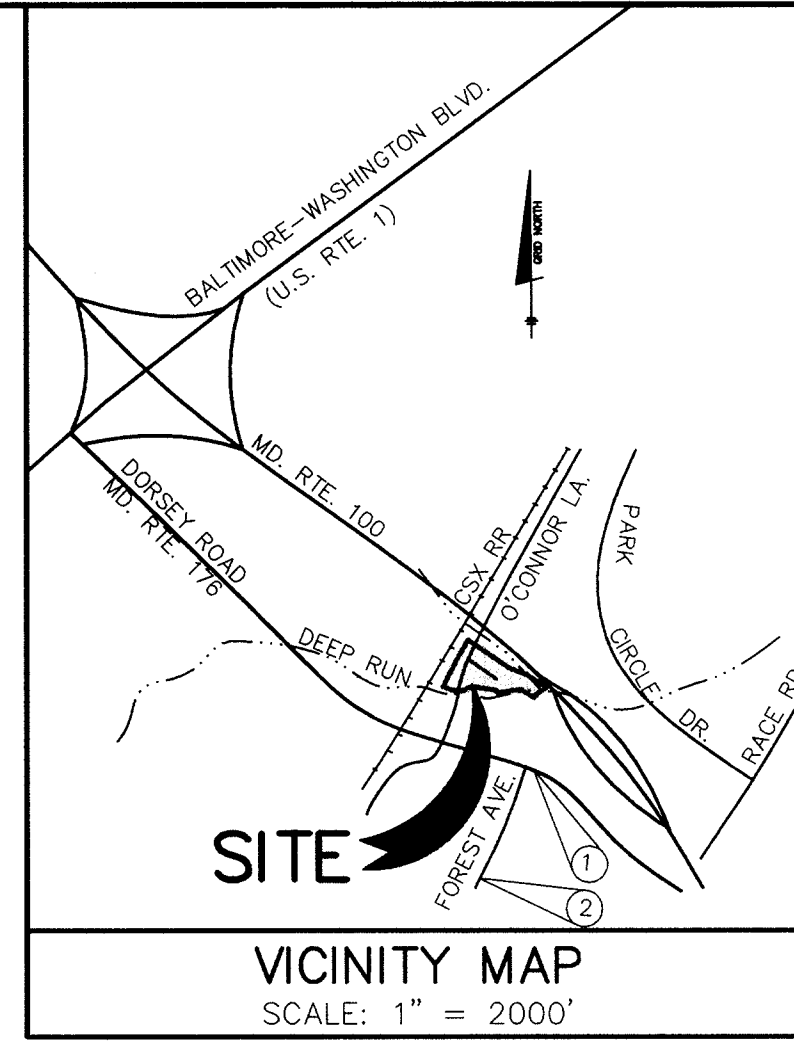


**SITE ANALYSIS DATA CHART**

A.) TOTAL PROJECT AREA: 7.31± AC.  
 B.) AREA OF PLAN SUBMISSION: 7.31± AC.  
 C.) LIMIT OF DISTURBANCE AREA: 1.19± AC.  
 D.) PRESENT ZONING: M-2  
 E.) PROPOSED USES FOR SITE: CONSTRUCTION EQUIPMENT AND SUPPLIES / STORAGE FACILITY  
 F.) SQUARE FOOT AREA OF THE PROPOSED BUILDING: 4,900 S.F.  
 G.) TOTAL NUMBER OF UNITS ALLOWED: N/A  
 H.) TOTAL NUMBER OF UNITS PROPOSED: 1  
 I.) MAXIMUM NUMBER OF EMPLOYEES ON SITE PER USE: 3  
 J.) NUMBER OF PARKING SPACES REQUIRED ON SITE: 1 SP./1000 S.F.=5 (NON COUNTY STANDARD REQUIREMENTS)  
 K.) NUMBER OF PARKING SPACES PROVIDED ON SITE: 5 (INCLUDING 1 VAN ACCESSIBLE HANDICAPPED PARKING SPACE - 1 PER 25 SPACES)  
 L.) OPEN SPACE ON SITE: N/A  
 M.) AREA OF RECREATION OPEN SPACE REQUIRED: N/A  
 N.) BUILDING COVERAGE OF SITE: 0.15± ACRES AND 2.1% OF GROSS AREA  
 EXISTING: 1630± SF  
 PROPOSED: 4900 SF  
 TOTAL: 6530± SF

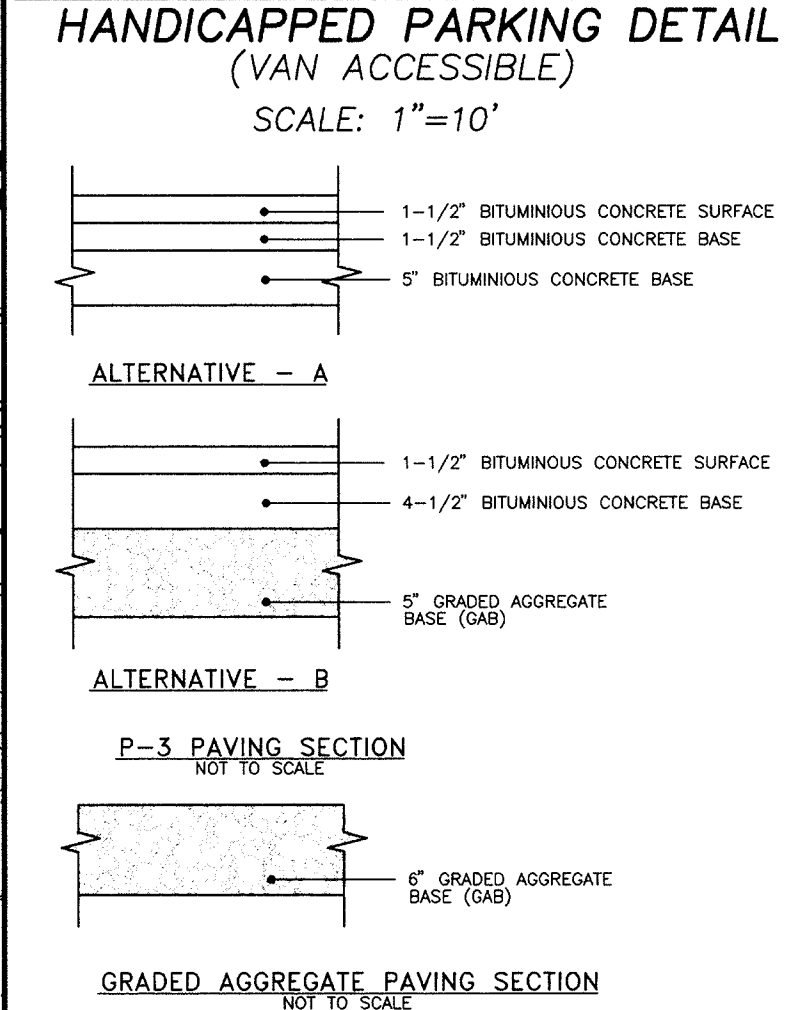
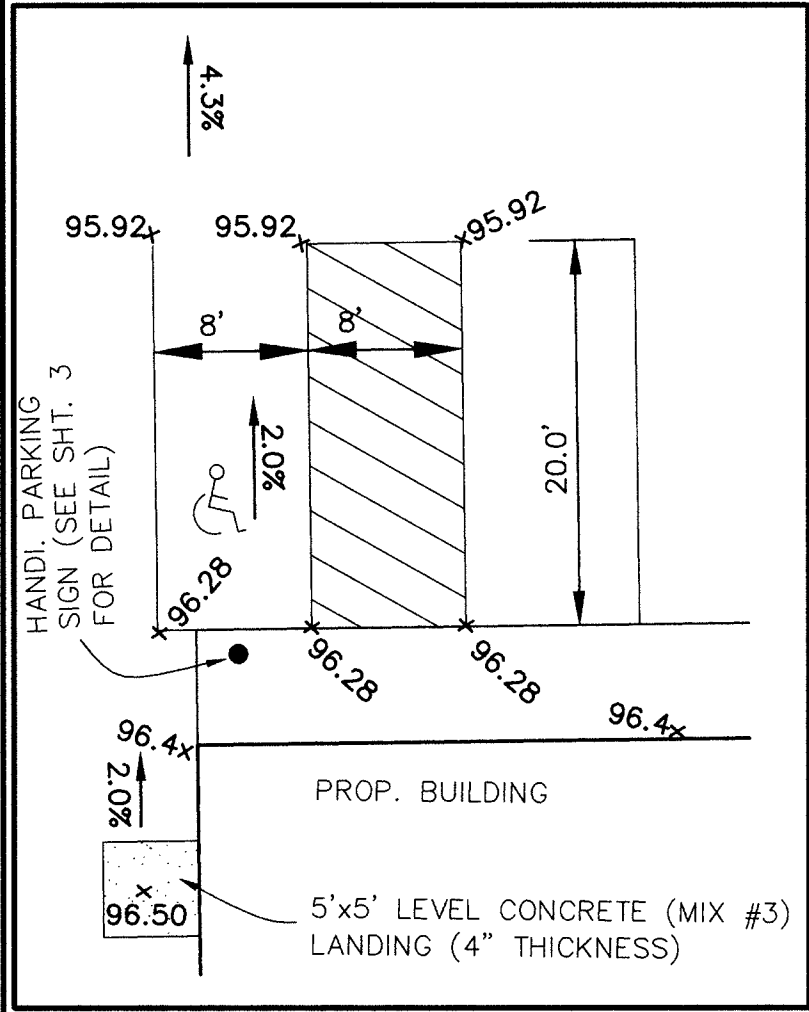
O.) APPLICABLE DPZ FILE REFERENCES: N/A  
 P.) ANY OTHER INFORMATION WHICH MAY BE RELEVANT: N/A



**BENCH MARKS (NAD 83) HORIZONTAL**

1. A.A. CO. No. 125 ELEV. 103.534'  
 BEING A CONCRETE MONUMENT SET 39.8' NORTH OF THE CENTERLINE OF DORSEY ROAD AND 18' EAST OF THE CENTERLINE OF FOREST AVE.  
 N 550,314.693 E 1,385,180.894

2. A.A. CO. No. 125 -A-126 ELEV. 126.674'  
 BEING A 5/8" IRON BAR SET NORTH OF DORSEY ROAD AND 1000±' EAST OF FOREST AVE.  
 N 549,772.752 E 1,385,006.121



**GENERAL NOTES:**

- AREA OF PARCEL: 7.31± ACRES
- ZONE: M-2 PER THE 1993 COMPREHENSIVE ZONING PLAN.
- DEED REFERENCE FOR THIS PARCEL IS LIBER 4440 AT FOLIO 274 DATED SEPTEMBER 18, 1998
- HOWARD COUNTY RELATED REFERENCE PLANS: N/A
- EXISTING USE: EXISTING DWELLING CURRENTLY USED AS RENTAL RESIDENCE. OWNER IS CURRENTLY STORING CONSTRUCTION SUPPLIES AND LIGHT EQUIPMENT ON EXISTING GRAVEL PARKING AREA.
- PROPOSED USE: PROPOSED BUILDING TO BE USED TO STORE CONSTRUCTION SUPPLIES AND LIGHT EQUIPMENT FOR OWNER'S BUSINESS. NO VEHICLE MAINTENANCE IS TO BE PERFORMED WITHIN PROPOSED BUILDING. BUILDING WILL HOUSE OWNER'S OFFICE TO BE USED BY OWNER AND OFFICE ADMINISTRATOR. ONE LAVATORY IS PROPOSED.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE TOPOGRAPHY SHOWN WAS GENERATED FROM FIELD SURVEY PROVIDED BY BENCHMARK ENGINEERING, INC. DATED OCT. 10, 1998 AND CONSISTS OF 2' CONTOUR INTERVALS.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE ANNE ARUNDEL CO. GEODETIC CONTROL WHICH IS BASED UPON MARYLAND GRID SYSTEM HAD 83 - ANNE ARUNDEL COUNTY MONUMENTS NO. 125 AND 125-A-126.
- WATER QUALITY TREATMENT FOR THE PROPOSED SITE IS BEING PROVIDED BY A SHALLOW MARSH AND WATER QUANTITY BY DETENTION.
- THE EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS OR FILED LOCATION BY BENCHMARK ENGINEERING, INC.
- THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES AND EASEMENTS PRIOR TO CONSTRUCTION.
- A DECLARATION OF INTENT FOR FOREST CONSERVATION HAS BEEN SUBMITTED FOR THIS PROJECT AS FOREST CLEARING IS 25,920 SQ. FT.
- NO WETLANDS EXIST WITHIN THE PROPOSED LIMIT OF DISTURBANCE.
- FLOODPLAIN LIMIT SHOWN BASED ON HOWARD COUNTY'S DEEP RUN DRAINAGE STUDY (CFP 23-46/97) PREPARED BY GREENHORNE & O'MARA, INC. DATED 1997.
- WATER CONNECTION SHALL BE PRIVATE (PRIVATE WELL SYSTEM). SEWER CONNECTION WILL BE MADE TO THE EXISTING MAIN IN O'CONNOR LANE (CONTRACT NO. 10-3288).
- THIS SITE IS EXEMPTED FROM THE REQUIREMENT OF A TRAFFIC STUDY PER SECTION 4.6 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME III. (FLOOR AREA RATIO IS LESS THAN 0.45)
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- DUE TO THE NATURE OF THIS SITE, THE PROPOSED LANDSCAPING WILL ENTAIL ONLY DISTURBED AREAS IMPACTING ROAD FRONTAGE, PERIMETER PROPERTIES AND SWM PERIMETER.
- MINIMUM COVER OVER 1-1/2" WHC SHALL BE 3.5 FEET.
- THE EXISTING HAND DUG WELL AND SEPTIC HOLDING TANK WHICH IS PRESENTLY SERVING THE EXISTING DWELLING ON THE SITE ARE TO BE ABANDONED AS PER HOWARD STANDARDS PRIOR TO ISSUANCE OF LETTER OF POTABILITY BY HOWARD COUNTY HEALTH DEPARTMENT.
- SEE AIRPORT ZONING PERMIT NO. 98-93 FOR MAA APPROVAL

**CONSTRUCTION BASELINE CURVE DATA**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	625.00'	55.69'	27.86'	55.66'	S67°23'03"E	05°06'16"
2	200.00'	33.23'	16.65'	33.19'	N25°27'55"E	09°31'10"

**NOTE: FOR GRADING INFORMATION SEE SHEET NO. 2**

**PLAN VIEW**  
 SCALE: 1" = 30'

- LANDSCAPING NOTES**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$ 3,840.00 IS PART OF THE DEVELOPERS AGREEMENT.
  - FOR TREE AND SHRUB PLANTING DETAILS SEE SHEET NO. 3.

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	YES	NO
PERIMETER NO. /LANDSCAPE TYPE	(1)E	(2)A	(1)E	(2)A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	200'	226'	(1)E	(2)A
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES	YES	(1)E	(2)A
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO		
NUMBER OF PLANTS PROVIDED				
SHADE TREES	4	1		
EVERGREEN TREES(1:40)	-	-		
OTHER TREES (2:1 SUBSTITUTE)	38	-		
SHRUBS	-	-		
NUMBER OF PLANTS PROVIDED	0	0		
SHADE TREES	8	2		
EVERGREEN TREES	-	-		
OTHER TREES (2:1 SUBSTITUTE)	38	-		
SHRUBS (ADDITIONAL)	-	-		

(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)

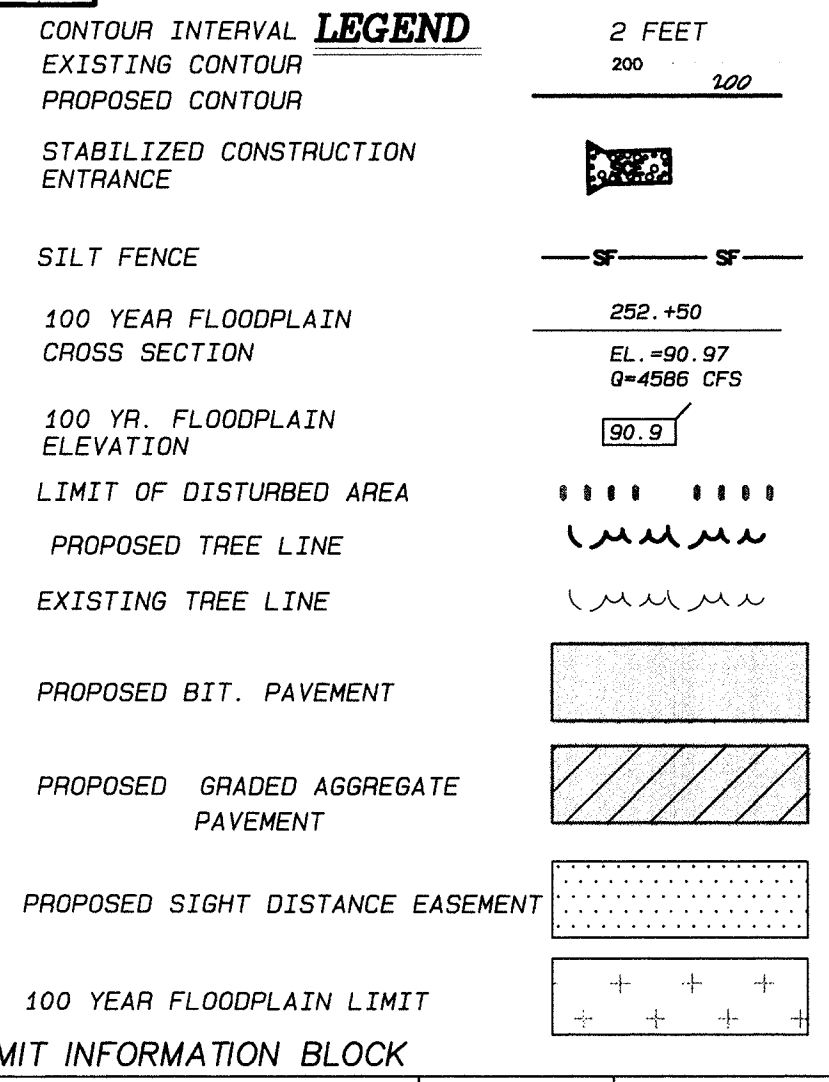
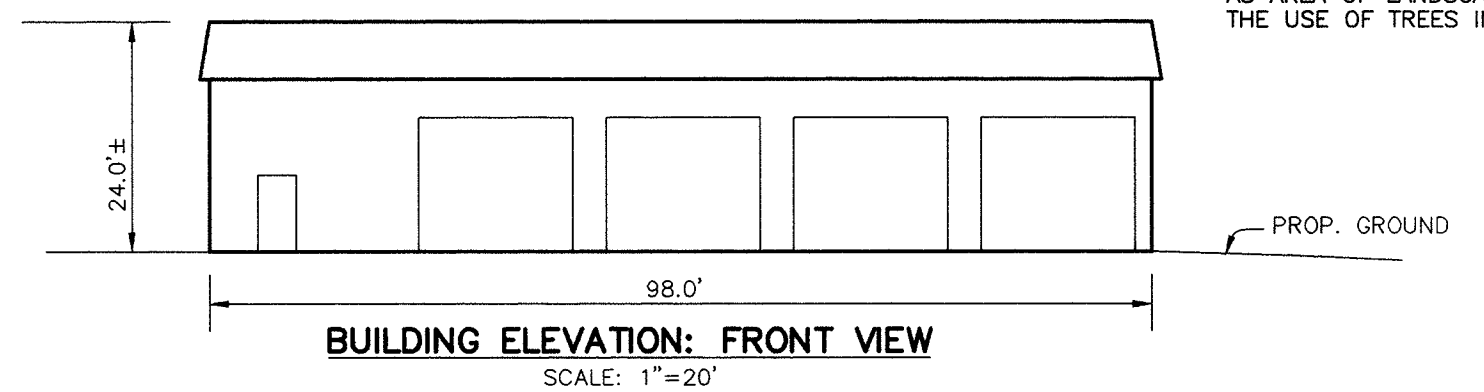
**PLANTING LIST**

SYMBOL	QUANTITY	NAME	REMARKS
WP	10	PINUS STROBUS (EASTERN WHITE PINE)	6'- 8' HT. UNSHEARED
SFB	78	FORSYTHIA INTERMEDIA 'SPECTABILIS'	3' HEIGHT PLANTED 3'-4" O.C.

**SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	450'
NUMBER OF TREES REQUIRED	9
SHADE TREES	11
EVERGREEN TREES	-
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	SWM FACILITY IN M-2 ZONING DISTRICT WITH SAME ZONING ON ADJACENT PROP. LANDSCAPING REQUIRED ON PERIMETER ADJACENT TO PUBLIC ROAD. LINEAR FEET OF CREDIT: 355'
NUMBER OF TREES REQUIRED (AFTER CREDIT)	2
SHADE TREES	2
EVERGREEN TREES	-
NUMBER OF TREES PROVIDED	-
SHADE TREES	-
EVERGREEN TREES	-
SHRUBS (10:1 SUBSTITUTE)	40

① SHRUBS SUBSTITUTED FOR TREES (10 TO 1 X 4 = 40) AS AREA OF LANDSCAPING IS WITHIN SITE DISTANCE EASEMENT. THE USE OF TREES IN THIS AREA COULD IMPEDE LINE OF SITE.



**ADDRESS CHART**

LOT/PARCEL #	STREET ADDRESS	
N/A	6990 O'CONNOR LANE	
NO	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043  
 PHONE: 410-465-6105 FAX: 410-465-6844

**APPROVED:** HOWARD COUNTY HEALTH DEPARTMENT FOR PRIVATE WATER & PUBLIC SEWERAGE SYSTEM

*Doree M. ...* 7/15/99 DATE  
 COUNTY HEALTH OFFICER

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Michael ...* 6/25/99 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*Cande ...* 7/13/99 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*Angela ...* 7/29/99 DATE  
 DIRECTOR

**SHEET INDEX**

SHEET NO.	DESCRIPTION	SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
1	SITE DEVELOPMENT PLAN AND LANDSCAPE PLAN	MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)	N/A	PARCEL 6
2	SITE LOCATION, GRADING, SEDIMENT CONTROL, NOTES, AND DETAILS	L/F 4440/274	BLOCK Nos. 1 ZONE M-2 TAX/ZONE MAP 44 ELEC. DIST. 1ST. CENSUS TRACT: 6012.00	
3	STORMWATER MANAGEMENT FACILITY DETAILS	WATER CODE N/A	SEWER CODE 2220000	

**OWNER/DEVELOPER:** MICHAEL MUNDORF 3150 FIELD CREST DRIVE WESTMINSTER, MARYLAND 21157

**PROJECT:** MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)

**LOCATION:** TAX MAP 44 - BLOCK 1 - PARCEL 6 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**TITLE:** SITE DEVELOPMENT PLAN AND LANDSCAPE PLAN

**DATE:** JUNE, 1999 PROJECT NO. 1175

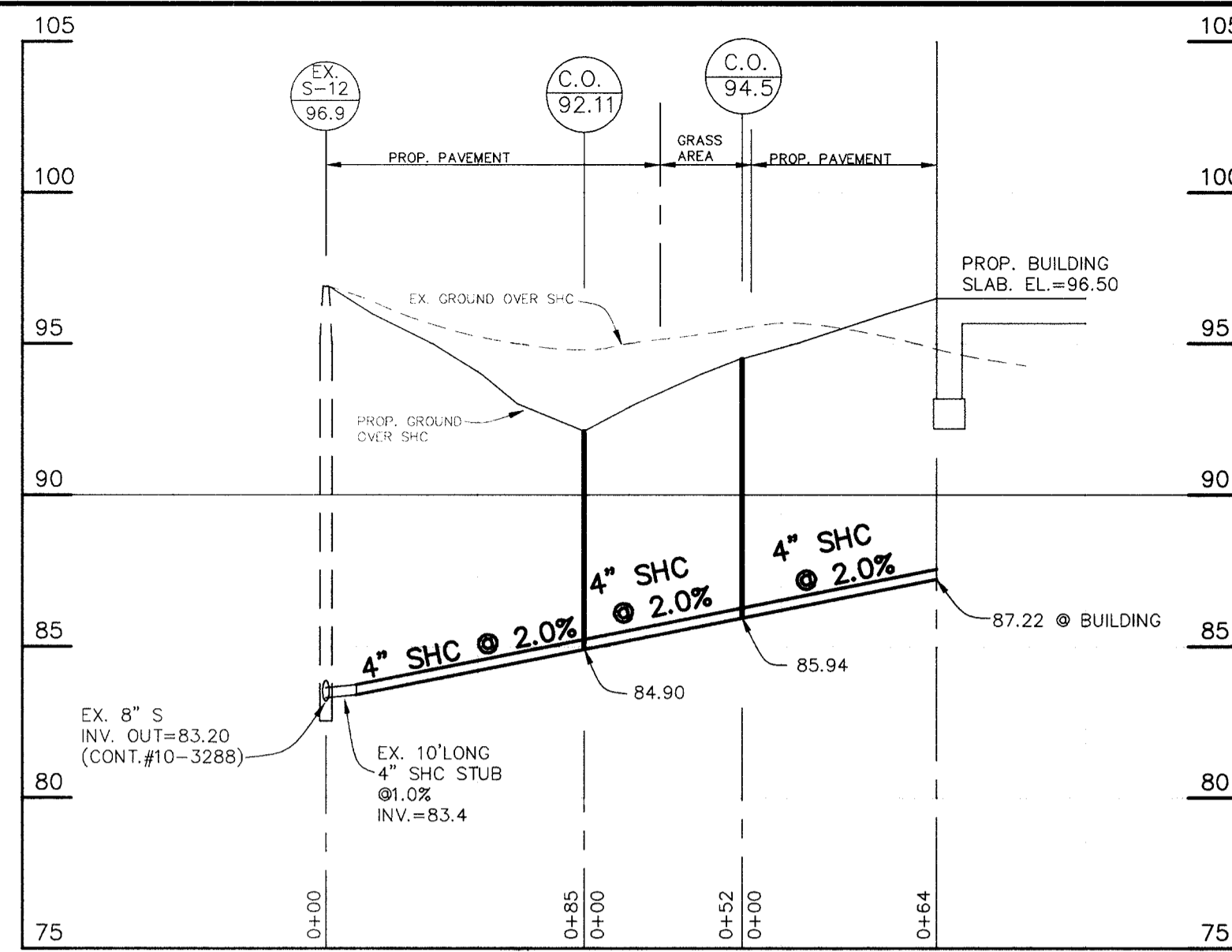
**SCALE:** AS SHOWN DRAWING 1 OF 3

**DESIGN:** GWF **DRAFT:** YSL **CHECK:** GWF









4" SHC PROFILE

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

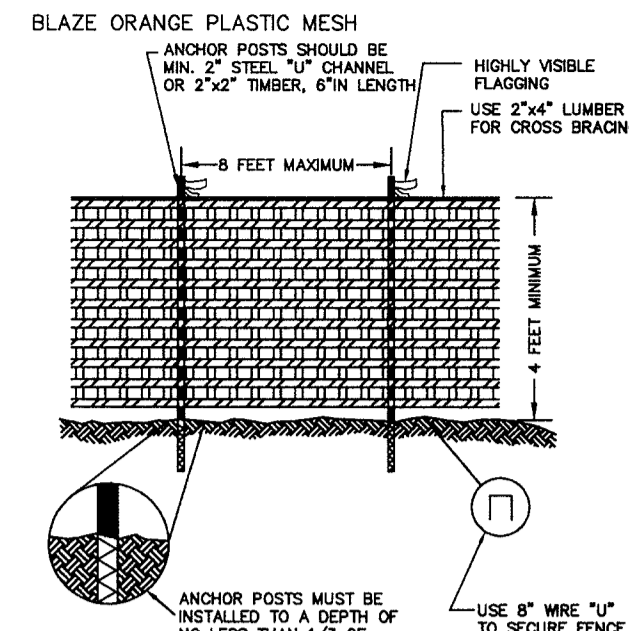
OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY

ROUTINE MAINTENANCE

- FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
- TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
- DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
- VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

NON-ROUTINE MAINTENANCE

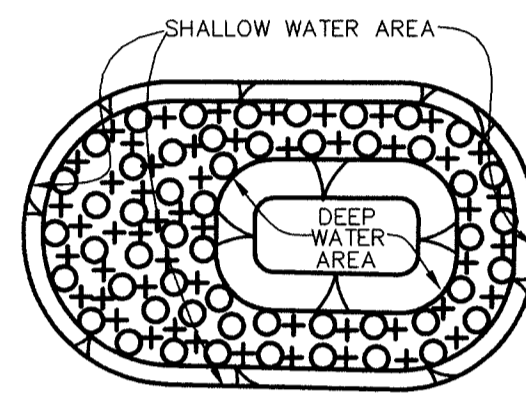
- STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, AND THE RELEASE STRUCTURE SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
- SEDIMENT SHOULD BE REMOVED FROM THE POND NO LATER THAN WHEN THE CAPACITY OF THE POND IS HALF FULL OF SEDIMENT, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.



- NOTES:
- FOREST PROTECTION DEVICE ONLY.
  - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
  - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICES.
  - AVOID ROOT DAMAGE WHEN PLACING ANCHOR POSTS.
  - DEVICE SHOULD BE PROPERLY MAINTAINED DURING CONSTRUCTION.
  - PROTECTIVE SIGNAGE IS ALSO REQUIRED.

