157426

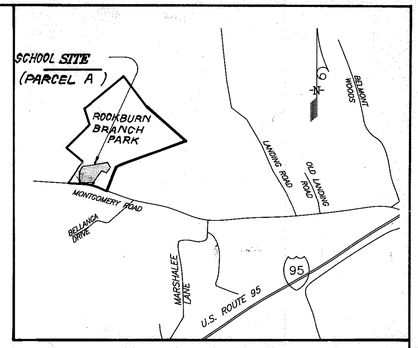
SITE ANALYSIS:

1. ZONING: R-20
2. PROPOSED USE: PUBLIC SCHOOL
3. AREA TABULATION:
   - A. SCHOOL SITE PARCEL 'A' (TO BE RECORDED) — 8.39 AC.
   - B. AREA OF DEVELOPMENT ON PARK PROPERTY FOR BALLFIELDS — ± 7.98 AC.
   - C. PUBLIC ROAD DEDICATION — 0.35 AC.
   - D. TOTAL PROJECT AREA — ± 16.7 AC.
   - E. BUILDING COVERAGE (PARCEL A) — 1.97 AC. (23% OF A)
   - F. PAVED AREAS (PARCEL A) — 2.14 AC. (25.4% OF A)
   - G. GREEN AREAS (PARCEL A) — 4.56 AC. (54% OF A)
4. PARKING REQUIRED (PER HCPSS) — 80 SPACES
5. PARKING PROVIDED — 91 SPACES
   - STANDARD SPACES — 87 SPACES
   - HANDICAP SPACES — 4 SPACES

LEGEND

CONTOUR INTERVAL	2 FT.
EXISTING CONTOUR	
PROPOSED CONTOUR	
DIRECTION OF DRAINAGE	
EXISTING SEWER MAIN	6" SEWER
EXISTING WATER MAIN	8" WATER
EXISTING STORM DRAIN	18" S.D.
EXISTING TREES TO REMAIN	(Shaded)
ELECTRIC CONDUIT	E
TELEPHONE CONDUIT	T
BURIED CABLE	B
GAS MAIN	G
CABLE TELEVISION	TV
TREE PROTECTION FENCE	X
PROPOSED LIGHTING (See Architectural Plans for Details)	

C.O.	INVERT
5	361.85
5A	363.83
6	367.00
7	361.70
8	362.80
9	362.50
10	364.50



VICINITY MAP

SCALE: 1" = 2000'

GENERAL NOTES:

1. COORDINATES ARE BASED ON THE MARYLAND STATE GRID SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS #2645002, & #2645003.
2. TOPOGRAPHY WAS COMPILED FROM ACTUAL FIELD SURVEY.
3. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH HOWARD COUNTY ROAD CONSTRUCTION CODES AND SPECIFICATIONS.
4. NO WETLANDS ARE PRESENT AT THE PROJECT SITE, BASED ON A FIELD INSPECTION REPORT BY HOWARD SOIL CONSERVATION DISTRICT DATED OCTOBER 24, 1991.
5. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION 24 HOURS IN ADVANCE OF WORK AT 992-2417 OR 792-7272.
6. CONTACT "MISS UTILITY" AT 559-0100 AT LEAST 24 HOURS BEFORE BEGINNING CONSTRUCTION.
7. ALL EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS. CONTRACTOR MUST DIG TEST PITS AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.
8. PUBLIC WATER AND SEWER TO BE UTILIZED.
9. INSTALLATION OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL".
10. HANDICAP PARKING DETAILS SHALL BE IN ACCORDANCE WITH THE "MARYLAND BUILDING CODE FOR THE HANDICAPPED", SECTION 5.01-7.05.
11. ALL DRIVEWAYS AND PARKING TO BE OWNED AND MAINTAINED BY HOWARD COUNTY BOARD OF EDUCATION.
12. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
13. ALL SIDEWALKS SHALL BE CROSS SLOPED AT 1/4"/FT. AWAY FROM THE BUILDING UNLESS OTHERWISE INDICATED.
14. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01, CLASS 'C' BEDDING.
15. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS.
16. MAXIMUM PROPOSED GRADED SLOPE SHALL BE 3:1.
17. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS, DETAILS AND EXACT LOCATION OF SCREENING WALLS; CONCRETE PADS; FENCE ENCLOSURES; LANDINGS AND STEPS; PLAY COURTS; BIKE RACK; FLAG POLE

REVISION		
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION.	1/22/04
No.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 8' MACADAM WALK, 4" SEWER & REVISE STORM DRAIN FOR 'M-27' TO 'I-24'	7/17/03

2 1/22/04 FISHER COLLINS & CARTER INC. 1 7/17/03

3	Extended Sidewalk to Playcourt	4-24-92
2	Rev. alignment & grading of 6" Sewer	4-8-92
1	Rev. Service Yard Openings & Added Backstop Bench Areas	4-8-92
No	REVISION	Date

ADDRESS CHART				
PARCEL No	STREET ADDRESS			
"A"	6168 MONTGOMERY ROAD			
SUBDIVISION NAME: PARCEL "A" NORTHEASTERN ELEMENTARY SCH.		SECT / AREA NA	Parcel No. 235	
Plat Ref or L/F 10960	Block No	Zone R-20	Tax/Zone Map 31	Elec. Dist 1ST
Water Code D-04		Sewer Code 2153800		Census Tr. 6011.01

STATE OF MARYLAND G. SHELDON CLARK No. 7139 REGISTERED PROFESSIONAL ENGINEER 4-8-92

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

COUNTY HEALTH OFFICER — DATE 4-29-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 4/23/92

CHIEF BUREAU OF ENGINEERING — DATE 4-23-92

PLAN REVISION NOTE: ON OR ABOUT 11/3/16 CAPITAL PROJECT D-158, TITLED ROCKBURN BRANCH PARK STREAM RESTORATION PROJECT, WAS CREATED TO GRADE AND STABILIZE THE EXISTING STREAM BANKS ALONG A ROCKBURN BRANCH TRIBUTARY ILLUSTRATED WITHIN THE LIMITS OF THIS SITE PLAN. AN ALTERNATIVE COMPLIANCE WAS PROCESSED THROUGH THE DEPT. OF PLANNING AND ZONING UNDER WP-17-015 APPROVED ON 9/14/16 TO WAIVE SUBSECTION 16.155(a)(1)(iii) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SUBJECT TO SDC APPROVAL CONDITIONS. SEE D-158 FOR DETAILED CONDITIONS OF APPROVAL AND CURRENT SITE CONDITIONS.

FRONT BUILDING ELEVATION

NO SCALE

No.	Revision	Date
6	Add building addition; paved play area; Sewer manhole & sewer line.	3-30-06

REVISION 3 & 4 ADD COURTS AND PARKING AREA

STATE OF MARYLAND CHARLES W. MOORE No. 15206 REGISTERED PROFESSIONAL ENGINEER

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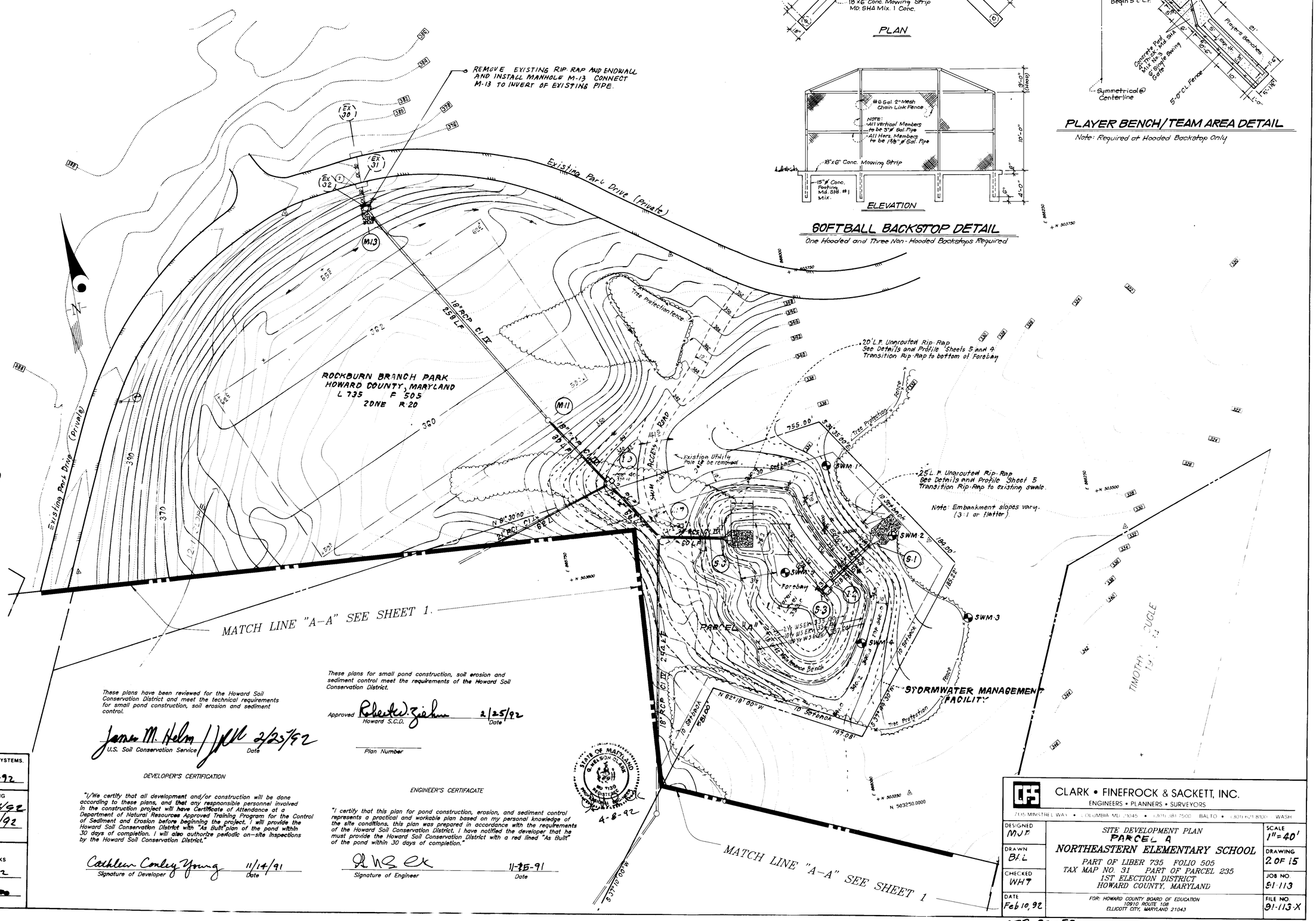
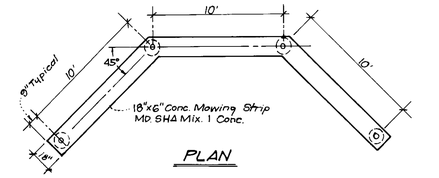
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 — BALTO. • (301) 621-8100 — WASH.

DESIGNED MJP	SITE DEVELOPMENT PLAN PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	SCALE 1" = 40'
DRAWN BAL	TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 1 OF 15
CHECKED WHT		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113X

SDP-92-58

No.	REVISIONS	Date
1	Added Backstop & Bench Detail	4-8-92



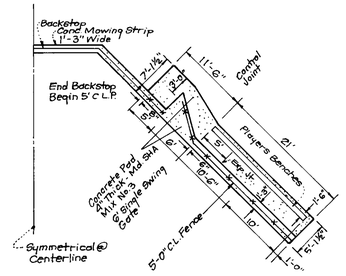


PLAN

ELEVATION

SOFTBALL BACKSTOP DETAIL

One Hooded and Three Non-Hooded Backstops Required



PLAYER BENCH/TEAM AREA DETAIL

Note: Required at Hooded Backstop Only

For SWM As-Built by CF&S, Inc.
Jeffrey J. Schmuck 2/19/94

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.

James M. Helm 2/23/92
U.S. Soil Conservation Service — Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Approved Robert W. Zielke 2/25/92
Howard S.C.D. — Date

Plan Number

DEVELOPER'S CERTIFICATION

"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 Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with "As Built" plan of the pond within 30 days of completion. I will also authorize periodic on-site inspections by the Howard Soil Conservation District."

Cathleen Conley Young 11/14/91
Signature of Developer — Date

ENGINEER'S CERTIFACATE

"I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions, this plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red lined "As Built" of the pond within 30 days of completion."

11-25-91
Signature of Engineer — Date

STATE OF MARYLAND — G. NELSON DOLOR — No. 7130 — REGISTERED PROFESSIONAL ENGINEER
4-8-92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 4-29-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 4/23/92
CHIEF BUREAU OF ENGINEERING — DATE 4/22/92

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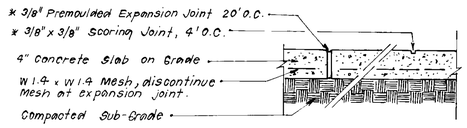
7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 BALTO • (301) 621-8100 WASH

DESIGNED MJE	SITE DEVELOPMENT PLAN PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	SCALE 1"=40'
DRAWN BLL	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 2 OF 15
CHECKED WHT		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

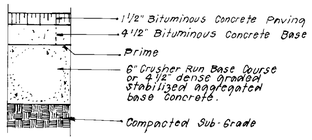
SDP 92-58



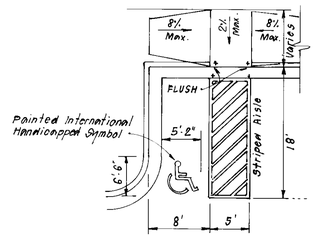
CONCRETE WALKS

NO SCALE

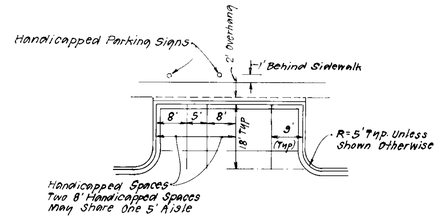
* NOTE: Use this expansion joint/scoring pattern, unless otherwise shown on plans.



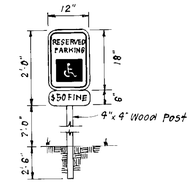
ASPHALT PAVING (P-1)
ENTRANCE DRIVE, PARKING & PLAY AREA



HANDICAPPED RAMP AND SPACE LAYOUT

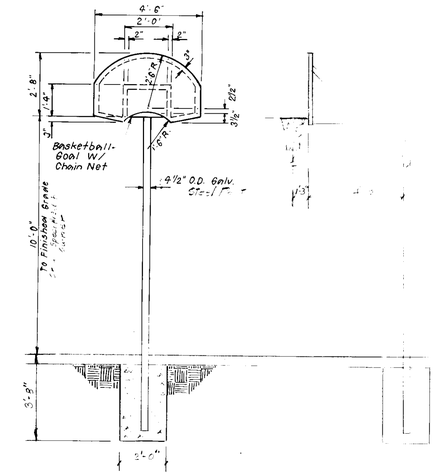


TYPICAL PARKING



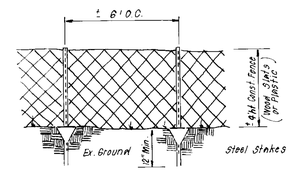
HANDICAPPED PARKING SIGN DETAIL

NO SCALE

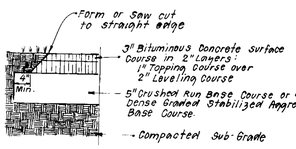


FAN-SHAPED BASKETBALL BACKBOARD

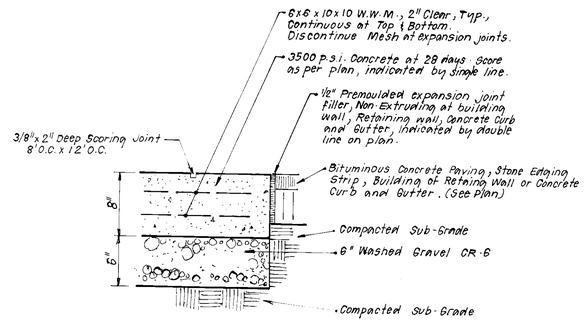
NO SCALE



TYPICAL TREE PROTECTION FENCE DETAIL

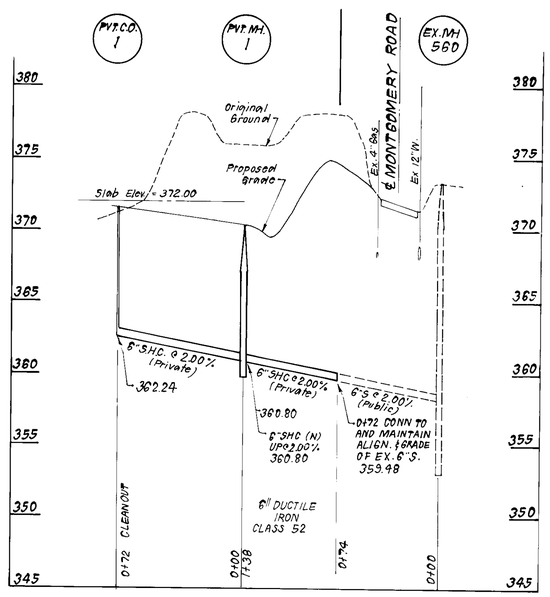


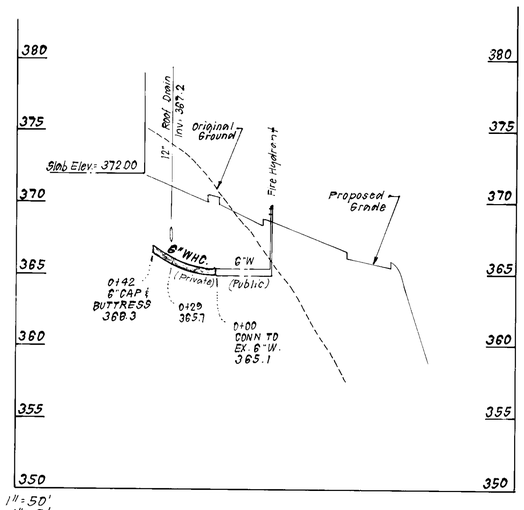
ASPHALT PAVING - WALKING PATHS, PLAY AREA (P-1)



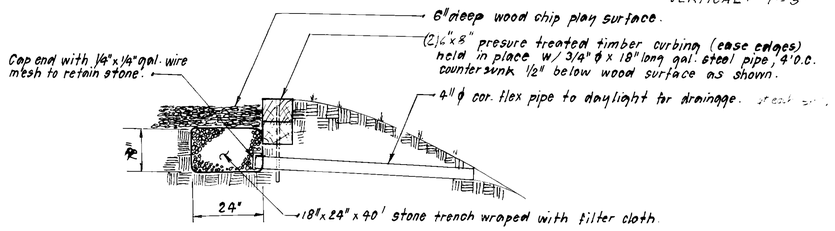
SERVICE YARD & PADS
HEAVY DUTY CONCRETE PAVING

NO SCALE





PROFILE SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



"SOFT SURFACE" EDGING & DRAINAGE DETAIL

NO SCALE

WATER AND SEWER NOTES:

1. All construction methods and materials for on-site private water and sewer systems shall follow the current edition of the Howard County Plumbing Code, supplemented by the Howard County Standard Details and Specifications where necessary.
2. Area where water house connection is being built shall be at final grade and connection shall be laid with a minimum of 3.5 feet of cover. Water house connection shall be 6-inch diameter, Ductile Iron, Class 52.
3. 6-inch sewer house connection shall be built within 5 feet of building at a slope of 2.0% unless shown otherwise. 6-inch P.V.C. pipe shall meet requirements of A.S.T.M. D 3034, wall thickness classification SDR-35.
4. Where sewer house connection is to be extended from public connection, the material shall be the same as the public sewer.

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

COUNTY HEALTH OFFICER	DATE 4-29-92

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR	DATE 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	DATE 7/14/92

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR	DATE 4/23/92
CHIEF BUREAU OF ENGINEERING	DATE 4-23-92

No	REVISIONS	Date
1	Revise alignment and grade of 6" Sewer	4-8-92

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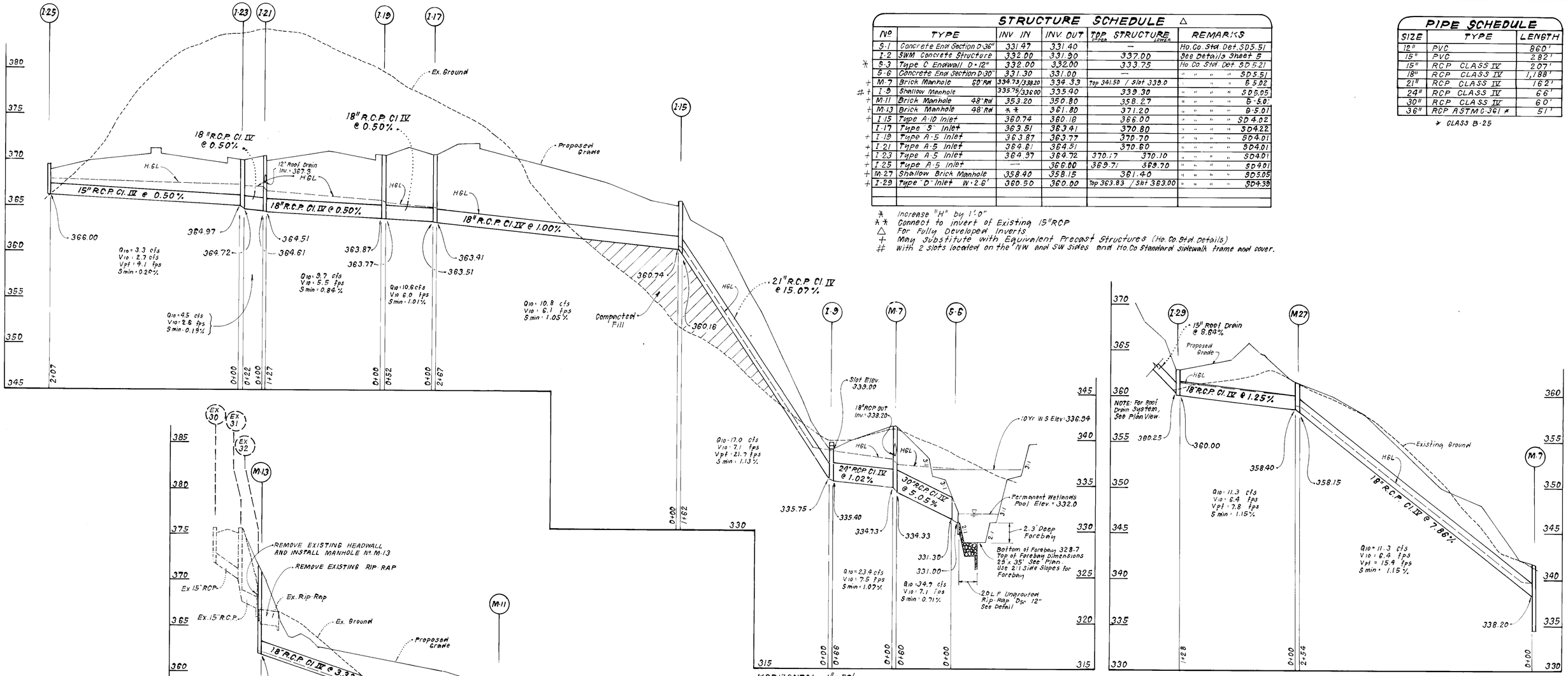
ENGINEERS • PLANNERS • SURVEYORS
716 MINSTREL WAY • COLUMBIA, MD. 21045 • 410-997-0296 • BALTO. • 410-461-2855 • WASH.

DESIGNED JTR	WATER AND SEWER PROFILES AND PAVING DETAILS	SCALE AS SHOWN
DRAWN JTR	NORTHEASTERN ELEMENTARY SCHOOL	DRAWING 3 OF 15
CHECKED	PARCEL A PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

4-8-92

SDP 92-58



STRUCTURE SCHEDULE △

	Nº	TYPE	INV. IN	INV. OUT	TOP STRUCTURE (Upper / Lower)	REMARKS
	S-1	Concrete End Section D=36"	331.47	331.40	—	Ho. Co. Std. Det. SD5.51
	I-2	SWM Concrete Structure	332.00	331.90	337.00	See Details Sheet 5
*	S-3	Type C Endwall D=12"	332.00	332.00	333.75	Ho. Co. Std. Det. SD5.21
	S-6	Concrete End Section D=30"	331.30	331.00	—	" " " " SD5.51
+	M-7	Brick Manhole 60" Rd	334.73/338.20	334.33	Top 341.50 / Slot 339.0	" " " " B-5.02
# +	I-9	Shallow Manhole	335.75/336.00	335.40	339.30	" " " " SD5.05
+	M-11	Brick Manhole 48" Rd	353.20	350.80	358.27	" " " " B-5.01
+	M-13	Brick Manhole 48" Rd	**	361.80	371.20	" " " " B-5.01
+	I-15	Type A-10 Inlet	360.74	360.18	366.00	" " " " SD4.02
	I-17	Type "S" Inlet	363.51	363.41	370.80	" " " " SD4.22
+	I-19	Type A-5 Inlet	363.87	363.77	370.70	" " " " SD4.01
+	I-21	Type A-5 Inlet	364.61	364.51	370.60	" " " " SD4.01
+	I-23	Type A-5 Inlet	364.97	364.72	370.17 / 370.10	" " " " SD4.01
+	I-25	Type A-5 Inlet	—	366.00	369.71 / 369.70	" " " " SD4.01
+	M-27	Shallow Brick Manhole	358.40	358.15	361.40	" " " " SD5.05
+	I-29	Type "D" Inlet W=2.6'	360.50	360.00	Top 363.83 / Slot 363.00	" " " " SD4.39

* Increase "H" by 1'-0"
** Connect to invert of Existing 15" RCP
△ For Fully Developed Inverts
\+ May Substitute with Equivalent Precast Structures (Ho. Co. Std. Details)
\# With 2 slots located on the NW and SW sides and Ho. Co. Standard sidewalk frame and cover.

PIPE SCHEDULE

SIZE	TYPE	LENGTH
12"	PVC	860'
15"	PVC	282'
15"	RCP CLASS IV	207'
18"	RCP CLASS IV	1,188'
21"	RCP CLASS IV	162'
24"	RCP CLASS IV	66'
30"	RCP CLASS IV	60'
36"	RCP ASTM C-361 *	51'

* CLASS B-25

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Cathleen Conley Young 11/14/91
Signature Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 3.2.92
CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature — Date 2/25/92
US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Approved 2/25/92

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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 11-15-91

STATE OF MARYLAND — GARY BOWIE — No. 11788 — REGISTERED PROFESSIONAL ENGINEER
11-15-91

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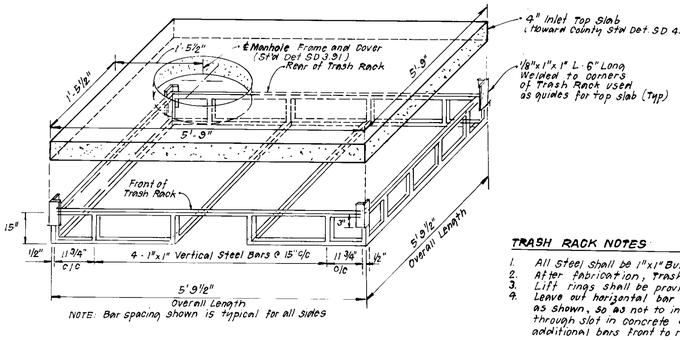
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED CVH	STORM DRAINAGE PROFILES PARCEL A NORTHEASTERN ELEMENTARY SCHOOL PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
DRAWN JTR		DRAWING 4 OF 15
CHECKED CVH		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

SDP 92-58



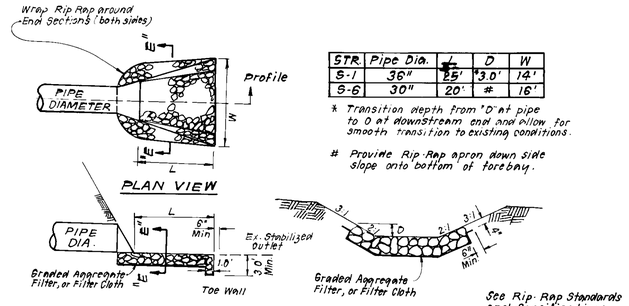
TRASH RACK DETAIL

STR. Nº I-2

NO SCALE

TRASH RACK NOTES

1. All Steel shall be 1"x1" Butt Welded to form Trash Rack.
2. After fabrication, Trash Rack shall be galvanized.
3. Lift rings shall be provided at each corner of 4" Top Slab.
4. Leave out horizontal bar only on front of Trash Rack as shown, so as not to interfere with flow of water through slot in concrete structure below. Also, place additional bars front to rear of Trash Rack as shown.



STR.	Pipe Dia.	L	D	W
S-1	36"	25'	*3.0'	14'
S-6	30"	20'	#	16'

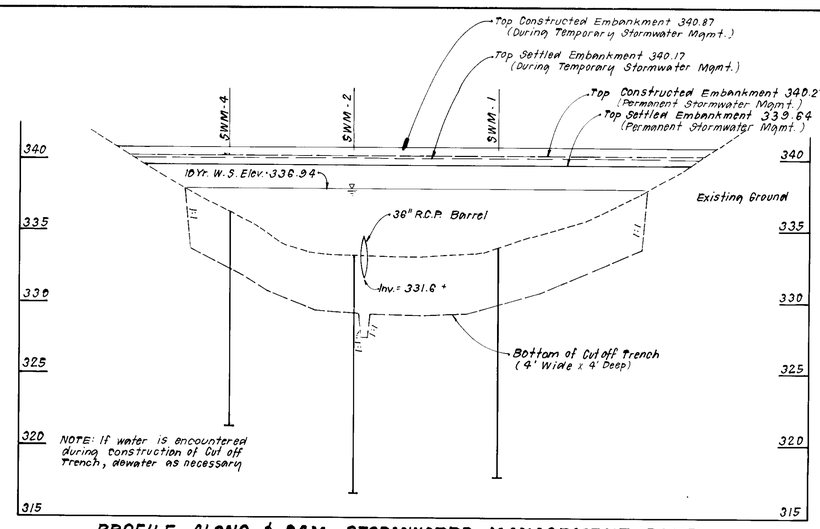
* Transition depth from "D" at pipe to 0 at downstream end and allow for smooth transition to existing conditions.

