

SHEET INDEX	
NO.	DESCRIPTION
1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	SEDIMENT CONTROL AND S.W.M. PLAN
4	SEDIMENT CONTROL NOTES AND DETAILS
5	S.W.M. NOTES AND DETAILS
6	S.W.M. NOTES AND DETAILS
7	DRAINAGE AREA MAP AND DETAILS
8	BORING LOGS AND DETAILS
9	PROFILES
10	LANDSCAPE PLAN
11	LANDSCAPE DETAILS

# ELLICOTT CITY SENIOR CENTER

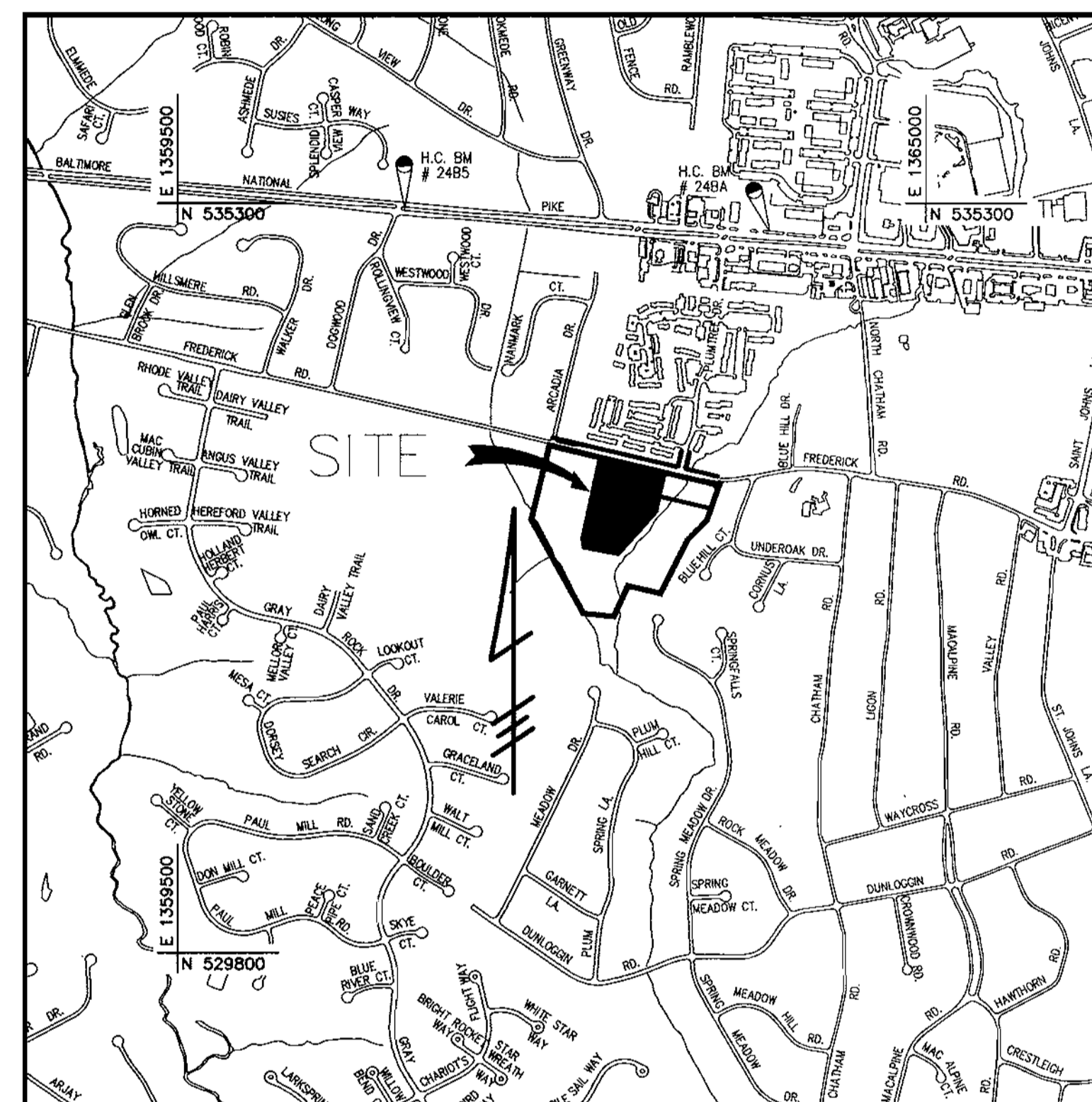


VICINITY MAP  
SCALE: 1" = 2000'

## 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS M.S.H.A. STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE LOCATIONS OF THE UTILITIES SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION AND DEPTH OF ANY UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEERING OFFICE, PHOENIX ENGINEERING, INC. AT (410) 247-8833 IN THE EVENT OF ANY DISCREPANCIES IN THE PLANS OR IN THE RELATIONSHIP OF FINISHED GRADES TO EXISTING GRADES, PRIOR TO BEGINNING ANY WORK.
- THE CONTRACTOR SHALL NOTE THAT IN THE CASE OF DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:  
"MISS UTILITY" .....(1)(800) 257-7777  
BALTIMORE GAS & ELECTRIC COMPANY.....(410) 685-0123  
C&P TELEPHONE.....(410) 725-9976  
A&T CABLE LOCATION DIVISION.....(410) 393-3553  
HOWARD COUNTY BUREAU OF UTILITIES.....(410) 313-4900  
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK).....(410) 313-1880
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- NO PIPE SHALL BE LAID UNTIL LINE OF EXCAVATION HAS BEEN BROUGHT TO SUBGRADE.
- ALL SPOT ELEVATIONS SHOWN ARE TOP OF PROPOSED PAVING OR CONCRETE WHEN ADJACENT TO CURB. ELEVATION SHOWN IS BOTTOM OF CURB FLOWLINE.
- STORM WATER QUANTITY MANAGEMENT IS BEING PROVIDED ON SITE IN THE FORM OF A DETENTION FACILITY. WATER QUALITY IS PROVIDED BY A STORMCEPTOR THIS FACILITY WILL BE OWNED AND MAINTAINED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
- HANDICAP RAMPS SHALL MEET ADA REQUIREMENTS.
- THE CONTRACTOR SHALL OBTAIN THE NECESSARY BUILDING PERMITS FOR CONSTRUCTION.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM A FIELD RUN SURVEY WITH 2' CONTOUR INTERVALS PREPARED BY C. BROOKE MILLER, DATED FEBRUARY, 2000.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE GRID COORDINATES. (NAD 83). ALL VERTICAL CONTROLS ARE BASED ON NGVD29 DATUM.
- CONTRACTOR SHALL USE DIMENSIONS SHOWN. SCALING OF THESE PLANS IS DISCOURAGED UNLESS DIRECTED BY THE CIVIL ENGINEER
- ANY DAMAGE TO COUNTY RIGHT-OF-WAY AND PAVING OF PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY SPECIFICATIONS AND STANDARDS.
- THIS SDP IS EXEMPT FROM THE APFO TRAFFIC TEST IN ACCORDANCE WITH SECTION 16.1107 (a) (2) (i). AN EXEMPT GOVERNMENT FACILITY.
- THERE ARE NO CEMETERIES LOCATED ON THIS SITE.
- THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION WITH THE FILING OF A DECLARATION OF INTENT (DOI) FOR A SINGLE PARCEL CLEARING LESS THAN 40,000 SQUARE FEET OF FOREST.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 24 BA AND 24 B5 WERE USED FOR THIS PROJECT.
- WATER IS (PUBLIC) AND IS IN THE LITTLE PATUXENT DRAINAGE AREA, AND IS DESIGNATED AS CONTRACT NUMBER 24-3880-D SEE SHEET 1 OF 1, ATTACHED TO BID PACKAGE.
- SEWER IS (PUBLIC) AND IS IN THE LITTLE PATUXENT DRAINAGE AREA, AND IS DESIGNATED AS CONTRACT NO. 129-S.
- THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY, AND WAS APPROVED ON DECEMBER 4, 1986.
- THE WETLANDS DEFINITION STUDY FOR THIS PROJECT WAS PREPARED BY TIMOTHY PRIGG & ASSOCIATES, GMA&D, DATED NOVEMBER, 1999 AND WAS APPROVED ON OCT. 31, 2000.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- A PERMIT APPLICATION TO ALLOW CONSTRUCTION IN WETLANDS, WETLANDS BUFFERS, WATERWAYS AND FLOODPLAINS IS UNDER REVIEW BY THE MARYLAND DEPT. OF THE ENVIRONMENT WITH TRACKING NUMBER 200160466 THIS PERMIT WILL BE GIVEN TO HOWARD COUNTY WHEN RECEIVED.
- THE UTILITY CONTRACTOR WHO WILL PERFORM THE PUBLIC UTILITY PORTION OF THE POTABLE WATER LINE EXTENSION, (SEE SHEET 1 OF 1, 24-3880-D), MUST HAVE AN ON-SITE UTILITY CONTRACTORS LICENSE
- THIS PROJECT IS SUBJECT TO WP-01-33 FOR A WAIVER OF SECTION 16.116(a)(2)(ii) STREAM BUFFER DISTURBANCE AND SECTION 16.116(c)(2) FLOODPLAIN DISTURBANCE TO PERMIT OUTFALL SWALES FOR THE SWM FACILITY AND STORM DRAIN SYSTEM, WAIVER APPROVED ON 10-31-00



LOCATION MAP  
SCALE: 1" = 1000'

### LEGEND

- 188--- EX. CONTOUR
- 188— PROP. CONTOUR
- 52 X 61 SPOT ELEVATION
- — — — PROP. STORM DRAIN
- — — — PROPERTY LINE
- - - - - ZONING LINE

BM #24BA ELEV. 386.357  
ALUMINUM DISC ON CONCRETE MONUMENT SET FLUSH WITH GROUND 4' BEHIND FACE OF CURB OF U.S. ROUTE 40 WESTBOUND LANE, 28.8' FROM P.C. OF SAID CURB AND APPROXIMATELY 96' PERPENDICULAR EAST TO INTERSECTION OF PLUM TREE DRIVE.

NORTHING 586783.250  
EASTING 1369211.698

BM #24B5 ELEV. 390.945  
ALUMINUM DISC ON CONCRETE MONUMENT SET FLUSH WITH GROUND IN EASTERN MEDIAN STRIP, 6.3' BEHIND EASTBOUND FACE OF CURB AND 12.8' BEHIND WESTBOUND FACE OF CURB OF U.S. ROUTE 40, PERPENDICULAR 76.2' TO INTERSECTION OF DOGWOOD ROAD.

NORTHING 586956.233  
EASTING 1365670.840

### SITE ANALYSIS

TOTAL AREA OF SITE = 5.563 AC. OR 242,311 SQ. FT.  
TOTAL AREA OF THIS SUBMISSION = 5.563 AC. OR 242,311 SQ. FT.  
ZONING: R-20  
PROPOSED USE = SENIOR CENTER  
THERE ARE NO EXISTING OR PROPOSED SLOPES 15% OR GREATER EXCEPT AS SHOWN.  
THE SOILS TYPES SHOWN ON THESE PLANS ARE AS SHOWN IN THE "HOWARD COUNTY SOILS SURVEY."  
THERE ARE EXISTING FLOODPLAINS AND WETLANDS ON THIS SITE AND ARE SHOWN ON THE DRAWINGS.  
ALL EXISTING VEGETATION ON SITE IS IN THE FORM OF LAWN.  
OPEN SPACE (GREEN AREA) TO REMAIN ON SITE = 102,283 SQ. FT. OR 42% OF GROSS AREA.  
BUILDING COVERAGE OF SITE: GROUND FLOOR = 12,530 s.f.  
BASEMENT / MECHANICAL ROOM = 575 s.f.  
13,105 s.f. OR 5.4% OF GROSS AREA  
TOTAL AREA TO BE DISTURBED = 3.32 ACRES OR 144,620 SQ. FT.

### PARKING TABULATION

- A. BUILDING AREA:  
1). BLDG. A (LIBRARY): 18,653 SQ. FT. @ 6 SPACES / 1,000 SQ. FT. = 112 SPACES REQUIRED  
2). BLDG. B (SENIOR CENTER): 13,105 SQ. FT. @ 10 SPACES / 1,000 SQ. FT. = 132 SPACES REQUIRED
- B. TOTAL NUMBER OF PARKING SPACES REQUIRED = 244 SPACES REQUIRED
- C. TOTAL NUMBER OF PARKING SPACES PROVIDED BY NEW CONSTRUCTION = 137 SPACES PROVIDED
- D. TOTAL PARKING SPACES LOST TO NEW CONSTRUCTION = 30 SPACES
- E. TOTAL NUMBER OF PARKING SPACES PROVIDED = 252 SPACES PROVIDED
- F. TOTAL HANDICAP SPACES REQUIRED = 7 SPACES  
REGULAR HANDICAP SPACES PROVIDED = 15 SPACES  
VAN ACCESSIBLE HANDICAP SPACES PROVIDED = 6 SPACES  
8' X 20' TYPICAL (WITH 8' AISLE)  
TOTAL HANDICAP SPACES PROVIDED = 21 SPACES

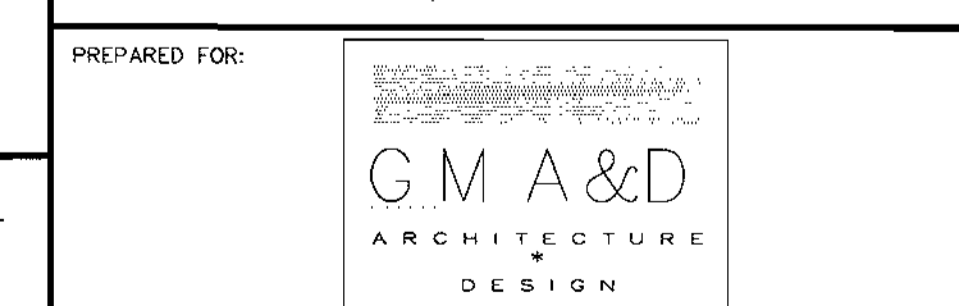
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/14/00
CHIEF, DIVISION OF LAND DEVELOPMENT	12/21/00
DIRECTOR	12/22/00

Date	No.	Revision Description

PROJECT:  
**ELLICOTT CITY SENIOR CENTER**  
At the Miller Library Site  
9401 Frederick Road Ellicott City, Maryland 21043  
Tax Map No. 24 Grid 10 Elec. Dist. No. 2 Parcels 1163 & 1108  
CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER:  
ATTN: Frederick F. Willers, CHIEF - Bureau of Facilities  
Howard County Department of Public Works  
8250 Montgomery Road  
Columbia, MD 21045 (410) 313-2777

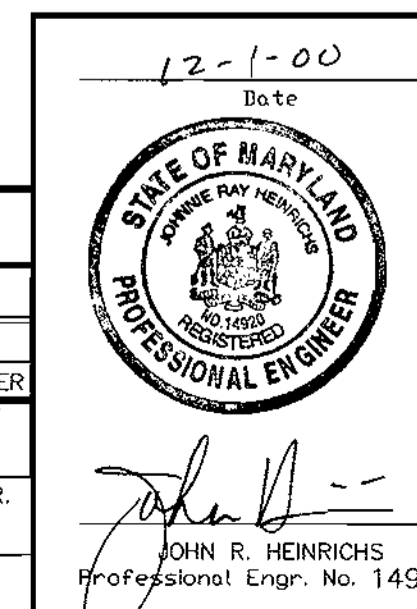
### COVER SHEET



PREPARED BY:  
**PHOENIX ENGINEERING, INC.**  
CONSULTING ENGINEERS  
813 MAIDEN CHOICE LANE, SUITE 300  
BALTIMORE, MARYLAND 21228  
(410) 247-8833 FAX 247-9397

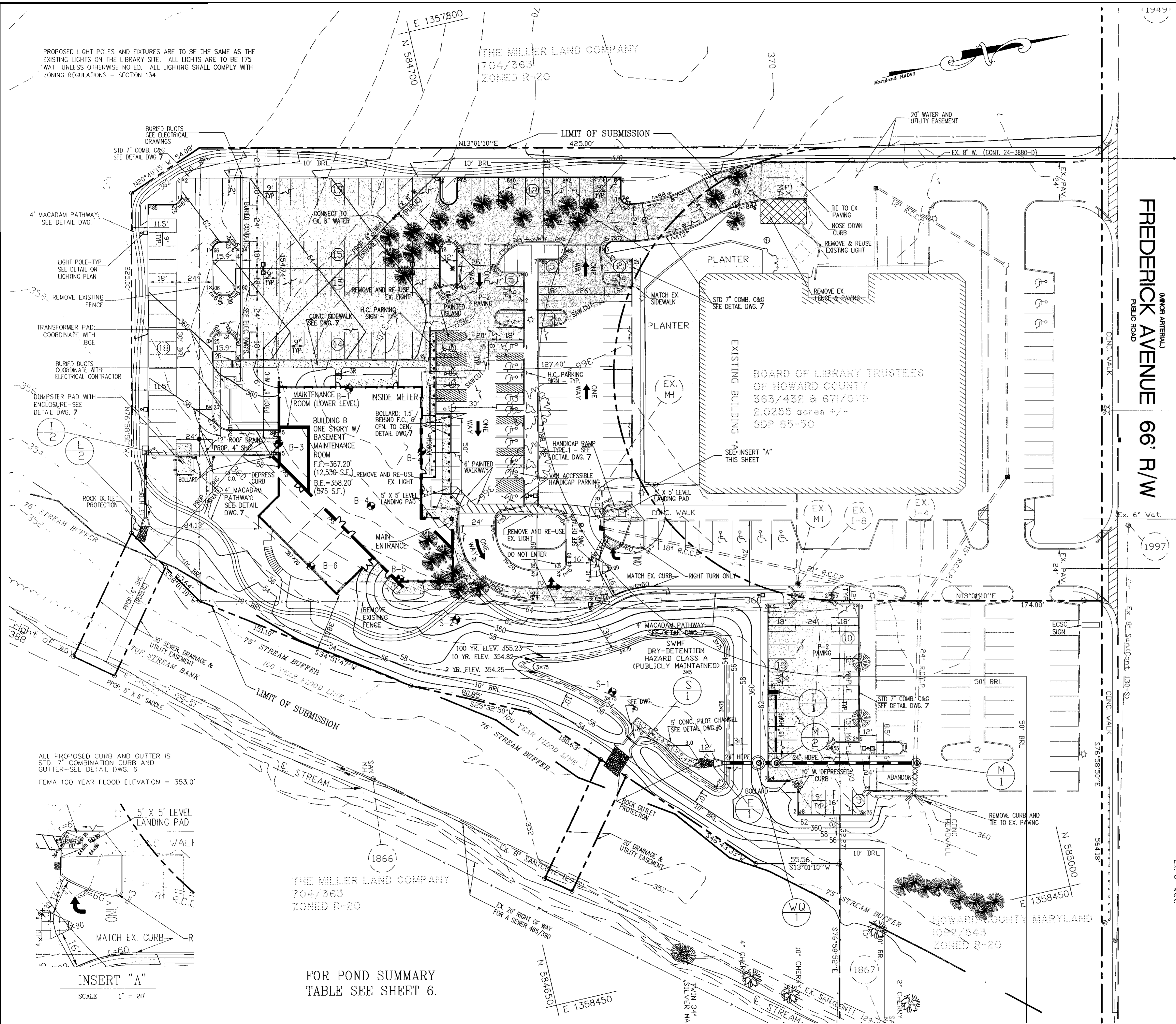
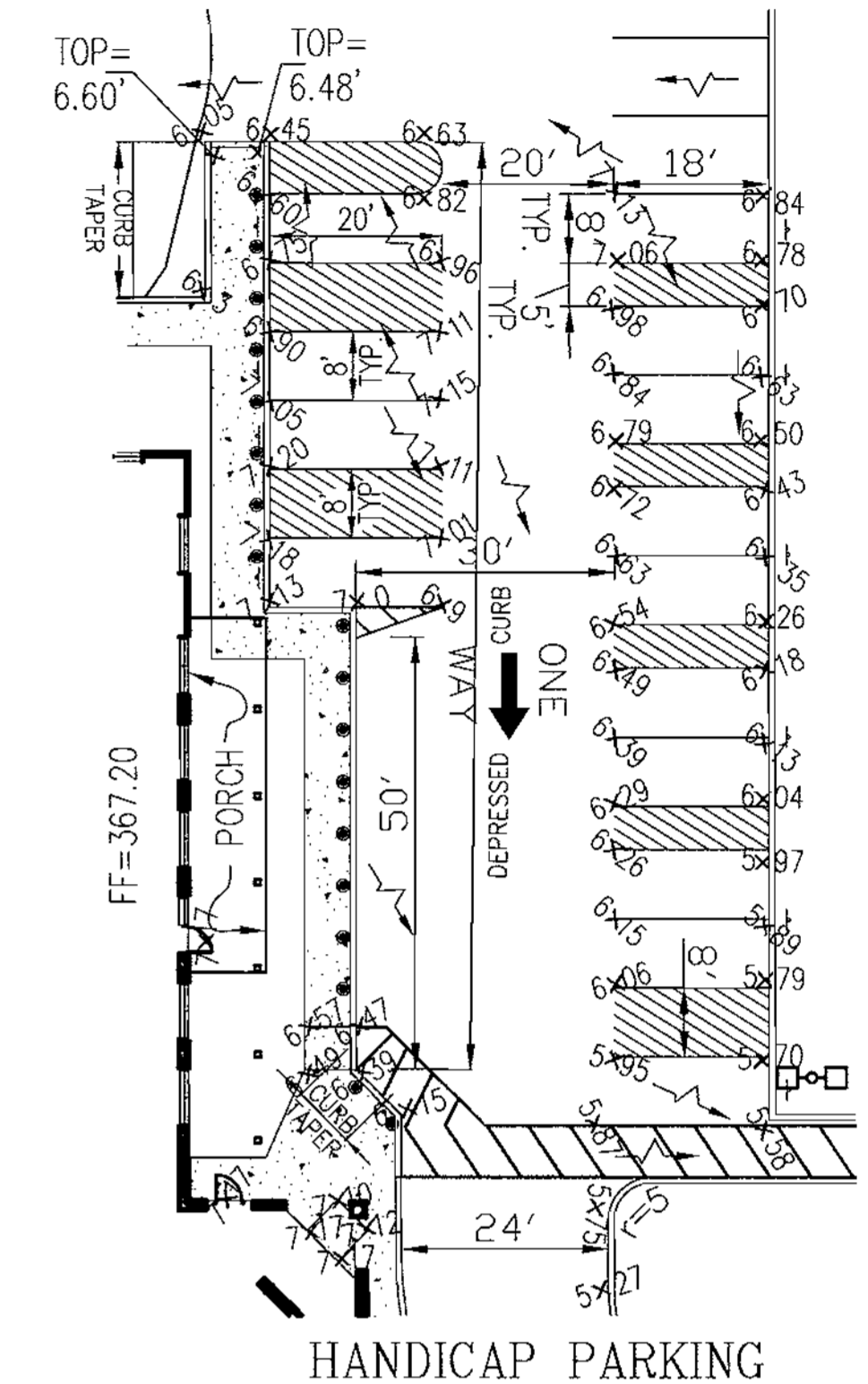
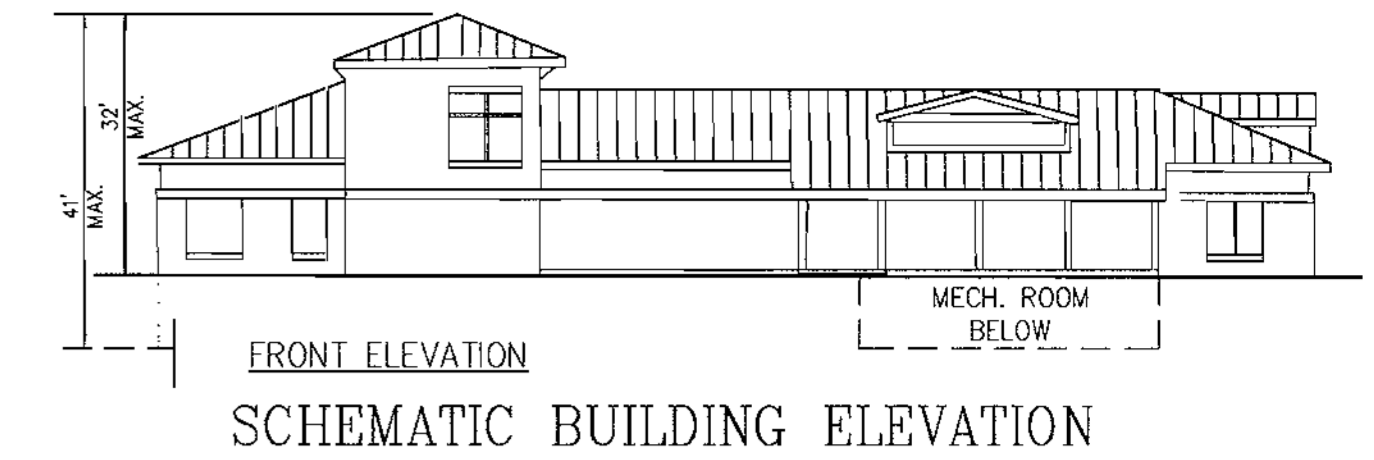
Des By	R.J.W.	Scale	AS SHOWN	Proj No	99-030
Drn By	R.H.D.	Date	SEPTEMBER 13, 2000	DRAWING NO	1101senior.dwg
Chk By	J.R.H.	SDP	00-140		1 OF 11

ADDRESS CHART	
LOT No.	STREET ADDRESS
PARCEL 887	9421 FREDERICK ROAD - MILLER LIBRARY
PARCELS 1163&1108	9401 FREDERICK ROAD - ELLICOTT CITY SENIOR CENTER
SUBDIVISION NAME	SECT./AREA
ELLICOTT CITY SENIOR CENTER	N/A
DEEDS	BLOCK
L 1092 & L 5135	10
F 532	F 0322
	WATER CODE
	F 07
	SEWER CODE
	5753700