TEMPORARY TREE PROTECTION FENCE

NOT TO SCALE

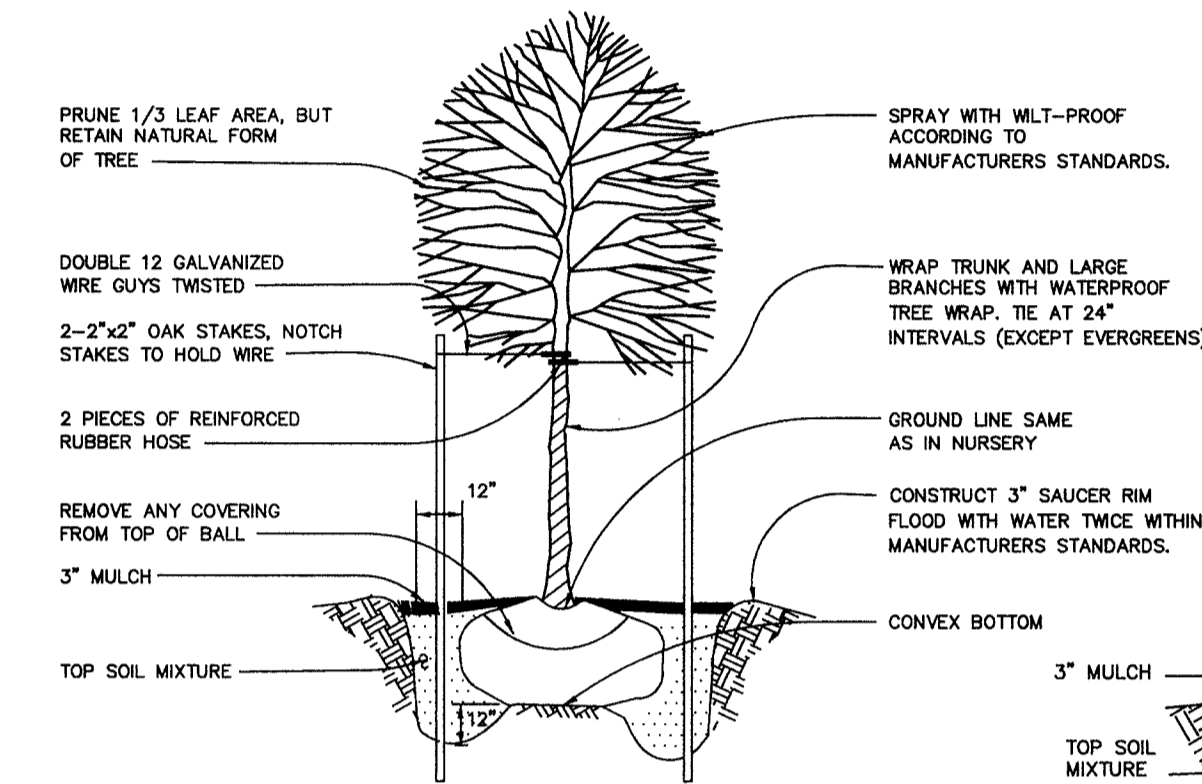


SHALLOW MARSH PLANTING SCHEDULE

SYMBOL	PLANT TYPE	QUANTITY
○	LIZARO'S TAIL (SAURURUS CERNUUS)	52
+	SOFT-STEM BULRUSH (SCIRPUS VALIDUS)	52

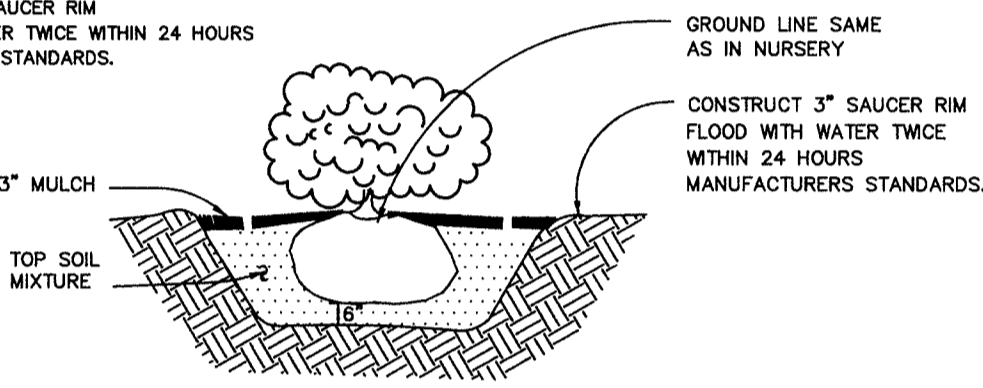
SHALLOW MARSH PLANTING PLAN

SCALE: 1" = 20'



TREE PLANTING DETAIL

NOT TO SCALE

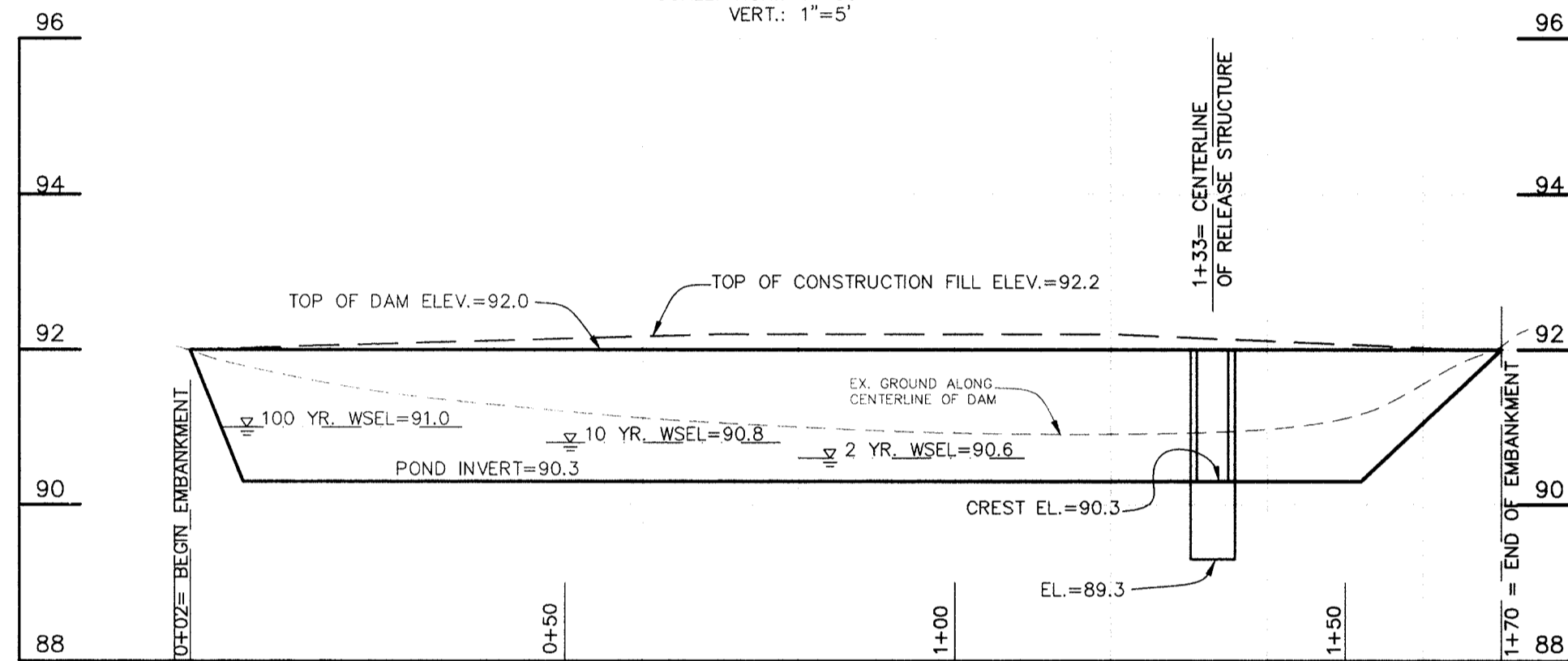


SHRUB PLANTING DETAIL

NOT TO SCALE

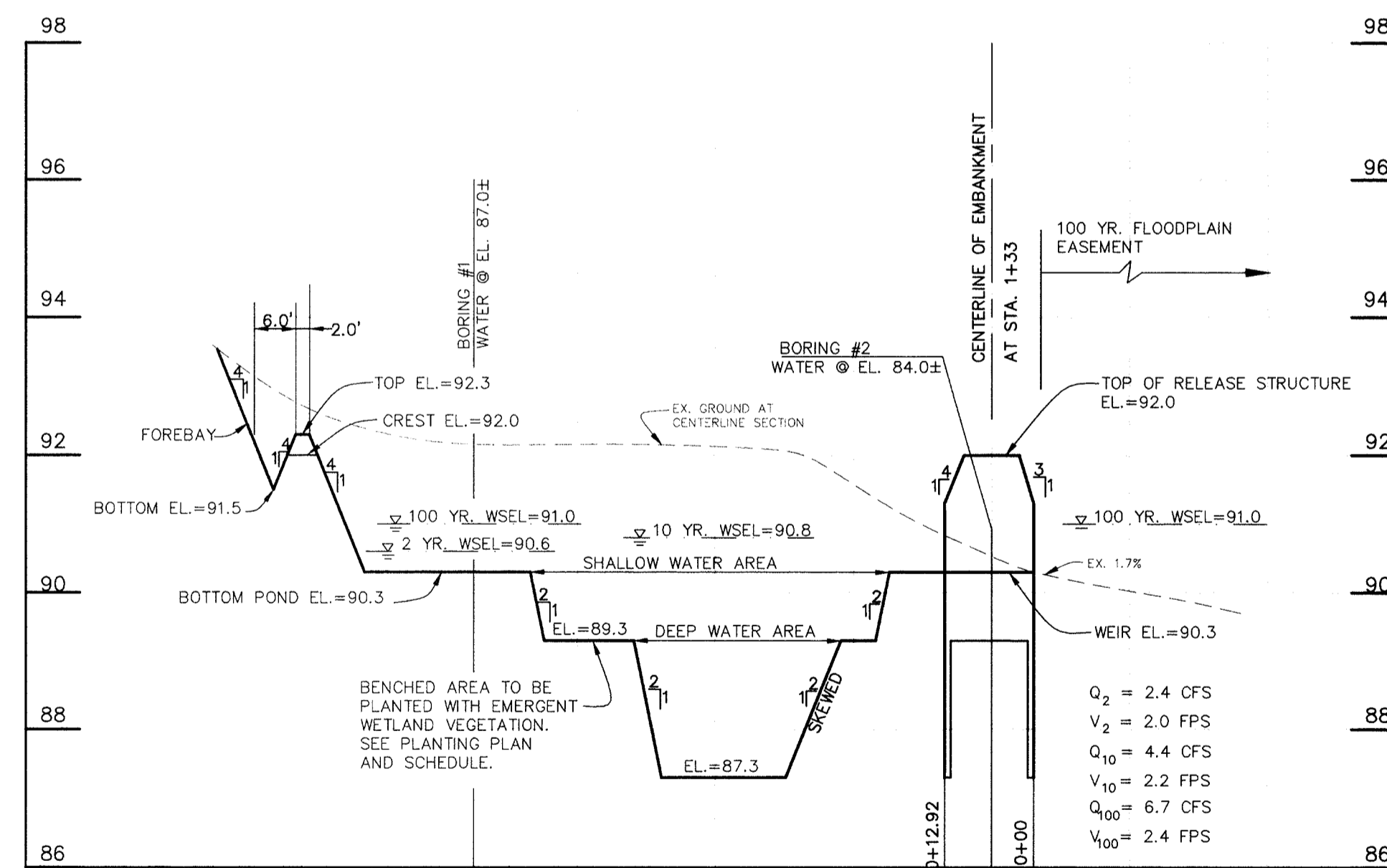
NOTES:

- ALL EXPOSED EDGES TO HAVE 3/4"x3/4" CHAMFER OR AS DIRECTED.
- CONCRETE SHALL BE SHA MIX NO. 3 (f<sub>c</sub> = 3500 PSI @ 28 DAYS)
- REINFORCING STEEL SHALL BE ASTM A-615 GRADE 60.



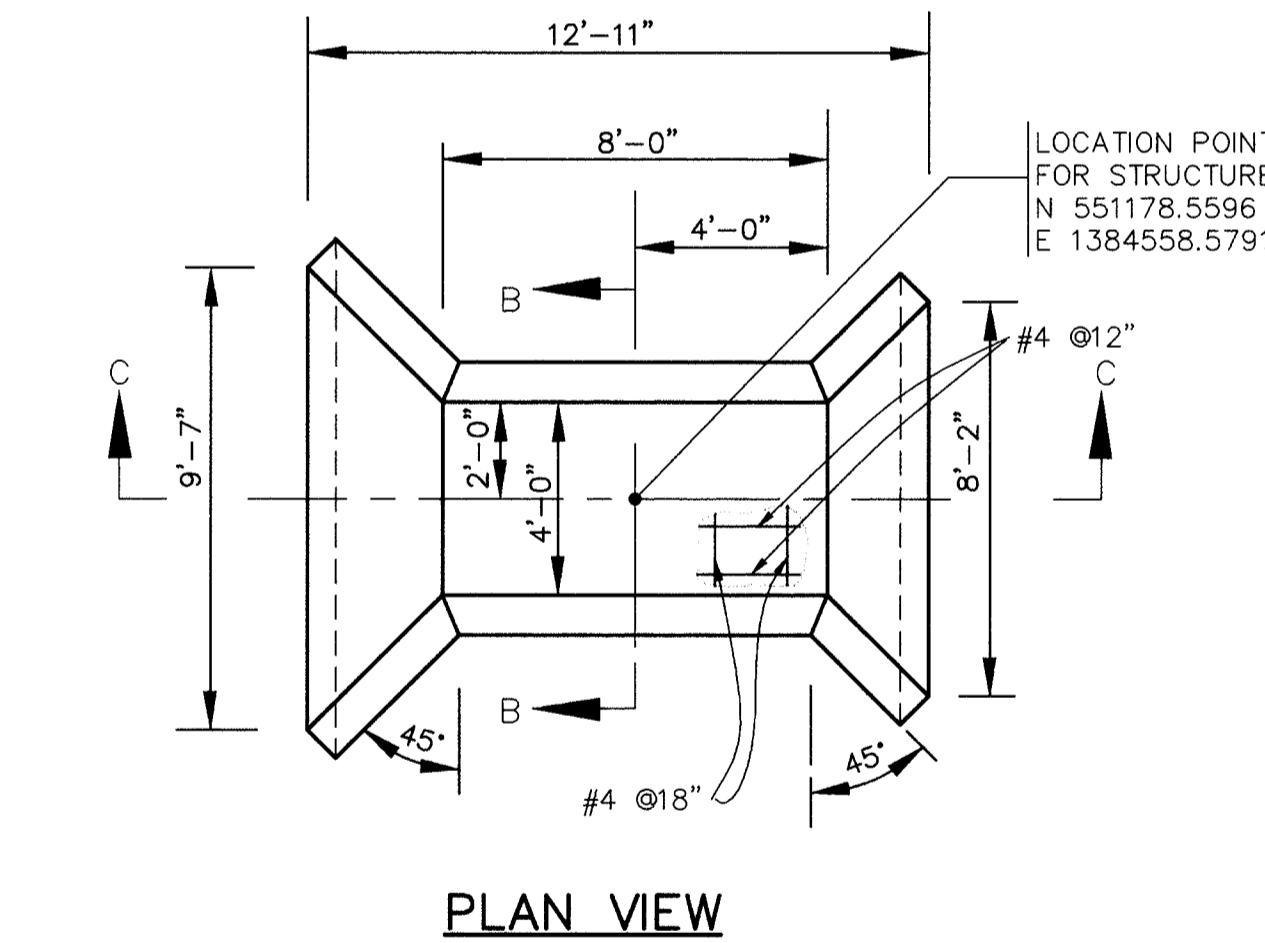
PROFILE ALONG CENTERLINE OF EMBANKMENT

SCALE: HOR.: 1"=20'  
VERT.: 1"=2'

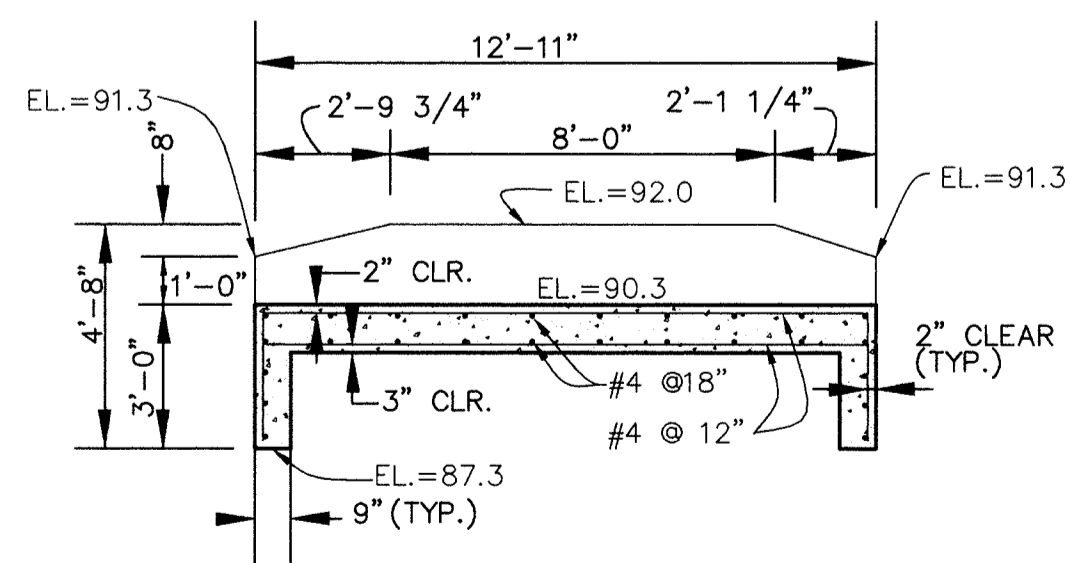


SECTION A-A: PROFILE THRU POND AND SPILLWAY

SCALE: HOR.: 1"=20'  
VERT.: 1"=2'



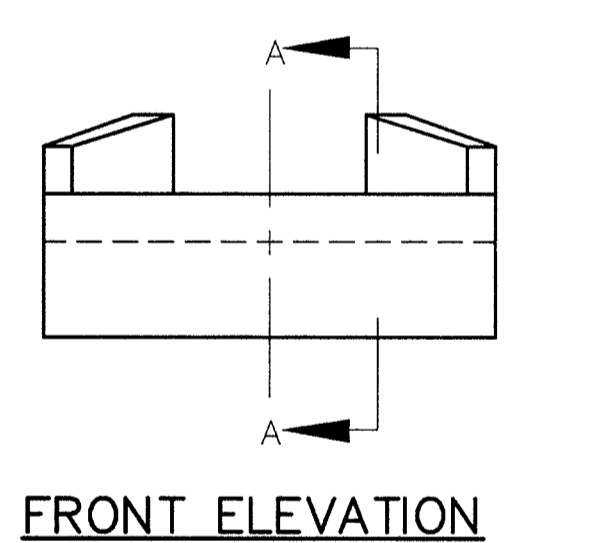
PLAN VIEW



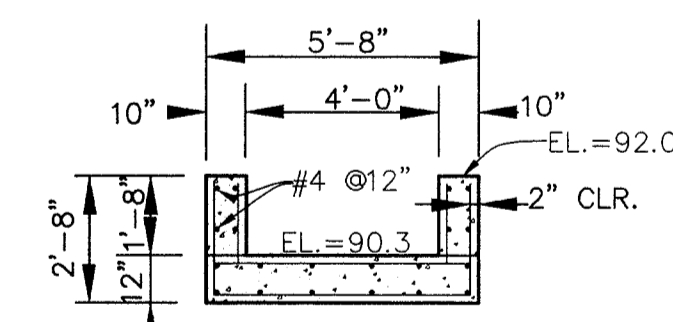
SECTION C-C

RELEASE STRUCTURE DETAILS

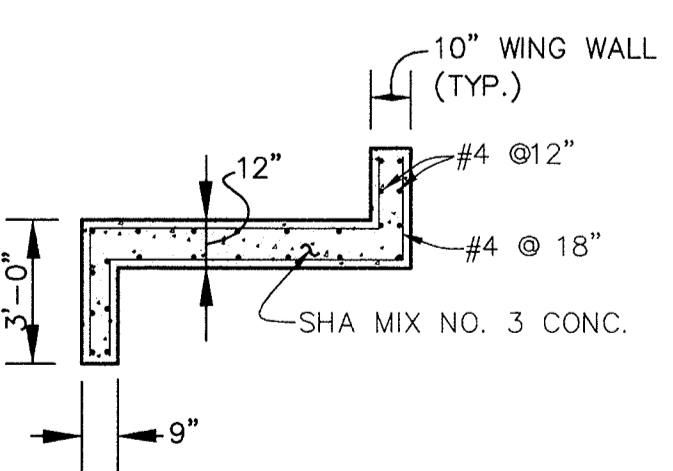
SCALE: 1"=4'



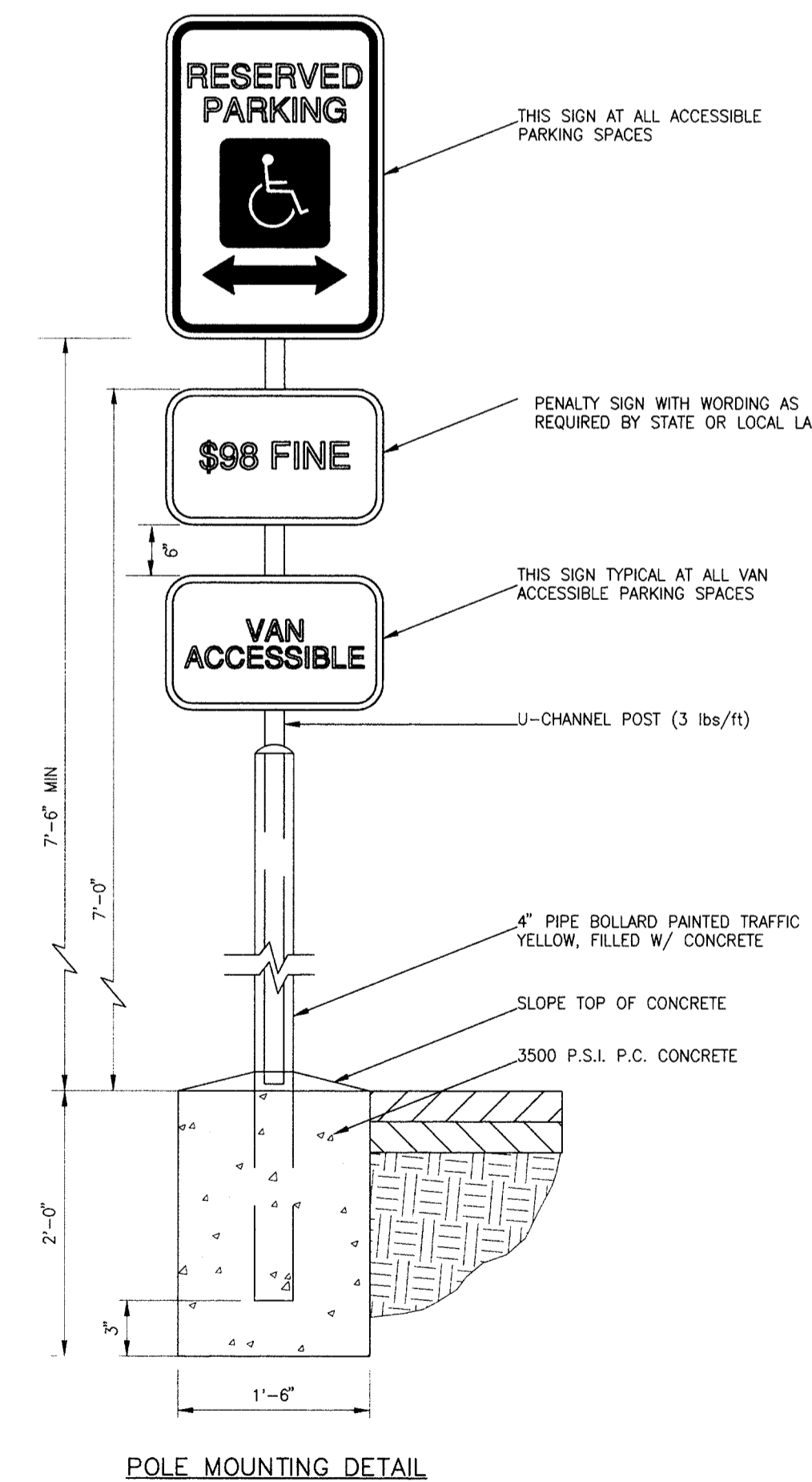
FRONT ELEVATION



SECTION B-B



SECTION A-A



HANDICAP PARKING SIGN DETAIL

NOT TO SCALE

NOTE: SIGN DIMENSIONS, LETTERING, LOGO, ETC. TO BE IN ACCORDANCE WITH MARYLAND ACCESSIBILITY CODE (ADAAG A117.1-86-4.6.2 AND 4.28)

HILLIS-CARNES ENGINEERING ASSOCIATES, INC. Page 1 of 1

PROJECT NAME: O'Connor Lane SWM LOCATION: Howard County, Maryland BORING # 99095A JOB # 99095A

ELEV.	SOL. DESCRIPTION	STRA. DEPTH	DEPTH SCALE	SAMPLE NO.	NO. REC.	BORING & SAMPLING NOTES
Topsoil		0.0				10' Topsoil/Postnet
	Reddish brown, moist to very moist, fine to coarse silty sand and fine to coarse gravel (SP-GP)(Sand)	1.0				Ground water encountered at 5.5' while drilling
	Brown, wet medium to coarse sand and medium to coarse gravel with cobble (SP-GP)(Sand)	5.0				
		7.0				Boring Terminated at 7.0'
		10.0				Backfilled at Completion
		15.0				
		20.0				

SAMPLER TYPE: 2" DIA. OPEN BESSER  
CORING METHOD: HAND DRIVEN  
SAMPLING METHOD: DOWNCAST FLIGHT AUGER  
NO. OF CORES: 1

SAMPLE CONDITIONS: AT COMPLETION  
CORRECTION: NONE  
CORRECTION TYPE: NONE  
CORRECTION FACTOR: NONE  
NO. OF CORES: 1

GROUND WATER DEPTH: 5.5 FT.  
BORING METHOD: 10' TOPSOIL/POSTNET  
CORRECTION TYPE: NONE  
CORRECTION FACTOR: NONE  
NO. OF CORES: 1

STANDARD PENETRATION TEST - DRIVING 2" DIA. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLIS-CARNES ENGINEERING ASSOCIATES, INC. Page 1 of 1

PROJECT NAME: O'Connor Lane SWM LOCATION: Howard County, Maryland BORING # 99095A JOB # 99095A

ELEV.	SOL. DESCRIPTION	STRA. DEPTH	DEPTH SCALE	SAMPLE NO.	NO. REC.	BORING & SAMPLING NOTES
Topsoil		0.0				10' Topsoil/Postnet
	Reddish brown, moist to very moist, fine to coarse silty sand and fine to coarse gravel (SP-GP)(Sand)	1.5				Ground water encountered at 7.0' while drilling
	Brown, wet medium to coarse sand and medium to coarse gravel with cobble (SP-GP)(Sand)	2.5				
		7.0				Boring Terminated at 7.0'
		10.0				
		15.0				
		20.0				

SAMPLER TYPE: 2" DIA. OPEN BESSER  
CORING METHOD: HAND DRIVEN  
SAMPLING METHOD: DOWNCAST FLIGHT AUGER  
NO. OF CORES: 1

SAMPLE CONDITIONS: AT COMPLETION  
CORRECTION: NONE  
CORRECTION TYPE: NONE  
CORRECTION FACTOR: NONE  
NO. OF CORES: 1

GROUND WATER DEPTH: 7.0 FT.  
BORING METHOD: 10' TOPSOIL/POSTNET  
CORRECTION TYPE: NONE  
CORRECTION FACTOR: NONE  
NO. OF CORES: 1

STANDARD PENETRATION TEST - DRIVING 2" DIA. SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR PRIVATE WATER & PUBLIC SEWERAGE SYSTEM  
*One M... 7/16/99*  
 COUNTY HEALTH OFFICER

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John B. Robertson 6/22/99*  
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*... 6/22/99*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*... 6/22/99*  
 NATURAL RESOURCES CONSERVATION SERVICE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*... 7/13/99*  
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: *... 7/20/99*  
 DIRECTOR

NO.	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043  
 PHONE: 410-465-6105 FAX: 410-465-6844

PROJECT: **MUNDORF PROPERTY**  
 (FORMERLY PROCHASKA PROPERTY)

OWNER/DEVELOPER: MICHAEL MUNDORF  
 3150 FIELD CREST DRIVE  
 WESTMINSTER, MARYLAND 21157

LOCATION: TAX MAP 44 - BLOCK 1 - PARCEL 6  
 1st. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

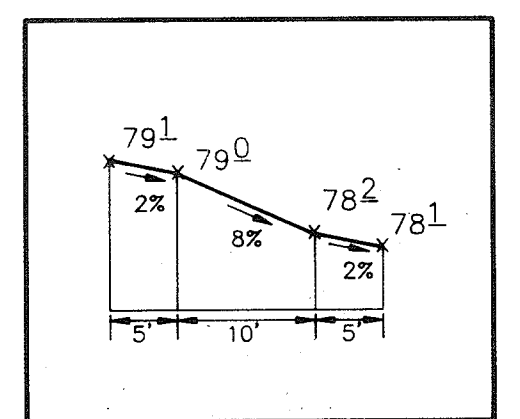
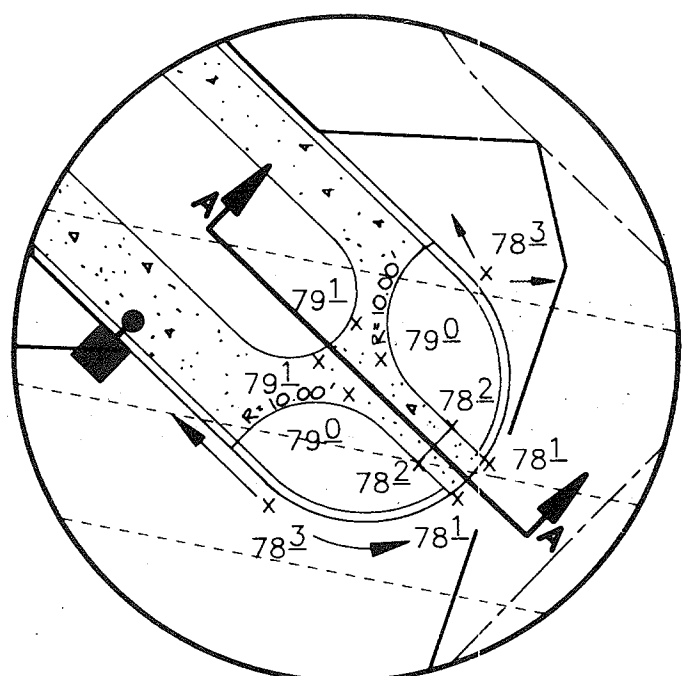
TITLE: **STORMWATER MANAGEMENT FACILITY DETAILS, BORING LOGS AND 4" SHC PROFILE**

DATE: JUNE, 1999 PROJECT NO. 1175

DESIGN: GWF DRAFT: YSL CHECK: GWF SCALE: AS SHOWN DRAWING 3 OF 3



REVISION		
NO.	DESCRIPTION	DATE
1	CLASSROOM ADDITION, KINDERGARTEN ADDITION, CAFETERIA ADDITION & PARKING ADDITION. ADD 4" CONCRETE SIDEWALK TO NEW ROUTE 144. REVISE STORM DRAIN AT CLASSROOM ADDITION.	7/10/93
2	INDICATE PUBLIC 8" & 6" WATER MAINS & APPURTENANCES WITHIN PUBLIC WATER & UTILITY EASEMENT AS CONSTRUCTED UNDER CONTRACT NO. 44-411-D	6/15/96
3	INDICATE PRIVATE 6" WATER MAIN FOR THE PROVISION OF FIRE PROTECTION & DOMESTIC WATER SERVICE TO THE EXISTING SCHOOL	6/15/96
4	INDICATE EXISTING WELLS TO BE ABANDONED & SEALED	6/15/96



**LEGEND**

- CONCRETE SIDEWALKS
- SOIL BORING LOCATION
- FLOODPLAIN CROSS-SECTION

- NOTES:
1. ALL CURB RADIUS ARE 5' UNLESS OTHERWISE NOTED.
  2. \* INDICATES TRANSITION FROM STANDARD TO REVERSE CURB & GUTTER.
  3. ALL PAVING TO BE AS PER PAVING SECTION ON SHEET 10 UNLESS OTHERWISE NOTED.
  4. SEE SHEET 8 FOR PROFILES AND DETAILS OF S.W.M.F. #1 AND S.W.M.F. #2
  5. GUTTER SLOPE TO MATCH PAVEMENT CROSS
  6. INDICATES TRANSITION TO MODIFIED CURB & GUTTER
  7. SERVICE DRIVE PAVING TO BE THE SAME AS THE DETAIL ON SHEET 10.

