL
ES-116	END SECTION	18"	429.01	429.01	429.00	PER MANUFACTURER	CAR LOOP SWIM
ES-118	END SECTION	15"	429.35	429.35	429.00	PER MANUFACTURER	CAR LOOP SWIM
I-110	A-5 INLET	2'-0"	429.90	429.90	425.44	S-2 4.01	BUS LOOP-RIGHT
I-117	A-5 INLET	2'-0"	429.50	429.50	427.15	S-2 4.01	BUS LOOP-LEFT
I-118	W/R INLET	3'-5 1/2"	429.35	429.35	429.00	M2-274.04 or 21	LEFT SIDE LOADING
I-119	W/R INLET	3'-5 1/2"	429.35	429.35	429.00	M2-274.04 or 21	MD-102, NORTH CORNER
G-1	STORMCEPTOR	24"x24"	429.27	429.27	421.42	2TC 2400	MAIN PARKING LOT

PIPE SCHEDULE

FROM	TO	SIZE	TYPE	LENGTH	REMARKS
118	117	12"	H.D.P.E.	144	AD2-N-12 or EQUIVALENT
				274	
116	115	15"		88	
114	113	18"		80	
110	108	12"		100	
109	108	15"		79	
108	107	15"		101	
107	106	15"		161	
106	105	18"		124	
105	104	18"		204	
104	103	18"		104	
103	102	24"	H.D.P.E.	99	AD2-N-12 or EQUIVALENT
102	101	19"x30"	HEIRCP	60	CLASS IX
112	1	24"	H.D.P.E.	20	AD2-N-12 or EQUIVALENT
1	103	24"	"	7	"



***NOTE:**
EXISTING UTILITY LOCATIONS PROVIDED BY ACCURATE LOCATING, INC. PER THEIR 11-30-99 SURVEY UNDER JOB # 99447. UTILITIES TO BE RELOCATED VERTICALLY TO PROVIDE 12" MINIMUM CLEARANCE WITH STORM DRAIN PIPES WHERE NECESSARY.

STORM DRAIN PROFILES
SCALE: 1" = 50' (HORIZ.)
1" = 5' (VERT.)

OUTFALL SCHEDULE

STR. NO.	DIAM.	W1	W2	L	d ₅₀	d _{max}	T _{min}
115	15"	1.25'	5.25'	10'	0.6"	15"	1.7"
117	18"	1.5'	6.0'	11'	0.5"	15"	1.7"
101	30"	3.5'	13.5'	32'	0.5"	15"	1.7"

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Richard Blood 2/23/00
 Chief, Division of Land Development
Richard Blood 2/18/00
 Chief, Development Engineering Division
 Date: 2/19/00



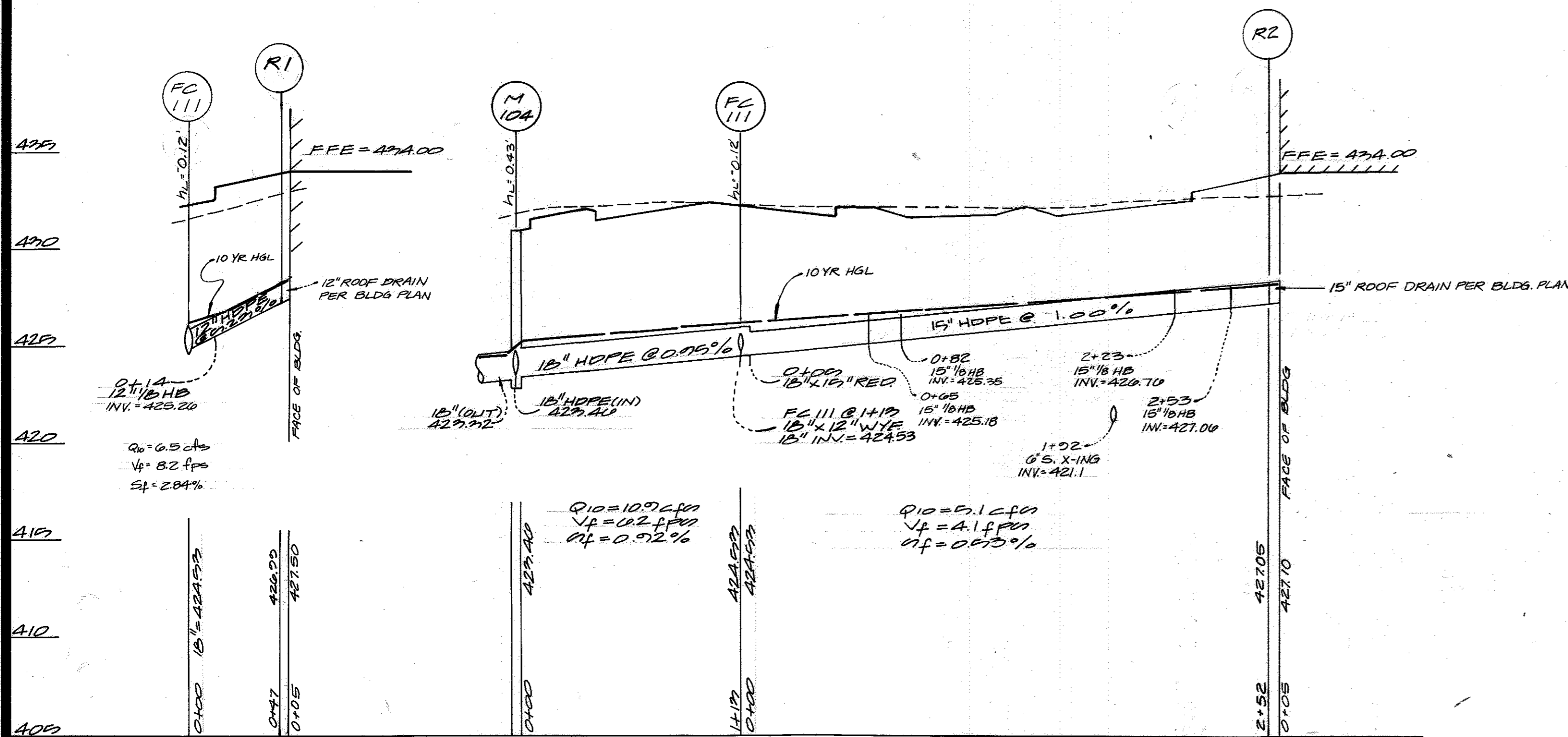
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-885-1820 DC/VA. 301-988-2524 FAX: 301-421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.

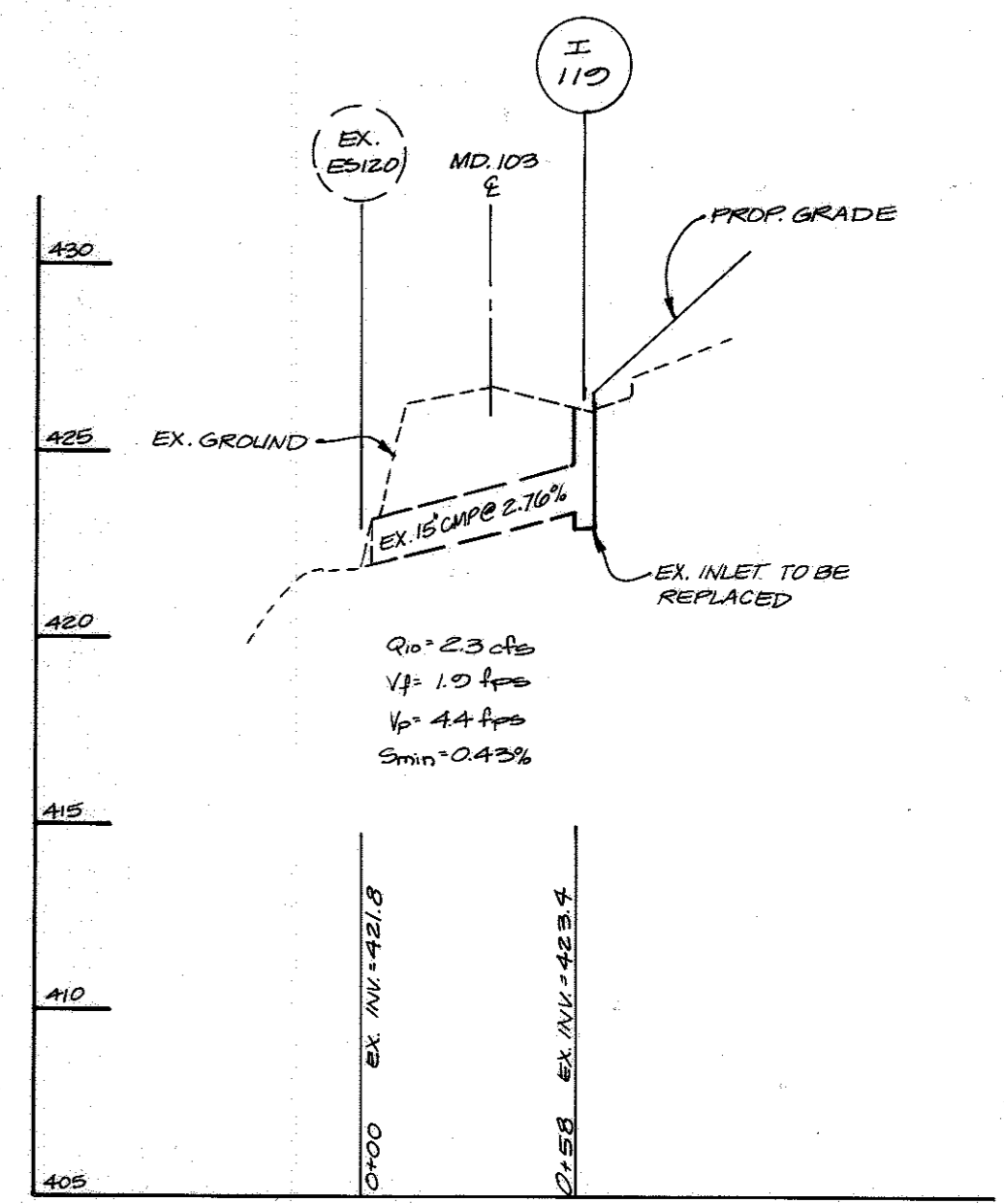
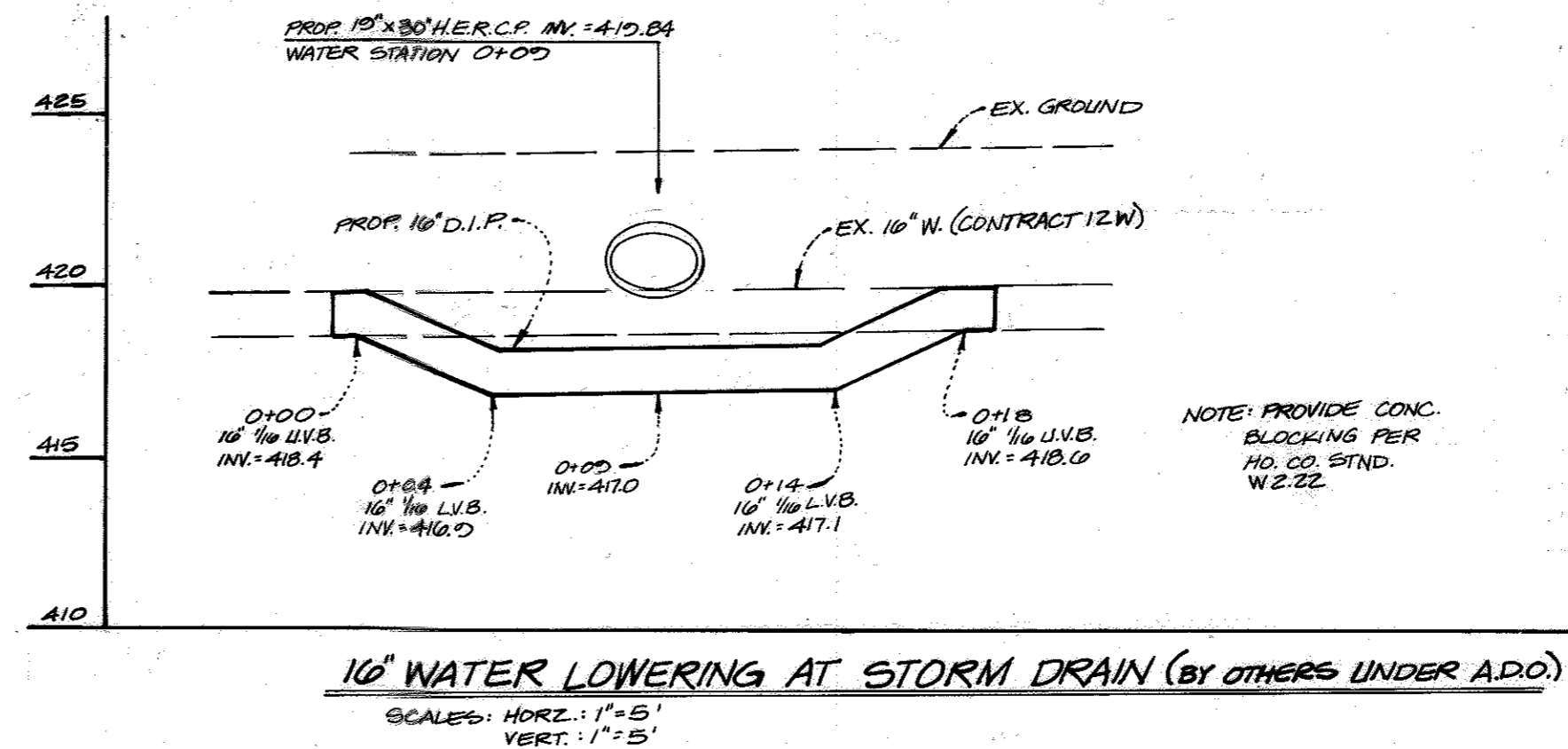
ARCHITECT: THOMAS CLARK ASSOC.'S ARCHITECTS
 2661 RIVA ROAD, SUITE 120 ANNAPOLIS, MD, 21401 TEL: (301) 261-8700
 PREPARED FOR: OWNER
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RTE. 108 ELLICOTT CITY, MD 21043
 ATTN: MR. BILL BROWN
 TEL: 410-313-6704

STORM DRAIN PROFILES & SCHEDULES
ELLICOTT MILLS MIDDLE SCHOOL
 PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
 L. 162 F. 302 & L. 288 F. 157
 ELLICOTT CITY ELECTION DISTRICT No. 2
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24,25,30 & 31	5 OF 13

