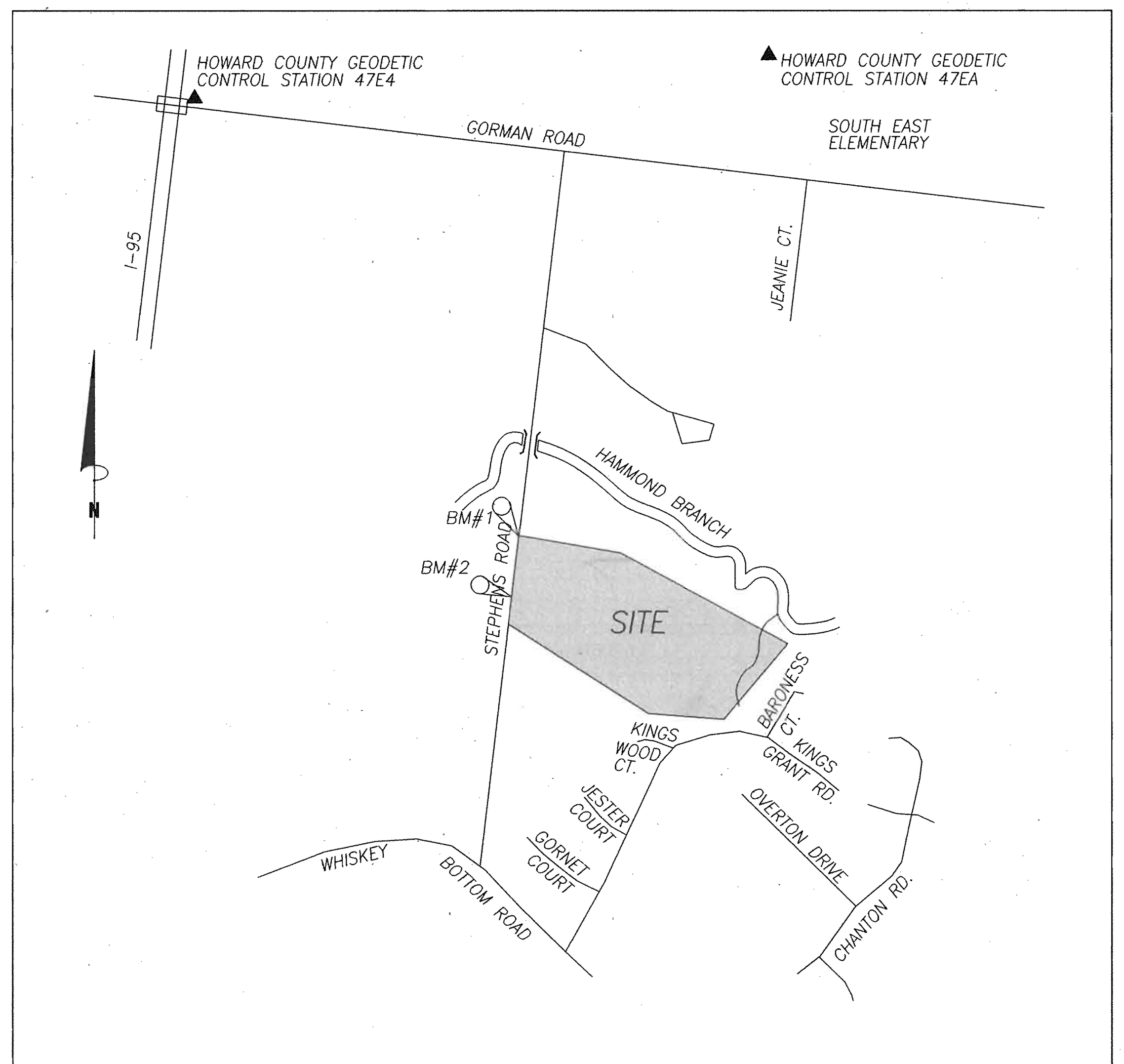
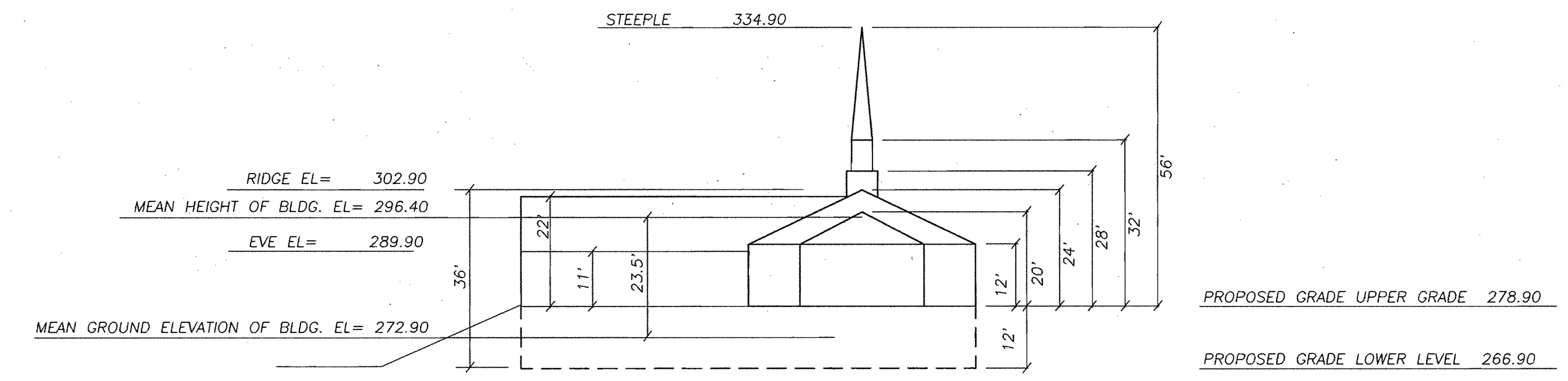
SUMMARY OF BOARD OF APPEALS CASE BA 99-20E

1. THE ORDER WAS GRANTED ON 7 SEPTEMBER 1999 ON BEHALF OF HOPE BAPTIST CHURCH, INC.
2. THE ORDER GRANTS CONSTRUCTION OF RELIGIOUS FACILITY CONSISTING OF A 300 SEAT SANCTUARY TOTALING 12,672 S.F., BEING NO MORE THAN 34 FEET IN HEIGHT, WITH A 20 X 24 CANOPY, AND A 44' X 44' FUTURE ADDITION FOR EDUCATIONAL SPACE.
3. TOTAL FLOOR AREA OF THE BUILDING TO BE 16, 600 S.F. AND A GAZEBO APPROXIMATELY 28 FEET IN DIAMETER.
4. CONDITIONS OF APPROVAL:
   - A. THE SPECIAL EXCEPTION SHALL APPLY SOLELY TO THE PROPOSED BUILDING AND 194 PARKING SPACES AS DEPICTED ON THE SPECIAL EXCEPTION PLAN DATED MARCH 10, 1999, AND NOT TO ANY OTHER STRUCTURES OR USES.
   - B. A BUILDING PERMIT FOR THE CONSTRUCTION OF THE WING ON THE SOUTH SIDE OF THE BUILDING SHALL BE OBTAINED BY DECEMBER 31, 2003 AND SUBSTANTIAL CONSTRUCTION COMPLETED BY DECEMBER 31, 2004.
   - C. THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND COUNTY LAWS AND REGULATIONS.



VICINITY MAP
SCALE: 1" = 600'



BUILDING FRONT ELEVATION
SCALE: 1" = 30'