**AS BUILT CERTIFICATE**

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR O&I SITE WATER AND O&I SITE SEWERAGE SYSTEMS.

*James M. Boyd* per *John J. M.* 5/4/93  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Rouse* 5/12/93  
DIRECTOR DATE

*Shirley J. Holman* 5/11/93  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

*James G. Lee* 5/12/93  
DIRECTOR DATE

*William S. Ryan* 5-7-93  
CHIEF, BUREAU OF ENGINEERING O.M.K. DATE

3-28-01 Pavilions (2) added, sidewalk extended  
DATE NO. REVISION

OWNER/DEVELOPER  
BOARD OF EDUCATION  
OF HOWARD COUNTY  
10910 ROUTE 108  
ELLCOTT CITY, MARYLAND 21043

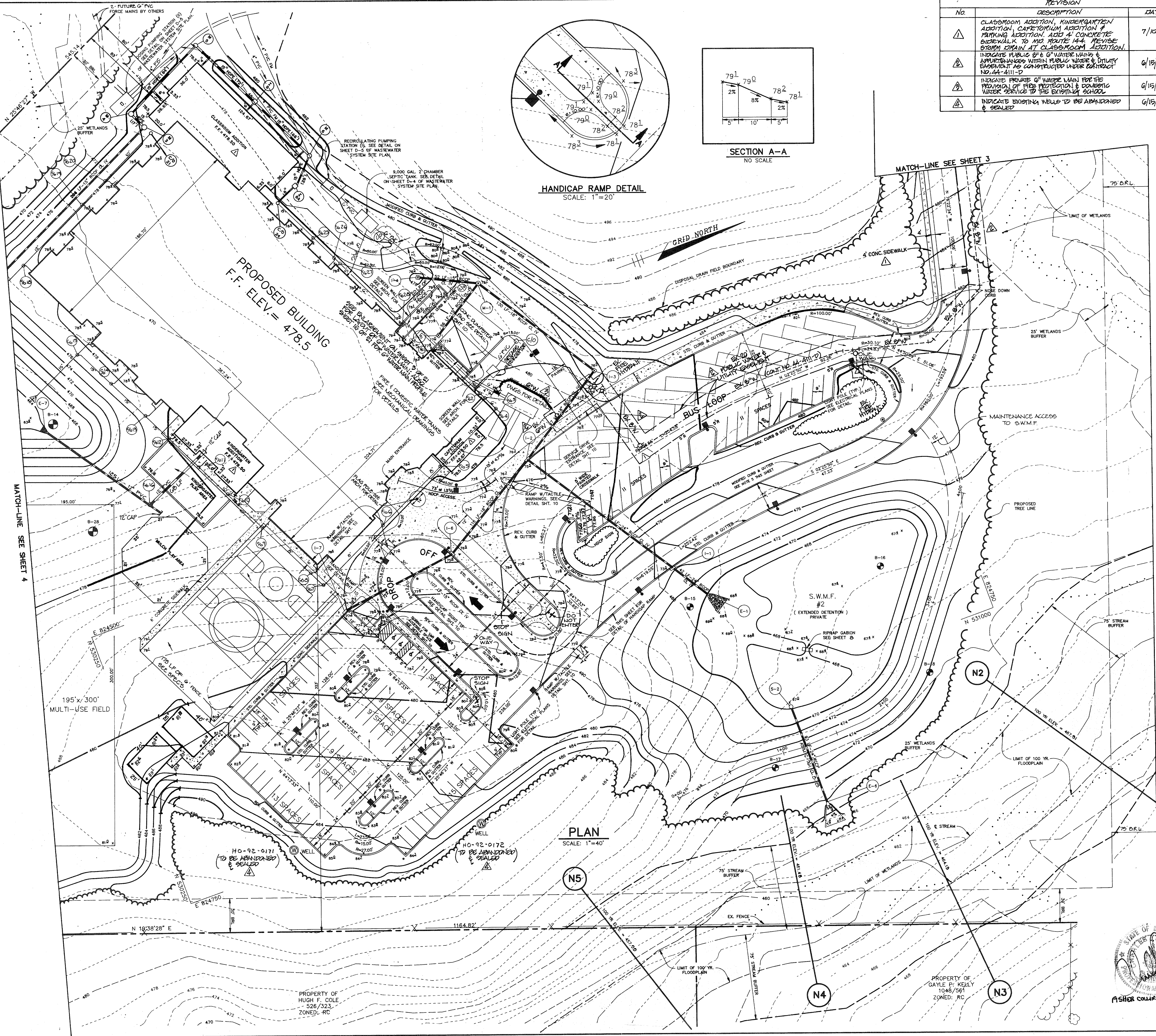
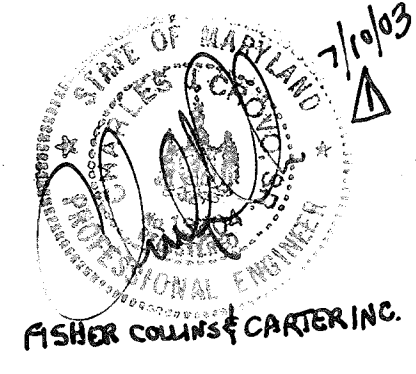
PROJECT  
**NORTHERN ELEMENTARY SCHOOL II**

AREA TAX MAP 16  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**SITE DEVELOPMENT PLAN**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX: 410-997-9282

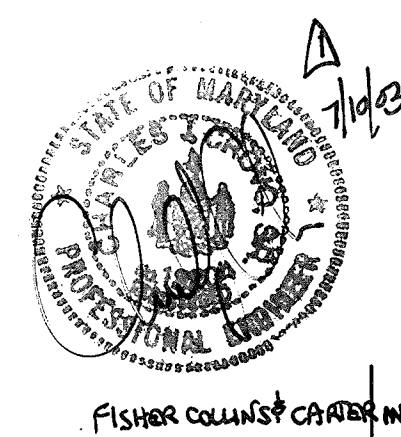
DATE **2-12-93**  
DESIGNED BY: JTD  
DRAWN BY: DBS  
PROJECT NO: 77910  
DATE: FEBRUARY 12, 1993  
SCALE: 1" = 40'  
DRAWING NO. 2 OF 21



**PLAN**  
SCALE: 1"=40'



NO.	REVISION DESCRIPTION	DATE
1	CLASSROOM ADDITION, KINDERGARTEN ADDITION, CATERING ADDITION & PLAYING ADDITION. REVISE STORM DRAIN AT CLASSROOM ADDITION. ADD 4-FOOT CONCRETE SIDEWALK TO MD. ROUTE 144.	7/10/03
2	INDICATE PUBLIC 8" & 6" WATER MAINS & APPURTENANCES WITHIN PUBLIC WATER & UTILITY EASEMENT AS CONSTRUCTED UNDER CONTRACT NO. AA-4111-D	9/20/06
3	INDICATE PRIVATE 6" WATER MAIN FOR THE PROVISION OF FIRE PROTECTION & DOMESTIC WATER SERVICE TO THE EXISTING SCHOOL	9/20/06



FISHER COLLINS & CHAFFIN, INC.

**PLANT LIST**

QTY	KEY	NAME	SIZE	REMARKS
15	AR	ACER RUBRUM 'OCTOBER GLORY'	2 1/2" - 3" Cal. 12' - 14' Ht.	B & B Full Crown
20	CC	CERCIS CANADENSIS 'FOREST PANSY'	2" - 2 1/2" Cal. 12' - 14' Ht.	B & B Eastern Redbud
9	EA	EUONYMUS ALATUS Winged Euonymus	4' - 5' Ht.	B & B
6	HV	HAMAMELIS VERNALIS Vernal Witchhazel	4' - 5' Ht.	B & B
45	IB	ILEX CORNUTA 'BURFORDI'	7 Gal.	Cont. Burford Holly
6	IO	ILEX OPACA American Holly	7' - 8' Ht.	B & B or Cont.
10	PS	PINUS STROBUS White Pine	8' - 10' Ht.	B & B Natural
3	PA	PLATANUS ACERIFOLIA 'BLOODGOOD'	2 1/2" - 3" Cal. 12' - 14' Ht.	B & B London Planetree
7	QR	QUERCUS RUBRA Red Oak	2 1/2" - 3" Cal. 12' - 14' Ht.	B & B Full Crown
3	TC	TSUGA CANADENSIS Canadian Hemlock	8' - 10' Ht.	B & B
30	VR	VIBURNUM RHYTHIDOPHYLLUM 'WILLOWOOD'	4' - 5' Ht.	B & B or Cont. Willowood Viburnum
4	ZS	ZELKOVA SERRATA 'VILLAGE GREEN'	2 1/2" - 3" Cal. 12' - 14' Ht.	B & B Full Crown Japanese Zelkova

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR ONSITE WATER AND ONSITE SEWERAGE SYSTEMS.

*James M. Boyd* 5/4/93  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James S. Smith* 5/12/93  
DIRECTOR DATE

*Edmond Blonath* 5/11/93  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

*James P. Ryan* 5/7/93  
DIRECTOR DATE

*Michael R. Ryan* 5-7-93  
CHIEF, BUREAU OF ENGINEERING DATE

DATE NO. REVISION

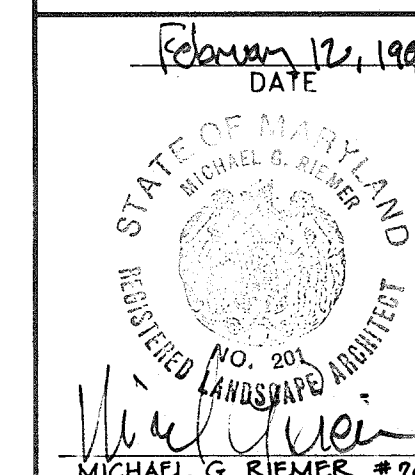
OWNER/DEVELOPER  
BOARD OF EDUCATION OF HOWARD COUNTY  
10910 ROUTE 108  
ELLICOTT CITY, MARYLAND 21043

PROJECT  
NORTHERN ELEMENTARY SCHOOL II

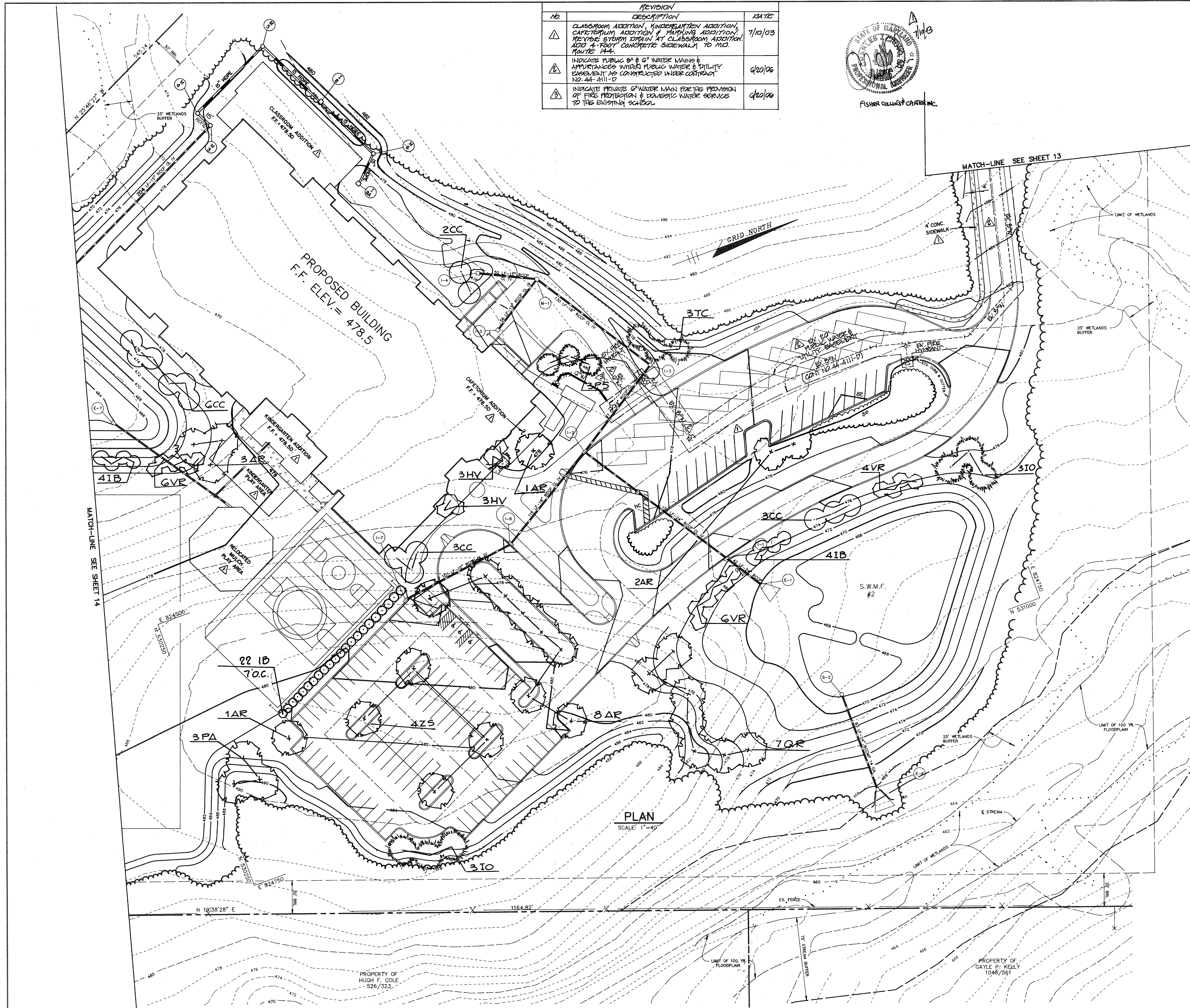
AREA  
TAX MAP 16  
PARCEL 44  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX : 410-997-9282



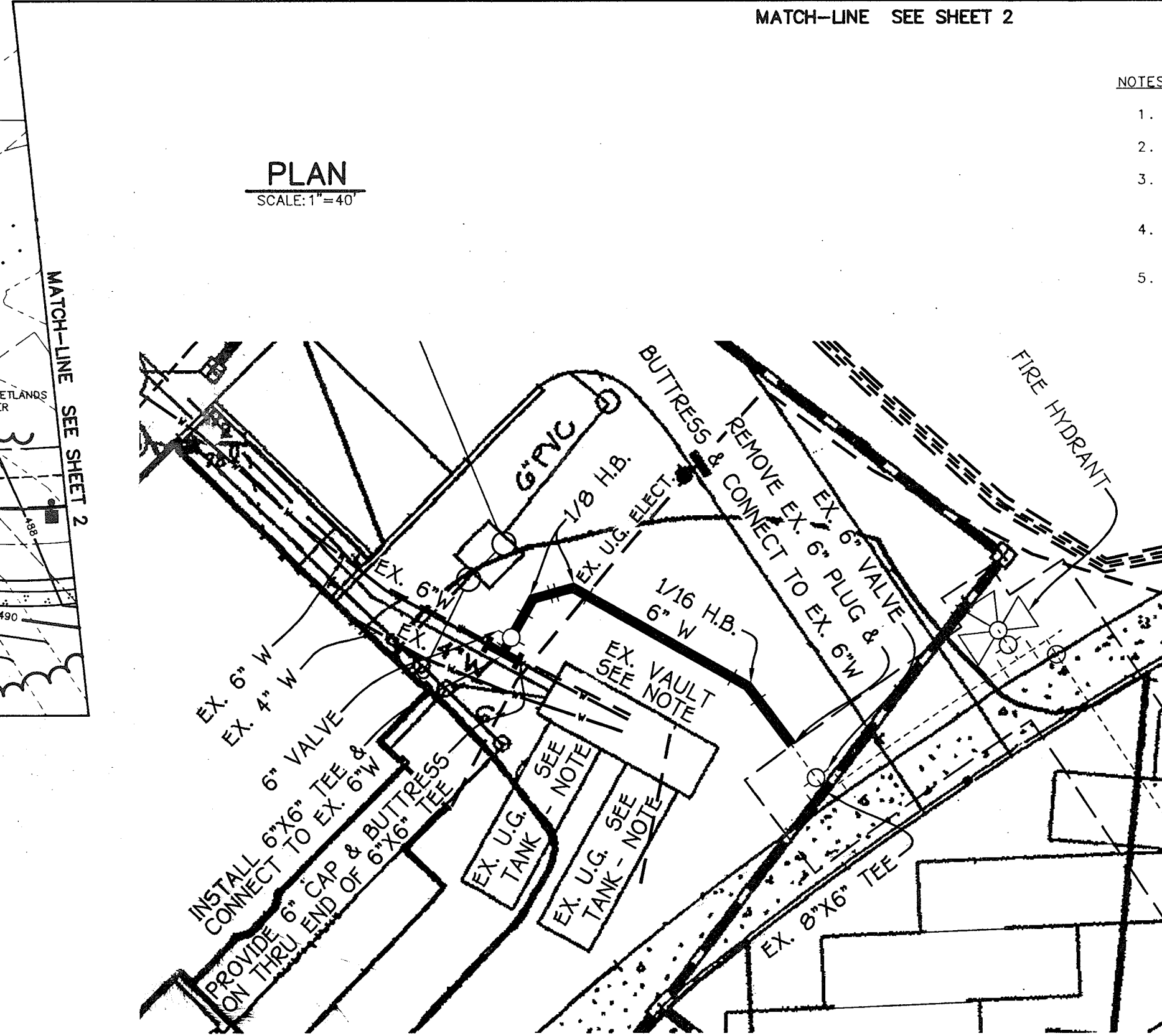
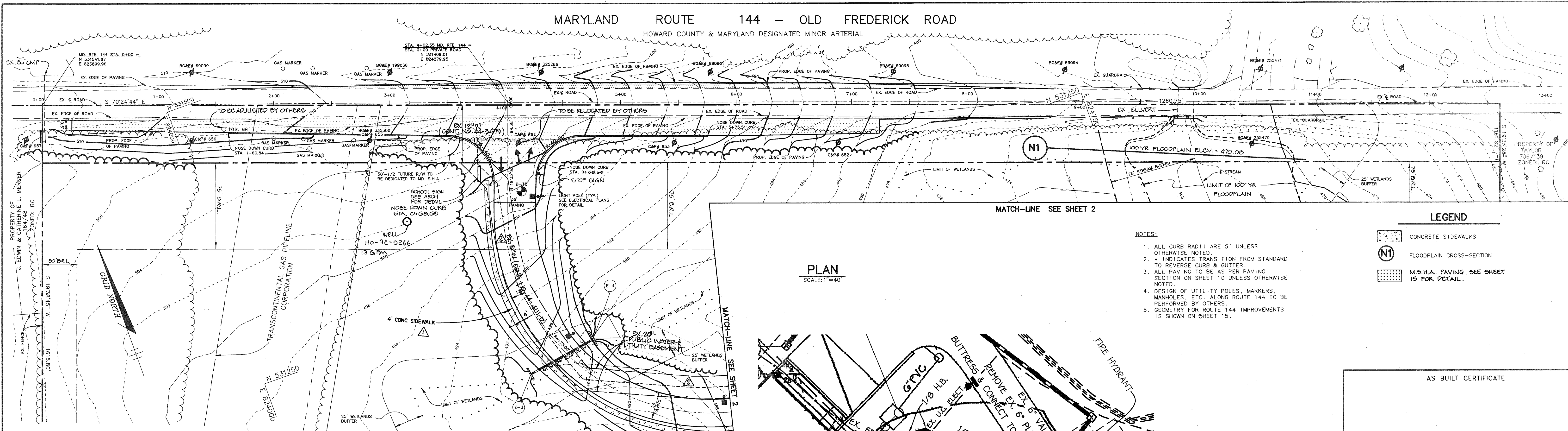
DESIGNED BY : DD  
DRAWN BY : ZK  
PROJECT NO : 77910  
DATE : FEBRUARY 12, 1993  
SCALE : 1" = 40'  
DRAWING NO. 12 OF 21





MARYLAND ROUTE 144 - OLD FREDERICK ROAD

HOWARD COUNTY & MARYLAND DESIGNATED MINOR ARTERIAL

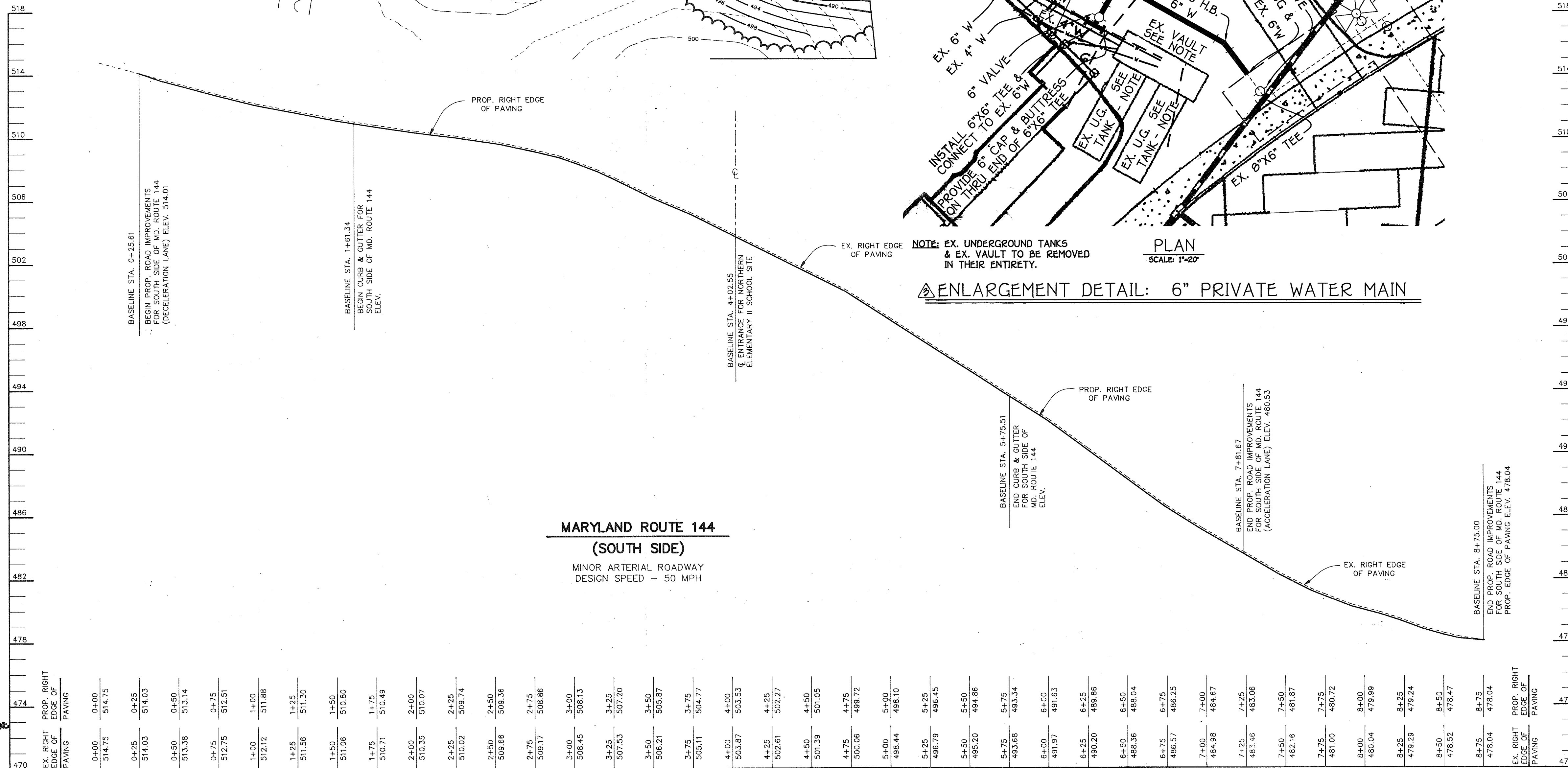


NOTE: EX. UNDERGROUND TANKS & EX. VAULT TO BE REMOVED IN THEIR ENTIRETY.

ENLARGEMENT DETAIL: 6" PRIVATE WATER MAIN

MARYLAND ROUTE 144 (SOUTH SIDE)

MINOR ARTERIAL ROADWAY  
DESIGN SPEED - 50 MPH



NO.	REVISION	DATE	NO.	REVISION	DATE
1	ADD 4' CONCRETE SIDEWALK	7/10/03	1	INDICATE PUBLIC WATER MAIN WITHIN PUBLIC WATER & UTILITY ESTABLISHMENT	6/13/00
2			2	ADD ENLARGEMENT DETAIL OF 6" PRIVATE WATER MAIN FOR THE PROVISION OF FIRE PROTECTION & DOMESTIC WATER SERVICE TO THE EXISTING SCHOOL	6/13/00

PROFILE  
SCALE:  
HOR. - 1" = 40'  
VERT. - 1" = 4'

- NOTES:
- ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
  - \* INDICATES TRANSITION FROM STANDARD TO REVERSE CURB & GUTTER.
  - ALL PAVING TO BE AS PER PAVING SECTION ON SHEET 10 UNLESS OTHERWISE NOTED.
  - DESIGN OF UTILITY POLES, MARKERS, MANHOLES, ETC. ALONG ROUTE 144 TO BE PERFORMED BY OTHERS.
  - GEOMETRY FOR ROUTE 144 IMPROVEMENTS IS SHOWN ON SHEET 15.

- LEGEND
- CONCRETE SIDEWALKS
  - FLOODPLAIN CROSS-SECTION
  - M.O.H.A. PAVING. SEE SHEET 10 FOR DETAIL.

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR ON-SITE WATER AND ON-SITE SEWERAGE SYSTEMS.  
*Joyce M. Boyd* 5/4/93  
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*James R. Scott* 5/12/93  
DIRECTOR

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.  
*Shirley A. Helonath* 5/11/93  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: *James J. Lee* 5/7/93  
DIRECTOR

APPROVED: *W. E. ...* 5-7-93  
CHIEF, BUREAU OF ENGINEERING

DATE NO. REVISION

OWNER/DEVELOPER  
BOARD OF EDUCATION OF HOWARD COUNTY  
10910 ROUTE 108  
ELLICOTT CITY, MARYLAND 21043

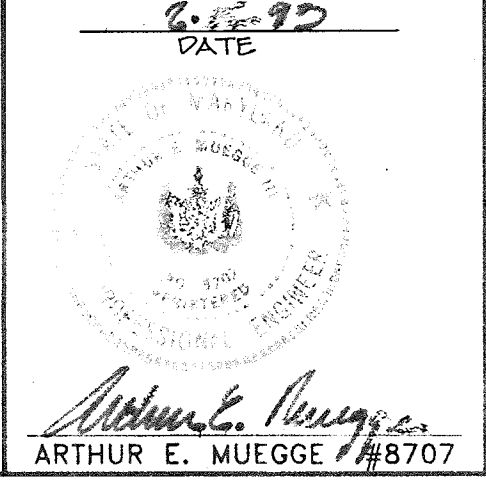
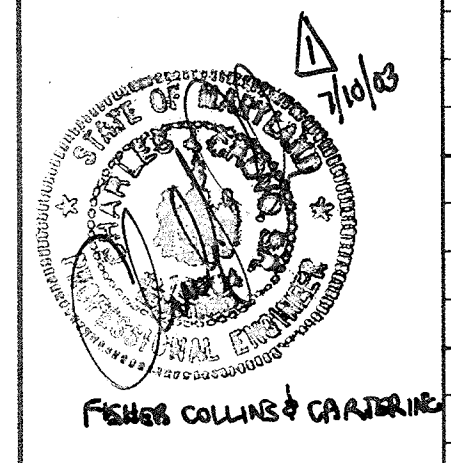
PROJECT  
NORTHERN ELEMENTARY SCHOOL II

AREA  
TAX MAP 16  
PARCEL 44  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

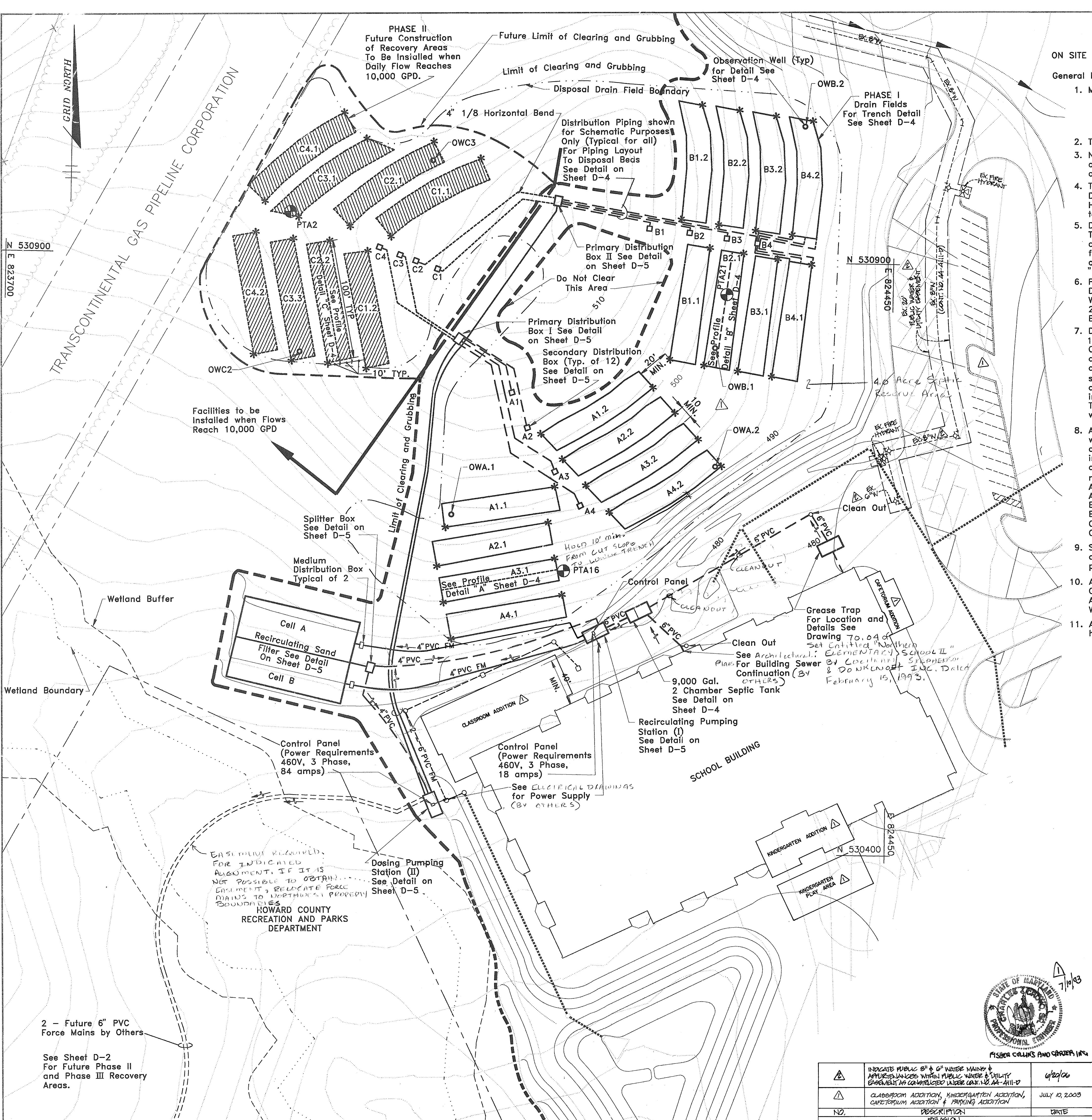
PLAN AND PROFILE OF MARYLAND ROUTE 144 (SOUTH SIDE)  
STA. 0+00.00 TO STA. 8+75.00

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX: 410-997-9282

DESIGNED BY: JTD  
DRAWN BY: DBS  
PROJECT NO: 77910  
DATE: FEBRUARY 12, 1993  
SCALE: 1" = 40'  
DRAWING NO. 3 OF 21







**ON SITE DISPOSAL SYSTEM**

General Notes :

- Maximum total Design Sewage Flow allocation  
 564 Students x 15 GPD = 8460 GPD  
 75 Staff x 15 GPD = 1125 GPD  
 1 Dishwasher x 269 GPD = 269 GPD  
 Total Use = 9854 GPD say 10,000 GPD
- Trench Design loading rate = 0.8 GPD/ft<sup>2</sup>
- No installation shall commence without approval from the Maryland Department of the Environment and Howard County Health Department.
- The Contractor shall Notify the Owner, the Maryland Department of the Environment and the Howard County Health Department a minimum of one week prior to Start of Construction.
- Daily generated Flows, Percolation test data, Trench loading factor, Sewerage easement area and existing Topographic Survey data have been furnished by Reimer Muegge & Associates, Inc. on a Health Department Approved "Perc Test Certification Plan".
- Proposed Wastewater Pretreatment and Disposal System have been Design by : Whitman Requardt and Associates 2315 St. Paul Street Baltimore, Maryland
- Disposal Trenches are to be constructed a minimum of 10' apart c/c with a 20' minimum spacing between Bed groups. Coordinate Table is provide to facilitate stakeout. Adjustments are to be made as necessary to follow the ground contour and insure a level Disposal Trench. Construction of Trenches shall begin from top to bottom of each section of Trench Bed and proceed toward the top of the Hill. Trenches shall be installed along each contour, not across or against them. The intent is that the Contractor is to construct each Trench to within six(6) inches of each Contour.
- All Disposal Trenches shall be 100 feet in length and 3 feet wide. Perforated pipe shall be encased in 2 feet of stone as shown in Section A-A on Sheet No.D-4. Bottom elevations in each Trench area shall be as shown on variable Dimension and Elevation Table on Sheet No.D-4, subject to the following minimum depths below original ground:  
 A1.1 - A4.1 6.0'  
 A1.2 - A4.2 6.0'  
 B1.1 - B4.1 6.0'  
 B1.2 - B4.2 6.0'  
 C1.1 - C4.1 6.5'  
 C1.2 - C4.2 6.0'
- Sewage Disposal System contractor to submit as-built drawing of system installation to Howard County Health Department prior to final Septic System inspection and approval.
- Approval of site development plan pending approval of a Ground Water Appropriations Permit by Water Resources Administration and inclusion into the Howard County Master Water and Sewer Plan.
- All wells and septic systems within 200 feet of the property have been shown.