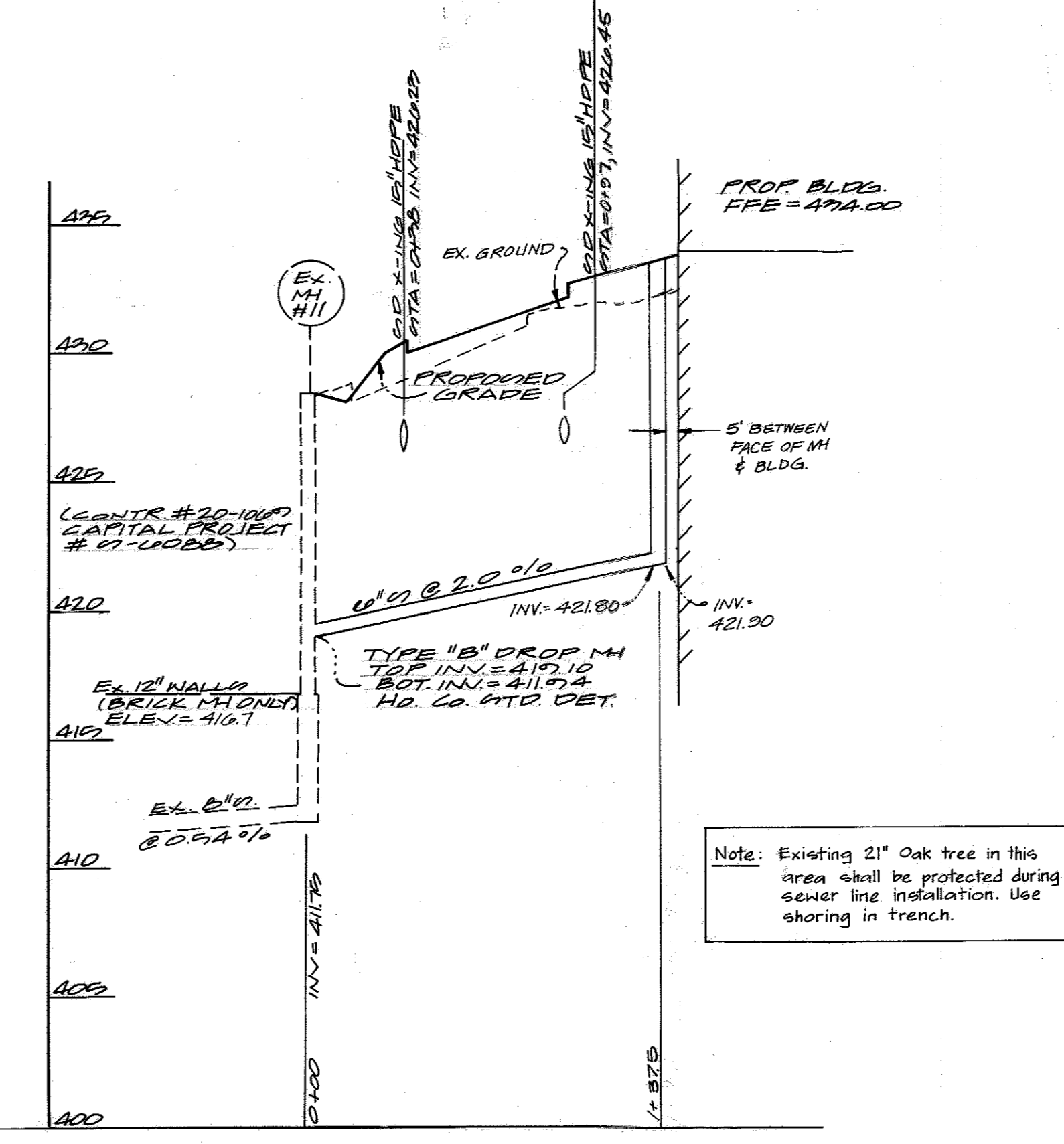
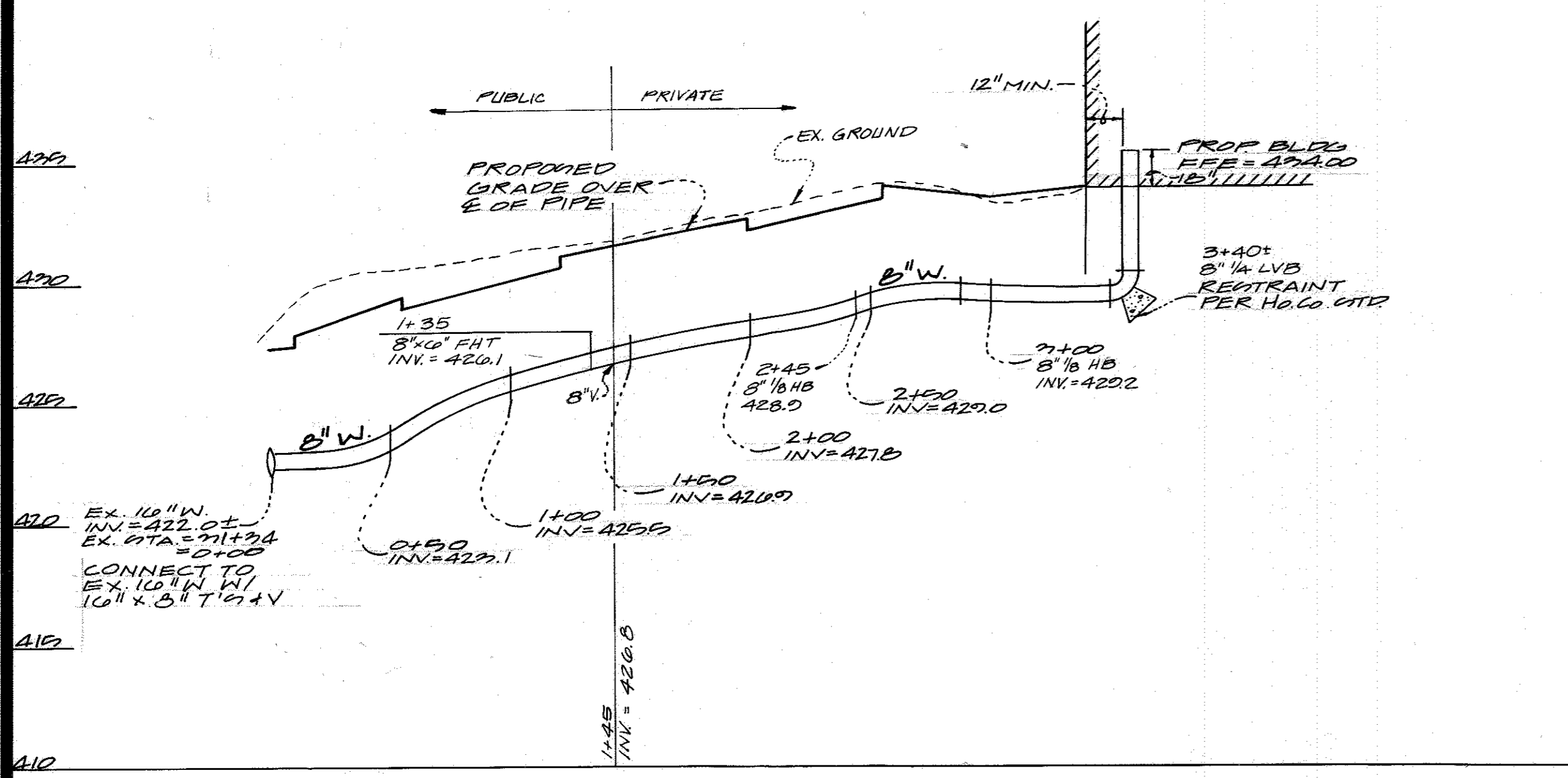


PIPE SCHEDULE					
FROM	TO	SIZE	TYPE	LENGTH	REMARKS
R-1	111	12"	H.D.P.E.	47	ADS N-12 OR EQUIV.
R-2	111	15"	H.D.P.E.	247	ADS N-12 OR EQUIV.
111	104	18"	H.D.P.E.	118	ADS N-12 OR EQUIV.



STORM DRAIN PROFILE

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



WATER PROFILE

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] Date: 2/27/00
[Signature] Date: 2/15/00
 Chief, Division of Land Development
 Chief, Development Engineering Division

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
10" x 10" TS&V	1EA			
10" x 8" TS&V	1EA			
8" x 6" TEE	1EA			
8" W.	145 LF			
6" W.	20 LF			
6" V.	1			
8" V.	1			
FIRE HYDRANT	2 (1 NEW, 1 RELOC)			
16" 1/4" V.B.	4			
16" W.	18 LF			

GENERAL PROFILE

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

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" 1/8" HB	1EA			
8" 1/4" LVB	1EA			
8" W.	195 LF			
SAN. SEWER MH	1EA			
6" PVC	134 LF			
6" PVC-DROP CONN. (B)	1EA			

N12 FABRICATED REDUCING WYES

PART NO.	PIPE SIZE	A	B	C
1884-AN	18" x 12"	41"	10.5"	53.5"
(11) 1504-AN	450 MM x 300 MM	1041 MM	267 MM	851 MM
(10) 1504-AN	15" x 12"	41"	10.5"	52.25"
(10) 1504-AN	375 MM x 300 MM	1041 MM	267 MM	812 MM

FC 111 & JOB DETAIL
N.T.S.
(ADS DN-233 OR EQUIVALENT)

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-890-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

ARCHITECT
THOMAS CLARK ASSOC.'S ARCHITECTS
2661 RIVA ROAD, SUITE 120
MINNAPOLIS, MD. 21401
TEL: (301) 261-8700

PREPARED FOR: OWNER
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RTE. 108
ELLICOTT CITY, MD 21043
ATTN: MR. BILL BROWN
TEL: 410-313-6704

UTILITY PROFILES & SCHEDULES
ELLICOTT MILLS MIDDLE SCHOOL
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24, 25, 30 & 31	6 OF 13

AREA	D.A.	GRASS	IMP.	% IMP.	C
102	1.1	0.5	0.0	55	0.54
103	1.7	0.9	0.8	47	0.50
100	0.8	0.7	0.1	13	0.25
107	0.8	0.8	0.0	0	0.17
109	1.1	0.9	0.2	18	0.30
110	0.5	0.5	0.3	60	0.59
R1	0.9	0.0	0.9	100	0.85
R2	0.7	0.0	0.7	100	0.85
114	0.4	0.2	0.2	50	0.51
116	0.9	0.1	0.2	67	0.63
117	0.1	0.0	0.1	100	0.86
118	0.3	0.0	0.3	100	0.87
119	0.8	0.4	0.4	50	0.51
A	0.22	0.1	0.12	55	0.50
B	0.25	0.04	0.21	84	0.75
C	0.07	0.01	0.00	89	0.70
D	0.32	0.01	0.31	97	0.84
E	0.25	0.05	0.2	80	0.71

SWM RESULTS

NET INCREASE IN IMPERVIOUS AREA = 60,853 sq. ft.
 MINIMUM TREATMENT VOLUME @ 1/2" AC. = 2,526 cu. ft.
 TREATMENT VOLUME PROVIDED = 2,731 cu. ft.

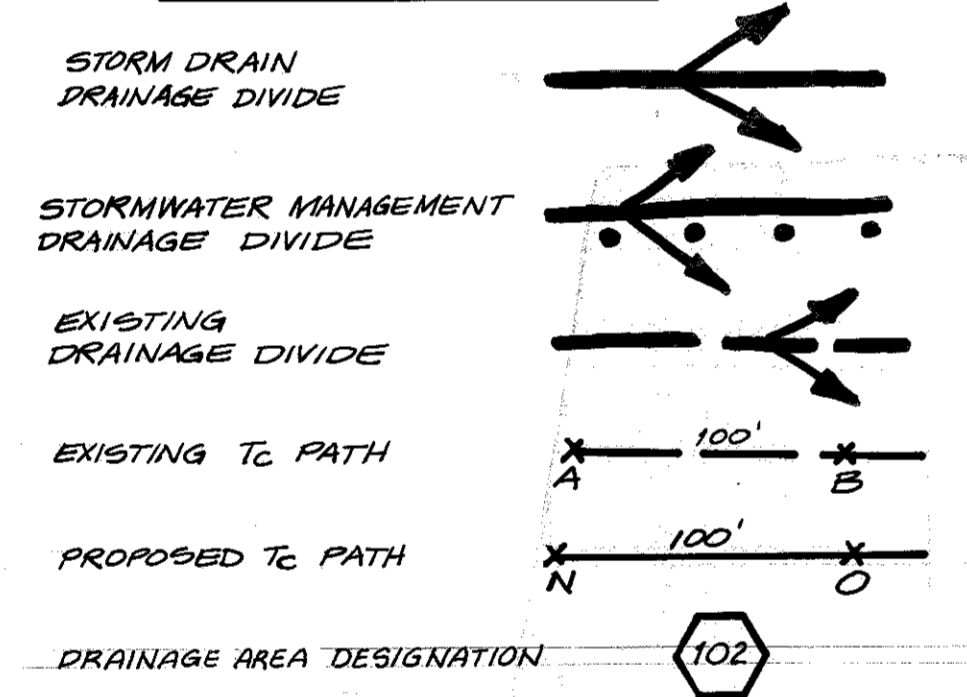
EX.	PROP.	
D.A.	2.8 AC.	2.8 AC.
RCN	61	81
Tc	0.20	0.11
Qc	1.2	1.2 (57 IN)
Q10	4.9	4.9 (11.7 IN)

MSHA INLET RESULTS

	INLET 102	INLET 119
EX. D.A.	3.2 AC.	1.3 AC.
EX. IMPERVIOUS	1.5	0.5
PROP. D.A.	1.1	0.8
PROP. IMPERVIOUS	0.6	0.4

NOTE: IN ADDITION TO THE GREAT REDUCTIONS IN TOTAL DRAINAGE AREA AND IMPERVIOUS DRAINAGE AREA TO BOTH EXISTING INLETS, BOTH INLETS ARE TO BE REPLACED WITH NEW WIR INLETS WITH GREATER INTERCEPTION CAPACITY.

LEGEND



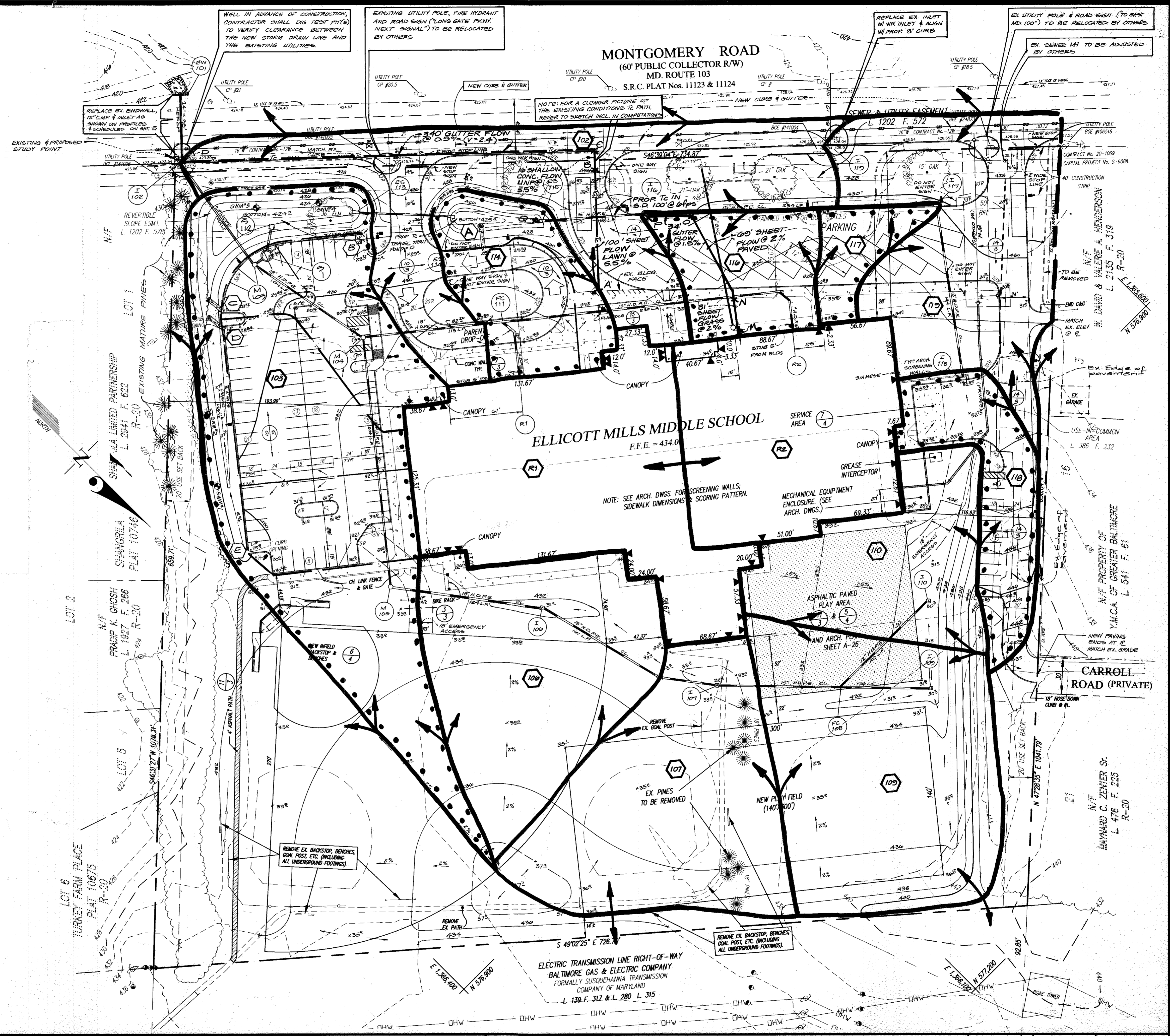
NOTE: ALL SOILS WITHIN THE LIMITS OF THIS PROJECT ARE B-SOILS PER THE HOWARD COUNTY SOIL SURVEY (NESHAMINY SILT LOAM)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 2/23/00
 Date

[Signature] 2/18/00
 Date

[Signature] 2/18/00
 Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-889-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

REVISION	DATE	CHK.	DRN.	DES.

ARCHITECT: THOMAS CLARK ASSOC.'S ARCHITECTS
 2661 RIVA ROAD, SUITE 120 ANNAPOLIS, MD. 21401
 TEL: (301) 261-8700

PREPARED FOR: OWNER: HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10810 RTE. 108 ELLICOTT CITY, MD. 21043
 ATTN: MR. BILL BROWN
 TEL: 410-313-6704

DRAINAGE AREA MAP

ELLICOTT MILLS MIDDLE SCHOOL
 PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
 L. 162 F. 302 & L. 288 F. 157

ELLICOTT CITY ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24,25,30 & 31	7 OF 13

- CONSTRUCTION SEQUENCE**
- Apply for an updated grading permit and schedule an on-site pre-construction meeting.
 - Obtain applicable MD-SHA permits.
 - Receive an upgraded grading permit from Sediment Control Inspector at the pre-construction meeting.
 - Install tree protection (TPF) fencing, the perimeter silt fence (SF), and super silt fence (SSF). Where SSF is through an existing paving, cut the paving to install the SSF. Existing SSF from GP-99-200 may be reused if permitted by the Sediment Control Inspector.
 - Remove only existing curb to install the new stabilized construction entrance (S.C.E.) (1 day)
 - Coordinate with appropriate utility company (BGE, Bell Atlantic, Comcast Cable, Ho. Co. Bureau of Utilities, etc.) to disconnect, abandon or relocate applicable services. (1-2 weeks)
 - Install building foundation and begin building construction. (12-14 months)
 - Install new storm drain pipe and inlet I-102 in MD Route 103. (3-5 days)
 - Install storm drain systems and inlet protection devices (SIP and CIP). (1 1/2 weeks)
 - Demolish existing (old) bus loop, entrance sign, flagpole and remnant of existing sidewalks left from GP-99-200. (1 1/2 weeks)
 - Grade the remainder of site and bring to appropriate subgrade. Bring ball fields to finished grade and install permanent seeding. Delay construction of SWM facility until the site has been substantially stabilized. (1 1/2 weeks)
- NOTE: Construction of new common access drive to serve Carroll Road must be staged to minimize any interruption in service. See "Common Access Drive Construction Staging"
- Tie building to site utilities and proceed with the construction of the building, concrete curb and other site improvements. (10-14 months)
 - Install stone base asphalt base course. As necessary, remove ONLY the SSF within the new entrance openings in order to complete the installation of the new curb and base paving to MD Route 103 (all other SSF along Rte 103 shall remain). (1-3 days)
 - Install new inlet #119 and new curb along MD Route 103 where shown. (1-5 days)
 - During a period of no rain, install SWM facility and landscaping. (3-5 days)
 - Install finished paving. Stripe parking lots and restripe the portion of Route 103 fronting on the school site. (3-5 days)
 - Remove all remaining sediment control devices once permission has been granted by the Sediment Control Inspector. (1 day)
 - Clean up and go through punch list.