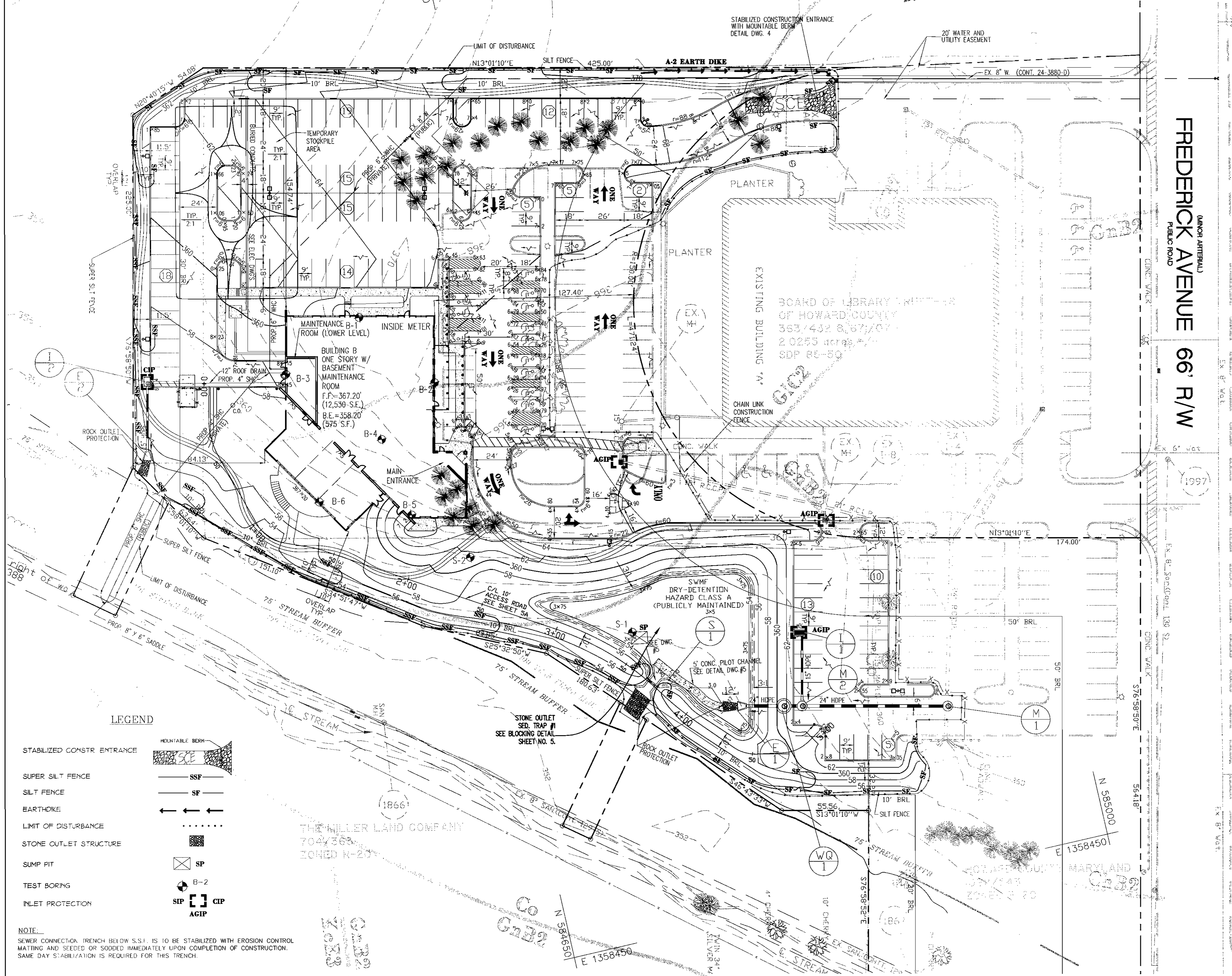


PROPOSED LIGHT POLES AND FIXTURES ARE TO BE THE SAME AS THE EXISTING LIGHTS ON THE LIBRARY SITE. ALL LIGHTS ARE TO BE 175 WATT UNLESS OTHERWISE NOTED. ALL LIGHTING SHALL COMPLY WITH ZONING REGULATIONS - SECTION 134

THE MILLER LAND COMPANY  
704/363  
ZONED R-20



MAP	TYPE	SYMBOL	CLASSIFICATION
15	C	Co	CODORUS SILT LOAM
15	B	ChB2	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES
15	B	GIB2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
15	B	GIC2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED
15	C	ChB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
15	D	KcE3	KELLY CLAY LOAM, 15 TO 30 PERCENT SLOPES, SEVERELY ERODED



- ### UTILITY NOTES
- CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN 1 DAY, SILT FENCE SHALL BE PLACED BELOW (DOWN SLOPE) THE TRENCH.
  - PLACE ALL EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH.
  - ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

### STONE OUTLET SEDIMENT TRAP - ST 1

DRAINAGE AREA	1.20 AC.
DISTURBED AREA	2.94 AC.
WET VOLUME REQUIRED	2160 C.F.
WET VOLUME PROVIDED	2415 C.F.
DRY VOLUME REQUIRED	2160 C.F.
DRY VOLUME PROVIDED	2543 C.F.
TOP EMBANKMENT ELEV.	356.26
BOTTOM ELEV.	353.0
CREST ELEV.	354.25
CLEANOUT ELEV.	353.60
SIDE SLOPES	3:1
BOTTOM DIMENSIONS	IRREGULAR
OUTLET STRUCTURE SIZES:	18" WEIR

**ENGINEER'S CERTIFICATE**  
 I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 ENGINEER: JOHN R. HEINRICHS, VICE PRESIDENT, PHOENIX ENGINEERING, INC. DATE: 12-1-00

**DEVELOPER'S CERTIFICATE**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 DEVELOPER: FRED F. WILLERS, CHIEF-BUREAU OF FACILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. DATE: 12-1-00

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 J.G. Crawford/les, 12/2/00 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 HOWARD S.C.D. DATE: 12/2/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: 12/14/00 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT: 12/21/00 DATE  
 DIRECTOR: 12/22/00 DATE

PROJECT: **ELICOTT CITY SENIOR CENTER**  
 At the Miller Library Site  
 9401 Frederick Road Ellicott City, Maryland 21043  
 Tax Map No. 24 Grid 10 Elec. Dist. No. 2 Parcel 1163 & 1108  
 CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

OWNER/DEVELOPER:  
 ATTN: Frederick F. Willers, CHIEF-Bureau of Facilities  
 Howard County Department of Public Works  
 8250 Montgomery Road  
 Columbia, MD 21045 (410) 313-2777

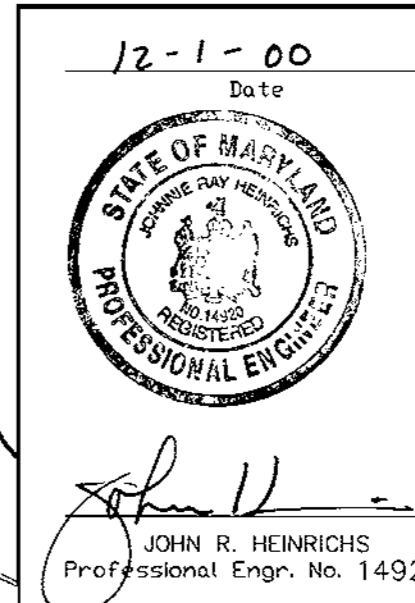
## SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLAN

PREPARED FOR: **GMA&D ARCHITECTURE & DESIGN**

PREPARED BY: **PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS**  
 813 MAIDEN CHOICE LANE, SUITE 900  
 BALTIMORE, MARYLAND 21228  
 (410) 247-8833 FAX 247-9397

DATE: 12-1-00

DESIGNER: R.J.W. SCALE: 1" = 30' PROJ. NO: 99-030  
 DRAWN BY: R.H.D. DATE: DECEMBER 4, 2000 DRAWING NO: SDP00-140  
 CHECKED BY: J.R.H. SDP 00-140 3 OF 11



NOTE:  
 SEWER CONNECTION TRENCH BELOW S.S.I. IS TO BE STABILIZED WITH EROSION CONTROL MATTING AND SEEDED OR SODDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION. SAME DAY STABILIZATION IS REQUIRED FOR THIS TRENCH.

**SEEDING 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 (311-1850)
- 2) ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 37 CALENDAR DAYS FOR ALL PERMANENT SEDIMENT CONTROL STRUCTURES, CURBS, PERMANENT SLOPES AND ALL SLOPES GREATER THAN 3:1, 14 DAYS AS TO ALL OTHER DISTURBED OR CHANGED AREAS OF THE PROJECT SITE.
- 4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. FOR PERMANENT SEEDINGS, SOIL, TEMPORARY SEEDING AND MULCHING (SEC. 3) TEMPORARY STABILIZATION WITH MULCH ALONE SHALL 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 PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEEDING CONTROL INSPECTOR.
- 7) SITE ANALYSIS:
 

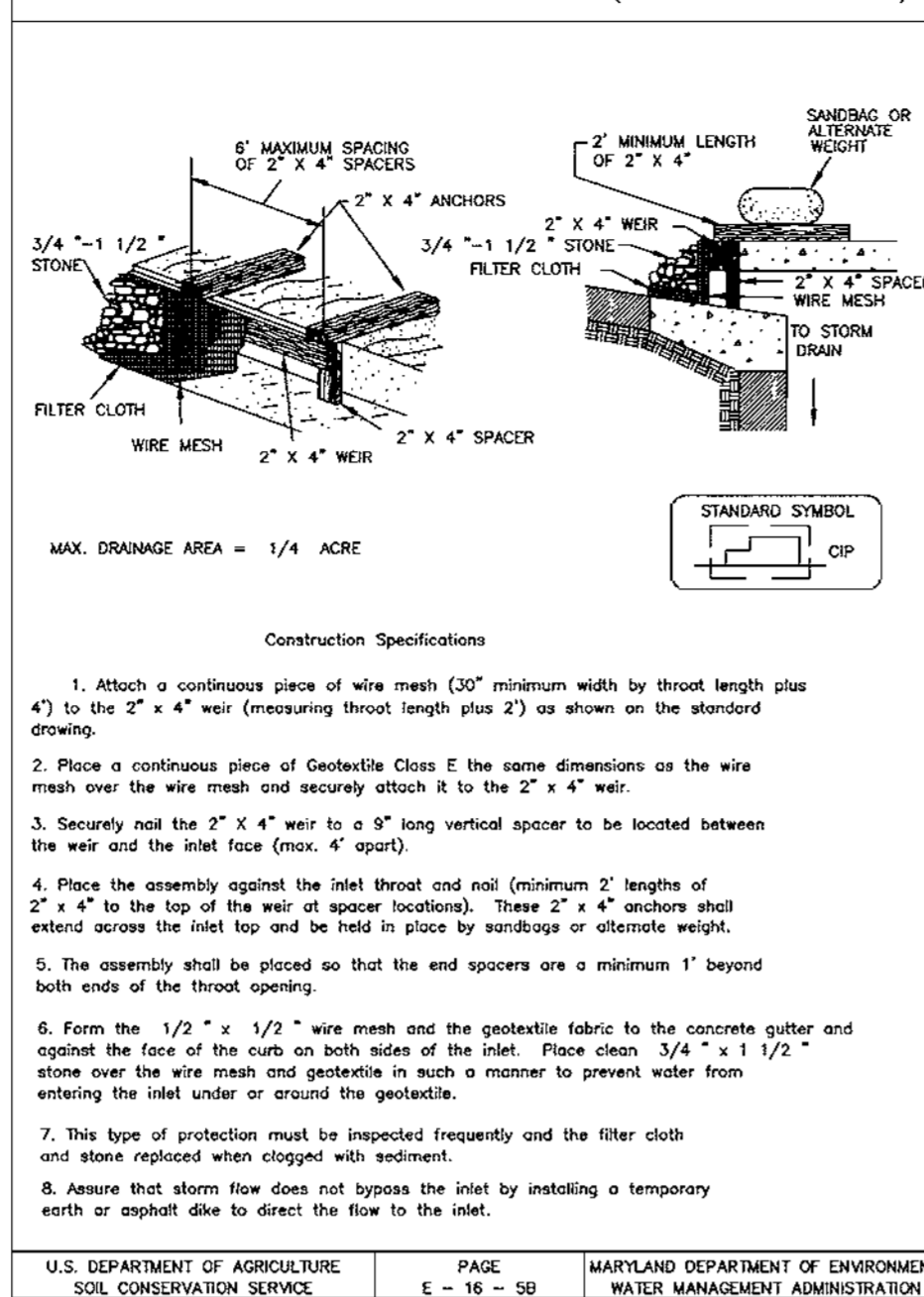
TOTAL AREA OF SITE	5.563 ACRES
AREA TO BE ROOFED OR PAVED	3,320 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1,800 ACRES
TOTAL CUT	4,282 CU. YDS.
TOTAL FILL	3,492 CU. YDS.

 OFFSITE WASTE/BORROW AREA LOCATION TO BE DETERMINED.
- 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 CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DEW 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 PERMANENT 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) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

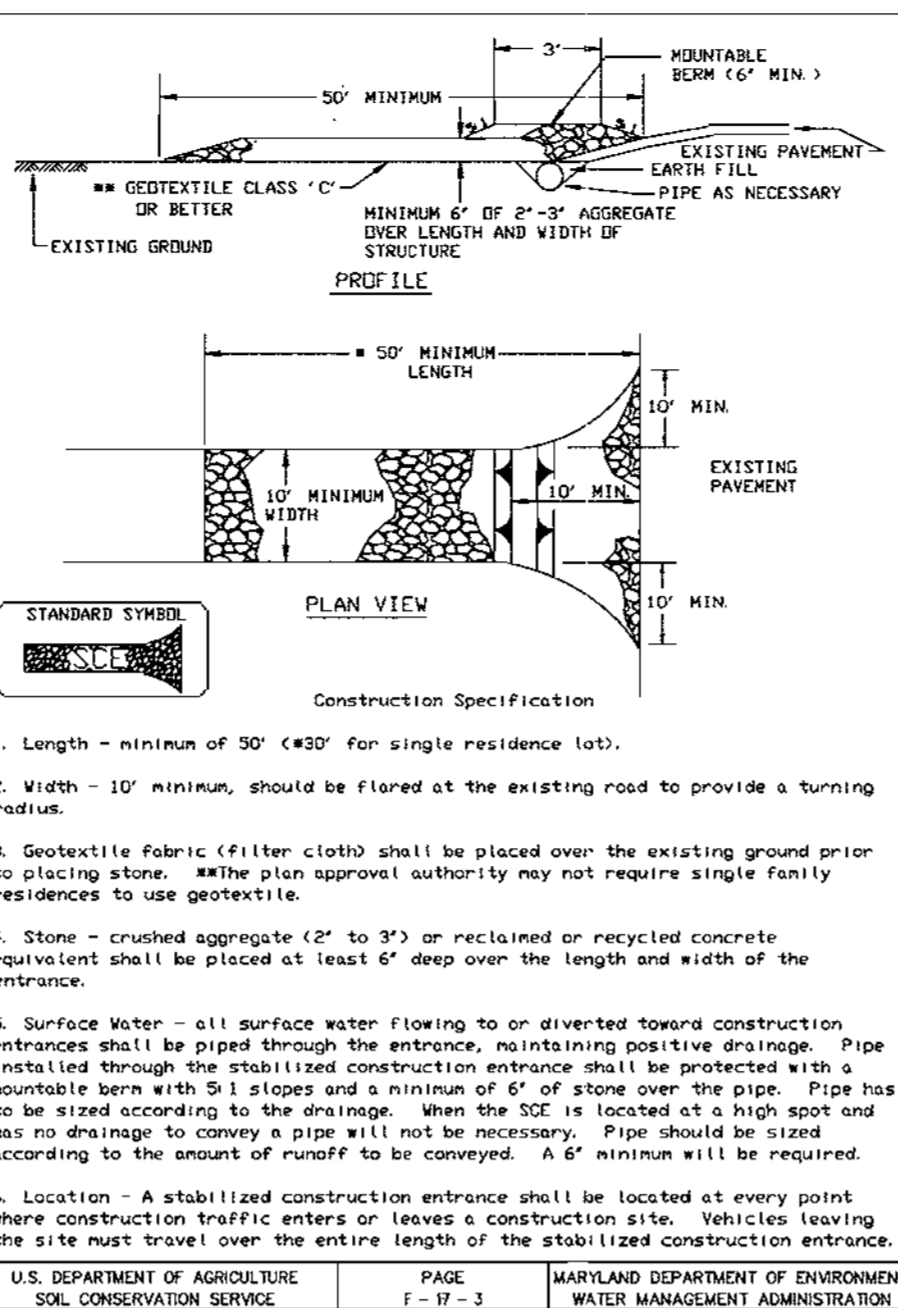
**PERMANENT SEEDING NOTES**

- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-TERM VEGETATIVE COVER IS NEEDED.
- SEEDING PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING 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/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-10 LIME-DROW FERTILIZER (8 LBS/1000 SQ FT).
  - 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
- SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQ FT) OF KY 31 TALL FESCUE. FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROJECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOIL 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 GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- MAINTENANCE:** INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
- TEMPORARY SEEDING NOTES**
- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
- SEEDING PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS:** APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT).
- SEEDING:** FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVERGRASS (07 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OR USE SOIL.
- MULCHING:** APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 8 FT OR HIGHER. USE 348 GAL PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING.
- REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

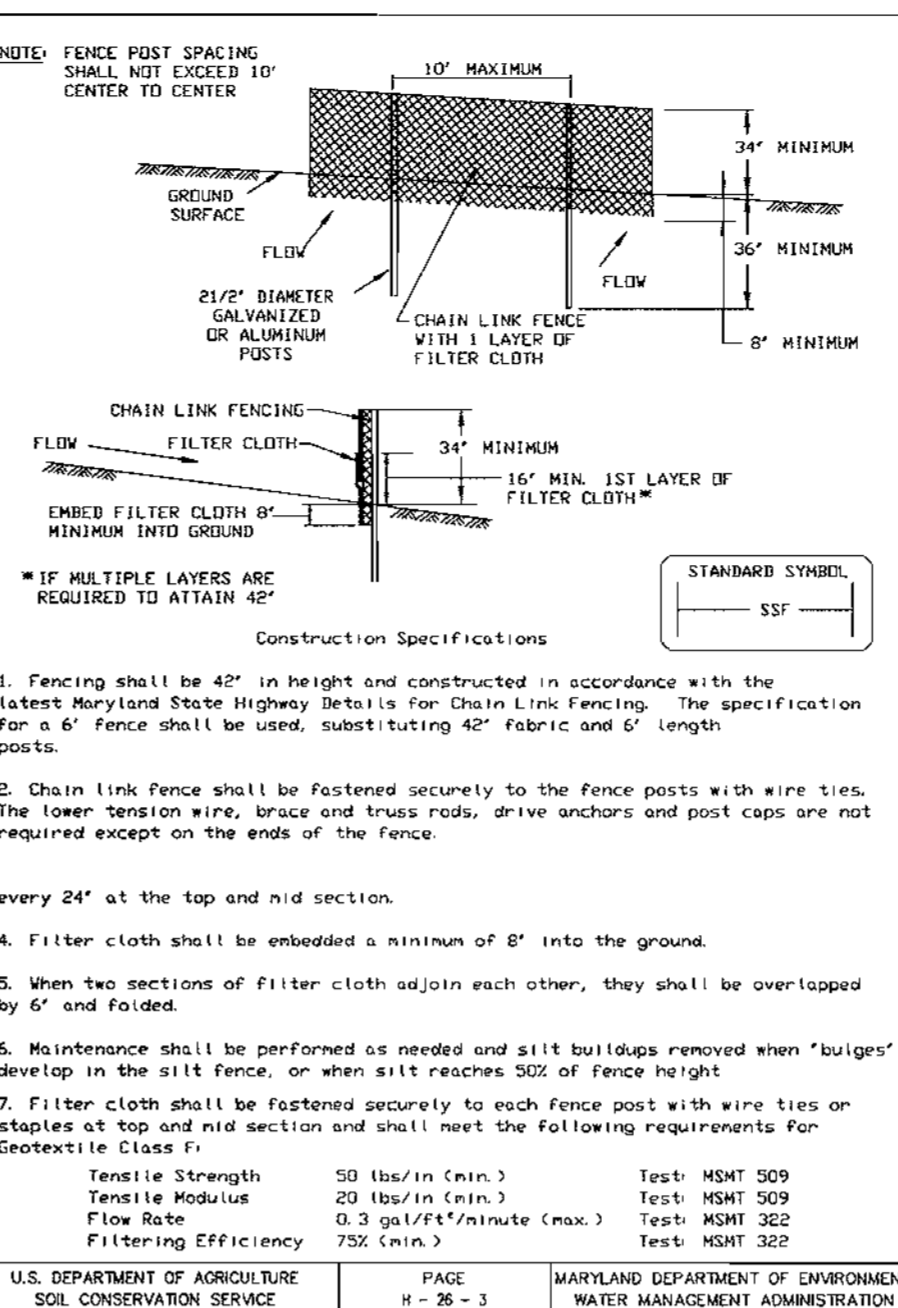
**DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)**



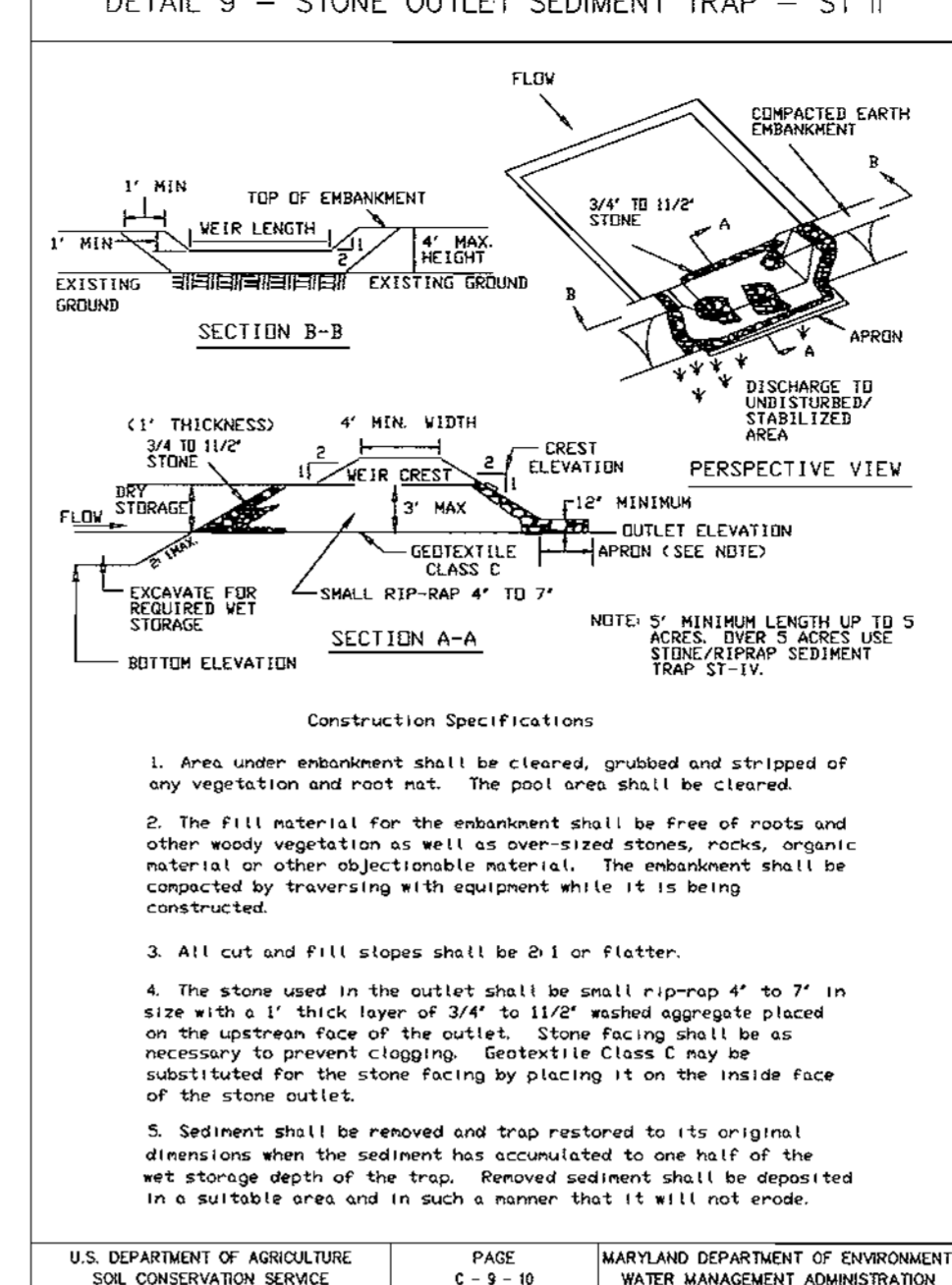
**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



**DETAIL 33 - SUPER SILT FENCE**



**DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II**



**SEQUENCE OF CONSTRUCTION**

(1 DAY)	DAY 1	OBTAIN A GRADING PERMIT
(2 DAYS)	DAY 2-3	CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (SCE)
(5 DAYS)	DAY 4-8	CLEAR AND GRUB AREA FOR, AND INSTALL REMAINING SEDIMENT CONTROL DEVICES, AND GET PERMITS FROM SEDIMENT CONTROL INSPECTOR BEFORE PROCEEDING.
(15 DAYS)	DAY 9-23	ROUGH GRADE SITE AND STABILIZE AS PER TEMPORARY SEEDING NOTES.
(60 DAYS)	DAY 24-84	CONSTRUCT BUILDING.
(21 DAYS)	DAY 85-106	INSTALL ALL UTILITIES, E., WATER, SEWER CONNECTION, STORM DRAINS, ETC.
(15 DAYS)	DAY 107-122	CONSTRUCT CURBS, PAVING AND SIDEWALKS
(5 DAYS)	DAY 123-128	STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
(3 DAYS)	DAY 129-131	FINE GRADE SITE AND SWM AND SEED DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
(5 DAYS)	DAY 132-137	WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED AND UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