**LEGEND**

- FORCE MAINS
- - - GRAVITY PIPE
- - - DRAIN FIELD BOUNDARY
- ⊙ PTA11 PERC TEST LOCATION

**STRUCTURE & LOCATION**

DESCRIPTION	NORTH	EAST
Primary Distribution Box I	530831	824085
Primary Distribution Box II	530949	824166
Secondary Distribution Box A1	530787	824130
Secondary Distribution Box A2	530757	824144
Secondary Distribution Box A3	530720	824168
Secondary Distribution Box A4	530692	824189
Secondary Distribution Box B1	530927	824244
Secondary Distribution Box B2	530924	824278
Secondary Distribution Box B3	530919	824309
Secondary Distribution Box B4	530916	824335
Secondary Distribution Box C1	530890	824065
Secondary Distribution Box C2	530897	824047
Secondary Distribution Box C3	530901	824034
Secondary Distribution Box C4	530908	824016
Septic Tank	530373	824370
Recirculating Pumping Station (I)	530370	824329
Dosing Pumping Chamber (II)	530438	824069
Splitter Box	530553	824014
Distribution Box (Cell) A	530571	824007
Distribution Box (Cell) B	530538	823999

APPROVED : MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR PRIVATE SEWAGE DISPOSAL SYSTEM AND ON-SITE WATER SYSTEM PENDING THE CONSTRUCTION PERMIT ISSUED BY THE ENGINEERING AND CONSTRUCTION PROGRAM FOR THE ON-SITE WATER SYSTEM.

*David A. Kern* 4-may-93  
 REGIONAL CONSULTANT DATE  
 INDIVIDUAL SEPTICS AND WELLS  
 MARYLAND DEPARTMENT OF THE ENVIRONMENT

APPROVED : HOWARD COUNTY HEALTH DEPARTMENT FOR ONSITE WATER AND PRIVATE SEWERAGE SYSTEMS.

*Joyce M. Boyd* 5/4/93  
 COUNTY HEALTH OFFICER DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Beeth* 5/12/93  
 DIRECTOR DATE  
*Emma J. Blonath* 5/11/93  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

**DRAIN FIELD LOCATION OPPOSITE CORNERS AS INDICATED BY \***

FIELD	NORTH	EAST	NORTH	EAST
A1.1	530672	824075	530707	824168
A1.2	530752	824158	530790	824250
A2.1	530639	824069	530677	824163
A2.2	530732	824175	530770	824271
A3.1	530608	824075	530647	824169
A3.2	530710	824196	530747	824293
A4.1	530578	824082	530616	824176
A4.2	530688	824217	530726	824313
B1.1	530816	824263	530911	824295
B1.2	530935	824271	531031	824288
B2.1	530812	824292	530907	824324
B2.2	530931	824302	531027	824318
B3.1	530808	824321	530902	824353
B3.2	530927	824334	531023	824349
B4.1	530803	824349	530898	824381
B4.2	530923	824365	531019	824380
FUTURE CONSTRUCTION PHASE II				
C1.1	530779	824379	530744	824285
C1.2	530805	824007	530904	824006
C2.1	530806	824346	530764	824255
C2.2	530815	823912	530913	823974
C3.1	530787	824217	530999	824004
C3.2	530811	824944	530914	824944
C4.1	530945	823919	531020	823984
C4.2	530809	823974	530919	823912

3/23/93 SHIFTED BEDS A1.2 TO A4.2, AMENDED NOTES

DATE NO. REVISION

OWNER/DEVELOPER - I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR ON SITE WASTEWATER DISPOSAL SYSTEM

BOARD OF EDUCATION OF HOWARD COUNTY  
 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043  
*Cathleen Conley Young* 5/12/93  
 SIGNATURE OF DEVELOPER DATE

PROJECT  
**NORTHERN ELEMENTARY SCHOOL II**

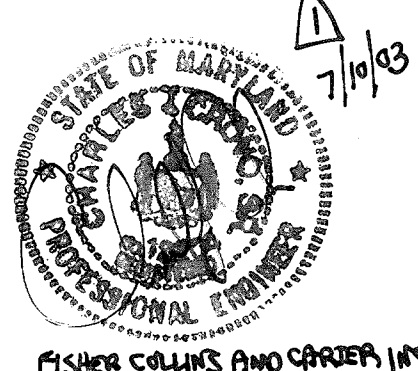
AREA TAX MAP PARCEL 44  
 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**WASTEWATER SYSTEM SITE PLAN**

**WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS**

BALTIMORE, MD RICHMOND, VA YORK, PA

SHEET NO : D-1  
 DESIGNED BY :  
 DRAWN BY : J.R.-N.  
 PROJECT NO : 50277  
 DATE : FEBRUARY 12, 1993  
 SCALE : 1" = 40'  
 DRAWING NO. 17 OF 21



NO.	DESCRIPTION	REVISION	DATE
1	INDICATE PUBLIC 6" & 8" WATER MAINS & APPURTENANCES WITHIN PUBLIC WATER & UTILITY EASEMENT AS CONTROLLED UNDER CONTRACT NO. AA-A11-D		4/24/00
2	CLASSROOM ADDITION, KINDERGARTEN ADDITION, CAFETERIA ADDITION & PARKING ADDITION		JULY 10, 2003

2 - Future 6" PVC Force Mains by Others  
 See Sheet D-2 For Future Phase II and Phase III Recovery Areas.

EASIMENT REQUIRED FOR INDICATED ALIGNMENT. IF IT IS NOT POSSIBLE TO OBTAIN... CONTACT RELOCATE FORCE MAINS TO NORTHERN PROPERTY BOUNDARY  
 HOWARD COUNTY RECREATION AND PARKS DEPARTMENT

Dosing Pumping Station (II) See Detail on Sheet D-5

Control Panel (Power Requirements 460V, 3 Phase, 18 amps) See ELECTRICAL DRAWINGS for Power Supply (BY OTHERS)

Recirculating Pumping Station (I) See Detail on Sheet D-5

9,000 Gal. 2 Chamber Septic Tank See Detail on Sheet D-4

Clean Out See Architectural Plans For Building Sewer Continuation (BY OTHERS) February 15, 1993.

Grease Trap For Location and Details See Drawing 70.04 of Set entitled "Northern Elementary School II" by C. G. W. & D. W. KENNETT, INC. DATE February 15, 1993.

Facilities to be Installed when Flows Reach 10,000 GPD

Splitter Box See Detail on Sheet D-5

Medium Distribution Box Typical of 2

Primary Distribution Box I See Detail on Sheet D-5  
 Secondary Distribution Box (Typ. of 12) See Detail on Sheet D-5

Primary Distribution Box II See Detail on Sheet D-5

Distribution Piping shown for Schematic Purposes Only (Typical for all) For Piping Layout To Disposal Beds See Detail on Sheet D-4

PHASE II Future Construction of Recovery Areas To Be Installed when Daily Flow Reaches 10,000 GPD.

Future Limit of Clearing and Grubbing

Limit of Clearing and Grubbing

Disposal Drain Field Boundary

Observation Well (Typ) for Detail See Sheet D-4

OWB.2

PHASE I Drain Fields For Trench Detail See Sheet D-4

4" 1/8 Horizontal Bend

OWC2

OWC3

PTA2

PTA1

PTA3

PTA4

PTA5

PTA6

PTA7

PTA8

PTA9

PTA10

PTA11

PTA12

PTA13

PTA14

PTA15

PTA16

PTA17

PTA18

PTA19

PTA20

PTA21

PTA22

PTA23

PTA24

PTA25

PTA26

PTA27

PTA28

PTA29

PTA30

PTA31

PTA32

PTA33

PTA34

PTA35

PTA36

PTA37

PTA38

PTA39

PTA40

PTA41

PTA42

PTA43

PTA44

PTA45

PTA46

PTA47

PTA48

PTA49

PTA50

PTA51

PTA52

PTA53

PTA54

PTA55

PTA56

PTA57

PTA58

PTA59

PTA60

PTA61

PTA62

PTA63

PTA64

PTA65

PTA66

PTA67

PTA68

PTA69

PTA70

PTA71

PTA72

PTA73

PTA74

PTA75

PTA76

PTA77

PTA78

PTA79

PTA80

PTA81

PTA82

PTA83

PTA84

PTA85

PTA86

PTA87

PTA88

PTA89

PTA90

PTA91

PTA92

PTA93

PTA94

PTA95

PTA96

PTA97

PTA98

PTA99

PTA100

PTA101

PTA102

PTA103

PTA104

PTA105

PTA106

PTA107

PTA108

PTA109

PTA110

PTA111

PTA112

PTA113

PTA114

PTA115

PTA116

PTA117

PTA118

PTA119

PTA120

PTA121

PTA122

PTA123

PTA124

PTA125

PTA126

PTA127

PTA128

PTA129

PTA130

PTA131

PTA132

PTA133

PTA134

PTA135

PTA136

PTA137

PTA138

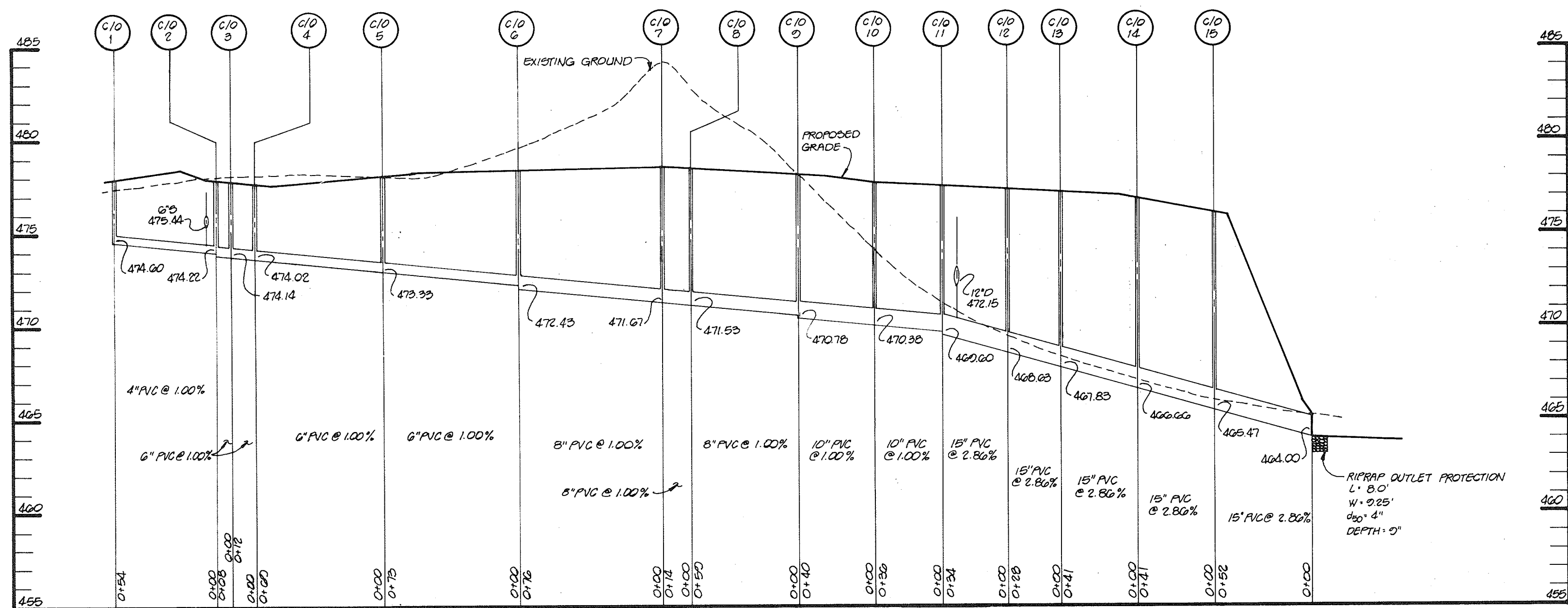
PTA139

PTA140

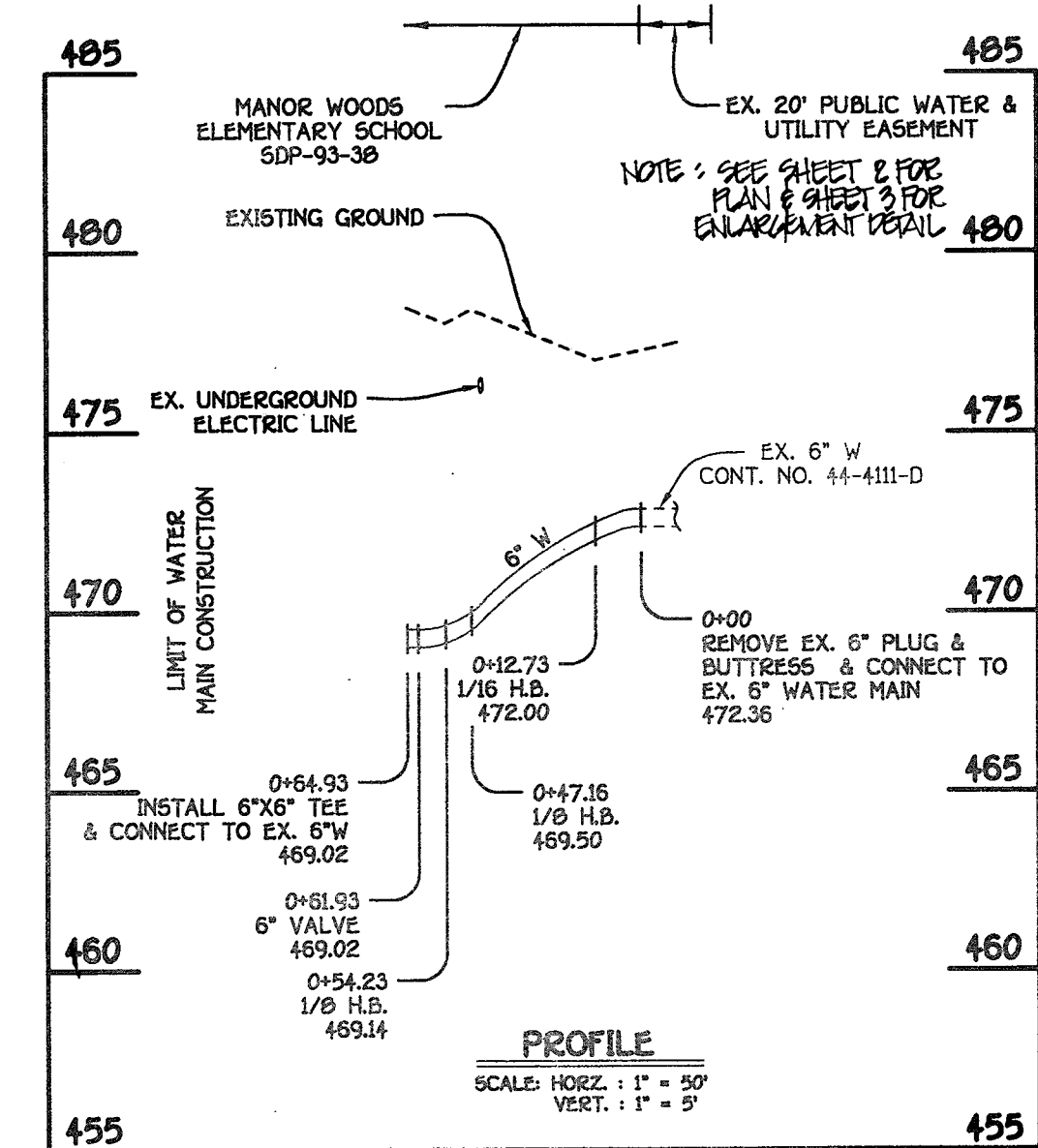
PTA141

PTA142

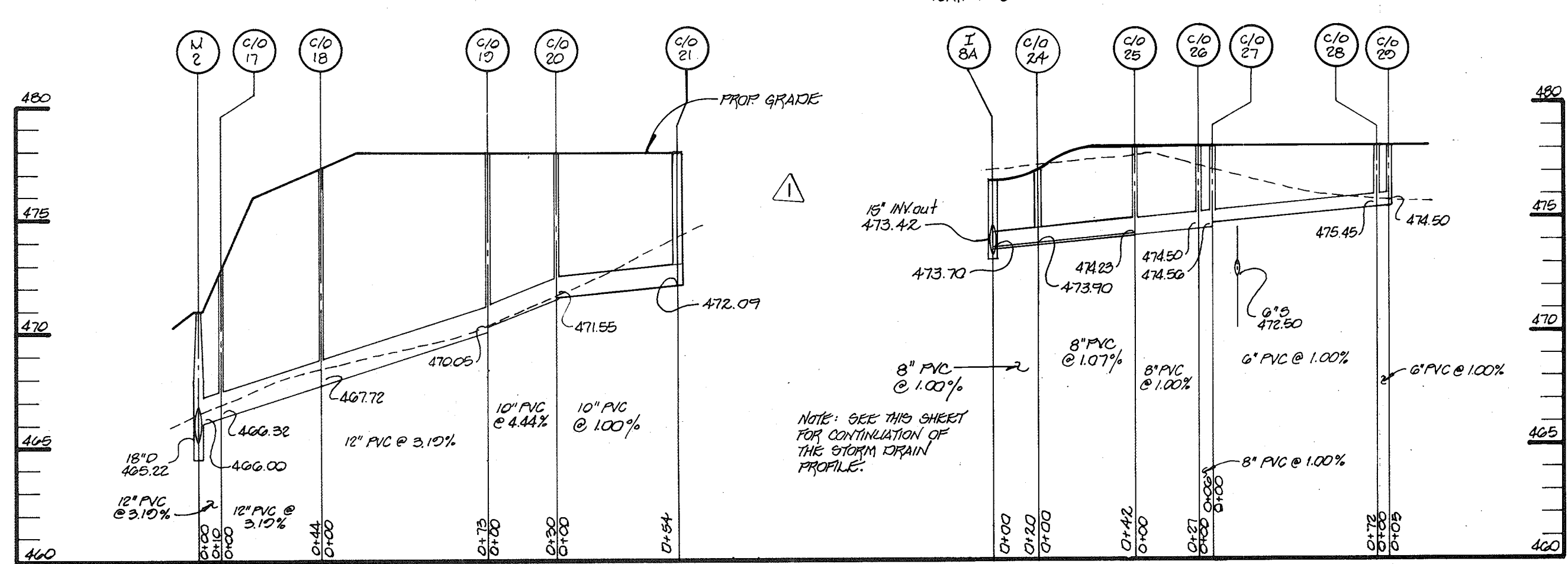




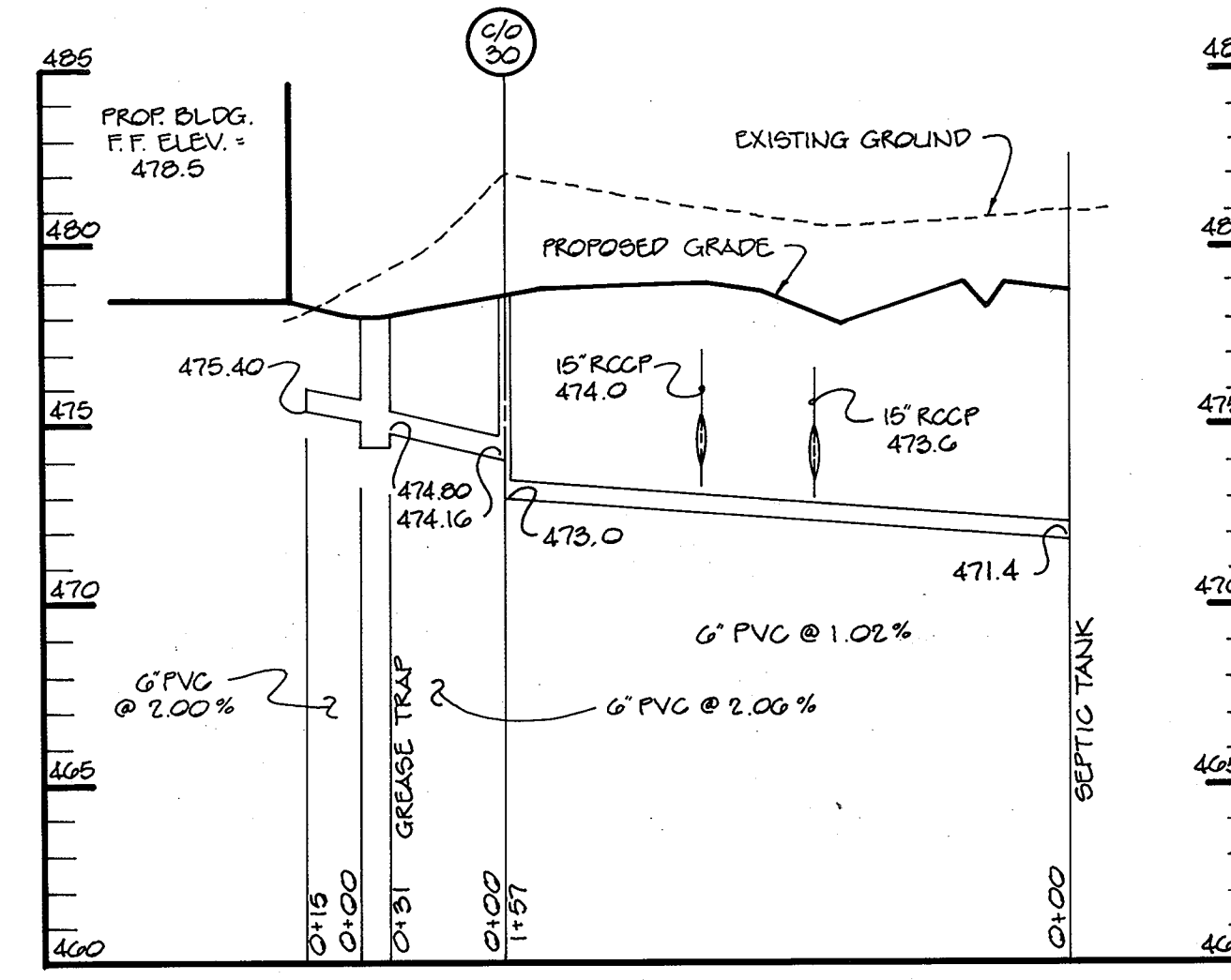
**ROOF DRAIN PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



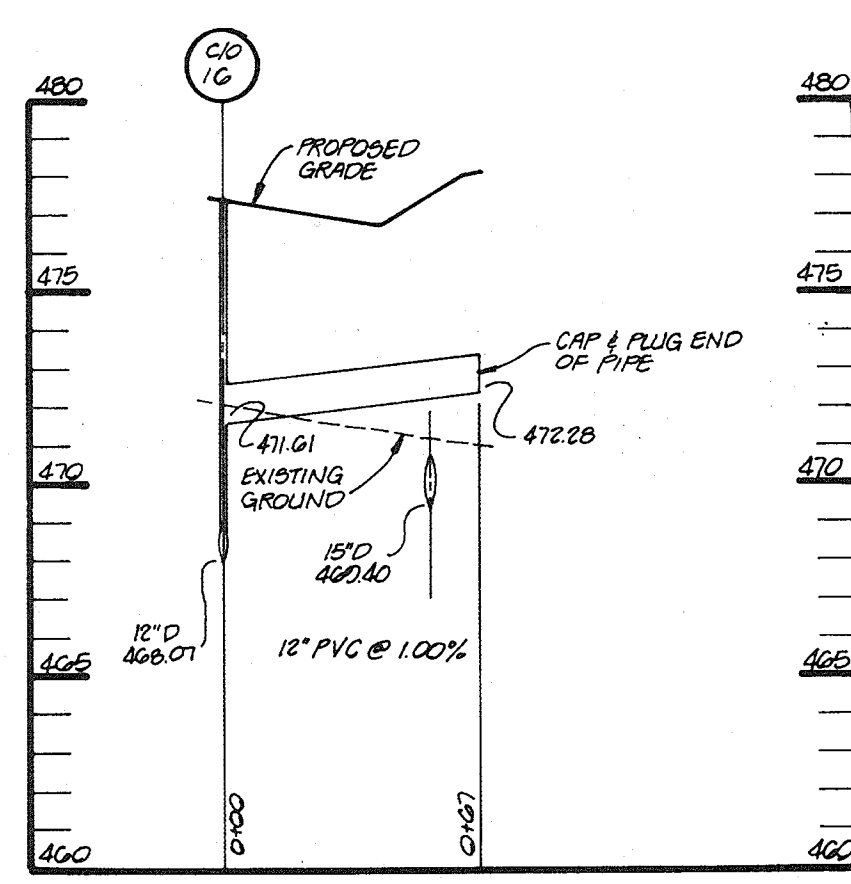
**PRIVATE 6" WATER MAIN**



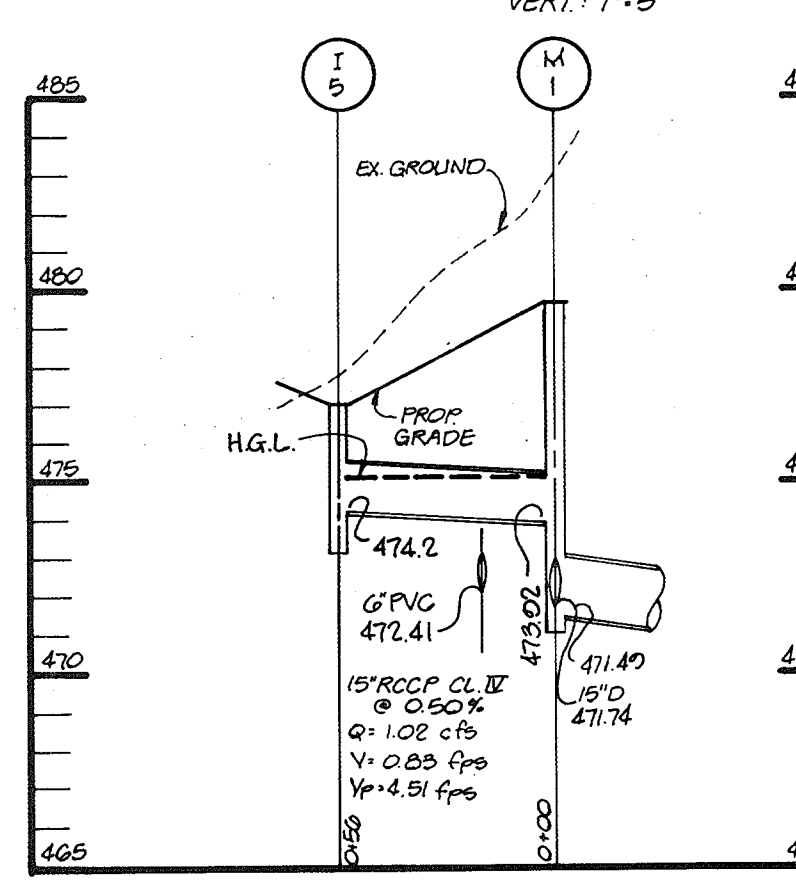
**ROOF DRAIN PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