LEGEND

- C.I.P.** CURB INLET PROTECTION
- S.I.P.** STANDARD INLET PROTECTION
- TPF** TREE PROTECTION FENCE
- S.C.E.** STABILIZED CONSTRUCTION ENTRANCE
- L.O.D.** LIMIT OF DISTURBANCE
- SF** SILT FENCE
- SSF** SUPER SILT FENCE
- 420--- EXISTING CONTOUR
- - -420- - - PROPOSED CONTOUR
- + 425.0 EXISTING SPOT ELEVATION (TYPED)
- + 332 PROPOSED SPOT ELEVATION (HAND LETTERED)
- TYPICAL PROPOSED STREET LIGHT
- PROPOSED STORM DRAIN LINE
- PROPOSED SEWER LINE
- PROPOSED WATER LINE
- EXISTING TREES
- NEW TREE LINE
- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- EXISTING PAVING
- ▲ BUILDING ACCESS
- Ⓜ PARKING SPACE DESIGNATION
- EX. UTILITY POLE (CARRY OVERHEAD LINES)
- EX. UTILITY POLE GUY WIRE
- EX. SEWER MANHOLE
- EX. SEWER CLEAN-OUT
- EX. GAS VALVE
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. WATER METER
- GAS
- EXISTING GAS
- EXISTING WATER
- EXISTING SEWER

ENGINEER'S CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

CLG
Date 12-13-99

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD.

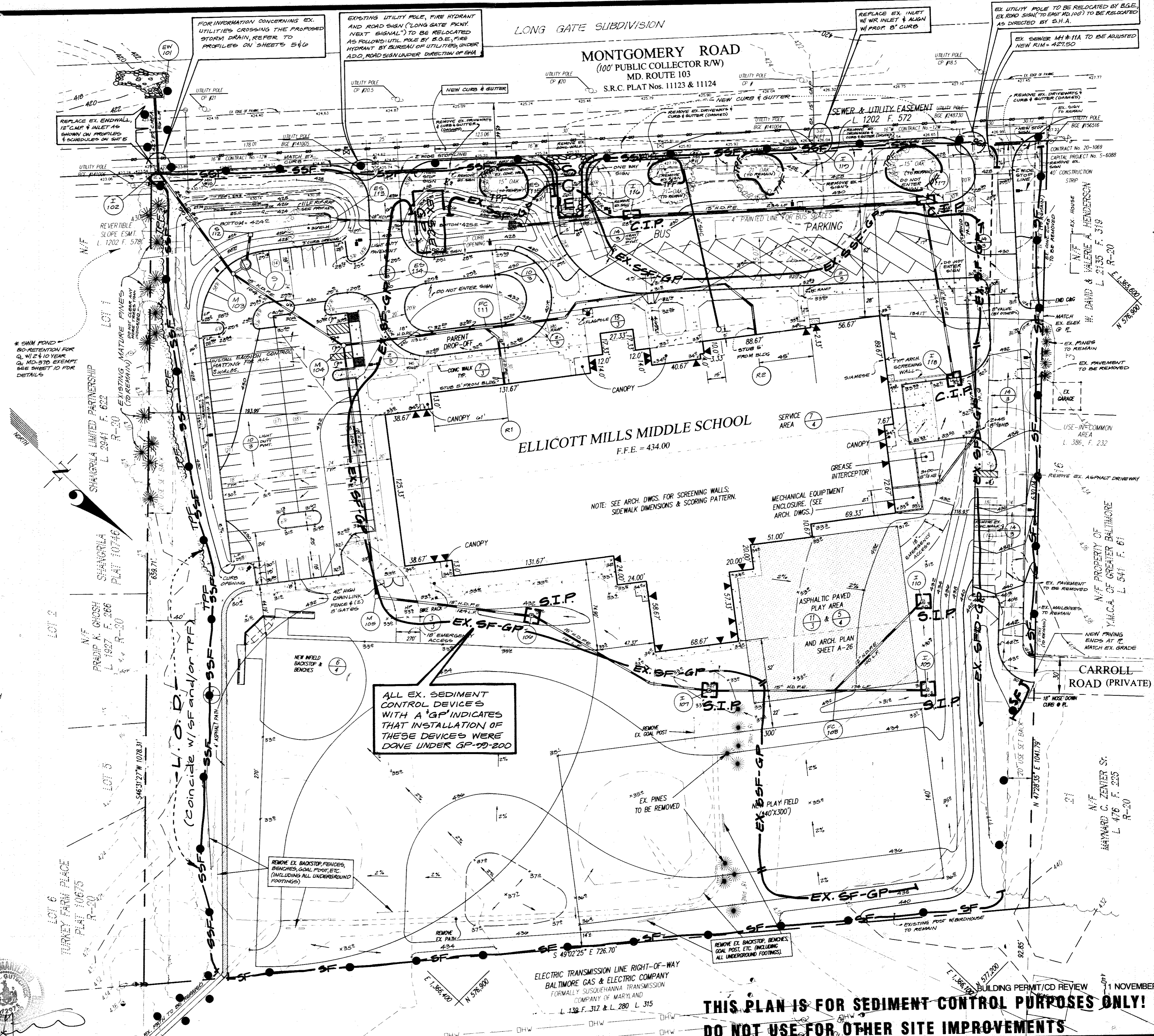
Cathleen Conley Zing 1/1/00
Signature of Developer/Builder Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Cheryl Simmons 1/1/00
Natural Resources Conservation Service Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John Blanton 1/15/00
Howard S.C.D. Date



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Richard Blanton 1/15/00
Chief, Division of Land Development Date

John Blanton 1/15/00
Howard S.C.D. Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3908 NATIONAL DRIVE - SUITE 220 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT. 410-850-1820 DC/VA 301-989-2224 FAX: 301-421-4186

REVISION	DATE	BY	APP'R.

ARCHITECT: THOMAS CLARK ASSOC.'S ARCHITECTS
2661 RIVA ROAD, SUITE 120 ANNAPOLIS, MD. 21401 TEL: (301) 261-8700

PREPARED FOR: OWNER
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RTE. 108 ELLICOTT CITY, MD. 21043 ATTN: MR. BILL BROWN TEL: 410-313-6704

SEDIMENT & EROSION CONTROL PLAN

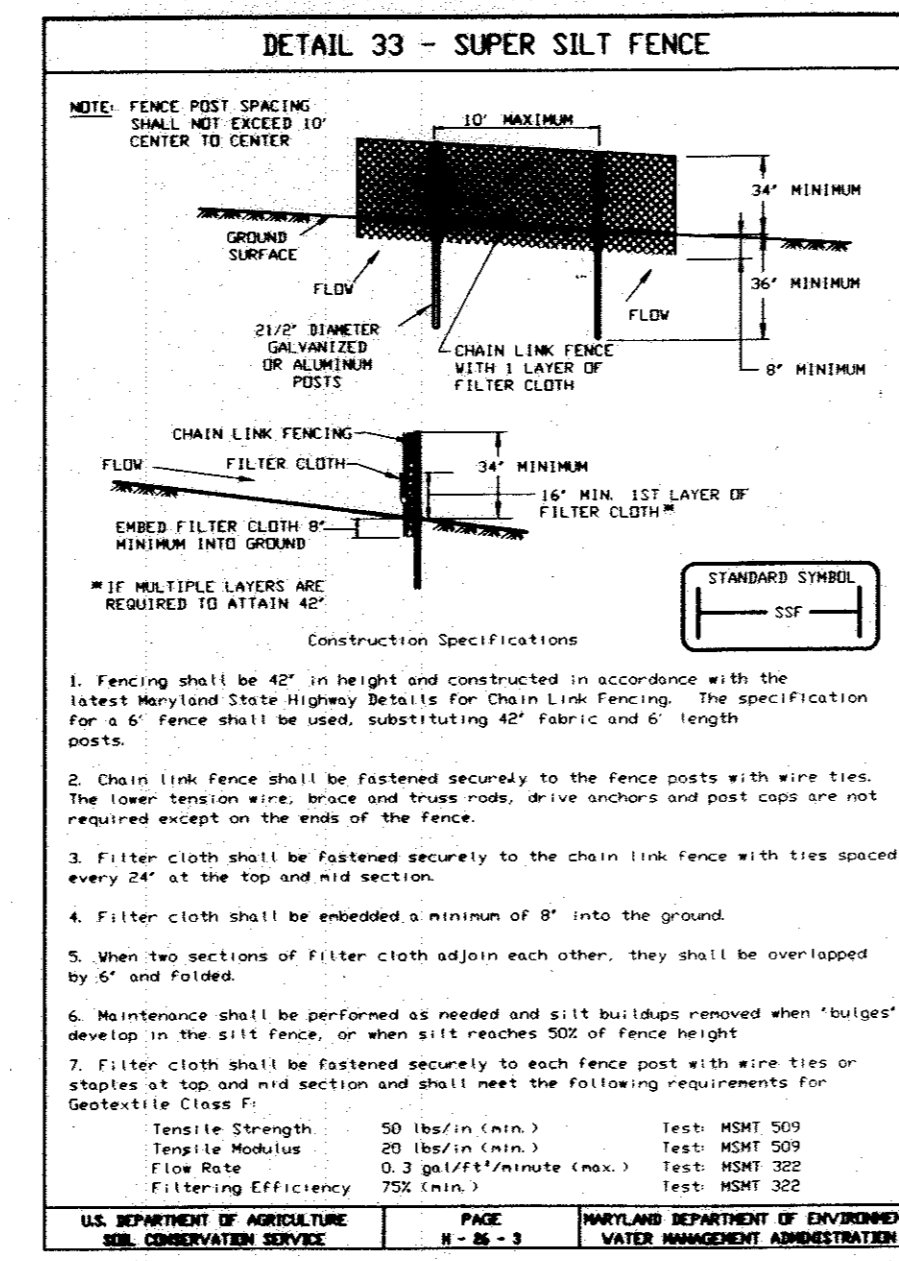
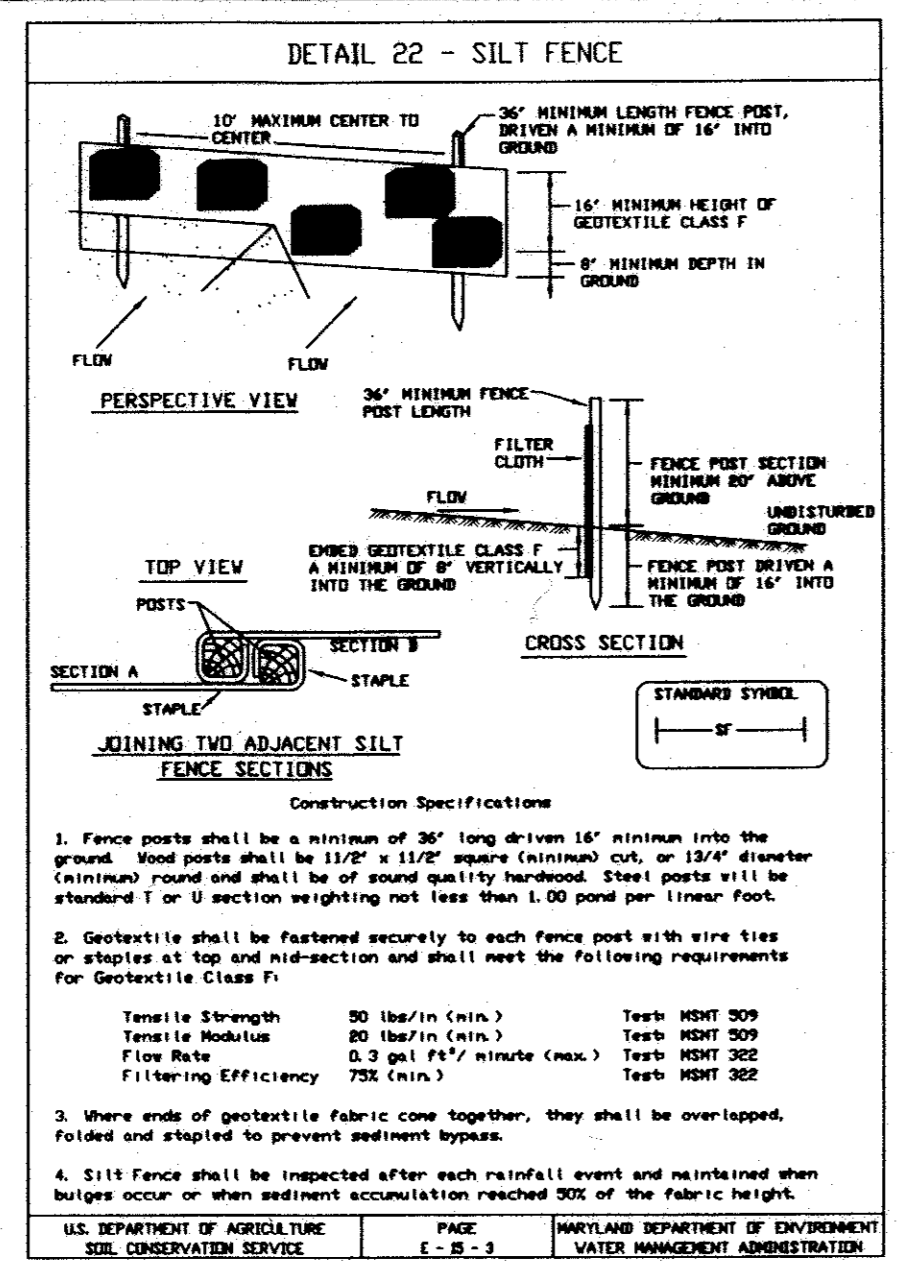
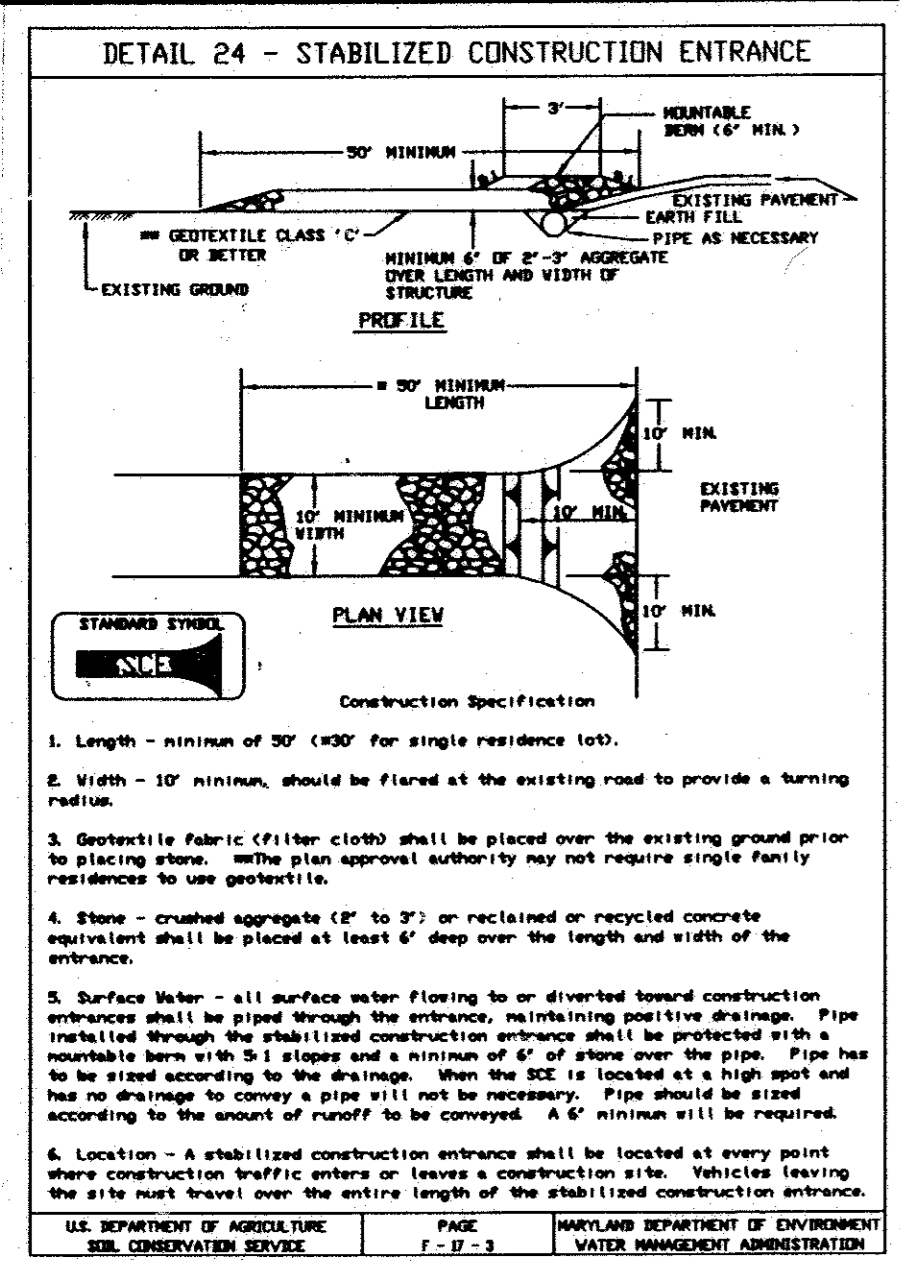
ELLICOTT MILLS MIDDLE SCHOOL
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157

HOWARD COUNTY, MARYLAND

SCALE: 1"=40'	ZONING: R-20	G. L. W. FILE NO.: 98118
DATE: 12/13/99	TAX MAP - GRID: 24, 25, 30 & 31	SHEET: 8 OF 13

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY!
DO NOT USE FOR OTHER SITE IMPROVEMENTS

SDP-00-24



SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 313-1855.
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 Total Area of Site : 16.0253 Acres*
 Area Disturbed : 10.14 Acres
 Area to be roofed or paved : 4.14 Acres
 Area to be vegetatively stabilized : 5.44 Acres
 Total Cut : 25,000 CU. YDS.
 Total Fill : 7500 CU. YDS. (SEE NOTE #12 BELOW)
- Off-site waste/borrow area location: N/A
 * AREA SOUTHWEST OF B.G.E. RW IS 10.78± ACRES
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to 3' pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.