**ENGINEER'S CERTIFICATE**

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

JOHN R. HEINRICHS, VICE PRESIDENT  
PHOENIX ENGINEERING, INC. DATE: 12-1-00

**DEVELOPER'S CERTIFICATE**

I, FRED F. WILLERS, CHIEF-BUREAU OF FACILITIES, CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

FRED F. WILLERS, CHIEF-BUREAU OF FACILITIES  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DATE: 12-1-00

**REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS**

J.G. WATKINS/AS, 12/2/00  
NATURAL RESOURCES CONSERVATION SERVICES DATE

**APPROVED: DEPARTMENT OF PLANNING AND ZONING**

APPROVED: [Signature], 12/14/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**APPROVED: DIVISION OF LAND DEVELOPMENT**

APPROVED: [Signature], 12/21/00  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**APPROVED: DIVISION OF PLANNING AND ZONING**

APPROVED: [Signature], 12/22/00  
CHIEF, DIVISION OF PLANNING AND ZONING DATE

**OWNER/DEVELOPER:**

ATTN: Frederick F. Willers, Chief-Bureau of Facilities  
Howard County Department of Public Works  
8250 Montgomery Road  
Columbia, MD 21045 (410) 313-2777

**PROJECT:**

**ELLICOTT CITY SENIOR CENTER**  
At the Miller Library Site

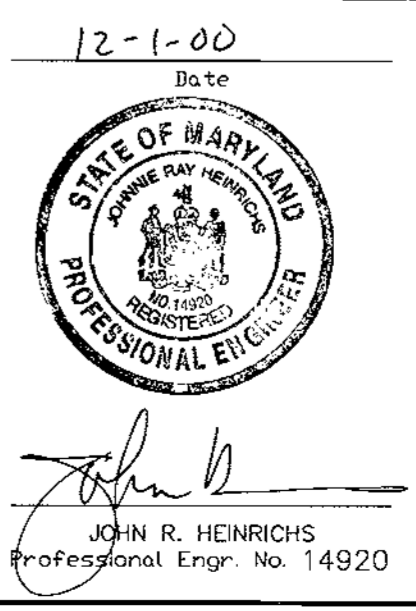
9401 Frederick Road, Ellicott City, Maryland 21043  
Tax Map No. 24 Grid 10 Elec. Dist. No. 2 Parcel 1163 & 1108  
CAPITAL PROJECT C-0289 HOWARD COUNTY, MARYLAND

**SEDIMENT CONTROL NOTES AND DETAILS**

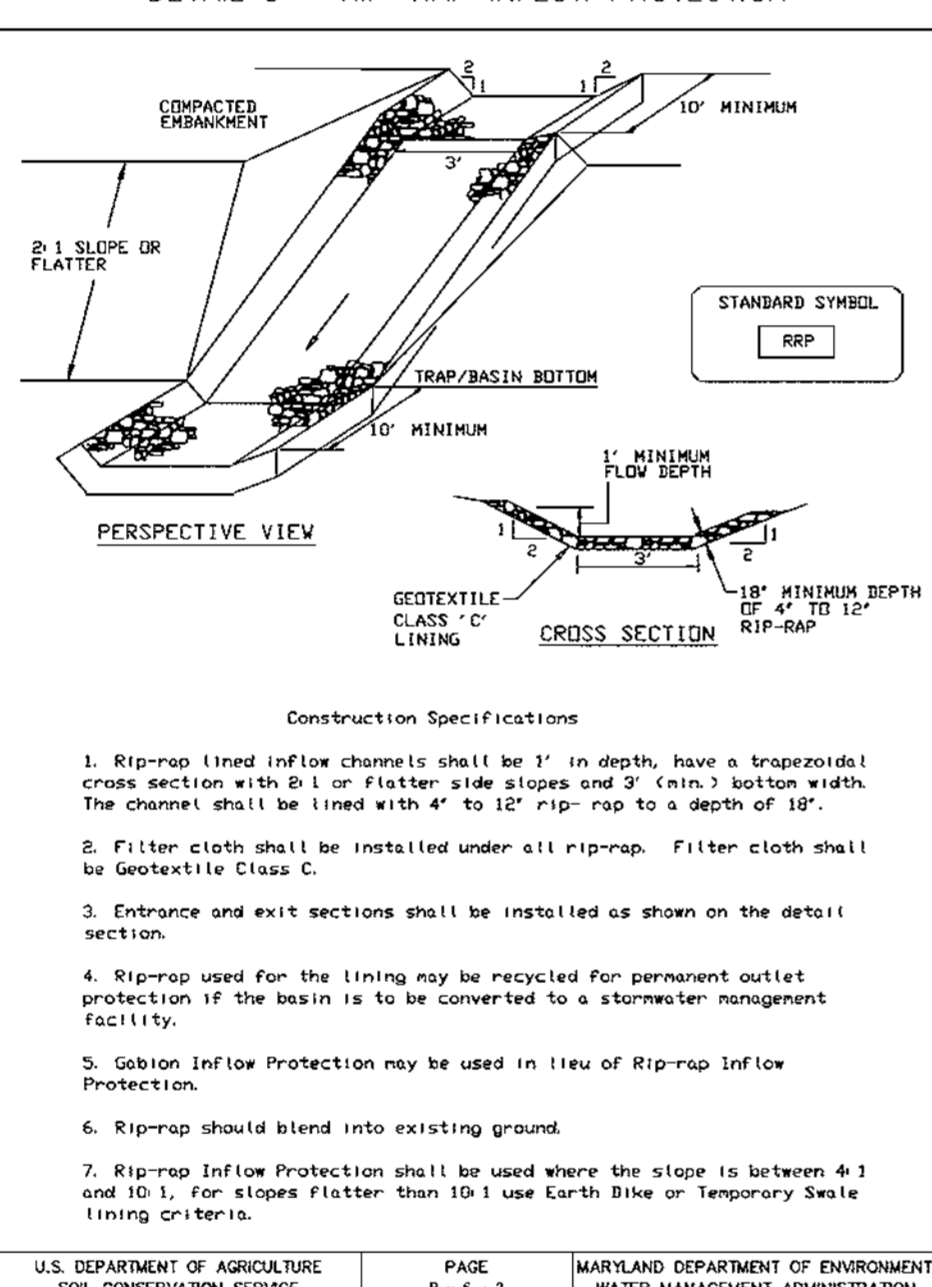
PREPARED FOR: GMA&D ARCHITECTURE DESIGN

PREPARED BY: PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS  
813 MALDEN CHOICE LANE, SUITE 300  
BALTIMORE, MARYLAND 21228  
(410) 247-8833 FAX 247-9397

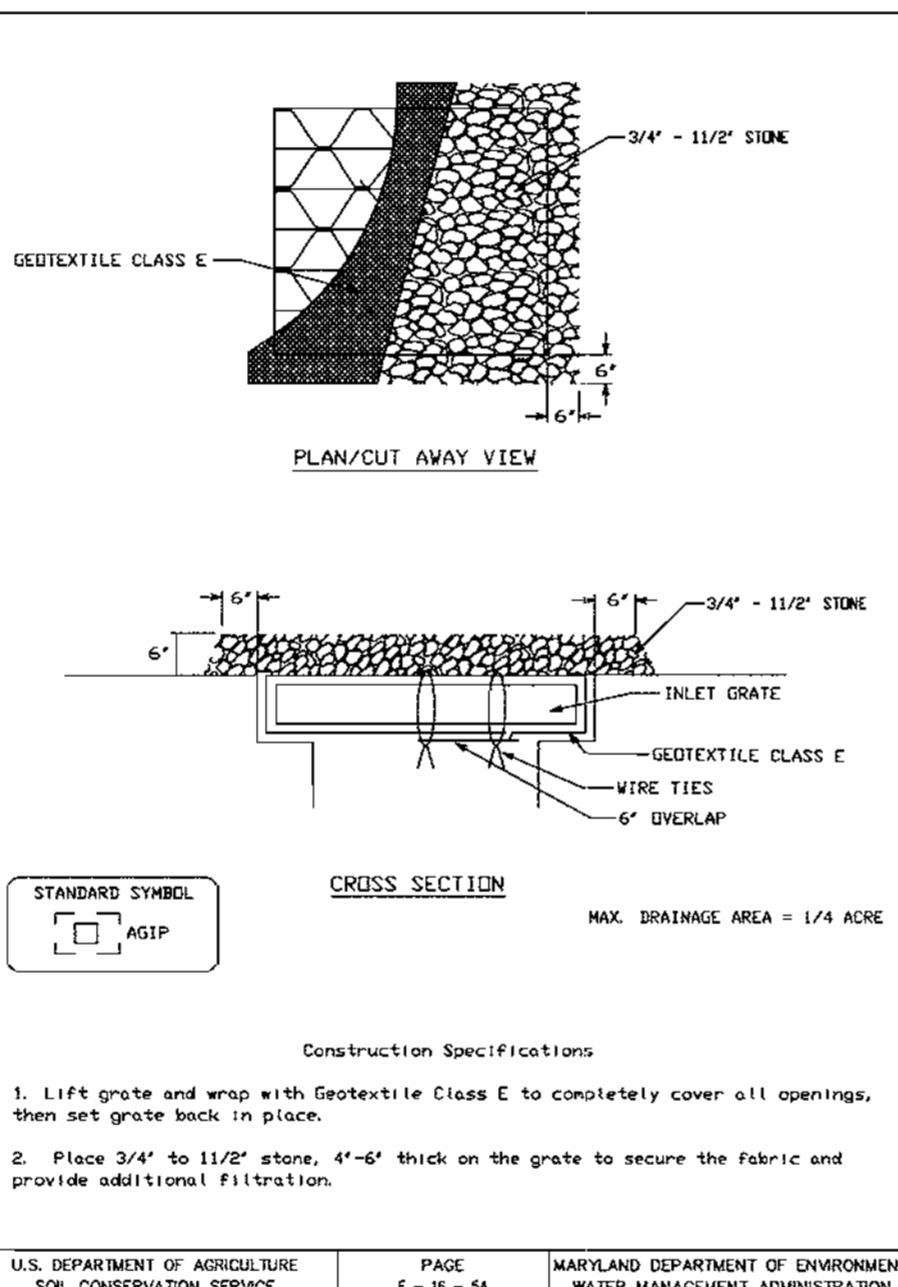
Des By: R.J.W. Date: AS SHOWN Proj No: 99-030  
Des By: R.H.D. Date: SEPT. 1, 2000 DRAWING NO: de01senior.dwg  
Chk By: J.R.H. Date: SDP-00-140 4 OF 11



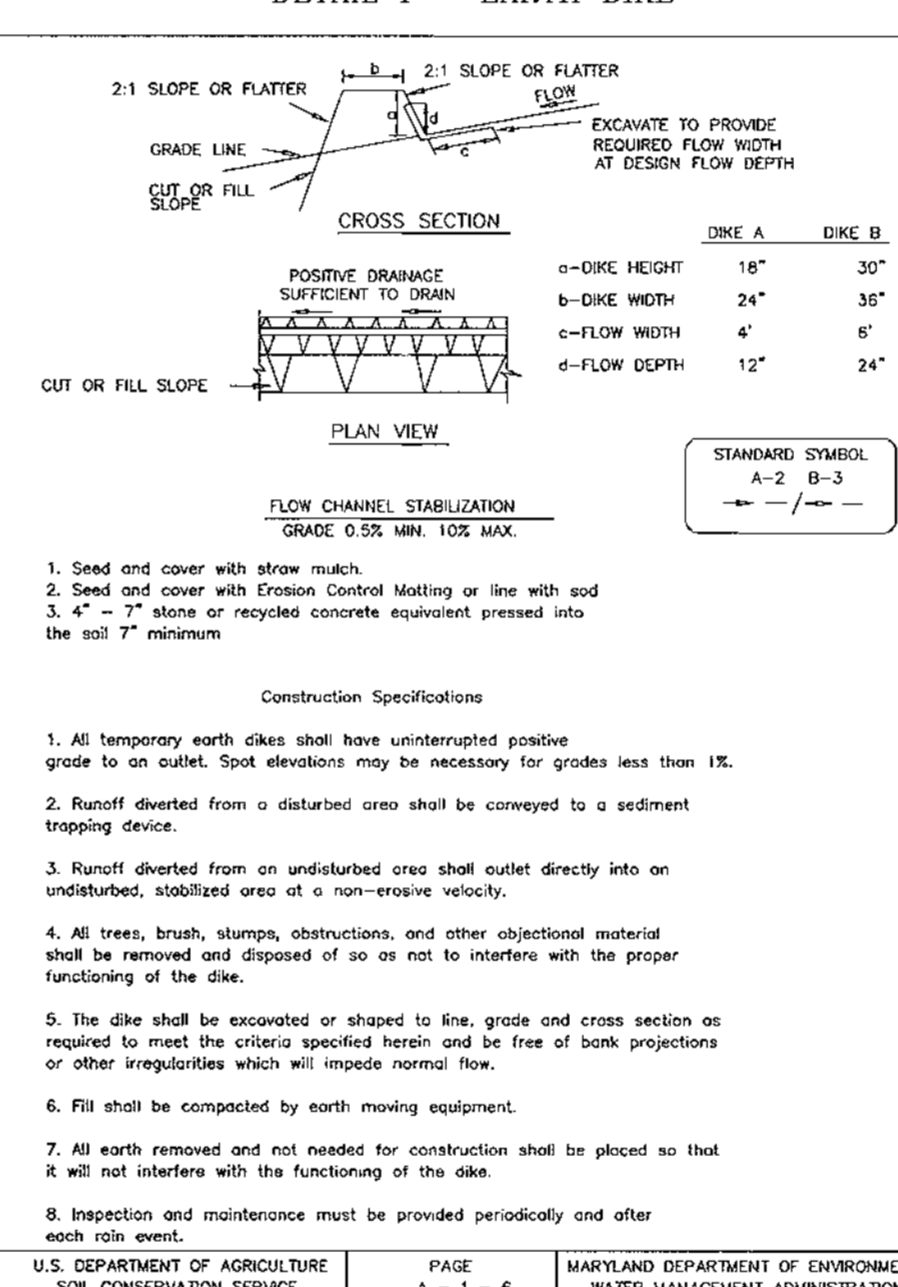
**DETAIL 5 - RIP-RAP INFLOW PROTECTION**



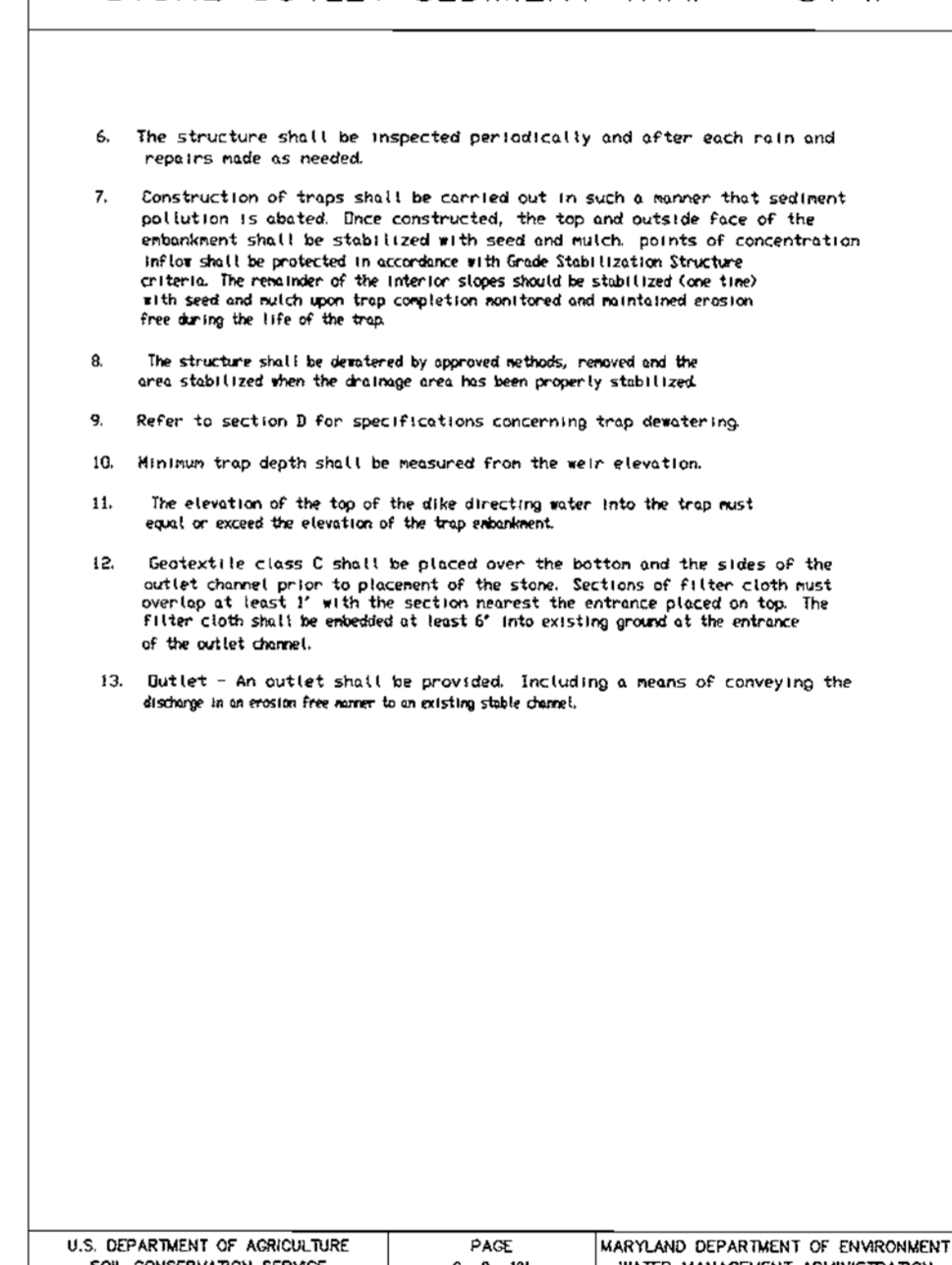
**DETAIL 23B - AT GRADE INLET PROTECTION**



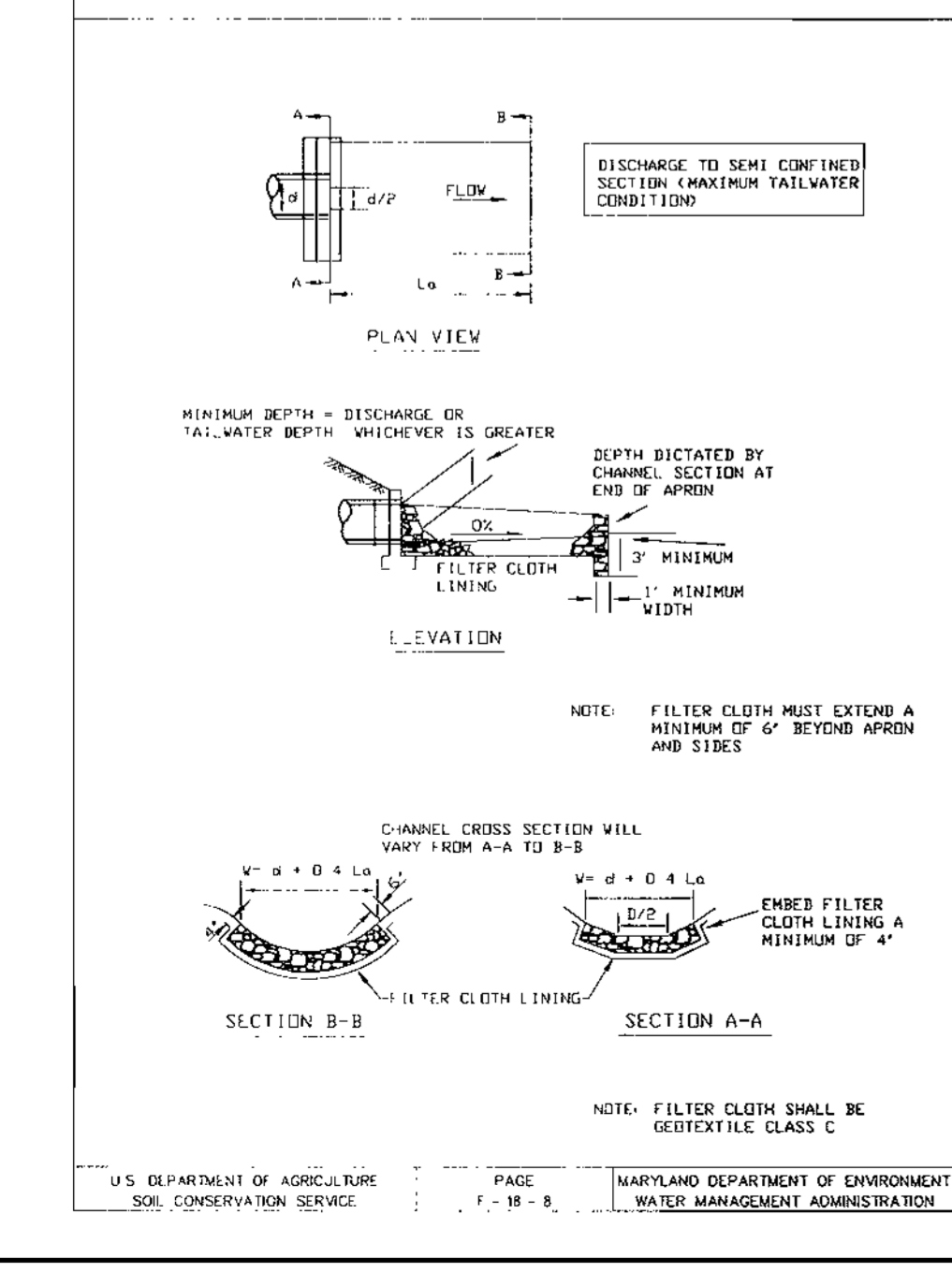
**DETAIL 1 - EARTH DIKE**



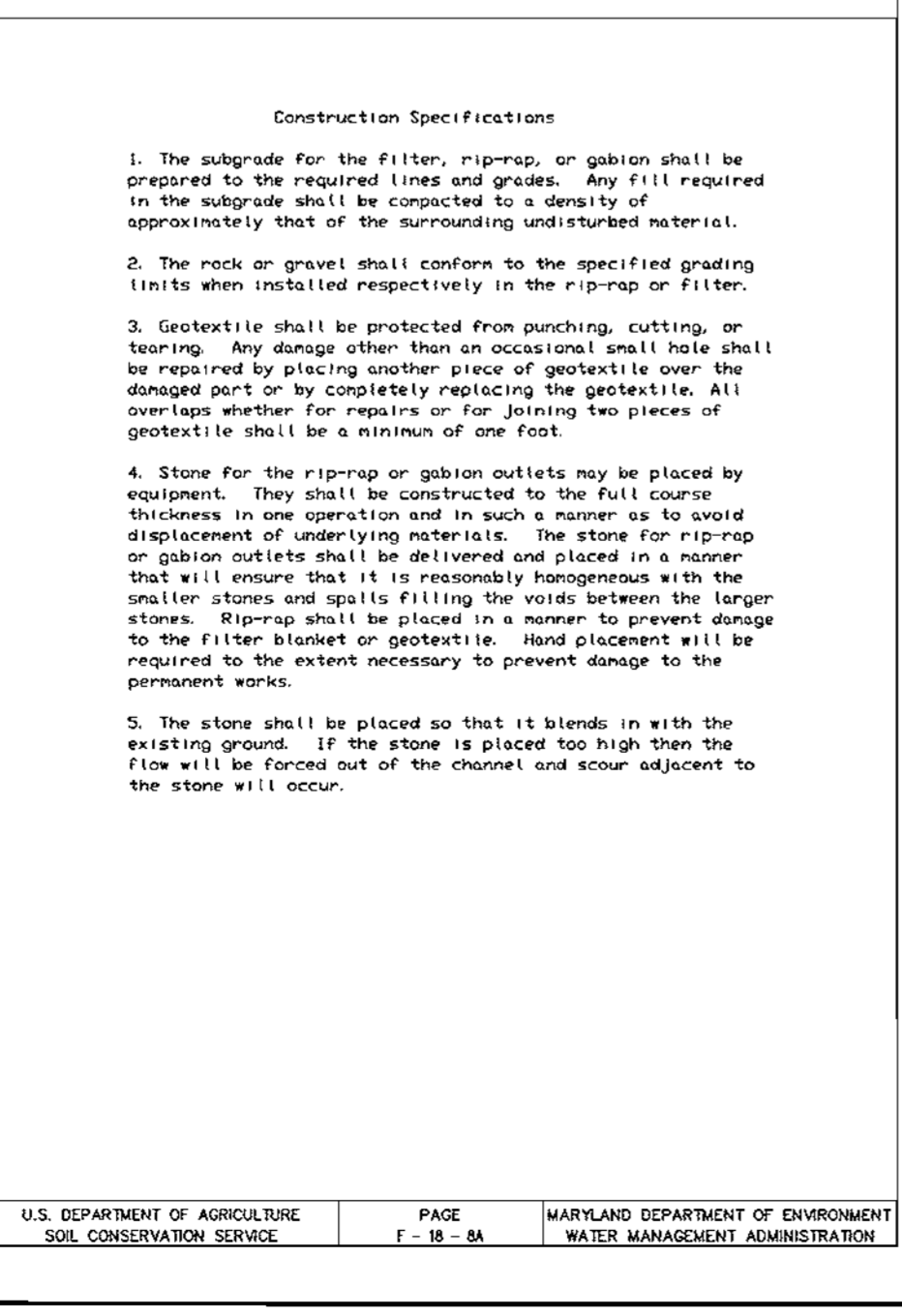
**STONE OUTLET SEDIMENT TRAP - ST II**



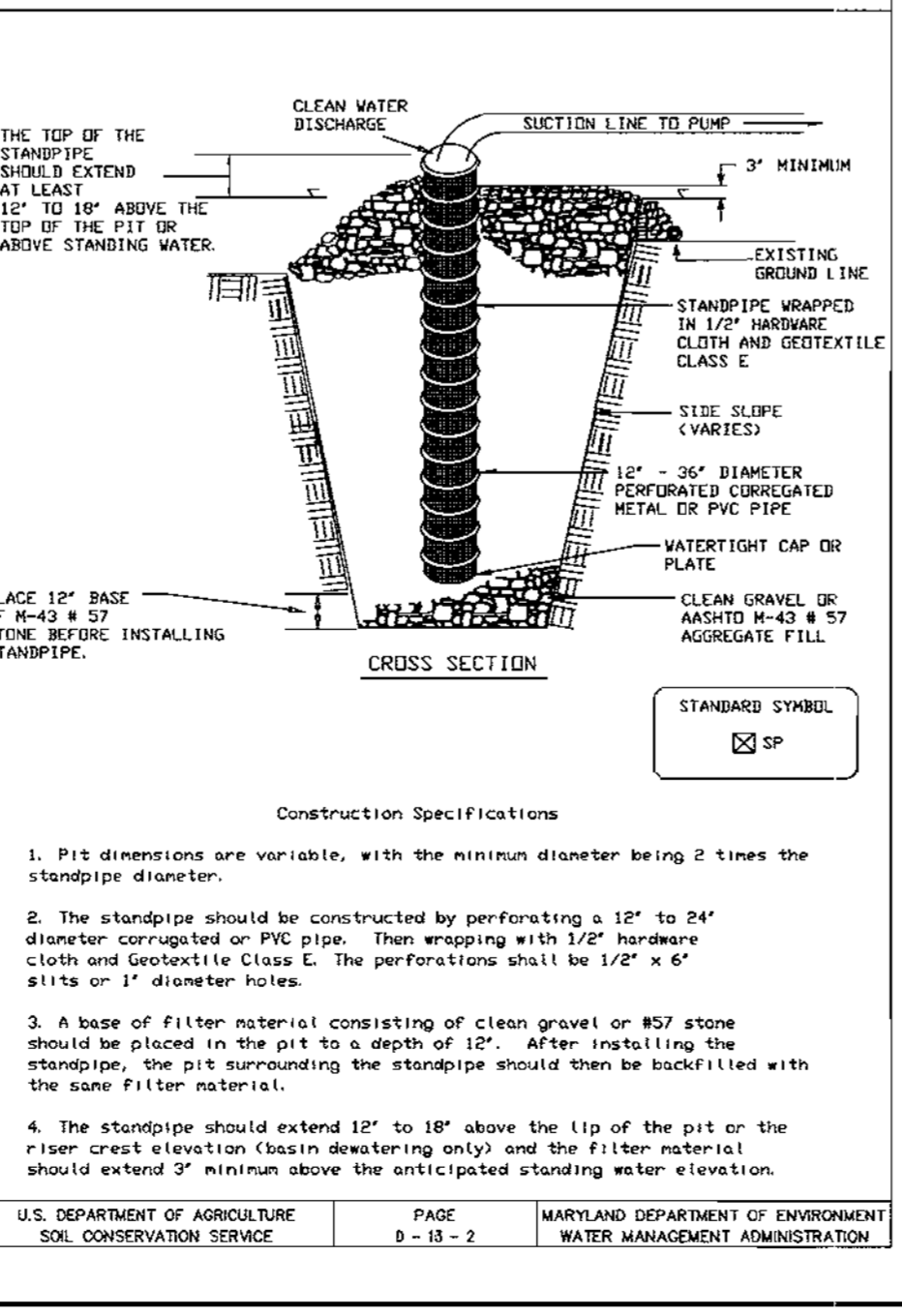
**DETAIL 25 - ROCK OUTLET PROTECTION I**