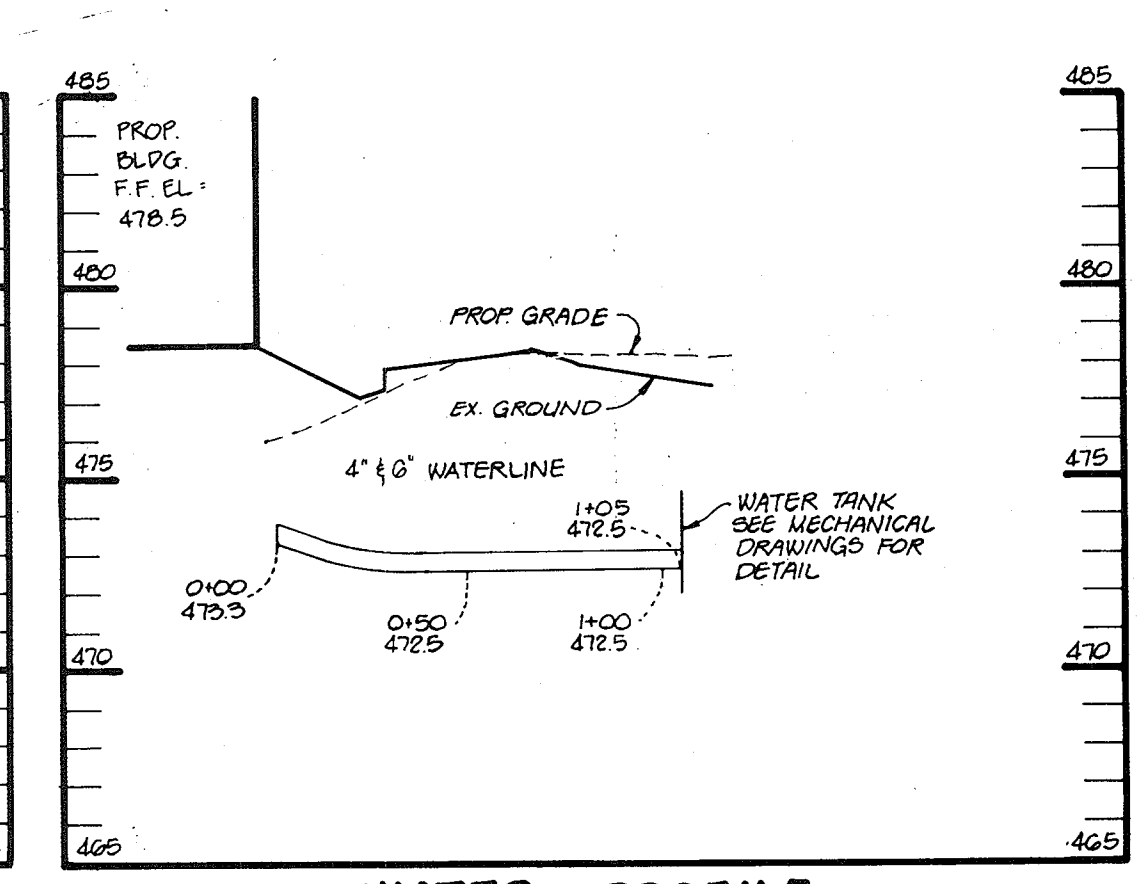
**SEWER PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



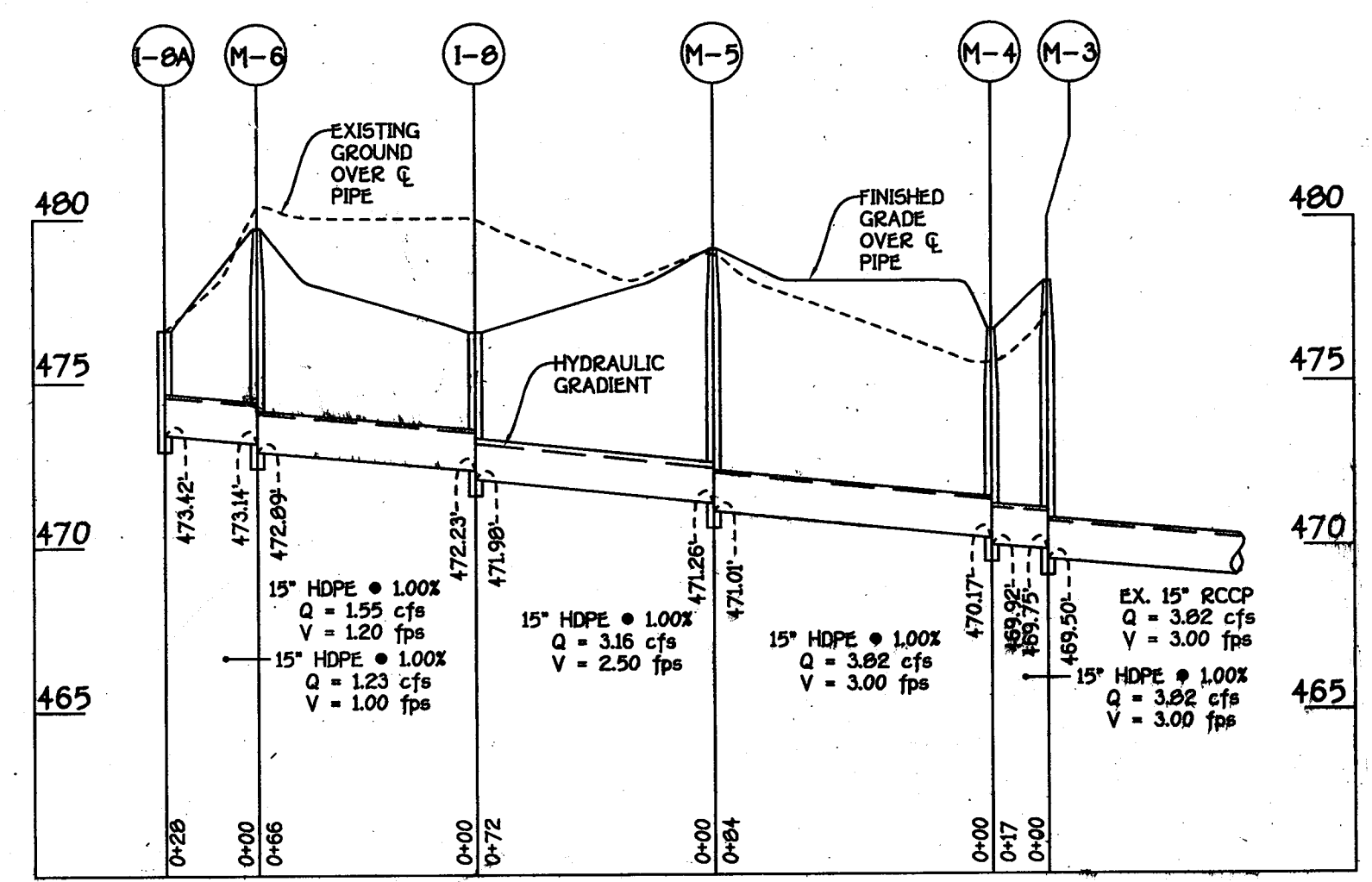
**ROOF DRAIN PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



**STORM DRAIN PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



**WATER PROFILE**  
SCALE: HOR: 1"=50'  
VERT: 1"=5'



**STORM DRAIN PROFILE**  
SCALE: 1"=50' HOR  
1"=5' VERT.

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR  
C&J SITE WATER AND C&J SITE SEWERAGE  
SYSTEMS.  
*Joyce M. Boyd* 5/14/93  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND  
ZONING.  
*James R. Smith* 5/12/93  
DIRECTOR DATE

*Shirley A. Helonath* 5/11/93  
CHIEF, DIVISION OF COMMUNITY  
PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND  
ZONING.  
*James R. Smith* 5/12/93  
DIRECTOR DATE

*Michael J. Kelly* 5-7-93  
CHIEF, BUREAU OF ENGINEERING DATE

DATE	NO.	REVISION

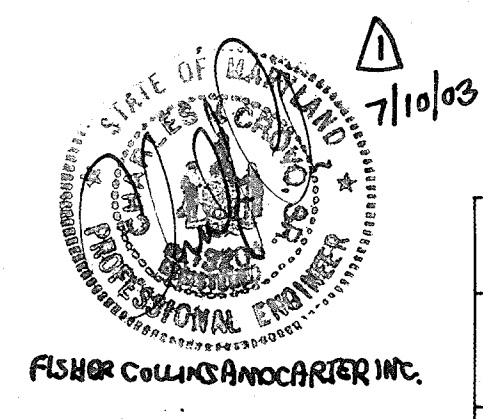
OWNER/DEVELOPER  
BOARD OF EDUCATION  
OF HOWARD COUNTY  
10910 ROUTE 108  
ELLCOTT CITY, MARYLAND 21043

PROJECT  
**NORTHERN ELEMENTARY SCHOOL II**

AREA TAX MAP 16  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
PARCEL 44

TITLE  
**STORM DRAIN PROFILES**

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX: 410-997-9282

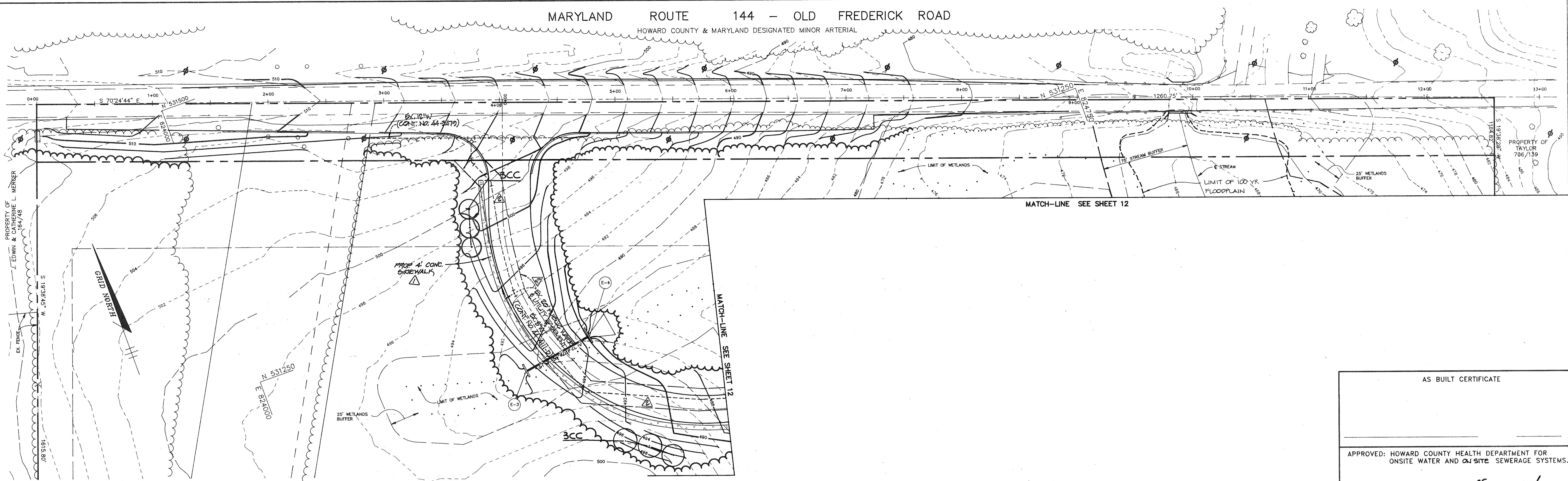


NO.	DESCRIPTION	DATE
1	INDICATE PROFILE OF PRIVATE 6" WATER MAIN FOR THE PROVISION OF FIRE PROTECTION & DOMESTIC WATER SERVICE TO THE EXISTING SCHOOL	6/15/06
2	REVISE ROOF DRAIN PROFILE & ADD STORM DRAIN PROFILE DUE TO BUILDING ADDITION.	JULY 10, 2003



MARYLAND ROUTE 144 - OLD FREDERICK ROAD

HOWARD COUNTY & MARYLAND DESIGNATED MINOR ARTERIAL



PLAN  
SCALE: 1"=40'

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR  
ONSITE WATER AND ON SITE SEWERAGE SYSTEMS.

*Joyce M. Boyd* per *J.M.* 5/4/93  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND  
ZONING.

*David Smith* 5/12/93  
DIRECTOR DATE

*Shirley Helms* 5/11/93  
CHIEF, DIVISION OF COMMUNITY  
PLANNING AND LAND DEVELOPMENT DATE

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

*James J. Shaw* 5/7/93  
DIRECTOR DATE

*Michael G. Riemer* 5-7-93  
CHIEF, BUREAU OF ENGINEERING DATE

DATE	NO.	REVISION

OWNER/DEVELOPER  
BOARD OF EDUCATION  
OF HOWARD COUNTY  
10910 ROUTE 108  
ELLICOTT CITY, MARYLAND 21043

PROJECT  
NORTHERN ELEMENTARY SCHOOL II

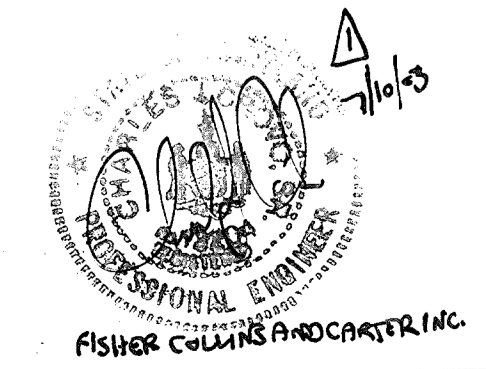
AREA TAX MAP 16  
PARCEL 44  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX : 410-997-9282

DESIGNED BY : DD
DRAWN BY : ZK
PROJECT NO : 77910
DATE : FEBRUARY 12, 1993
SCALE : 1" = 40'
DRAWING NO. 13 OF 21

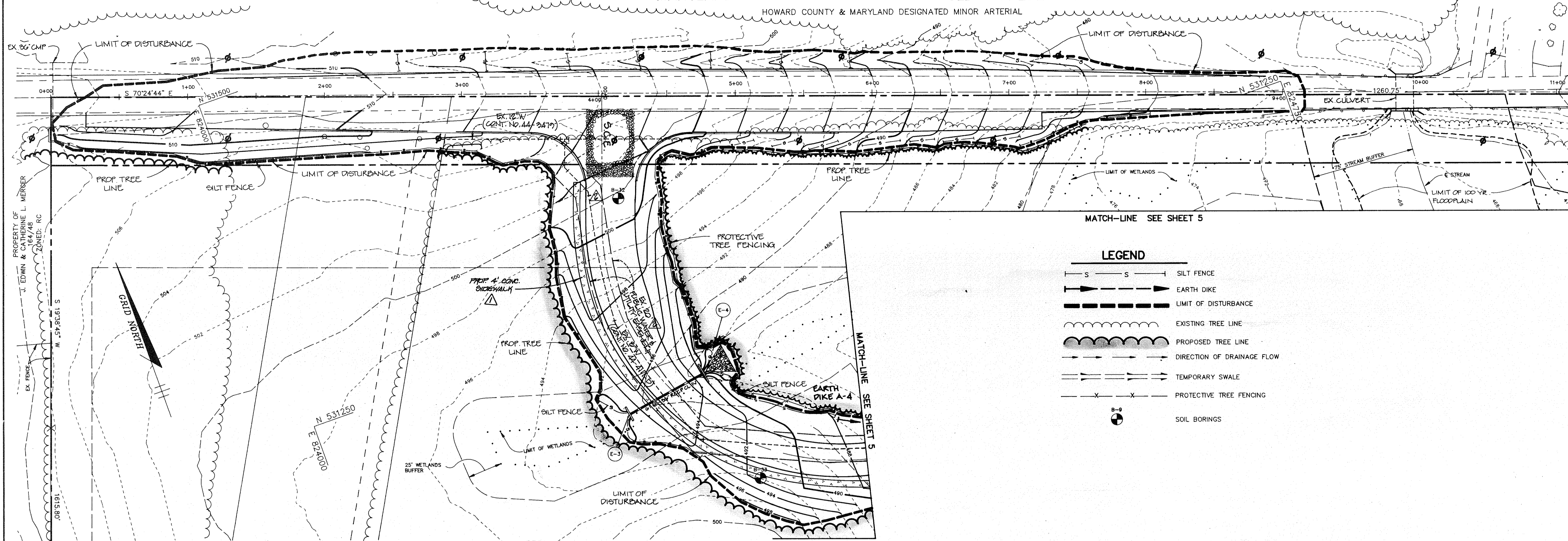
No.	DESCRIPTION	DATE
1	INDICATE PUBLIC 6" WATER MAIN & UTILITIES WITHIN PUBLIC WATER & UTILITY EASEMENT AS CONSOLIDATED LARGER CONTRACT NO. 44-4111-D	6/20/06
2	ADD 4" CONCRETE SIDEWALKS	JULY 10, 2003





MARYLAND ROUTE 144 - OLD FREDERICK ROAD

HOWARD COUNTY & MARYLAND DESIGNATED MINOR ARTERIAL



MATCH-LINE SEE SHEET 5

LEGEND

- S — S — S — SILT FENCE
- E — E — E — EARTH DIKE
- — — — — LIMIT OF DISTURBANCE
- — — — — EXISTING TREE LINE
- — — — — PROPOSED TREE LINE
- — — — — DIRECTION OF DRAINAGE FLOW
- — — — — TEMPORARY SWALE
- — — — — PROTECTIVE TREE FENCING
- — — — — SOIL BORINGS

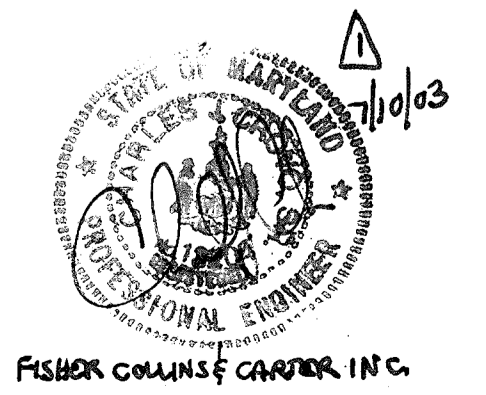
SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, TREE PROTECTIVE FENCE, SILT FENCE, EARTH DIKES, SEDIMENT BASINS/TEMPORARY STORMWATER MANAGEMENT FACILITIES #1 AND #2 AND THEIR CONTROL STRUCTURES AS PER THE SEDIMENT CONTROL PLAN AND SNOW FENCE. SEE CONDITIONS AND PRACTICES FOR WORKING IN NON-TIDAL WETLANDS.
3. INSTALL THE 36-INCH RCP CULVERT FROM E-3 TO E-4 AND BRING ENTRANCE ROAD TO GRADE UP TO WHERE THE EARTH DIKE BEGINS. THIS MUST BE ACCOMPLISHED PRIOR TO ANY MASS GRADING OF THE SITE.
4. BEGIN SITE GRADING AND BUILDING CONSTRUCTION. CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE ALONG SWALES AND DIKES. STOCKPILE TOPSOIL IN THE DESIGNATED AREA FOR FUTURE USE. FILL FIELD AREA UP TO LIMIT OF SNOW FENCE.
5. INSTALL UTILITIES AS GRADING REACHES SUBGRADE ELEVATION.
6. INSTALL CURB AND GUTTER AND PAVE. STABILIZE OTHER NON-PAVED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
7. COMPLETE BASKETBALL COURT/PLAY AREA CONSTRUCTION.
8. UPON STABILIZATION OF FIELDS AND APPROVAL OF DEPARTMENT OF LICENSES AND PERMITS SEDIMENT CONTROL INSPECTOR, FLUSH STORM DRAINS AND CONVERT SEDIMENT BASINS #1 AND #2 TO FINAL STORMWATER MANAGEMENT FACILITIES PER THE FOLLOWING:
  - A) PUMP OUT ANY IMPOUNDED WATER.
  - B) REMOVE ANY SEDIMENT BUILDUP.
  - C) GRADE SEDIMENT BASINS/TEMPORARY STORMWATER MANAGEMENT FACILITIES #1 & #2 TO FINAL GRADES AS PER SITE DEVELOPMENT PLAN.
  - D) INSTALL FOREBAYS WITH GABION WINDOWS.
  - E) PLUG TEMPORARY LOW FLOW ORIFICES.
  - F) INSTALL PERMANENT LOW FLOW ORIFICES AS PER DETAIL SHEET 10.
  - G) STABILIZE ALL AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
9. CONSTRUCT MARYLAND ROUTE 144 IMPROVEMENTS. CONTRACTOR TO COORDINATE UTILITY RELOCATION WITH APPROPRIATE AGENCIES.
10. COMPLETE ALL CONSTRUCTION ACTIVITIES INCLUDING BUILDING CONSTRUCTION. REMOVE ALL REMAINING SEDIMENT CONTROLS UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR AND STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.

PLAN  
SCALE: 1"=40'

CONDITIONS AND PRACTICES FOR WORKING IN NON-TIDAL WETLANDS

- a) Remove excess fill or construction material or debris to an upland disposal area;
- b) Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontidal wetland;
- c) Store heavy equipment in upland areas and suitably operate the equipment to prevent damage to the remaining nontidal wetlands;
- d) All stabilization in the wetland and buffer shall be of the following species: Annual Ryegrass (*Lolium multiflorum*), Millet (*Setaria italica*), Barley (*Hordeum sp.*), Oats (*Avena sp.*) and/or Rye (*Secale cereale*). These species allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Division. Kentucky 31 fescue shall not be utilized in the wetland or buffer areas. The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- e) Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands in excess of nontidal wetlands lost under the original structure or fill;
- f) To protect important aquatic species, in-stream work is prohibited as determined by the classification of the stream as follows:
  - i) Class I Waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.

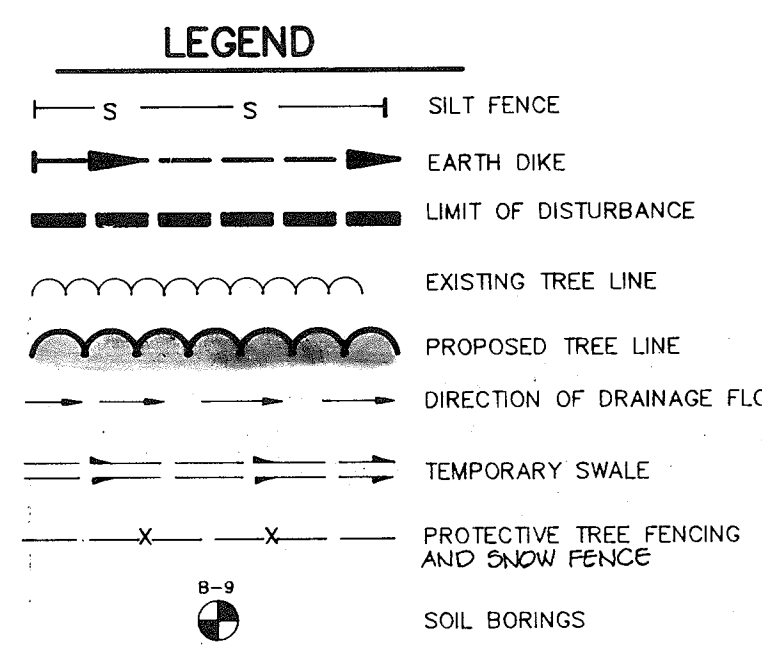
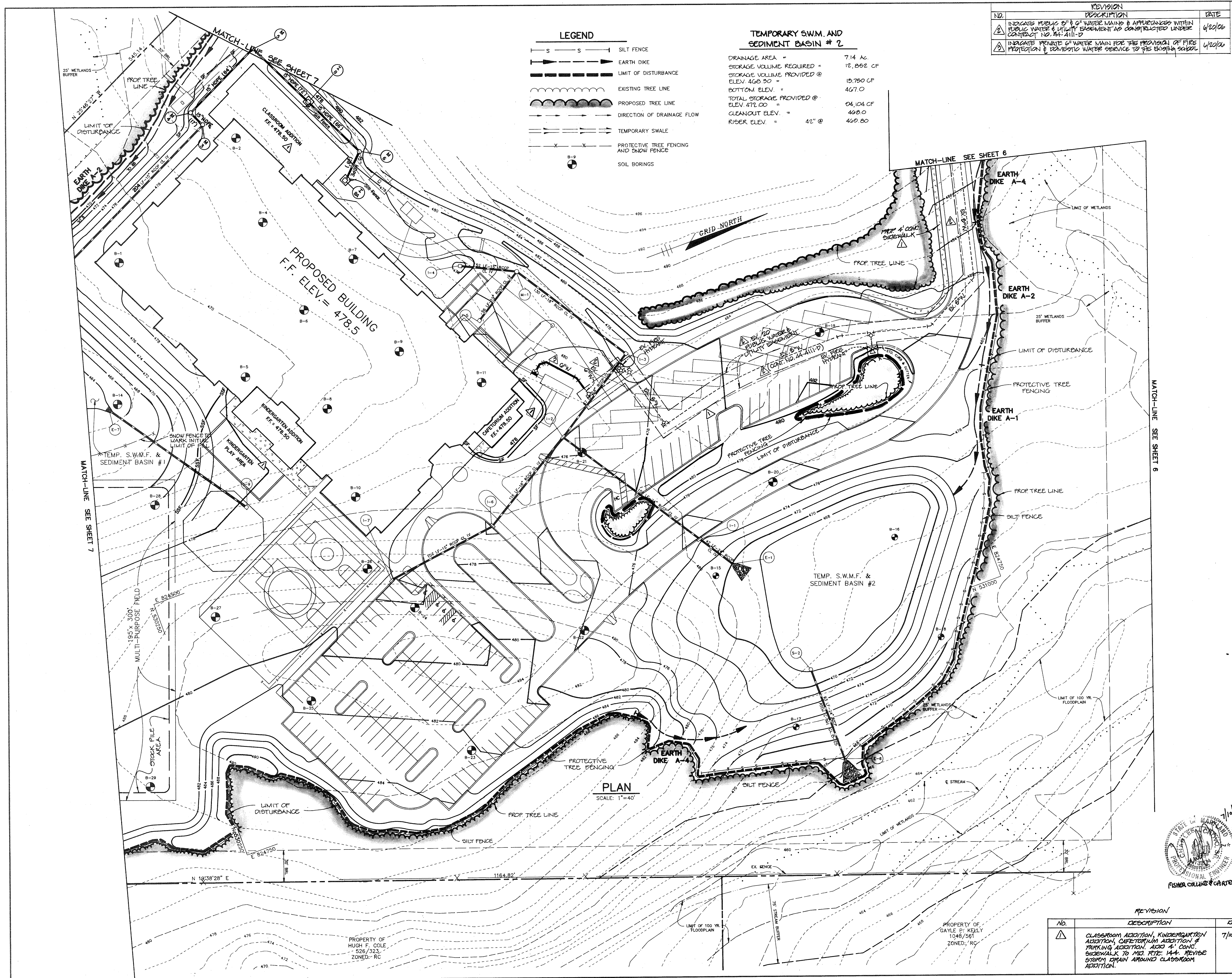


FISHER COLLINS & CARPENTER, INC.

AS BUILT CERTIFICATE		
BY THE DEVELOPER : I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.		
Catherine Conley Young DEVELOPER	2/12/93 DATE	
BY THE ENGINEER : I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.		
Arthur E. Muegge ENGINEER	2.12.93 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.		
James M. Fisher U.S. SOIL CONSERVATION SERVICE	2/21/93 DATE	
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.		
Robert J. Ziehm HOWARD SOIL CONSERVATION DISTRICT	2/31/93 DATE	
APPROVED : FOR OLD SITE WATER AND OLD SITE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.		
Joyce M. Boyd COUNTY HEALTH OFFICER	5/4/93 DATE	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.		
James H. White DIRECTOR	5/12/93 DATE	
Emma Helonah CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	5/11/93 DATE	
APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS		
James J. Helm DIRECTOR	5/1/93 DATE	
William B. S. S. S. CHIEF, BUREAU OF ENGINEERING	5-7-93 DATE	
DATE	NO.	REVISION
OWNER/DEVELOPER		
BOARD OF EDUCATION OF HOWARD COUNTY 10910 ROUTE 108 ELLICOTT CITY, MARYLAND 21043		
PROJECT		
NORTHERN ELEMENTARY SCHOOL II		
AREA		
TAX MAP 16 PARCEL 44 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
GRADING & SEDIMENT CONTROL PLAN		
RIEMER MUEGGE & ASSOCIATES, INC. A Land Planning, Engineering and Consulting Firm 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX : 410-997-9282		
2.12.93 DATE		
DESIGNED BY : JTD		
DRAWN BY : DBS		
PROJECT NO : 77910		
DATE : FEBRUARY 12, 1993		
SCALE : 1" = 40'		
DRAWING NO. 6 OF 21		

NO.	DESCRIPTION	DATE
1	INDICATE PUBLIC WATER MAIN & APPURTEANCES WITHIN PUBLIC WATER & UTILITY EXPOSEMENT AS CONSTRUCTED UNDER CONTRACT NO. 44-4111-D	6/20/90
2	ADD 4" CONCRETE SIDEWALK	7/10/03





**TEMPORARY S.W.M.F. AND SEDIMENT BASIN # 2**

DRAINAGE AREA = 7.14 AC  
 STORAGE VOLUME REQUIRED = 12,862 CF  
 STORAGE VOLUME PROVIDED @ ELEV. 468.50 = 15,780 CF  
 BOTTOM ELEV. = 467.0  
 TOTAL STORAGE PROVIDED @ ELEV. 478.00 = 04,104 CF  
 CLEANOUT ELEV. = 468.0  
 RIDGE ELEV. = 469.80

NO.	REVISION DESCRIPTION	DATE
1	INDICATE PUBLIC USE OF WATER MAINS & APPURTENANCES WITHIN CONTACT NO. 84-4111-D	6/20/06
2	INDICATE PRIVATE WATER MAIN FOR THE PROVISION OF FIRE PROTECTION & DOMESTIC WATER SERVICE TO THE BRIGHAM SCHOOL	6/20/06

**PLAN**  
SCALE: 1"=40'

AS BUILT CERTIFICATE

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Cathleen Conlay Young* 2/22/93  
DEVELOPER DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*Arthur E. Muegge* 2-12-93  
ENGINEER 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.

*James M. Zickler* 3/31/93  
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.