PERMANENT SEEDING NOTES

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

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

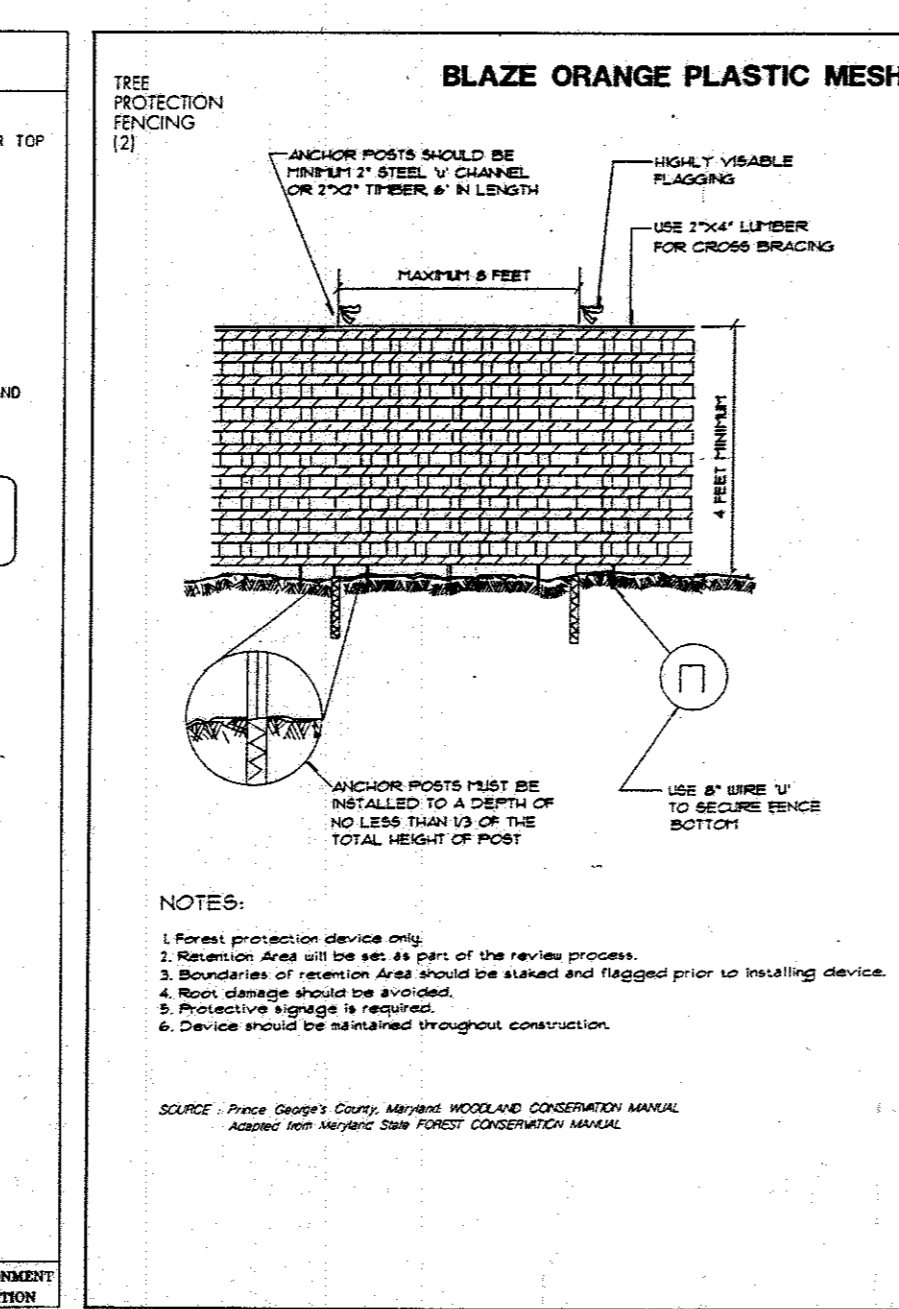
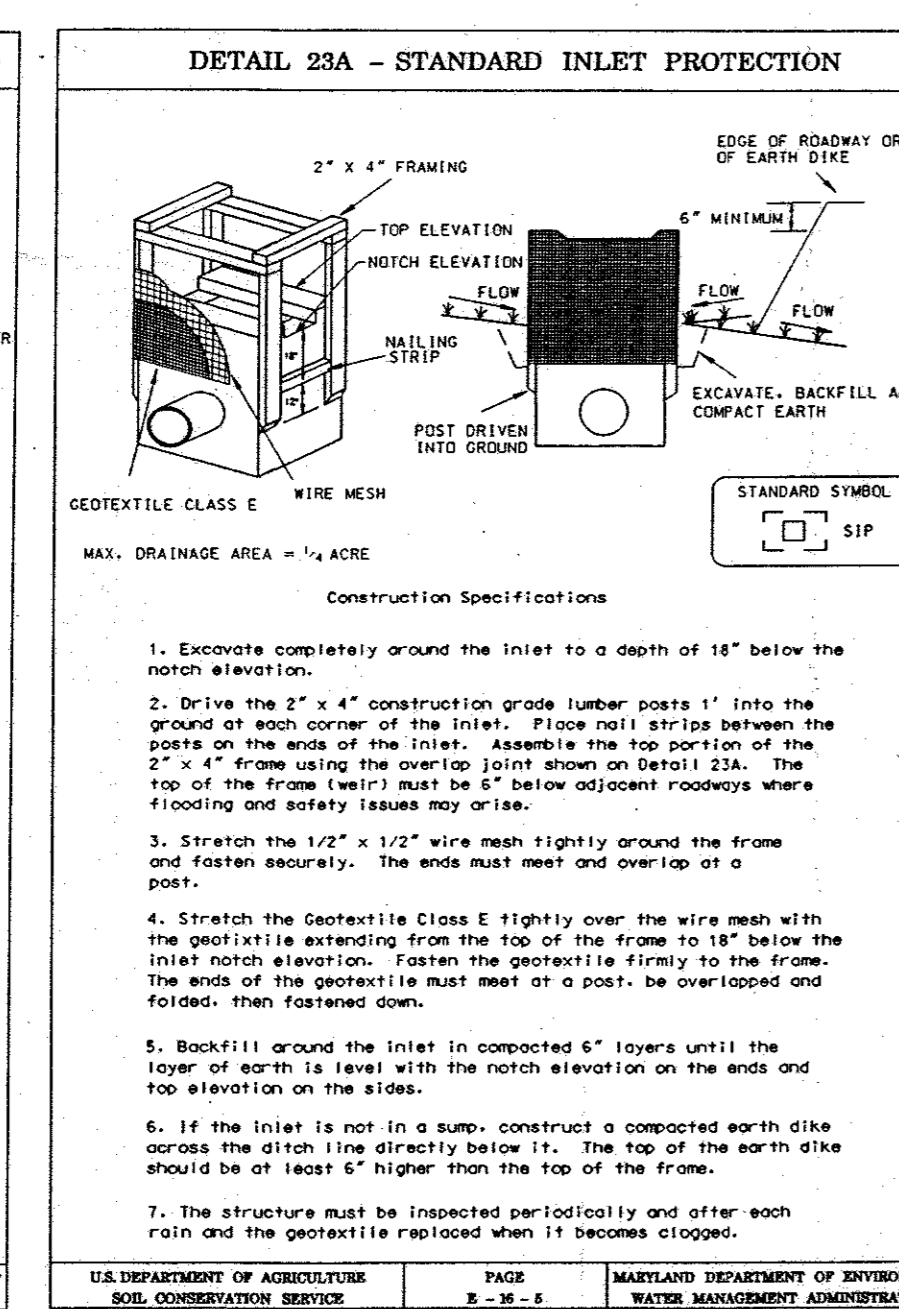
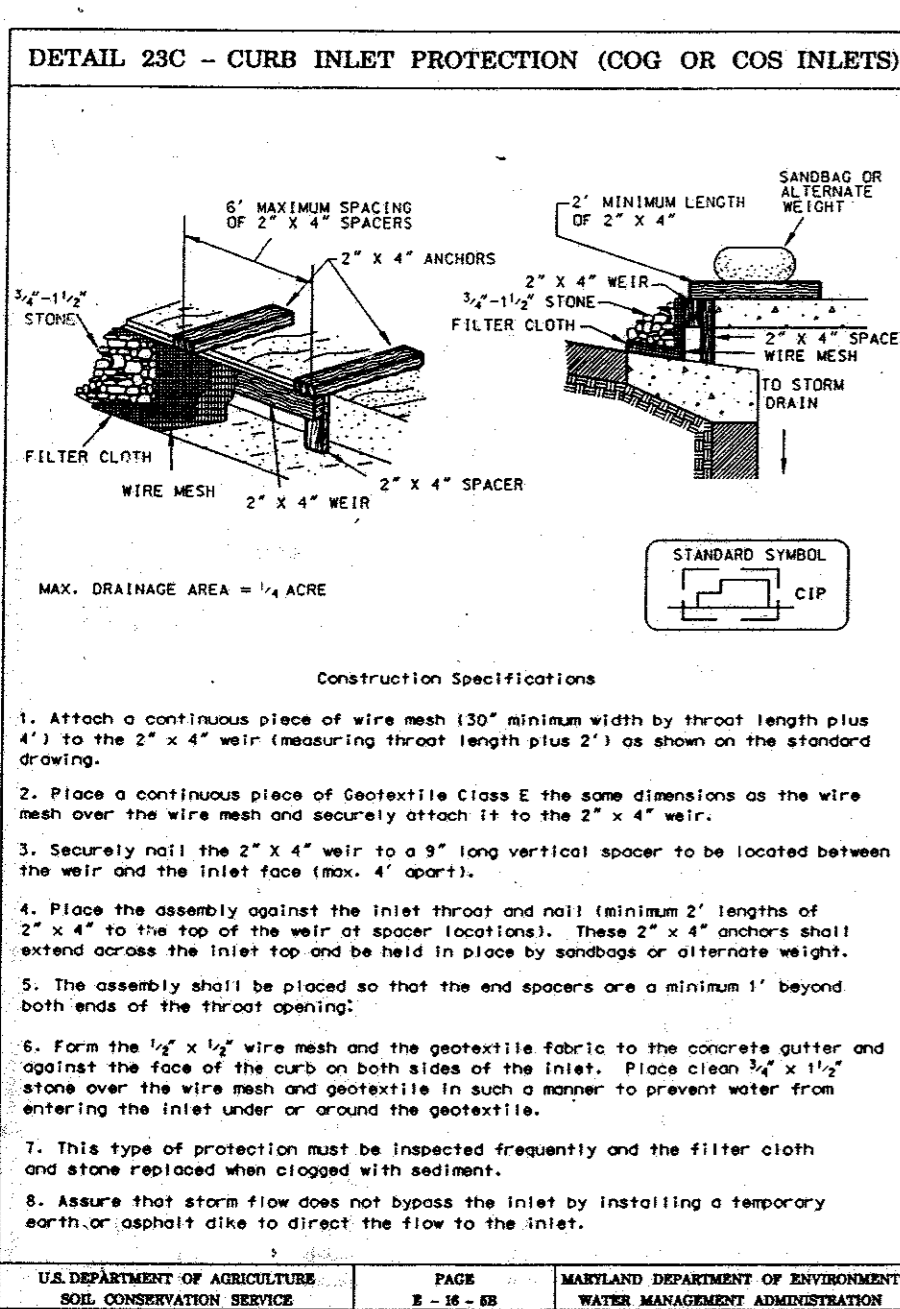
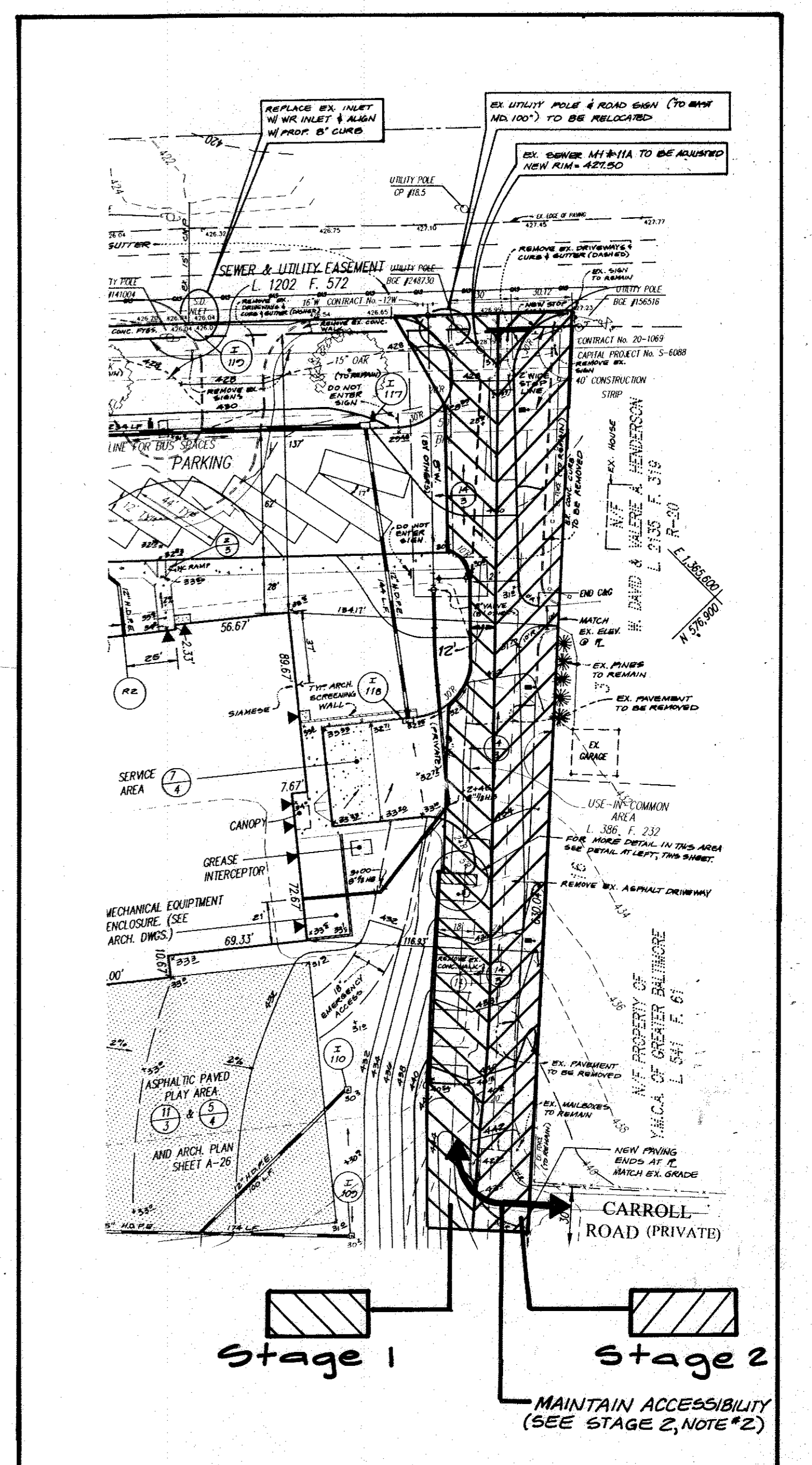
Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft)

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.



TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

EXCESS MATERIAL SHALL BE TAKEN TO AN APPROVED OFF-SITE LOCATION (TO BE DETERMINED). GRADING PERMIT WILL NOT BE ISSUED UNTIL THE LOCATION IS IDENTIFIED. SAID LOCATION SHALL BE UNDER AN APPROVED SEDIMENT CONTROL PLAN AND AN ACTIVE GRADING PERMIT.