\# Provide Rip-Rap apron down side slope onto bottom of forebay.

UNGROUTED RIP-RAP DETAIL

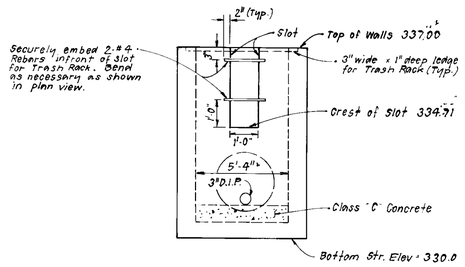
OUTFALL STRUCTURES S-1 & S-6

NO SCALE



PROFILE ALONG ℄ DAM - STORMWATER MANAGEMENT POND

SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

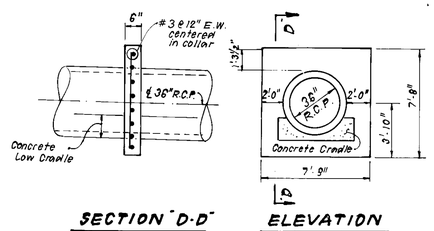


FRONT VIEW

(WITHOUT TRASH RACK & TOP SLAB)

ANTI-SEEP COLLAR NOTES:

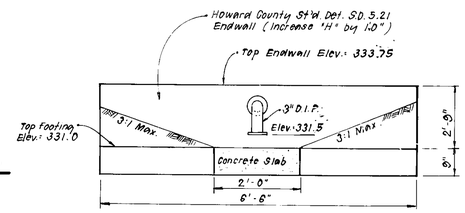
1. f'c = 3,000 p.s.i.
2. Pour Collar with pipe in place.
3. Edges do not have to be chamfered.
4. Backfill evenly on both sides of collars.
5. Locate collar a min. of 2' from joints.



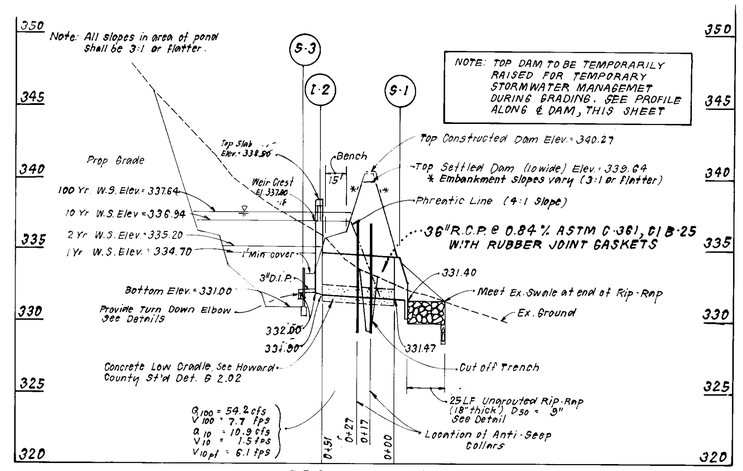
SECTION "D-D" ELEVATION

ANTI-SEEP COLLAR DETAIL

NO SCALE

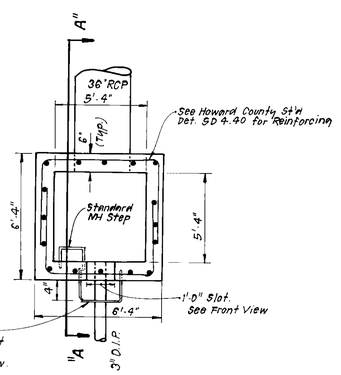


SECTION "C-C"



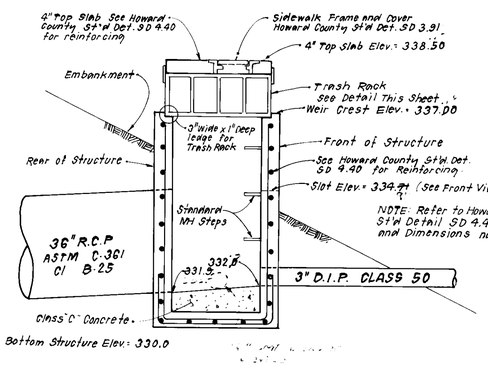
PROFILE - STORMWATER MANAGEMENT POND

SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



PLAN VIEW

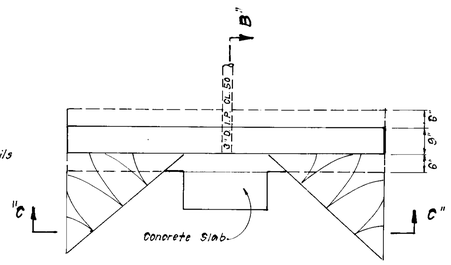
(BELOW TRASH RACK AND TOP SLAB)



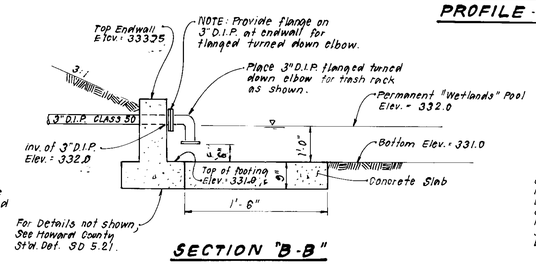
SECTION "A-A"

STRUCTURE Nº I-2 DETAILS

NO SCALE



PLAN VIEW



SECTION "B-B"

STRUCTURE Nº S-3 DETAILS

NO SCALE

DEVELOPER'S CERTIFICATION

"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 Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with "As Built" plan of the pond within 30 days of completion. I will also authorize periodic on-site inspections by the Howard Soil Conservation District."

Cathleen Conley Young — Signature of Developer — 11/14/91 — Date

Jeffrey T. Schaefer 2/14/92 SUPR For AS-BUILT by CFS Inc.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 3.2.92
CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

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. Soil Conservation Service — Date 2/25/92

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Approved Howard S.C.D. — Date 2/25/92

Plan Number

ENGINEER'S CERTIFACATE

"I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. this plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red lined "As Built" of the pond within 30 days of completion."

Signature of Engineer — Date 11-15-91

11-15-91

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ENGINEERS • PLANNERS • SURVEYORS
7115 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 • BALTO • (410) 997-8900 • WASH

DESIGNED RJS	STORMWATER MANAGEMENT DETAILS PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	SCALE AS SHOWN
DRAWN JTR	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 5 OF 15
CHECKED RJS		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO 91-113-X

SDP 92-58

CONSTRUCTION SPECIFICATIONS FOR S.W.M. PONDS

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 location 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 - Areas 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 into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread 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:

1. 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, Plasti-Cote, Blac-Klad, and Beth-Cu-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.

   Materials - (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.

2. 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.

3. 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 and 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 48" 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 48" 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.

4. 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.

5. Backfilling shall conform to "Structure Backfill."

6. 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:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C 302.

2. 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.

3. 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.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

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

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D 2241.

2. Joints and connections to anti seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one-third the greatest dimension of the fragment.

The rock shall have the following properties:

1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
2. Absorption not more than three percent.
3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be 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

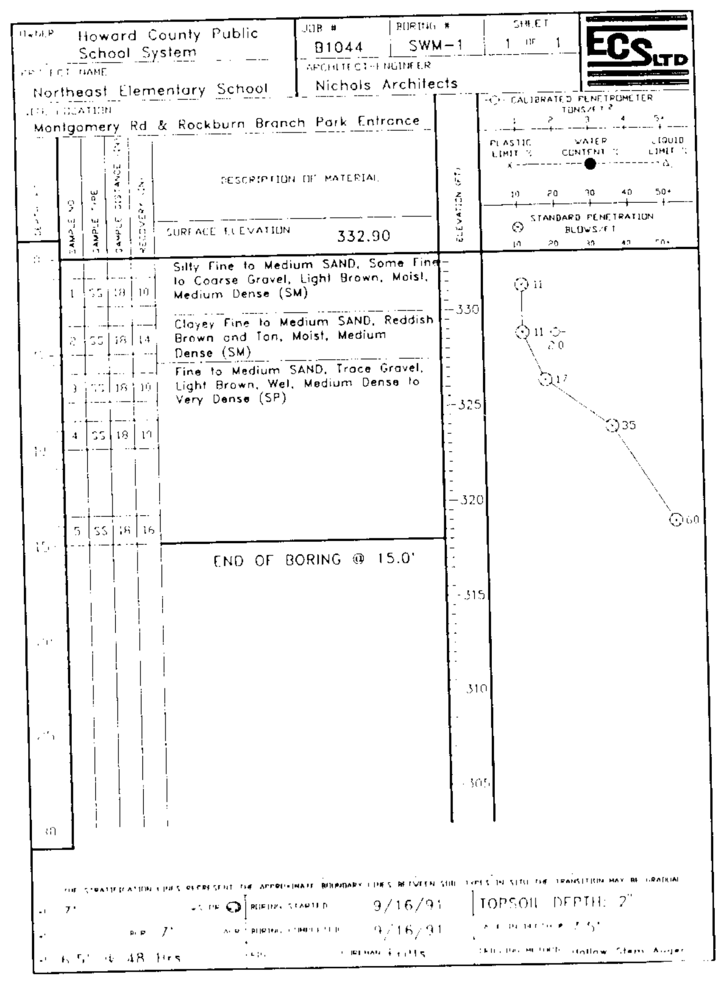
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also 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 a 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.

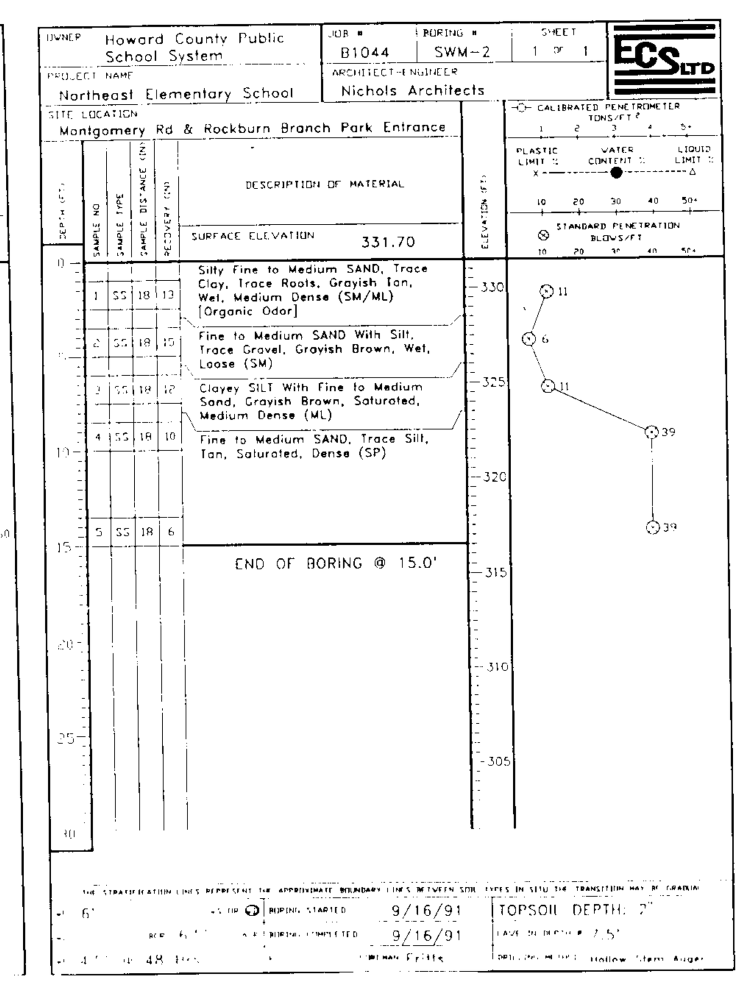
Stabilization

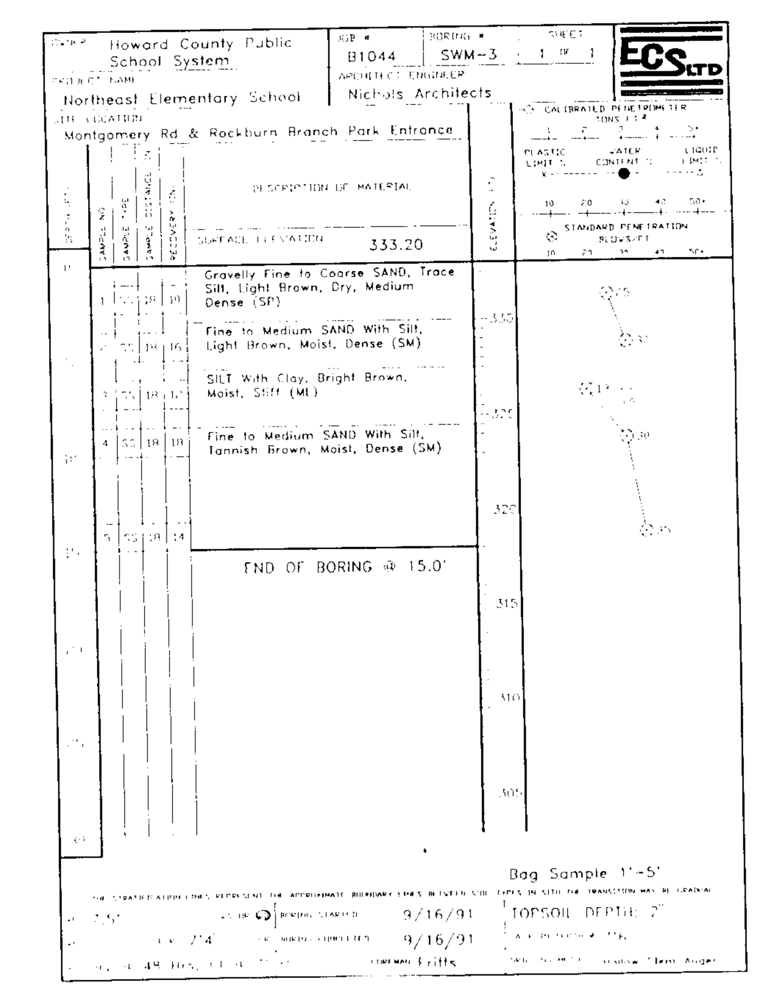
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

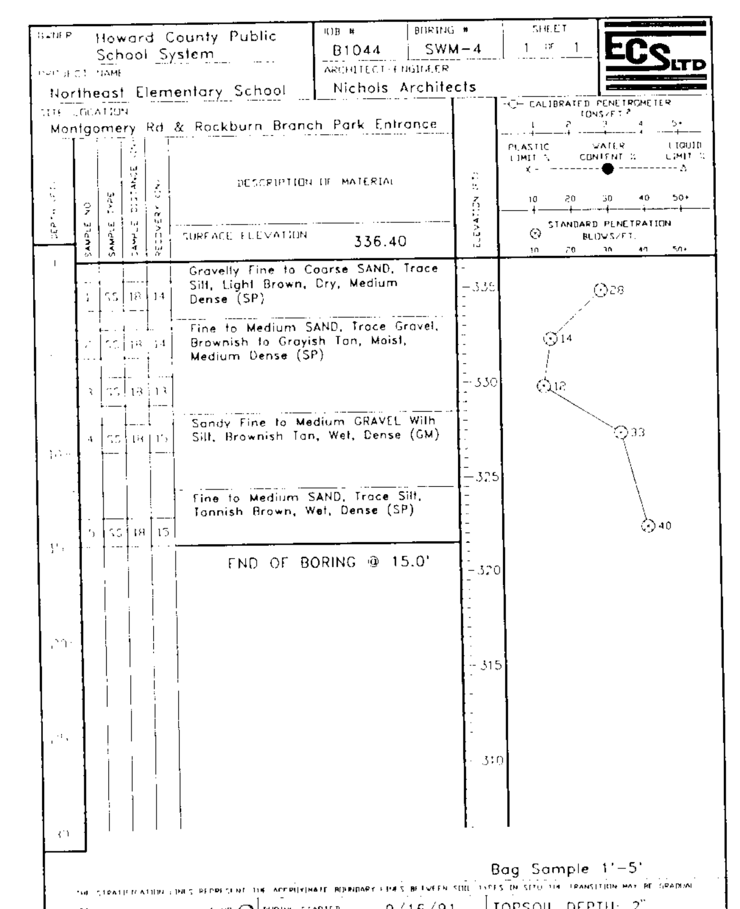
Erosion and Sediment Control

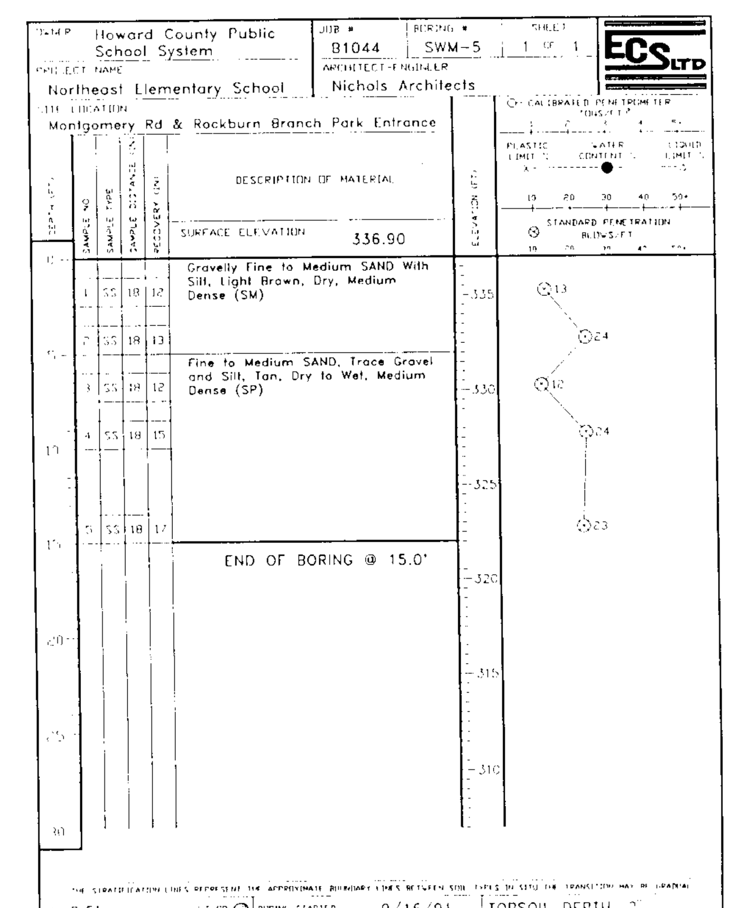
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.











SOIL BORINGS

NOTE See Soils Report by Engineering Consultanting Services, Ltd. dated October 7, 1991.

DEVELOPER'S CERTIFICATION

"I/We certify that all development and/or construction will be done according to these plans, and that any respnonsible personnel involved in the construction project will have Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with "As Built" plan of the pond within 30 days of completion. I will also authorize periodic on-site inspections by the Howard Soil Conservation District."

Cathleen Conley Young — 11/14/91
Signature of Developer — Date

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

[signature] 3-6-92
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY DEPT OF PLANNING & ZONING

[signature] 7/14/92
DIRECTOR — DATE

[signature] 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] 3/2/92
DIRECTOR — DATE

[signature] 3-2-92
CHIEF BUREAU OF ENGINEERING — 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.

[signature] 2/25/92
U.S. Soil Conservation Service — Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Approved [signature] 2/25/92
Howard S.C.D. — Date

Plan Number

ENGINEER'S CERTIFACATE

"I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. this plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red lined "As Built" of the pond within 30 days of completion."

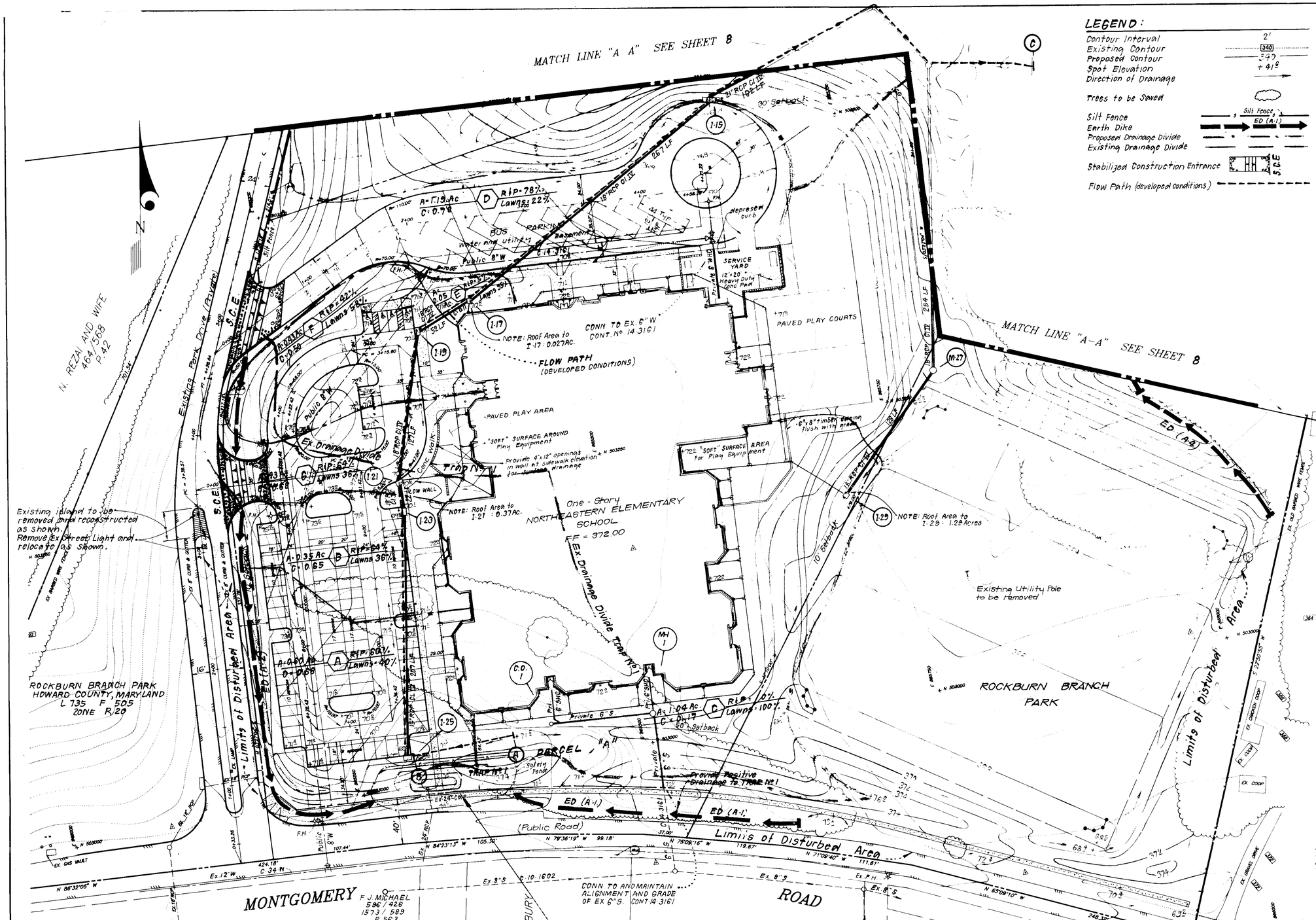
[signature] 12-3-91
Signature of Engineer — Date

STATE OF MARYLAND — G. NELSON CLARK — No. 7139 — REGISTERED — 12-3-91

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH

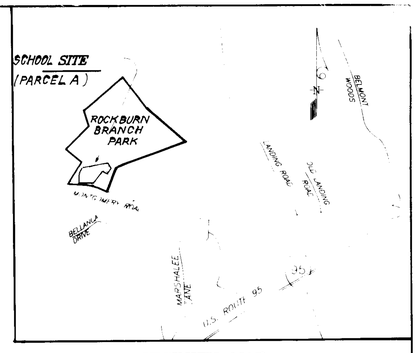
DESIGNED R.J.S.	STORMWATER MANAGEMENT NOTES AND SOIL BORING INFORMATION	SCALE AS SHOWN
DRAWN J.T.R.	PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	DRAWING 6 OF 15
CHECKED R.J.S.	PART OF LIBER 735 FOLIO 505, TAX MAP NO. 31 PART OF PARCEL 235, 1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION, 10910 ROUTE 108, ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

SDP. 92-58



LEGEND:

Contour Interval	2'
Existing Contour	360
Proposed Contour	347
Spot Elevation	+ 41.2
Direction of Drainage	
Trees to be Saved	
Silt Fence	Silt Fence
Earth Dike	ED (A-1)
Proposed Drainage Divide	
Existing Drainage Divide	
Stabilized Construction Entrance	S.C.E.
Flow Path (developed conditions)	



VICINITY MAP

SCALE: 1"=2000'

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature 2/25/92 Date
US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Approved 2/25/92

TRAP Nº 1 (P.O.S.T.) ST-1

Drainage Area	2.3 Acres
Storage Required	4140 cf
Storage Provided	6000 cf
Weir Crest Elev.	387.0
Cleanout Elev.	364.5
Bottom Elev.	362.0
Depth	4.0
* Riser Dia.	24"
Bottom Dimension	35' x 8'
Side Slopes	2:1 Max.

* NOTE: Riser to be connected to Ex 24" CMP Ex Inv Elev. 361.1

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

COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/18/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-6-92

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Signature — Date 11/18/91

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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 11-15-91

STATE OF MARYLAND — 11-15-91

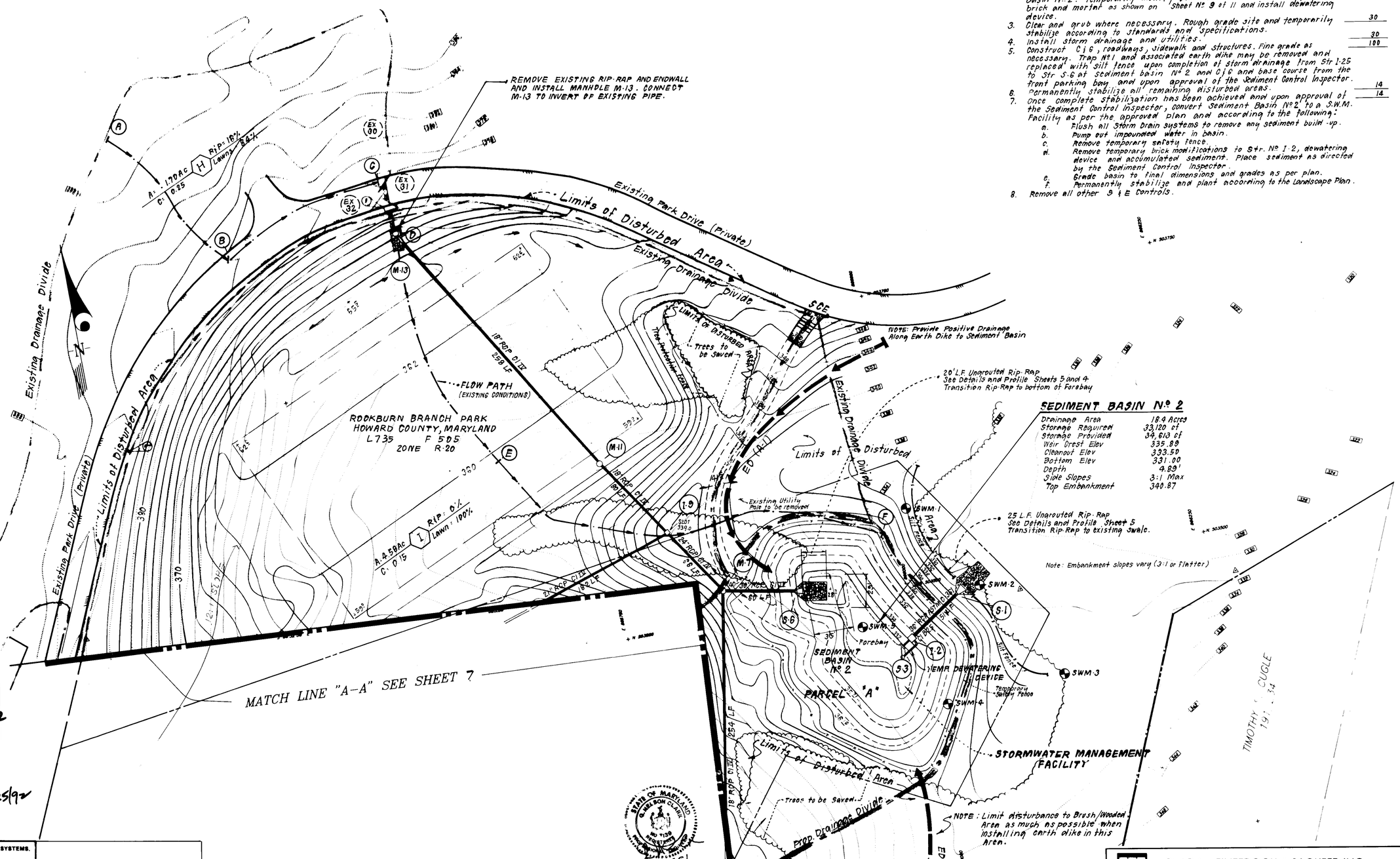
CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 BALTO • (301) 621-8100 – WASH

DESIGNED D.G.T.	SEDIMENT AND EROSION CONTROL PLAN AND DRAINAGE AREA MAP NORTHEASTERN ELEMENTARY SCHOOL PARCEL A TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=40'
DRAWN JTR		DRAWING 7 OF 15
CHECKED DGT		JOB NO. 91-113
DATE NOV. 1991	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-S,E

SDP 92-58

CONSTRUCTION SEQUENCE:

	NUMBER OF DAYS
1. Obtain grading permit.	7
2. Install sediment and erosion controls including Trap Nº 1, Sediment Basin Nº 2, earth dike, silt fence and stabilized construction entrance. Construct S.W.M. pond, riser, barrel and outfall for use as Sediment Basin Nº 2. Temporarily modify Structure Nº I 2 with temporary brick and mortar as shown on Sheet Nº 9 of 11 and install dewatering device.	14
3. Clear and grub where necessary. Rough grade site and temporarily stabilize according to standards and specifications.	30
4. Install storm drainage and utilities.	30
5. Construct C & G, roadways, sidewalk and structures. Fine grade as necessary. Trap Nº 1 and associated earth dike may be removed and replaced with silt fence upon completion of storm drainage from Str 1-25 to Str S-6 at sediment basin Nº 2 and C & G and base course from the front parking bay and upon approval of the Sediment Control Inspector.	100
6. Permanently stabilize all remaining disturbed areas.	14
7. Once complete stabilization has been achieved and upon approval of the Sediment Control Inspector, convert Sediment Basin Nº 2 to a S.W.M. Facility as per the approved plan and according to the following:	14
a. Flush all Storm Drain systems to remove any sediment build-up.	
b. Pump out impounded water in basin.	
c. Remove temporary safety fence.	
d. Remove temporary brick modifications to Str. Nº I 2, dewatering device and accumulated sediment. Place sediment as directed by the Sediment Control Inspector.	
e. Grade basin to final dimensions and grades as per plan.	
f. Permanently stabilize and plant according to the Landscape Plan.	
8. Remove all other S & E Controls.	