*Robert W. Zickler* 3/31/93  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED : FOR ON-SITE WATER AND ON-SITE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

*Donna M. Boyd* 5/4/93  
COUNTY HEALTH OFFICER JN DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Joseph Smith* 5/12/93  
DIRECTOR DATE

*Shirley J. Helton* 5/11/93  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT com DATE

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

*James H. Lee* 5/1/93  
DIRECTOR DATE

*Richard B. Reay* 5-7-93  
CHIEF, BUREAU OF ENGINEERING M.K. CO 5110 DATE

DATE	NO.	REVISION

OWNER/DEVELOPER

BOARD OF EDUCATION  
OF HOWARD COUNTY  
10910 ROUTE 108  
ELLIOTT CITY, MARYLAND 21043

PROJECT  
**NORTHERN ELEMENTARY SCHOOL II**

AREA TAX MAP 16  
PARCEL 44  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**GRADING & SEDIMENT CONTROL PLAN**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX : 410-997-9282

7/10/03  
DATE

DESIGNED BY : JTD  
DRAWN BY : DBS  
PROJECT NO : 77910  
DATE : FEBRUARY 12, 1993  
SCALE : 1" = 40'  
DRAWING NO. 5 OF 21

PROPERTY OF HUGH F. COLE  
526/323  
ZONED: RC

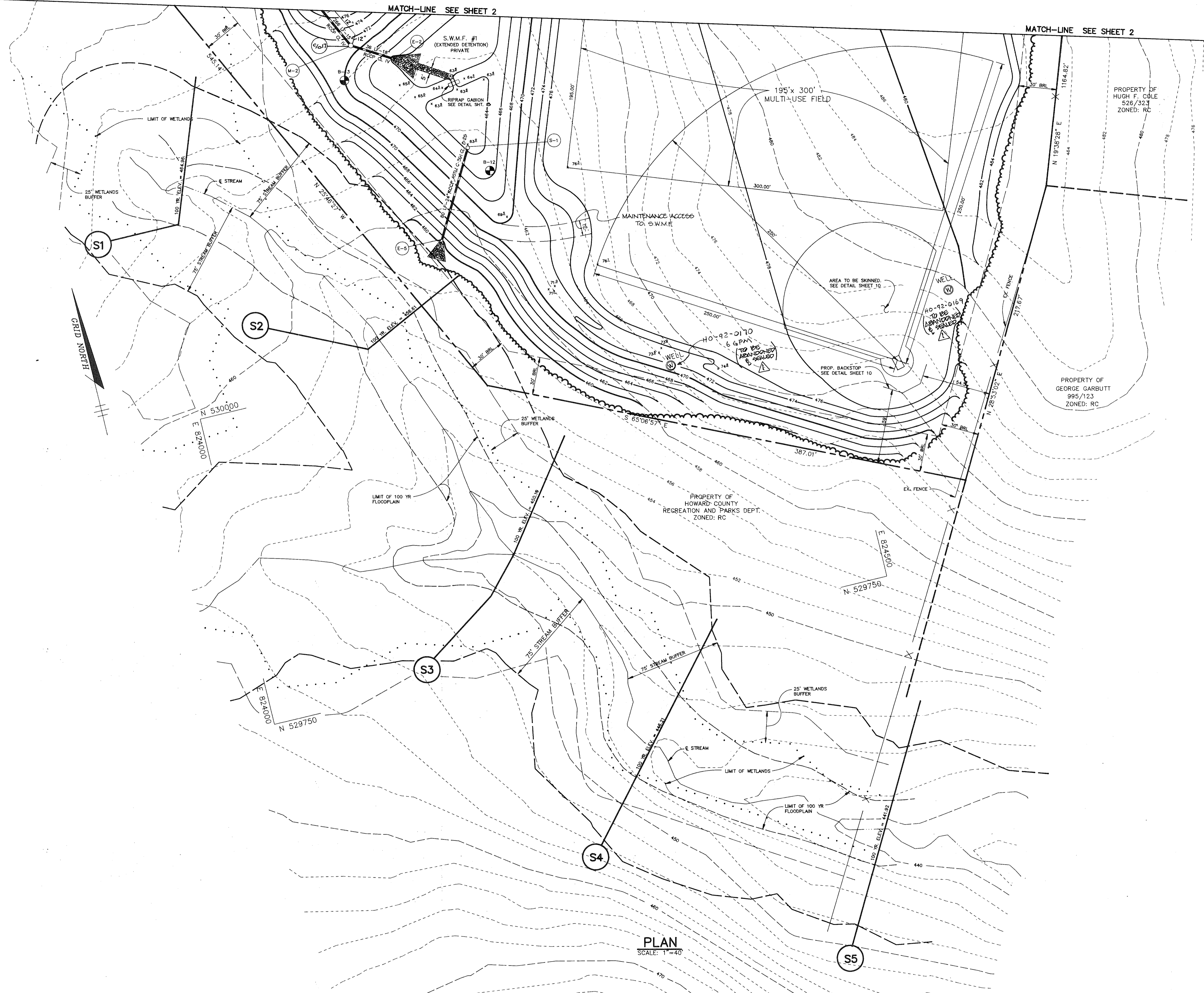
PROPERTY OF GAYLE P. KELLY  
1048/561  
ZONED: RC

FISHER COLLINS & CARTER, INC.  
REGISTERED PROFESSIONAL ENGINEER



MATCH-LINE SEE SHEET 2

MATCH-LINE SEE SHEET 2



PLAN  
SCALE: 1" = 40'

LEGEND

S1 FLOODPLAIN CROSS-SECTION

NOTE: SEE SHEET 8 FOR PROFILES AND DETAILS OF S.W.M.F.#1.

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR ON SITE WATER AND ON SITE SEWERAGE SYSTEMS.

*Joyce M. Boyd* 5/14/93  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James S. Smith* 5/12/93  
DIRECTOR DATE

*Shirley A. Howard* 5/11/93  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

*James J. Blum* 5/1/93  
DIRECTOR DATE

*James E. Blum* 5-7-93  
CHIEF, BUREAU OF ENGINEERING M.K. 057143 DATE

DATE NO. REVISION

OWNER/DEVELOPER  
BOARD OF EDUCATION OF HOWARD COUNTY  
10910 ROUTE 108  
ELLCOTT CITY, MARYLAND 21043

PROJECT  
NORTHERN ELEMENTARY SCHOOL II

AREA TAX MAP 16  
PARCEL 44  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
SITE DEVELOPMENT PLAN

RIEMER MUEGGE & ASSOCIATES, INC.  
A Land Planning, Engineering and Consulting Firm  
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045  
410-997-8900 FAX: 410-997-9282

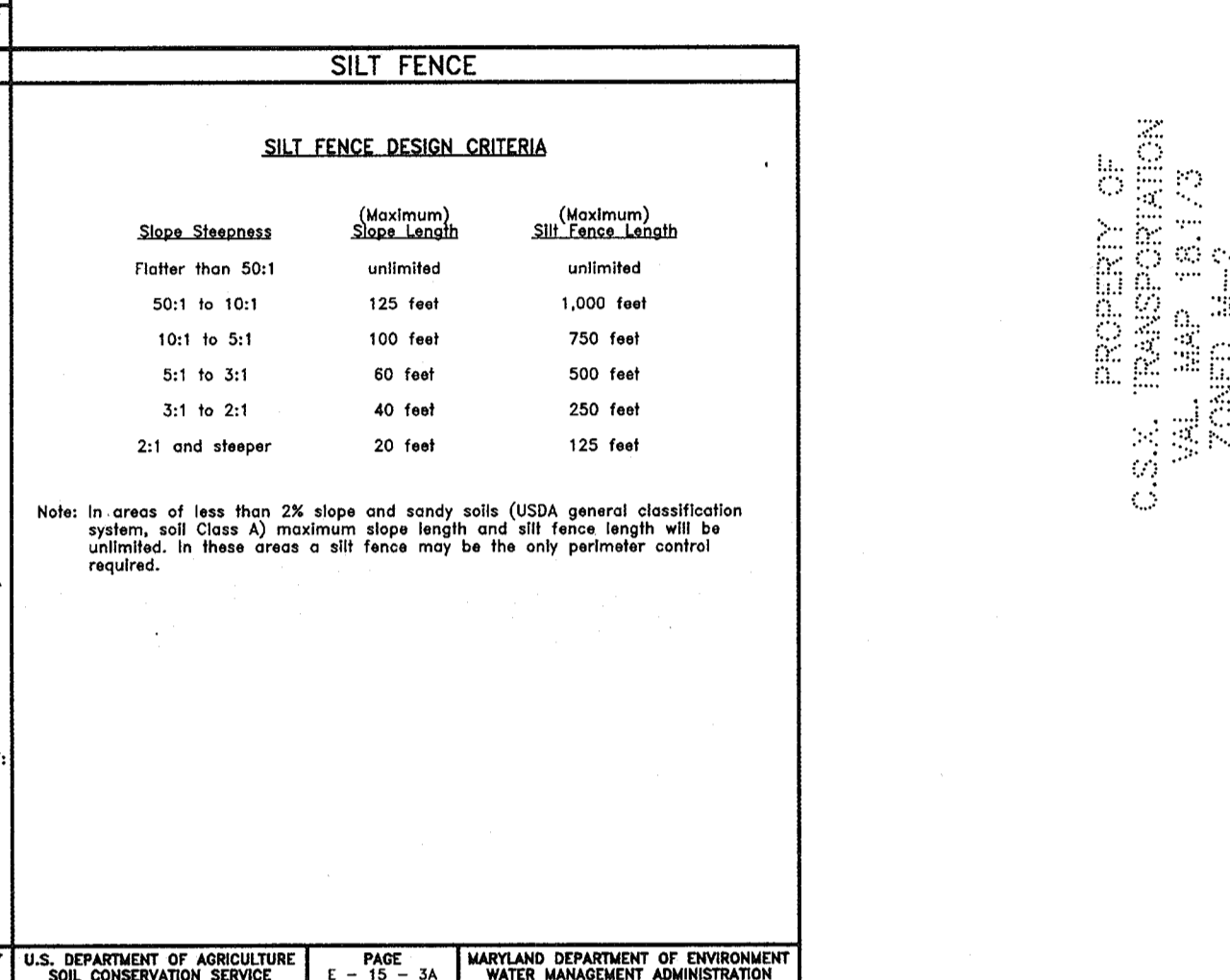
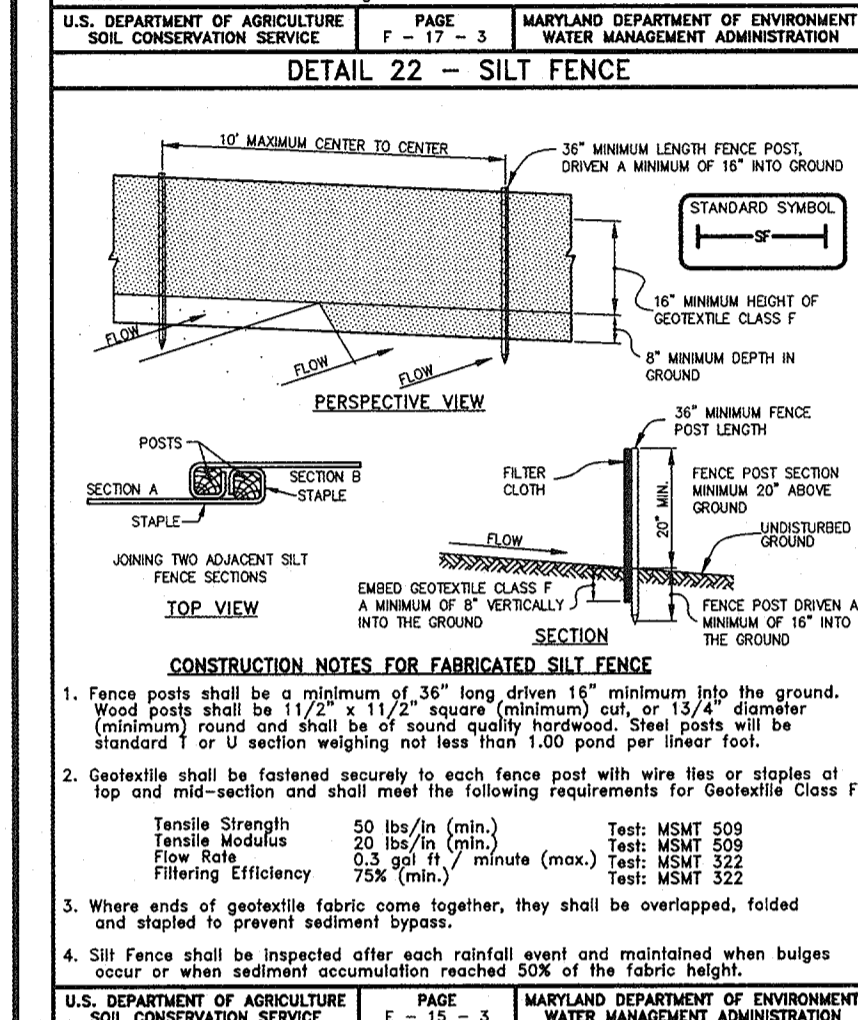
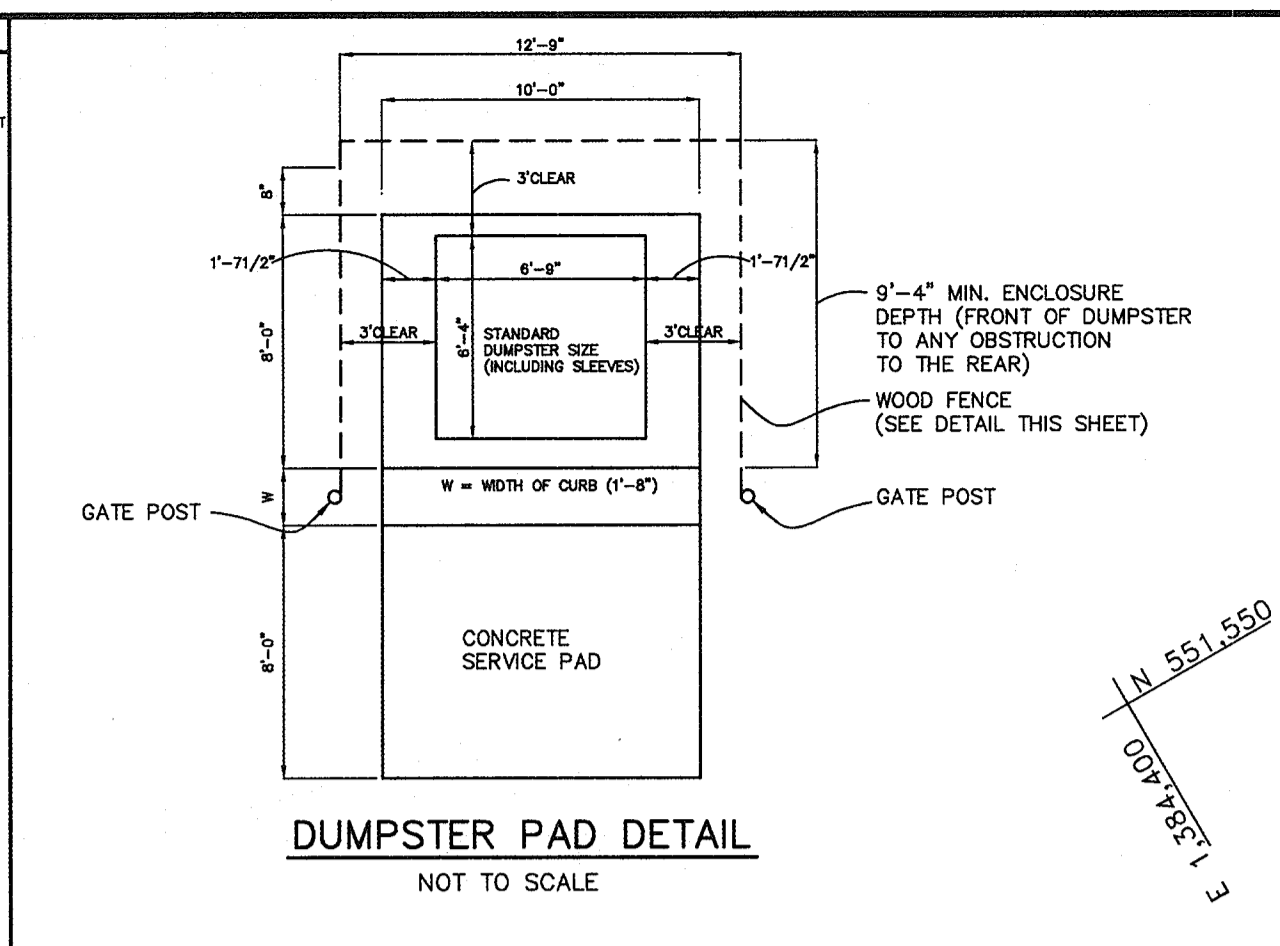
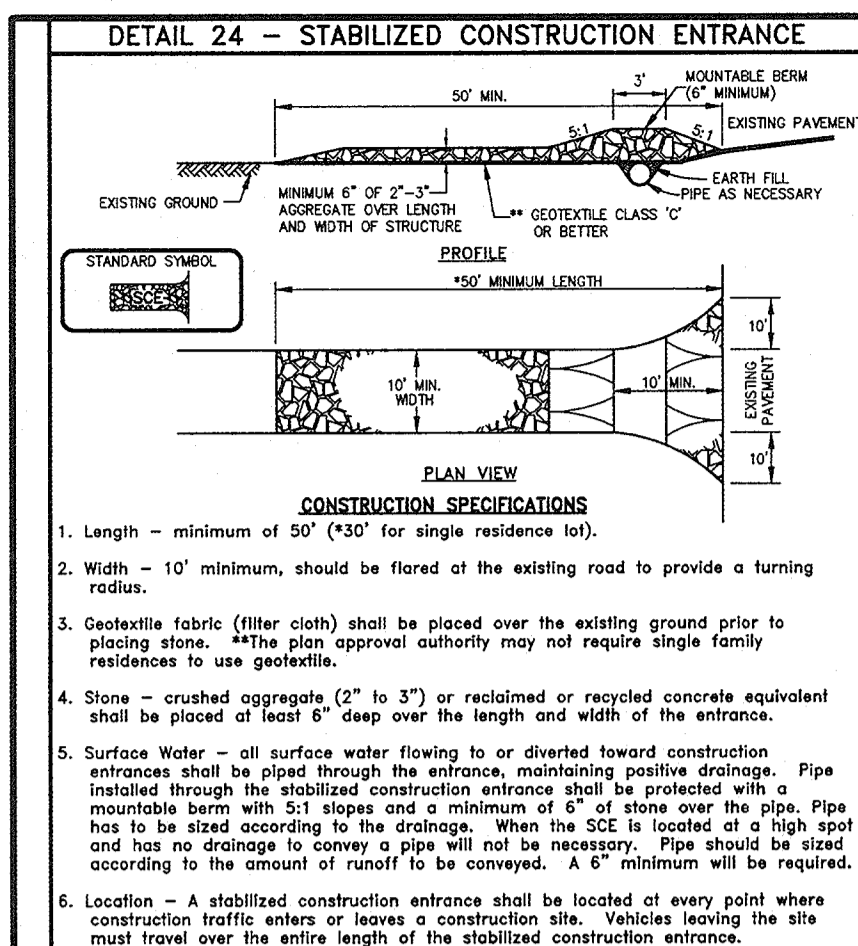
2-12-93  
DATE

DESIGNED BY : JTD  
DRAWN BY : DBS  
PROJECT NO : 77910  
DATE : FEBRUARY 12, 1993  
SCALE : 1" = 40'  
DRAWING NO. 4 OF 21

NO.	DESCRIPTION	DATE
1	INDICATE EXISTING WELLS TO BE ABANDONED & SEALED	6/29/06

ARTHUR E. MUEGGE #8707





**PERMANENT SEEDING NOTES**

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

**Seeded Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)

**Soil Amendments:** In lieu of soil test recommendations, use on the following schedules.

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

**Seeding:** For the periods March 1 through April 30 and August 1 through October 15, seed with 80 lbs per acre (1.4 lbs/1000 sf) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.05 lbs/1000 sf) of Weeping Lovegrass. During the period of October 16 through February 28, protect site by Option 1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option 2) use sod. Option 3) seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

**Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sf) 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 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

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

**SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections and Permits, Sediment Control Division prior to the start of any construction (415-1855).
- All vegetative and structural practices are to be installed accordingly to the provisions of this plan and are to be in conformance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control, and revisions thereto.
- Following initial soil disturbances or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 calendar days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the Howard County Design Manual, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for Permanent Seeding (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.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
  - Total Area of Site: 7.31± acres
  - Area to be Disturbed: 1.19± acre
  - Area to be roofed or paved: 0.57± acre
  - Area to be vegetatively stabilized: 0.62± acre
  - Total Cut: 1,305± C.Y.
  - Total Fill: 1,035± C.Y.
- Offsite Waste/Borrow Area Location: IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AN OFF-SITE BORROW AREA WITH AN APPROVED GRADING PERMIT FOR THIS SITE.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which can be back filled and stabilized within one working day, whichever is shorter.
- Quantities and estimates shown are for sediment control purposes only. Contractor shall prepare his/her own quantity estimates to his/her satisfaction.

**TEMPORARY SEEDING NOTES**

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

**Seeded Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)

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

**Seeding:** For periods March 1 through April 30 and from August 15 through November 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sf). For the period May 1 through August 14, seed with 3 lbs per acre of Weeping Lovegrass (0.07 lbs/1000 sf). For the period November 16 through 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 sf) 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 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

Refer to the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for rate and methods not covered.

**SEQUENCE OF CONSTRUCTION**

DAY	ACTIVITY
DAY 1	OBTAIN A GRADING PERMIT
DAY 2-5	CLEAR AND GRUB AS REQUIRED TO INSTALL SEDIMENT CONTROL DEVICES. INSTALL TREE PROTECTION FENCES AND SEDIMENT CONTROL DEVICES.
DAY 6-20	WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, GRADE SITE AND PROVIDE TEMPORARY STABILIZATION TO DISTURBED AREAS.
DAY 21-80	CONSTRUCT SWM, SHC, BUILDING AND PAVING.
DAY 81-85	FINE GRADE SITE.
DAY 86-87	STABILIZE SITE WITH PERMANENT STABILIZATION. WITH THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREA.

**APPROVED:** HOWARD COUNTY HEALTH DEPARTMENT FOR PRIVATE WATER & PUBLIC SEWERAGE SYSTEM

*One Matus* 7/16/99  
COUNTY HEALTH OFFICER DATE

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*John B. Robertson* 6/22/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Cindy Hamstra* 7/14/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

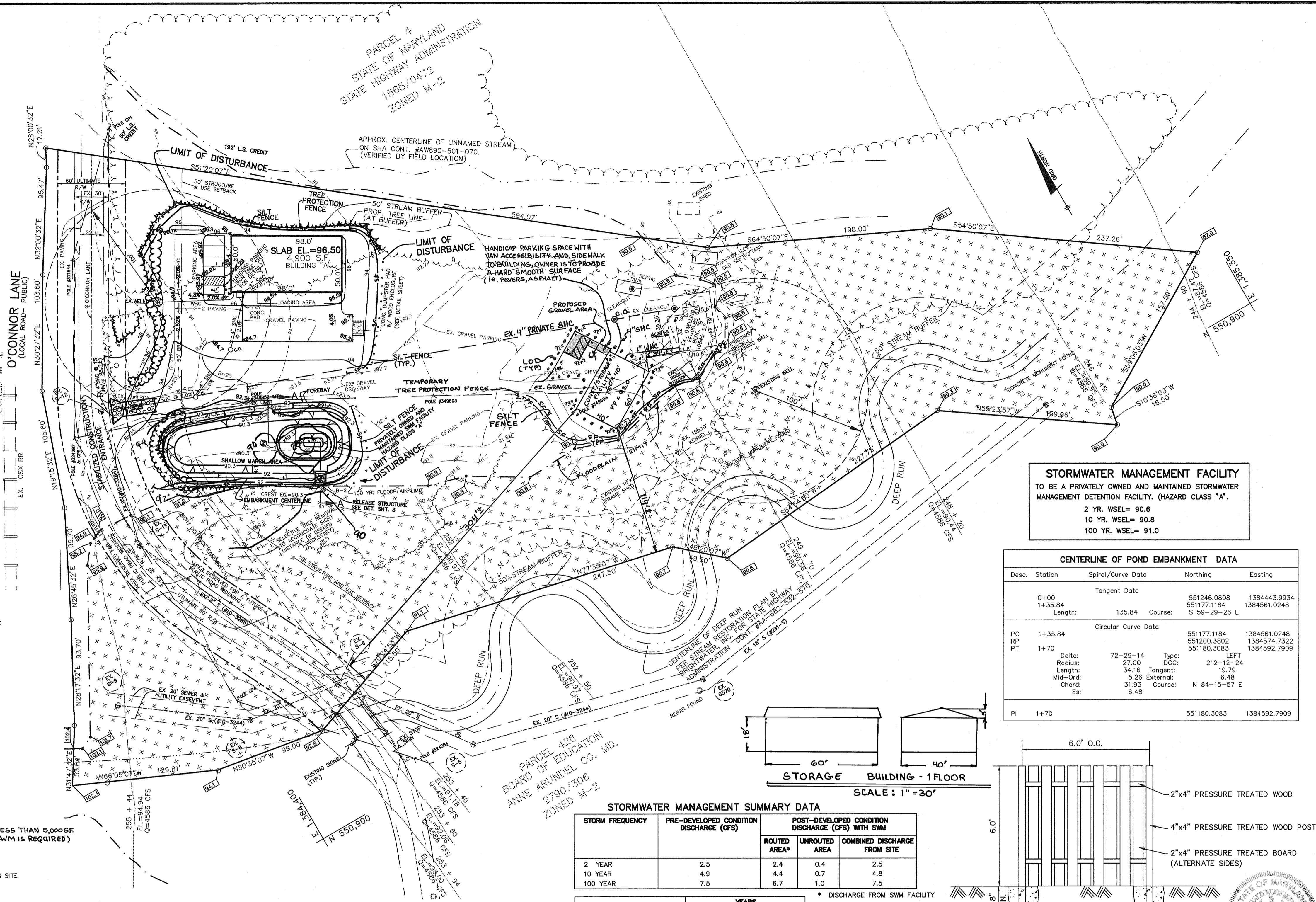
*Paul Smith* 7/20/99  
DIRECTOR DATE

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

*John B. Robertson* 6/22/99  
HOWARD SOIL CONSERVATION DISTRICT DATE

**APPROVED:** REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Clayton Simmons* 6/22/99  
(NATURAL RESOURCES CONSERVATION SERVICE) DATE



**21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL**

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CLAYS, STONES, SAND, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUTCRACK, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
  - WHERE THE SUBSOIL IS EITHER ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
  - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION IV - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- TOPSOIL APPLICATION
  - WHEN TOP SOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - GRADES ON THE AREAS TO BE TOP SOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBERT 4"-6" HIGHER IN ELEVATION.
  - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES RESULTING FROM TOP SOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
- ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
  - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
    - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED AT THE TIME OF ACQUISITION OF THE COMPOST BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
    - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
    - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
    - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.
  - REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SOODING, MD-WA, PUBL. #1 COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

**STORMWATER MANAGEMENT SUMMARY DATA**

STORM FREQUENCY	PRE-DEVELOPED CONDITION DISCHARGE (CFS)		POST-DEVELOPED CONDITION DISCHARGE (CFS) WITH SWM	
	ROUTED AREA*	UNROUTED AREA	COMBINED DISCHARGE FROM SITE	
2 YEAR	2.5	2.4	0.4	2.5
10 YEAR	4.9	4.4	0.7	4.8
100 YEAR	7.5	6.7	1.0	7.5

\* DISCHARGE FROM SWM FACILITY

**SITE LOCATION PLAN**  
SCALE: 1" = 50'

**ENGINEER'S CERTIFICATE**

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

*Donald Mean* 6/1/99  
Date

**DEVELOPER'S CERTIFICATE**

I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this 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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

*Michael J. Mundorf* 6/8/99  
Signature of Developer Date

**BENCHMARK ENGINEERING INC.**

8480 BALTIMORE NATIONAL PIKE - SUITE 418 - ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-8105 FAX: 410-465-6544

**OWNER/DEVELOPER:** MICHAEL MUNDORF  
3150 FIELD CREST DRIVE  
WESTMINSTER, MARYLAND 21157

**PROJECT:** MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)

**LOCATION:** TAX MAP 44 - BLOCK 1 - PARCEL 6  
1st. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**TITLE:** SITE LOCATION, GRADING, SEDIMENT CONTROL, NOTES AND DETAILS

**DATE:** JUNE, 1999 **PROJECT NO.:** 1175

**DESIGN:** GWF/YSL **DRAFT:** YSL **CHECK:** GWF **SCALE:** AS SHOWN **DRAWING** 2 OF 3

**NO DATE REVISION**

6-20-06	ADD 60'x40' STORAGE BUILDING - REVISED/RESUBMIT 4-27-06
	ADD ADDRESS COMMENTS - RESUBMITTED 5-31-06

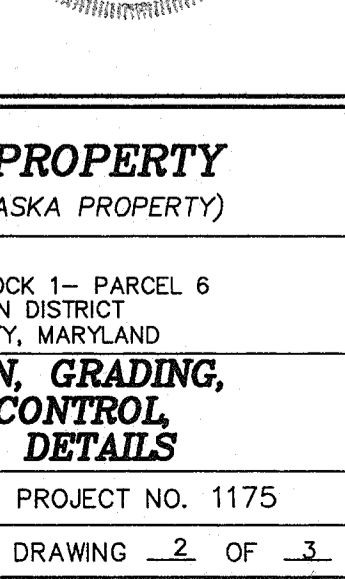
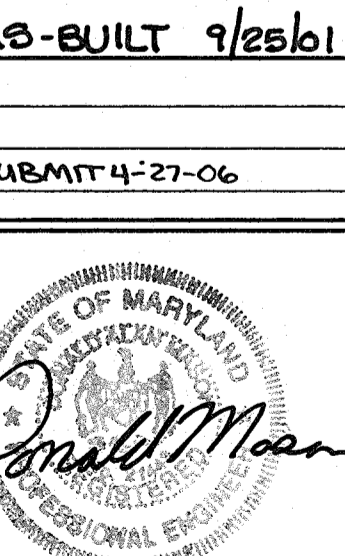
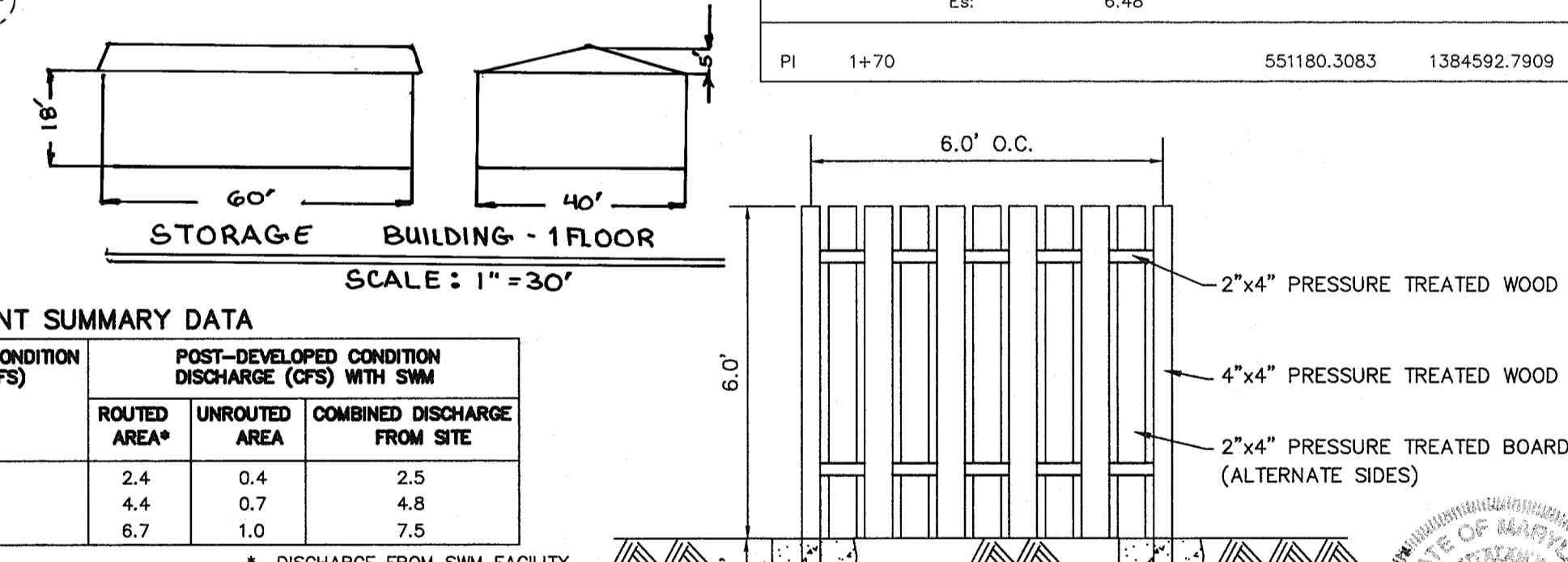
**AS-BUILT 9/25/01**

**STORMWATER MANAGEMENT FACILITY**  
TO BE A PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT DETENTION FACILITY. (HAZARD CLASS "A").