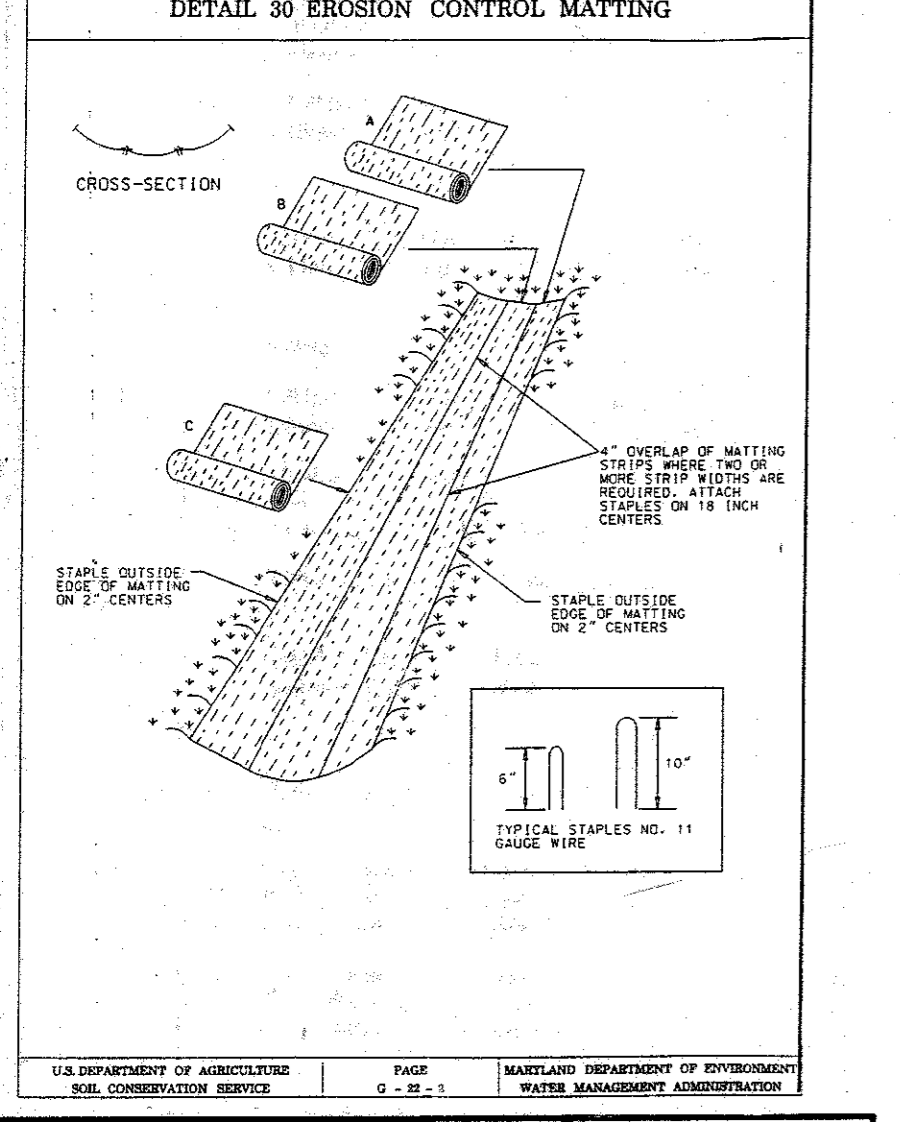
NOTE: These Seeding Notes are the minimum required for sediment control. Refer to the Project Specifications for permanent seeding requirements.

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Chief, Natural Resources Conservation Service Date: 1/18/00

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John P. Roberts Date: 1/18/00



30.0 DUST CONTROL

Definition

Controlling dust blowing and movement on construction sites and roads.

Purpose

To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health, hazards, and improve traffic safety.

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Temporary Methods

Specifications

- Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
- Vegetative Cover - See standards for temporary vegetative cover.
- Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12' apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
- Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
- Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
- Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

- Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
- Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
- Stone - Cover surface with crushed stone or coarse gravel.

References

- Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
- Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.

DEVELOPER'S/BUILDER'S CERTIFICATE

"I certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD."

Catherine Louder King Date: 1/16/00
Signature of Developer/Builder

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

[Signature] Date: 1/16/00

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Michael Blood Date: 2/15/00
Chief, Division of Land Development

[Signature] Date: 2/16/00
Chief, Development Engineering Division

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	DRN.	CHK.	DATE	REVISION	BY	APPR.

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY!
DO NOT USE FOR OTHER SITE IMPROVEMENTS

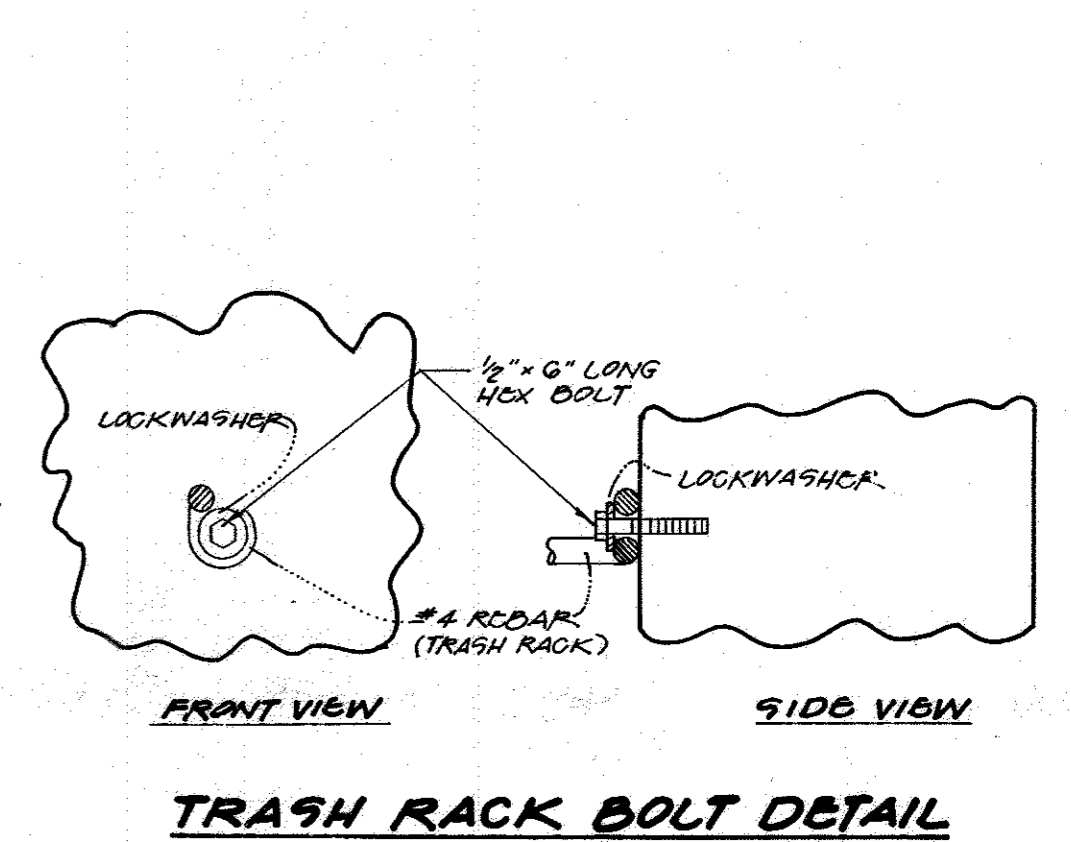
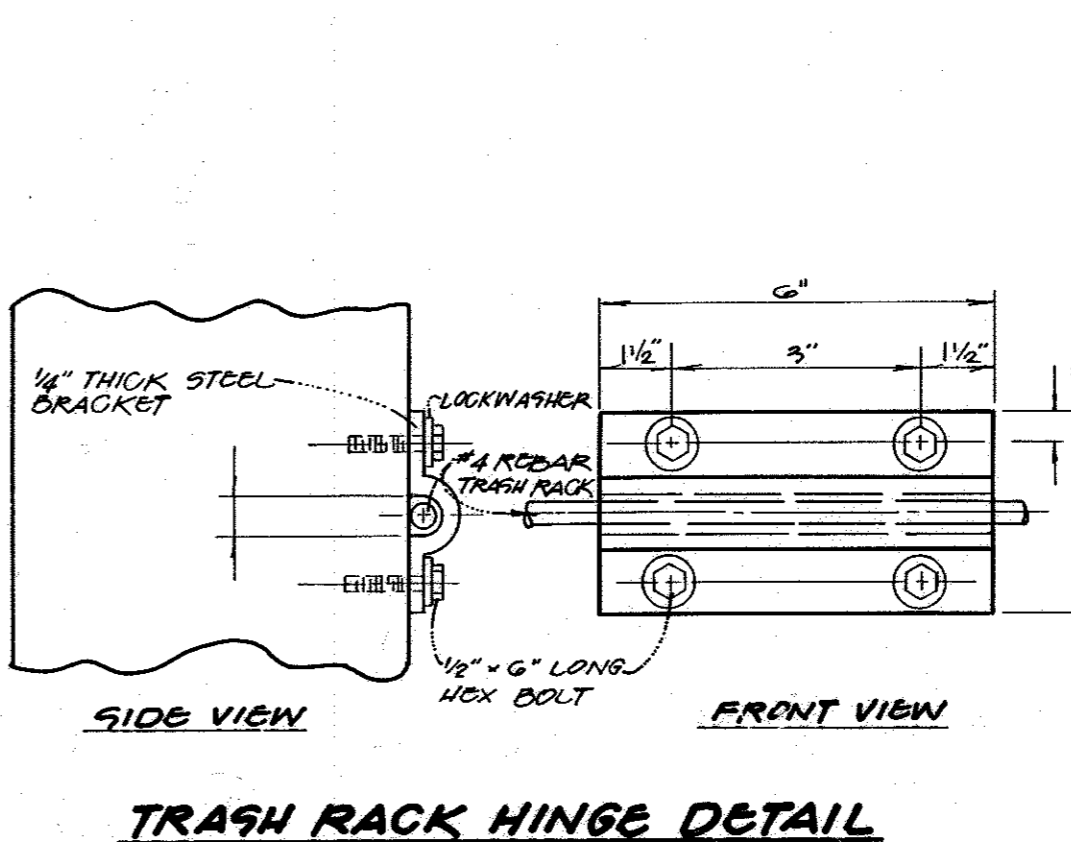
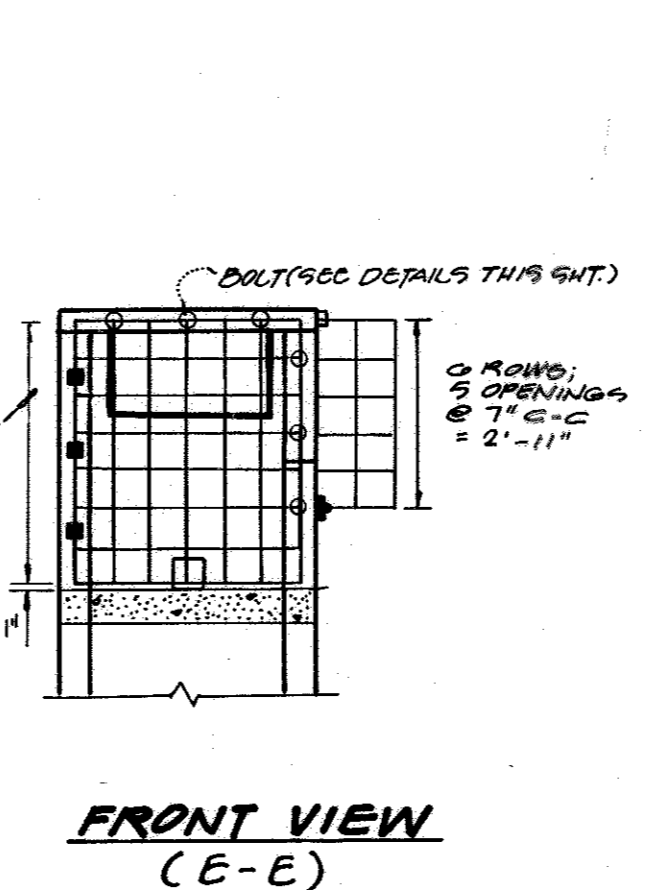
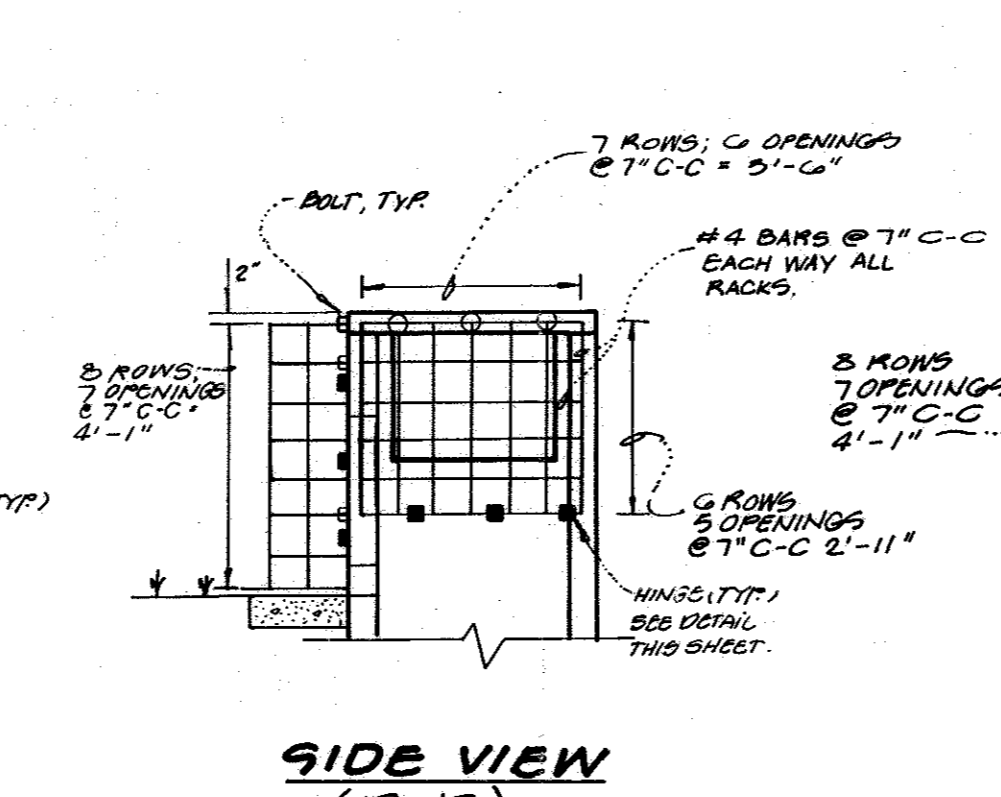
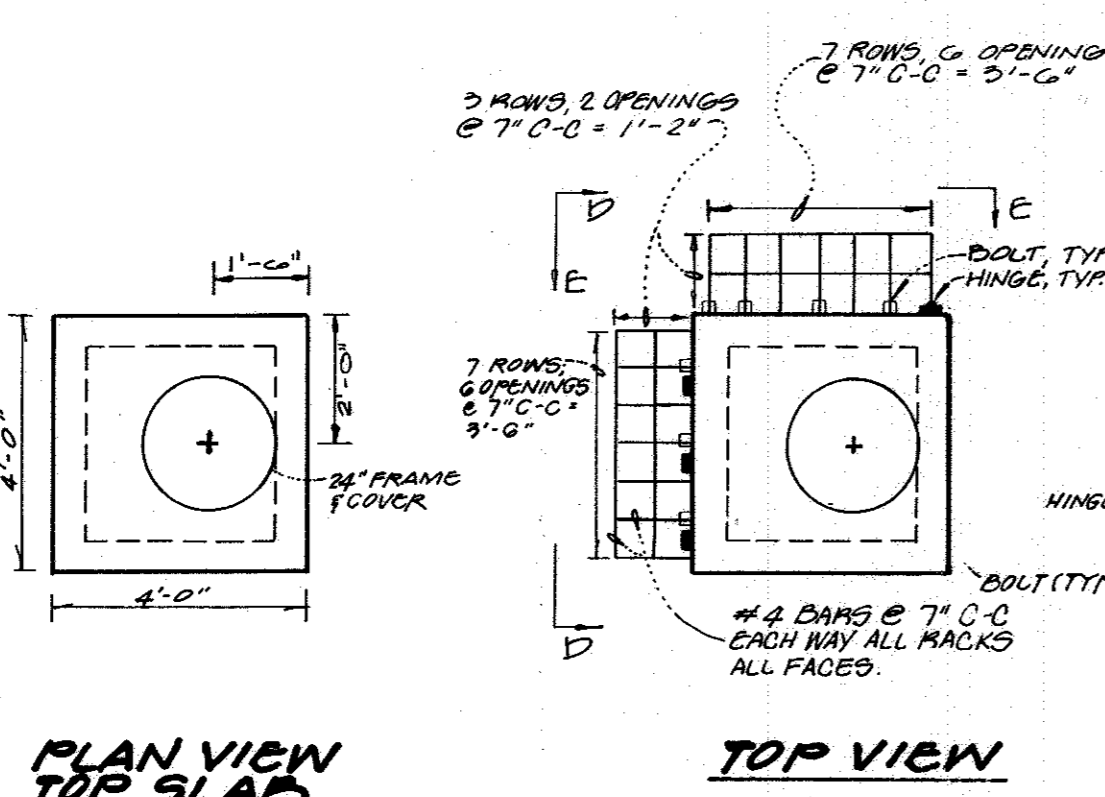
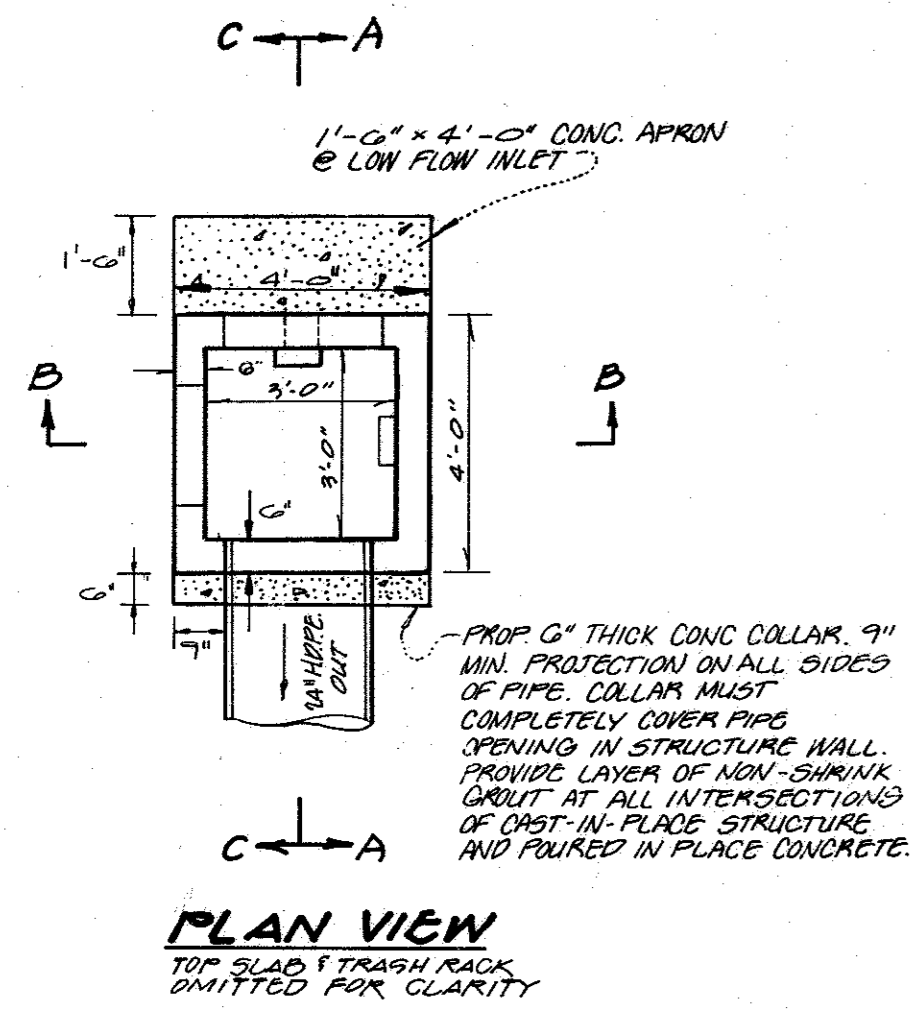
ARCHITECT
THOMAS CLARK ASSOC.'S ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MD. 21401
TEL: (301) 261-8700