SITE DEVELOPMENT PLAN
HOPE BAPTIST CHURCH
LOT 1, BOLLING BROOKE

GENERAL NOTES

1. SITE ANALYSIS
   - A. AREA OF PROPERTY: 11.1828 AC±
     LIMIT OF DISTURBED AREA = 5.2 AC.±
   - B. ZONING OF SUBJECT PROPERTY IS RSC.
     ZONING OF ADJOINING PROPERTY IS RSC AND PEC.
     TAX MAP 47, PARCEL 141.
   - C. EXISTING USE: NO USES EXIST ON THE SITE. THE PROPERTY IS FULLY WOODED WITH MATURE HARDWOODS.
     PROPOSED USE: THE PROPOSED USE IS FOR A TWO STORY CHURCH, ASSOCIATED PARKING, LANDSCAPING, STORM WATER MANAGEMENT FACILITIES, AND THE POTENTIAL FOR THE FUTURE DEVELOPMENT OF PASSIVE AND ACTIVE RECREATION. A FUTURE ADDITION TO THE CHURCH IS INTENDED FOR SUNDAY SCHOOL SPACE.
   - D. FLOOR AREA OF TWO-STORY STRUCTURE: 12,672 S.F. (WITHOUT FUTURE ADDITION).
     AREA OF BUILDING FOOTPRINT: 6,336 S.F. (WITHOUT FUTURE ADDITION)
     CANOPY AREA 480 S.F.
     GAZEBO AREA: 900 S.F.
     TOTAL BUILDING COVERAGE, CANOPY AND GAZEBO: 7,716 S.F.
     PERCENT OF BUILDING FOOTPRINT TO LOT AREA: 1.6% (WITHOUT FUTURE ADDITION)
     BUILDING HEIGHT CALCULATION AS PER HCZR 103A.12
     PROPOSED ROOF RIDGE ELEVATION: 302.9
     PROPOSED ROOF EVE ELEVATION: +289.9
     PROPOSED MEAN GABLE ROOF ELEVATION: 566.97/2 = 296.4
     PROPOSED HIGHEST EXTERIOR GRADE: 278.90
     PROPOSED LOWEST EXTERIOR GRADE: +266.90
     PROPOSED MEAN EXTERIOR GRADE: 545.80/2 = 272.90
     PROPOSED MEAN GABLE ROOF ELEVATION: 296.4
     PROPOSED MEAN EXETRIOR GRADE: −272.90
     HEIGHT OF BUILDING: = 23.5
     MEAN BUILDING HEIGHT = 34' MAX. MEAN HEIGHT
     HIGHEST GABEL RIDGE OF ROOF = 26' FRONT AND 36' REAR
     STEEPLE HEIGHT: =54.00 NO MAXIMUM HEIGHT AS PER SECTION 128A.3.d
   - E. TOTAL NUMBER OF UNITS ALLOWED: N/A
   - F. TOTAL NUMBER OF UNITS PROVIDED: N/A
   - G. MINIMUM NUMBER OF SQUARE FEET: N/A
   - H. MAXIMUM NUMBER OF EMPLOYEES: N/A
   - I. SEATING CAPACITY OF SANCTUARY: 300 PEOPLE
   - J. PARKING PROVISIONS:
     A. PARKING REQUIRED: 300 PEOPLE AT 1 SPACE/3 PEOPLE
     100 SPACES REQUIRED
     B. PARKING PROVIDED: 194 SPACES PROVIDED
     PARKING FACILITIES WILL BE PAVED IN ASPHALT WITH AN ASPHALT CONNECTION TO STEPHENS ROAD. ONE POINT OF ACCESS IS PROPOSED.
   - K. OPEN SPACE ON SITE: APPROX. 6 AC±
   - L. AREA OF RECREATION OPEN SPACE: N/A
   - M. PAVED PARKING LOT AREA ON SITE: IMPERVIOUS AREA = 2.1 AC.±
   - N. Adjoining uses include single family detached homes to the south and west, townhouses to the east, and a Potomac Edison power line easement to the north.
   - O. Water and sanitary sewer is proposed to be served by water and sewer house connection to existing public facilities adjoining the site.
   - P. Setbacks: front: 30' rear: 30' side: 7.5' Use Setbacks: front: 30' rear: 30' side: 20'
2. ALL PROPOSED LIGHTING SHALL BE DIRECTED DOWNWARD AND INWARD ONTO THE SITE AND AWAY FROM ADJACENT PROPERTIES. (SEE NOTE 23 BELOW)
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
4. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF CONSTRUCTION AND INSPECTION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
5. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
6. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF WZTC, ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
7. LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III, ROADS AND BRIDGES.
8. ANY DAMAGE TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
9. THE EXISTING UTILITIES SHOWN HERON ARE LOCATED FROM FIELD SURVEYS AND CONSTRUCTION DRAWINGS OF RECORD. THE APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION AND CONVENIENCE. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES TO HIS OWN SATISFACTION AND WELL IN ADVANCE OF ANY CONSTRUCTION ACTIVITIES. ADDITIONALLY, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE.
10. THE TOPOGRAPHY SHOWN HERON IS COMPILED FROM FIELD RUN DATA PREPARED BY VAN MAR ASSOCIATES, INC. DATED, DEC. 1999.
11. HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND STATE PLANE COORDINATE SYSTEM AS PROJECTED FROM HOWARD COUNTY CTRL STAS. 47EA & 47E4. Courses and distances of outline boundary lines taken from plat by Harris, Smariga, Matz Inc., Plat – M.D.R. No. 10682, F-93-60, Bolling Brooke Lot 1. Howard County topography and datum.
12. THE WATER AND SEWER SYSTEMS UTILIZED FOR DEVELOPMENT WILL BE PUBLIC.
13. NO WETLANDS WERE OBSERVED TO EXIST WITHIN THE DEVELOPMENT AREA OF THIS SITE.
14. NO FOOD SEVICE FACILITIES ARE PROPOSED.
15. The subject property is located on the east side of Stephens Road approximately 1100' north of its intersection with Whisky Bottom Road.
16. Stephens Road is a public road maintained by Howard County.
17. Exterior building materials are proposed to be brick veneer, wood trim, asphalt shingle roof.
18. All dimensions are measured from face of curb and face of finished structure unless otherwise noted.
19. Forest Conservation obligation: 3.89 Ac. Forest Conservation provided: 3.89 Ac. retention easement on-site, recorded on plat F-01-32, plat no. 14756
20. Recording reference for amended subdivision plat: NUMBER 14756, DATED APRIL 24, 2001
21. No development, clearing or grading is permitted within the 100 year flood plain, stream buffers, wetlands, wetland buffers and forest conservation easement as governed by applicable local, state and federal law.
22. THIS PROPERTY WAS THE SUBJECT OF A SPECIAL EXEPTION TO ESTABLISH A CHURCH USE IN THE RSC-BA 99-20E, APPROVED 9/7/99.
23. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134.
24. THIS PROJECT IS THE SUBJECT OF ARMY CORPS OF ENGINEERS MATTER: CENAB-OP-RMS(HOPE BAPTIST CHURCH/JD 00-01475-5. MDE TRACKING NUMBER: 200067090. ESTABLISHED EPHEMERAL STREAM AS WATERS OF THE U.S.; SEE SHEET 2.
25. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
26. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH 2' CONTOUR INTERVALS PREPARED BY VANMAR ASSOCIATES, JUNE 1999.
27. 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. 47E4 AND 47EA WERE USED FOR THIS PROJECT.
28. WATER IS PUBLIC 142-W.
29. SEWER IS PUBLIC 20-1401-D.
30. STORM WATER WILL BE PROVIDED AS PRIVATE DETENTION WATER QUANTITY AND BIORENTENTION WATER QUALITY FACILITIES.
31. EXISTING UTILITIES ARE BASED ON FIELD LOCATION AND AS-BUILT PLANS BY CLARK, FINEFROCK AND SACKETT, BOLLING BROOKE, LOT 1, CONTRACT 20-1401-D, DATED 8, 1985.
32. THE FLOODPLAIN STUDY FOR THIS PROJECT WAS TAKEN FROM THE HAMMOND STUDY, CAPITAL PROJECT D-6-1026, PLAT # 6397 AND CONFIRMED BY FIELD SURVEY BY VANMAR ASSOCIATES, INC., NOV. 1999.
33. THE SPEED STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM AND ASSOCIATES, DATED AUG. 31, 1999. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.

BENCH MARK DESCRIPTIONS

B.M. #1 SANITARY SEWER MANHOLE RIM
ELEV.= 267.01

B.M. #2 CAPPED RABAR @ C&P POLE #47
ELEV.= 280.43

SHEET INDEX

4/21/04 REMOVE PERMANENT DEWATERING DEVICE
4/17/02 RELOC. 6" S.H.C.

DATE	REVISIONS
5/16/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/15/00

ADDRESS CHART

LOT NO.	STREET ADDRESS
1	8801 STEPHENS ROAD, LAUREL, MD. 20723

PERMIT INFO CHART

SUBDIVISION NAME:	SECTION/AREA		LOT/PARCEL
BOLLING BROOKE	N/A		1/141

PLAT	BLOCK NO.	ZONE	TAX MAP	ELECT. DIST.	CENSUS TRACT
14756	15	RSC (RESIDENTIAL SINGLE CLUSTER)	47	6 TH	6069.02

WATER CODE	SEWER CODE
W3	S3

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

[signature] 7/2/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[signature] 7/5/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[signature] 7/6/01
DIRECTOR DATE

BURIAL GROUNDS CERTIFICATION:

I HEREBY CERTIFY THAT THERE ARE NO BURIAL GROUNDS ON THE PROPERTY BEING DEVELOPED ACCORDING TO THE CEMETERY INVENTORY LIST AND MAPS LOCATED AT THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Stanley Makowski 5/9/2001
DEVELOPER DATE

PREPARED BY:

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy, Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

PREPARED FOR:

OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

STATE OF MARYLAND SOURABH ... MUNSHI ... PROFESSIONAL ENGINEER
5/8/01

SITE DEVELOPMENT PLAN
HOPE BAPTIST CHURCH
LOT 1, BOLLING BROOKE

TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' MARCH, 2000

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

SDP-00-105

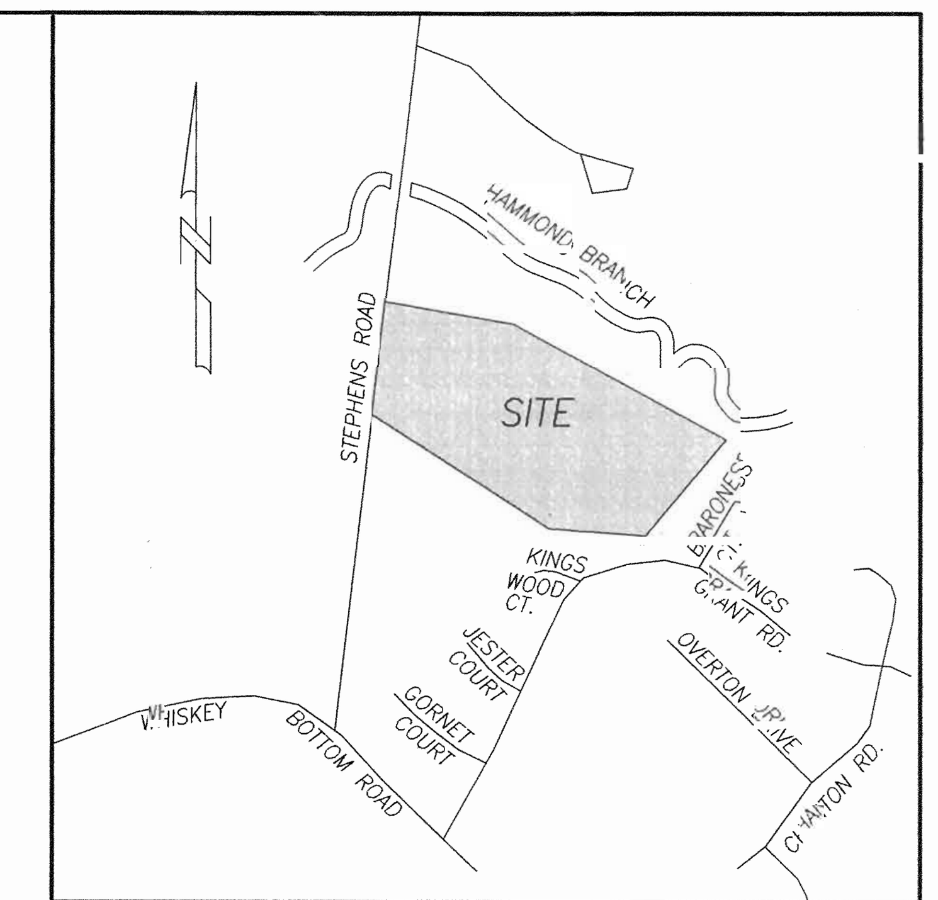
File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
Plot date: 05/07/01 at 16:19

NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24

EXISTING FLOOD PLAIN EASEMENT "A"			
(A)	N 85°38'54" W	48.28'	EL. 256.1
(B)	N 77°16'10" W	113.78'	EL. 256.3
(C)	N 58°59'54" W	34.99'	EL. 256.6
(D)	N 50°09'24" W	39.05'	EL. 256.7
(E)	N 42°08'55" W	31.36	EL. 256.8
AREA = 0.1649 AC.±			

CONFIRMED FLOOD PLAIN EASEMENT "A"			
(1)	S 41°52'11" E	22.83'	EL. 256.9
(2)	S 59°42'45" E	23.41'	EL. 256.8
(3)	S 35°42'02" E	40.31'	EL. 256.7
(4)	S 63°08'19" E	38.60'	EL. 256.6
(5)	S 71°25'41" E	114.07'	EL. 256.3
(6)	N 83°05'33" E	72.18'	EL. 256.1
AREA = 0.2530 AC.±			

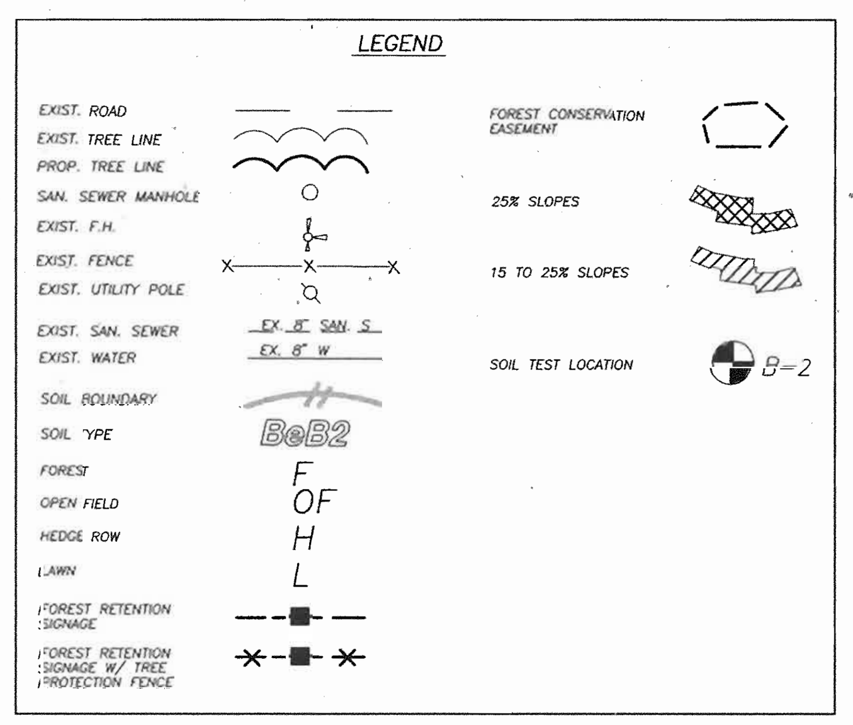
EXISTING FLOOD PLAIN EASEMENT "B"			
(L1)	S 55°48'09" E	35.24'	EL. 255.0
(L2)	S 46°25'51" E	27.59'	EL. 254.9
(L3)	S 27°03'27" E	48.30'	EL. 254.8
(L4)	S 55°16'00" E	15.81'	EL. 254.8
(L5)	S 84°15'05" E	40.20'	EL. 254.6
(L6)	S 62°29'15" E	28.18'	EL. 254.5
(L7)	S 32°52'02" E	20.25'	EL. 254.4
(L8)	S 00°02'17" W	11.00'	EL. 254.4
(L9)	S 44°57'43" E	9.90'	EL. 254.4
(L10)	N 80°12'27" E	80.24'	EL. 254.1
AREA = 0.1532 AC.±			



VICINITY MAP
SCALE: 1" = 600'