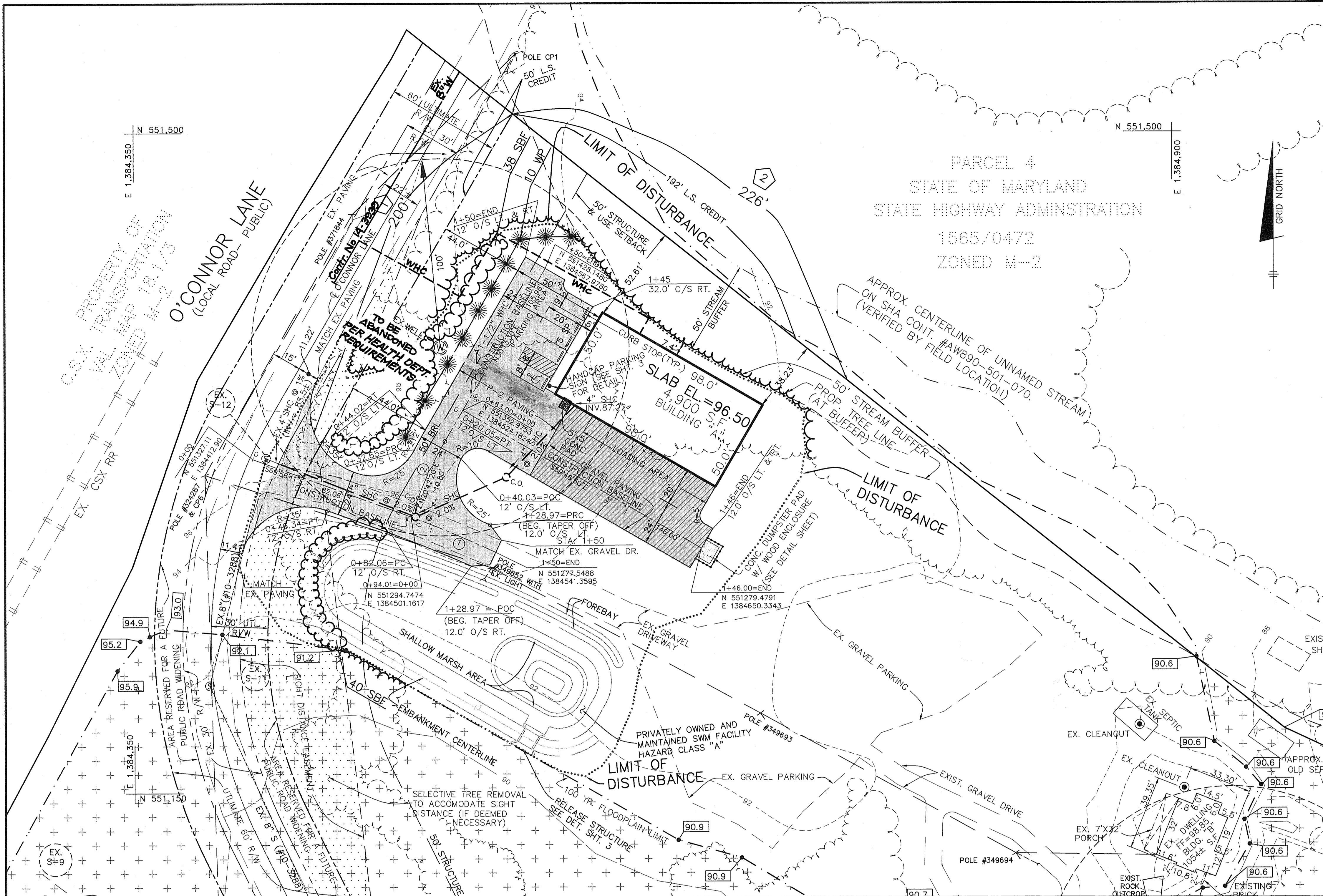
2 YR. WSEL= 90.6  
10 YR. WSEL= 90.8  
100 YR. WSEL= 91.0

**CENTERLINE OF POND EMBANKMENT DATA**

Desc. Station	Spiral/Curve Data	Northing	Eastng
0+00	Tangent Data	551246.0808	1384443.9934
1+35.84		551177.1184	1384561.0248
Length: 135.84	Course: S 59-29-26 E		
PC 1+35.84	Circular Curve Data	551177.1184	1384561.0248
RP 1+70		551200.3602	1384574.7322
PT 1+70		551180.3083	1384592.7909
Delta: 72-29-14	Type: LEFT		
Radius: 27.00	DOC: 212-12-24		
Length: 34.16	Tangent: 19.78		
Mid-Ord: 5.28	External: 6.48		
Chord: 31.93	Course: N 84-15-57 E		
Est: 6.48			
PI 1+70		551180.3083	1384592.7909

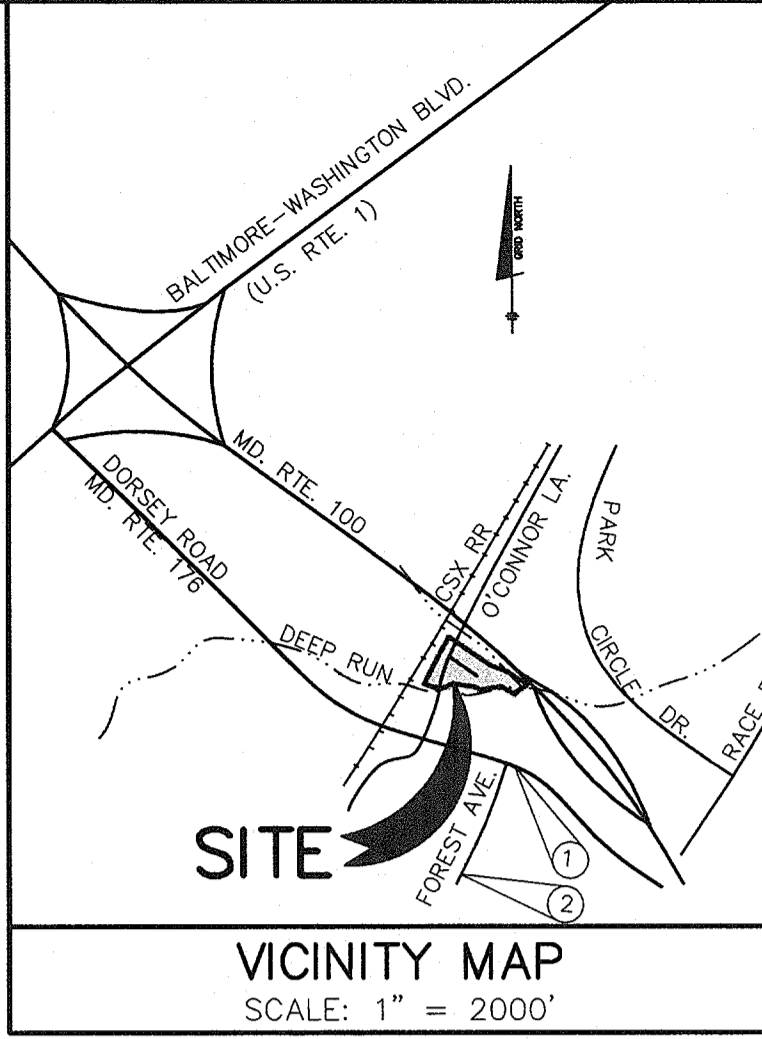






**SITE ANALYSIS DATA CHART**

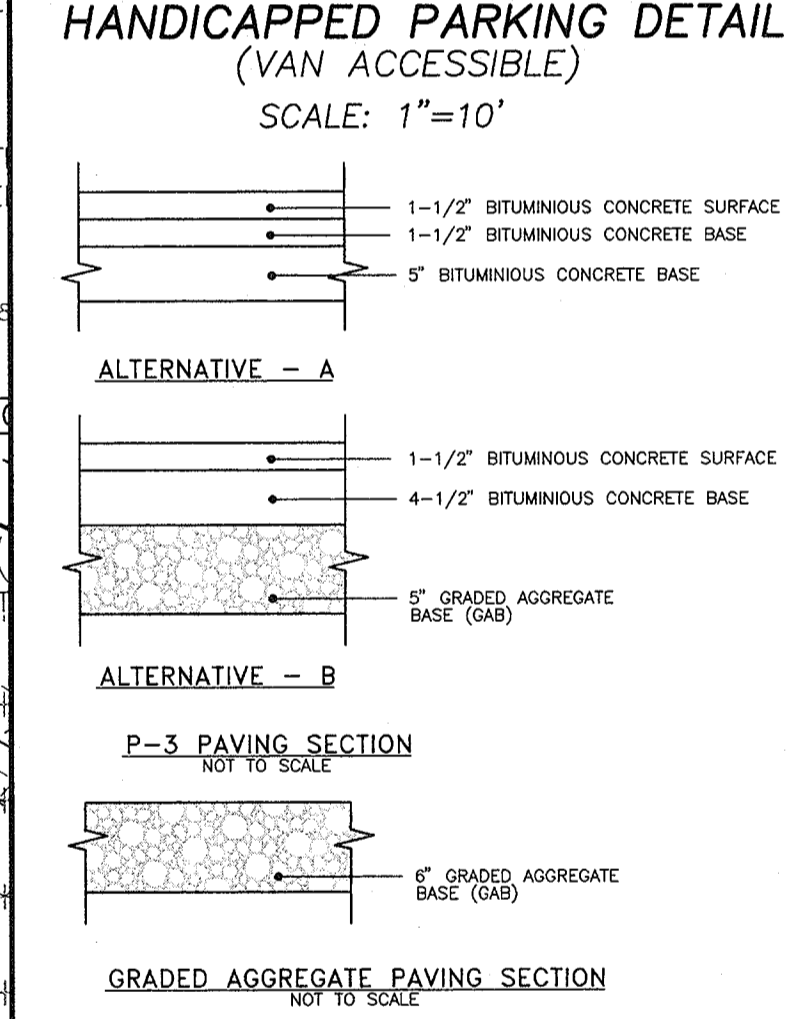
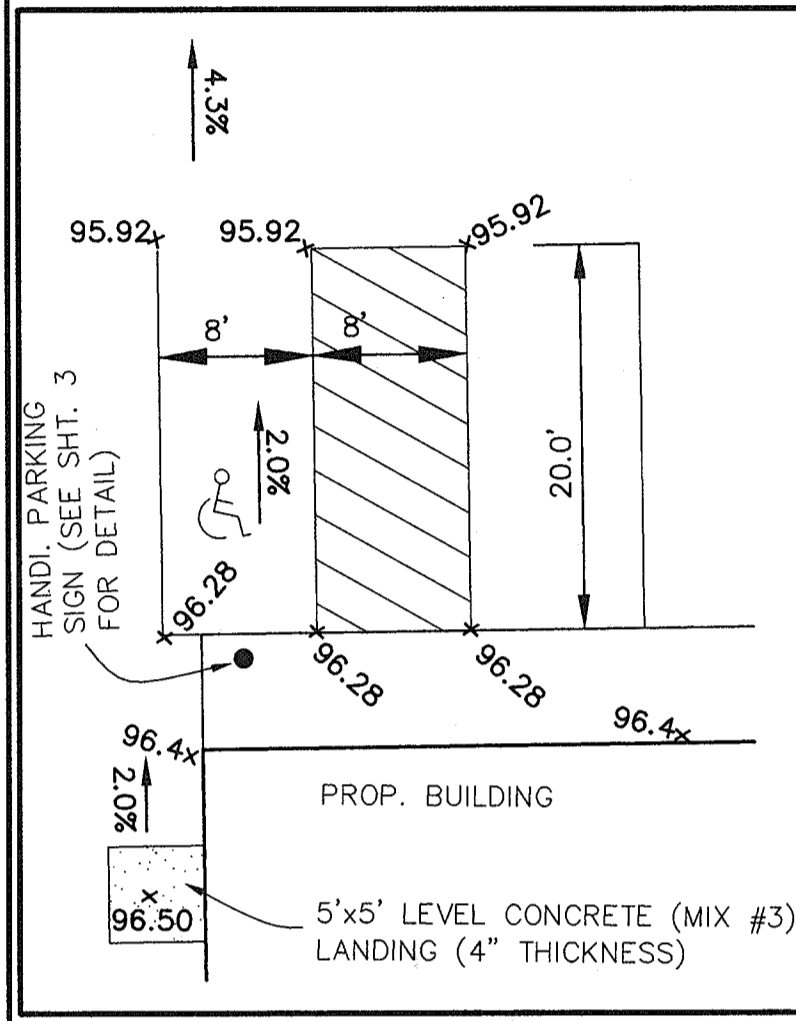
A.) TOTAL PROJECT AREA: 7.31± Ac.  
 B.) AREA OF PLAN SUBMISSION: 7.31± Ac.  
 C.) LIMIT OF DISTURBANCE AREA: 1.19± Ac.  
 D.) PRESENT ZONING: M-2  
 E.) PROPOSED USES FOR SITE: CONSTRUCTION EQUIPMENT AND SUPPLIES / STORAGE FACILITY  
 F.) SQUARE FOOT AREA OF THE PROPOSED BUILDING: 4,900 S.F.  
 G.) TOTAL NUMBER OF UNITS ALLOWED: N/A  
 H.) TOTAL NUMBER OF UNITS PROPOSED: 1  
 I.) MAXIMUM NUMBER OF EMPLOYEES ON SITE PER USE: 3  
 J.) NUMBER OF PARKING SPACES REQUIRED ON SITE: 1 SP./1000 S.F.=5 (NON COUNTY STANDARD REQUIREMENTS)  
 K.) NUMBER OF PARKING SPACES PROVIDED ON SITE: 5 (INCLUDING 1 VAN ACCESSIBLE HANDICAPPED PARKING SPACE-1 PER 25 SPACES)  
 L.) OPEN SPACE ON SITE: N/A  
 M.) AREA OF RECREATION OPEN SPACE REQUIRED: N/A  
 N.) BUILDING COVERAGE OF SITE: 0.15± ACRES AND 2.1% OF GROSS AREA  
     EXISTING: 1630± SF  
     PROPOSED: 4900 SF  
     TOTAL: 6530± SF  
 O.) APPLICABLE DPZ FILE REFERENCES: N/A  
 P.) ANY OTHER INFORMATION WHICH MAY BE RELEVANT: N/A



**BENCH MARKS (NAD 83) HORIZONTAL**

① A.A. CO. No. 125 ELEV. 103.534'  
 BEING A CONCRETE MONUMENT SET 39.8' NORTH OF THE CENTERLINE OF DORSEY ROAD AND 18' EAST OF THE CENTERLINE OF FOREST AVE.  
 N 550,314.693 E 1,385,180.894

② A.A. CO. No. 125 -A-126 ELEV. 126.674'  
 BEING A 5/8" IRON BAR SET NORTH OF DORSEY ROAD AND 1000±' EAST OF FOREST AVE.  
 N 549,772.752 E 1,385,006.121



**GENERAL NOTES:**

- AREA OF PARCEL: 7.31± ACRES
- ZONE: M-2 PER THE 1993 COMPREHENSIVE ZONING PLAN.
- DEED REFERENCE FOR THIS PARCEL IS LIBER 4440 AT FOLIO 274 DATED SEPTEMBER 18, 1998
- HOWARD COUNTY RELATED REFERENCE PLANS: N/A
- EXISTING USE: EXISTING DWELLING CURRENTLY USED AS RENTAL RESIDENCE. OWNER IS CURRENTLY STORING CONSTRUCTION SUPPLIES AND LIGHT EQUIPMENT ON EXISTING GRAVEL PARKING AREA.
- PROPOSED USE: PROPOSED BUILDING TO BE USED TO STORE CONSTRUCTION SUPPLIES AND LIGHT EQUIPMENT FOR OWNER'S BUSINESS. NO VEHICLE MAINTENANCE IS TO BE PERFORMED WITHIN PROPOSED BUILDING. BUILDING WILL HOUSE OWNER'S OFFICE TO BE USED BY OWNER AND OFFICE ADMINISTRATOR. ONE LAVATORY IS PROPOSED.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE TOPOGRAPHY SHOWN WAS GENERATED FROM FIELD RUN SURVEY PROVIDED BY BENCHMARK ENGINEERING, INC. DATED OCT. 10, 1998 AND CONSISTS OF 2' CONTOUR INTERVALS.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE ANNE ARUNDEL CO. GEODETIC CONTROL WHICH IS BASED UPON MARYLAND GRID SYSTEM NAD 83 - ANNE ARUNDEL COUNTY MONUMENTS NO.'S 125 AND 125-A-126.
- WATER QUALITY TREATMENT FOR THE PROPOSED SITE IS PROVIDED BY A SHALLOW MARSH AND WATER QUANTITY BY DETENTION.
- THE EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS OR FILED LOCATION BY BENCHMARK ENGINEERING, INC.
- THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES AND EASEMENTS PRIOR TO CONSTRUCTION.
- A DECLARATION OF INTENT FOR FOREST CONSERVATION HAS BEEN SUBMITTED FOR THIS PROJECT AS FOREST CLEARING IS 25,920 SQ. FT. NO WETLANDS EXIST WITHIN THE PROPOSED LIMIT OF DISTURBANCE.
- FLOODPLAIN LIMIT SHOWN BASED ON HOWARD COUNTY'S DEEP RUN DRAINAGE STUDY (CFP 23-46/97) PREPARED BY GREENHORN & O'MARA, INC. DATED 1997.
- Water and Sewer connections made to existing mains located in O'Connor Lane. Contract Numbers 14-3030 and 10-3200.
- THIS SITE IS EXEMPTED FROM THE REQUIREMENT OF A TRAFFIC STUDY PER SECTION 4.6 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME III. (FLOOR AREA RATIO IS LESS THAN 0.45)
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY.
- DUE TO THE NATURE OF THIS SITE, THE PROPOSED LANDSCAPING WILL ENTAIL ONLY DISTURBED AREAS IMPACTING ROAD FRONTAGE, PERIMETER PROPERTIES AND SWM PERIMETER.
- MINIMUM COVER OVER 1-1/2" W/C SHALL BE 3.5 FEET.
- THE EXISTING HAND DUG WELL AND SEPTIC HOLDING TANK WHICH IS PRESENTLY SERVING THE EXISTING DWELLING ON THE SITE ARE TO BE ABANDONED AS PER HOWARD STANDARDS PRIOR TO ISSUANCE OF LETTER OF POTABILITY BY HOWARD COUNTY HEALTH DEPARTMENT.
- SEE AIRPORT ZONING PERMIT NO. 98-93 FOR MAA APPROVAL.

**CONSTRUCTION BASELINE CURVE DATA**

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1	625.00'	55.68'	27.86'	55.66'	S67°23'03"E	05°06'16"
2	200.00'	33.23'	16.65'	33.19'	N25°27'55"E	09°31'10"

**NOTE: FOR GRADING INFORMATION SEE SHEET NO. 2**

**PLAN VIEW**  
 SCALE: 1" = 30'

**LANDSCAPING NOTES**

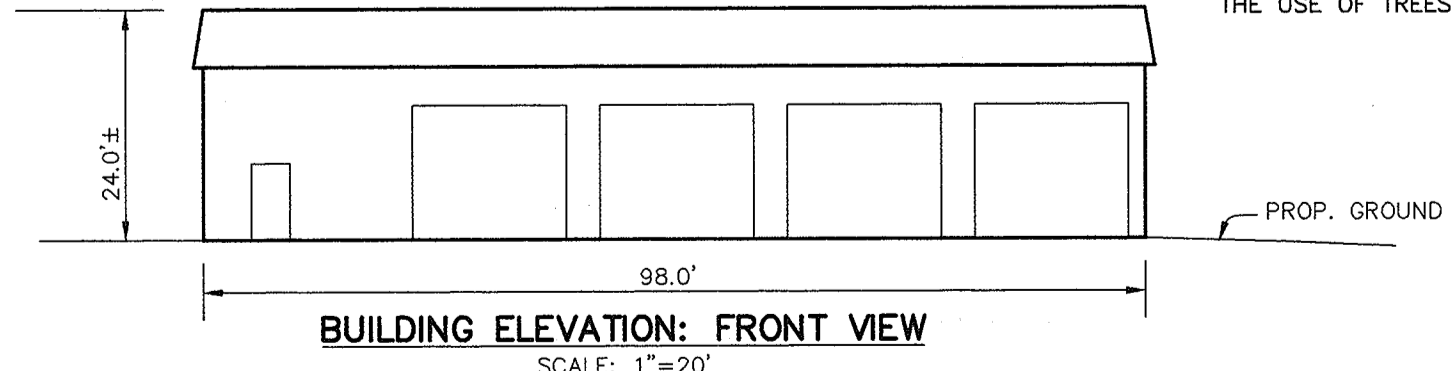
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$ 3,840.00 IS PART OF THE DEVELOPERS AGREEMENT.
- FOR TREE AND SHRUB PLANTING DETAILS SEE SHEET NO. 3.

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAY	ADJACENT TO PERIMETER PROPERTIES	YES	NO
PERIMETER NO. / LANDSCAPE TYPE			① E	② A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	200'	226'		
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES	YES	②	②
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO		
NUMBER OF PLANTS REQUIRED				
SHADE TREES (1:50)	4	1		
EVERGREEN TREES (1:40)				
OTHER TREES (2:1 SUBSTITUTE)	38	-		
SHRUBS				
NUMBER OF PLANTS PROVIDED				
SHADE TREES	0	0		
EVERGREEN TREES	8	2		
OTHER TREES (2:1 SUBSTITUTE)	38	-		
SHRUBS (ADDITIONAL)				

**PLANTING LIST**

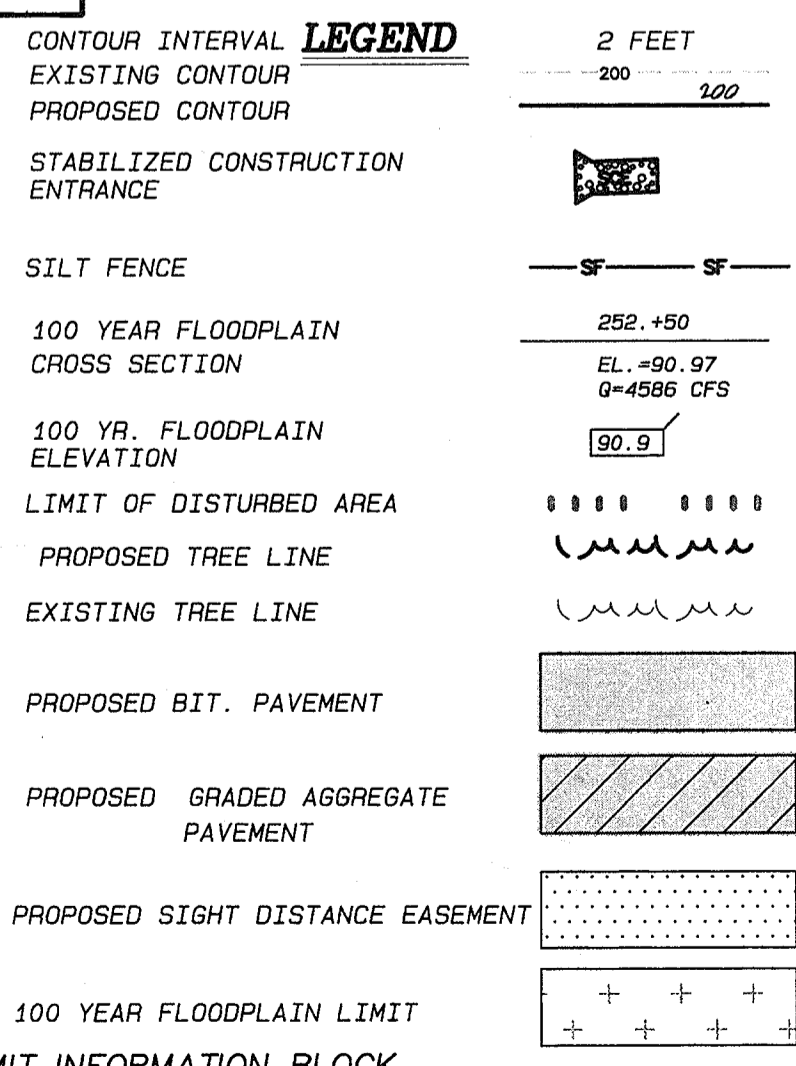
SYMBOL	QUANTITY	NAME	REMARKS
WP	10	PINUS STROBUS (EASTERN WHITE PINE)	6'-8" HT. UNSHEARED
SBF	78	FORSYTHIA INTERMEDIA 'SPECTABILIS'	3' HEIGHT PLANTED 3"-4" O.C.



**SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	450'
NUMBER OF TREES REQUIRED	9
SHADE TREES	9
EVERGREEN TREES	11
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	SWM FACILITY IN M-2 ZONING DISTRICT WITH SAME ZONING ON ADJACENT PROP. LANDSCAPING REQUIRED ON PERIMETER ADJACENT TO PUBLIC ROAD. LINEAR FEET OF CREDIT: 355'
NUMBER OF TREES REQUIRED (AFTER CREDIT)	2
SHADE TREES	2
EVERGREEN TREES	2
NUMBER OF TREES PROVIDED	-
SHADE TREES	-
EVERGREEN TREES	40
SHRUBS (10:1 SUBSTITUTE)	40

① SHRUBS SUBSTITUTED FOR TREES (10 TO 1 x 4 = 40) AS AREA OF LANDSCAPING IS WITHIN SITE DISTANCE EASEMENT THE USE OF TREES IN THIS AREA COULD IMPEDE LINE OF SITE.