SEDIMENT BASIN Nº 2

Drainage Area	18.4 Acres
Storage Required	33,120 cf
Storage Provided	34,613 cf
Weir Crest Elev	335.89
Cleanout Elev	333.50
Bottom Elev	331.00
Depth	4.89'
Side Slopes	3:1 Max
Top Embankment	340.87

Reviewed for HOWARD S.C.D. and meets Technical Requirements

Signature — Date

US Soil Conservation Service

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

Approved 2/25/92

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

COUNTY HEALTH OFFICER — DATE 3/6/92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF, BUREAU OF ENGINEERING — DATE 3-2-92

STATE OF MARYLAND — G. MELSON CLARK — No. 7139 — REGISTERED PROFESSIONAL ENGINEER — 11-15-91

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Cathleen Conley Young — 11/14/91

Signature — Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

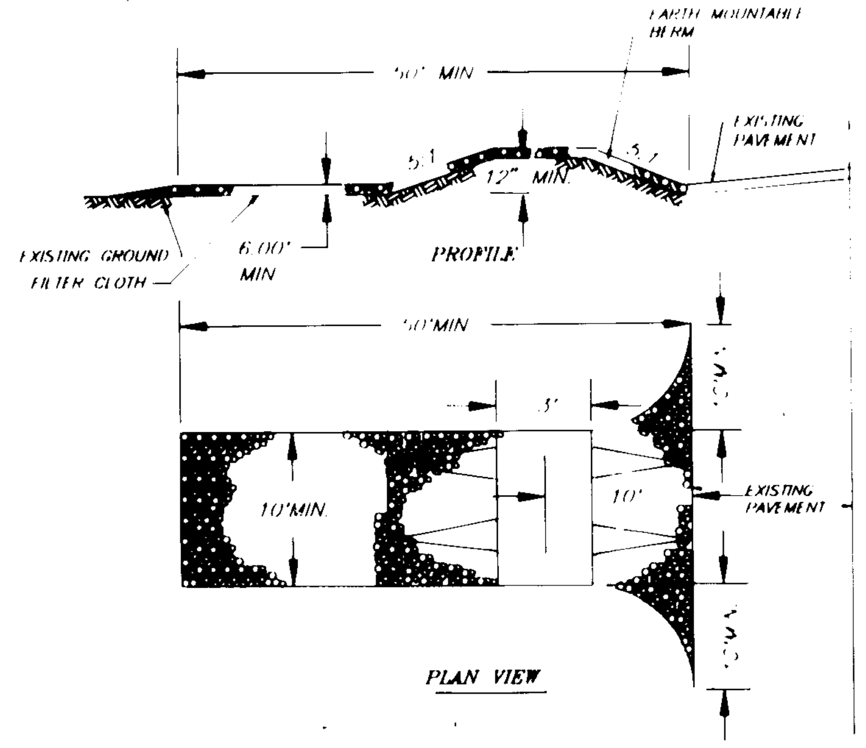
11-15-91

Signature — Date

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 BALTO • (301) 621-8100 WASH

DESIGNED DGT	SEDIMENT AND EROSION CONTROL PLAN AND DRAINAGE AREA MAP	SCALE 1"=40'
DRAWN JTR	NORTHEASTERN ELEMENTARY SCHOOL PARCEL A	DRAWING 8 OF 15
CHECKED DGT	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-SIE

SDP 92-58



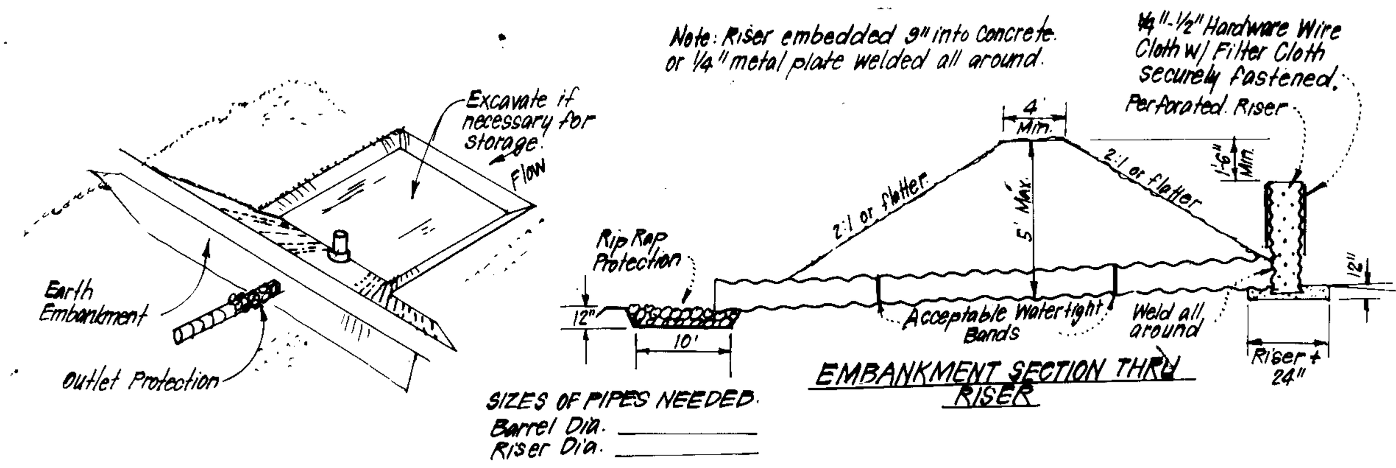
STANDARD SYMBOL:

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE: USE 2" STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH: AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS: NOT LESS THAN SIX (6) INCHES.
4. WIDTH: TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH: WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE.
6. SURFACE WATER: ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING: WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL.

STABILIZED CONSTRUCTION ENTRANCE (SCE)

NO SCALE



SIZES OF PIPES NEEDED
Barrel Dia. ______
Riser Dia. ______

CONSTRUCTION SPECIFICATIONS:

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material, or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. Volume of sediment storage shall be 1800 cubic feet per acre of contributory drainage.
4. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
5. The structure shall be inspected after each rain and repairs made as needed.
6. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
7. The structure shall be removed and area stabilized when the drainage area has been properly stabilized.
8. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
9. All pipe connections shall be watertight.
10. The top 2/3 of the riser shall be perforated with 1" diameter holes or slits spaced 6" vertically and horizontally and placed in the concave portion of pipe. No holes will be allowed within 6" of the horizontal barrel.
11. The riser shall be wrapped with 1/4" to 1/2" hardware cloth wire then wrapped with filter cloth (having an equivalent sieve size of 40-80). The filter cloth shall extend 6" above the highest hole and 6" below the lowest hole. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent bypass.
12. Straps or connecting bands shall be used to hold the filter cloth and wire fabric in place. They shall be placed at the top and bottom of the cloth.
13. Fill material around the pipe spillway shall be hand compacted in 4" layers. A min. of 2' of hand compacted back fill shall be placed over the pipe spillway before crossing it with construction equipment.
14. The riser shall be anchored with either a concrete base or steel plate base to prevent floatation. For concrete bases the depth shall be 12" with the riser embedded 9". A 1/4" min. thickness steel plate shall be attached to the riser by a continuous weld around the bottom to form a watertight connection and then place 2' of stone, gravel, or tamped earth on the plate.

PIPE OUTLET SEDIMENT TRAP (P.O.S.T.)

NO SCALE

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules.
1) Preferred- Apply 2 tons per acre dolomitic limestone (92 lbs/100 sqft.) 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 the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq.ft.)
2) Acceptable- Apply 2 tons per acre dolomatic limestone (92 lbs/1000 sg ft.) and 1000 lbs per acre 10-10-10- fertilizer (23 lbs./1000 sg ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60lbs 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 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, repalcements and reseedings.

TEMPORARY SEEDING NOTES

SEEDBED PREPARARTION: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: Apply 600 lbs per acre 10-10-10 fertilizer (14lbs/1000 sq ft)

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (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 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.

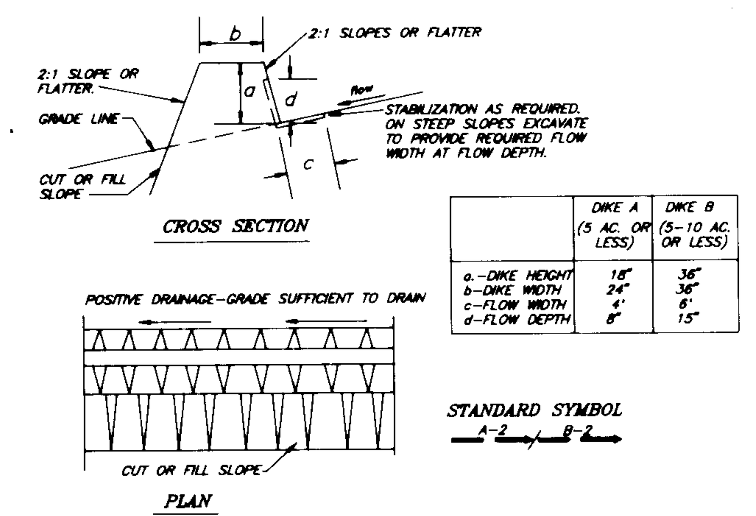
REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT AND EROSION CONTROL NOTES

1. 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. (992 2437)
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPEC'S FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within a) 7 calendar days for all perimeter sediment control stuctures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeters in accordance with Vol 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec.51) sod (Sec.54), temporary seeding (Sec.50) and mulching (Sec 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. SITE ANALYSIS
   - Total Area of Site: 16.7 Ac
   - Area Disturbed: 16.1 Ac
   - Area to be roofed or paved: 3.8
   - Area to be vegetatively stabilized: 12.3
   - Total Cut: 68,000 C.Y.
   - Total Fill: 68,000 C.Y.
   - Offsite Waste/Borrow Area Location: *
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment 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.
11. If houses are to be constructed on an "as sold" basis, at random, Single Family Sediment Control, as shown below shall be implemented.
12. All pipes to be blocked at the end of each day (see detail this sheet).
13. The total amount of silt fence= 210 L.F.

* It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and it's grading permit number at the time of construction.

FOR CONSTRUCTION SEQUENCE, SEE SHEET 8 OF 11



	DIKE A (5 AC. OR LESS)	DIKE B (5-10 AC. OR LESS)
a.-DIKE HEIGHT	18"	36"
b.-DIKE WIDTH	24"	36"
c.-FLOW WIDTH	4'	6'
d.-FLOW DEPTH	8"	15"

STANDARD SYMBOL
A-2 / B-2

CONSTRUCTION SPECIFICATIONS

1. All dikes shall be compacted by earth moving equipment.
2. All dikes shall have positive drainage to an outlet.
3. Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
4. Field location should be adjusted as needed to utilize a stabilized safe outlet.
5. Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
6. Stabilization shall be: (A) In accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) Flow channel as per the chart below.

FLOW CHANNEL STABILIZATION

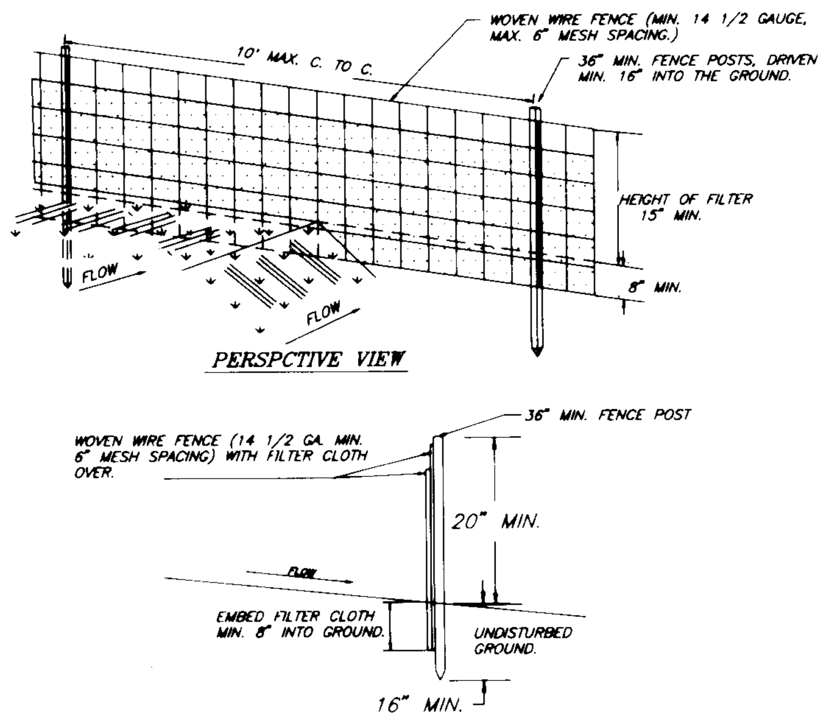
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4"-8"
4	8.1-20%	LINED RIP-RAP 4"-8"	ENGINEERING DESIGN

A. Stone to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3 inches in thickness and be pressed into the soil with construction equipment.
B. Rip Rap to be 4-8 inches in a layer at least 8 inches thick and pressed into the soil.
C. Approved equivalents can be substituted for any of the above materials.

7. Periodic inspection and required maintenance must be provided after each rain event.

EARTH DIKE (ED)

NO SCALE



STANDARD SYMBOL: —S—S—S—

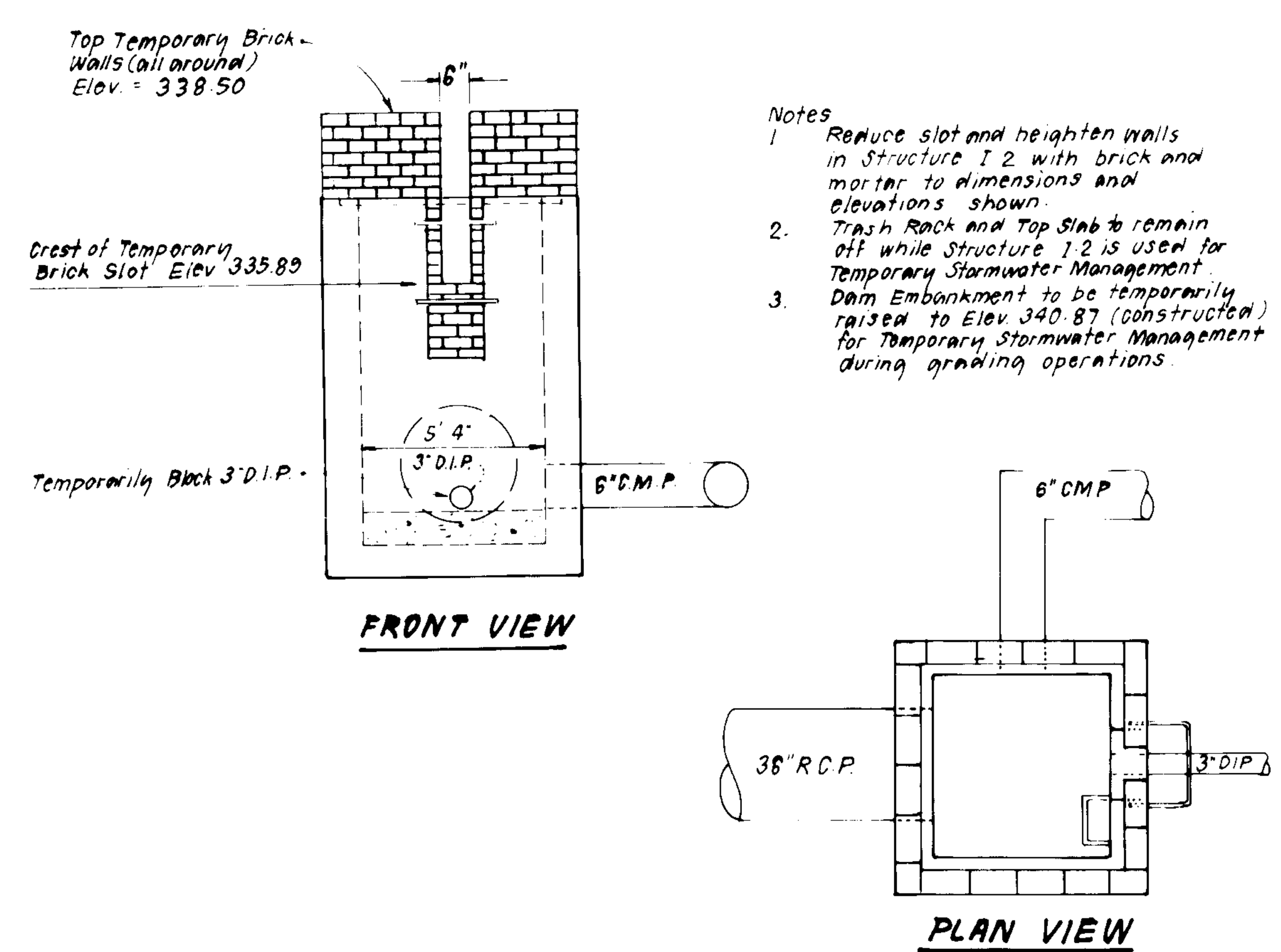
CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD.
FENCE: WOVEN WIRE, 14 GA., 6" MAX. MESH OPENING.
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL.
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE (S)

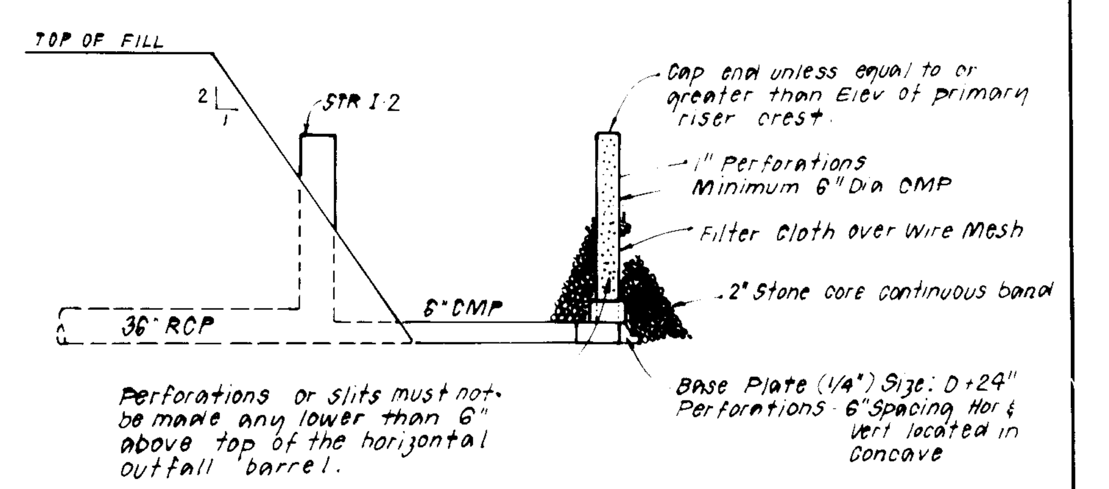
NO SCALE



Notes
1. Reduce slot and heighten walls in Structure I 2 with brick and mortar to dimensions and elevations shown.
2. Trash Rack and Top Slab to remain off while Structure I 2 is used for Temporary Stormwater Management.
3. Dam Embankment to be temporarily raised to Elev. 340.87 (constructed) for Temporary Stormwater Management during grading operations.

ADJUSTMENTS TO STRUCTURE I-2 FOR TEMPORARY SWM AND DEWATER DEVICE

NO SCALE



SEDIMENT BASIN DEWATERING DEVICE WITH 6" PERFORATED RISER

NO SCALE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
[signature] 3-6-92
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[signature] 7/14/92
DIRECTOR — DATE
[signature] 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[signature] 3/2/92
DIRECTOR — DATE
[signature] 3-2-92
CHIEF BUREAU OF ENGINEERING — DATE

Reviewed for HOWARD S.C.D. (Name) and meets Technical Requirements
[signature] 2/25/92
Signature — Date
US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[signature] 2/25/92
Approved

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

[signature] 11/14/91
signature — Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site condtions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

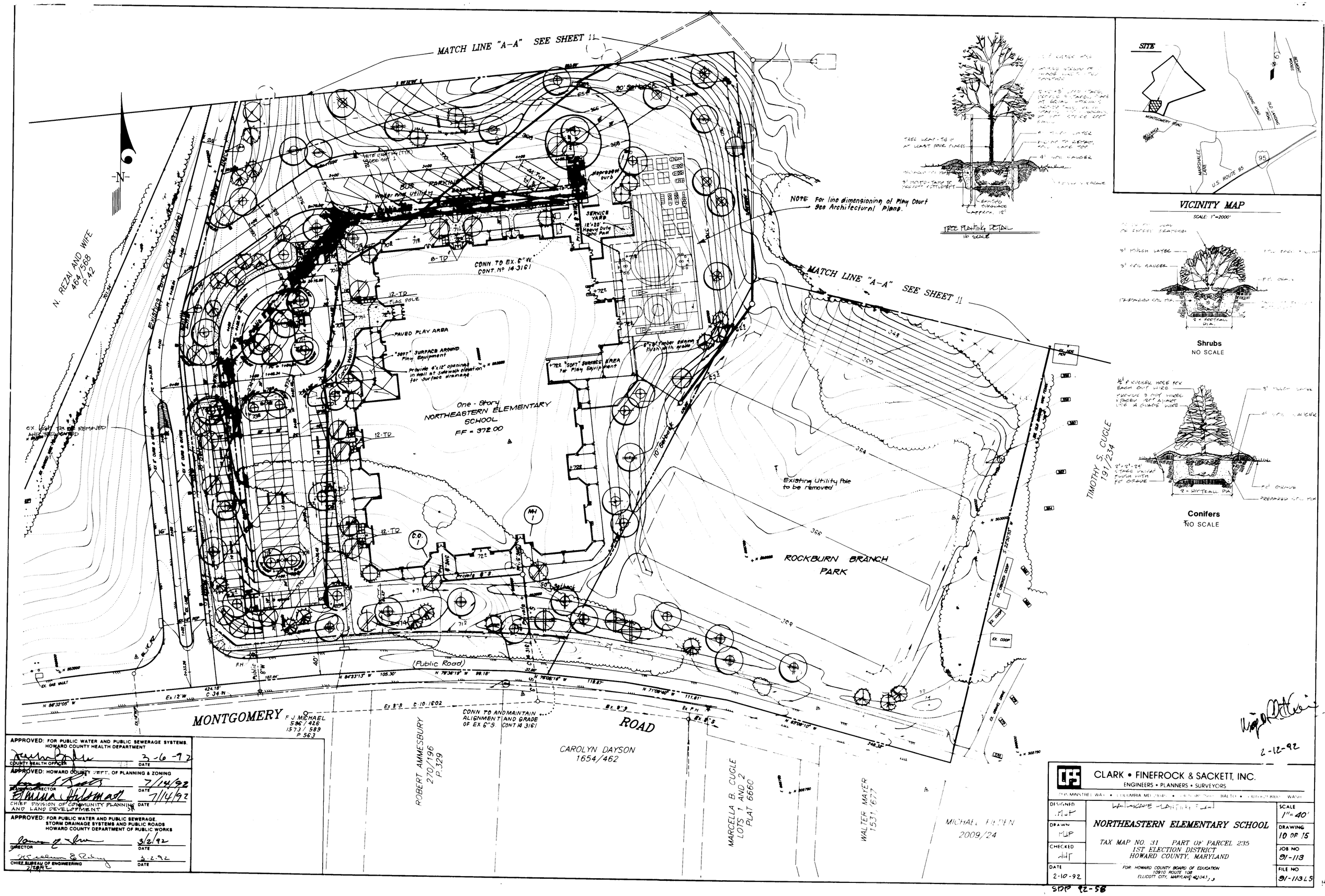
[signature] 11-18-91
Signature — Date

[seal: STATE OF MARYLAND — NELSON — REGISTERED PROFESSIONAL ENGINEER] 11-18-91

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA MD 21045 • (301) 381-7500 BALTO • (301) 621-8100 WASH

DESIGNED DGT	SEDIMENT AND EROSION CONTROL DETAILS PARCEL A NORTHEASTERN ELEMENTARY SCHOOL PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
DRAWN JTR		DRAWING 9 OF 15
CHECKED DGT		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113 S&E

SDP 92-58



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

COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

PLANNING DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

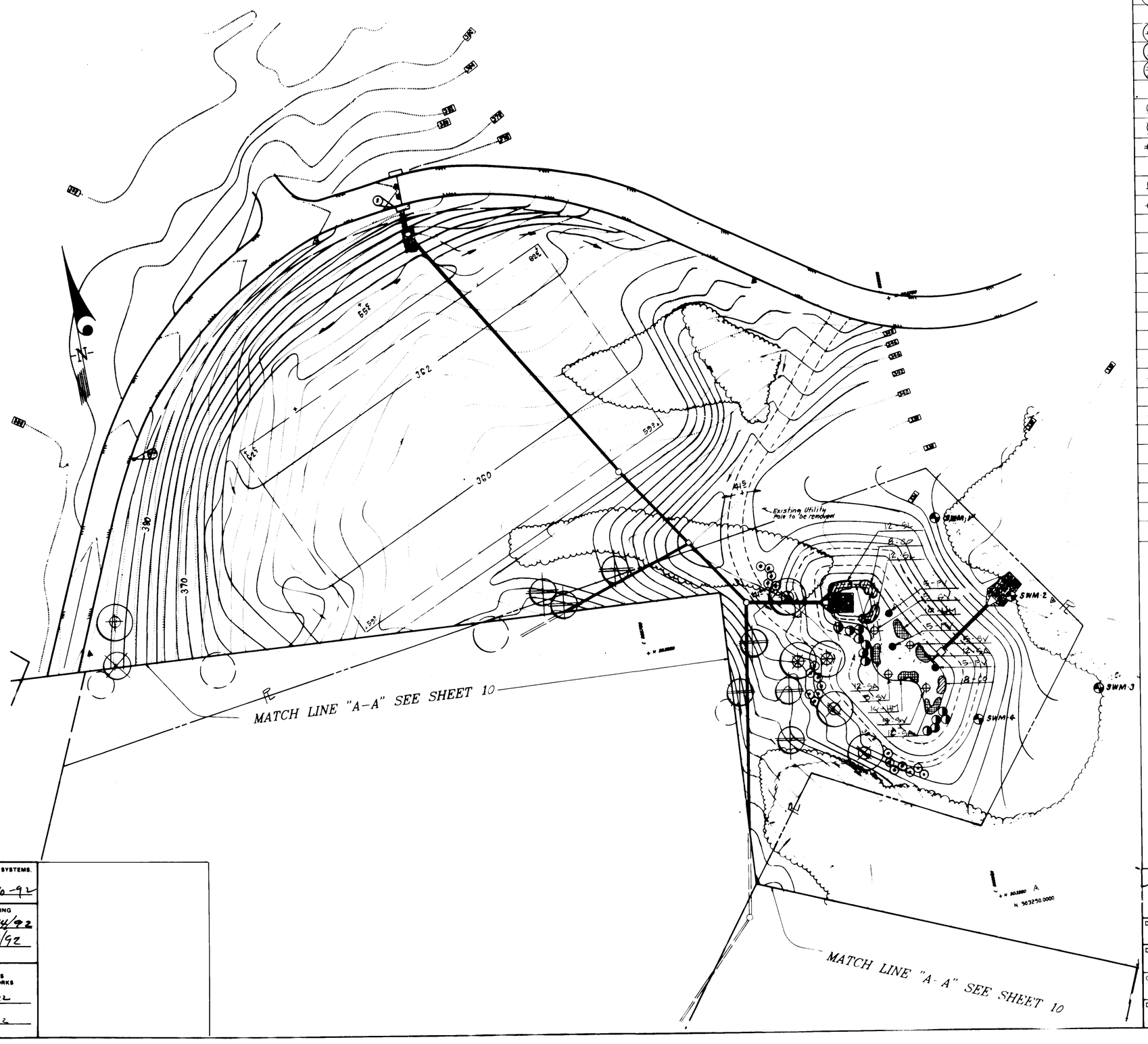
2/28/92

2-12-92

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
[illegible] MINSTREL WAY • COLUMBIA MD [illegible] • [illegible] BALTO • [illegible] WASH

DESIGNED MJP	LANDSCAPE PLANTING PLAN	SCALE 1"=40'
DRAWN MJP	NORTHEASTERN ELEMENTARY SCHOOL	DRAWING 10 OF 15
CHECKED [illegible]	TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 91-113
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO 91-113LS

SDP 92-58



PLANT SCHEDULE

KEY	PLANT TABLE	SIZE	QNTY.	REMARKS
	SHADE TREES			
	ACER RUBRUM 'RED SUNSET' RED SUNSET RED MAPLE	2½" CAL. B&B	24	B&B 15' O.C.
	ACER SACCHARUM 'GREEN MOUNTAIN' GREEN MOUNTAIN SUGAR MAPLE		12	
	TILIA CORDATA 'GREEN VASE' GREEN VASE LINDEN		5	
	ACER RUBRUM RED MAPLE		7	
	NYSSA SYLVATICA SOURGUM	↓	4	
	FLOWERING DECIDUOUS TREES			
	PRUNUS SERRULATA 'KWANZAN' KWANZAN CHERRY	2-2½" CAL. 10-12' HT.	11	
	PRUNUS SUBHIRTELLA 'ROSEY CLOUD' ROSEY CLOUD CHERRY		12	
	BETULA NIGRA RIVER BIRCH	↓	9	
	PRUNUS CERASIFERA 'THUNDERCLOUD' PURPLELEAF FLOWERING PLUM		3	
	PINUS STROBUS EASTERN WHITE PINE	6-8' HT.	20	
	TSUGA CANADENSIS CANADIAN HEMLOCK	↓	9	↓
	SHRUBS			
	CORNUS STOLONIFERA RED-OSIER DOGWOOD	3-4'	12	B&B 6' O.C.
	VIBURNUM PRUNIFOLIUM BLACKHAW VIBURNUM	↓	19	↓
TD	TAXUS BENTHAMIANA DENSE YEW	18-24"	44	B&B
	WETLAND PLANTS			
	EMERGENT SPECIES			
SL	SAGITTARIA LATIFOLIA DUCK POTATO	PINT	24	24" O.C. 2 SITES OF 12
SA	SCIRPUS AMERICANUS COMMON THREE SQUARE	1 3/4" POT	36	36" O.C. 3 SITES OF 12
SV	SCIRPUS VALIDUS SOFTSTEM BULRUSH	PINT	20	4 CLUMPS OF 5
	SECONDARY SPECIES			
CO	CEPHALANTHUS OCCIDENTALIS BUTTON BUSH	1 3/4" POT	16	36" O.C. 2 SITES OF 8
HM	HIBISCUS MOSCHEUTOS TRIBISH HIBISCUS	2 YEAR PLANT	20	30" O.C. 2 SITES OF 10
PV	PELTANDRA VIRGINICA ARROW-ARUM	1 YEAR BULB	15	3 CLUMPS OF 5

NOTES:

1) CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.

2) ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE ATTACHED SPECIFICATIONS.

3) ■ - IN GATES LIGHTING FIXTURE, SEE SHEET 1 OF 11 (ELECTRICAL)

2-12-92

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

COUNTY HEALTH OFFICER — DATE 2-16-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

PLANNING DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

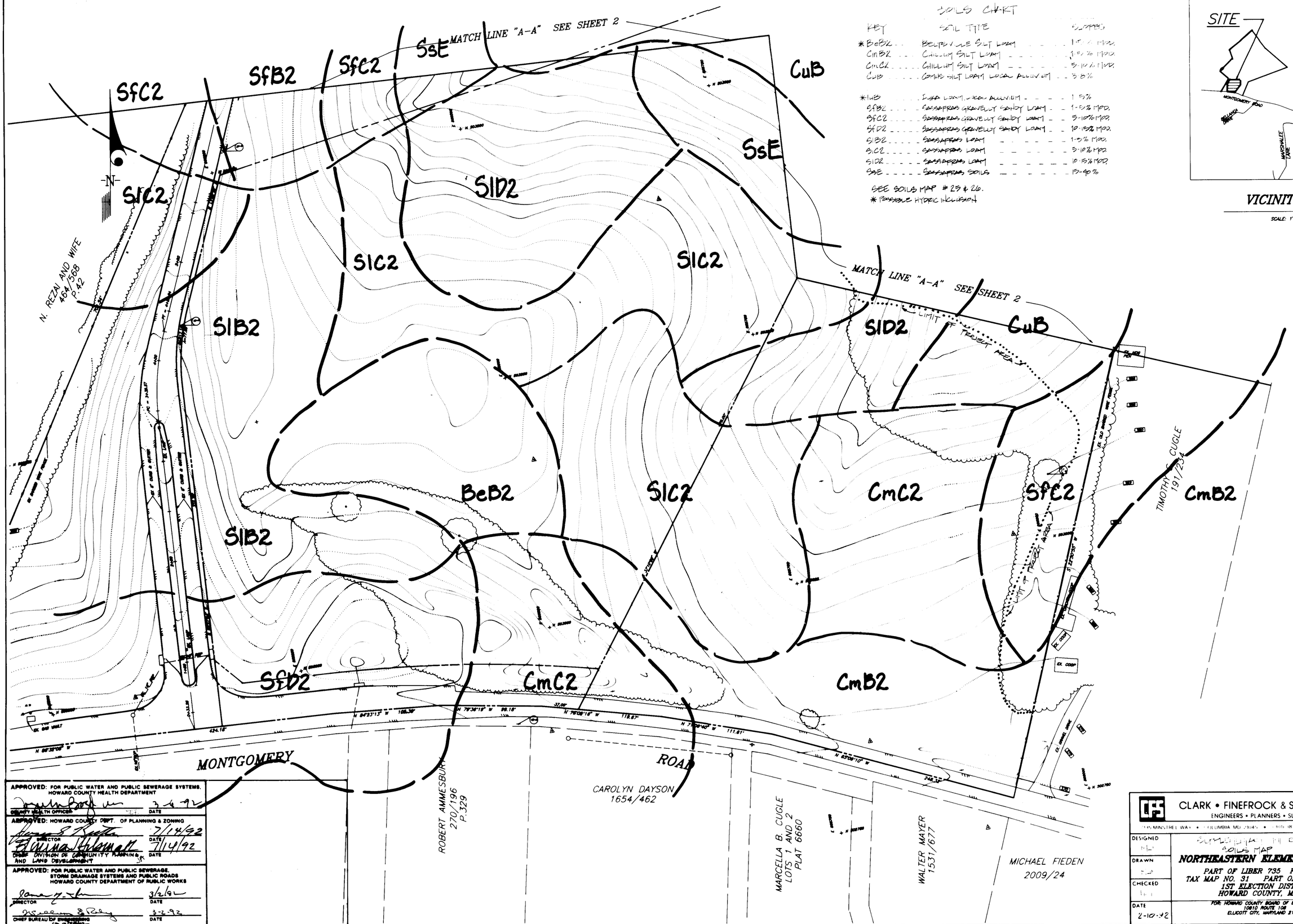
DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
TIMONIUM, MARYLAND • COLUMBIA, MARYLAND • ANNAPOLIS, MARYLAND • BEL AIR, MARYLAND

DESIGNED MJF	LANDSCAPE PLANTING PLAN
DRAWN MJF	NORTHEASTERN ELEMENTARY SCHOOL
CHECKED MJF	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043
SCALE 1"=40'	
DRAWING 11 OF 15	
JOB NO 91 113	
FILE NO 91-113 L9	

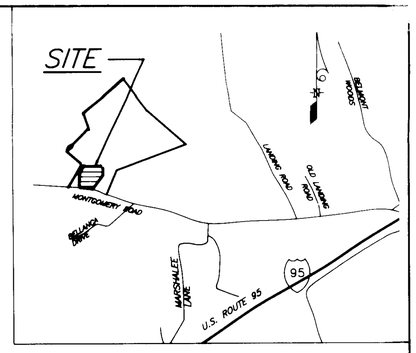
SDP 92-58



SOILS CHART

KEY	SOIL TYPE	SLOPES
* BeB2	BELTSVILLE SILT LOAM	1-5% MOD.
CmB2	CHILLUM SILT LOAM	1-5% MOD.
CmC2	CHILLUM SILT LOAM	5-10% MOD.
CuB	CODORUS SILT LOAM, LOCAL ALLUVIUM	1-5%
* IuB	IUKA LOAM, LOCAL ALLUVIUM	1-5%
SfB2	SASSAFRAS GRAVELLY SANDY LOAM	1-5% MOD.
SfC2	SASSAFRAS GRAVELLY SANDY LOAM	5-10% MOD.
SfD2	SASSAFRAS GRAVELLY SANDY LOAM	10-15% MOD.
SlB2	SASSAFRAS LOAM	1-5% MOD.
SlC2	SASSAFRAS LOAM	5-10% MOD.
SlD2	SASSAFRAS LOAM	10-15% MOD.
SsE	SASSAFRAS SOILS	15-40%

SEE SOILS MAP # 23 & 26.
* POSSIBLE HYDRIC INCLUSION



VICINITY MAP

SCALE: 1"=2000'

Noyd R. Taft
2-12-92

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

COUNTY HEALTH OFFICER — DATE 3-4-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

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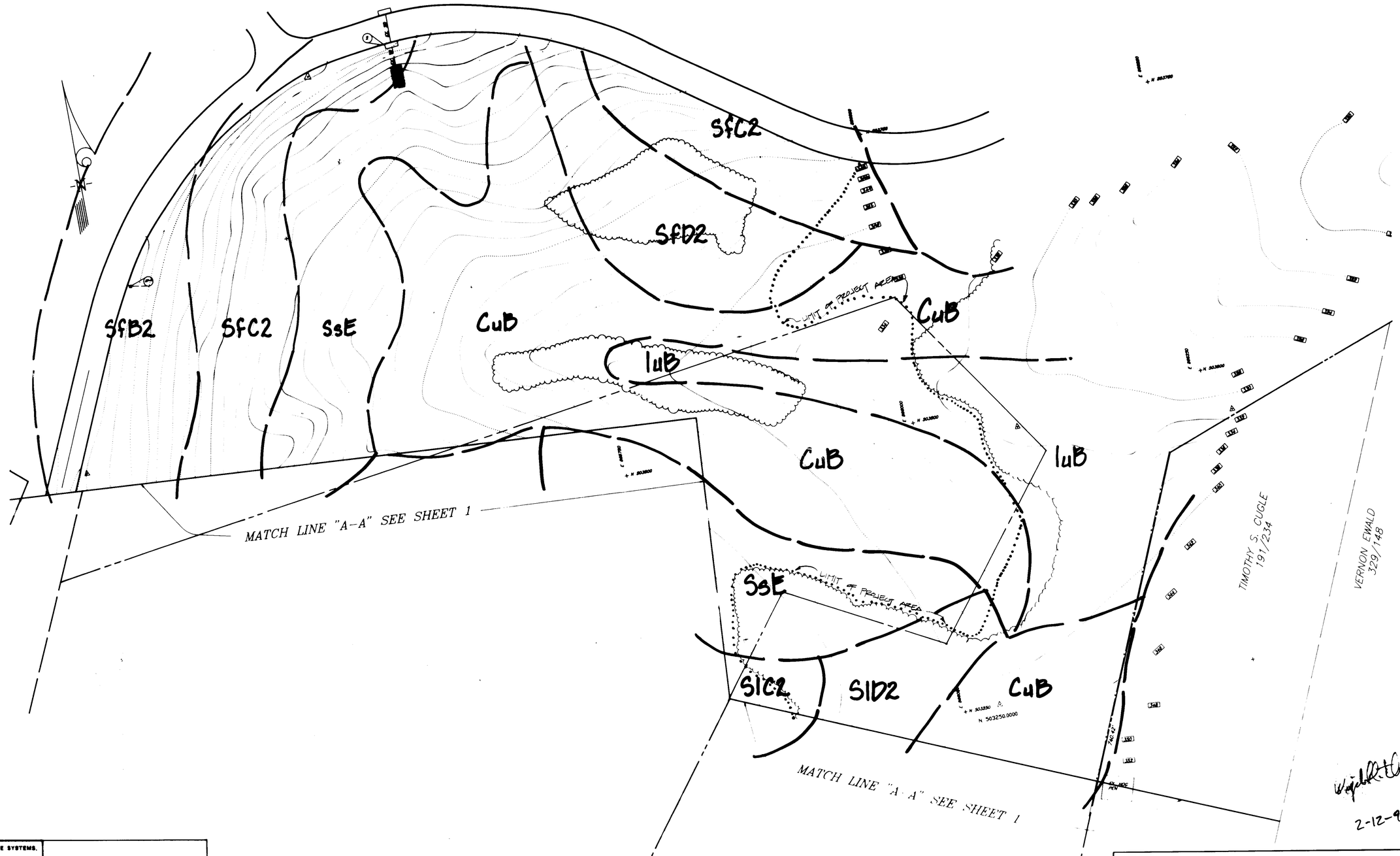
ENGINEERS • PLANNERS • SURVEYORS
10 MINISTREE WAY • COLUMBIA, MD. 21045 • 301-997-7001 • HALTO • FEDERAL WAY, WASH.

DESIGNED	SUPPLEMENTAL DRAINAGE SOILS MAP	SCALE
DRAWN	**NORTHEASTERN ELEMENTARY SCHOOL**	DRAWING 12 OF 15
CHECKED	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-13 P
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-13 P

SDP 92-58



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

COUNTY HEALTH OFFICER — DATE 2-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

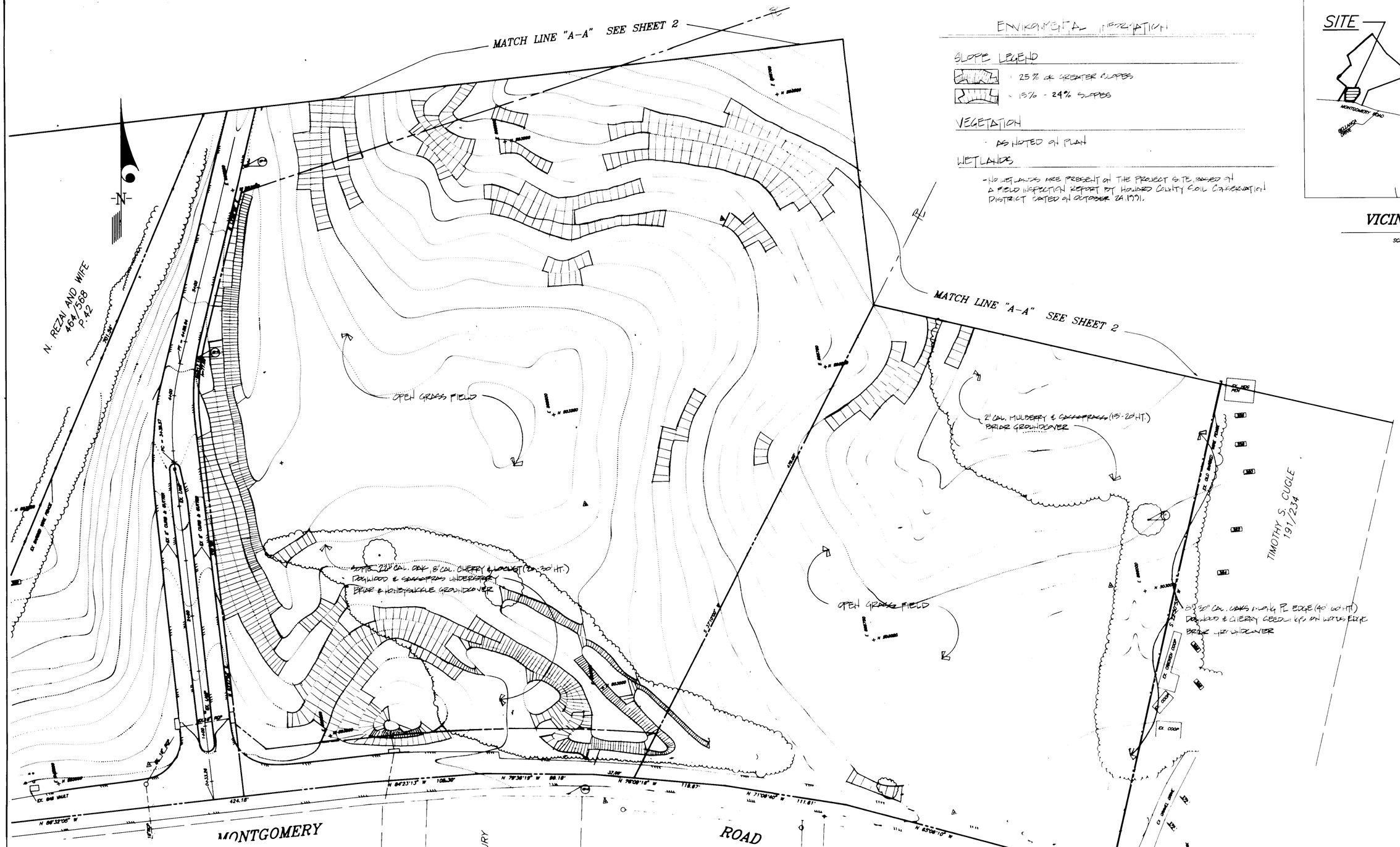
DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7131 MINSTREL WAY • COLUMBIA MD 21045 • 410-381-7400 • BALTIMORE • WASHINGTON

DESIGNED MLP	SUPPLEMENTARY INFORMATION SOILS MAP	SCALE 1"=40'
DRAWN MLP	**NORTHEASTERN ELEMENTARY SCHOOL**	DRAWING 13 of 15
CHECKED WHT	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 91-113
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO 91-113 P

SDP 92-58



ENVIRONMENTAL INFORMATION

SLOPE LEGEND

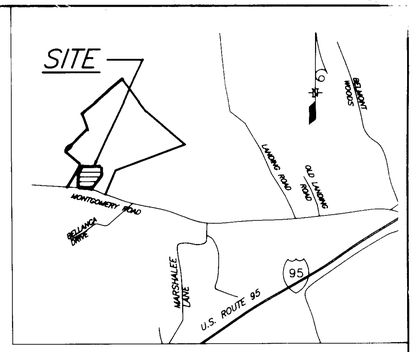
- 25% OR GREATER SLOPES
- 15% - 24% SLOPES

VEGETATION

- AS NOTED ON PLAN

WETLANDS

- NO WETLANDS ARE PRESENT ON THE PROJECT SITE, BASED ON A FIELD INSPECTION REPORT BY HOWARD COUNTY SOIL CONSERVATION DISTRICT DATED ON OCTOBER 24, 1991.



VICINITY MAP

SCALE: 1"=2000'

2-12-92

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

COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

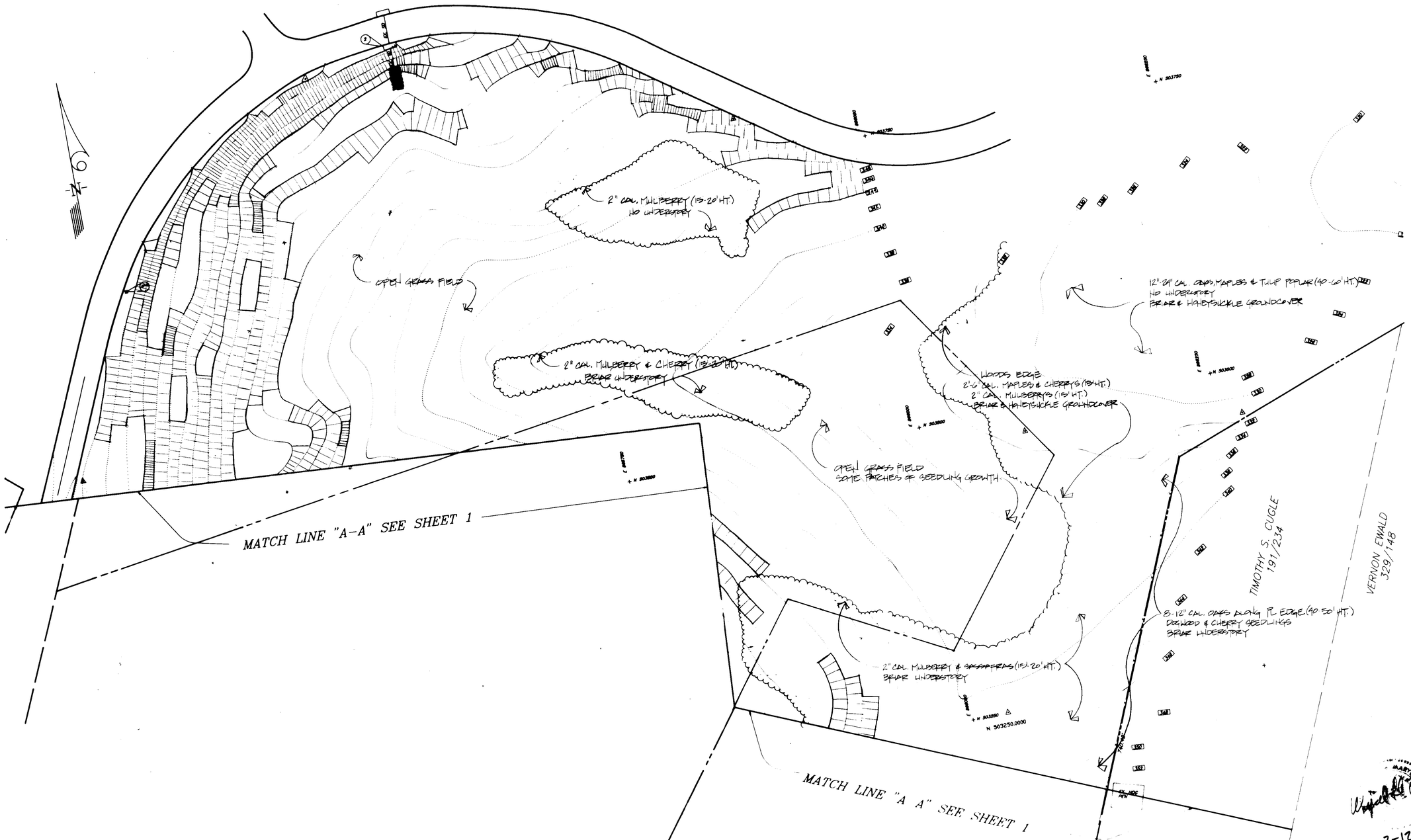
DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS

DESIGNED MJF	SUPPLEMENTARY INFORMATION SLOPES, VEGETATION, FLOODPLAIN & WETLANDS ANALYSIS	SCALE 1"=40'
DRAWN MJF	**NORTHEASTERN ELEMENTARY SCHOOL**	DRAWING 14 of 15
CHECKED WHT	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 91-113
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO 91-113 P

SDP 92-58



2-12-92

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

COUNTY HEALTH OFFICER — DATE 2-16-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 2/14/92

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 2/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7115 MINSTREL WAY • COLUMBIA MD 21045 • (410) 381-7580 (BALTIMORE) • (301) 621-2662 (WASH.)

DESIGNED MJP	SUPPLEMENTARY INFORMATION SLOPES, VEGETATION, FLOODPLAIN & WETLANDS ANALYSIS
DRAWN MJP	**NORTHEASTERN ELEMENTARY SCHOOL**
CHECKED WHT	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043
SCALE 1"=40'	
DRAWING 15 of 15	
JOB NO 91-113	
FILE NO 91-113-P	

SDP 92-58

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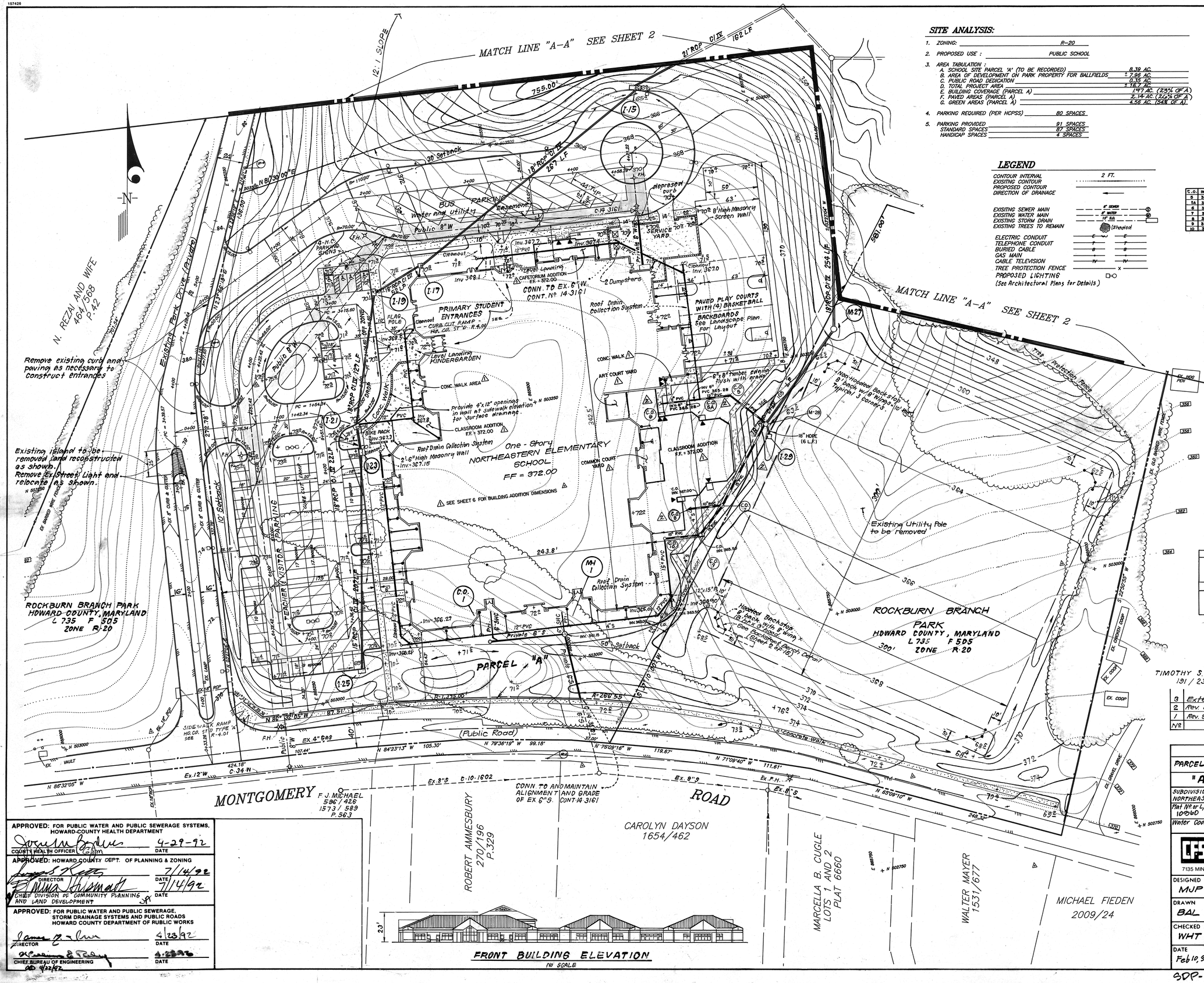


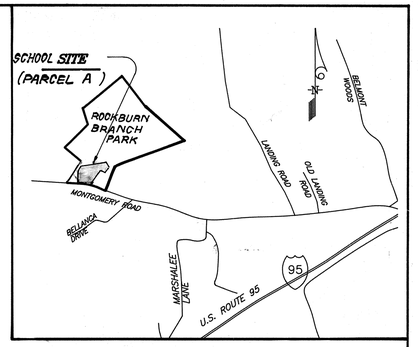
SITE ANALYSIS:

1. ZONING: R-20
2. PROPOSED USE : PUBLIC SCHOOL
3. AREA TABULATION :
   - A. SCHOOL SITE PARCEL 'A' (TO BE RECORDED) 9.39 AC.
   - B. AREA OF DEVELOPMENT ON PARK PROPERTY FOR BALLFIELDS ± 7.96 AC.
   - C. PUBLIC ROAD DEDICATION 0.35 AC.
   - D. TOTAL PROJECT AREA ± 18.7 AC.
   - E. BUILDING COVERAGE (PARCEL A) 1.97 AC. (23% OF A)
   - F. PAVED AREAS (PARCEL A) 2.14 AC. (22.8% OF A)
   - G. GREEN AREAS (PARCEL A) 4.58 AC. (54% OF A)
4. PARKING REQUIRED (PER HCPSS) 80 SPACES
5. PARKING PROVIDED 91 SPACES
   - STANDARD SPACES 87 SPACES
   - HANDICAP SPACES 4 SPACES

LEGEND

CONTOUR INTERVAL	2 FT.
EXISITNG CONTOUR	
PROPOSED CONTOUR	
DIRECTION OF DRAINAGE	
EXISITNG SEWER MAIN	8" SEWER
EXISITNG WATER MAIN	8" WATER
EXISITNG STORM DRAIN	18" S.D.
EXISITNG TREES TO REMAIN	(Shaded)
ELECTRIC CONDUIT	E E
TELEPHONE CONDUIT	T T
BURIED CABLE	B B
GAS MAIN	G
CABLE TELEVISION	TV TV
TREE PROTECTION FENCE	x
PROPOSED LIGHTING (See Architectural Plans for Details)	

C.O.	INVERT
5	361.85
5A	363.93
6	367.00
7	361.70
8	367.80
9	362.50
10	362.50



VICINITY MAP

SCALE: 1"=2000'

GENERAL NOTES:

1. COORDINATES ARE BASED ON THE MARYLAND STATE GRID SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS #26450002, & #26450003.
2. TOPOGRAPHY WAS COMPILED FROM ACTUAL FIELD SURVEY.
3. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH HOWARD COUNTY ROAD CONSTRUCTION CODES AND SPECIFICATIONS.
4. NO WETLANDS ARE PRESENT AT THE PROJECT SITE, BASED ON A FIELD INSPECTION REPORT BY HOWARD SOIL CONSERVATION DISTRICT DATED OCTOBER 24, 1991.
5. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/ SURVEY DIVISION 24 HOURS IN ADVANCE OF WORK AT 992-2417 OR 792-7272.
6. CONTACT "MISS UTILITY" AT 559-0100 AT LEAST 24 HOURS BEFORE BEGINNING CONSTRUCTION.
7. ALL EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS. CONTRACTOR MUST DIG TEST PITS AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.
8. PUBLIC WATER AND SEWER TO BE UTILIZED.
9. INSTALLATION OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL".
10. HANDICAP PARKING DETAILS SHALL BE IN ACCORDANCE WITH THE "MARYLAND BUILDING CODE FOR THE HANDICAPPED", SECTION 5.01-7.05.
11. ALL DRIVEWAYS AND PARKING TO BE OWNED AND MAINTAINED BY HOWARD COUNTY BOARD OF EDUCATION.
12. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
13. ALL SIDEWALKS SHALL BE CROSS SLOPED AT 1/4"/FT. AWAY FROM THE BUILDING UNLESS OTHERWISE INDICATED.
14. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01, CLASS "C" BEDDING.
15. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS.
16. MAXIMUM PROPOSED GRADED SLOPE SHALL BE 3:1.
17. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS. DETAILS AND EXACT LOCATION OF SCREENING WALLS; CONCRETE PADS; FENCE ENCLOSURES; LANDINGS AND STEPS; PLAY COURTS; BIKE RACK; FLAG POLE

No.	REVISION	DATE
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION.	1/23/04
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 8' MACADAM WALK, 4" SEWER & REVISE STORM DRAIN FOR M-27 TO I-27	7/17/03

FISHER COLLINS & CARTER INC.