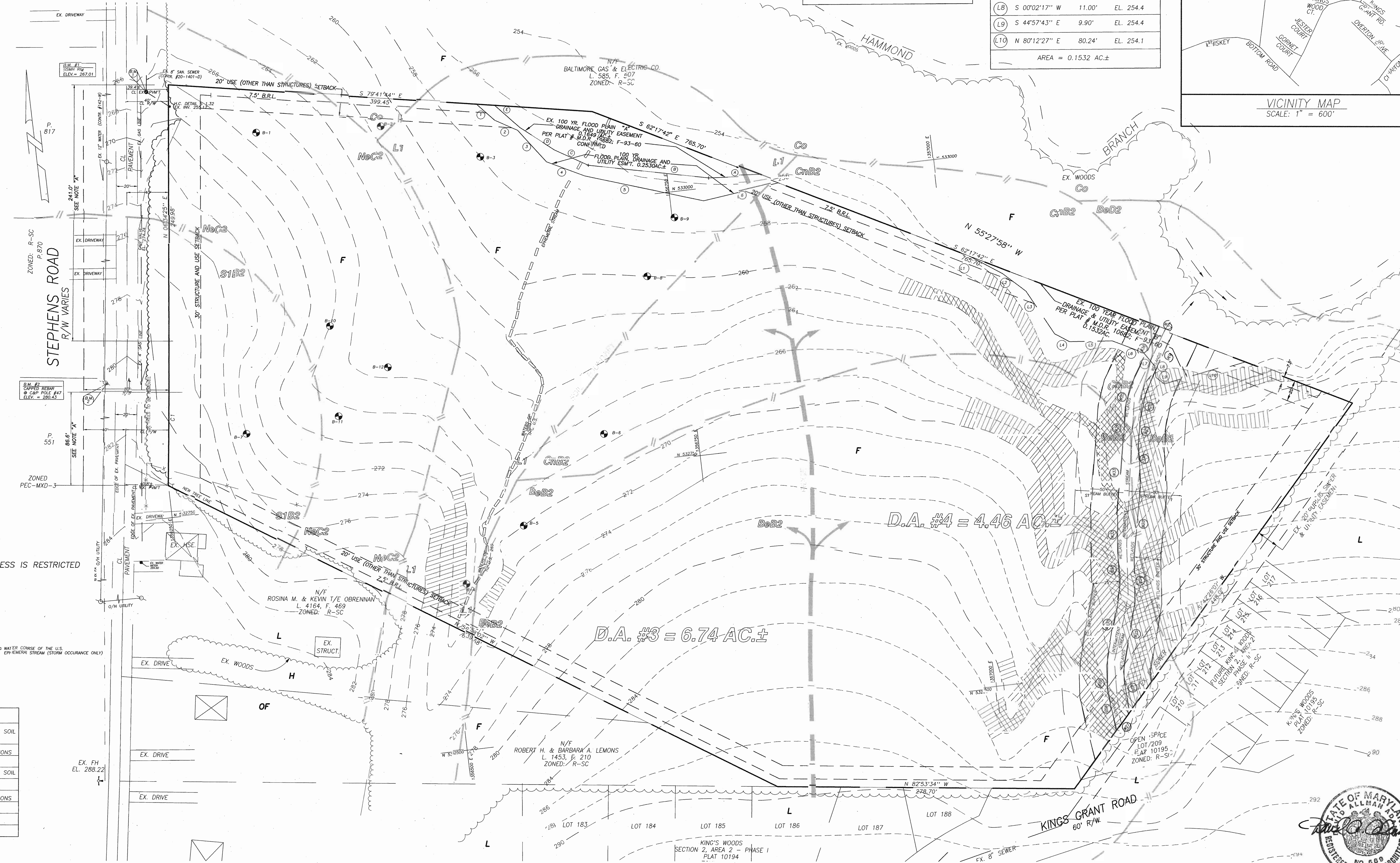
WETLANDS METES AND BOUNDS

LIMITS OF WETLANDS		
NUMBER	DIRECTION	DISTANCE
W19	S 30°51'48" W	62.25'
W20	S 18°26'45" W	27.44'
W21	S 11°25'19" W	23.01'
W22	S 03°58'45" W	40.66'
W23	S 11°45'35" W	66.02'
W24	S 05°37'32" W	42.07'
W25	S 16°22'04" W	66.24'
W26	S 01°37'47" E	38.46'
W27	S 42°26'07" W	20.44'
W28	N 06°55'53" W	36.87'
W29	N 05°01'01" E	24.82'
W30	N 16°17'47" E	75.03'
W31	N 03°27'18" E	25.21'
W32	N 05°51'19" E	43.82'
W33	N 11°07'48" E	61.61'
W34	N 10°36'19" E	38.69'
W35	N 20°12'10" E	20.06'
W36	N 32°35'44" E	63.12'
W37	S 62°17'42" E	13.81'



NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).

100 YEAR FLOOD PLAIN, DRAINAGE & UTILITY EASEMENT	
EXISTING FLOOD PLAIN "A"	0.1649 AC.±
CONFIRMED FLOOD PLAIN "A"	0.2530 AC.±
EXISTING FLOOD PLAIN "B"	0.1532 AC.±
TOTAL FLOOD PLAIN AREA	0.4062 AC.±



SOIL LEGEND			
SYMBOL	NAME	HYDROLOGIS SOIL GROUP	HYDROLIC SOIL
Co	CODORUS SILT LOAM	C	HYDRIC INCLUSIONS
Ne C2	NESHAMINY SILT LOAM. 8 TO 15 PERCENT SLOPES. MODERATELY ERODED	B	
L1	LEONARDTOWN SILT LOAM	D	HYDROLIC SOIL
CnB2	CHILLUM–FAIRFAX LOAMS. 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C	
BeD2	BELTSVILLE SILT LOAM 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	C	HYDRIC INCLUSIONS
BeB2	BELTSVILLE SILT LOAM. 1 TO 5 PERCENT SLOPES. MODERATELY ERODED	C	
S1 B2	SASSAFRAS LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	B	

EXHIBIT 3-2
FOREST STAND ANALYSIS TABLE
Applicant: Hope Baptist Church Project Name: Hope Baptist Church Submission No.

KEY	A. TYPE OF COMMUNITY	B. AREA* (1/10 Acre)	C. SOIL INFORMATION** 1. Soil Types	2. Typical forest cover for soil type	3. Woodland Suitability Index	D. EXISTING VEGETATION (Dominant Species and Approx. %)	E. STAND CHARACTERISTICS 1. Size (Diam)	2. Age	3. General Conditions	F. FOREST AREA IN SENSITIVE ENVIRONMENTS (Acres)	G. HABITAT VALUE
F	SUGAR MAPLE/	11.1828 AC±	Co	HARDWOOD	4	OAK	16–18"	10–15 YR	GOOD	0.4062 AC.± (FLOOD PLAIN)	A
	BASSWOOD		Ne	HARDWOOD	31						
			L1	HARDWOOD	11					0.87 AC.± WETLAND, WETLAND BUFFER, STREAM BUFFER*	
			Cn	HARDWOOD	17					0.30 AC.± 25% SLOPES	
			S	HARDWOOD	9					0.09 AC.± 25% SLOPES OUTSIDE OF WETLAND AREA	
			Be	HARDWOOD	16					0.60 AC.± 15% SLOPES	
										0.40 AC.± 15% SLOPES OUTSIDE OF WETLAND AREA	
										1.36 AC.± TOTAL SENSITIVE AREA	

*AREA MEASURED TO THE NEAREST 1/10 ACRE
** SOURCE: HOWARD COUNTY SOIL SURVEY, USDA

* WETLAND AREA 0.14 AC.±
WETLAND BUFFER 0.43 AC.±
STREAM BUFFER 0.87 AC.±

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

4/21/04 REMOVE PERMANENT DEWATERING DEVICE

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 7/2/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 7/5/01 DATE
DIRECTOR — 7/6/01 DATE

DATE	REVISIONS
5/17/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/15/00

STATE OF MARYLAND — SOURABH G. MUNSHI — NO. 10,539 — REGISTERED PROFESSIONAL ENGINEER — 5/8/01

STATE OF MARYLAND — NO. 569 — REGISTERED LANDSCAPE ARCHITECT — 5/8/01

EXISTING CONDITIONS, FOREST STAND DELINEATION PLAN AND PRE-DEVELOPED DRAINAGE AREA MAP

HOPE BAPTIST CHURCH

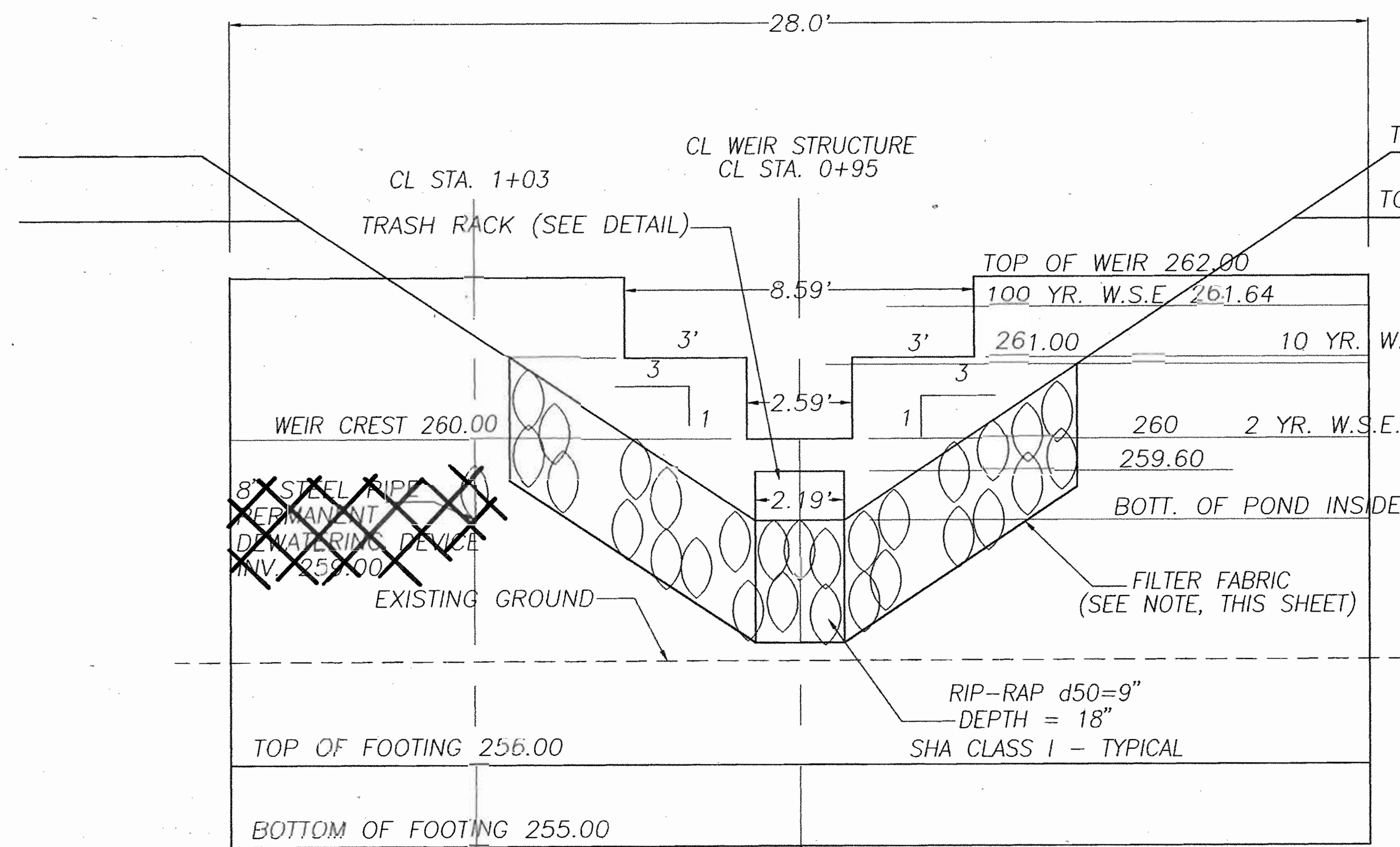
LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy, Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