PREPARED FOR:
OWNER
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RTE. 108
ELLICOTT CITY, MD. 21043
ATTN: MR. BILL BROWN
TEL: 410-313-6704

SEDIMENT CONTROL DETAILS & NOTES
ELLICOTT MILLS MIDDLE SCHOOL
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157
ELLICOTT CITY ELECTION DISTRICT No. 2

SCALE	ZONING	G. L. W. FILE No.
1"=40'	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24,25,30 & 31	9 OF 13

HOWARD COUNTY, MARYLAND
SDP-00-24

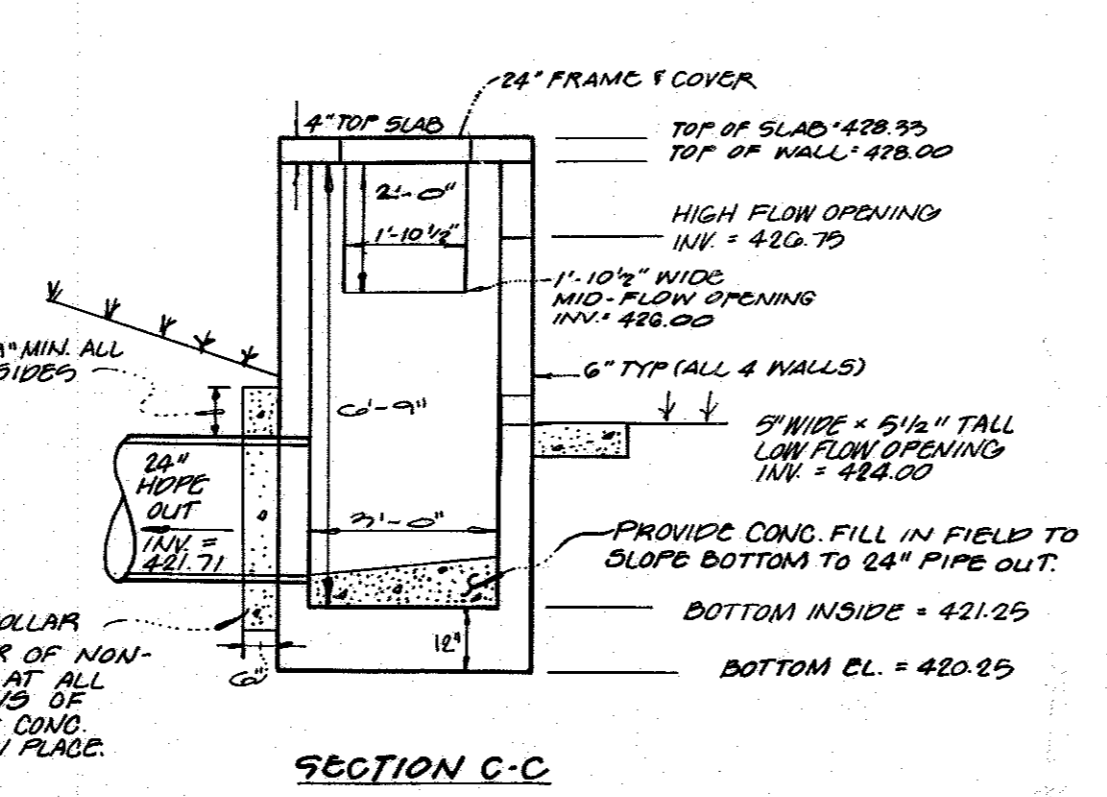
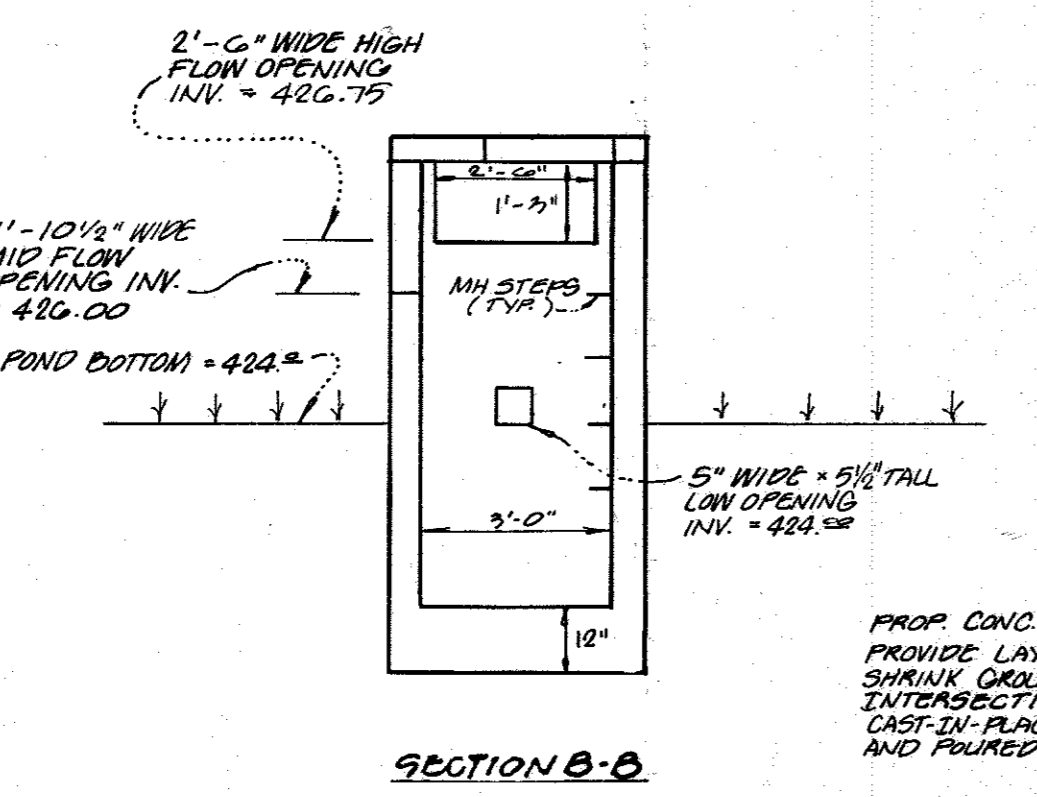
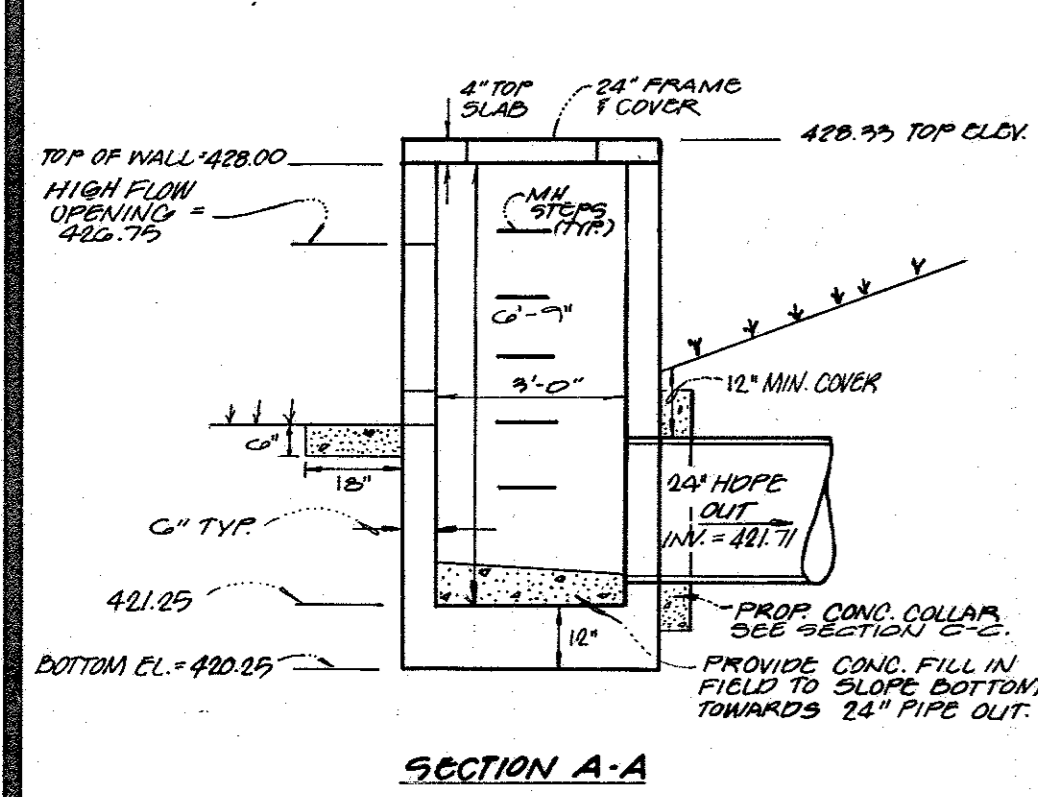
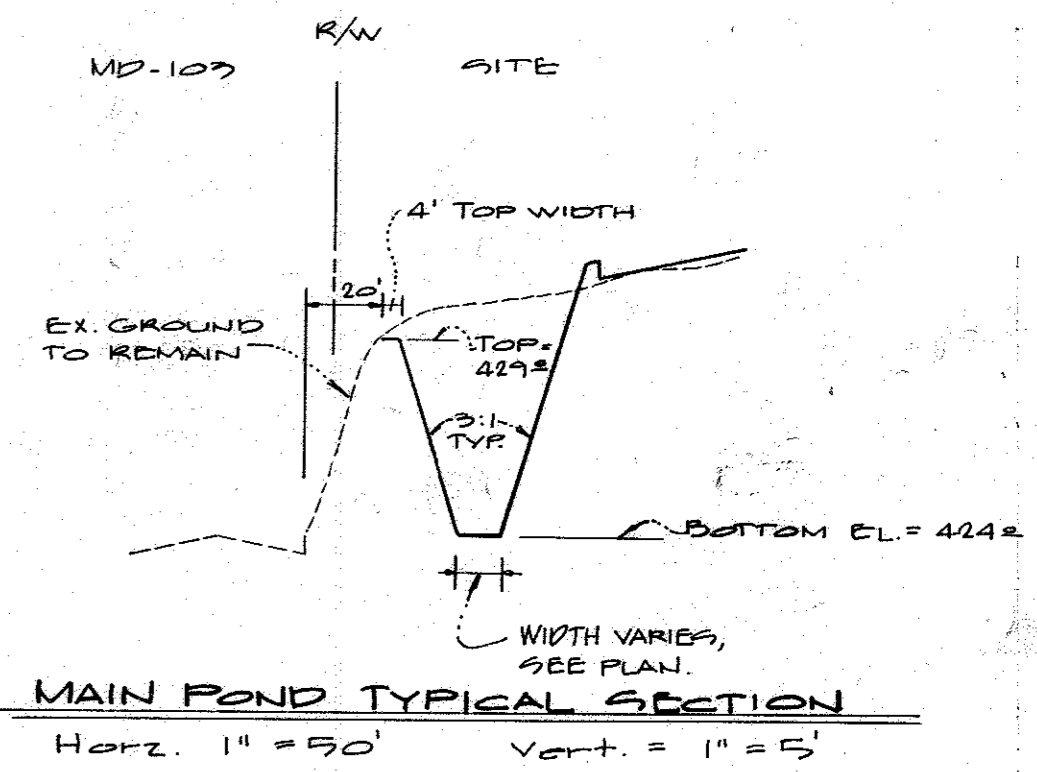


TRASH RACK NOTES:

1. ALL DIMENSIONS ARE TO FACE OF BARS.
2. ALL BARS TO BE NO. 4.
3. ALL TRASH RACKS TO BE HOT DIPPED GALVANIZED (AFTER FABRICATION) AND PAINTED WITH 1 SHOP COAT & 1 FIELD COAT OF BATTLESHIP GRAY PAINT.

RISER NOTES:

1. RISER TO BE REINFORCED PRE-CAST CONCRETE CONTRACTOR TO PROVIDE 5/8" DIA. DIMENSIONS TO THE CHAIRS OR REBAR (G.L.W.) FOR APPROVAL PRIOR TO MANUFACTURE. THE CONTRACTOR OR REBAR IS RESPONSIBLE FOR INSURING THAT THE STRUCTURE MEETS THE DESIGN REQUIREMENTS.
2. BOTTOM SIDES AND TOP SLAB PREPARED TO BE MONOLITHIC POURS IN CAST IN SECTIONS. JOINTS MUST BE KEPT AND ABSOLUTELY SECURED WITH STEEL STRAPS TO BE DESIGNED BY THE PRE-CASTER AND APPROVED BY THE ENGINEER OF RECORD. IN ADDITION, FILTER CLOTH MUST BE PLACED AROUND THE ENTIRE STRUCTURE BELOW GRADE.
3. ALL POURED IN PLACE CONCRETE TO BE MSHA MIX NO. 3.



STRUCTURE 9-112 DETAILS
APPROX. SCALE: 1" = 2'

Operation and Maintenance Schedule for Stormceptors

1. The Stormceptor water quality device shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum using the Stormceptor Inspection/Monitoring Form. Inspections shall be done using a clear Plexiglas tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in table 6 of the Stormceptor Technical Manual the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
3. The owner will maintain the Stormceptor unit using a vacuum truck that will remove the water, sediment, debris, floating hydrocarbons and other materials in the unit. The owner must properly clean and dispose of the removed materials and liquids.
4. The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found, the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to Howard County officials upon their request.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DETENTION POND

- Routine Maintenance:**
1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
 2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.
 3. Debris and litter shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.
- Non-Routine Maintenance:**
1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
 2. Upon approval from the Department of Public Works, sediment shall be removed from the pond and forbay no later than when the capacity of the pond or forbay is half-full of sediment, or when deemed necessary for aesthetic reasons.