No	REVISION	Date
3	Extended Sidewalk to Playcourt	4-24-92
2	Rev. alignment & grading of 6" Sewer	4-8-92
1	Rev. Service Yard Openings & Added Backstop Bench Areas	4-8-92

ADDRESS CHART				
PARCEL No	STREET ADDRESS			
"A"	6165 MONTGOMERY ROAD			
SUBDIVISION NAME: PARCEL "A" NORTHEASTERN ELEMENTARY SCH.		SECT / AREA NA	Parcel No. 235	
Plat No. or L/F 10060	Block No.	Zone R-20	Tax/Zone Map 31	Elec. Dist. 1ST	Consus Tr. 6011.01
Water Code D-04		Sewer Code 2153800		

STATE OF MARYLAND GILBERT SCOTT CLARK No. 13290 REGISTERED PROFESSIONAL ENGINEER 4-8-92

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

COUNTY HEALTH OFFICER — DATE 4-29-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 4/23/92

CHIEF BUREAU OF ENGINEERING — DATE 4-23-92

OD 4/22/92

FRONT BUILDING ELEVATION

NO SCALE

CLARK • FINEFROCK & SACKETT, INC.

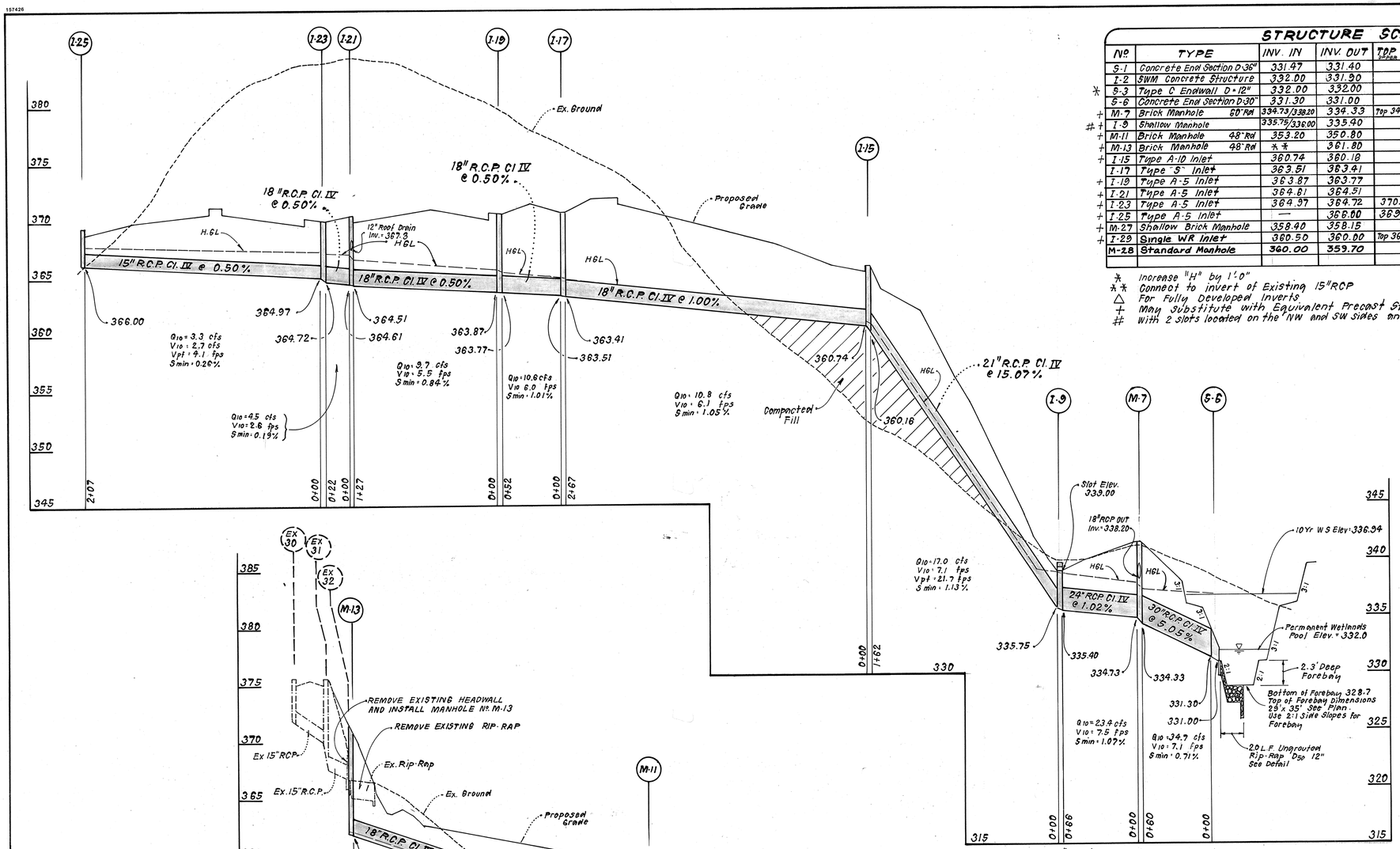
ENGINEERS • PLANNERS • SURVEYORS

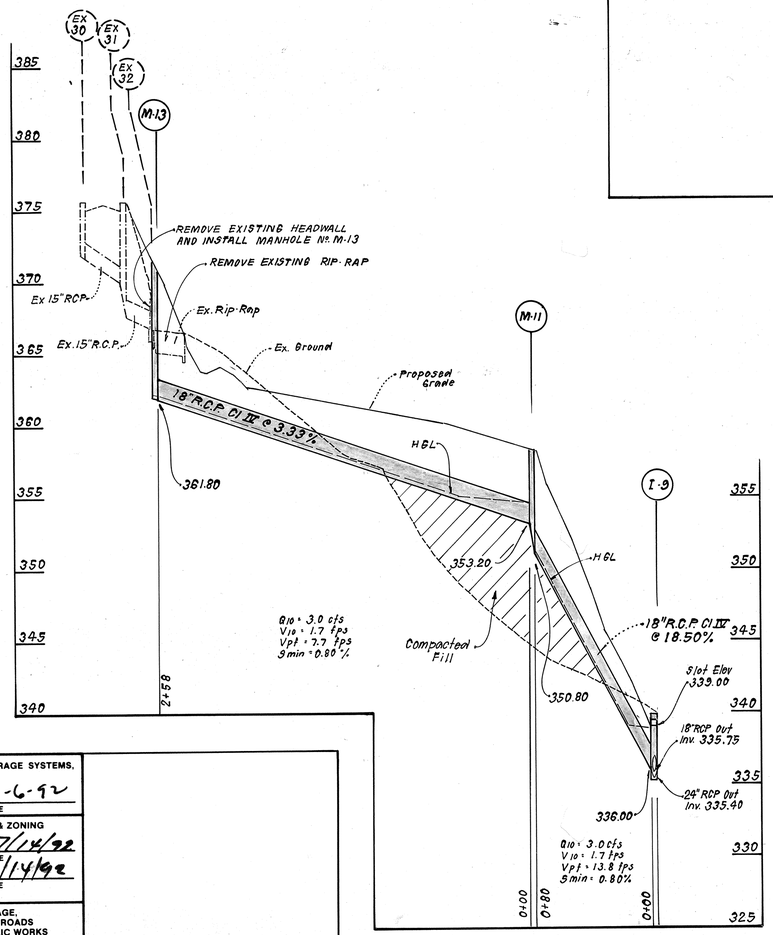
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

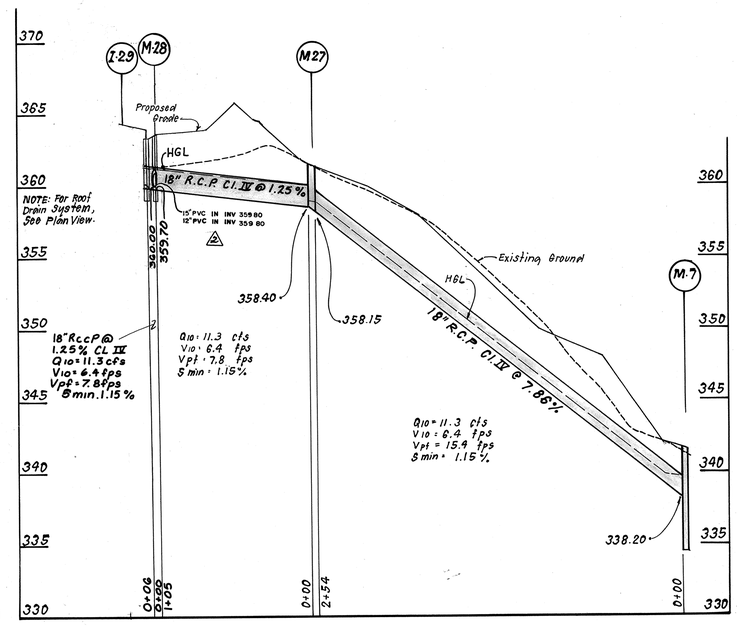
DESIGNED MJP	SITE DEVELOPMENT PLAN PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	SCALE 1"=40'
DRAWN BAL	TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 1 OF 15
CHECKED WHT		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113 X

SDP- 92-58

157426







PROFILE SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

STRUCTURE SCHEDULE △

	No.	TYPE	INV. IN	INV. OUT	TOP STRUCTURE UPPER	TOP STRUCTURE LOWER	REMARKS
	S-1	Concrete End Section D=36"	331.47	331.40	—		Ho. Co. Std. Det. SD5.51
	I-2	SWM Concrete Structure	332.00	331.90	337.00		See Details Sheet 5
*	S-3	Type C Endwall D=12"	332.00	332.00	333.75		Ho. Co. Std. Det. SD5.21
	S-6	Concrete End Section D=30"	331.30	331.00	—		" " " " SD5.51
+	M-7	Brick Manhole 60" Rd	334.73/338.20	334.33	Top 341.50	/ Slot 339.0	" " " " B-5.02
# +	I-9	Shallow Manhole	335.75/336.00	335.40	339.30		" " " " SD5.05
+	M-11	Brick Manhole 48" Rd	353.20	350.80	358.27		" " " " B-5.01
+	M-13	Brick Manhole 48" Rd	**	361.80	371.20		" " " " B-5.01
+	I-15	Type A-10 Inlet	360.74	360.18	366.00		" " " " SD4.02
	I-17	Type "S" Inlet	363.51	363.41	370.80		" " " " SD4.22
+	I-19	Type A-5 Inlet	363.87	363.77	370.70		" " " " SD4.01
+	I-21	Type A-5 Inlet	364.61	364.51	370.60		" " " " SD4.01
+	I-23	Type A-5 Inlet	364.97	364.72	370.17	370.10	" " " " SD4.01
+	I-25	Type A-5 Inlet	—	366.00	369.71	369.70	" " " " SD4.01
+	M-27	Shallow Brick Manhole	358.40	358.15	361.40		" " " " SD5.05
+	I-29	Single WR Inlet	360.50	360.00	Top 363.83	/ Slot 363.00	" " " " SD4.37
	M-28	Standard Manhole	360.00	359.70	363.80		" " " " G5.12

* Increase "H" by 1'-0"
** Connect to invert of Existing 15" RCP
△ For Fully Developed Inverts
\+ May substitute with Equivalent Precast Structures (Ho. Co. Std. Details)
\# With 2 slots located on the NW and SW sides and Ho. Co. Standard sidewalk frame and cover.

PIPE SCHEDULE

SIZE	TYPE	LENGTH
12"	PVC	860'
15"	PVC	282'
15"	RCP CLASS IV	207'
18"	RCP CLASS IV	1,188'
21"	RCP CLASS IV	162'
24"	RCP CLASS IV	66'
30"	RCP CLASS IV	60'
36"	RCP ASTM C-361 *	51'

* CLASS B-25

No.	DATE	REVISE STORM DRAIN M-27 to I-29
2	1/26/04	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION.
1	7-17-03	DESCRIPTION

REVISIONS

PISHER COLLINS & CARTERING

STATE OF MARYLAND CHARLES TOPPS No. 15132 PROFESSIONAL ENGINEER — 2/26/04

STATE OF MARYLAND CHARLES TOPPS No. 15132 PROFESSIONAL ENGINEER — 7/17/03

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

COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

Reviewed for HOWARD S.C.D. Name
and meets Technical Requirements
Signature — Date 2/25/92
US Soil Conservation Service

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

Approved 2/25/92

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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 11-15-91

STATE OF MARYLAND CLAIRE BON CLARK No. 11975 REGISTERED PROFESSIONAL ENGINEER — 11-15-91

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Signature — Date 11/14/91

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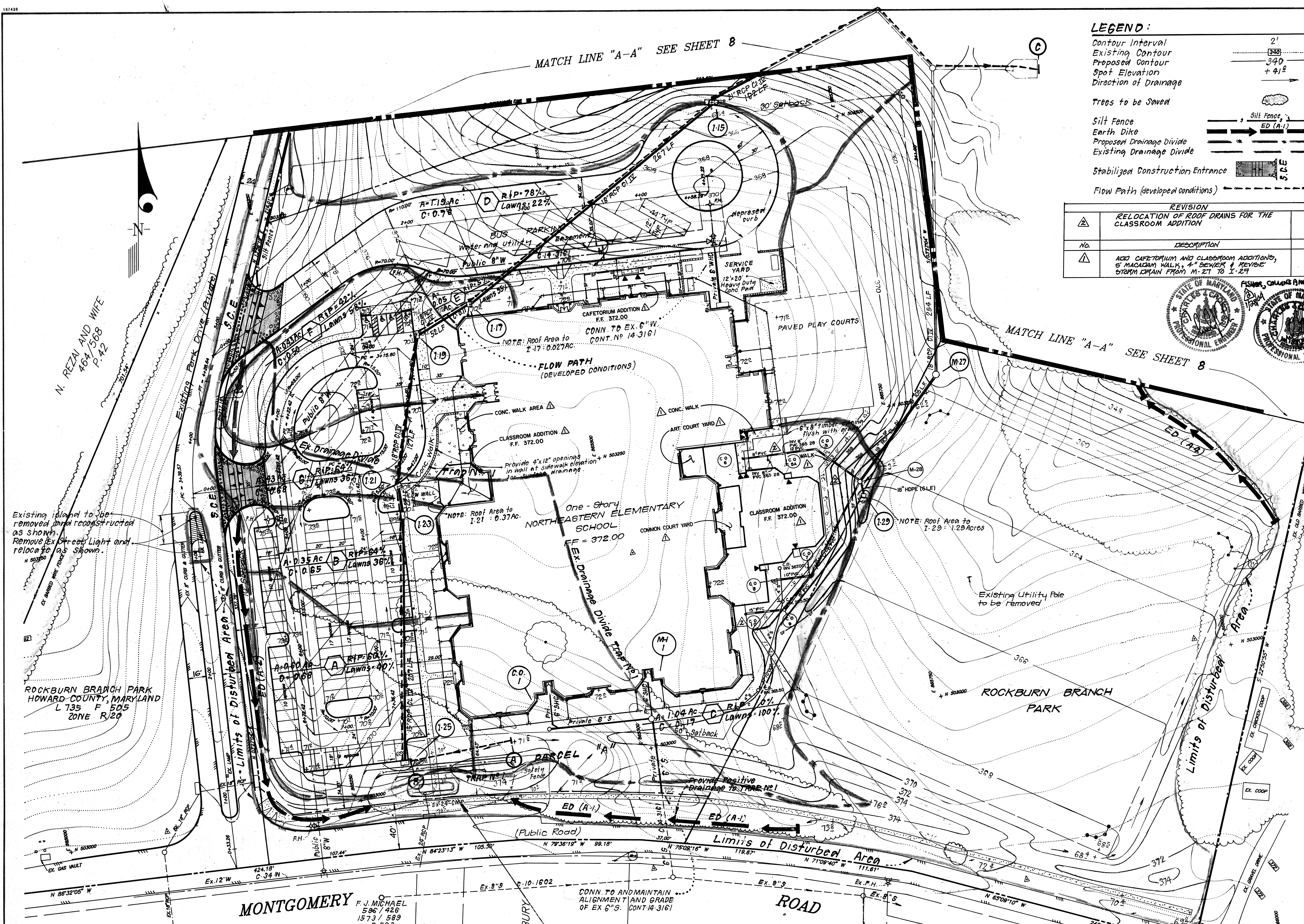
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED CVH	STORM DRAINAGE PROFILES PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	SCALE AS SHOWN
DRAWN JTR	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 4 OF 15
CHECKED CVH		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

SDP 92-58

STORM DRAINAGE

4 43



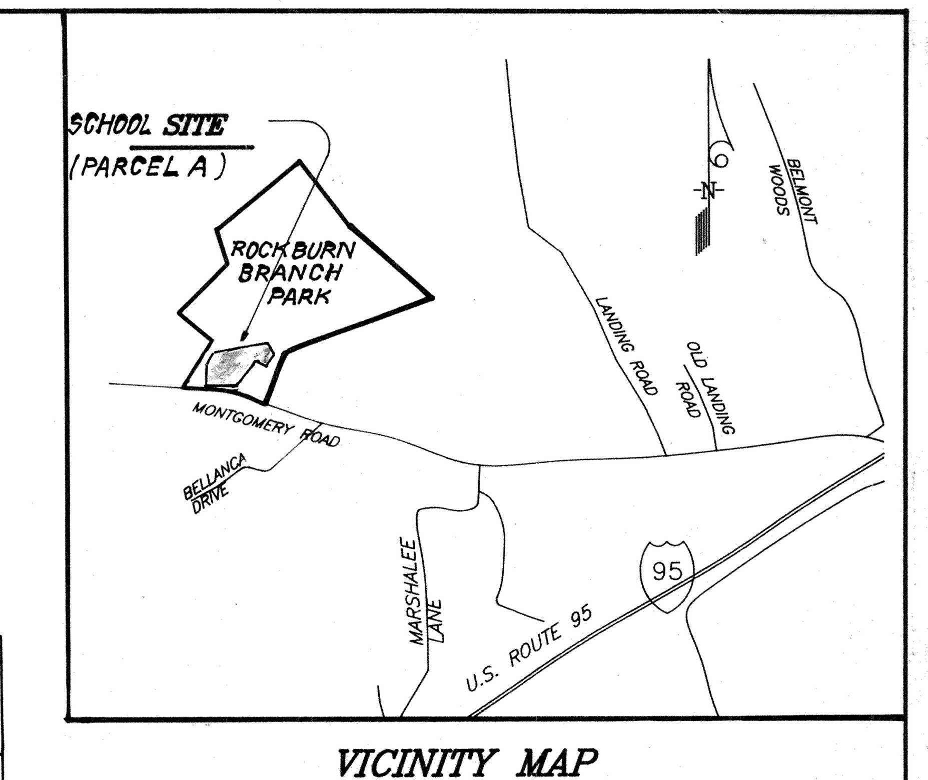
LEGEND:

Contour Interval	2'
Existing Contour	340
Proposed Contour	340
Spot Elevation	+ 41.6
Direction of Drainage	
Trees to be Saved	
Silt Fence	
Earth Dike	ED (A-1)
Proposed Drainage Divide	
Existing Drainage Divide	
Stabilized Construction Entrance	S.C.E
Flow Path (developed conditions)	

REVISION		
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION	1/28/04
No.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 5' MACADAM WALK, 4" SEWER & REVISE STORM DRAIN FROM M-27 TO I-27	7/17/03

FISHER, COLLINS AND CARTER INC

2 1/28/04 1 7/17/03



VICINITY MAP

SCALE: 1"=2000'

Reviewed for HOWARD S.C.D. (Name) and meets Technical Requirements

[signature] 2/25/92 Signature Date

US Soil Conservation Service

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

[signature] 2/25/92 Approved

TRAP No 1 (P.O.S.T.) ST-I	
Drainage Area	2.3 Acres
Storage Required	4140 cf
Storage Provided	6000 cf
Weir Crest Elev.	367.0
Cleanout Elev.	364.5
Bottom Elev.	362.0
Depth	4.0
* Riser Dia.	24"
Bottom Dimension	35' x 8'
Side Slopes	2:1 Max.

* NOTE: Riser to be connected to Ex 24" CMP Ex Inv Elev. 361.1

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Cathleen Corley Young 11/14/91
Signature Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion Control represents a practical and workable plan based on my personal knowledge of the site condtions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[signature] 11-15-91
Signature Date

STATE OF MARYLAND G. NELSON CLARK No 7139 REGISTERED PROFESSIONAL ENGINEER 11-15-91

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
[signature] 3-6-92
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[signature] 7/14/92
DIRECTOR DATE
[signature] 7/14/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[signature] 3/2/92
DIRECTOR DATE
[signature] 3-2-92
CHIEF BUREAU OF ENGINEERING DATE
CD 2/28/92

CFS CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED D.G.T.	SEDIMENT AND EROSION CONTROL PLAN AND DRAINAGE AREA MAP	SCALE 1"=40'
DRAWN JTR	NORTHEASTERN ELEMENTARY SCHOOL PARCEL A	DRAWING 7 OF 15
CHECKED DGT	TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE NOV. 1991	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-SiE

SDP 92-58 SEDIMENT & EROSION CONTROL PLAN 7 HS

157420

MATCH LINE "A-A" SEE SHEET 11

N. REZAI AND WIFE
464/588
P.42

EXISTING PARK DRIVE (PRIVATE)

BUS PARKING

Water line utility easement

Public 8" W

SITE LIGHTING (TYP) SHEET 1

Replacement curb

SERVICE YARD
12'x20' Heavy Duty Conc. Pad

CAFETORIUM ADDITION
F.F. 372.00

CONN. TO EX. 6" W.
CONT. № 14-3161

12-TD
FLAG POLE

CONC. WALK AREA

CLASSROOM ADDITION
F.F. 372.00

Provide 4"x12" openings in wall at sidewalk elevation for surface drainage.

CONC. WALK

ART COURT YARD

One-Story
NORTHEASTERN ELEMENTARY SCHOOL
FF = 372.00

COMMON COURT YARD

CLASSROOM ADDITION
F.F. 372.00

5' MAC. WALK

Existing Utility Pole to be removed

ROCKBURN BRANCH PARK

NOTE: For line dimensioning of Play Court see Architectural Plans.

MATCH LINE "A-A" SEE SHEET 11

EX. LIGHT TO BE REMOVED AND RE-INSTALLED

EX. GAS VAULT

(Public Road)

MONTGOMERY ROAD

F. J. MICHAEL
586/426
1573/589
P.563

CONN. TO AND MAINTAIN ALIGNMENT AND GRADE OF EX 6" S. CONT. 14-3161

ROBERT AMMESBURY
270/196
P.329

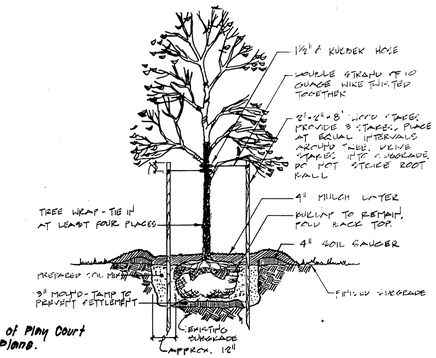
CAROLYN DAYSON
1654/462

MARCELLA B. CUGLE
LOTS 1 AND 2
PLAT 6660

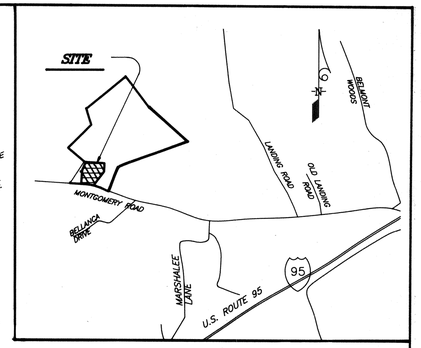
WALTER MAYER
1531/677

MICHAEL FIEDEN
2009/24

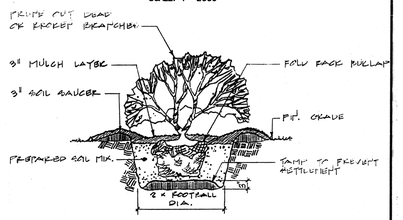
TIMOTHY S. CUGLE
191/234



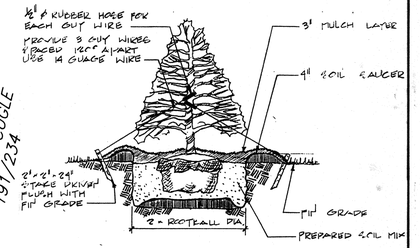
TREE PLANTING DETAIL
NO SCALE



VICINITY MAP
SCALE: 1"=2000'



Shrubs
NO SCALE



Conifers
NO SCALE

FISHER, COLLINS AND CARTER, INC.