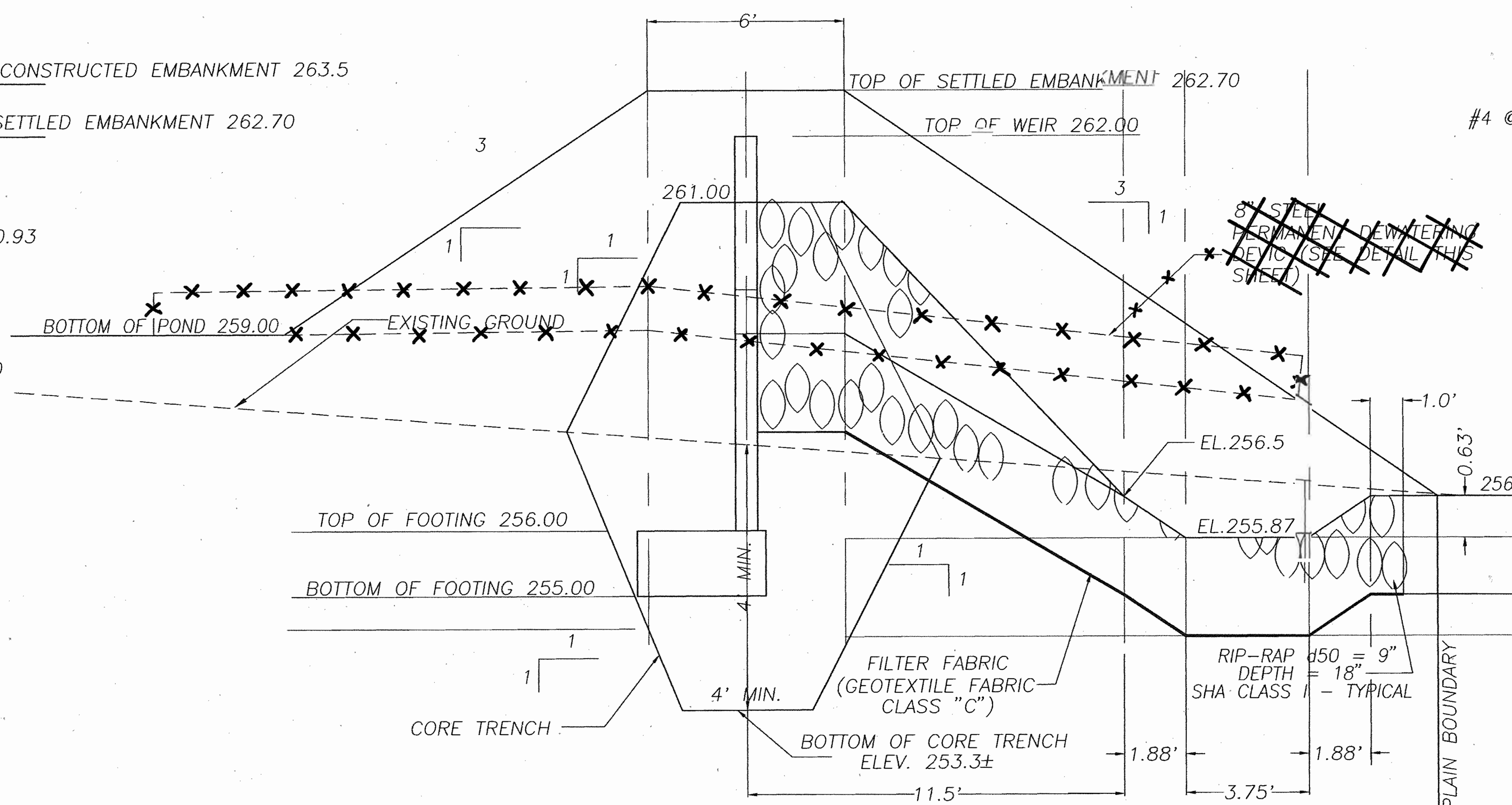
File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

SDP-00-105

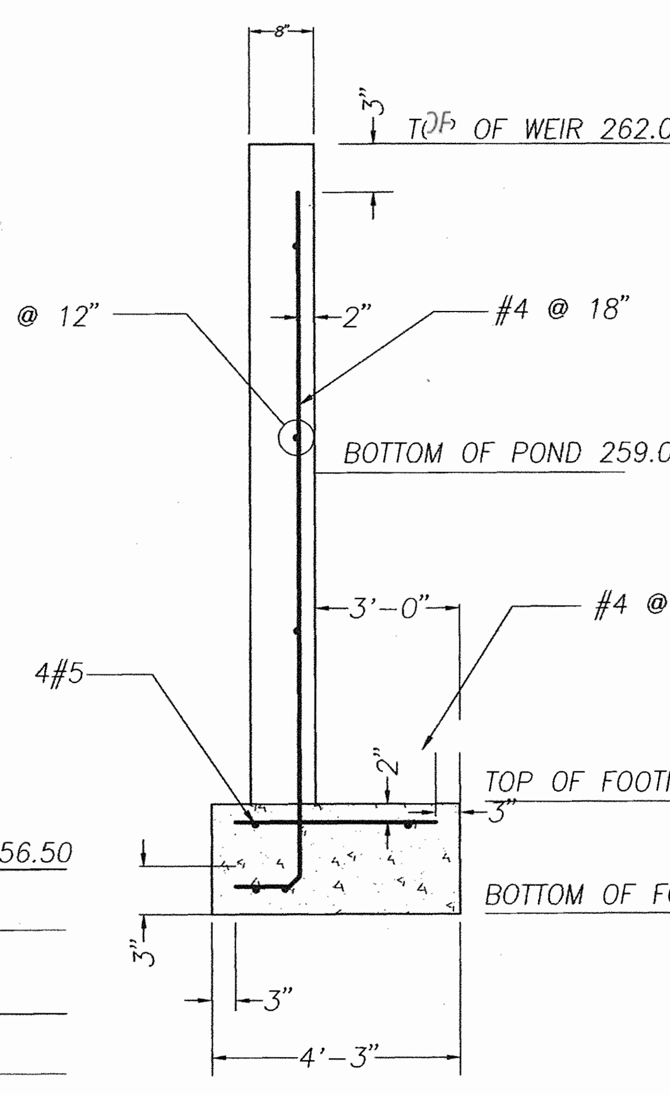
File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
Plot date 05/07/01 at 14:46