Precast Concrete Stormceptor® Order Request Form

CONTRACTOR INFORMATION

Name _____
Address _____
City _____
State _____
Zip Code _____
Contact _____
Phone _____
Fax _____

OWNER INFORMATION

Name: **HOWARD COUNTY PUBLIC SCHOOLS**
Phone: **(410) 319-6734**
Fax: _____

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT: **1,542**

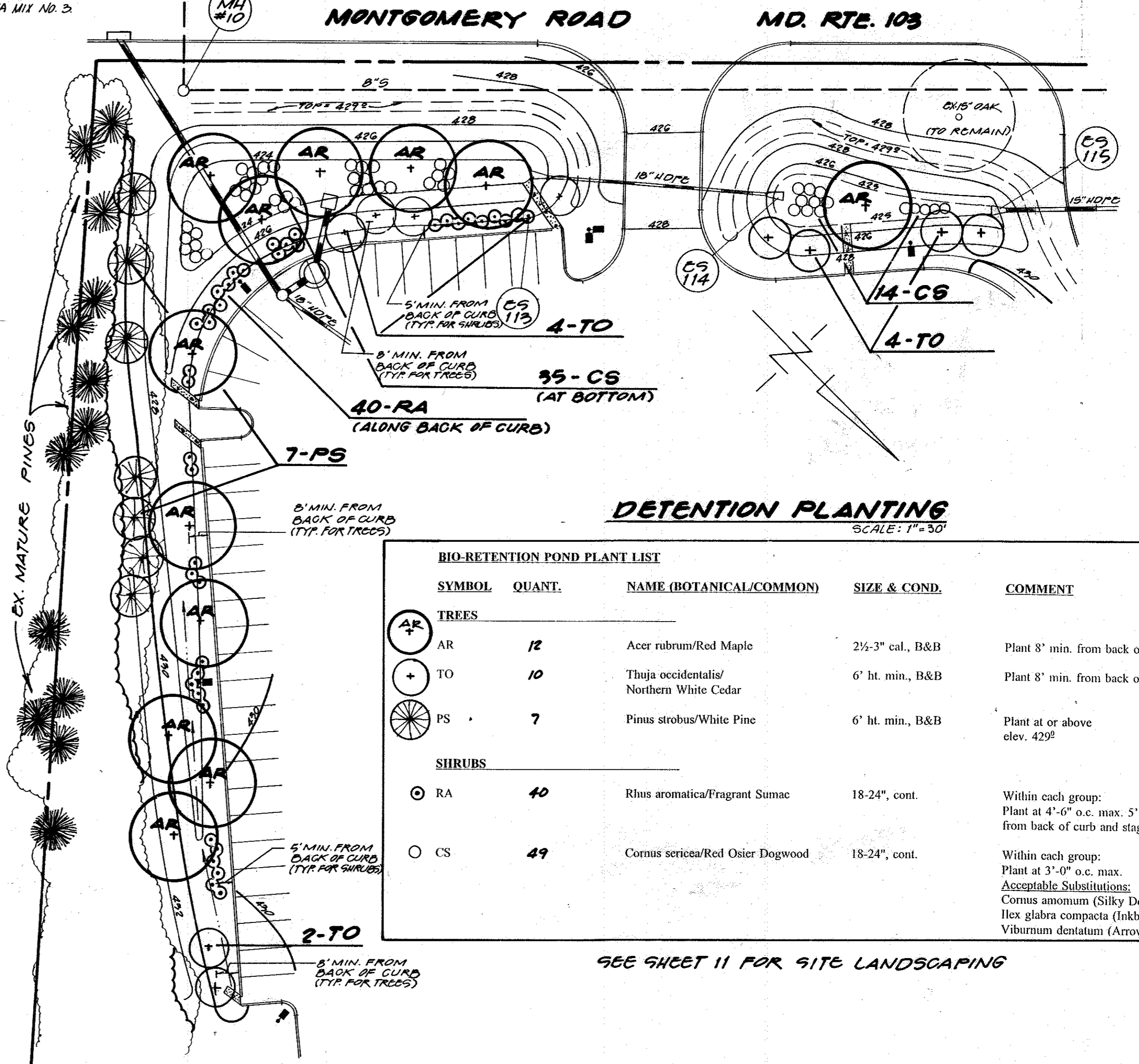
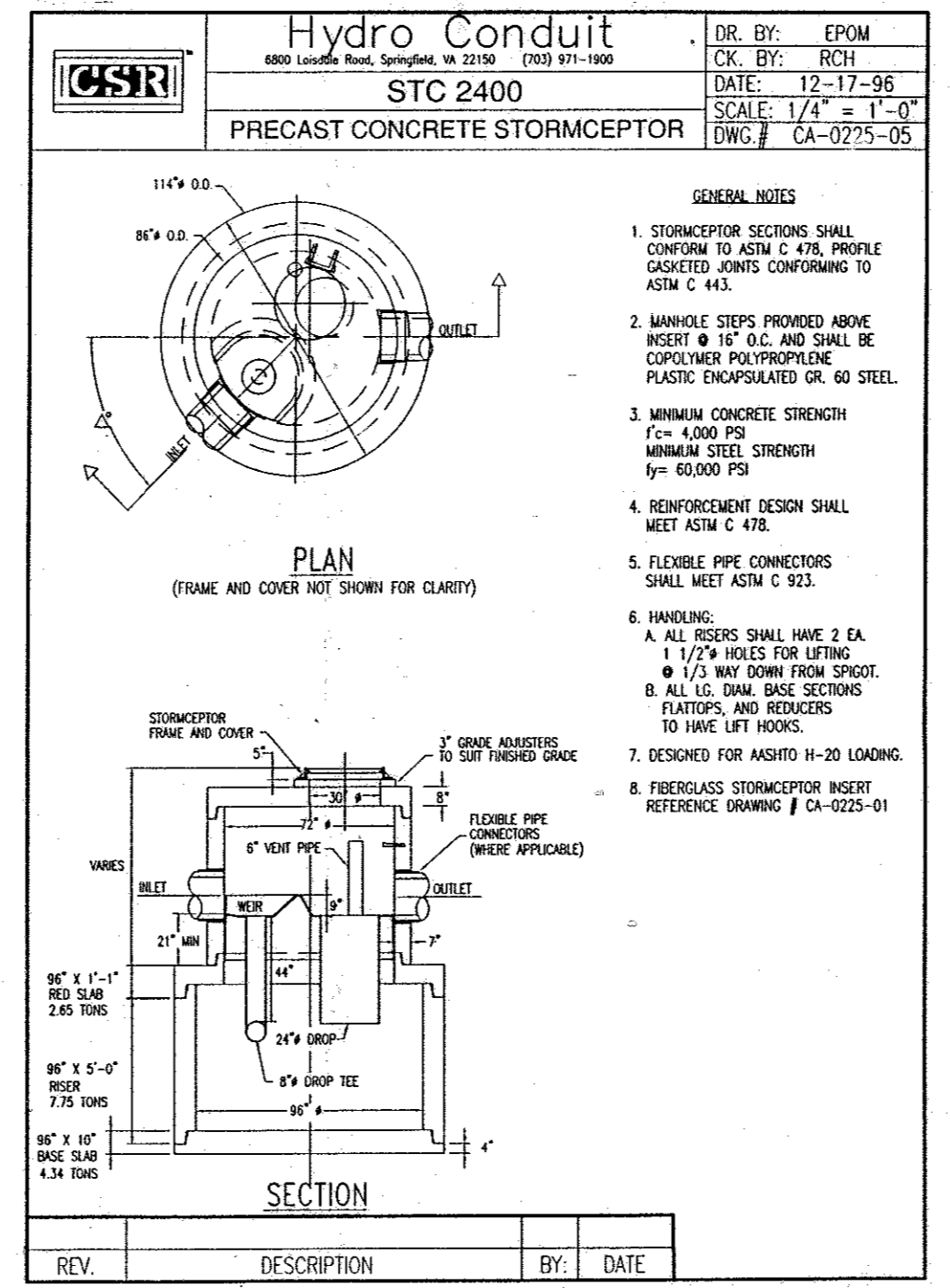
Stormceptor® Model: **STC 2400**

Insert Size: 22" 24" 32" 44" CUSTOM

Manhole Number: **9-1**
Top Elevation (ft): **429.27**
Inlet Pipe Invert (ft): **421.51**
Outlet Pipe Invert (ft): **421.42**
Pipe Type: **HDPE**
Inlet Pipe Inside Diameter (ID): **24"**
Inlet Pipe Outside Diameter (OD): **26.50"**
Outlet Pipe Inside Diameter (ID): **24"**
Outlet Pipe Outside Diameter (OD): **26.50"**

Project Name: **ELICOTT MILLS MIDDLE SCHOOL**
Approximate time frame of delivery (weeks): _____
Delivery Address: Street _____
City: _____ State: _____ Zip Code: _____
Designer Company: **GUTSCHICK, LITTLE & WEBER, P.A.**
Designer Contact: **SETH CHURCHILL** Phone: **(301) 421-4084** Fax: **(301) 421-4100**

PLEASE FILL OUT COMPLETELY AND FAX TO: **CSR Hydro Conduit**
ATTN: ED O'MALLEY FAX: (703)922-3659, PHONE: (703)971-1900
FOR TECHNICAL ASSISTANCE PLEASE CALL MIKE BARG, PHONE (703)971-1900



BIO-RETENTION POND PLANT LIST

SYMBOL	QUANT.	NAME (BOTANICAL/COMMON)	SIZE & COND.	COMMENT
TREES				
AR	12	Acer rubrum/Red Maple	2 1/2-3" cal., B&B	Plant 8' min. from back of curb.
TO	10	Thuja occidentalis/Northern White Cedar	6' ht. min., B&B	Plant 8' min. from back of curb.
PS	7	Pinus strobus/White Pine	6' ht. min., B&B	Plant at or above elev. 429'
SHRUBS				
RA	40	Rhus aromatica/Fragrant Sumac	18-24", cont.	Within each group: Plant at 4'-6" o.c. max. 5'-0" min. from back of curb and staggered.
CS	49	Cornus sericea/Red Osier Dogwood	18-24", cont.	Within each group: Plant at 3'-0" o.c. max. Acceptable Substitutions: Cornus anomala (Silky Dogwood), Hex glabra compacta (Inkberry), Viburnum dentatum (Arrowwood)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 2/23/00
Date

[Signature] 2/19/00
Date

[Signature] 2/10/00
Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT. 410-980-1820 DC/VA: 301-969-2524 FAX: 301-421-4186

REVISION	DATE	DES.	DRN.	CHK.

ARCHITECT: **THOMAS CLARK ASSOC.'S ARCHITECTS**
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MD. 21401
TEL: (301) 261-8700

PREPARED FOR: **OWNER**
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RIE 108
ELICOTT CITY, MD. 21043
ATTN: MR. BILL BROWN
TEL: 410-313-6704

S.W.M. NOTES & DETAILS
ELICOTT MILLS MIDDLE SCHOOL
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157

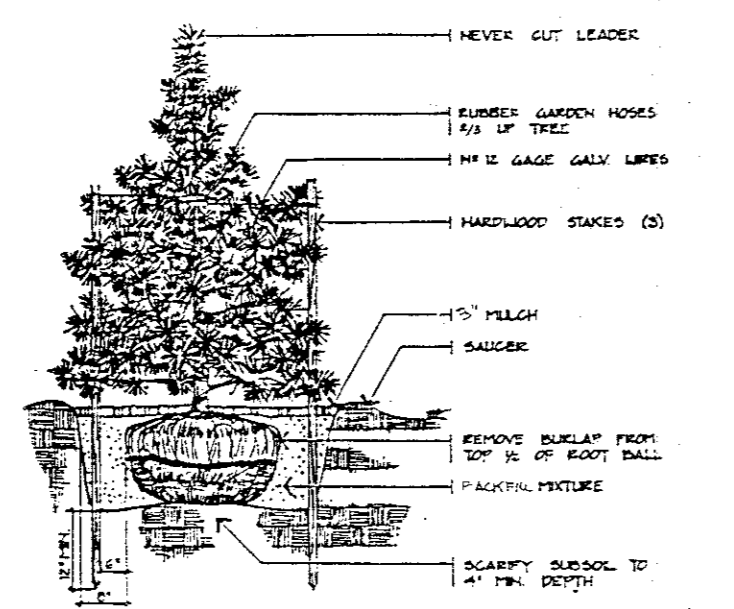
SCALE	ZONING	G. L. W. FILE NO.
1" = 40'	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24,25,30 & 31	10 OF 13

PLANT LIST						
SYMBOL	KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE & CONDITION	REMARKS
⊕	QP	10	Quercus palustris	Pin Oak	2 1/2"-3" Cal. 12'-14' Ht.	B&B
⊗	AR	13	Acer rubrum "October Glory"	October Glory Red Maple	2 1/2"-3" Cal. 12'-14' Ht.	B&B
⊗	PC	12	Prunus cerasifera "Thundercloud"	Purpleleaf Flowering Plum	1 1/2"-2" Cal. 8-10' Ht.	B&B
⊗	MZ	15	Malus Zumi "Calocarpa"	Zumi Crabapple	1 1/2"-2" Cal. 8-10' Ht.	B&B
⊗	PS	37	Pinus strobus	White Pine	6-8' Ht.	B&B
⊕	EP	70	Euonymus patens "Pauli"	Pauli Euonymus	24-30" Ht.	Cont. 3'-0" O.C. U.O.N.*
⊕	JA	147	Juniperus horizontalis compacta	Andorra Juniper	18-24" Ht.	Cont. 4'-6" O.C. U.O.N.*
⊕	JS	24	Juniperus chinensis "Sargentii"	Sargent's Juniper	18-24" Ht.	Cont. 4'-6" O.C. U.O.N.*
⊕	CE	93	Alatus compactus	Dwarf Winged Euonymus	30-36" Ht.	Cont. 3'-0" O.C. U.O.N.*
⊕	CL	2	CUPRESSOCYPRIS LEYLANDI	LEYLAND CYPRESS	6' Ht. MIN.	B&B 10'-0" O.C. U.O.N.*

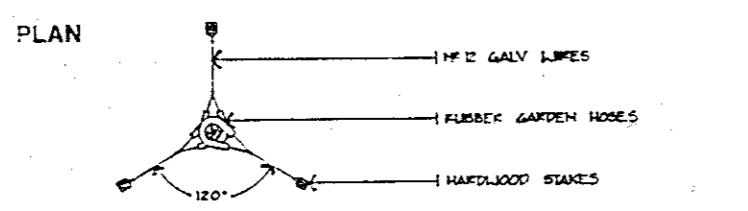
NOTE: Furnish and install where directed by architect, up to 12 White Pines and up to 8 additional Purpleleaf Flowering Plums. This Plant List excludes S.M. Bio-retention planting. See sheet #10 for Bio-retention planting.
* U.O.N. UNLESS OTHERWISE NOTED.

LANDSCAPING NOTES

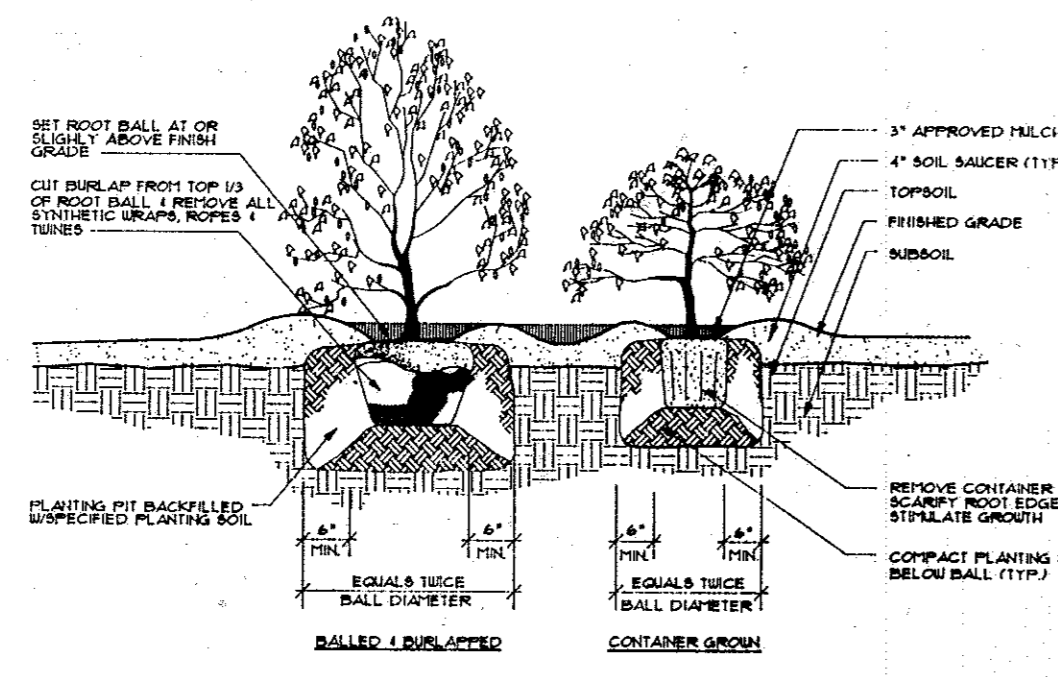
- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Landscape Manual.
- Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.
- Field verify underground utility locations and existing conditions before starting planting work. Contact architect if any relocations are required.
- Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
- All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
- No substitution shall be made without written consent of the owner or his representative.
- All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded in accordance with project specifications.
- The contractor shall notify the architect in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
- All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.