STATE OF MARYLAND — CHARLES E. COLLINS — PROFESSIONAL ENGINEER — 7/17/03

STATE OF MARYLAND — CHARLES E. COLLINS — PROFESSIONAL ENGINEER

REVISION

NO.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 5' MAC. WALK, 4" SEWER, REVISE STORM DRAIN FROM M-27 TO I-29 & REVISE LANDSCAPING AT CLASSROOM ADDITIONS.	7/17/03
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION.	1/28/09

STATE OF MARYLAND — ROLAND D. ROBY — REGISTERED LANDSCAPE ARCHITECT

2-12-92

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

COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

PLANNING DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 3/2/92

CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

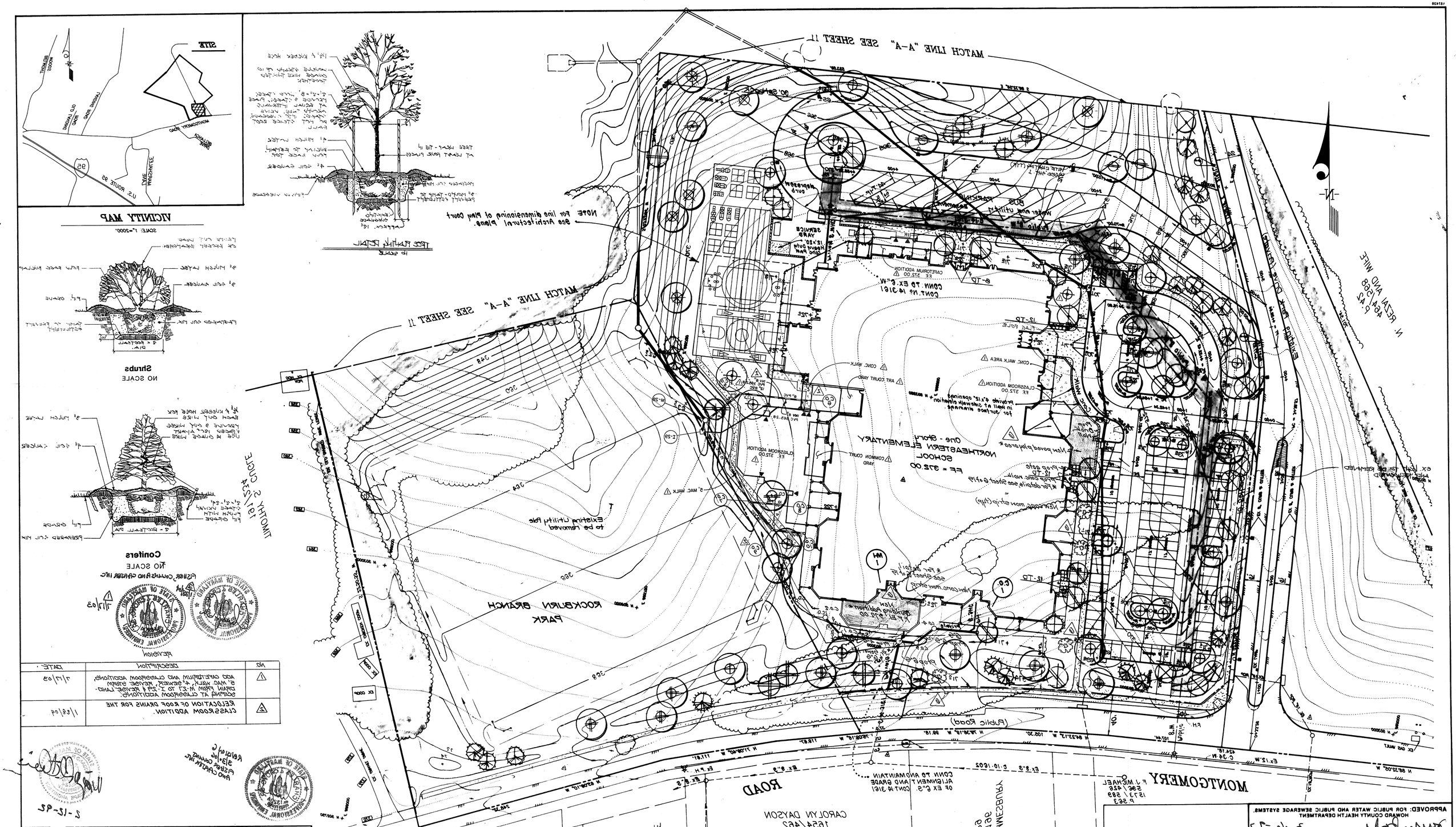
2/28/92

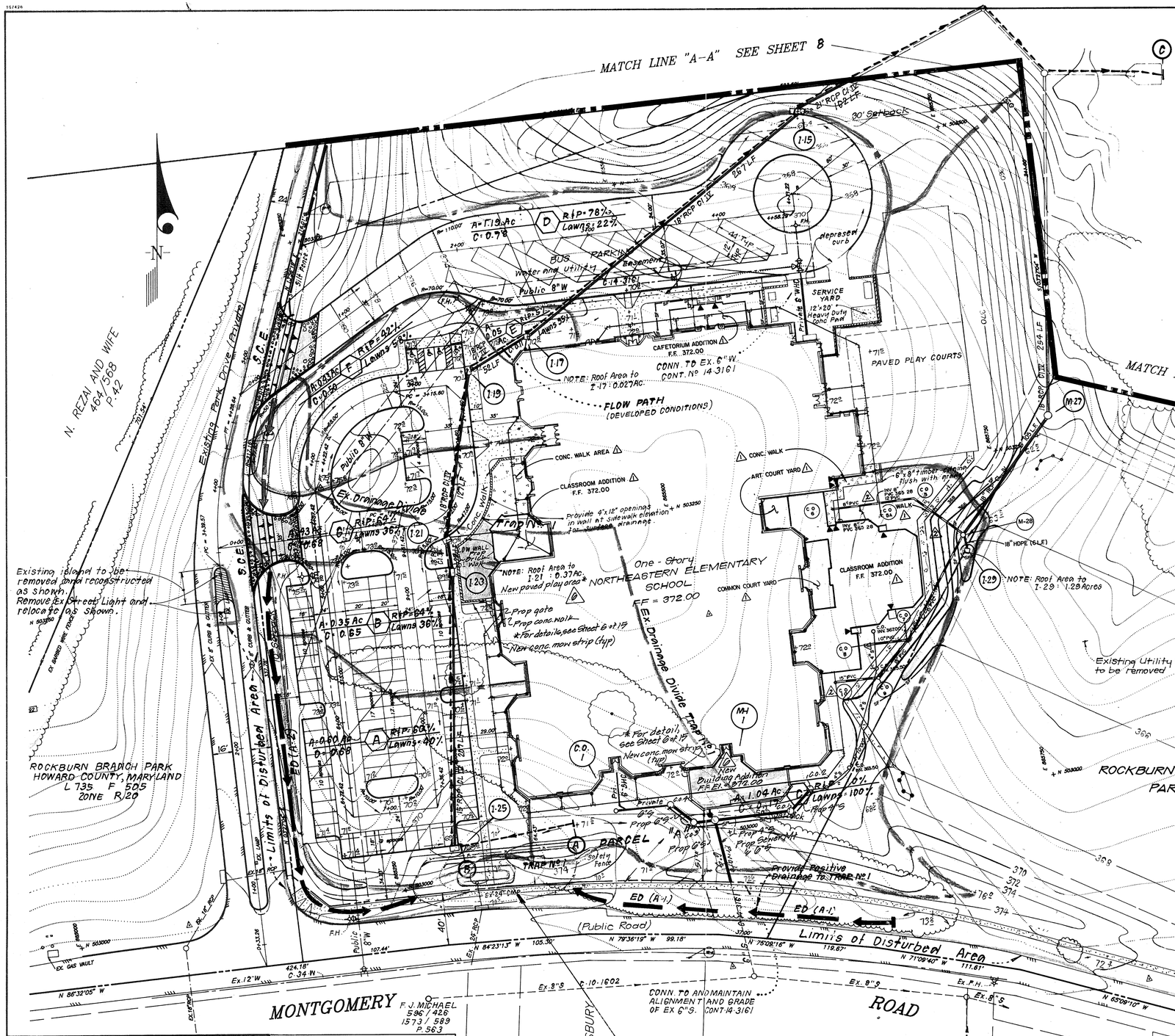
CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED MJP	LANDSCAPE PLANTING PLAN	SCALE 1"=40'
DRAWN MJP	NORTHEASTERN ELEMENTARY SCHOOL	DRAWING 10 OF 15
CHECKED WHT	TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE 2-10-92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113LS

SDP 92-58

145


MATCH LINE "A-A" SEE SHEET 11
MATCH LINE "A-A" SEE SHEET 11
NORTHEASTERN ELEMENTARY SCHOOL
One - Story
EF = 372.00
MONTGOMERY ROAD
(Public Road)
ROCKBURN BRANCH PARK
ROBERT WAMBSGANS
CAROLYN DAYSON
MICHAEL FIEDEN
MARCELLA B. & LOIS S. AND TAFT
WALTER MAYER
N. REDAL AND WIFE
SITE
VICINITY MAP
Shrubs
NO SCALE
Conifers
NO SCALE
Tree Planting Detail
NOTE For line dimensioning of play court see Architectural plans.
CLASSROOM ADDITION
CONC. WALK AREA
ART COURT YARD
COMMON COURT YARD
Existing Utility Pole to be removed
CONN. TO EX. 6" W. CONT. No 14-3161
CONN. TO AND MAINTAIN ALIGNMENT AND GRADE OF EX 6"S. CONT. No 3161
Water line utility
BUS PARKING
SERVICE YARD
Provide 4'x12' opening in wall at sidewalk elevation for surface drainage.
*For details see Sheet 6 of 19
Non-conc. non strip (typ)
Non-conc. non strip
Non-conc. non strip (typ)
Existing Utility Pole to be removed
Ex. 1" PVC Conduit
Ex. 6" W.
Ex. 8"S.
Ex. F.H.
Ex. Conc. Walk
Ex. Conc. Curb
Ex. Grade
Ex. Conc. Curb
Ex. Conc. Walk
Ex. Conc. Curb
Ex. Grade



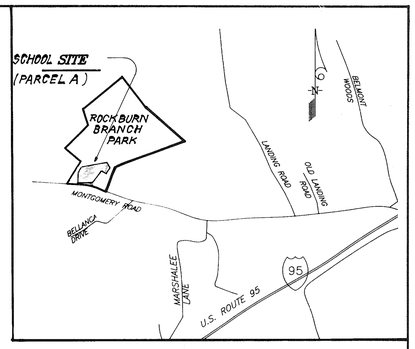
LEGEND:

Contour Interval	2'
Existing Contour	340
Proposed Contour	340
Spot Elevation	+41.2
Direction of Drainage	
Trees to be Saved	
Silt Fence	Silt Fence
Earth Dike	ED (A-1)
Proposed Drainage Divide	
Existing Drainage Divide	
Stabilized Construction Entrance	S.C.E.
Flow Path (developed conditions)	

REVISION		
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION	1/28/04
No.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 6' MACADAM WALK, 4" SEWER & REVISE STORM DRAIN FROM M-27 TO I-29	7/17/03

FISHER, COLLINS AND CARTER INC.

1 7/17/03



VICINITY MAP

SCALE: 1" = 2000'

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature 2/25/92 Date
US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Zielman 2/25/92
Approved

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 7/18/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 3/2/92
CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

TRAP Nº 1 (P.O.S.T.) ST-1

Drainage Area	2.3 Acres
Storage Required	4140 cf
Storage Provided	6000 cf
Weir Crest Elev.	387.0
Cleanout Elev.	364.5
Bottom Elev.	362.0
Depth	4.0
* Riser Dia.	24"
Bottom Dimension	35' x 8'
Side Slopes	2:1 Max.

* NOTE: Riser to be connected to Ex 24" CMP Ex Inv Elev. = 361.1

REVISING STORM DRAIN FROM CUGLE AND CONTROL

No.	Revision	Date
6	Add building addition, paved play area, sewer manhole, sewer line & silt fence.	9-30-98

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Cathleen Corley Young 11/14/91
Signature Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

11-15-91
Signature Date

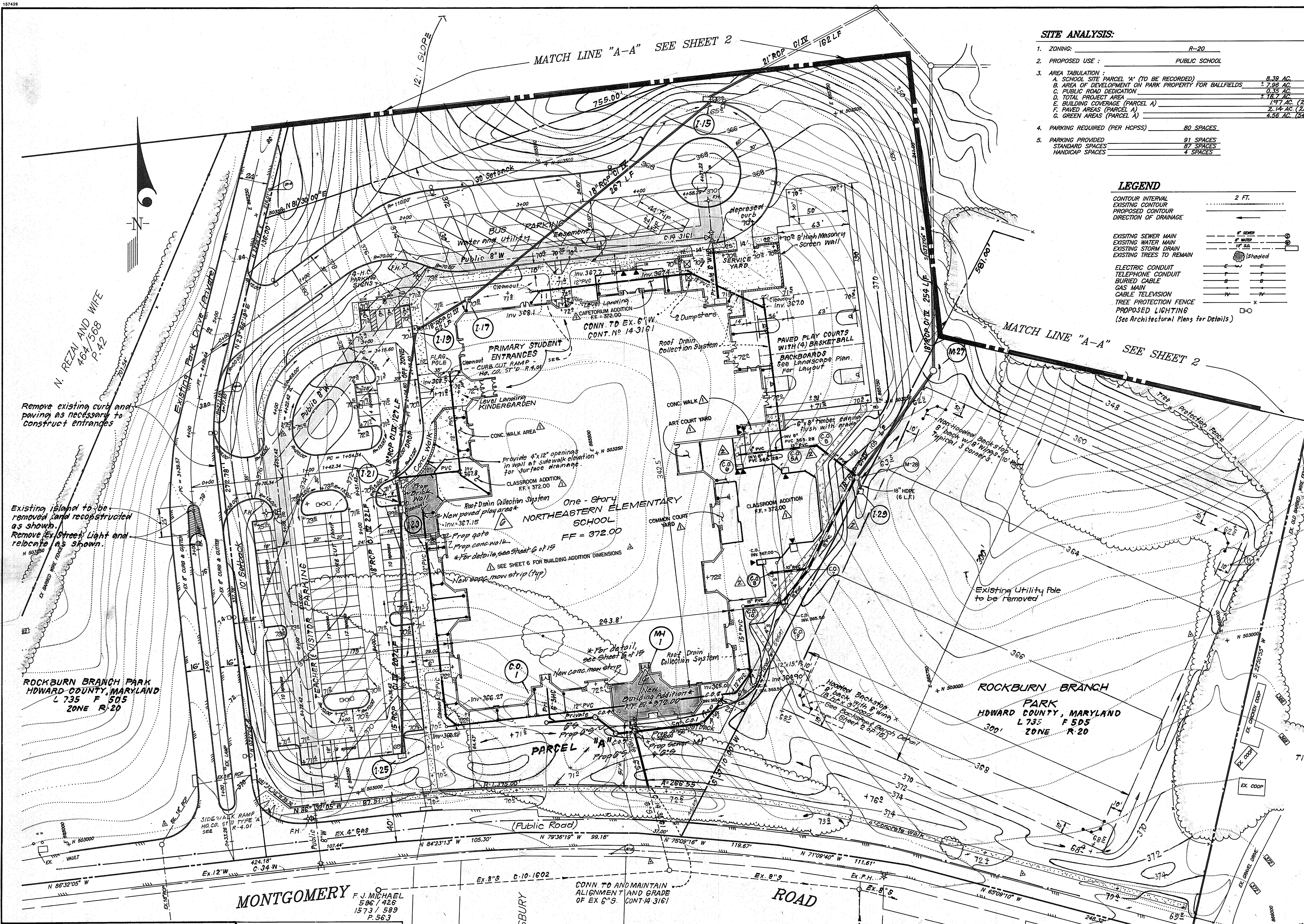
STATE OF MARYLAND GILBERT SON CLARK No. 11-15-91

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED D.G.T.	SEDIMENT AND EROSION CONTROL PLAN AND DRAINAGE AREA MAP NORTHEASTERN ELEMENTARY SCHOOL PARCEL A TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 40'
DRAWN JTR		DRAWING 7 OF 15
CHECKED DGT		JOB NO. 91-113
DATE NOV. 1991	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113SE

SDP 92-58 SEDIMENT EROSION CONTROL PLAN

157426



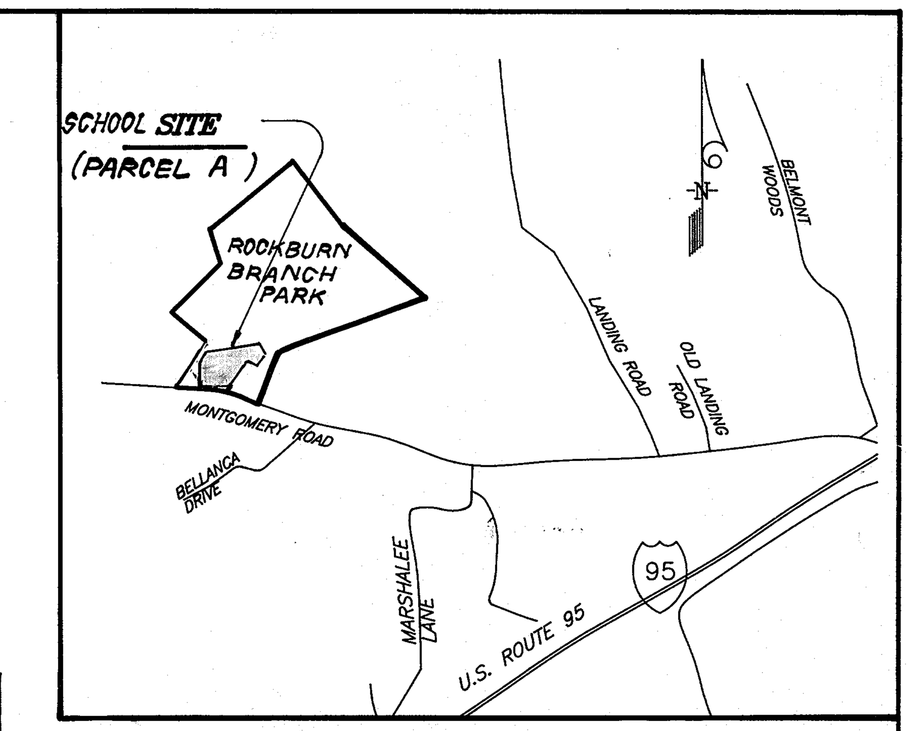
SITE ANALYSIS:

1. ZONING: R-20
2. PROPOSED USE : PUBLIC SCHOOL
3. AREA TABULATION :
   - A. SCHOOL SITE PARCEL 'A' (TO BE RECORDED) 8.39 AC.
   - B. AREA OF DEVELOPMENT ON PARK PROPERTY FOR BALLFIELDS ± 7.96 AC.
   - C. PUBLIC ROAD DEDICATION 0.35 AC.
   - D. TOTAL PROJECT AREA ± 16.7 AC.
   - E. BUILDING COVERAGE (PARCEL A) 1.97 AC. (23% OF A)
   - F. PAVED AREAS (PARCEL A) 2.14 AC. (26% OF A)
   - G. GREEN AREAS (PARCEL A) 4.56 AC. (54% OF A)
4. PARKING REQUIRED (PER HCPSS) 80 SPACES
5. PARKING PROVIDED 91 SPACES
   - STANDARD SPACES 87 SPACES
   - HANDICAP SPACES 4 SPACES

LEGEND

CONTOUR INTERVAL	2 FT.
EXISITNG CONTOUR	
PROPOSED CONTOUR	
DIRECTION OF DRAINAGE	
EXISITNG SEWER MAIN	8" SEWER
EXISITNG WATER MAIN	8" WATER
EXISTING STORM DRAIN	15" S.D.
EXISTING TREES TO REMAIN	(Shaded)
ELECTRIC CONDUIT	E
TELEPHONE CONDUIT	T
BURIED CABLE	B
GAS MAIN	
CABLE TELEVISION	TV
TREE PROTECTION FENCE	x
PROPOSED LIGHTING (See Architectural Plans for Details)	

C.O.	INVERT
5	361.85
5A	363.93
6	367.00
7	361.70
8	367.80
9	362.50
10	364.50



VICINITY MAP

SCALE: 1"=2000'

GENERAL NOTES:

1. COORDINATES ARE BASED ON THE MARYLAND STATE GRID SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS #2645002, & #2645003.
2. TOPOGRAPHY WAS COMPILED FROM ACTUAL FIELD SURVEY.
3. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH HOWARD COUNTY ROAD CONSTRUCTION CODES AND SPECIFICATIONS.
4. NO WETLANDS ARE PRESENT AT THE PROJECT SITE, BASED ON A FIELD INSPECTION REPORT BY HOWARD SOIL CONSERVATION DISTRICT DATED OCTOBER 24, 1991.
5. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/ SURVEY DIVISION 24 HOURS IN ADVANCE OF WORK AT 992-2417 OR 792-7272.
6. CONTACT "MISS UTILITY" AT 559-0100 AT LEAST 24 HOURS BEFORE BEGINNING CONSTRUCTION.
7. ALL EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS. CONTRACTOR MUST DIG TEST PITS AT ALL UTILITY CROSSINGS AND CONNECTION POINTS TO VERIFY EXACT LOCATION.
8. PUBLIC WATER AND SEWER TO BE UTILIZED.
9. INSTALLATION OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL".
10. HANDICAP PARKING DETAILS SHALL BE IN ACCORDANCE WITH THE "MARYLAND BUILDING CODE FOR THE HANDICAPPED", SECTION 5.01-7.05.
11. ALL DRIVEWAYS AND PARKING TO BE OWNED AND MAINTAINED BY HOWARD COUNTY BOARD OF EDUCATION.
12. ANY DAMAGE TO COUNTY OWNED RIGHT-OF-WAY TO BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
13. ALL SIDEWALKS SHALL BE CROSS SLOPED AT 1/4"/FT. AWAY FROM THE BUILDING UNLESS OTHERWISE INDICATED.
14. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01, CLASS "C" BEDDING.
15. GUTTER OF CURBS SHALL BE PITCHED TO CONFORM TO ADJACENT DRAINAGE PATTERNS.
16. MAXIMUM PROPOSED GRADED SLOPE SHALL BE 3:1.
17. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS. DETAILS AND EXACT LOCATION OF SCREENING WALLS; CONCRETE PADS; FENCE ENCLOSURES; LANDINGS AND STEPS; PLAY COURTS; BIKE RACK; FLAG POLE

	REVISION	
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION	1/28/04
No.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 5' MACADAM WALK, 4" SEWER & REVISE STORM DRAIN FOR M-27 TO I-29	7/17/03

FISHER COLLINS & CARTER INC. 2 1/28/04 1 7/17/03

3	Extended Sidewalk to Playcourt	4.24.92
2	Rev. alignment & grading of 6" Sewer	4.8.92
1	Rev. Service Yard Openings & Added Backstop Bench Areas	4.8.92
No	REVISION	Date

4-8-92

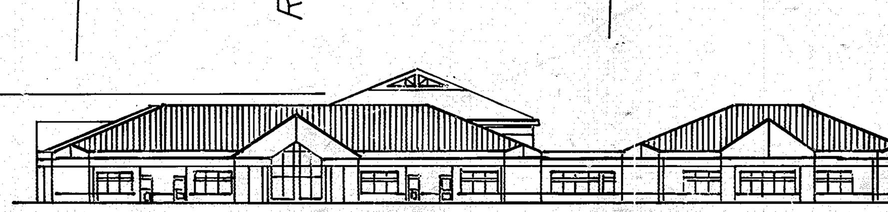
ADDRESS CHART

PARCEL No	STREET ADDRESS
"A"	6165 MONTGOMERY ROAD

SUBDIVISION NAME: PARCEL "A" NORTHEASTERN ELEMENTARY SCH.		SECT / AREA NA	Parcel No. 235	
Plat No. or L/F 10360	Block No	Zone R-20	Tax/Zone Map 31	Elec. Dist. 1ST	Census Tr. 6011.01
Water Code D-04			Sewer Code 2153800	

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 — BALTO. • (301) 621-8100 — WASH.

DESIGNED MJP	SITE DEVELOPMENT PLAN PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	SCALE 1"=40'
DRAWN BAL		DRAWING 1 OF 15
CHECKED WHT	TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113 X



FRONT BUILDING ELEVATION

NO SCALE

REVISION 6 3/30/06 FISHER COLLINS AND CARTER INC.

No.	Revision	Date
6	Add building addition; paved play area; sewer manhole & sewer line.	3.30.06

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

COUNTY HEALTH OFFICER — DATE 4-29-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 4/23/92

CHIEF BUREAU OF ENGINEERING — DATE 4-23-92

SDP- 92-58

CONSTRUCTION SPECIFICATIONS FOR S.W.M. PONDS

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 location 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 - Areas 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 into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread 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:

1. 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, Plasti-Cote, Blac-Klad, and Beth-Cu-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.

   Materials - (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.

2. 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.

3. 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 and 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 48" 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 48" 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.

4. 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.
5. Backfilling shall conform to "**Structure Backfill**."
6. 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:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302.
2. 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.
3. 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.
4. Backfilling shall conform to "**Structure Backfill**."
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

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

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
2. Joints and connections to anti-seep collars shall be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Backfilling shall conform to "**Structure Backfill**."
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3

Rock Riprap

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one-third the greatest dimension of the fragment.

The rock shall have the following properties:

1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
2. Absorption not more than three percent.
3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be 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 a 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 sightly 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.

CONSTRUCTION SEQUENCE FOR BUILDING ADDITION

1.) Obtain Grading Permit

2.) Notify "Miss Utility" at least 48 hours before beginning any work at 1-800-257-7777. Notify the Howard County Office of Construction/Inspection at 410-313-1330 24 hours before starting work.

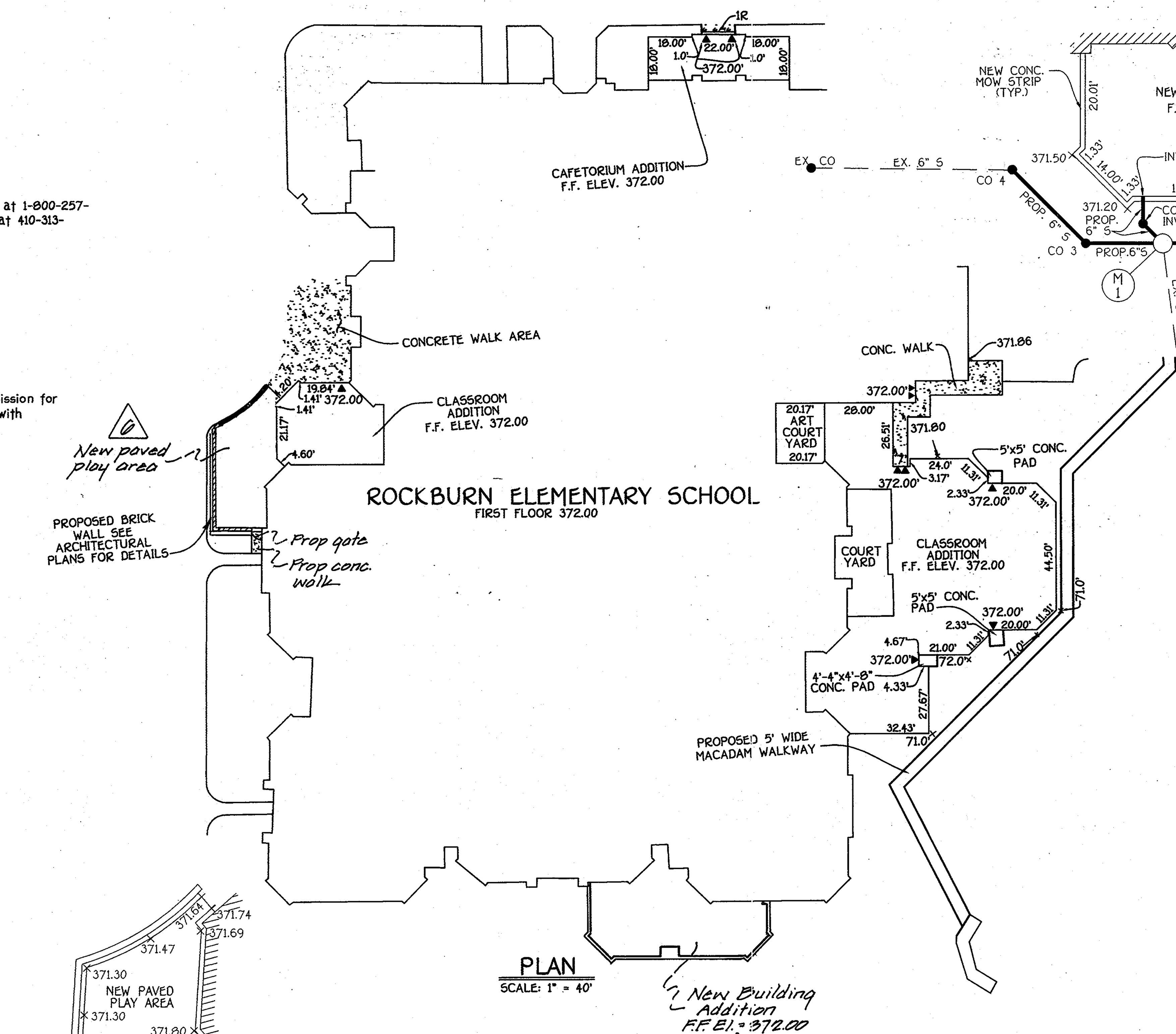
3.) Grade to subgrade building addition areas. Install sediment control measures shown on the plans. 2 weeks.

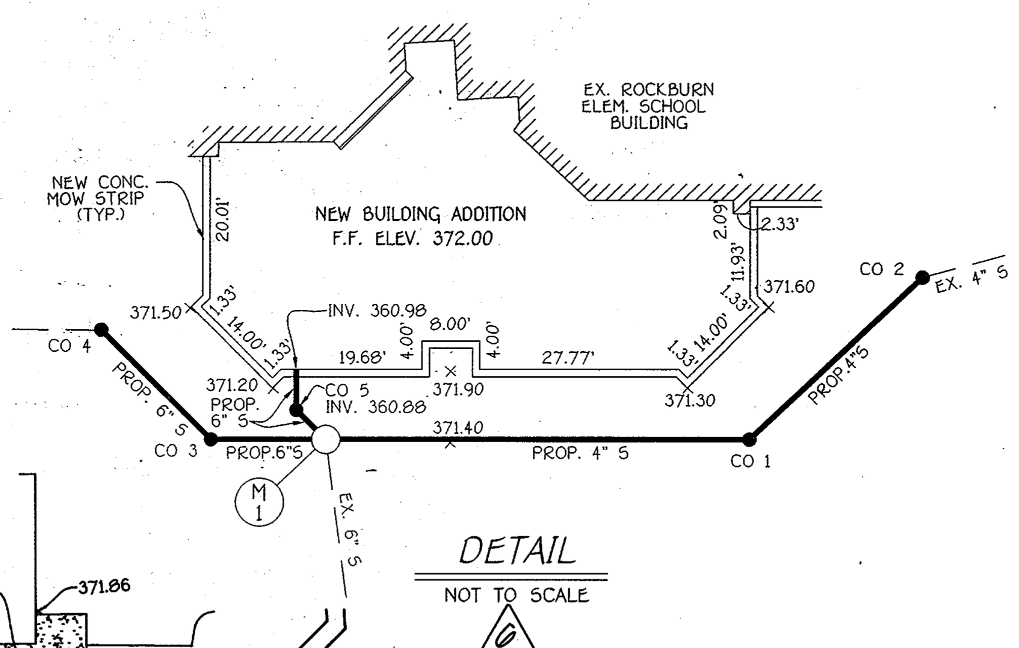
4.) *Relocate existing sewer line. 3 days.* (6)

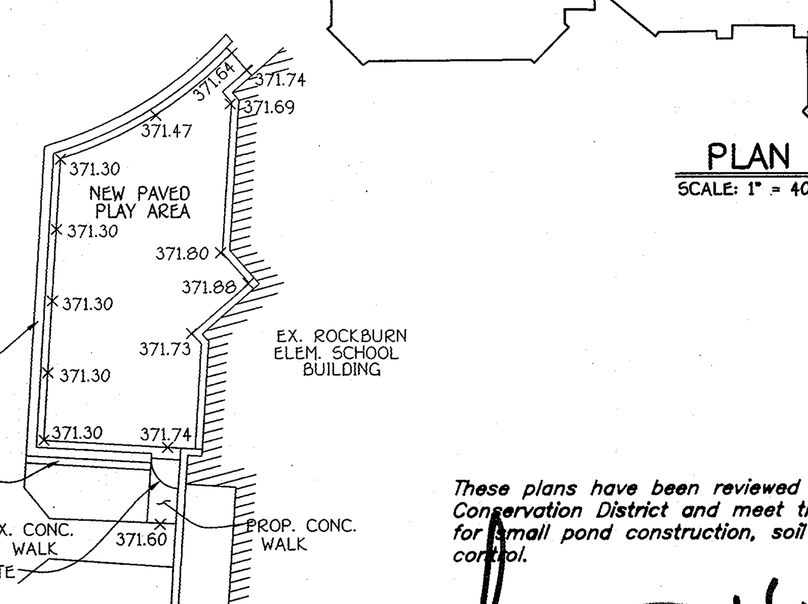
5.) Construct building addition *and paved play area. 9 months.*

6.) Fine grade disturbed areas and stabilize with permanent seeding.