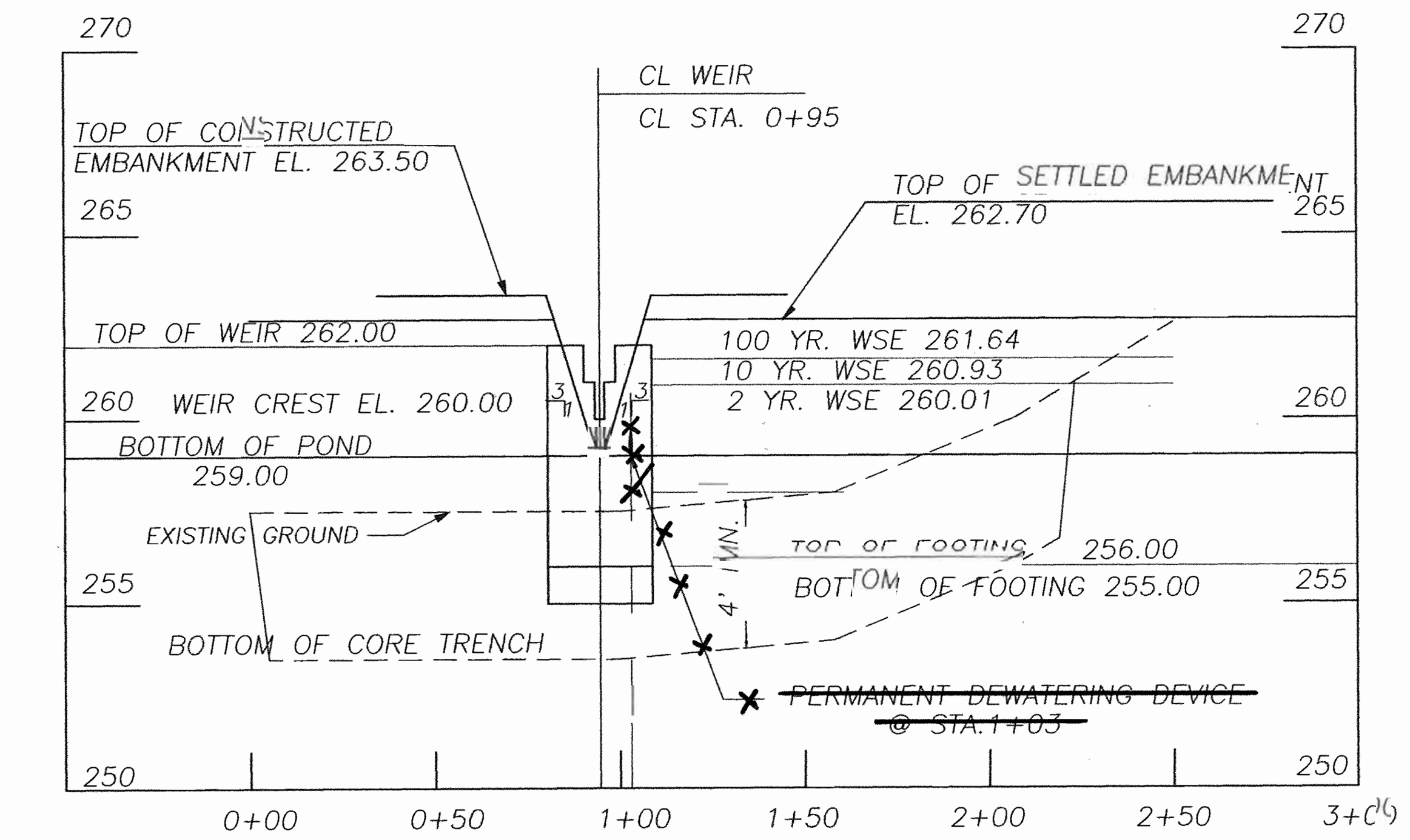
ELEVATION WEIR STRUCTURE
LOOKING UPSTREAM
SCALE: 1" = 2' VERT.
1"= 4' HORIZ.



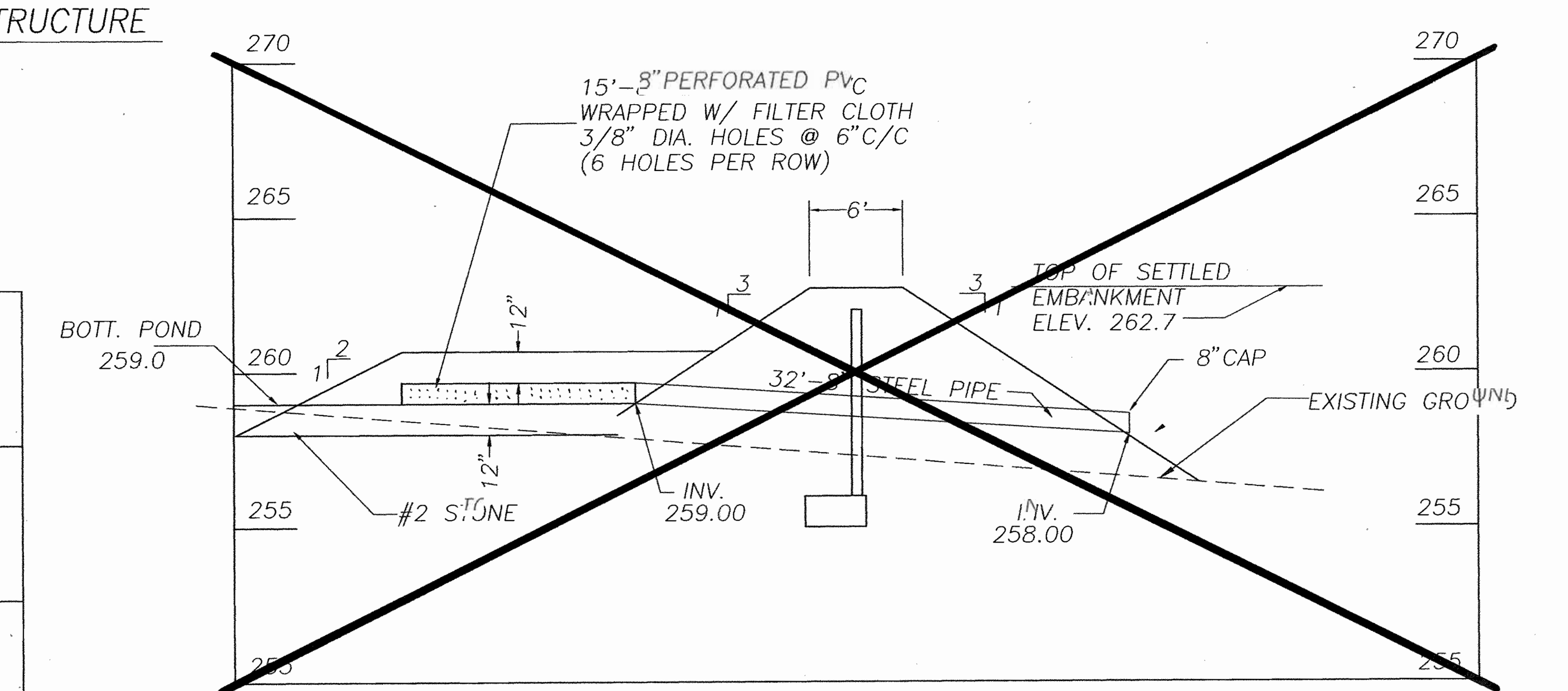
SECTION OF EMBANKMENT
SCALE: 1" = 2' VERT.
1" = 4' HORIZ.