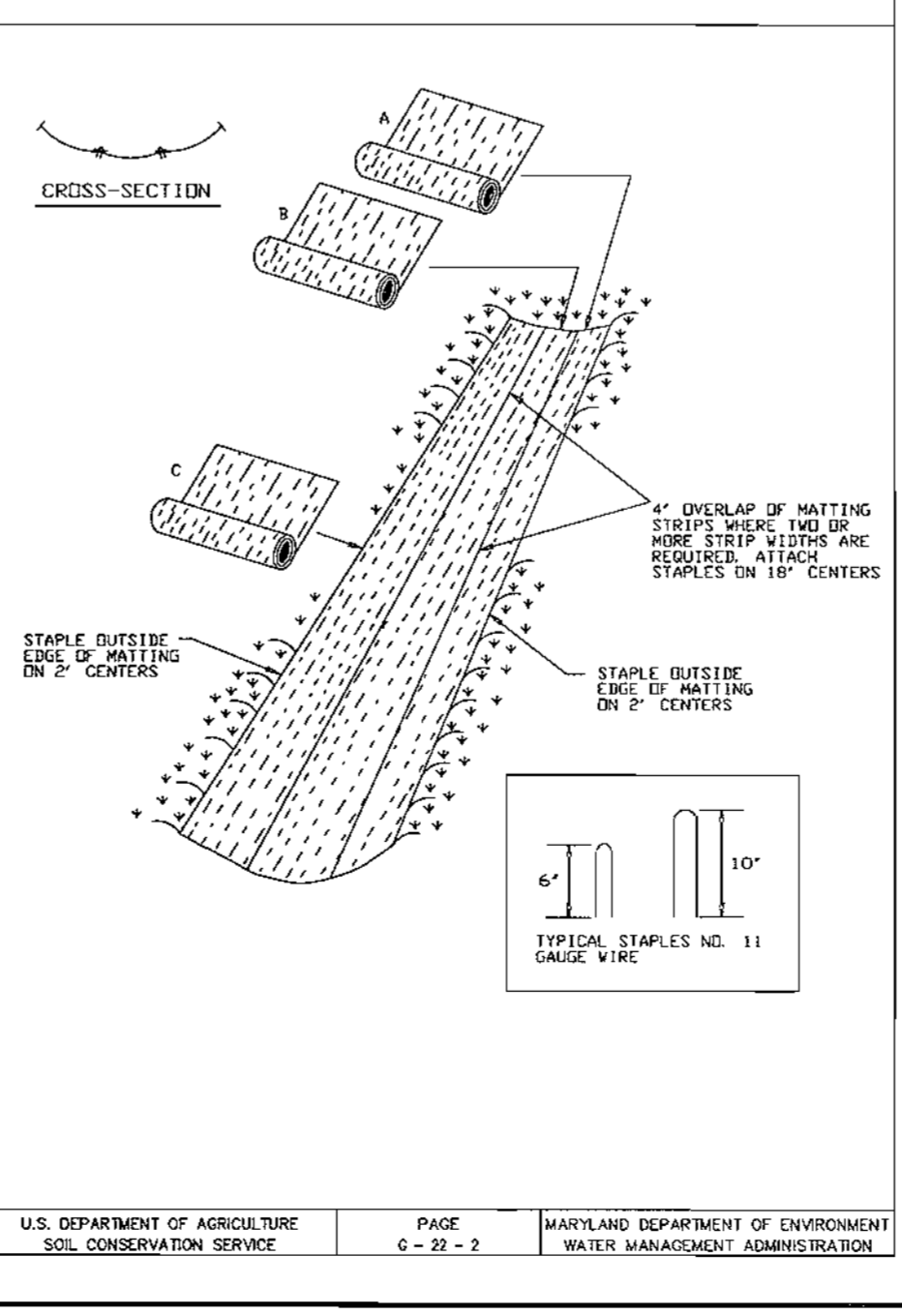
**ROCK OUTLET PROTECTION**



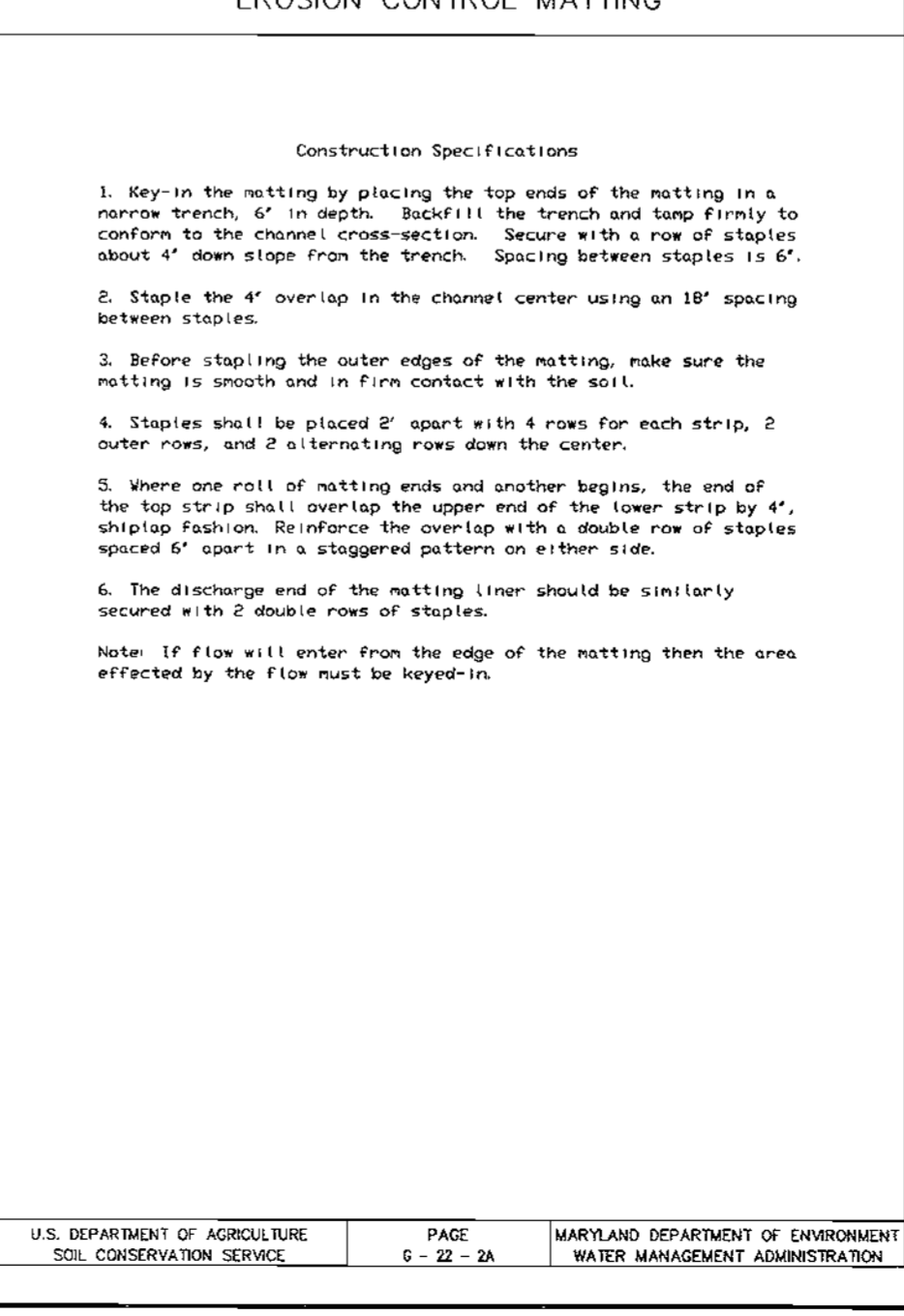
**DETAIL 20B - SUMP PIT**



**DETAIL 30 - EROSION CONTROL MATTING**



**EROSION CONTROL MATTING**





**CONSTRUCTION SPECIFICATIONS**

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

**Site Preparation**

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

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 25-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 and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

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 heavy 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.

When required by the reviewing agency the minimum required density 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 1-99 (Standard Proctor).

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.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

**Structure Backfill**

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining 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.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi, 28 day unconfined compressive strength. The flowable fill shall have a minimum pr of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil 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 shall completely fill all voids adjacent to the flowable fill zone. 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 structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

**Pipe Conduits**

All pipes shall be circular in cross section.

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

- Materials (polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

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. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

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 Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall

be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

- Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

- Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe 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 bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, prepunched to the flange bolt circle, sandwiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hugger type band with o-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal coating or a neoprene bead.

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

- Backfilling shall conform to "Structure Backfill".

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

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

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.
- Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

- 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 4 feet from the riser.

- Backfilling shall conform to "Structure Backfill".

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

Plastic Pipe - The following criteria shall apply for plastic pipe:

- Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4"-10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.

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

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

- Backfilling shall conform to "Structure Backfill".

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

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

**Concrete**

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

**Rock Riprap**

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotextile 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 921.09, Class C.

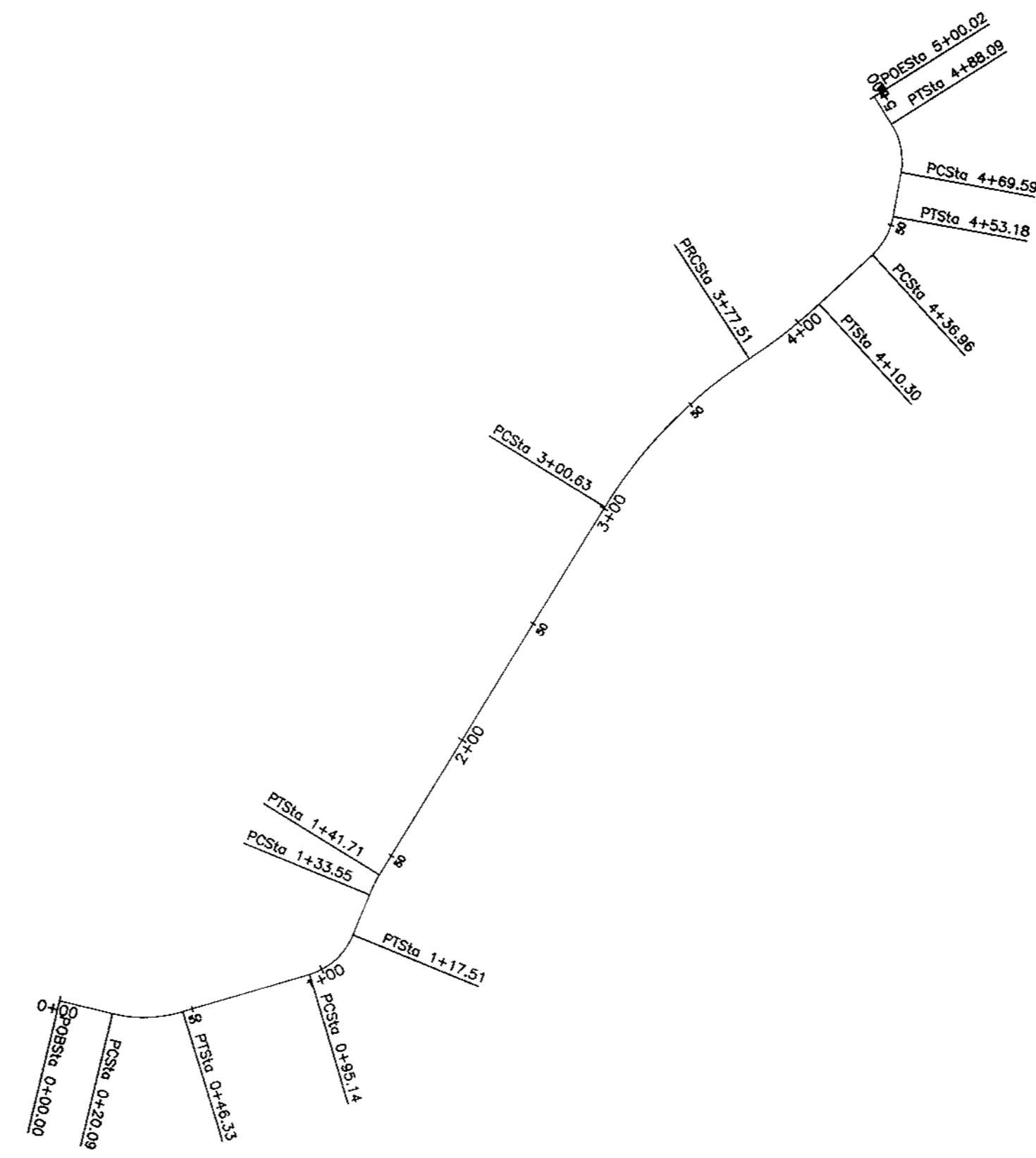
**Care of Water during Construction**

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, in-stall, operate, and maintain all necessary pumping and other equipment required for removal of water from 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 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 sumps from which the water shall be pumped.

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources 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.



**CENTERLINE 10' ACCESS ROAD**

Point Type	Station	Northing (Y)	Easting (X)
POB	0+00.00	584504.8785	1358042.3001
PC	0+00.00	584500.1646	1358061.8324
LC=	26.2373	CD= 31°17'28.09"	
RC=	-48.0420	DC=119°15'42.50"	
PI	0+33.55	584496.8650	1358074.8764
PT	0+46.33	584500.8202	1358087.7365
PC	0+48.126	N 73°31'55.22" E	
LC=	22.3637	CD= 51°15'14.18"	
RC=	-25.0000	DC=229°10'59.22"	
PI	1+07.14	584518.0573	1358146.0473
PT	1+17.51	584529.1545	1358150.5936
PC	1+16.444	N 22°16'41.05" E	
LC=	8.1542	CD= 9°20'38.35"	
RC=	50.0000	DC=114°35'29.61"	
PI	1+37.64	584547.7824	1358158.2252
PT	1+41.71	584551.2619	1358160.3676
PC	1+33.55	N 31°37'19.55" E	
LC=	76.8790	CD= 25°10'13.85"	
RC=	175.0000	DC= 32°44'25.60"	
PI	3+39.70	584719.8566	1358264.1774
PRC	3+77.51	584741.2544	1358296.8674
LC=	32.7967	CD= 9°23'43.99"	
RC=	-200.0000	DC= 28°38'52.40"	
PI	3+93.94	584750.2555	1358310.6186
PT	4+10.30	584761.3806	1358322.7157
PC	26.6586	N 47°23'49.33" E	
LC=	16.2231	CD= 37°10'49.82"	
RC=	-25.0000	DC=229°10'59.22"	
PI	4+45.37	584785.1182	1358348.5274
PT	4+53.18	584793.3934	1358350.0188
PC	16.4062	N 10°12'59.72" E	
LC=	18.4961	CD= 42°23'23.87"	
RC=	-25.0000	DC=229°10'59.22"	
PI	4+79.28	584819.0802	1358354.6482
PT	4+86.09	584827.2858	1358349.4862
PC	11.9363	N 32°10'24.09" W	
POE	5+00.02	584837.3891	1358343.1303

ENGINEER'S CERTIFICATE  
 I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
 ENGINEER: JOHN R. HEINRICHS, VICE PRESIDENT DATE 12-1-00  
 PHOENIX ENGINEERING, INC.

DEVELOPER'S CERTIFICATE  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 DEVELOPER: FRED F. WILLERS, CHIEF-BUREAU OF FACILITIES DATE 12-1-00  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
 D.G. Wapfield/cs DATE 12/2/00  
 NATURAL RESOURCES CONSERVATION SERVICES

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING DATE 12/2/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF LAND DEVELOPMENT DATE 12/2/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DATE 12/22/00  
 CHIEF, DIVISION OF PLANNING AND ZONING

Date	No	Revision Description

OWNER/DEVELOPER:  
 ATTN: Frederick F. Willers, CHIEF-Bureau of Facilities  
 Howard County Department of Public Works  
 8250 Montgomery Road  
 Columbia, MD 21045 (410) 313-2777

PROJECT:  
**ELLCOTT CITY SENIOR CENTER**  
 At the Miller Library Site

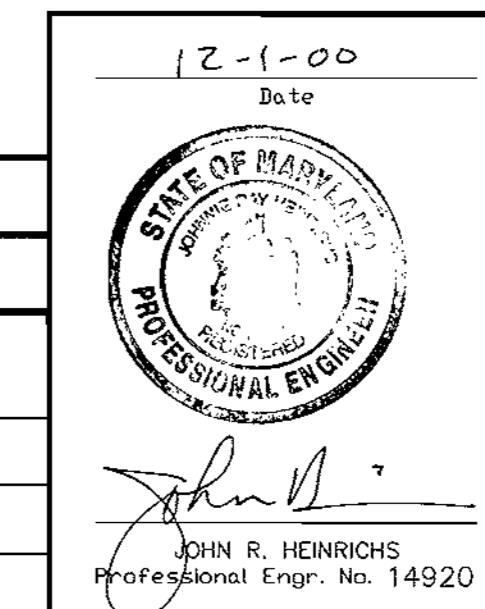
9401 Frederick Road Ellicott City, Maryland 21043  
 Tax Map No. 24 Grid 10 Elec. Dist. No. 2 Parcels 1163 & 1108  
 CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

**TITLE:**  
**STORMWATER MANAGEMENT NOTES AND DETAILS**

PREPARED FOR:

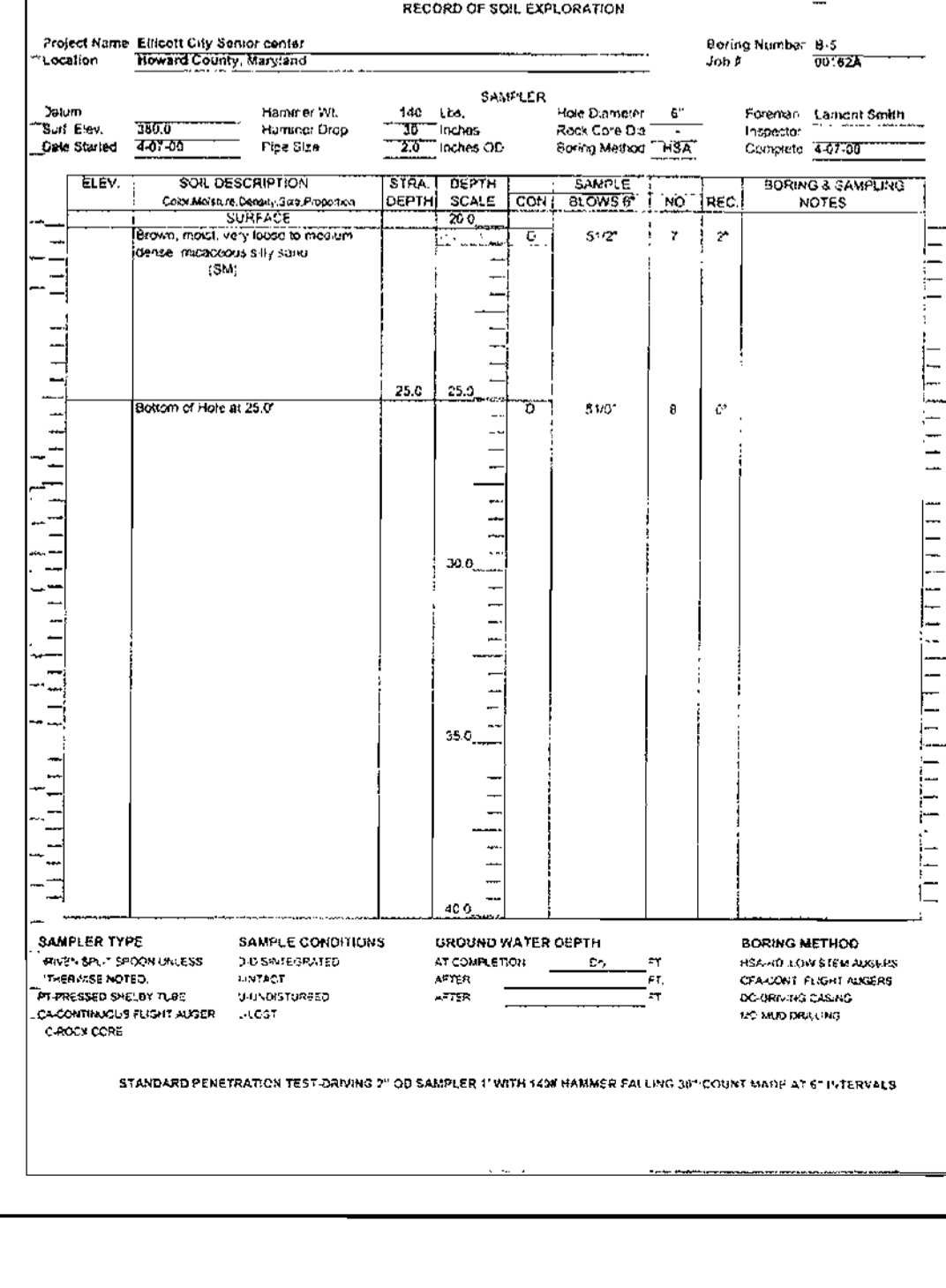
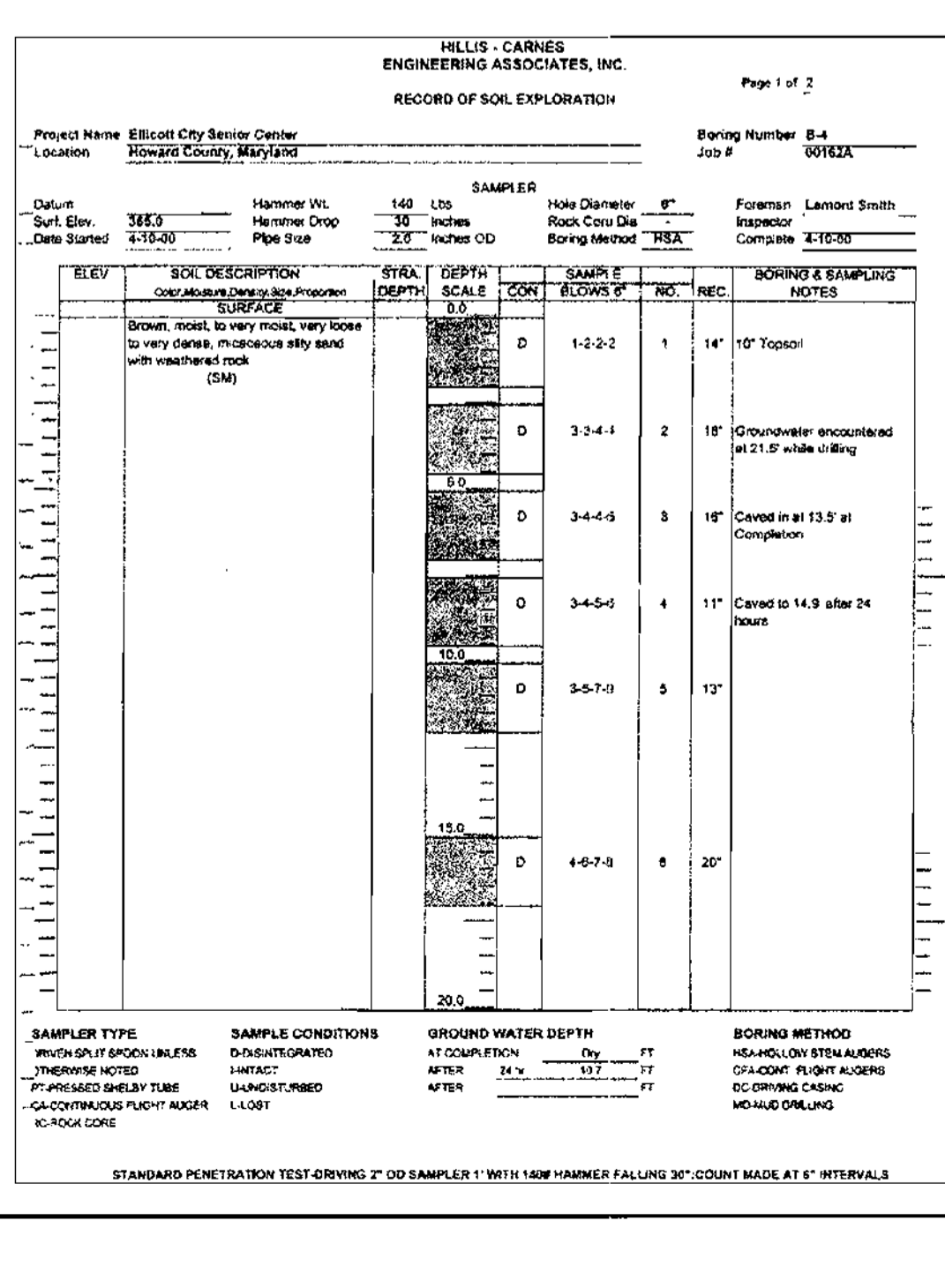
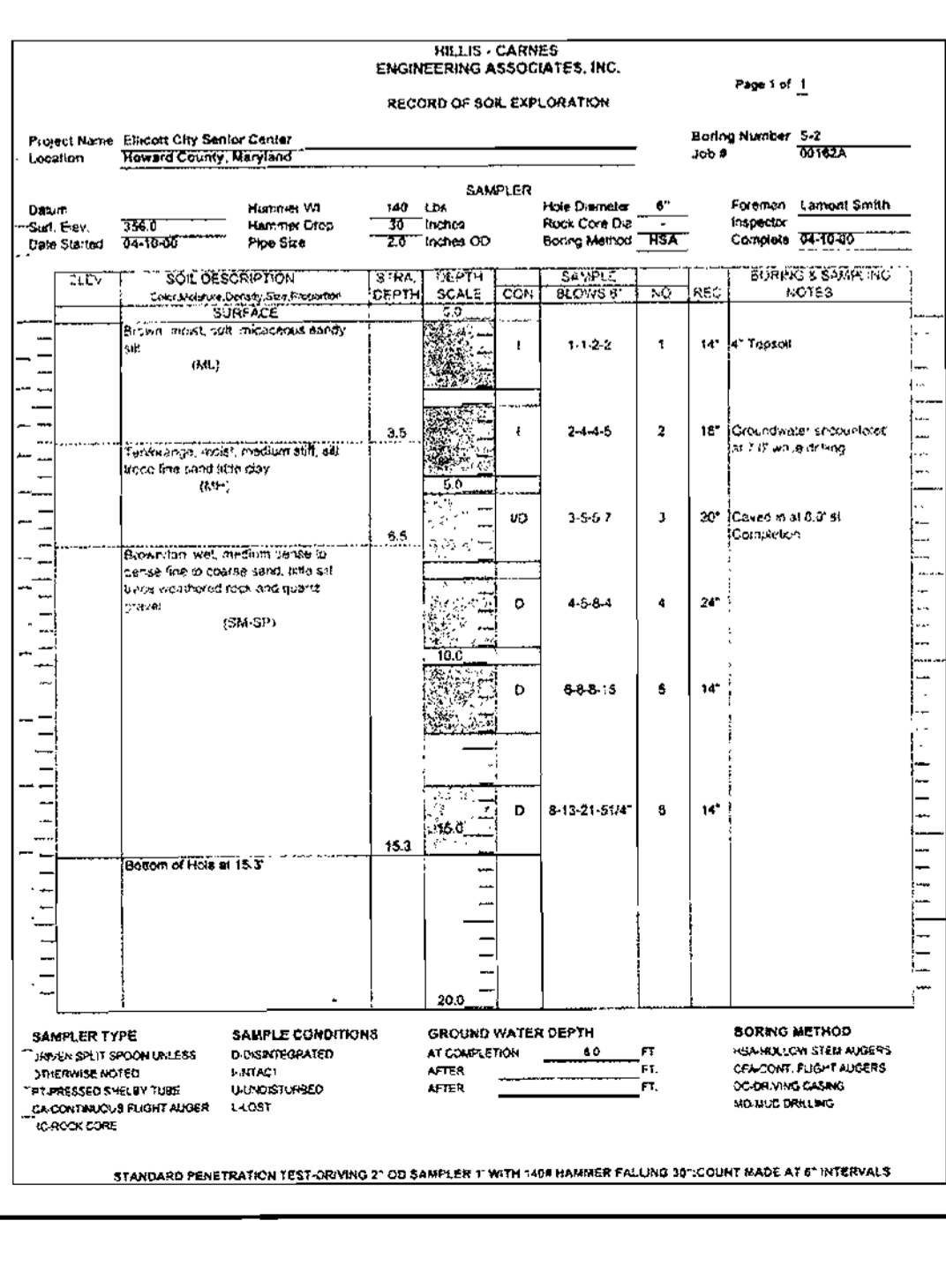
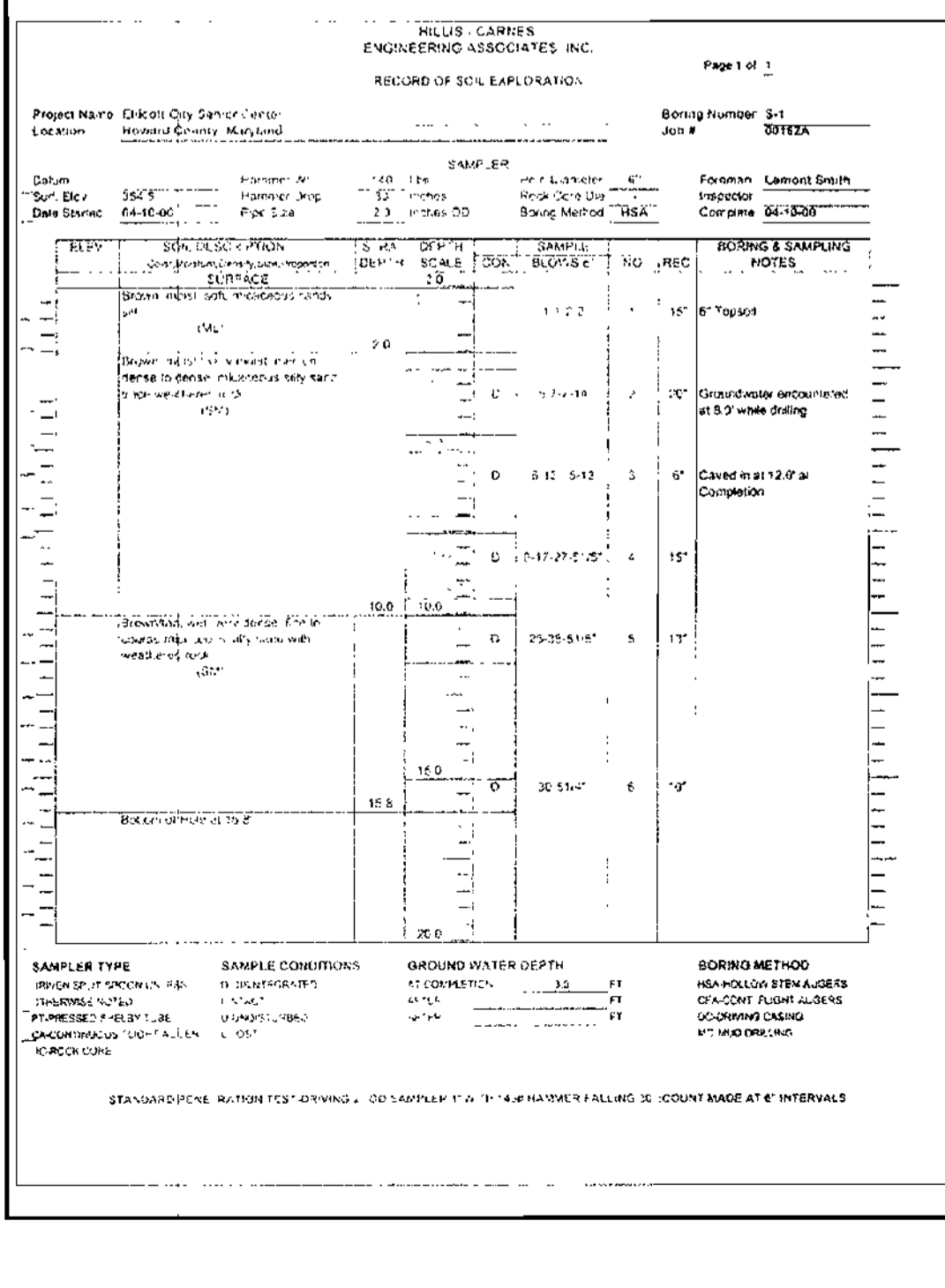
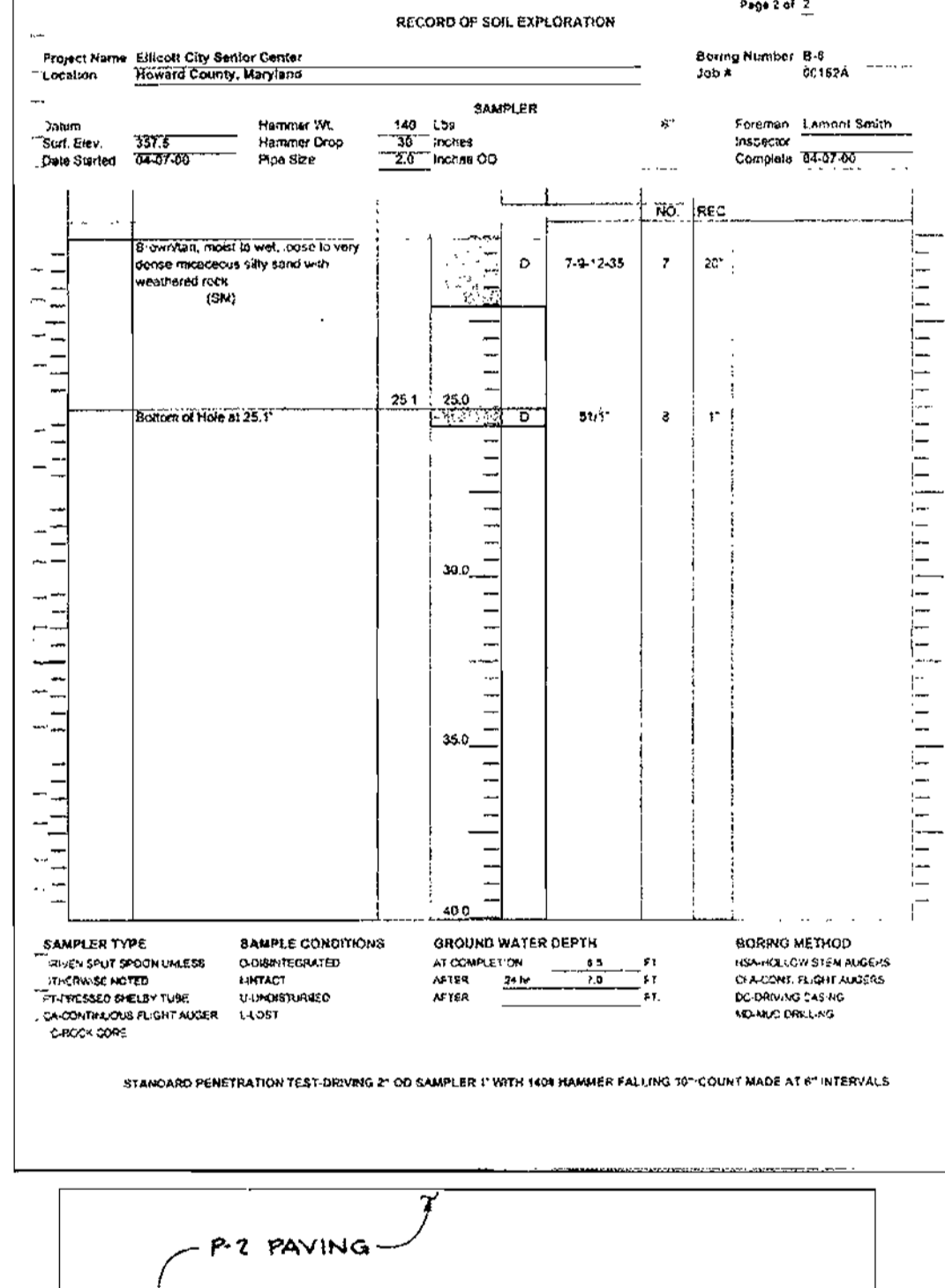
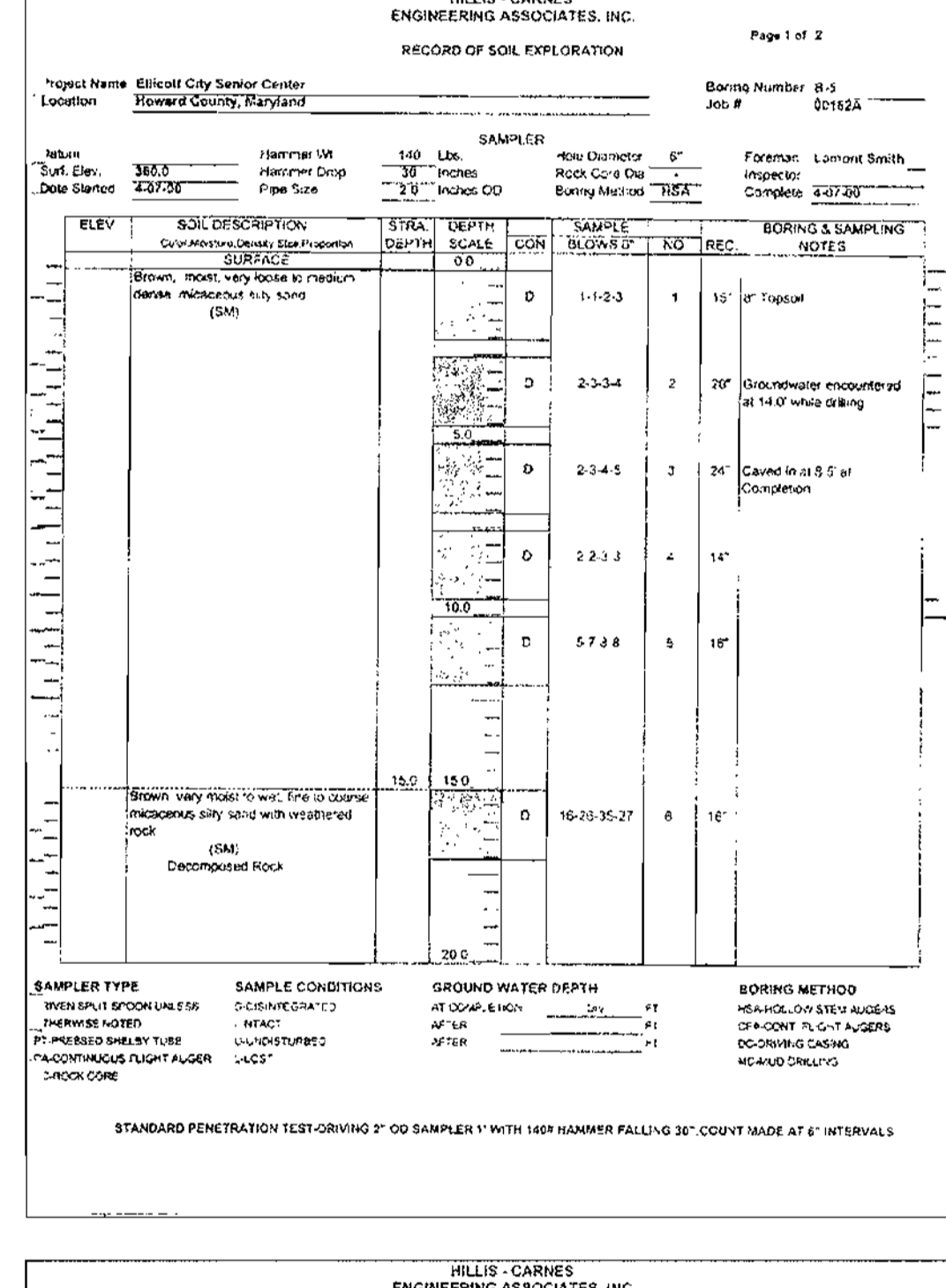
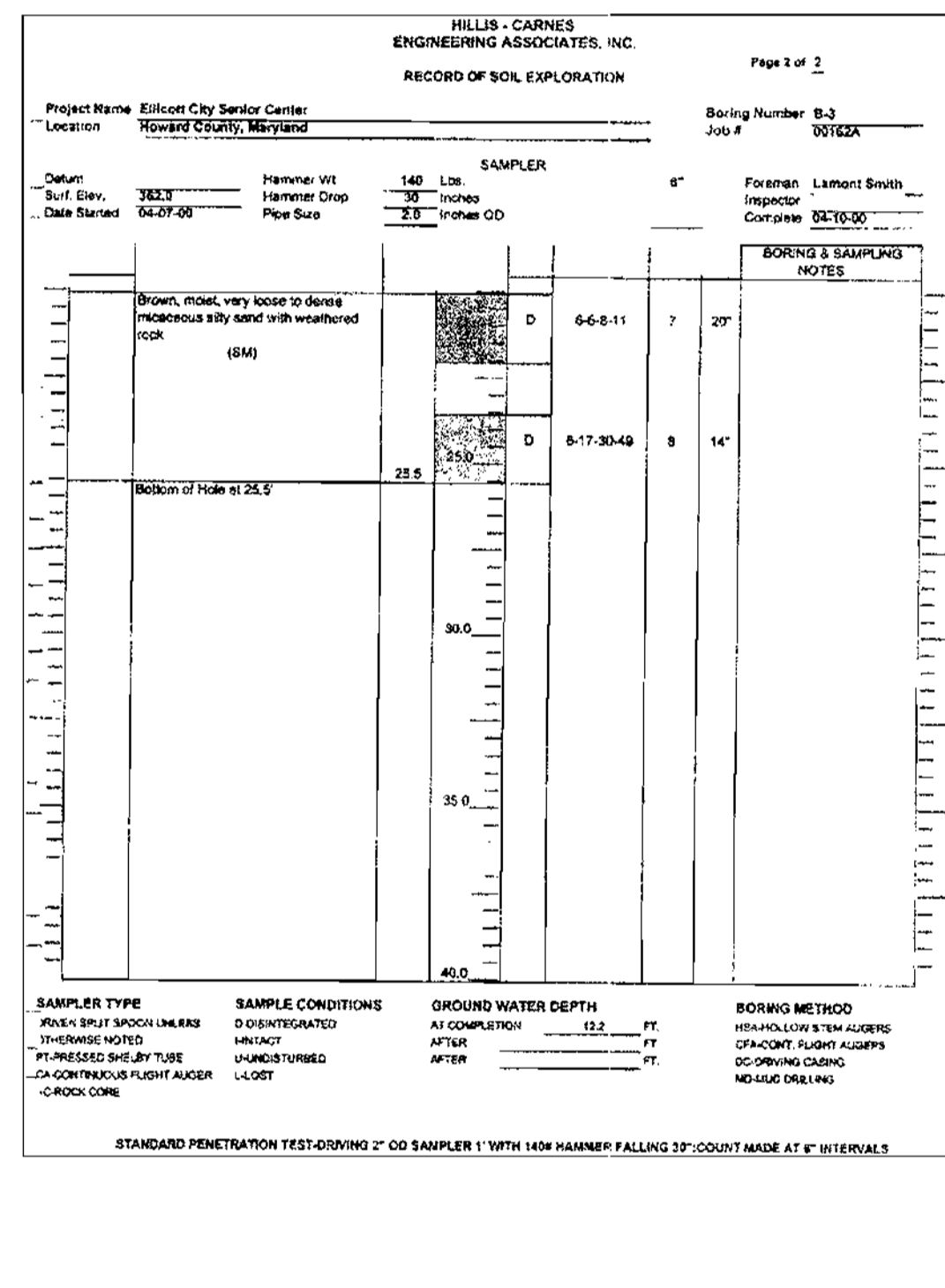
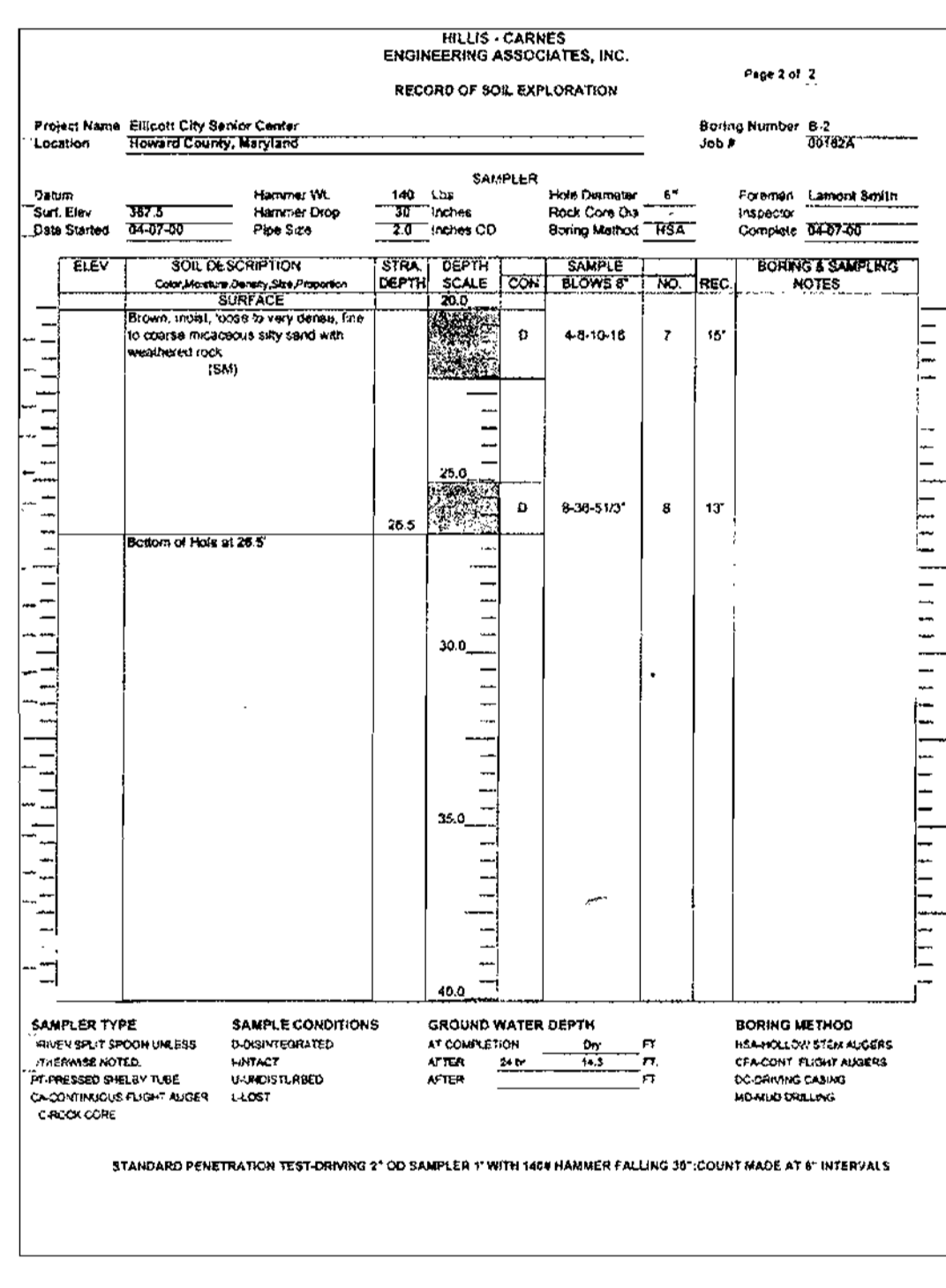
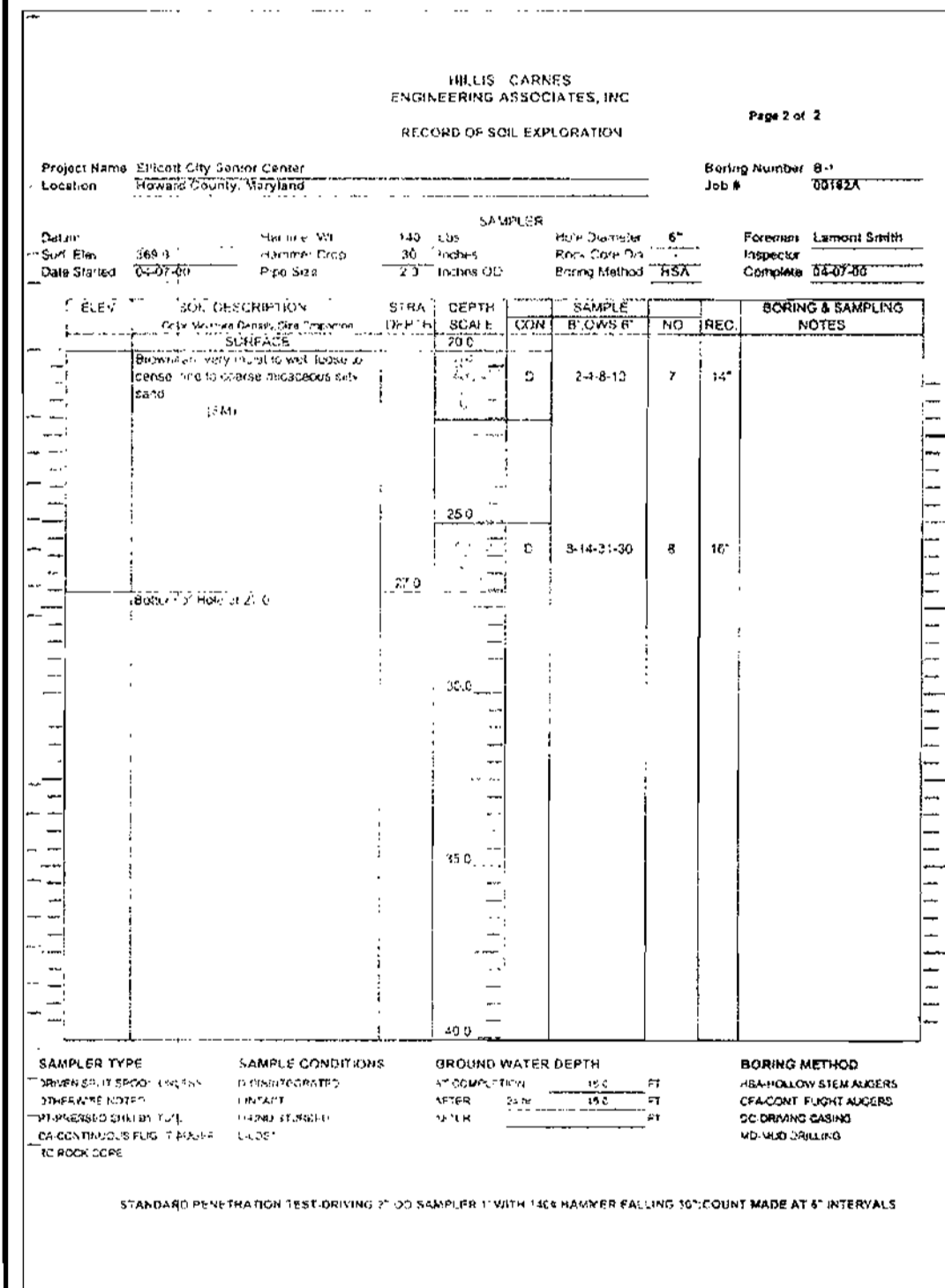
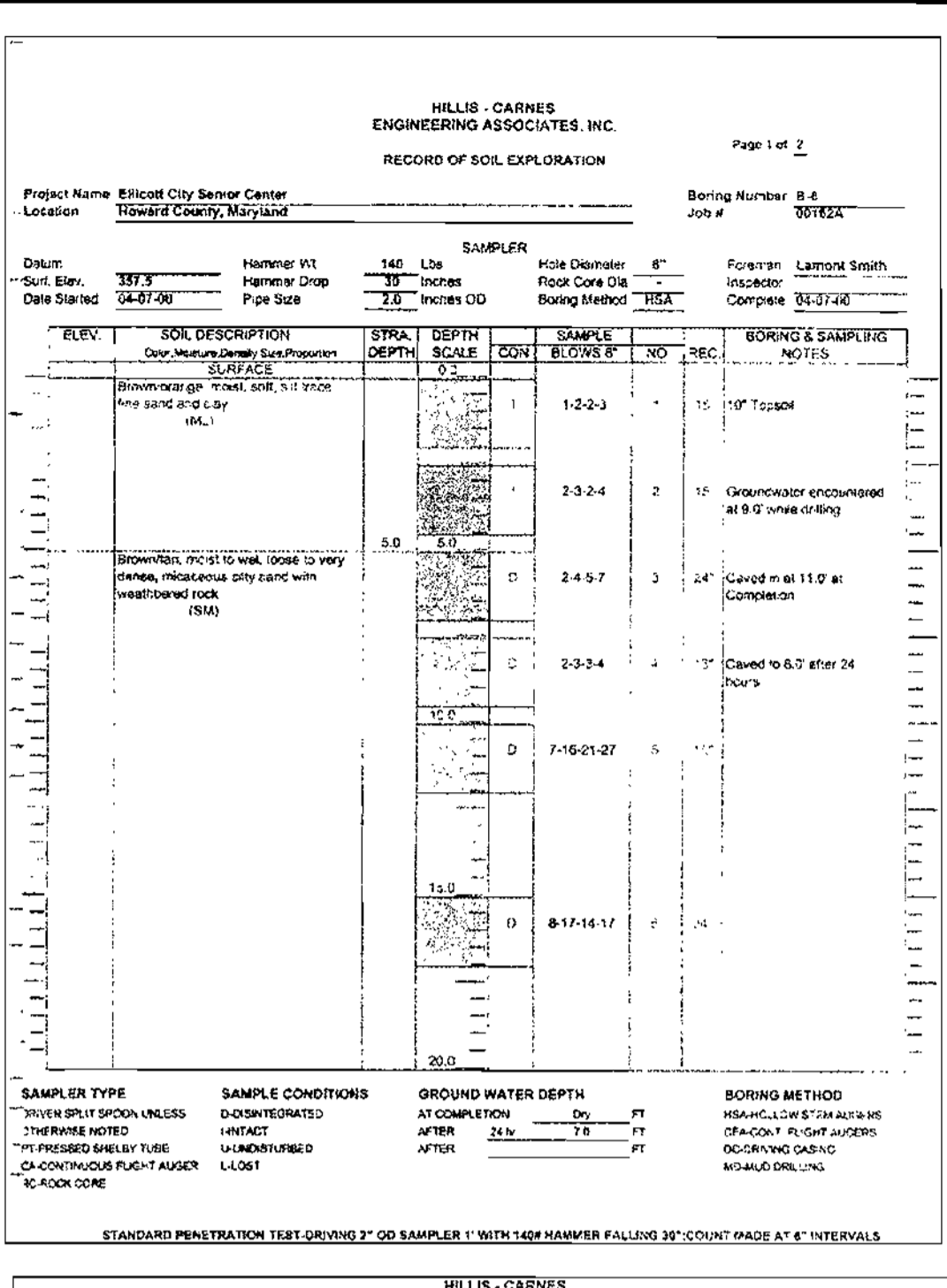
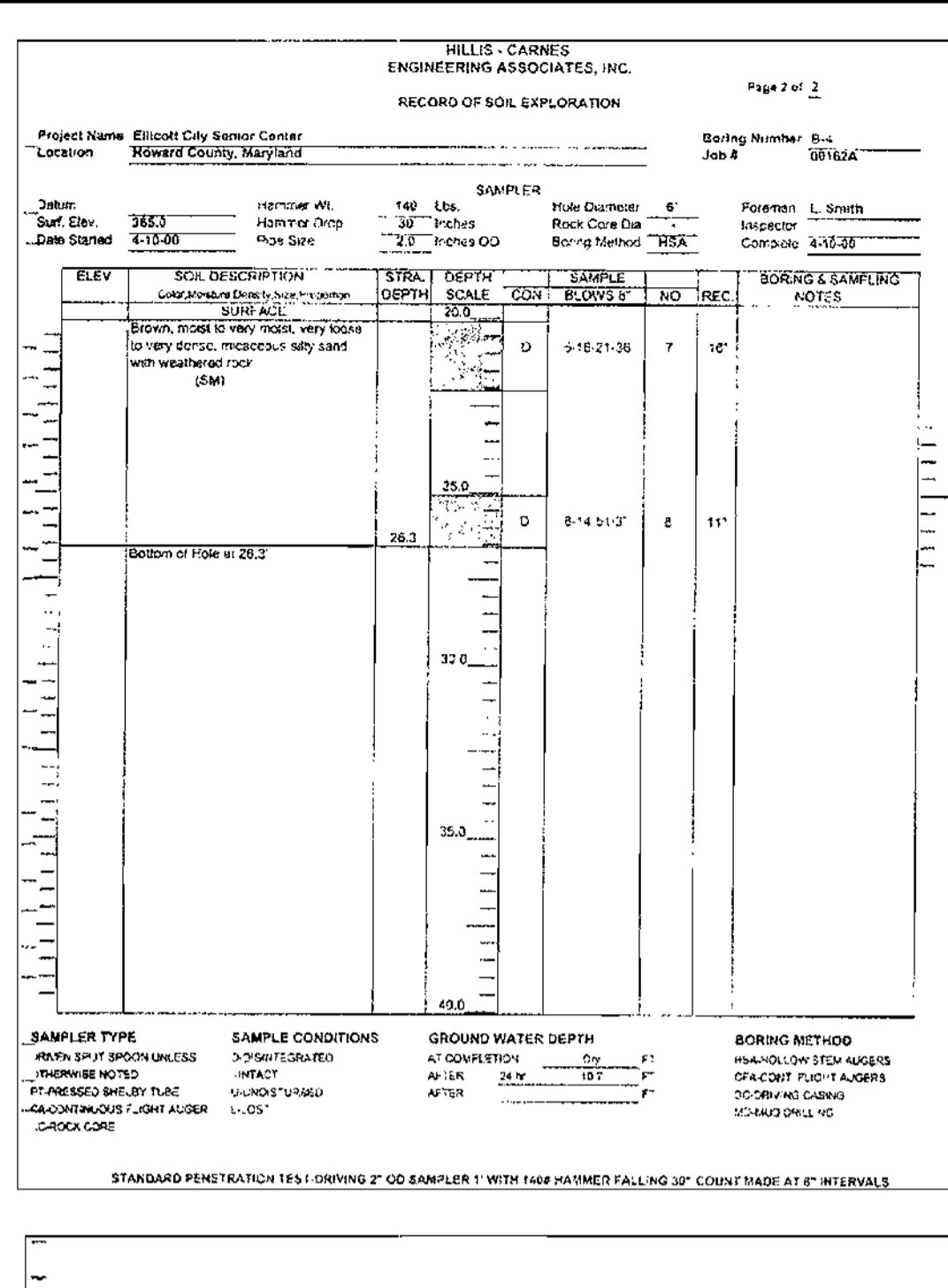
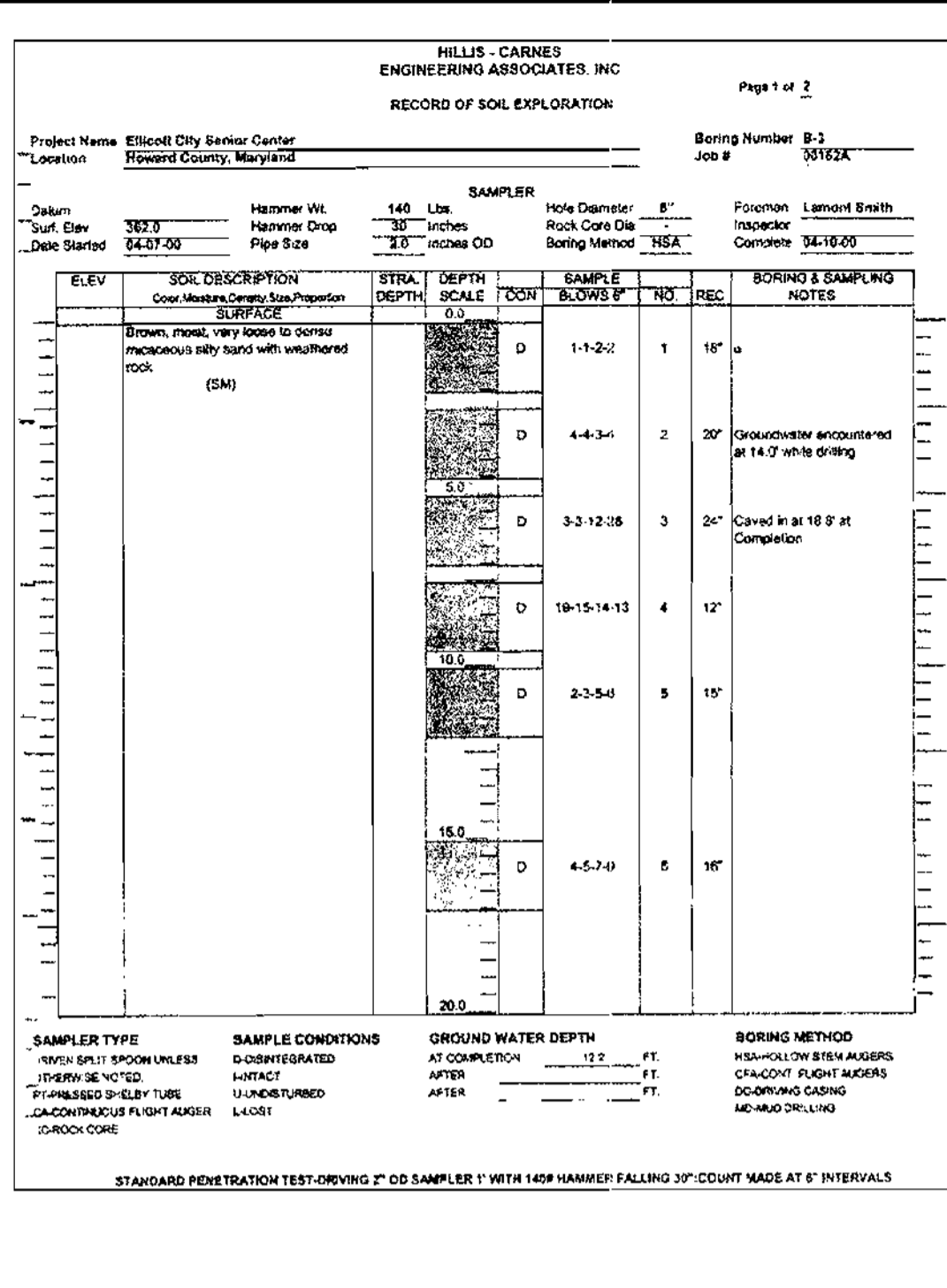
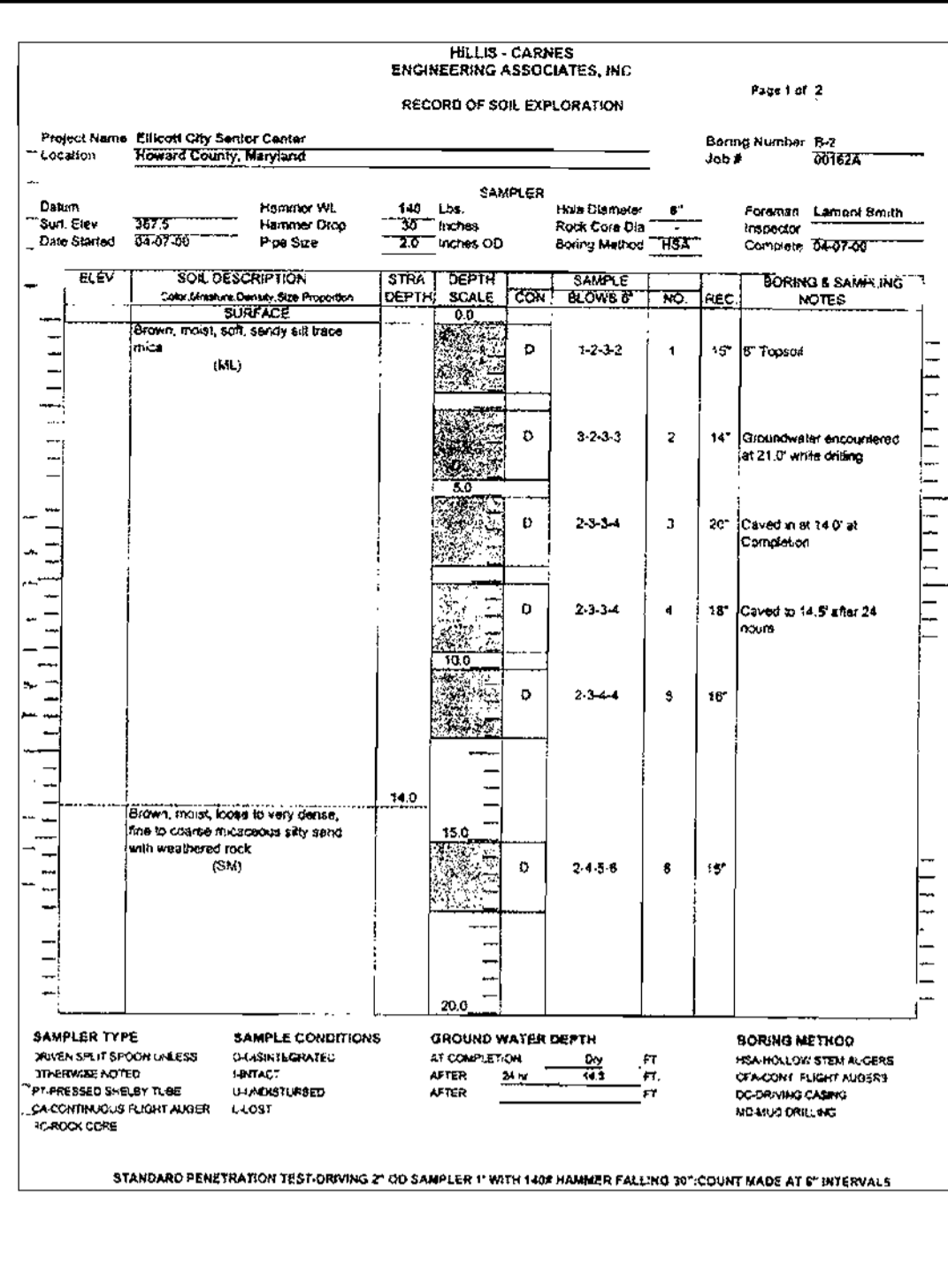
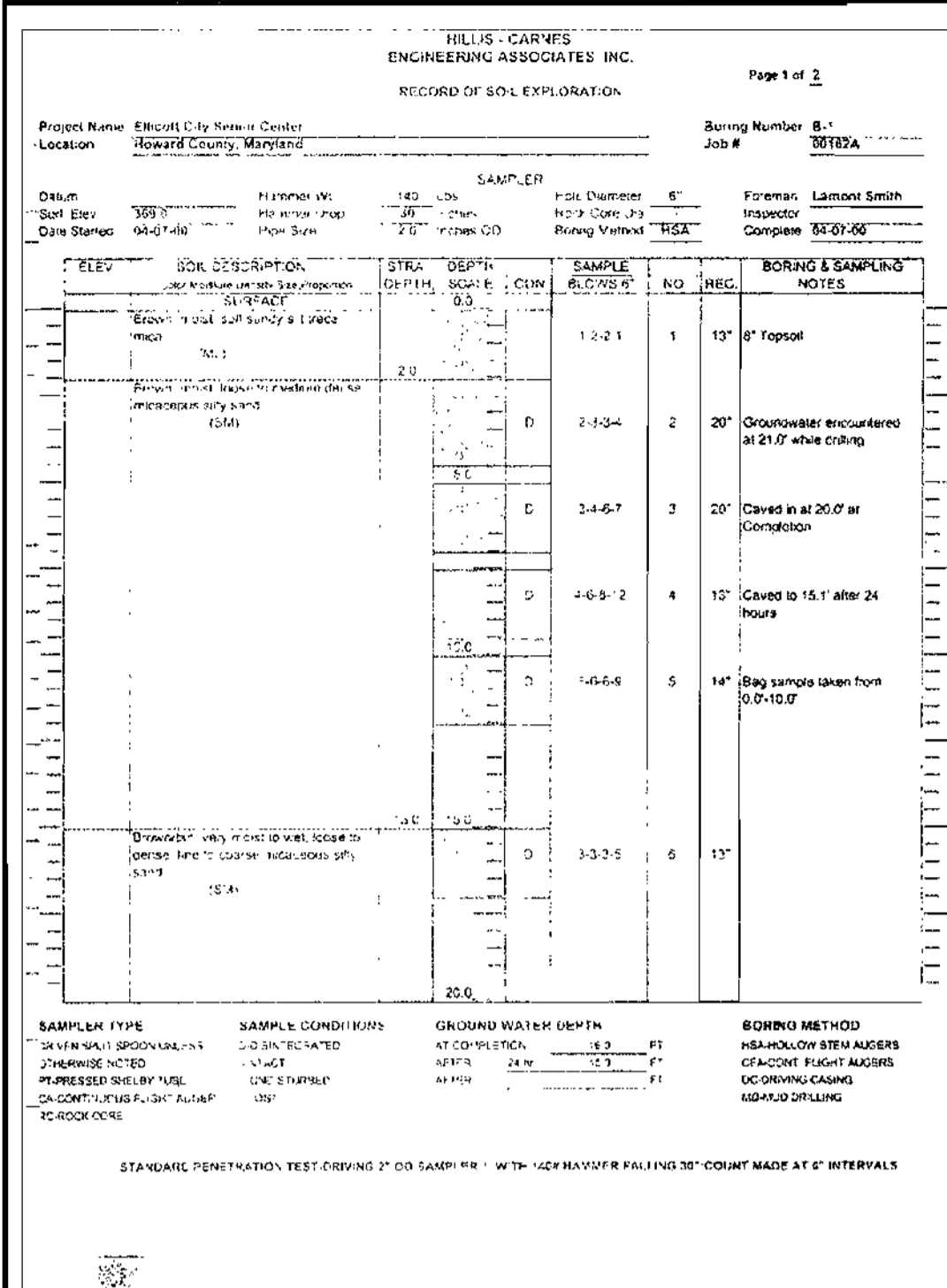
PREPARED BY:  
  