7.) Notify Howard County Office of Construction/Inspection for permission for removal of sediment control measures and stabilize disturbed areas with permanent seeding.







SOIL BORINGS

Boring SWM-1 — Owner: Howard County Public School System; Job # B1044; Sheet 1 of 1; ECS LTD; Project Name: Northeast Elementary School; Architect-Engineer: Nichols Architects; Site Location: Montgomery Rd & Rockburn Branch Park Entrance; Surface Elevation 332.90

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	SPT blows/ft
1	SS	18	10	Silty Fine to Medium SAND, Some Fine to Coarse Gravel, Light Brown, Moist, Medium Dense (SM)	11
2	SS	18	14	Clayey Fine to Medium SAND, Reddish Brown and Tan, Moist, Medium Dense (SC)	11 (penetrometer 2.0)
3	SS	18	10	Fine to Medium SAND, Trace Gravel, Light Brown, Wet, Medium Dense to Very Dense (SP)	17
4	SS	18	10		35
5	SS	18	16		60

END OF BORING @ 15.0'

The stratification lines represent the approximate boundary lines between soil types in-situ the transition may be gradual. WL 7' WS or WD; BCR 7' ACR; WL 6.5' @ 48 Hrs; Boring Started 9/16/91; Boring Completed 9/16/91; Foreman Fritts; Topsoil Depth: 2"; Cave in Depth @ 7.5'; Drilling Method Hollow Stem Auger

Boring SWM-2 — Job # B1044; Sheet 1 of 1; Surface Elevation 331.70

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	SPT blows/ft
1	SS	18	13	Silty Fine to Medium SAND, Trace Clay, Trace Roots, Grayish Tan, Wet, Medium Dense (SM/ML) [Organic Odor]	11
2	SS	18	15	Fine to Medium SAND With Silt, Trace Gravel, Grayish Brown, Wet, Loose (SM)	6
3	SS	18	12	Clayey SILT With Fine to Medium Sand, Grayish Brown, Saturated, Medium Dense (ML)	11
4	SS	18	10	Fine to Medium SAND, Trace Silt, Tan, Saturated, Dense (SP)	39
5	SS	18	6		39

END OF BORING @ 15.0'

WL 6'; BCR 6.5'; WL 4.5' @ 48 Hrs; Boring Started 9/16/91; Boring Completed 9/16/91; Foreman Fritts; Topsoil Depth: 2"; Cave in Depth @ 7.5'; Drilling Method Hollow Stem Auger

Boring SWM-3 — Job # B1044; Sheet 1 of 1; Surface Elevation 333.20

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	SPT blows/ft
1	SS	18	10	Gravelly Fine to Coarse SAND, Trace Silt, Light Brown, Dry, Medium Dense (SP)	25
2	SS	18	16	Fine to Medium SAND With Silt, Light Brown, Moist, Dense (SM)	30
3	SS	18	12	SILT With Clay, Bright Brown, Moist, Stiff (ML)	19 (penetrometer 3.0)
4	SS	18	18	Fine to Medium SAND With Silt, Tannish Brown, Moist, Dense (SM)	30
5	SS	18	14		35

END OF BORING @ 15.0'

Bag Sample 1'-5'

WL 7.5'; BCR 7'4"; WL Dry @ 48 Hrs; CI @ 7'; Boring Started 9/16/91; Boring Completed 9/16/91; Foreman Fritts; Topsoil Depth: 2"; Cave in Depth @ 7'6"; Drilling Method Hollow Stem Auger

Boring SWM-4 — Job # B1044; Sheet 1 of 1; Surface Elevation 336.40

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	SPT blows/ft
1	SS	18	14	Gravelly Fine to Coarse SAND, Trace Silt, Light Brown, Dry, Medium Dense (SP)	28
2	SS	18	14	Fine to Medium SAND, Trace Gravel, Brownish to Grayish Tan, Moist, Medium Dense (SP)	14
3	SS	18	13		12
4	SS	18	15	Sandy Fine to Medium GRAVEL With Silt, Brownish Tan, Wet, Dense (GM)	33
5	SS	18	15	Fine to Medium SAND, Trace Silt, Tannish Brown, Wet, Dense (SP)	40

END OF BORING @ 15.0'

Bag Sample 1'-5'

WL 7'; BCR Dry; WL Dry @ 48 Hrs; CI @ 6.5'; Boring Started 9/16/91; Boring Completed 9/16/91; Foreman Fritts; Topsoil Depth: 2"; Cave in Depth @ 7'; Drilling Method Hollow Stem Auger

Boring SWM-5 — Job # B1044; Sheet 1 of 1; Surface Elevation 336.90

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	SPT blows/ft
1	SS	18	12	Gravelly Fine to Medium SAND With Silt, Light Brown, Dry, Medium Dense (SM)	13
2	SS	18	13		24
3	SS	18	12	Fine to Medium SAND, Trace Gravel and Silt, Tan, Dry to Wet, Medium Dense (SP)	12
4	SS	18	15		24
5	SS	18	17		23

END OF BORING @ 15.0'

WL 8.5'; BCR Dry; WL Dry @ 48 Hrs; CI @ 7'; Boring Started 9/16/91; Boring Completed 9/16/91; Foreman Fritts; Topsoil Depth: 2"; Cave in Depth @ 8'5"; Drilling Method Hollow Stem Auger

NOTE: See Soils Report by Engineering Consultanting Services, Ltd. dated October 7, 1991.

REVISIONS

NO.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 5' MAC. WALK, 4" SEWER & CONSTRUCTION SEQUENCE.	7/17/03

FISHER, COLLINS AND CARTER, INC. (1) 7/17/03

Revision 6 3/31/06 Fisher Collins and Carter Inc.

DEVELOPER'S CERTIFICATION

"I/We certify that all development and/or construction will be done according to these plans, and that any respnonsible personnel involved in the construction project will have Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with "As Built" plan of the pond within 30 days of completion. I will also authorize periodic on-site inspections by the Howard Soil Conservation District."

Cathleen Conley Young — Signature of Developer — 11/14/91 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 7/14/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 3/2/92
CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

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. Soil Conservation Service — Date 2/25/92

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Approved — Howard S.C.D. — Date 2/25/92

Plan Number

ENGINEER'S CERTIFACATE

"I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. this plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red lined "As Built" of the pond within 30 days of completion."

Signature of Engineer — Date 12-3-91

12-3-91

No.	Revision	Date
6	Add building addition, paved play area, details & construction sequence.	3-31-06

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ENGINEERS • PLANNERS • SURVEYORS
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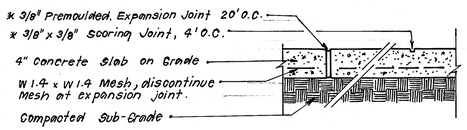
DESIGNED R.J.S.	STORMWATER MANAGEMENT NOTES AND SOIL BORING INFORMATION PARCEL A NORTHEASTERN ELEMENTARY SCHOOL PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN
DRAWN J.T.R.		DRAWING 6 OF 15
CHECKED R.J.S.		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

SDP. 92-58

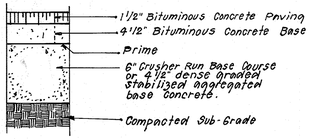
157426



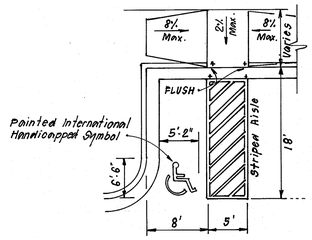
CONCRETE WALKS

NO SCALE

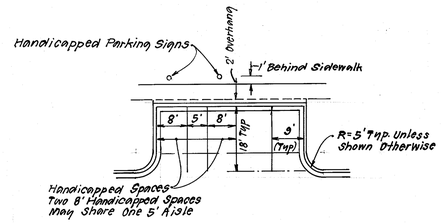
* NOTE: Use this expansion joint/scoring pattern, unless otherwise shown on plans.



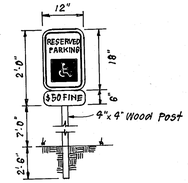
ASPHALT PAVING (P-3). ENTRANCE DRIVES, PARKING & BUS LOOP



HANDICAPPED RAMP AND SPACE LAYOUT

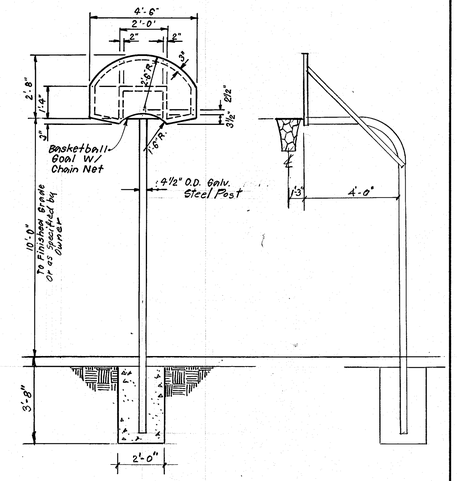


TYPICAL PARKING



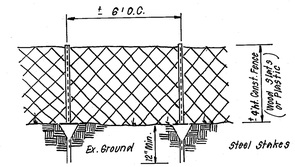
HANDICAPPED PARKING SIGN DETAIL

NO SCALE



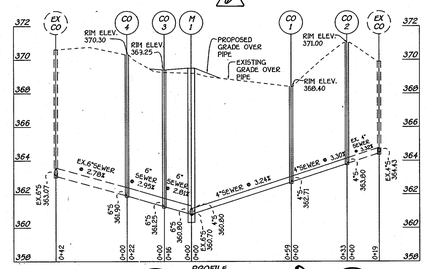
FAN-SHAPED BASKETBALL BACKBOARD

NO SCALE



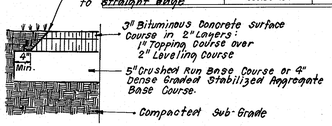
TYPICAL TREE PROTECTION FENCE DETAIL

STRUCTURE SCHEDULE									
STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	LOCATION NORTH	LOCATION EAST	W	TYPE	REMARKS
DI-5	CUT 369.40	360.80 (4") 360.80 (6")	360.70 (6")	563,759.34	1,377,909.37	4'	PRECAST MANHOLE	G. - 5.12

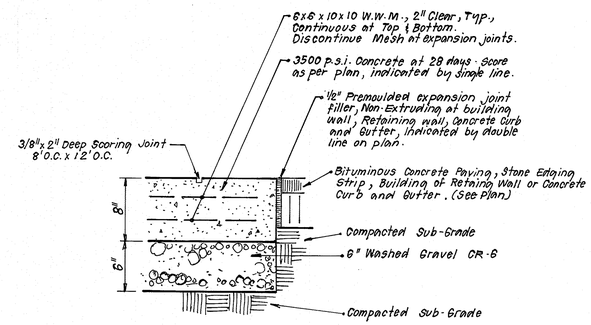


PROFILE

HORIZ. : 1" = 40'
VERT. : 1" = 4'



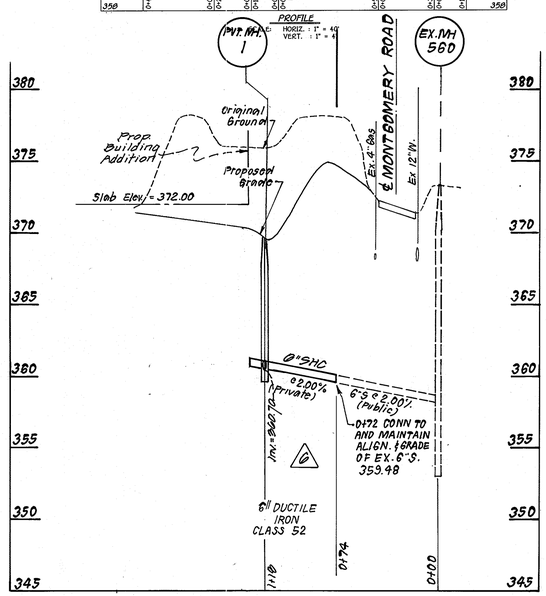
ASPHALT PAVING - WALKING PATHS, PLAY AREA (P-1)



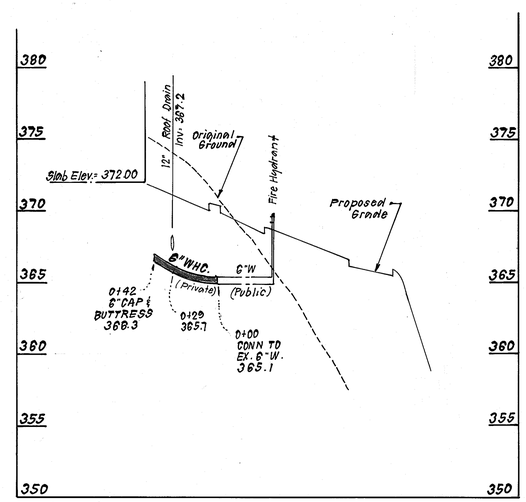
SERVICE YARD & DRIVES

HEAVY DUTY CONCRETE PAVING

NO SCALE

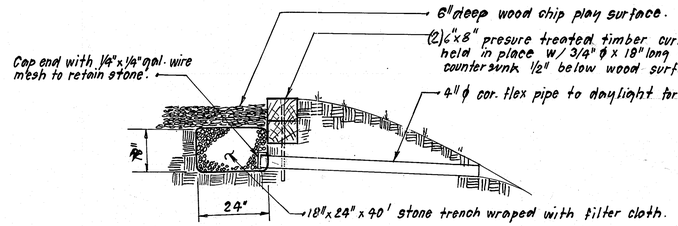


PROFILE SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



WATER AND SEWER NOTES:

1. All construction methods and materials for on-site private water and sewer systems shall follow the current edition of the Howard County Plumbing Code, supplemented by the Howard County Standard Details and Specifications where necessary.
2. Area where water house connection is being built shall be at final grade and connection shall be laid with a minimum of 3.5 feet of cover. Water house connection shall be 6-inch diameter, Ductile Iron, Class 52.
3. 6-inch sewer house connection shall be built within 5 feet of building at a slope of 2.0% unless shown otherwise. 6-inch P.V.C. pipe shall meet requirements of A.S.T.M. D3034, wall thickness classification SDR-35.
4. Where sewer house connection is to be extended from public connection, the material shall be the same as the public sewer.



"SOFT SURFACE" EDGING & DRAINAGE DETAIL

NO SCALE

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

COUNTY HEALTH OFFICER — DATE 4-29-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 4/23/92

CHIEF BUREAU OF ENGINEERING — DATE 4-23-92

REVISION 6 3/30/06 REVISED CONNECTION AND CLEANOUT

STATE OF MARYLAND — CHARLES E. CROVO — No. 17824 — PROFESSIONAL ENGINEER

STATE OF MARYLAND — GORDON CLARK — No. 7195 — REGISTERED PROFESSIONAL ENGINEER — 4-8-92

No.	REVISIONS	Date
6	Add structure schedule & revised sewer profiles	3-30-06
1	Revise alignment and grade of 6" Sewer	4-8-92

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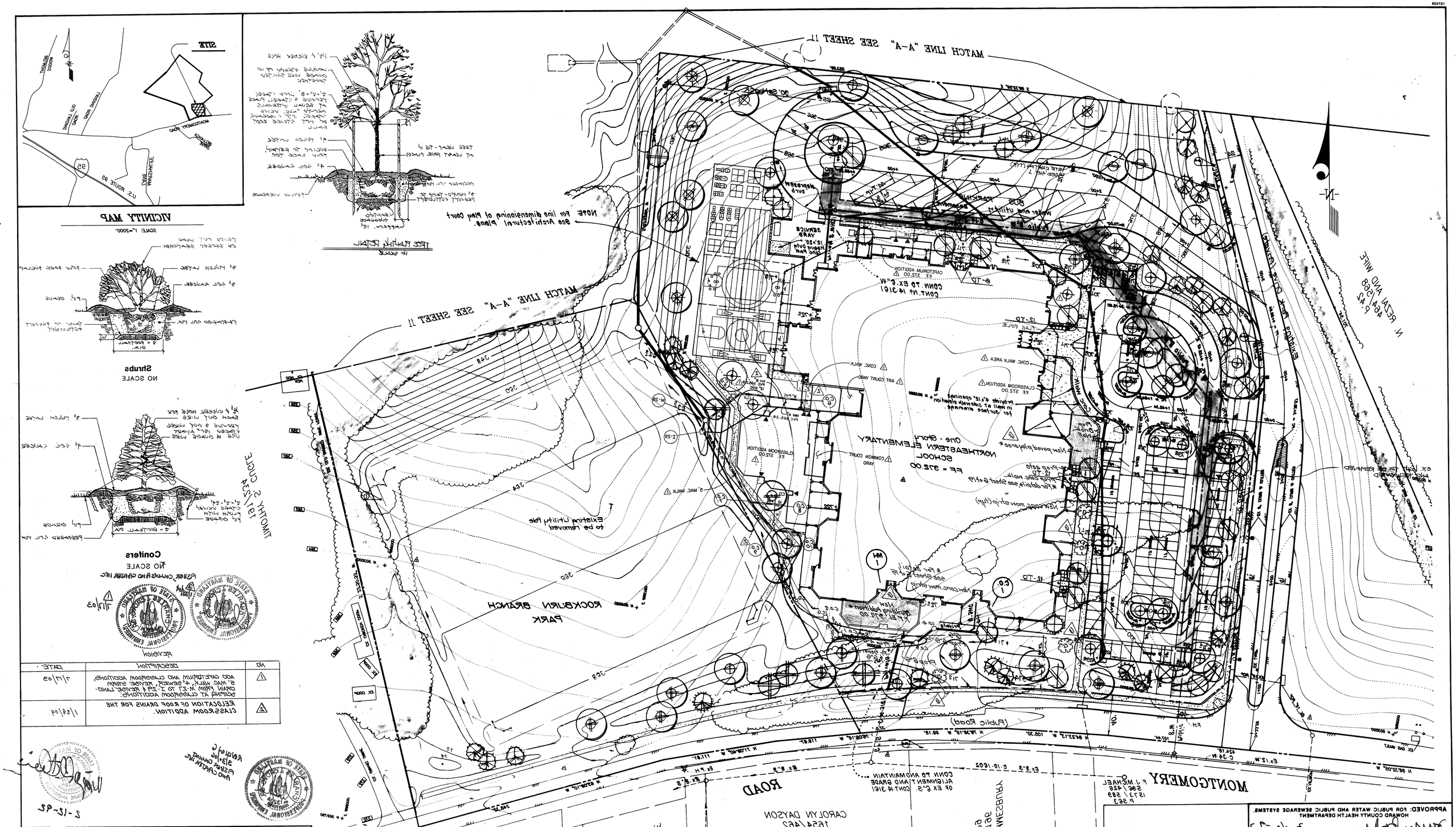
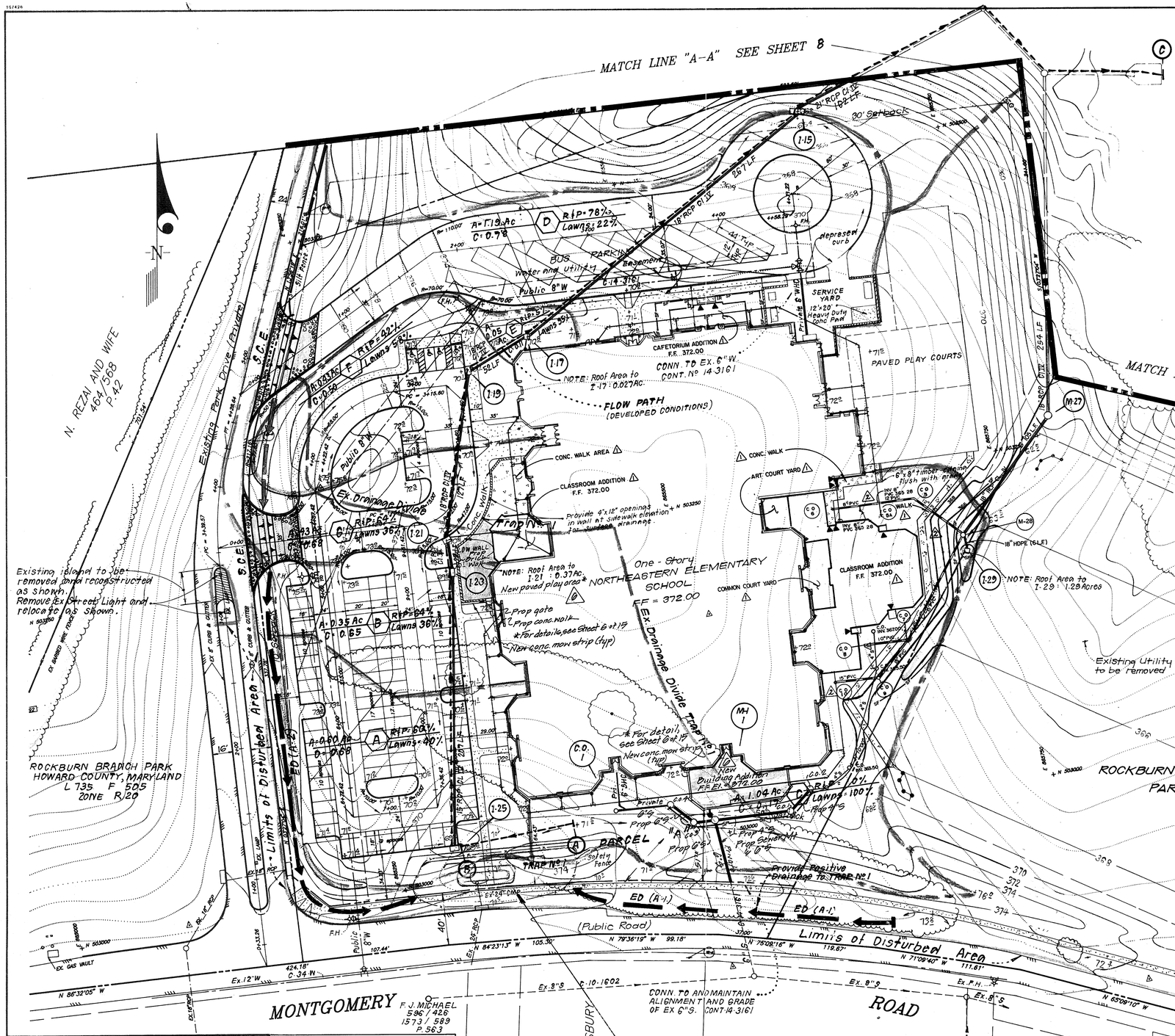
DESIGNED JTR	WATER AND SEWER PROFILES AND PAVING DETAILS	SCALE AS SHOWN
DRAWN JTR	NORTHEASTERN ELEMENTARY SCHOOL PARCEL A PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 3 OF 15
CHECKED		JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

SDP 92-58


MATCH LINE "A-A" SEE SHEET 11
MATCH LINE "A-A" SEE SHEET 11
NORTHEASTERN ELEMENTARY SCHOOL
One - Story
EF = 372.00
MONTGOMERY ROAD
(Public Road)
ROCKBURN BRANCH PARK
ROBERT WAMBSGANS
CAROLYN DAYSON
MICHAEL FIEDEN
MARCELLA B. & LOIS S. AND TAFT
WALTER MAYER
N. REDAL AND WIFE
SITE
VICINITY MAP
Shrubs
NO SCALE
Conifers
NO SCALE
Tree Planting Detail
NOTE For line dimensioning of play court see Architectural plans.
CLASSROOM ADDITION
CONC. WALK AREA
ART COURT YARD
COMMON COURT YARD
Existing Utility Pole to be removed
CONN. TO EX. 6" W. CONT. No 14-3161
CONN. TO AND MAINTAIN ALIGNMENT AND GRADE OF EX 6"S. CONT. No 3161
Water line utility
BUS PARKING
SERVICE YARD
Provide 4'x12' opening in wall at sidewalk elevation for surface drainage.
*For details see Sheet 6 of 19
Non-conc. non strip (typ)
Non-conc. non strip
Non-conc. non strip (typ)
Existing Utility Pole to be removed
Ex. 1" PVC Conduit
Ex. 6" W.
Ex. 8"S.
Ex. F.H.
Ex. Conc. Walk
Ex. Conc. Curb
Ex. Grade
Ex. Conc. Curb
Ex. Conc. Walk
Ex. Conc. Curb
Ex. Grade



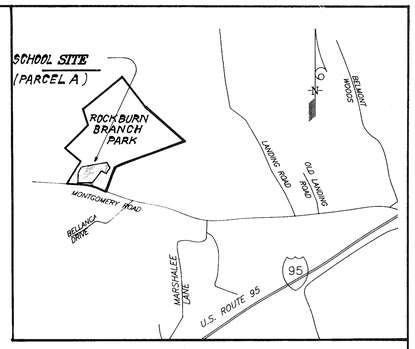
LEGEND:

Contour Interval	2'
Existing Contour	340
Proposed Contour	340
Spot Elevation	+41.2
Direction of Drainage	
Trees to be Saved	
Silt Fence	Silt Fence
Earth Dike	ED (A-1)
Proposed Drainage Divide	
Existing Drainage Divide	
Stabilized Construction Entrance	S.C.E.
Flow Path (developed conditions)	

REVISION		
2	RELOCATION OF ROOF DRAINS FOR THE CLASSROOM ADDITION	1/28/04
No.	DESCRIPTION	DATE
1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 6' MACADAM WALK, 4" SEWER & REVISE STORM DRAIN FROM M-27 TO I-29	7/17/03

FISHER, COLLINS AND CARTER INC.

1 7/17/03



VICINITY MAP

SCALE: 1" = 2000'

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature 2/25/92 Date
US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Zielman 2/25/92
Approved

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 3-6-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — DATE 7/18/92
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 3/2/92
CHIEF BUREAU OF ENGINEERING — DATE 3-2-92

TRAP Nº 1 (P.O.S.T.) ST-1

Drainage Area	2.3 Acres
Storage Required	4140 cf
Storage Provided	6000 cf
Weir Crest Elev.	387.0
Cleanout Elev.	364.5
Bottom Elev.	362.0
Depth	4.0
* Riser Dia.	24"
Bottom Dimension	35' x 8'
Side Slopes	2:1 Max.

* NOTE: Riser to be connected to Ex 24" CMP Ex Inv Elev. = 361.1

REVISING STORM DRAIN FROM CUGLE AND CONTROL

No.	Revision	Date
6	Add building addition, paved play area, sewer manhole, sewer line & silt fence.	9-30-98

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary".

Cathleen Corley Young 11/14/91
Signature Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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.