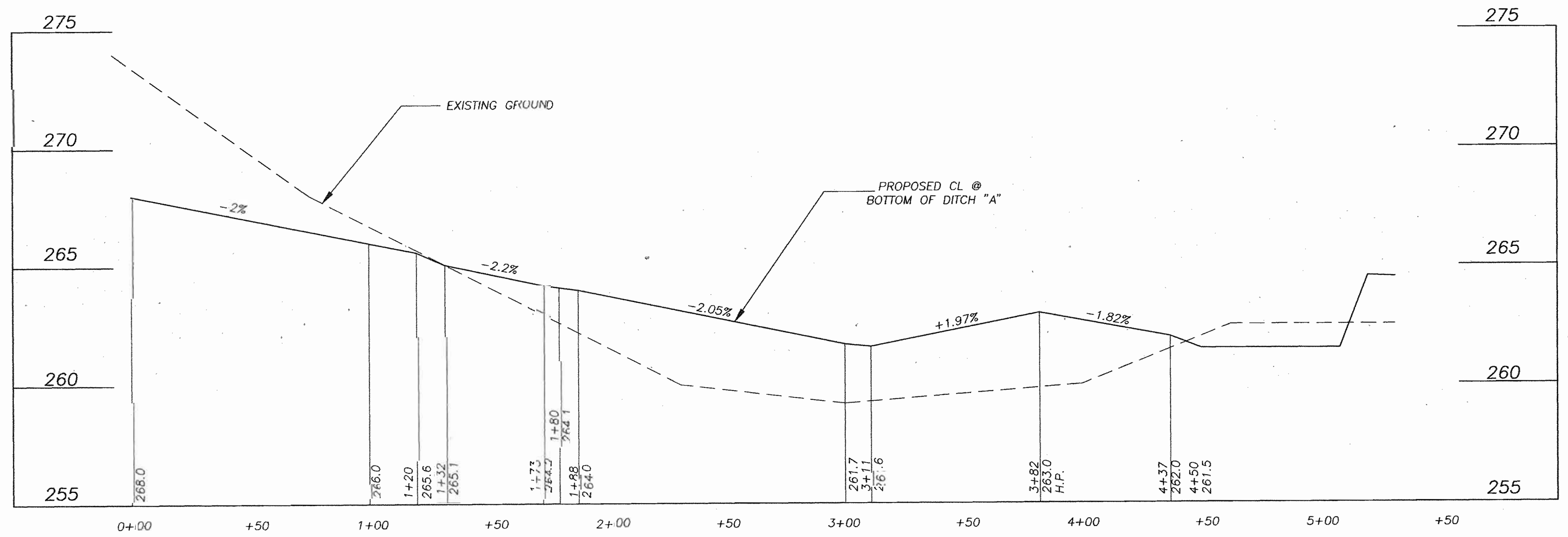
DETAIL WEIR STRUCTURE
NTS



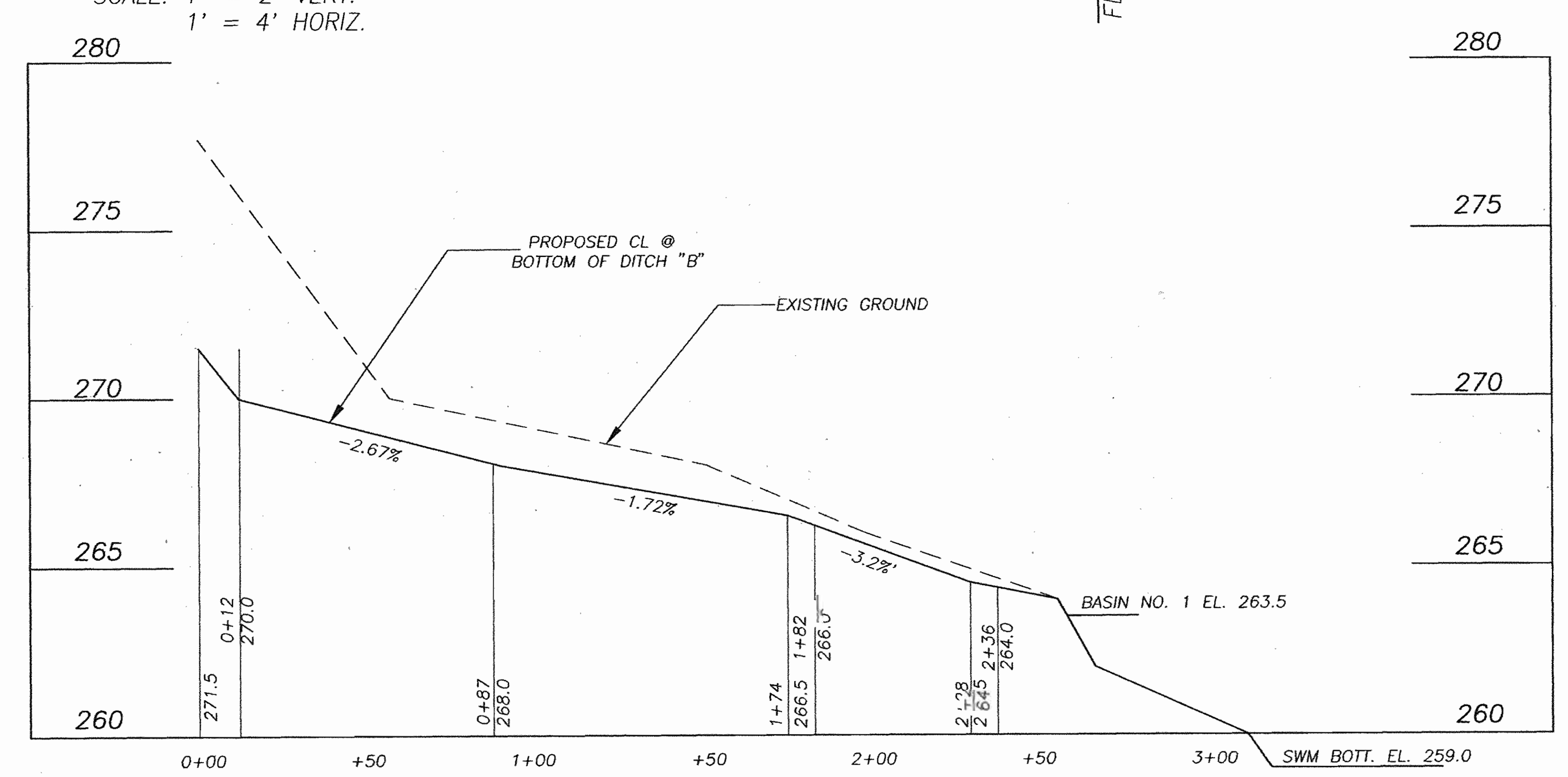
PROFILE OF EMBANKMENT AND WEIR WALL
LOOKING DOWNSTREAM
SCALE: 1"=5' VERT.
1"=50' HORIZ.