 813 MAIDEN CHOICE LANE, SUITE 300  
 BALTIMORE, MARYLAND 21228  
 (410) 247-8833 FAX 247-9397

Date By: R.J.W. Scale: AS SHOWN Proj No: 99-030  
 Dwn By: R.H.D. Date: SEPTEMBER 18, 2000 DRAWING NO: de03senior.dwg  
 Ck'd By: J.R.H. SDP 00-140 6 OF 11

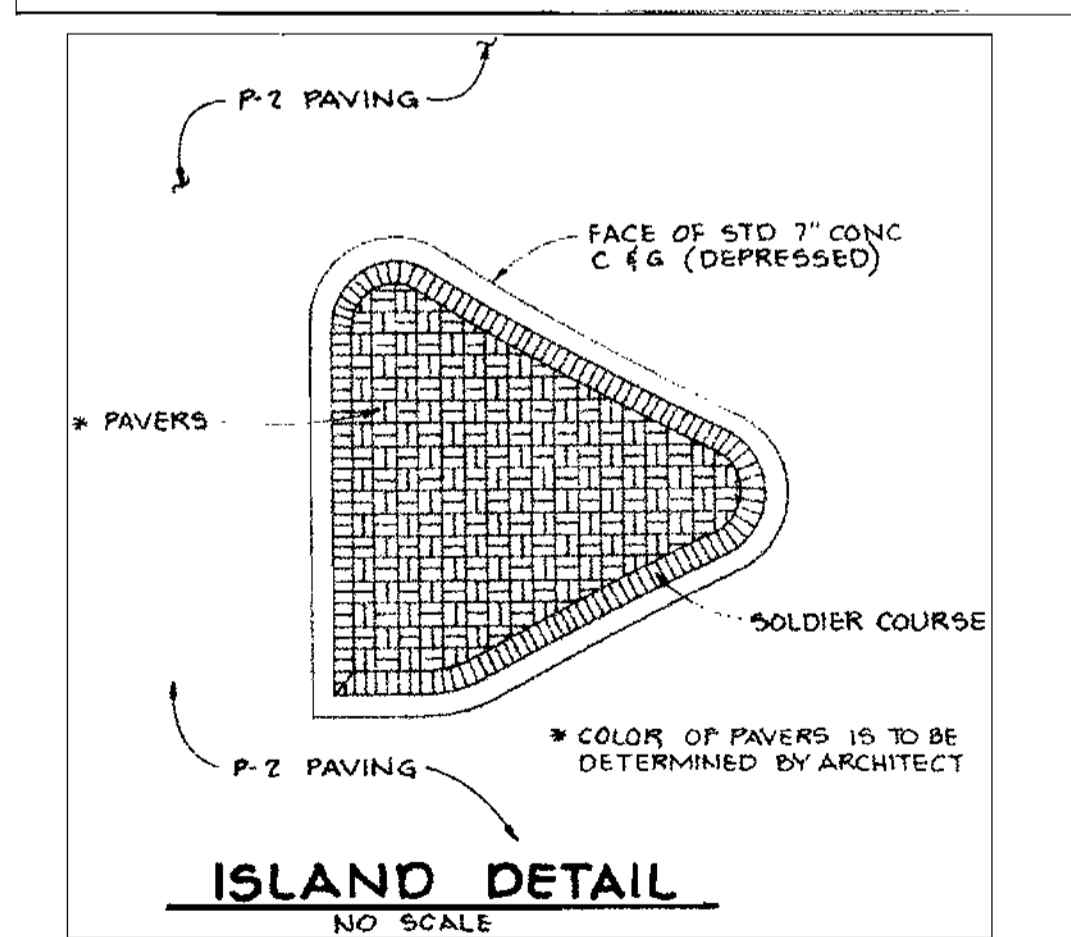


POND SUMMARY TABLE					
DRAINAGE AREA TO BASIN: 3.84 AC.					
STORM FREQUENCY	ALLOWABLE RELEASE RATE C.F.S.	COMPUTED INFLOW C.F.S.	COMPUTED DISCHARGE C.F.S.	WATER SURFACE ELEVATION	STORAGE VOLUME C.F.
2	7.61	10.15	6.96	354.25	4,958
10	15.63	18.25	14.02	354.82	8,990
100	---	27.12	23.09	355.23	12,110





APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Chief, Division of Land Development  
 Date: 12/14/00  
 Date: 12/21/00  
 Date: 12/22/00



PROJECT: ELICOTT CITY SENIOR CENTER  
 At the Miller Library Site  
 9401 Frederick Road Ellicott City, Maryland 21043  
 Tax Map No. 24 Grid 10 Elec. Dist. No. 2 Parcel 1163 & 1108  
 CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