11-15-91
Signature Date

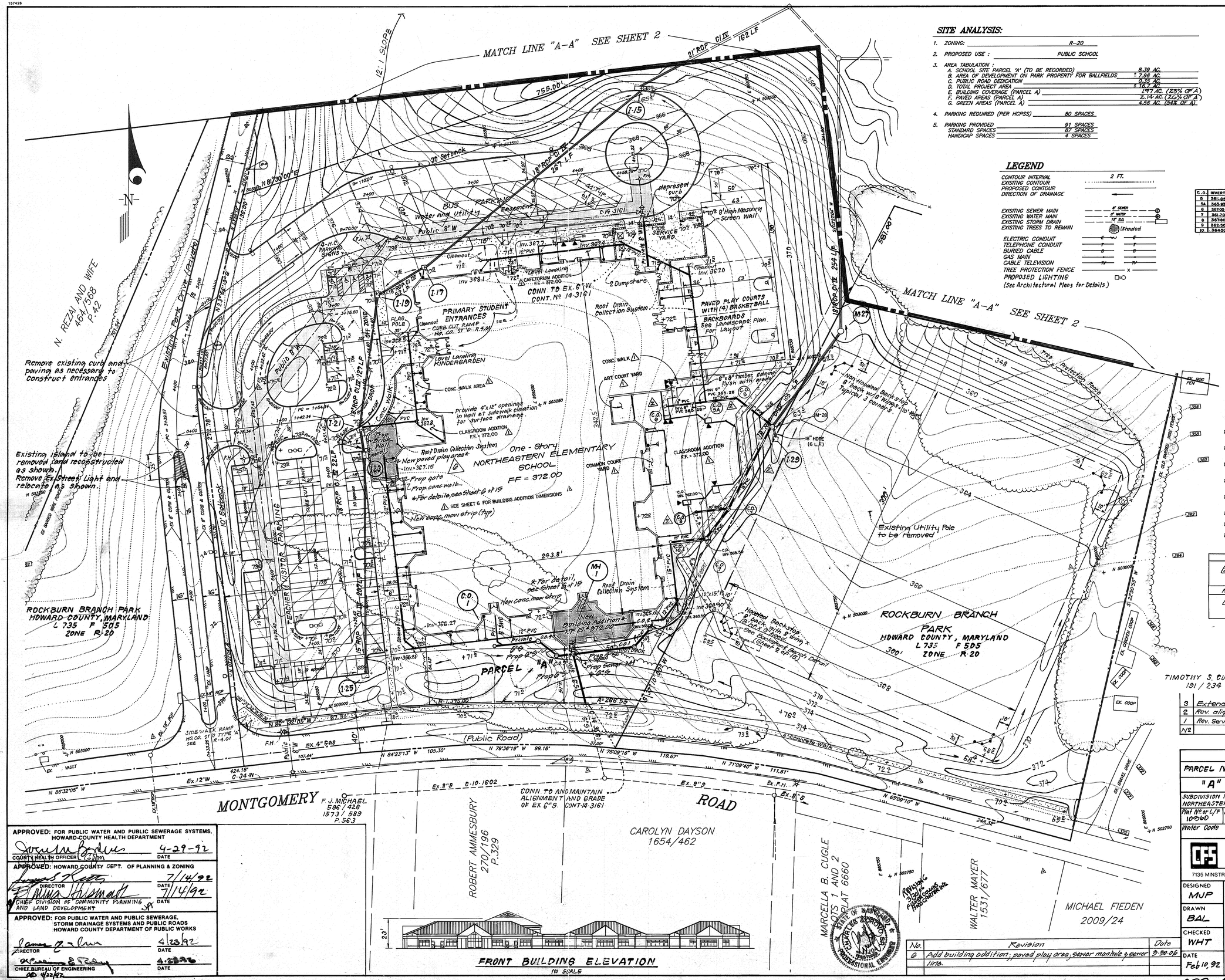
STATE OF MARYLAND GILBERT SON CLARK No. 11-15-91

CLARK • FINEFROCK & SACKETT, INC.
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED D.G.T.	SEDIMENT AND EROSION CONTROL PLAN AND DRAINAGE AREA MAP NORTHEASTERN ELEMENTARY SCHOOL PARCEL A TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1" = 40'
DRAWN JTR		DRAWING 7 OF 15
CHECKED DGT		JOB NO. 91-113
DATE NOV. 1991	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113SE

SDP 92-58 SEDIMENT EROSION CONTROL PLAN

157426


MATCH LINE "A-A" SEE SHEET 2
21" RCP CL IV 162 LF
18" RCP CL IV 267 LF
18" RCP CL IV 254 LF
18" RCP CL IV 129 LF
15" RCP CL IV 207 LF
12:1 SLOPE
30' Setback
10' Setback
BUS PARKING
Water and Utility Easements
Public 8" W
SERVICE YARD
8' High Masonry Screen Wall
depressed curb
44' TRIP
CAFETORIUM ADDITION F.F. = 372.00
CONN. TO EX. 8" W CONT. № 14-3161
2 Dumpsters
PRIMARY STUDENT ENTRANCES
CURB CUT RAMP HO. CO. ST'D. R.4.01
FLAG POLE
Level Landing KINDERGARDEN
Roof Drain Collection System
PAVED PLAY COURTS WITH (4) BASKETBALL BACKBOARDS See Landscape Plan For Layout
CONC. WALK AREA
Provide 4"x12" openings in wall at sidewalk elevation for surface drainage
CLASSROOM ADDITION F.F. = 372.00
One-Story NORTHEASTERN ELEMENTARY SCHOOL F.F. = 372.00
New paved play area
Prop gate
Prop. conc. walk
For details, see Sheet 6 of 15
SEE SHEET 6 FOR BUILDING ADDITION DIMENSIONS
New conc. mon strip (typ)
ART COURT YARD
COMMON COURT YARD
CONC. WALK
CLASSROOM ADDITION F.F. = 372.00
6"x8" Timber Edging flush with grade
Non-Hooded Backstop 8' Back with 8' Wings 10' High Typical 3 Corners
18" HDPE (6 L.F.)
Existing Utility Pole to be removed
Protection Fence
New conc. mon strip
Roof Drain Collection System
Building Addition F.F. = 372.00
Hooded Backstop 8' Back with 8' Wing (See Backstop Bench Detail Sheet 2 of 16)
PARCEL "A"
Prop. Sewer
Sidewalk
Level Landing
Remove existing curb and paving as necessary to construct entrances
Existing island to be removed and reconstructed as shown
Remove Ex. Street Light and relocate as shown
Existing Park Drive (Private)
N. REZAI AND WIFE 464/568 P.42
ROCKBURN BRANCH PARK HOWARD COUNTY, MARYLAND L 735 F 505 ZONE R-20
ROCKBURN BRANCH PARK HOWARD COUNTY, MARYLAND L 735 F 505 ZONE R-20
TEACHER PARKING
SIDEWALK RAMP HO. CO. STD. TYPE 'A' R-4.01 SEE
(Public Road)
MONTGOMERY ROAD
F. J. MICHAEL 586/426 1573/589 P.563
CONN. TO AND MAINTAIN ALIGNMENT AND GRADE OF EX 8" S. CONT. 14-3161
ROBERT AMMESBURY 270/196 P.329
CAROLYN DAYSON 1654/462
MARCELLA B. CUGLE LOTS 1 AND 2 PLAT 6660
WALTER MAYER 1531/677
MICHAEL FIEDEN 2009/24
TIMOTHY S. CUGLE 191/234
EX. CONC. CURB
EX. WOOD PEN
EX. WIRED WIRE FENCE
EX. CHICKEN COOP
EX. VAULT
N 86°32'05" W
N 84°23'13" W
N 79°36'19" W
N 75°09'16" W
N 71°09'40" W
N 63°09'10" W
N 86°38'05" W
N 81°30'00" E
N 23°56'00" E
S 22°50'55" W
R=110.00'
R=70.00'
A=286.55'
R=215.00'
755.00'
581.07'
243.8'
424.18'
105.30'
99.18'
118.67'
111.61'
107.44'
87.51'
240.32'
136.00'
272.78'
222.31'
Ex. 12" W
Ex. 8" S
Ex. F.H.
C-34-W
C-10-1602
Ex. 4" Gas
Inv. 367.15
Inv. 367.00
Inv. 365.28
Inv. 362.90
Inv. 366.27
Inv. 366.82
Inv. 368.1
Inv. 367.00
Inv. 365.50
Inv. 365.01
Inv. 363.50
Inv. 367.7
Inv. 367.8
Inv. 367.4
Inv. 367.5
Inv. 367.6
Inv. 367.9
Inv. 368.9
Inv. 367.2
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Inv. 365.6
Inv. 365.5
Inv. 365.4
Inv. 365.3
Inv. 365.2
Inv.

CONSTRUCTION SPECIFICATIONS FOR S.W.M. PONDS

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 location 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 - Areas 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 into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread 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:

1. 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, Plasti-Cote, Blac-Klad, and Beth-Cu-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.

   Materials - (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.

2. 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.

3. 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 and 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 48" 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 48" 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.

4. 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.

5. Backfilling shall conform to "Structure Backfill."

6. 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:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302.

2. 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.

3. 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.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

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

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3

Rock Riprap

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one-third the greatest dimension of the fragment.

The rock shall have the following properties:

1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
2. Absorption not more than three percent.
3. Soundness: Weight loss in five cycles not more than 20 percent when sodium sulfate is used.

Bulk specific gravity and absorption shall be determined according to ASTM C 127. The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be 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 a 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 sightly 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.

CONSTRUCTION SEQUENCE FOR BUILDING ADDITION

1.) Obtain Grading Permit

2.) Notify "Miss Utility" at least 48 hours before beginning any work at 1-800-257-7777. Notify the Howard County Office of Construction/Inspection at 410-313-1330 24 hours before starting work.

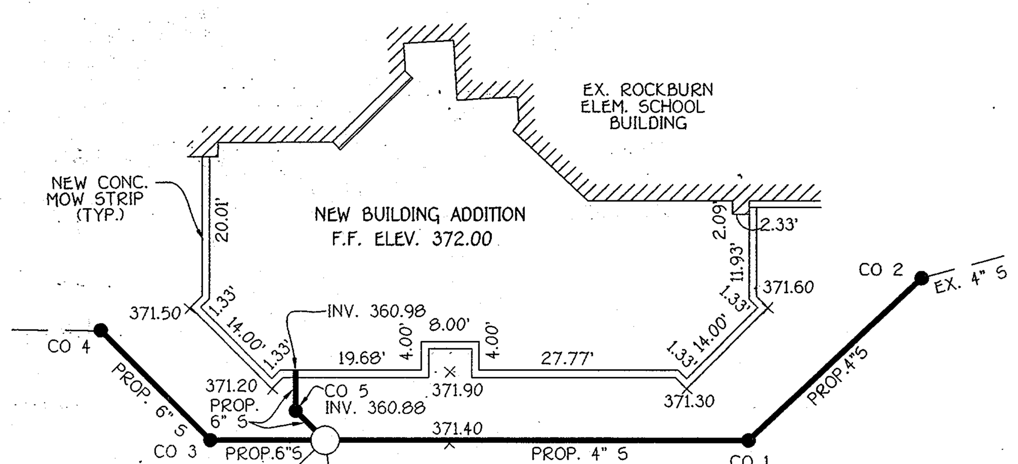
3.) Grade to subgrade building addition areas. Install sediment control measures shown on the plans. 2 weeks.

4.) *Relocate existing sewer line. 3 days.* △6

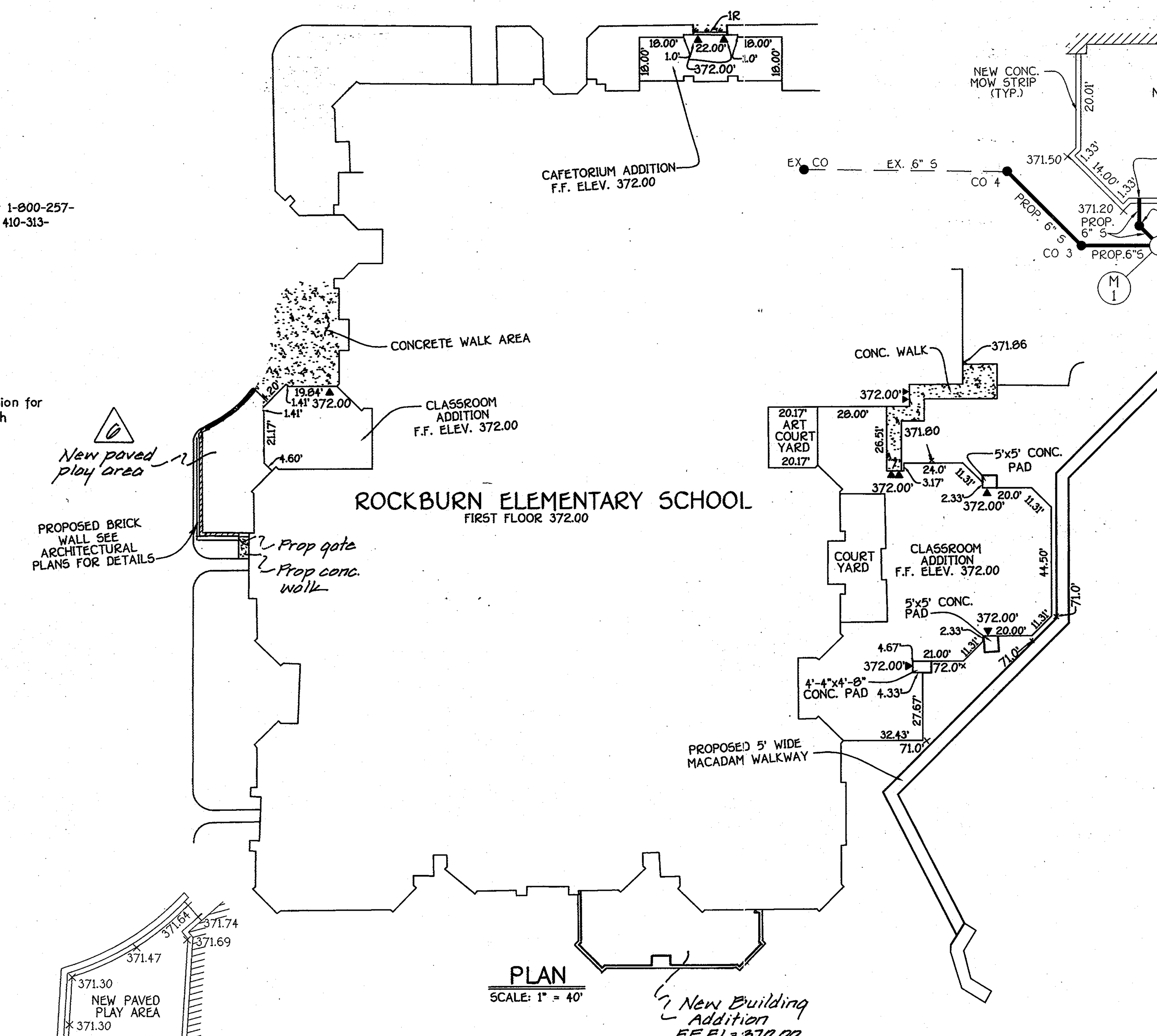
5.) Construct building addition *and paved play area. 9 months.*

6.) Fine grade disturbed areas and stabilize with permanent seeding.

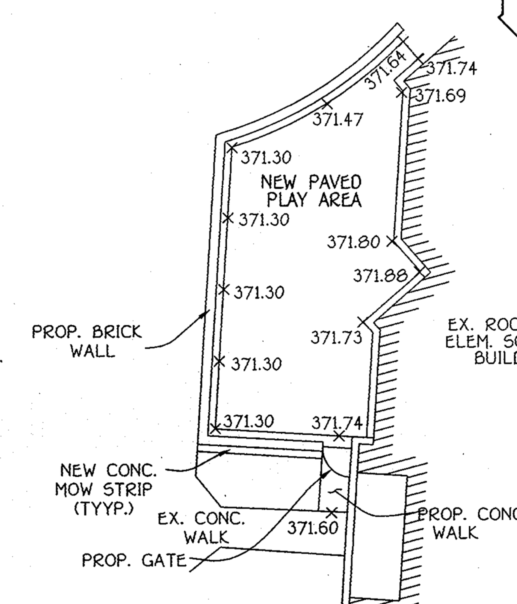
7.) Notify Howard County Office of Construction/Inspection for permission for removal of sediment control measures and stabilize disturbed areas with permanent seeding.



DETAIL
NOT TO SCALE △6



PLAN
SCALE: 1" = 40'



DETAIL
NOT TO SCALE △6

SOIL BORINGS

Owner: Howard County Public School System — Project Name: Northeast Elementary School — Architect-Engineer: Nichols Architects — Site Location: Montgomery Rd & Rockburn Branch Park Entrance — Job # B1044 — Sheet 1 of 1 — ECS LTD

Boring SWM-1 — Surface Elevation 332.90

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	Standard Penetration Blows/Ft.
1	SS	18	10	Silty Fine to Medium SAND, Some Fine to Coarse Gravel, Light Brown, Moist, Medium Dense (SM)	11
2	SS	18	14	Clayey Fine to Medium SAND, Reddish Brown and Tan, Moist, Medium Dense (SC)	11 (water content 2.0)
3	SS	18	10	Fine to Medium SAND, Trace Gravel, Light Brown, Wet, Medium Dense to Very Dense (SP)	17
4	SS	18	10		35
5	SS	18	16		60
				END OF BORING @ 15.0'	

WL 7' — BCR 7' — WL 6.5' @ 48 Hrs — Boring Started 9/16/91 — Boring Completed 9/16/91 — Foreman Fritts — Topsoil Depth: 2" — Cave in Depth @ 7.5' — Drilling Method Hollow Stem Auger

Boring SWM-2 — Surface Elevation 331.70

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	Standard Penetration Blows/Ft.
1	SS	18	13	Silty Fine to Medium SAND, Trace Clay, Trace Roots, Grayish Tan, Wet, Medium Dense (SM/ML) [Organic Odor]	11
2	SS	18	15	Fine to Medium SAND With Silt, Trace Gravel, Grayish Brown, Wet, Loose (SM)	6
3	SS	18	12	Clayey SILT With Fine to Medium Sand, Grayish Brown, Saturated, Medium Dense (ML)	11
4	SS	18	10	Fine to Medium SAND, Trace Silt, Tan, Saturated, Dense (SP)	39
5	SS	18	6		39
				END OF BORING @ 15.0'	

WL 6' — BCR 6.5' — WL 4.5' @ 48 Hrs — Boring Started 9/16/91 — Boring Completed 9/16/91 — Foreman Fritts — Topsoil Depth: 2" — Cave in Depth @ 7.5' — Drilling Method Hollow Stem Auger

Boring SWM-3 — Surface Elevation 333.20

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	Standard Penetration Blows/Ft.
1	SS	18	10	Gravelly Fine to Coarse SAND, Trace Silt, Light Brown, Dry, Medium Dense (SP)	25
2	SS	18	16	Fine to Medium SAND With Silt, Light Brown, Moist, Dense (SM)	30
3	SS	18	12	SILT With Clay, Bright Brown, Moist, Stiff (ML)	19 (water content 3.0)
4	SS	18	18	Fine to Medium SAND With Silt, Tannish Brown, Moist, Dense (SM)	30
5	SS	18	14		35
				END OF BORING @ 15.0'	

Bag Sample 1'-5'

WL 7.5' — BCR 7'4" — WL Dry @ 48 Hrs; CI @ 7' — Boring Started 9/16/91 — Boring Completed 9/16/91 — Foreman Fritts — Topsoil Depth: 2" — Cave in Depth @ 7'6" — Drilling Method Hollow Stem Auger

Boring SWM-4 — Surface Elevation 336.40

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	Standard Penetration Blows/Ft.
1	SS	18	14	Gravelly Fine to Coarse SAND, Trace Silt, Light Brown, Dry, Medium Dense (SP)	28
2	SS	18	14	Fine to Medium SAND, Trace Gravel, Brownish to Grayish Tan, Moist, Medium Dense (SP)	14
3	SS	18	13		12
4	SS	18	15	Sandy Fine to Medium GRAVEL With Silt, Brownish Tan, Wet, Dense (GM)	33
5	SS	18	15	Fine to Medium SAND, Trace Silt, Tannish Brown, Wet, Dense (SP)	40
				END OF BORING @ 15.0'	

Bag Sample 1'-5'

WL 7' — BCR Dry — WL Dry @ 48 Hrs; CI @ 6.5' — Boring Started 9/16/91 — Boring Completed 9/16/91 — Foreman Fritts — Topsoil Depth: 2" — Cave in Depth @ 7' — Drilling Method Hollow Stem Auger

Boring SWM-5 — Surface Elevation 336.90

Sample No.	Sample Type	Sample Distance (in)	Recovery (in)	Description of Material	Standard Penetration Blows/Ft.
1	SS	18	12	Gravelly Fine to Medium SAND With Silt, Light Brown, Dry, Medium Dense (SM)	13
2	SS	18	13		24
3	SS	18	12	Fine to Medium SAND, Trace Gravel and Silt, Tan, Dry to Wet, Medium Dense (SP)	12
4	SS	18	15		24
5	SS	18	17		23
				END OF BORING @ 15.0'	

WL 8.5' — BCR Dry — WL Dry @ 48 Hrs; CI @ 7' — Boring Started 9/16/91 — Boring Completed 9/16/91 — Foreman Fritts — Topsoil Depth: 2" — Cave in Depth @ 8'5" — Drilling Method Hollow Stem Auger

The stratification lines represent the approximate boundary lines between soil types in-situ the transition may be gradual.

NOTE: See Soils Report by Engineering Consultanting Services, Ltd. dated October 7, 1991.

REVISIONS

NO.	DESCRIPTION	DATE
△1	ADD CAFETORIUM AND CLASSROOM ADDITIONS, 5' MAC. WALK, 4" SEWER & CONSTRUCTION SEQUENCE.	7/17/03

FISHER, COLLINS AND CARTER, INC. △1 7/17/03

Revision 6 3/31/06 Fisher Collins and Carter Inc.

DEVELOPER'S CERTIFICATION

"I/We certify that all development and/or construction will be done according to these plans, and that any respnonsible personnel involved in the construction project will have Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with "As Built" plan of the pond within 30 days of completion. I will also authorize periodic on-site inspections by the Howard Soil Conservation District."

Cathleen Conley Young — 11/14/91
Signature of Developer — Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — 3-6-92 — DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
DIRECTOR — 7/14/92 — DATE
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — 7/14/92 — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — 3/2/92 — DATE
CHIEF BUREAU OF ENGINEERING — 3-2-92 — DATE
2/28/92

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. Soil Conservation Service — 2/25/92 — Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Approved — Howard S.C.D. — 2/25/92 — Date

Plan Number

ENGINEER'S CERTIFACATE

"I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. this plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with a red lined "As Built" of the pond within 30 days of completion."

Signature of Engineer — 12-3-91 — Date

12-3-91

No.	Revision	Date
6	Add building addition; paved play area, details & construction sequence.	3-31-06

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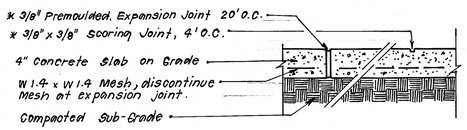
ENGINEERS • PLANNERS • SURVEYORS
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (301) 381-7500 – BALTO. • (301) 621-8100 – WASH.

DESIGNED R.J.S.	STORMWATER MANAGEMENT NOTES AND SOIL BORING INFORMATION	SCALE AS SHOWN
DRAWN J.T.R.	PARCEL A NORTHEASTERN ELEMENTARY SCHOOL	DRAWING 6 OF 15
CHECKED R.J.S.	PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 91-113
DATE Feb 10, 92	FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043	FILE NO. 91-113-X

SDP. 92-58

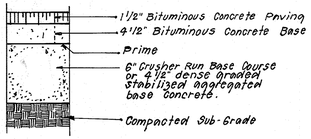
157426



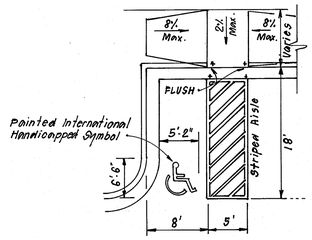
CONCRETE WALKS

NO SCALE

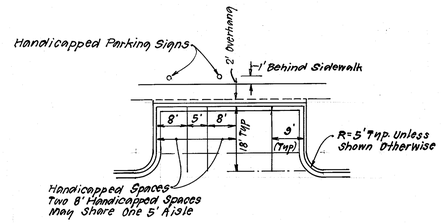
* NOTE: Use this expansion joint/scoring pattern, unless otherwise shown on plans.



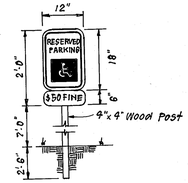
ASPHALT PAVING (P-3). ENTRANCE DRIVES, PARKING & BUS LOOP



HANDICAPPED RAMP AND SPACE LAYOUT

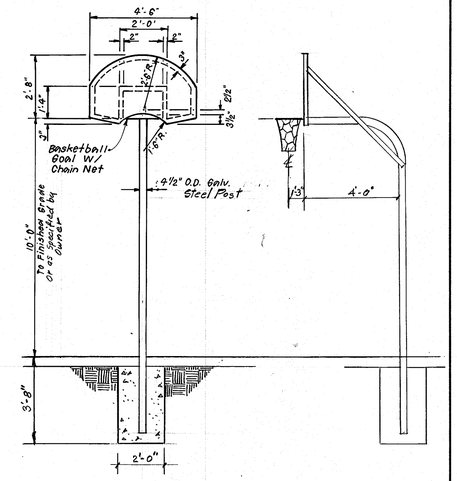


TYPICAL PARKING



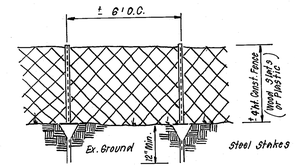
HANDICAPPED PARKING SIGN DETAIL

NO SCALE



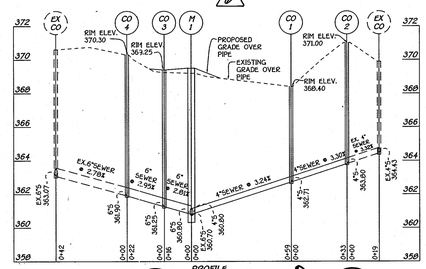
FAN-SHAPED BASKETBALL BACKBOARD

NO SCALE



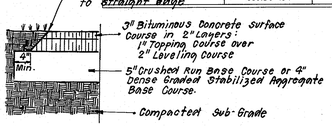
TYPICAL TREE PROTECTION FENCE DETAIL

STRUCTURE SCHEDULE									
STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	LOCATION NORTH	LOCATION EAST	W	TYPE	REMARKS
DI-5	CUT 369.40	360.80 (4") 360.80 (6")	360.70 (6")	563,759.34	1,377,909.37	4'	PRECAST MANHOLE	G. - 5.12

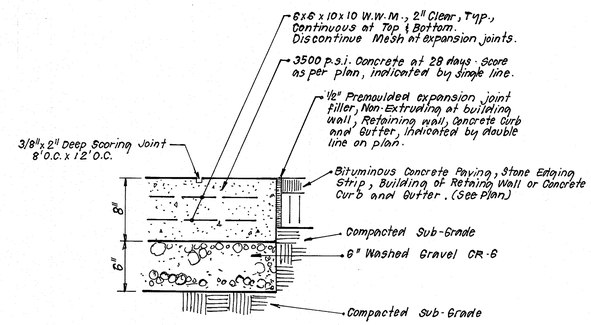


PROFILE

HORIZ. : 1" = 40'
VERT. : 1" = 4'



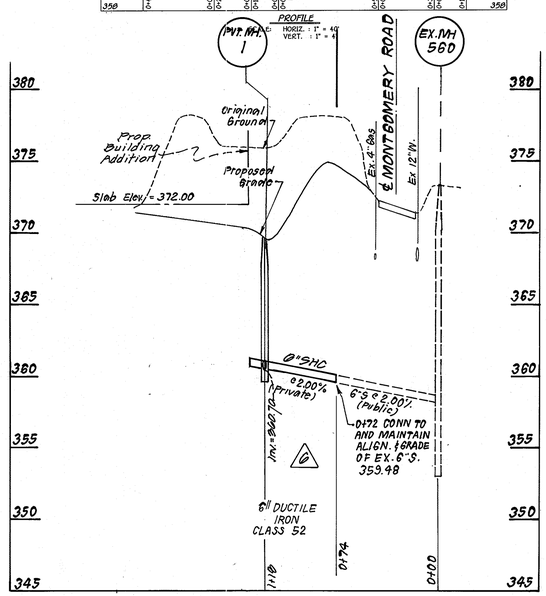
ASPHALT PAVING - WALKING PATHS, PLAY AREA (P-1)



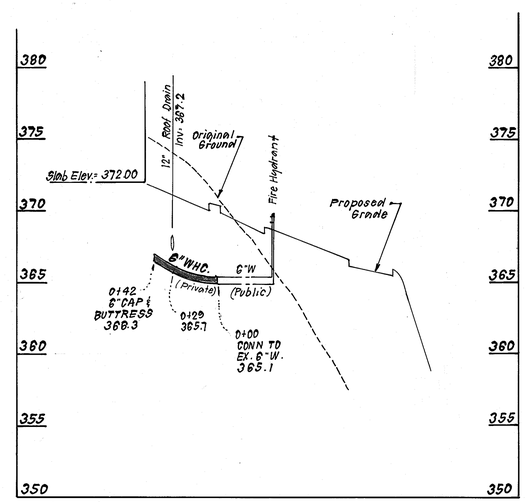
SERVICE YARD & DRIVES

HEAVY DUTY CONCRETE PAVING

NO SCALE

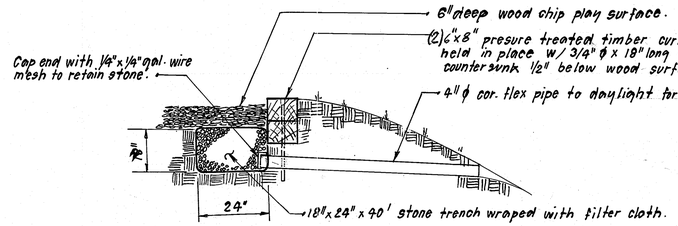


PROFILE SCALE: HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



WATER AND SEWER NOTES:

1. All construction methods and materials for on-site private water and sewer systems shall follow the current edition of the Howard County Plumbing Code, supplemented by the Howard County Standard Details and Specifications where necessary.
2. Area where water house connection is being built shall be at final grade and connection shall be laid with a minimum of 3.5 feet of cover. Water house connection shall be 6-inch diameter, Ductile Iron, Class 52.
3. 6-inch sewer house connection shall be built within 5 feet of building at a slope of 2.0% unless shown otherwise. 6-inch P.V.C. pipe shall meet requirements of A.S.T.M. D3034, wall thickness classification SDR-35.
4. Where sewer house connection is to be extended from public connection, the material shall be the same as the public sewer.



"SOFT SURFACE" EDGING & DRAINAGE DETAIL

NO SCALE

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

COUNTY HEALTH OFFICER — DATE 4-29-92

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR — DATE 7/14/92

CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT — DATE 7/14/92

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 4/23/92

CHIEF BUREAU OF ENGINEERING — DATE 4-23-92

REVISION 6 3/30/06 REVISED CONNECTION AND CLEANOUT

STATE OF MARYLAND — CHARLES E. CROVO — No. 17824 — PROFESSIONAL ENGINEER

STATE OF MARYLAND — GORDON CLARK — No. 7195 — REGISTERED PROFESSIONAL ENGINEER — 4-8-92

No.	REVISIONS	Date
6	Add structure schedule & revised sewer profiles	3-30-06
1	Revise alignment and grade of 6" Sewer	4-8-92

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DESIGNED JTR	WATER AND SEWER PROFILES AND PAVING DETAILS	SCALE AS SHOWN
DRAWN JTR	NORTHEASTERN ELEMENTARY SCHOOL PARCEL A PART OF LIBER 735 FOLIO 505 TAX MAP NO. 31 PART OF PARCEL 235 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	DRAWING 3 OF 15
CHECKED		JOB NO. 91-113
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