**SHEET INDEX**

SHEET NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN AND LANDSCAPE PLAN
2	SITE LOCATION, GRADING, SEDIMENT CONTROL, NOTES, AND DETAILS
3	STORMWATER MANAGEMENT FACILITY DETAILS

**MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)**

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)	N/A	PARCEL 6
L/F 4440/274	BLOCK Nos. 1	ZONE M-2
TAX/ZONE MAP 44	ELEC. DIST. 1ST.	CENSUS TRACT: 6012.00
WATER CODE N/A	SEWER CODE 2220000	

**ADDRESS CHART**

LOT/PARCEL #	STREET ADDRESS
N/A	6990 O'CONNOR LANE
NO DATE	REVISION
1	3-31-06 Add W/C and Ex. 8" Water Main

**BENCHMARK ENGINEERING, INC.**  
 ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 21043  
 PHONE: 410-465-6105 FAX: 410-465-6644

**APPROVED:** HOWARD COUNTY HEALTH DEPARTMENT FOR PRIVATE WATER & PUBLIC SEWERAGE SYSTEM

*Donie M. ...* 7/8/09  
 COUNTY HEALTH OFFICER DATE

**APPROVED:** HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*...* 6/25/09  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*...* 7/13/09  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*...* 7/20/09  
 DIRECTOR DATE

**OWNER/DEVELOPER:** MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)

MICHAEL MUNDORF  
 3150 FIELD CREST DRIVE  
 WESTMINSTER, MARYLAND 21157

**PROJECT:** MUNDORF PROPERTY (FORMERLY PROCHASKA PROPERTY)

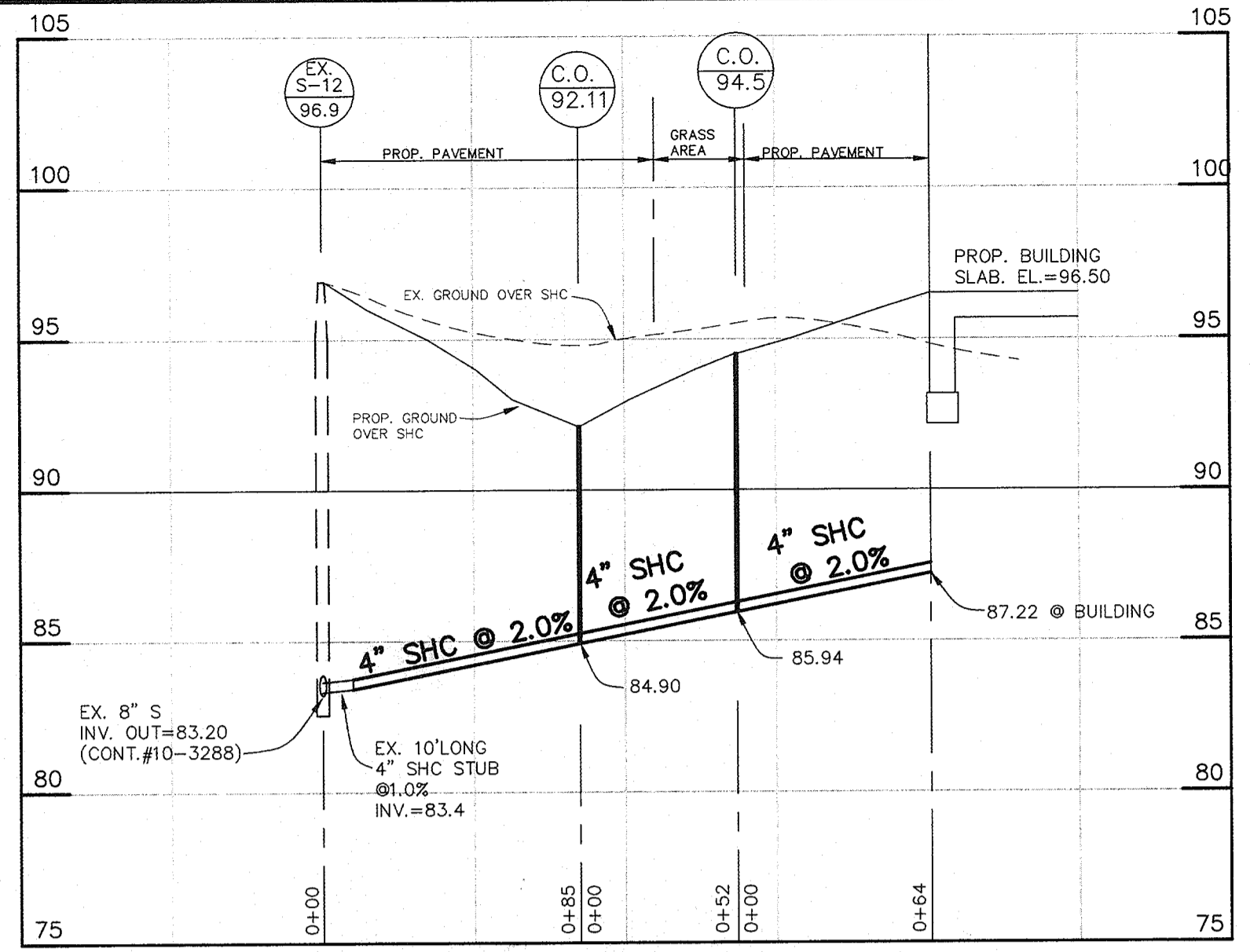
**LOCATION:** TAX MAP 44 - BLOCK 1 - PARCEL 6 at ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**TITLE:** SITE DEVELOPMENT PLAN AND LANDSCAPE PLAN

DATE: JUNE, 1999 PROJECT NO. 1175  
 SCALE: AS SHOWN DRAWING 1 OF 3

DESIGN: GWF DRAFT: YSL CHECK: GWF

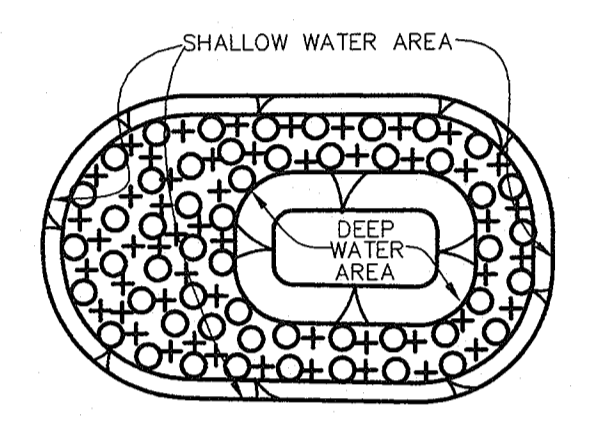
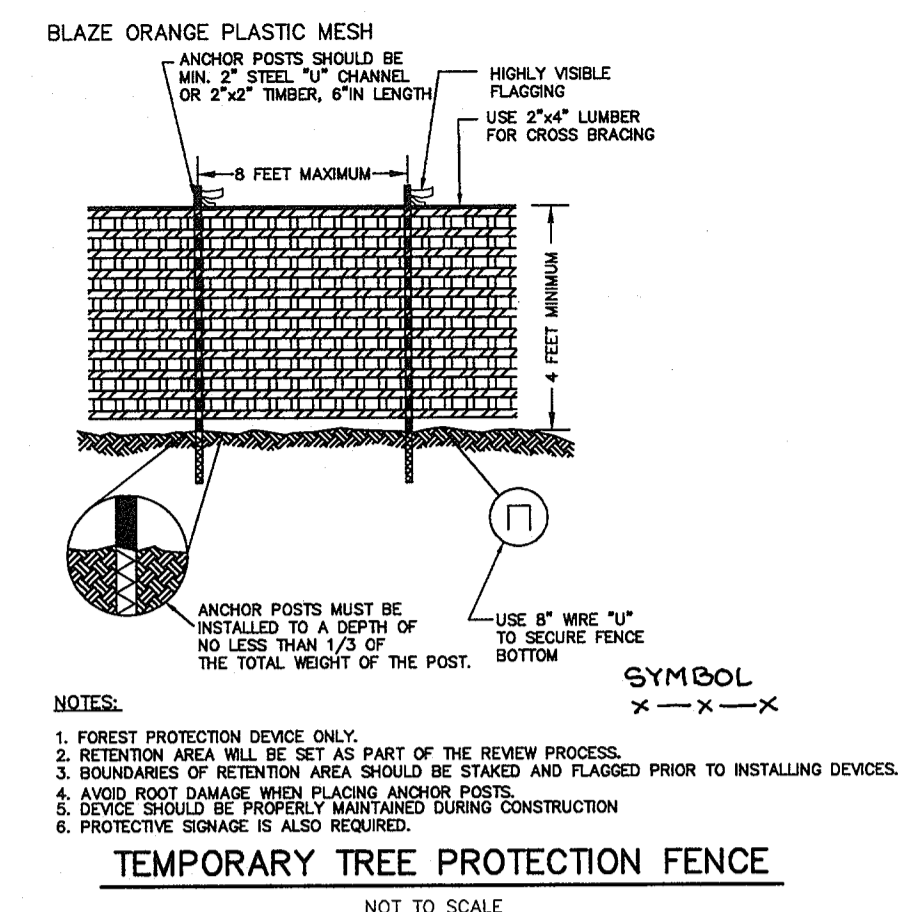




4" SHC PROFILE  
SCALE: HOR.: 1"=50'  
VERT.: 1"=5'

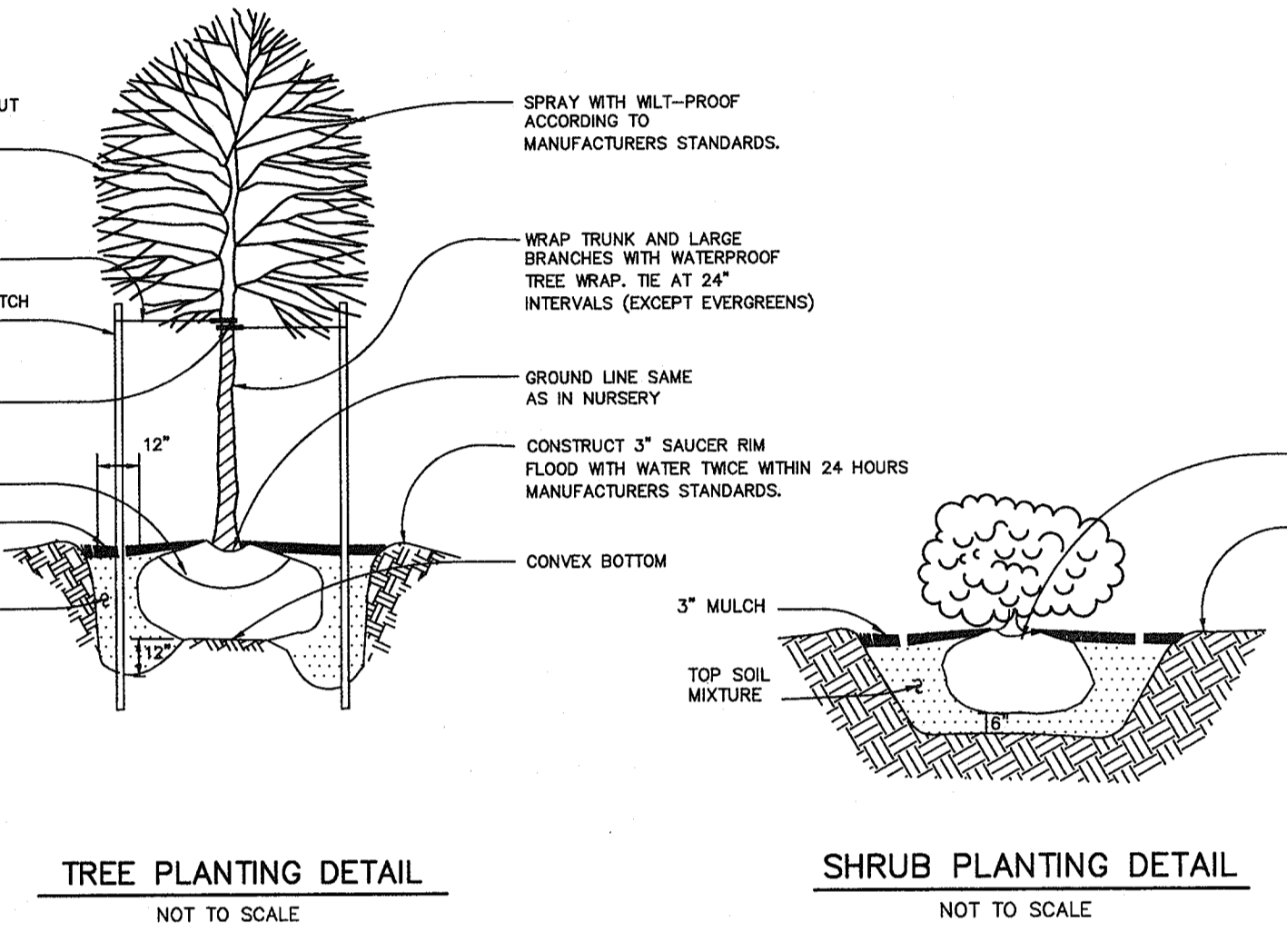
OPERATION AND MAINTENANCE SCHEDULE  
OF PRIVATELY OWNED AND MAINTAINED  
STORMWATER MANAGEMENT FACILITY

- ROUTINE MAINTENANCE**
- FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
  - TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
  - DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
  - VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- NON-ROUTINE MAINTENANCE**
- STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, AND THE RELEASE STRUCTURE SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
  - SEDIMENT SHOULD BE REMOVED FROM THE POND NO LATER THAN WHEN THE CAPACITY OF THE POND IS HALF FULL OF SEDIMENT, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.

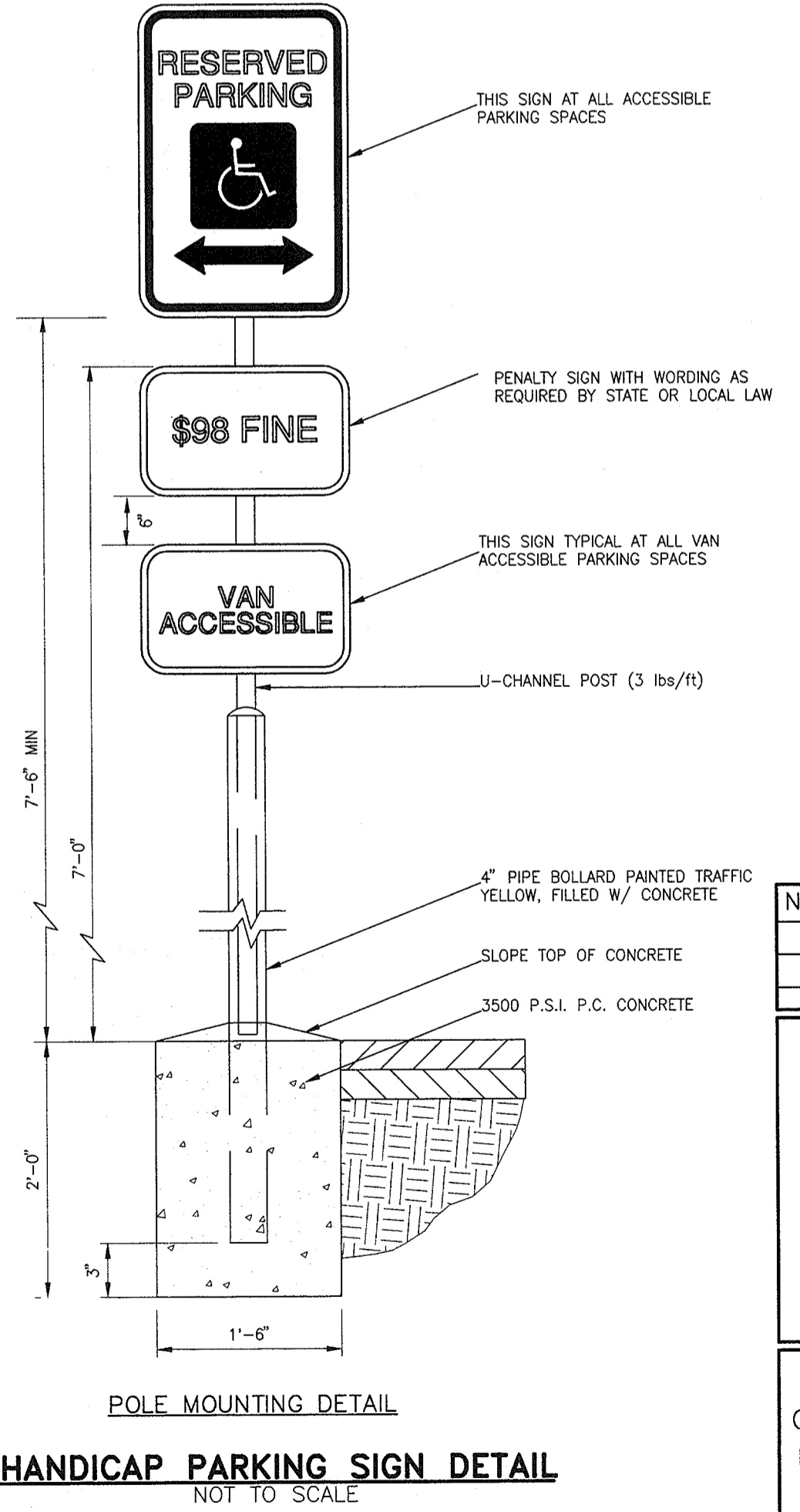
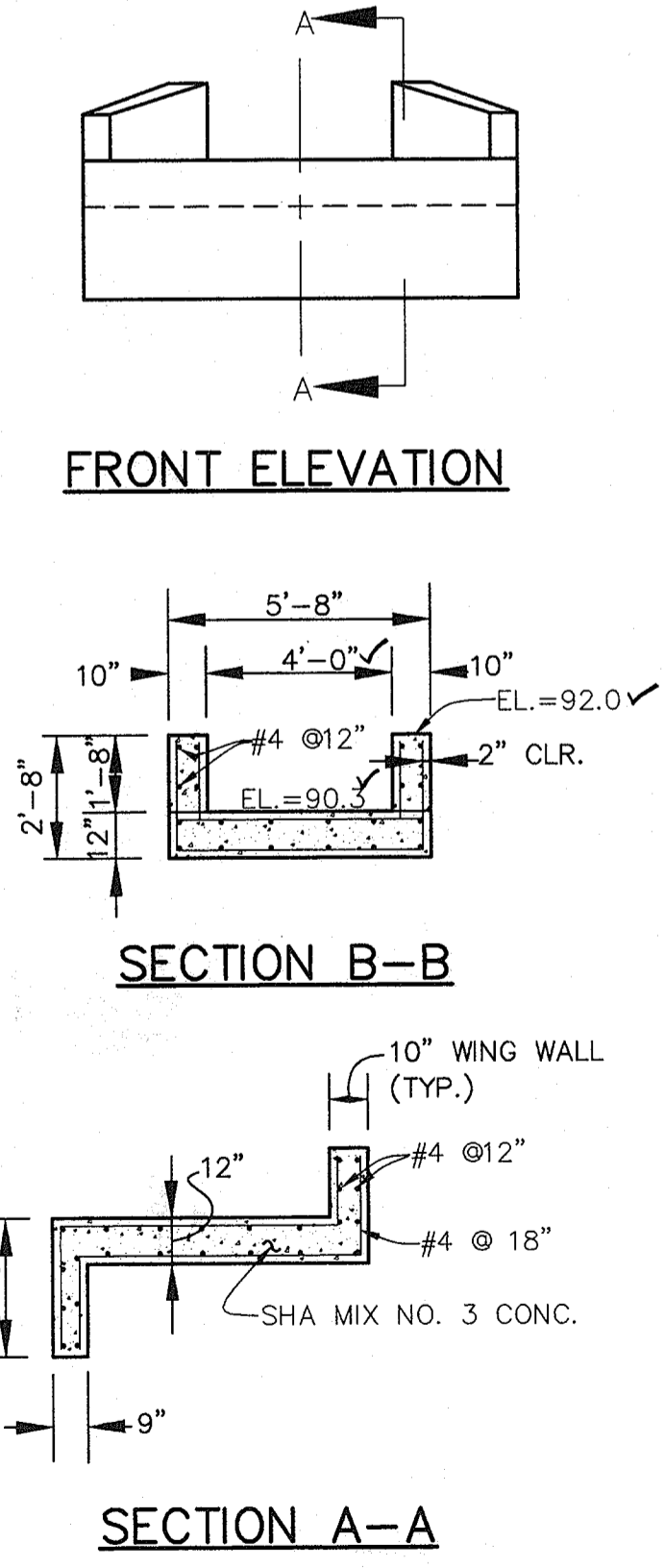
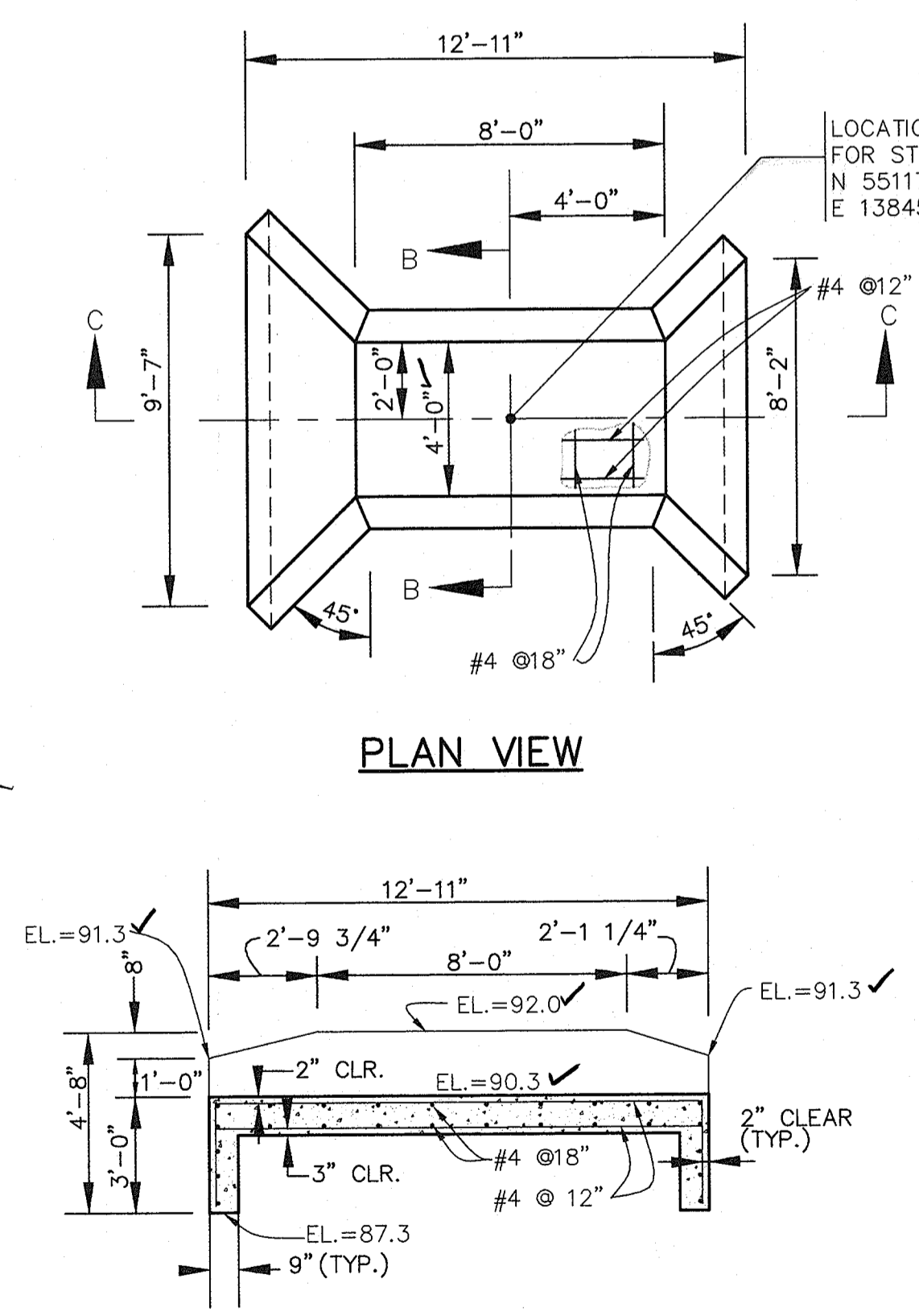
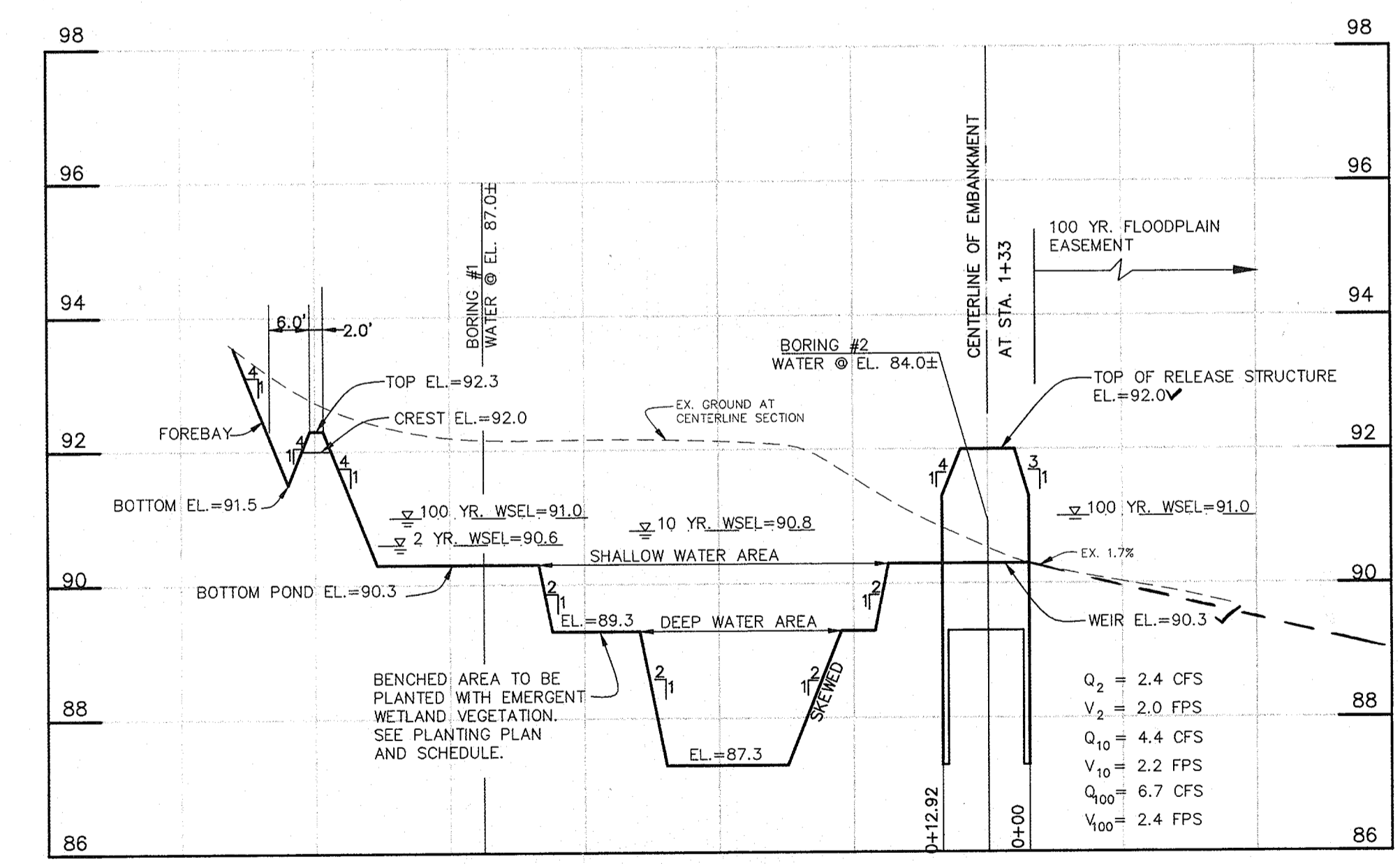
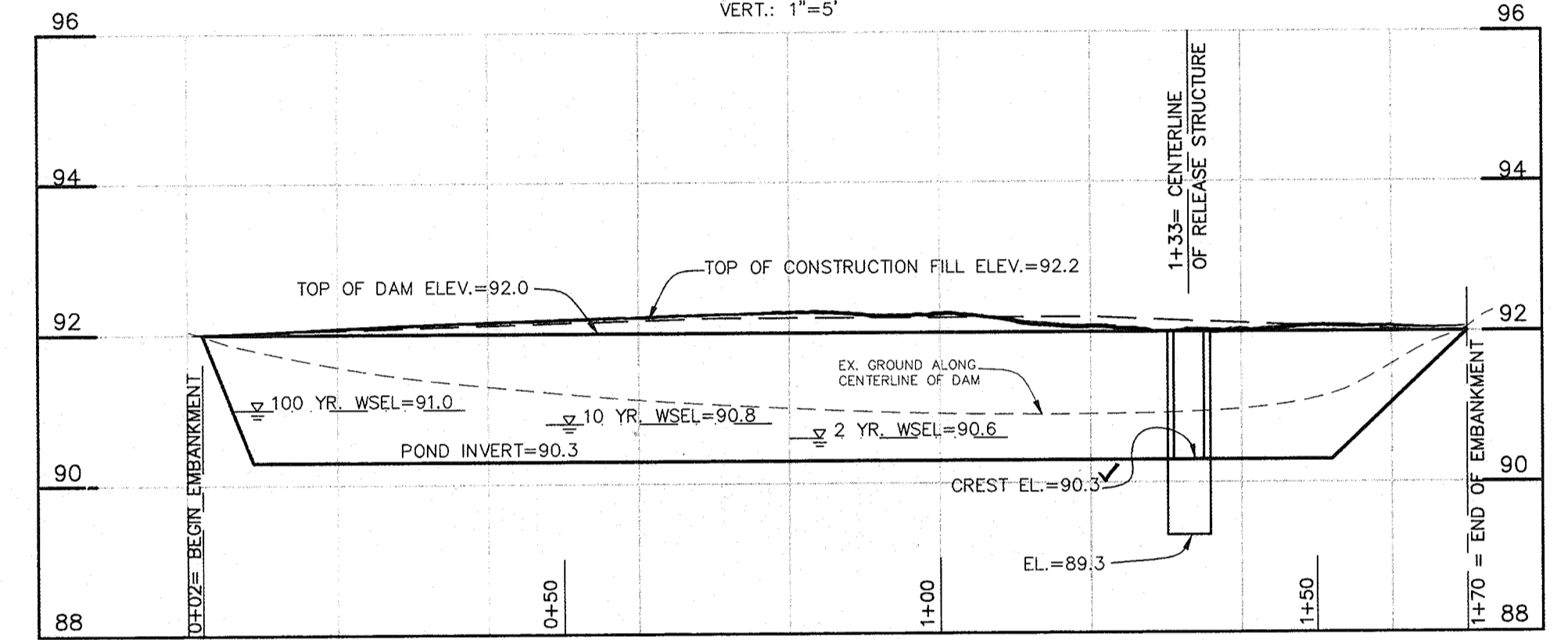


**SHALLOW MARSH PLANTING SCHEDULE**

SYMBOL	PLANT TYPE	QUANTITY
○	LIZARD'S TAIL (SAURURUS CERNUUS)	52
+	SOFT-STEM BULRUSH (SCIRPUS VALIDUS)	52



- NOTES:**
- ALL EXPOSED EDGES TO HAVE 3/4"x3/4" CHAMFER OR AS DIRECTED.
  - CONCRETE SHALL BE SHA MIX NO. 3 (f<sub>c</sub> = 3500 PSI @ 28 DAYS)
  - REINFORCING STEEL SHALL BE ASTM A-615 GRADE 60.



HILLS-CARNES ENGINEERING ASSOCIATES, INC. Page 1 of 1

PROJECT NAME: O'Connor Lane SWM LOCATION: Howard County, Maryland JOB #: 99299A

ELEV.	SOIL DESCRIPTION	STRA. DEPTH	DEPTH	SCALE	CON.	NO.	REC.	BORING & SAMPLING	NOTES
Topsoil		0.0							12" Topsoil/footsoil
	Reddish brown, moist to very moist. Fine to coarse silty sand and fine to coarse gravel (S-4)(S-5)	1.0							Ground water encountered at 5.5' while drilling
	Brown wet medium to coarse sand and medium to coarse gravel with cobbles (S-6)(S-7)(S-8)	4.0							
		5.0							
		7.0							Bored terminated at 7.0'
		10.0							Backfilled at Completion
		15.0							
		20.0							

SAMPLER TYPE: 2" DIA. BRONN UNLESS OTHERWISE NOTED  
SAMPLING METHOD: L-1001  
STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

HILLS-CARNES ENGINEERING ASSOCIATES, INC. Page 1 of 1

PROJECT NAME: O'Connor Lane SWM LOCATION: Howard County, Maryland JOB #: 99299A

ELEV.	SOIL DESCRIPTION	STRA. DEPTH	DEPTH	SCALE	CON.	NO.	REC.	BORING & SAMPLING	NOTES
Topsoil		0.0							15" Topsoil/footsoil
	Reddish brown, moist to very moist. Fine to coarse silty sand and fine to coarse gravel (S-4)(S-5)	1.5							Ground water encountered at 7.0' while drilling
	Brown wet medium to coarse sand and medium to coarse gravel with cobbles (S-6)(S-7)(S-8)	2.5							
		5.0							
		7.0							Bored terminated at 7.0'
		10.0							
		15.0							
		20.0							

SAMPLER TYPE: 2" DIA. BRONN UNLESS OTHERWISE NOTED  
SAMPLING METHOD: L-1001  
STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30" COUNT MADE AT 6" INTERVALS

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR PRIVATE WATER & PUBLIC SEWERAGE SYSTEM  
*One M. [Signature]* 7/16/99  
COUNTY HEALTH OFFICER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
*[Signature]* 6/22/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DIVISION OF LAND DEVELOPMENT  
*[Signature]* 7/13/99  
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DIRECTOR  
*[Signature]* 7/30/99  
DIRECTOR

APPROVED: THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*[Signature]* 6/22/99  
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*[Signature]* 6/22/99  
NATURAL RESOURCES CONSERVATION SERVICE

**BENCHMARK ENGINEERING, INC.**  
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MARYLAND 211043  
PHONE: 410-465-6105 FAX: 410-465-6644

PROJECT: **MUNDORF PROPERTY** (FORMERLY PROCHASKA PROPERTY)

LOCATION: TAX MAP 44 - BLOCK 1 - PARCEL 6  
1 st. ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: **STORMWATER MANAGEMENT FACILITY DETAILS, BORING LOGS AND 4" SHC PROFILE**

DATE: JUNE, 1999 PROJECT NO. 1175

SCALE: AS SHOWN DRAWING 3 OF 3

DESIGN: GWF DRAFT: YSL CHECK: GWF

SDP-99-87