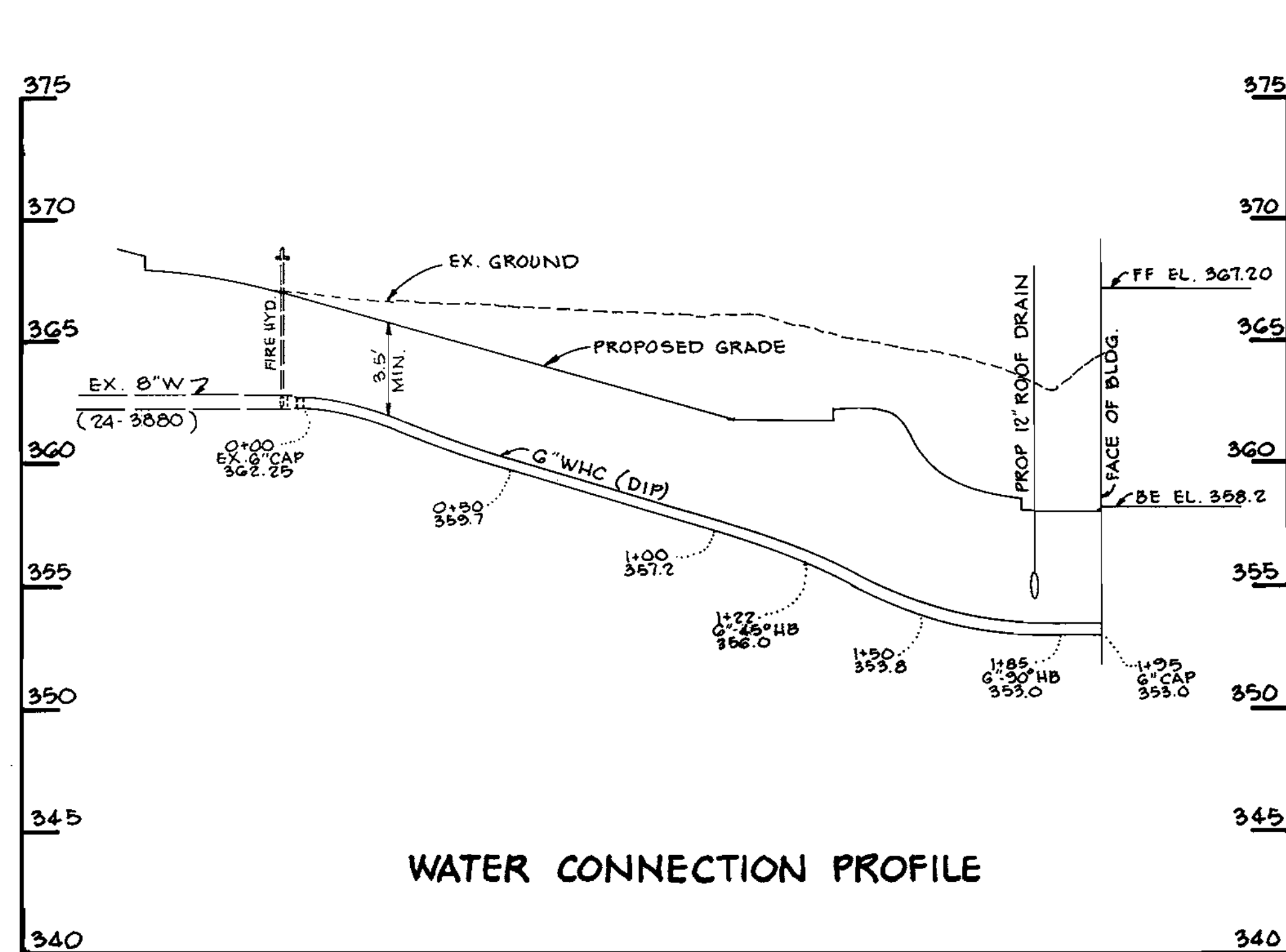
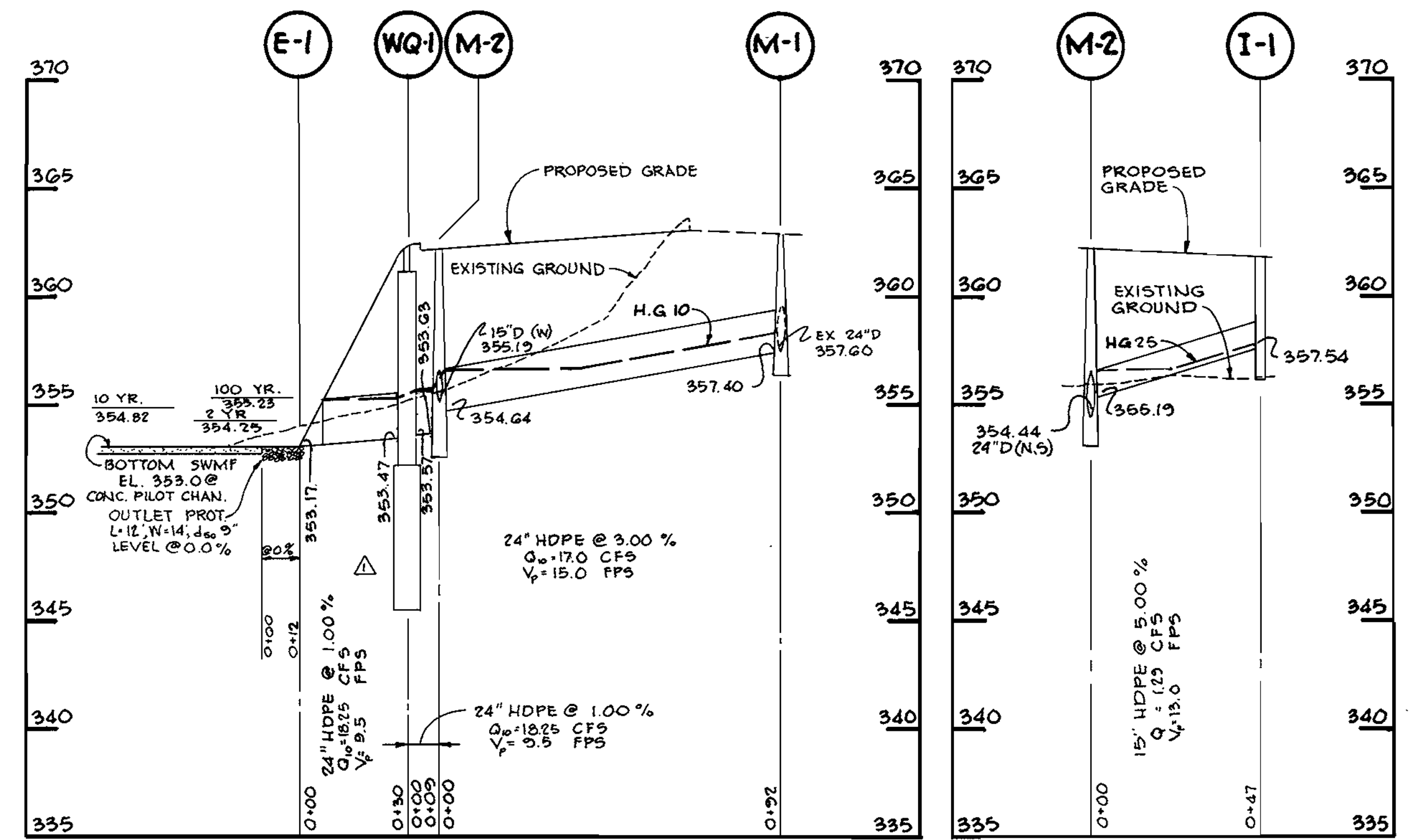
TITLE: BORING LOGS DETAILS  
 PREPARED FOR: GMA&D ARCHITECTURE DESIGN  
 PREPARED BY: PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS  
 813 MAIDEN CHOICE LANE, SUITE 300 BALTIMORE, MARYLAND 21228  
 (410) 247-8833 FAX 247-9397

12-1-00 Date  
 JOHN R. HEINRICHS Professional Engr. No. 14920

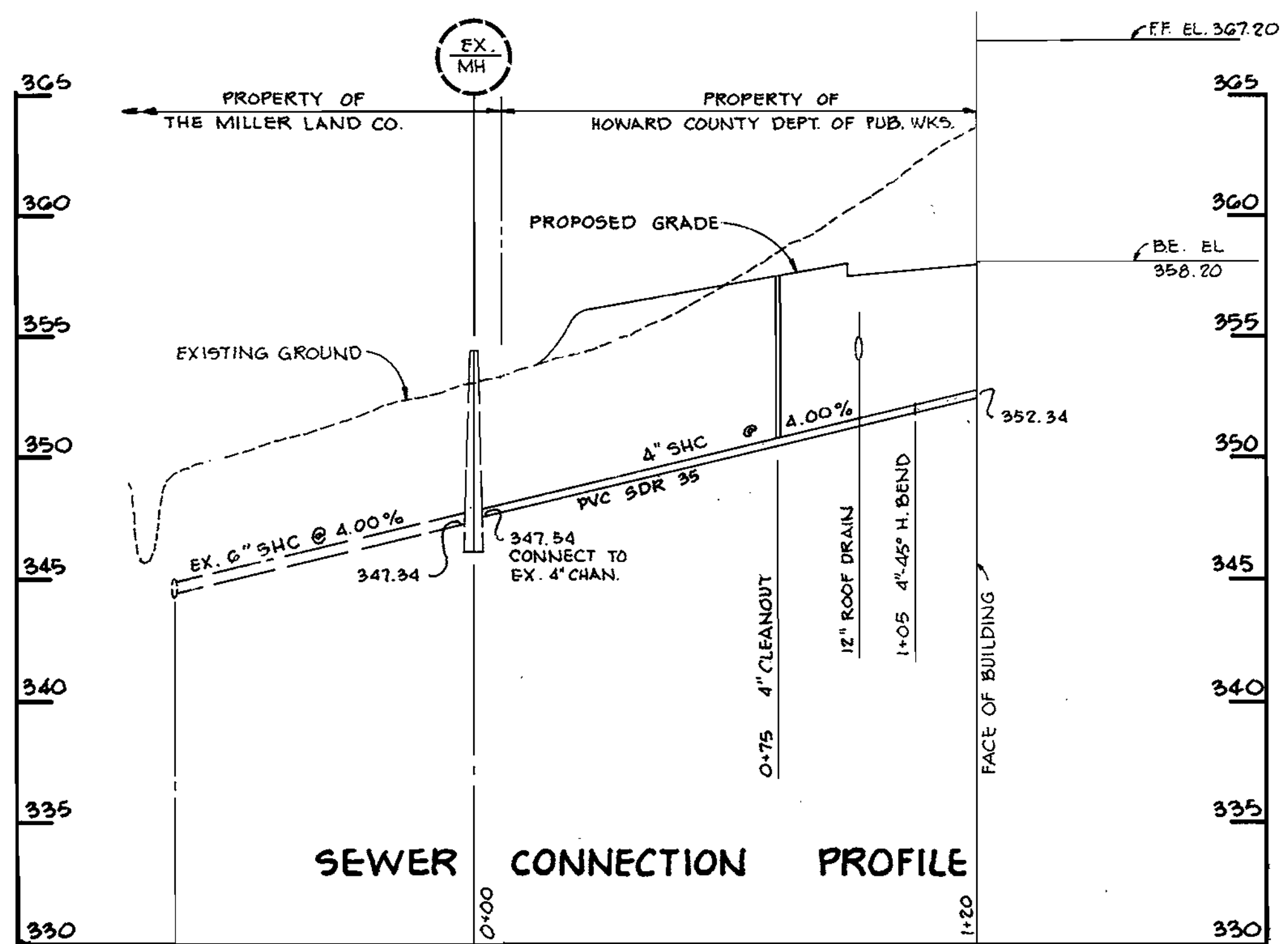
Des. By: R.A.W. Scale: AS SHOWN Proj. No: 99-030  
 Dwn. By: R.H.D. Date: AUGUST, 2000 DRAWING NO: pr01senior.dwg  
 Ck'd By: J.R.H. SDP 00-040 8 OF 11

G:\99\99-030\pr01senior.dwg Fr1 Dec 01 11:41:06 2000

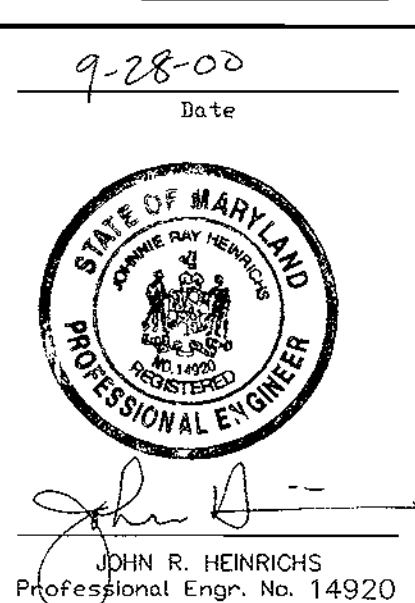
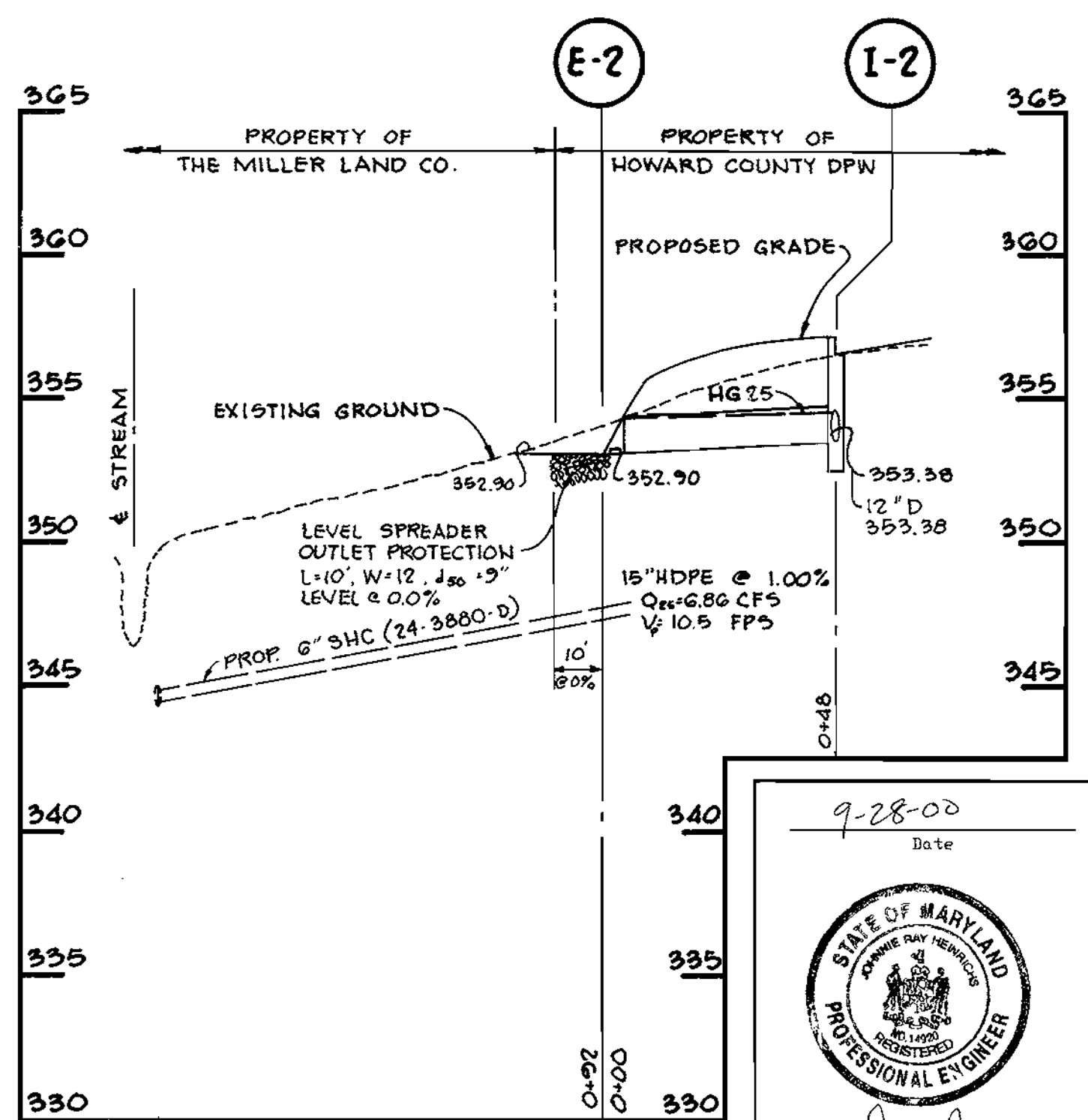




WATER CONNECTION PROFILE



SEWER CONNECTION PROFILE



APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i>	12/14/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	12/21/00
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>[Signature]</i>	12/22/00
DIRECTOR	DATE

11-22-00	RESPONDED TO H.S.C.D. COMMENTS DATED 11-22-00
Date	Revision Description

OWNER/DEVELOPER:  
 ATTN: Frederick F. Willers, CHIEF-Bureau of Facilities  
 Howard County Department of Public Works  
 8250 Montgomery Road  
 Columbia, MD 21045 (410) 313-2777

PROJECT:  
**ELLCOTT CITY SENIOR CENTER**  
 At the Miller Library Site  
 9401 Frederick Road Ellicott City, Maryland 21043  
 Tax Map No. 24 Grid 10 Elec. Dist. No. 2 Parcel 1163 & 1108  
 CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

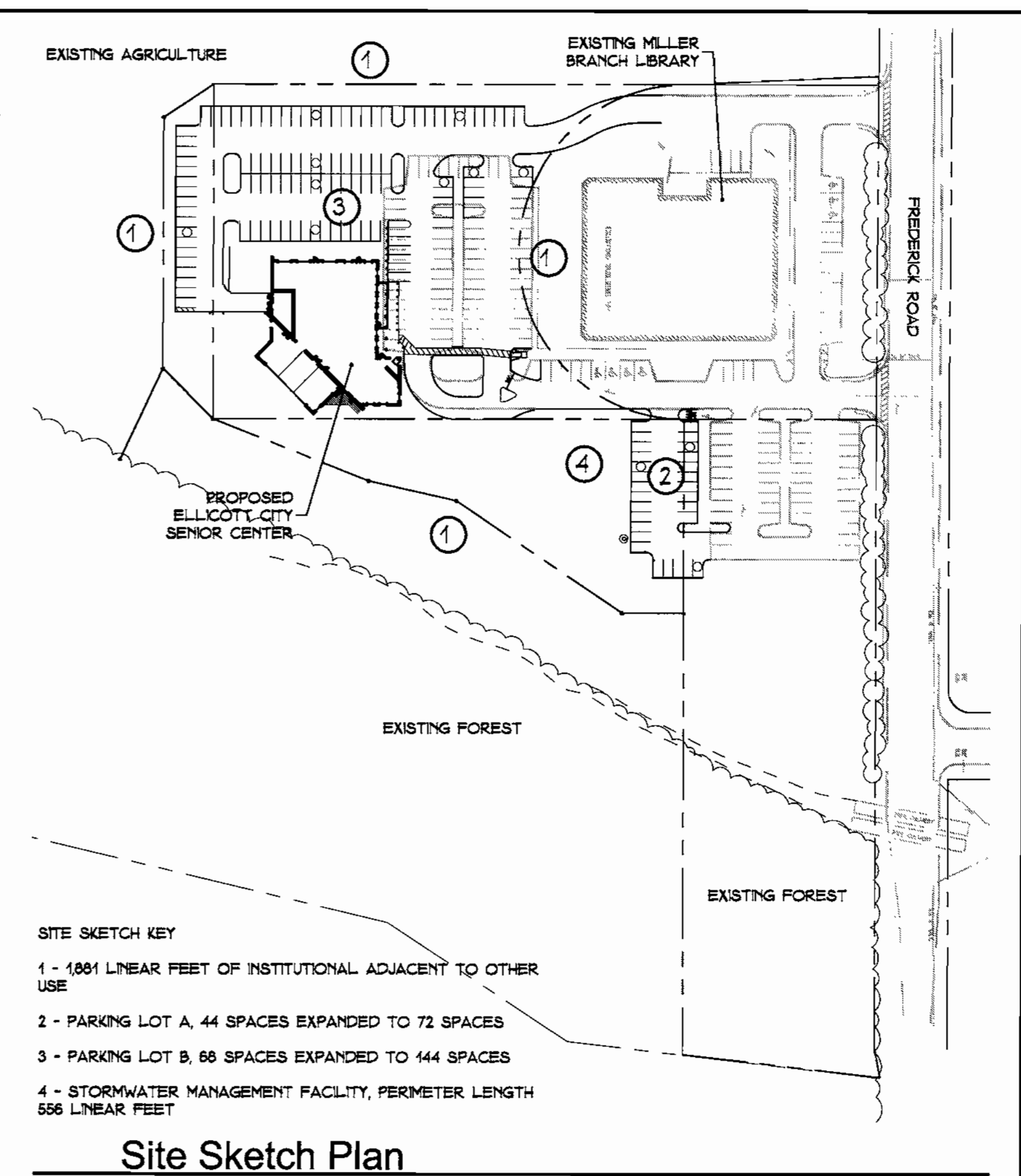
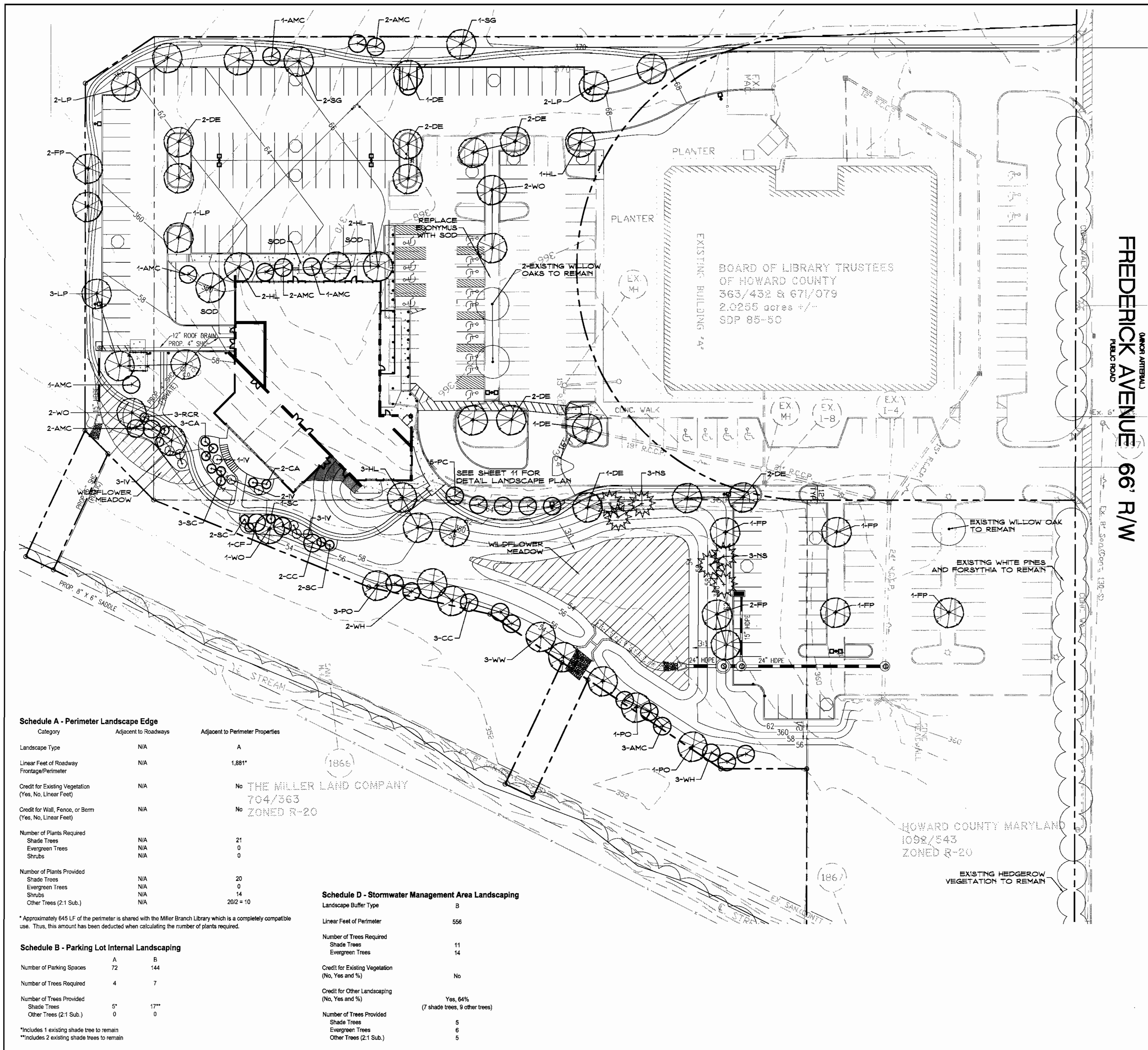
TITLE:  
**PROFILES**

PREPARED FOR:

PREPARED BY:  
  
 813 MAIDEN CHOICE LANE, SUITE 300  
 BALTIMORE, MARYLAND 21228  
 (410) 247-8833 FAX 247-9397

Des By	R.J.W.	Scale	HORIZ. 1" = 30'	VERT. 1" = 5'	Proj No	99-030
Des By	R.H.D.	Date	SEPTEMBER 13, 2000		DRAWING NO	
Chk By	J.R.H.	SDP	00-140		9	OF 11

G:\99199-030\01\senior.dwg Thu Sep 14 13:47:11 2000



Site Sketch Plan  
Scale: 1"=100'-0"

**Schedule A - Perimeter Landscape Edge**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	N/A	A
Linear Feet of Roadway Frontage/Perimeter	N/A	1,881'
Credit for Existing Vegetation (Yes, No, Linear Feet)	N/A	No
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet)	N/A	No
Number of Plants Required		
Shade Trees	N/A	21
Evergreen Trees	N/A	0
Shrubs	N/A	0
Number of Plants Provided		
Shade Trees	N/A	20
Evergreen Trees	N/A	0
Shrubs	N/A	14
Other Trees (2:1 Sub.)	N/A	20/2 = 10