TYPICAL EVERGREEN TREE PLANTING & STAKING NO SCALE



TYPICAL DECIDUOUS TREE PLANTING & STAKING NO SCALE



TYPICAL SHRUB PLANTING NO SCALE

LEGEND

- 420--- EXISTING CONTOUR
- 420- PROPOSED CONTOUR
- 425.0 EXISTING SPOT ELEVATION (TYPED)
- 425.0 PROPOSED SPOT ELEVATION (HAND LETTERED)
- ⊕ TYPICAL EXISTING STREET LIGHT
- ⊕ TYPICAL PROPOSED STREET LIGHT
- ⊕ PROPOSED STORM DRAIN LINE
- ⊕ PROPOSED SEWER LINE
- ⊕ PROPOSED WATER LINE
- ⊕ EXISTING TREES
- ⊕ NEW TREE LINE
- ⊕ PROPOSED CURB & GUTTER
- ⊕ EXISTING CURB & GUTTER
- ⊕ EXISTING PAVING
- ⊕ BUILDING ACCESS
- ⊕ PARKING SPACE DESIGNATION
- ⊕ EX. UTILITY POLE
- ⊕ EX. UTILITY POLE GUY WIRE
- ⊕ EX. SEWER MANHOLE
- ⊕ EX. SEWER CLEAN-OUT
- ⊕ EX. GAS VALVE
- ⊕ EX. FIRE HYDRANT
- ⊕ TX. WATER VALVE
- ⊕ EX. WATER METER
- ⊕ EXISTING GAS
- ⊕ EXISTING WATER
- ⊕ EXISTING SEWER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Richard B. Wood
Chief, Division of Land Development
Date: 2/15/00
Date: 2/15/00

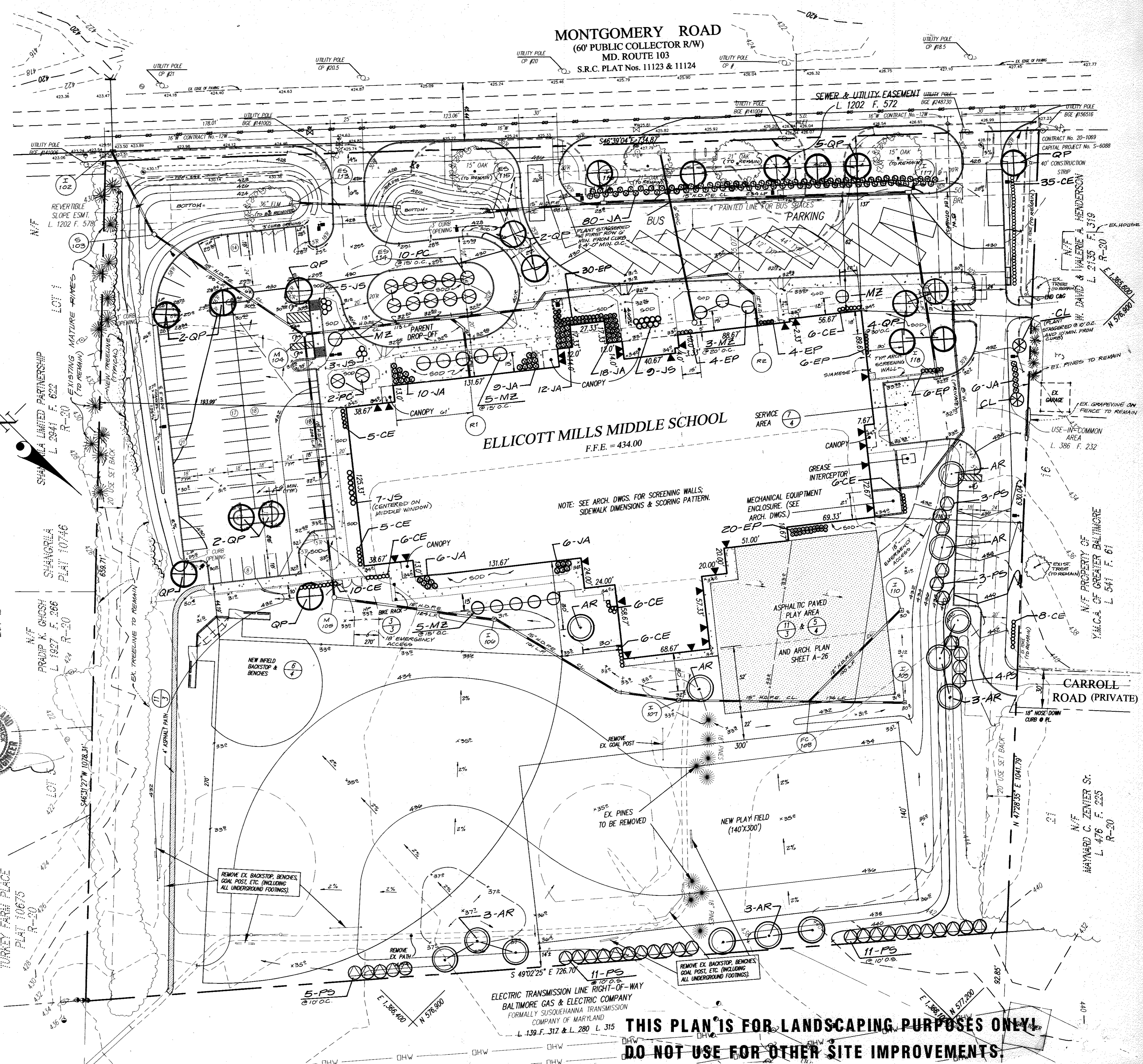
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3009 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

ARCHITECT
THOMAS CLARK ASSOC.'S
ARCHITECTS
2861 RIVA ROAD, SUITE 120
ANNAPOLIS, MD. 21401
TEL: (301) 261-8700

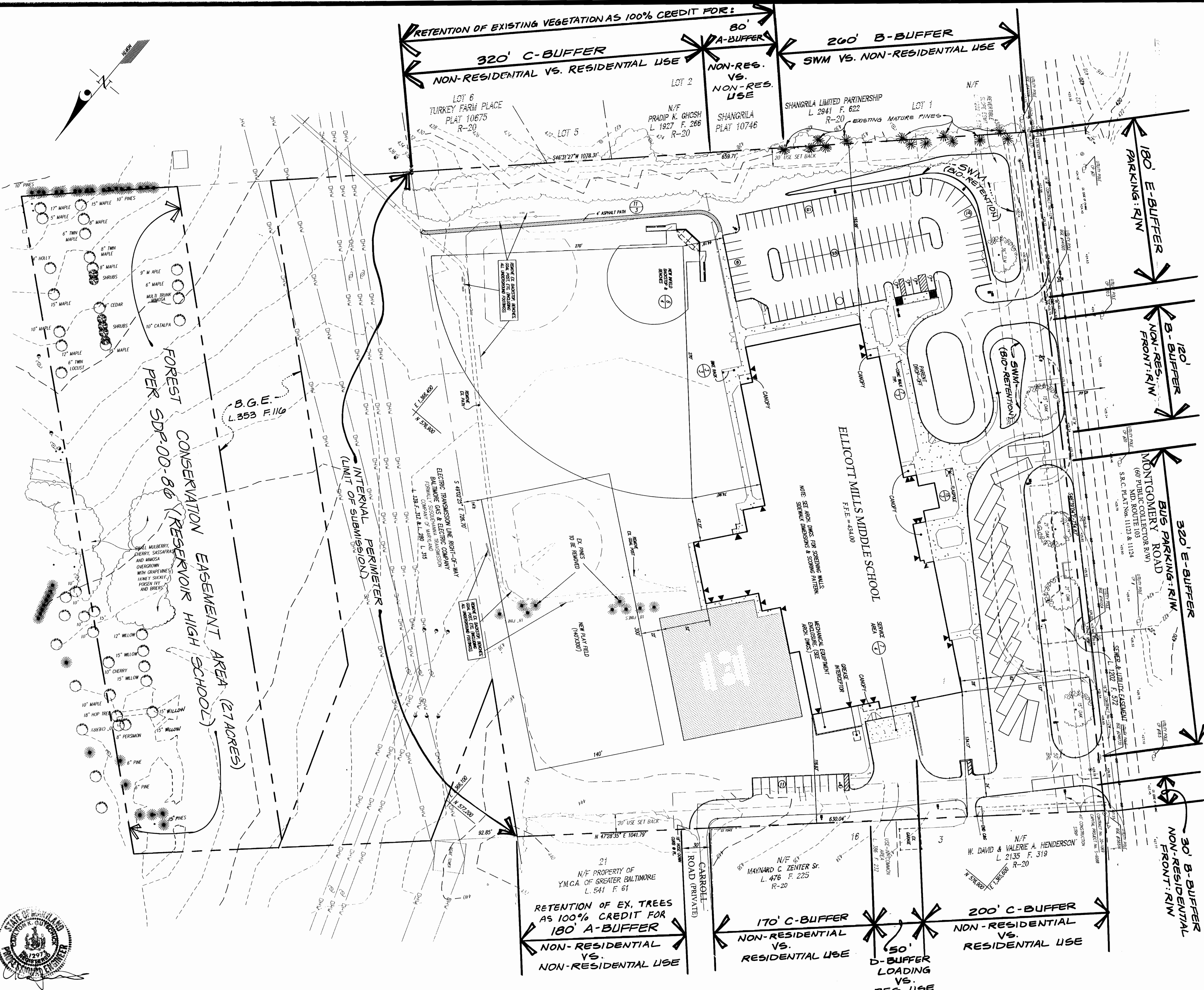
PREPARED FOR: OWNER
HOWARD COUNTY
PUBLIC SCHOOL SYSTEM
10910 RTE. 108
ELLICOTT CITY, MD 21043
ATTN: MR. BILL BROWN
TEL: 410-313-6704

LANDSCAPE PLAN AND DETAILS
ELLICOTT MILLS MIDDLE SCHOOL
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157

SCALE	ZONING	G. L. W. FILE NO.
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12/13/99	24,25,30 & 31	11 OF 13



THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
DO NOT USE FOR OTHER SITE IMPROVEMENTS



SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO MD. RTE. 103		ADJACENT TO PERIMETER PROPERTIES		
	B	E	A	C	D
LANDSCAPE TYPE	B	E	A	C	D
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	150'	500'	260'	690'	50'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 15' OAK	YES 3 OAK TREES	YES 260'	YES 320'	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED					
SHADE TREES	1:50 = 3	1:40 = 13	-0-	FOR 370' 1:40 = 9	1:60 = 1
EVERGREEN TREES	1:40 = 4	-0-	-0-	1:20 = 18	-0-
SHRUBS	-0-	1:4 = 125	-0-	-0-	1:10 = 6
NUMBER OF PLANTS PROVIDED					
SHADE TREES	OVER 3	OVER 13	---	9	1
EVERGREEN TREES	OVER 4	---	---	11	6
OTHER TREES (2:1 SUB.)	---	---	---	35	---
SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IS NEEDED)	---	OVER 125	---	(shrubs substituted for 7 evergreen trees)	---

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	108 CAR SPACES
NUMBER OF TREES REQUIRED (AT 1:20)	5
NUMBER OF TREES PROVIDED	OVER 5
SHADE TREES	
OTHER SHADE TREES (2:1 SUBSTITUTION)	

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER	260
NUMBER OF TREES REQUIRED (B-BUFFER)	
SHADE TREES (AT 1:50)	5
EVERGREEN TREES (AT 1:40)	7
CREDIT FOR RETAINED VEGETATION (NO, YES AND %)	YES - 8 MATURE PINES TO REMAIN
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES - "BIO-RETENTION" OF POND
NUMBER OF TREES PROVIDED	
SHADE TREES	OVER 5
EVERGREEN TREES	OVER 7
OTHER TREES (2:1 SUBSTITUTION)	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

John S. Smith 2/23/00
Date

John S. Smith 2/10/00
Date

Chief, Development Engineering Division



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
7-11-00	INCORPORATE FC EASEMENT AREA PER SDP-00-86	TKJ	APP'R.

ARCHITECT
THOMAS CLARK ASSOC.'S ARCHITECTS
2661 RIVA ROAD, SUITE 120
ANNAPOLIS, MD 21401
TEL: (301) 261-8700

PREPARED FOR:
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TEL: 410-313-6704

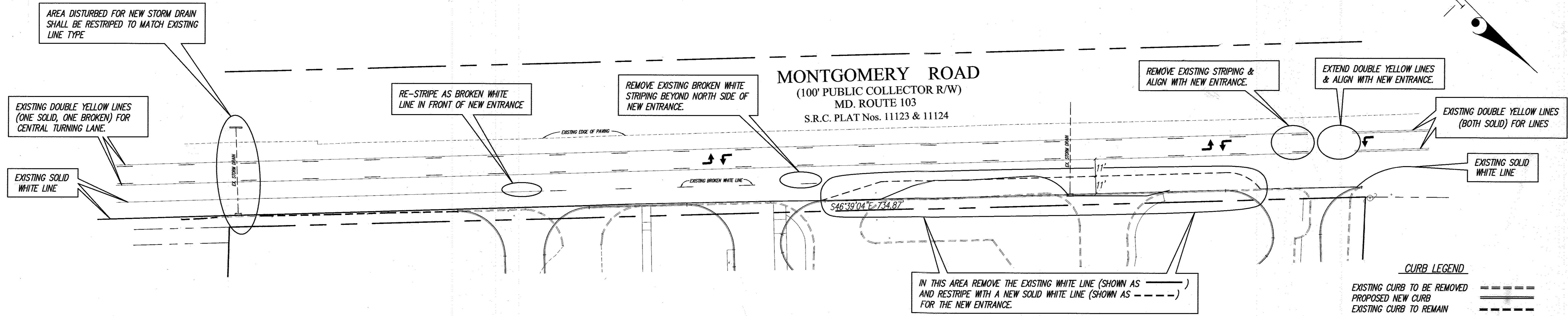
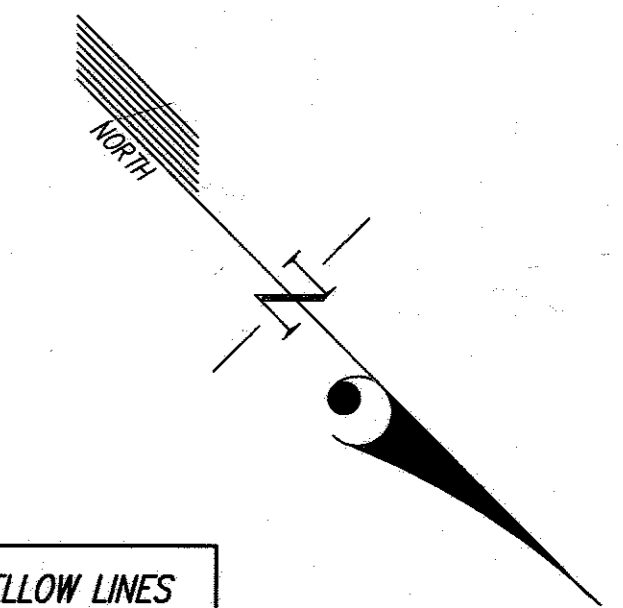
LANDSCAPE EDGE ANALYSIS

ELlicott Mills Middle School
PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
L. 162 F. 302 & L. 288 F. 157

ELlicott CITY ELECTION DISTRICT No. 2

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-20	98118
DATE	TAX MAP - GRID	SHEET
12/13/99	24,25,30 & 31	12 OF 13



NOTES:

- ALL CONSTRUCTION IN MD RTE. 103 R/W SHOWN ON THESE PLANS SHALL BE DONE IN ACCORDANCE WITH MSHA PERMIT, STANDARDS, SPECIFICATIONS AND PROCEDURES.
- FLAGMEN, TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE USED TO CONTROL TRAFFIC FOR ALL WORK IN MD RTE. 103.
- SEE SHEET #1 FOR OTHER APPLICABLE NOTES.

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works 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 1:1.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, 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 a 50 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable locations for use on the embankment and other designated areas.

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to 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 shall be traversed by not less than one broad track of the equipment or compaction shall be achieved by a minimum of four complete 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 be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% of maximum dry density with a moisture content within ±2 % of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench

The cutoff trench shall be excavated 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 slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum 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 needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

- Materials** - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plast-Cote, Glas-Klad, and Beth-O-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Material - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

- Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe & riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket, and a 12" wide hugger type band with 0-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams.

- 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.
- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

- Materials** - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
- Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
- Laying pipe** - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Materials** - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.
- Joints and connections** to anti-seep collars shall be completely watertight.
- 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.
- Backfilling shall conform to "Structure Backfill".
- 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 Standards Specifications for Construction and Materials, Section 608, Mix 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 rip rap 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 reasonably 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. Filter cloth 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 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas 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 furnish, 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 constructing each 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 spillway or 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 manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations 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 such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) 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 air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

NOTE: Although this pond is not subject to MD-378, these specifications shall be employed as applicable based on the plans and details contained in this plan sheet.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Date: 2/23/00
 Date: 2/15/00
 Date: 2/10/00



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NO.	DATE	REVISION	BY	APPR.

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PREPARED FOR: OWNER
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RTE. 108 ELLICOTT CITY, MD 21043 ATTN: MR. BILL BROWN TEL: 410-313-6704

MD. RTE. 103 RESTRIPTING, NOTES, & POND SPECIFICATIONS

ELLICOTT MILLS MIDDLE SCHOOL
 PROPERTY OF BOARD OF EDUCATION OF HOWARD COUNTY
 L. 162 F. 302 & L. 288 F. 157

ELLICOTT CITY ELECTION DISTRICT No. 2

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