**Schedule D - Stormwater Management Area Landscaping**

Landscape Buffer Type	B
Linear Feet of Perimeter	556
Number of Trees Required	
Shade Trees	11
Evergreen Trees	14
Credit for Existing Vegetation (No, Yes and %)	No
Credit for Other Landscaping (No, Yes and %)	Yes, 64%
	(7 shade trees, 9 other trees)
Number of Trees Provided	
Shade Trees	5
Evergreen Trees	6
Other Trees (2:1 Sub.)	5

**Schedule B - Parking Lot Internal Landscaping**

	A	B
Number of Parking Spaces	72	144
Number of Trees Required	4	7
Number of Trees Provided		
Shade Trees	5*	17**
Other Trees (2:1 Sub.)	0	0

\*Includes 1 existing shade tree to remain  
\*\*Includes 2 existing shade trees to remain

11-27-00 DATE

OWNER: [Signature] DATE: 12/14/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING DATE: 12/21/00

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 12/21/00

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 12/22/00

RECTOR: [Signature] DATE: 12/22/00

11/21/00	1	Per County comments 11/4/00
----------	---	-----------------------------

Date No Revision Description

PROJECT: ELLICOTT CITY SENIOR CENTER  
At the Miller Library Site

9401 Frederick Road Ellicott City, Maryland 21043  
Tax Map No. 24 Grid 9 Elec. Dist. No. 2 Parcel 1183  
CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE PLAN

PREPARED FOR: GMA&D ARCHITECTURE DESIGN

PREPARED BY: TP-A [Signature] TIMOTHY T. PRIGG + ASSOCIATES  
208 Mallow Hill Road - Baltimore, Maryland 21229  
410-388-4850 fax: 410-388-4859

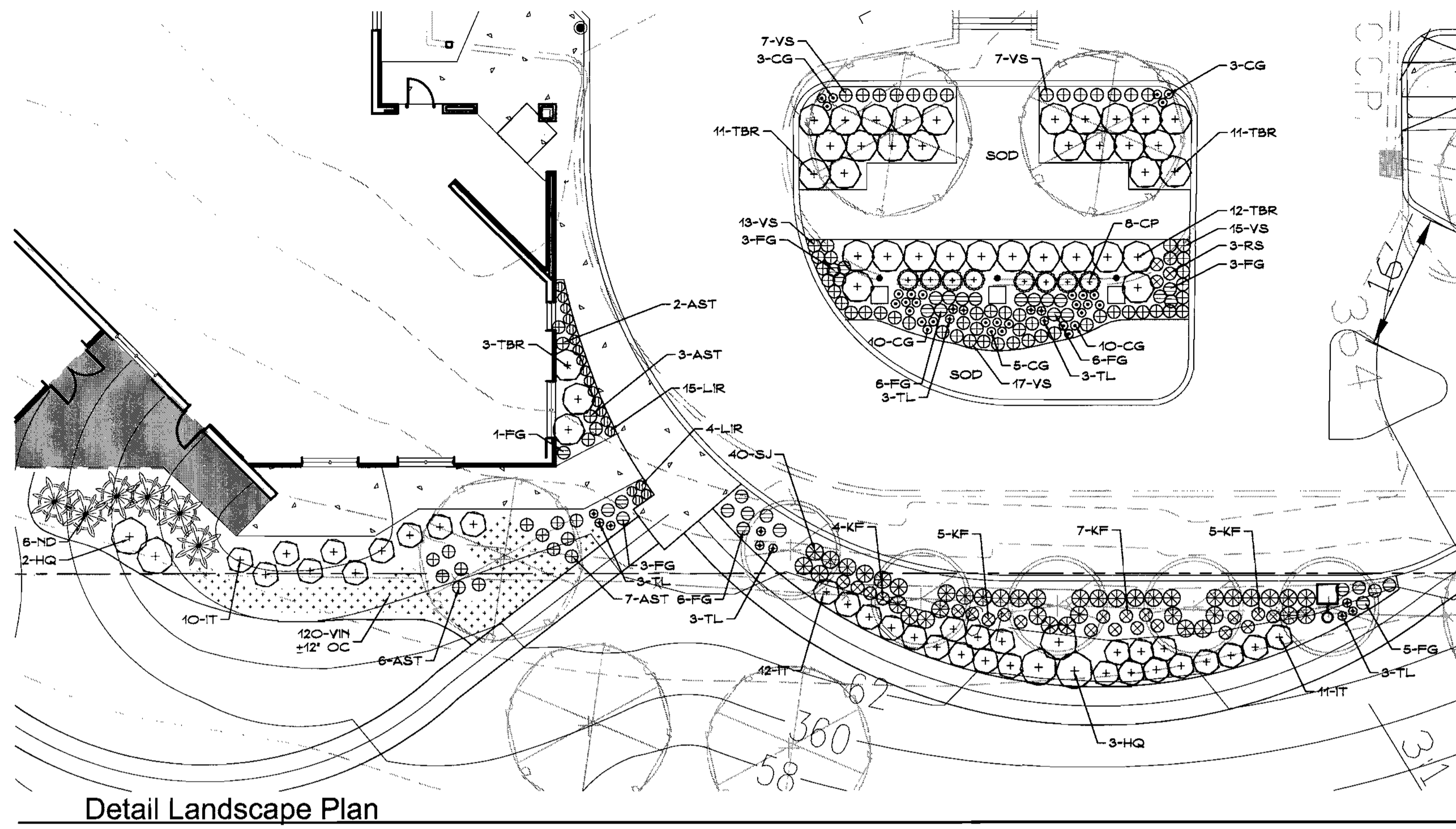
11/21/00 DATE

27 NOVEMBER 2000 DATE

STATE OF MARYLAND REGISTERED LAND ARCHITECT

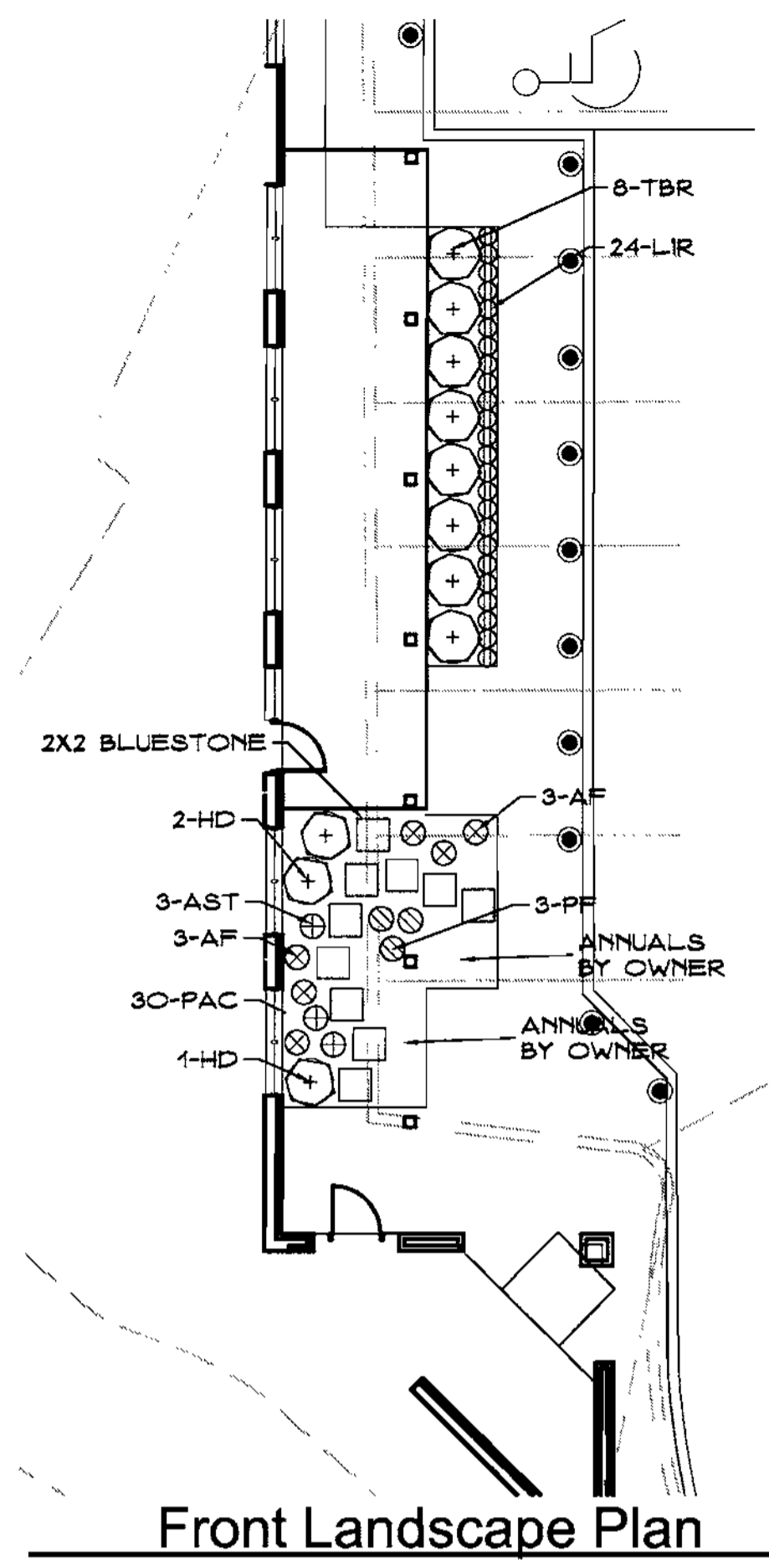
TIMOTHY T. PRIGG Registered Land Arch. No. 1000

Des By: T.T.P. Scale: 1" = 30' Proj No: 99-021  
Dm By: D.J.M. Date: SEPTEMBER 21, 2000 DRAWING NO: 10201.dwg  
Chk By: T.T.P. 10 OF 11



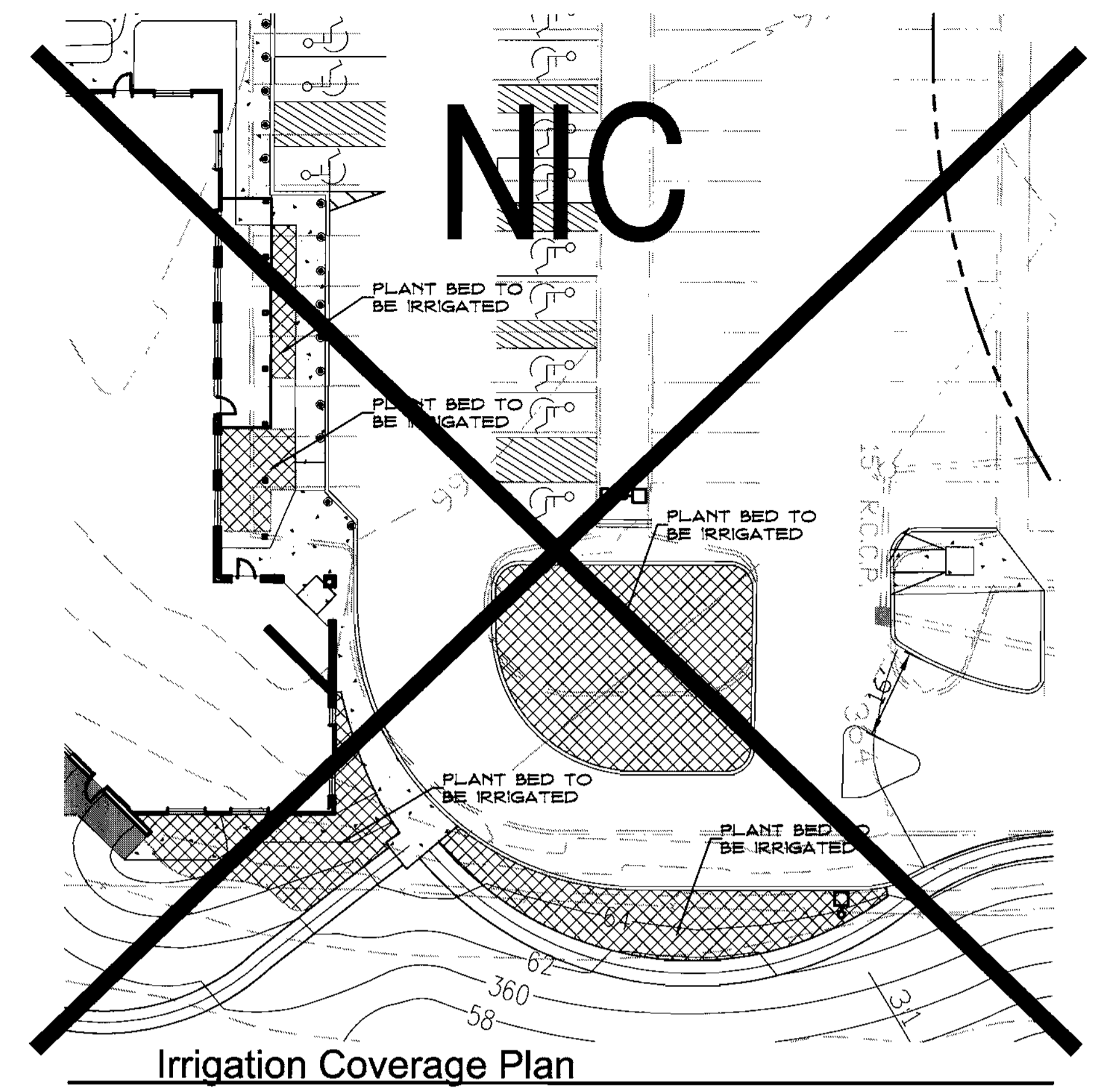
Detail Landscape Plan

Scale: 1"= 10'-0"



Front Landscape Plan

Scale: 1"= 10'-0"



Irrigation Coverage Plan

Scale: 1"= 20'-0"

Landscape Notes

- All work shall be completed in accordance with the attached specifications.
- Contractor shall be responsible for making himself familiar with all existing on-site conditions prior to submission of bid. The contractor is responsible for the location of all underground utilities, pipes, and structures. Contractor shall call Miss Utility, 48 hours, prior to digging. (1-800-257-7777)
- Contractor shall confirm quantity of plant materials on plans with plant lists. Any discrepancies shall be reported to the Landscape Architect prior to the submission of bid.
- Where field conditions exist which would adversely affect plant performance, or interfere with proper planting procedures, the contractor shall notify the Engineer prior to installation of plant material.
- All plants shall be placed as not to obstruct drainage.
- No plant substitutes without prior approval.

Plant List

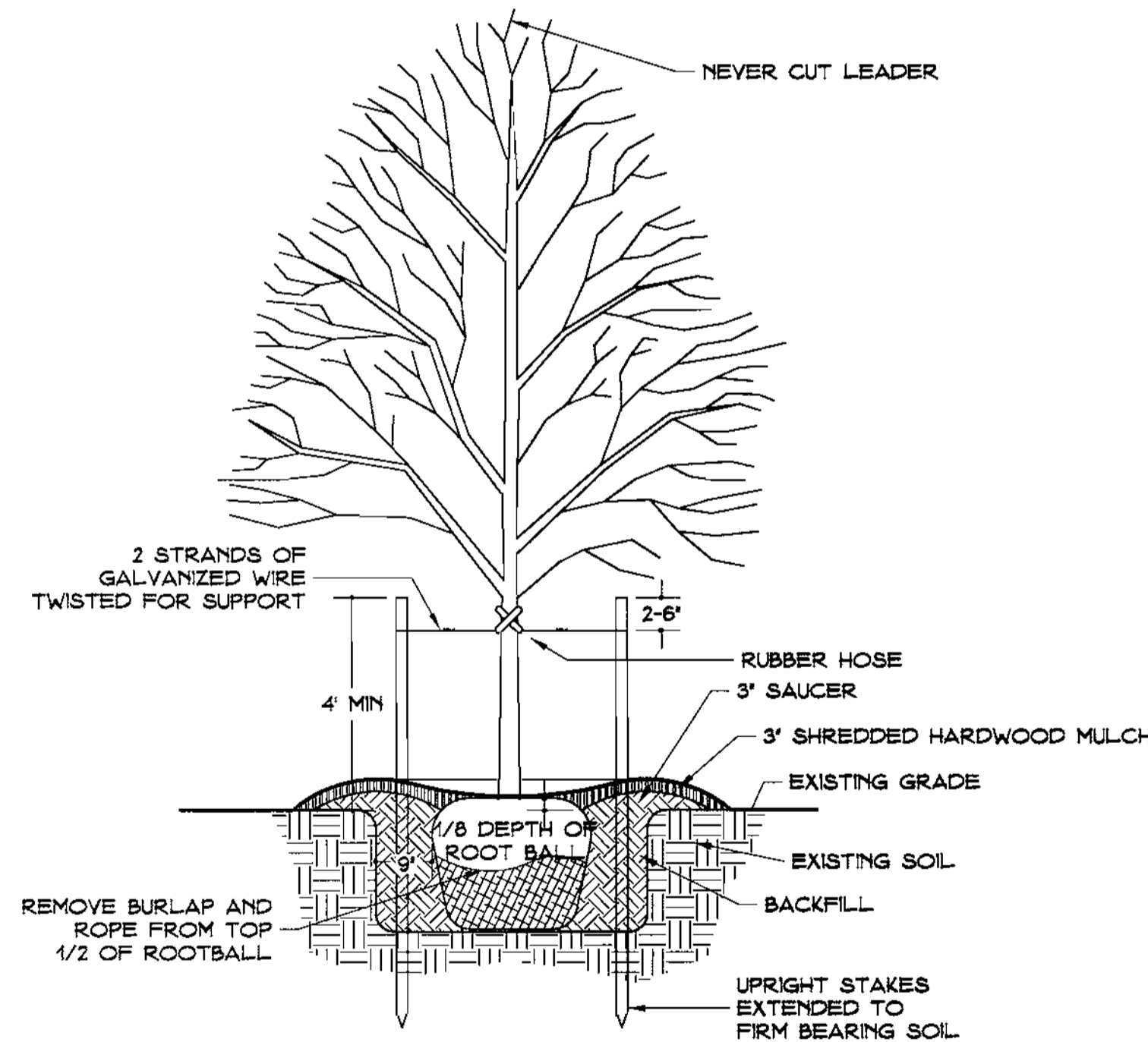
Key	Quan.	Botanical Name	Common Name	Size	Remarks
FP	8	Fraxinus pennsylvanica 'Marshall's Seedless'	Seedless Green Ash	2 1/2"	B & B or container
LP	8	Platanus x acerifolia 'Bloodgood'	London Planetree	2 1/2"	B & B or container
PO	5	Quercus palustris	Pin Oak	2 1/2"	B & B or container
WO	5	Quercus phellos	Willow Oak	2 1/2"	B & B or container
DE	13	Ulmus parviflora 'Dynasty'	Dynasty Elm	2 1/2"	B & B or container
HL	8	Gleditsia inermis 'Shademaster'	Shademaster Honeylocust	2 1/2"	B & B or container
SG	3	Liquidambar styraciflua	American Sweetgum	2 1/2"	B & B or container
WW	3	Salix babylonica	Weeping Willow	2 1/2"	B & B or container
NS	6	Picea abies	Norway Spruce	8"	B & B or container
CF	1	Cornus florida	Flowering Dogwood	8"	B & B or container
CC	5	Cercis canadensis 'Forest Pansy'	Eastern Redbud	8"	B & B or container
AMC	13	Amelanchier grandiflora	Shadblow Serviceberry	10'	Multistem, B & B or container
PC	5	Prunus cerasifera at. 'Thundercloud'	Thundercloud Purpleleaf Plum	1 1/2"	B & B or container
WH	5	Crataegus phaenopynum	Washington Hawthorne	1 1/2"	B & B or container
RCR	3	Rhododendron catawbiense 'Roseum Elegens'	Roseum Elegens Rhododendron	36"	B & B or container
SC	8	Clethra alnifolia	Summersweet Clethra	36"	B & B or container
IV	9	Ilex verticillata	Winterberry	48"	B & B or container
CA	5	Calycanthos floridus	Carolina Allspice	36"	B & B or container

Detail Plant List

Key	Quan.	Botanical Name	Common Name	Size	Remarks
TBR	37	Taxus baccata 'Repandens'	Spreading English Yew	24"	B & B or container
CP	8	Berberis thunbergii 'Crimson Pygmy'	Crimson Pygmy Barberry	24"	B & B or container
ND	6	Nandina domestica	Heavenly Bamboo	24"	B & B or container
HQ	5	Hydrangea quercifolia 'Snow Queen'	Oak-leaf Hydrangea	24"	B & B or container
SJ	40	Juniperus conferta	Shore Juniper	18"	B & B or container
IT	33	Itea virginica	Virginia Sweetspire	24"	B & B or container
FG	33	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	1 gal.	Container
KF	21	Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster's Feather Reed Grass	1 gal.	Container
RS	3	Perovskia atriplicifolia 'Filligran'	Russian Sage	1 gal.	Container
VS	59	Veronica spicata 'Sunny Border Blue'	Blue Speedwell	1 qt.	Container
TL	15	Kniphofia 'Pfitzer's Hybrids'	Red Hot Poker	1 gal.	Container
LIR	19	Liriope muscari 'Big Blue'	Big Blue Lilyturf	1 qt.	Container
AST	18	Astilbe 'Peach Blossom'	Peach Astilbe	1 gal.	Container
CG	31	Coreopsis grandiflora 'Early Sunrise'	Early Sunrise Tickseed	1 qt.	Container
VIN	120	Vinca minor	Periwinkle	2" cell	Container

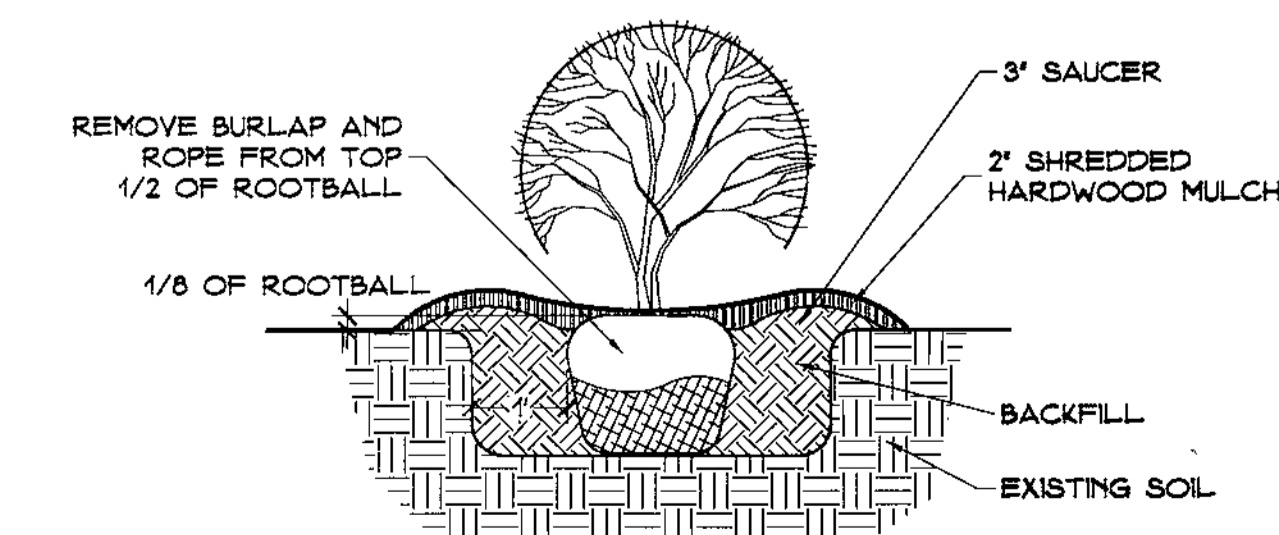
Front Plant List

Key	Quan.	Botanical Name	Common Name	Size	Remarks
TBR	8	Taxus baccata 'Repandens'	Spreading English Yew	24"	B & B or container
HD	3	Nandina domestica 'Harbour Dwarf'	Harbour Dwarf Nandina	18"	B & B or container
LIR	24	Liriope muscari 'Big Blue'	Big Blue Lilyturf	1 qt.	Container
AST	3	Astilbe 'Peach Blossom'	Peach Astilbe	1 gal.	Container
PF	3	Athyrium nipponicum 'Pictum'	Japanese Painted Fern	1 gal.	Container
AF	6	Dryopteris erythrosora	Autumn Fern	1 gal.	Container
PAC	30	Pachysandra 'Spurge'	Pachysandra	4"	Container



1 Staked Tree Planting Detail

Scale: 1/2"= 1'-0"



2 Shrub Planting Detail

Scale: 1/2"= 1'-0"

OWNER	11-27-00	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING		
CHIEF, DEVELOPMENT ENGINEERING DIVISION	12/14/00	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	12/21/00	DATE
RECTOR	12/22/00	DATE
11/21/00	1	Per County comments 11/4/00
Date	No	Revision Description

PROJECT:  
**ELICOTT CITY SENIOR CENTER**  
 At the Miller Library Site  
 9401 Frederick Road Ellicott City, Maryland 21043  
 Tax Map No. 24 Grid 9 Elec. Dist. No. 2 Parcel 1163  
 CAPITAL PROJECT C-0269 HOWARD COUNTY, MARYLAND

LANDSCAPE DETAILS

PREPARED FOR:

PREPARED BY:

LANDSCAPE ARCHITECTURE  
 Environmental Planning  
**TIMOTHY PRIGG+ASSOCIATES**  
 208 Mallow Hill Road - Baltimore, Maryland 21229  
 410/368-4850 fax: 410/368-4859

Des By	T.T.P.	Scale	AS NOTED	Proj No	99-021
Drn By	D.J.M.	Date	SEPTEMBER 21, 2000	DRAWING NO	layout.dwg
Chk By	T.T.P.				11 OF 11

27 NOVEMBER 2000  
 State of Maryland  
 REGISTERED LANDSCAPE ARCHITECT  
 TIMOTHY T. PRIGG  
 Registered Land Arch. No. 1000