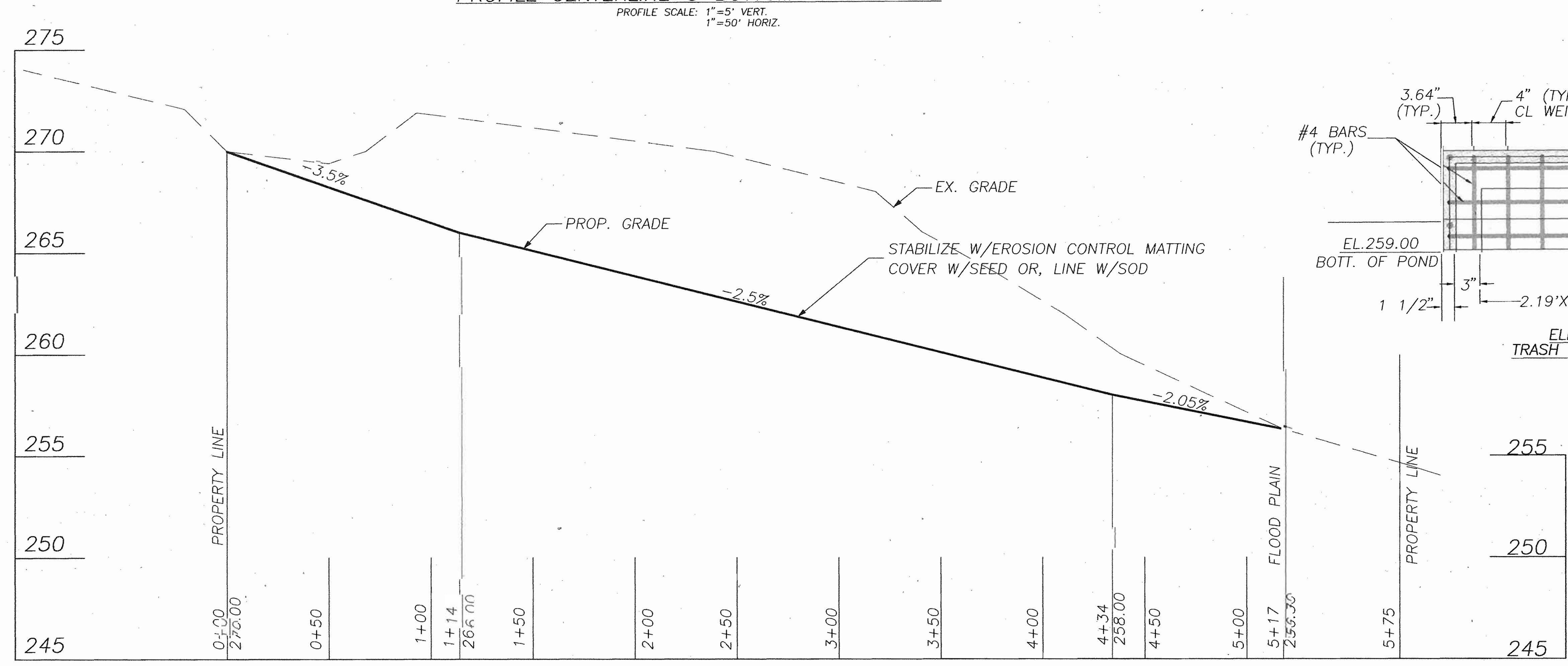
DETAIL
PERMANENT DEWATERING DEVICE



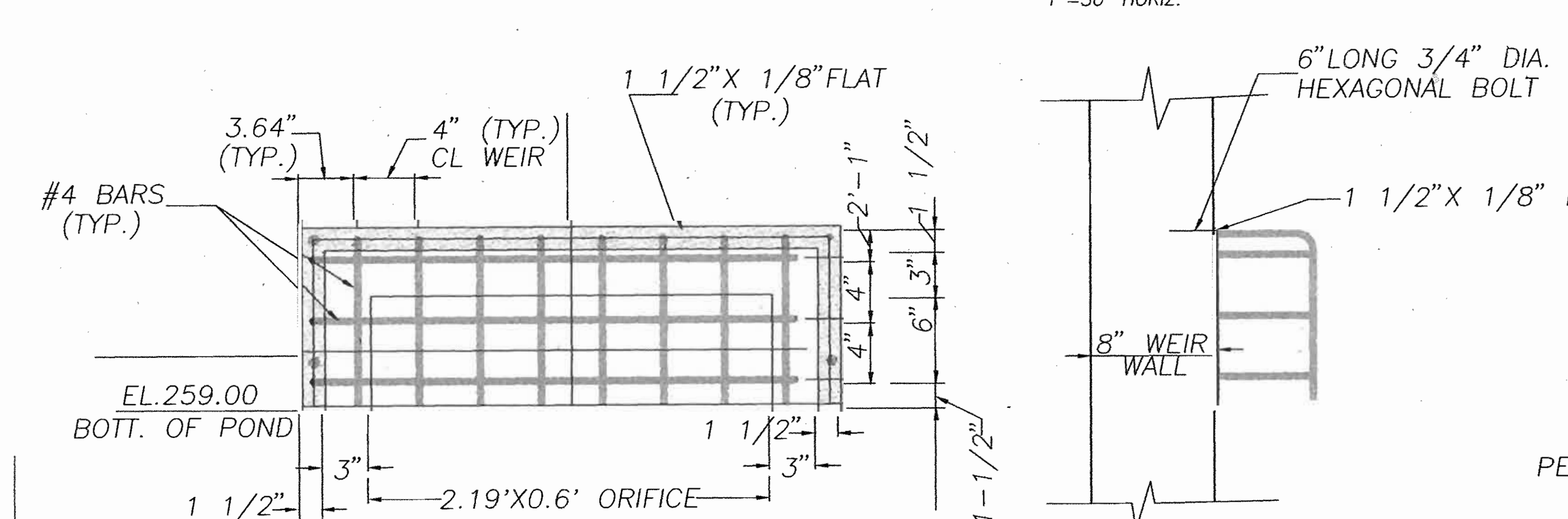
PROFILE CENTERLINE @ BOTTOM OF DITCH "A"
PROFILE SCALE: 1"=5' VERT.
1"=50' HORIZ.



PROFILE CENTERLINE @ BOTTOM OF DITCH "B"
PROFILE SCALE: 1"=5' VERT.
1"=50' HORIZ.

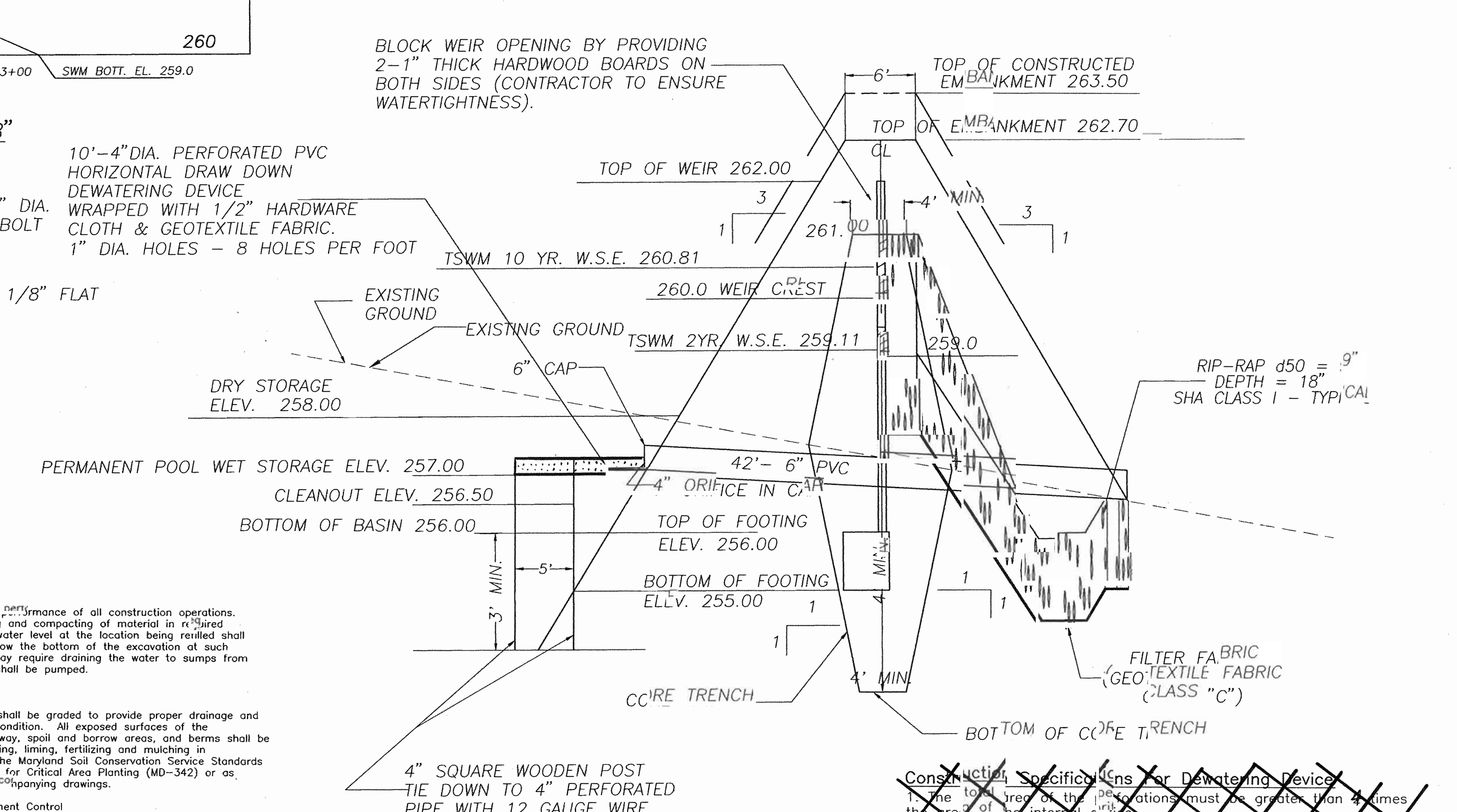


CL BY-PASS CHANNEL
SCALE: HORT: 1"= 50'
VERT: 1"= 5'



ELEVATION
TRASH RACK DETAIL
NTS

SECTION



SECTION - SEDIMENT BASIN
SCALE: 1"=2' VERT.
1"=10' HORIZ.

Construction Specifications For Dewatering Device

1. The total area of the perforations must be greater than 4 times the area of the internal orifice.

2. The perforated portion of the draw-down device shall be wrapped within 1/2" hardware cloth and geotextile fabric. The geotextile fabric shall meet the specifications for Geotextile Class E.

3. Provide support of draw-down device to prevent sagging and floatation. An acceptable preventive measure is to stake both sides of draw-down device with 1" steel angle, or 1" by 4" square or 2" round wooden posts set 3' minimum into ground, then joining them to the device by wrapping with 12 guage minimum wire.

4/21/04 REMOVE PERMANENT DEWATERING DEVICE

POND SPECIFICATIONS

Site Preparation

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

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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

Earth Fill

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

Placement– Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction– The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

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 T-99.

Cut Off Trench– The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Concrete

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

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and steam diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the location being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

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

Erosion and Sediment Control

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

Fabric Laydown

The filter fabric roll must be cut to the proper width prior to installation. The cut width must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over sides of the trench and unroll a sufficient length to allow placement of the fabric down into the trench. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the lined trench open during windy periods. When overlaps are required between rolls, the upstream roll should lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or to ensure that the fabric conforms to the excavation surface during aggregate placement and compaction. No placement of fabric on the bottom of trench.

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

[signature] 7/2/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

[signature] 7/5/01
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 7/6/01
DIRECTOR — DATE

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

DATE	REVISIONS
5/17/00	AS PER CO.COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/15/00

STATE OF MARYLAND — SOURABH G. MUNSHI — REGISTERED PROFESSIONAL ENGINEER
5/8/01

STORM WATER MANAGEMENT DETAILS
HOPE BAPTIST CHURCH
LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON ST. STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy,Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

SHEET NO. 8 OF 10

SDP-00-105

File name: T:\EP\JOB\98-4312\SITEPLAN\-9843125
Plot date: 05/07/01 16:42

NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24

NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).

PREPARED FOR:

OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

[signature] 7/2/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

[signature] 7/5/01
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 7/6/01
DIRECTOR — DATE

4/21/04 REMOVE PERMANENT DEWATERING DEVICE

DATE	REVISIONS
5/17/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/25/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/15/00

STATE OF MARYLAND — SOURABH G. MUNSHI — NO. 10539 — REGISTERED PROFESSIONAL ENGINEER

POST-DEVELOPMENT DRAINAGE AREA MAP

HOPE BAPTIST CHURCH

LOT 1, BOLLING BROOKE

TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy, Maryland 21771
(301) 831 5015 (410) 549 2751

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

SHEET NO. 9 OF 10

SDP-00-105

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312 SD
Plot date: 05/07/01 at 15:27

SEQUENCE OF CONSTRUCTION

Phase 1

	1.	Obtain Grading Permit
1 day	2.	Install stone construction entrance
	3.	Install Tree Protection Sign as shown on Forest Conservation Plan sheet 4
1 day	4.	Install temporary access culvert (as per detail).
1 week	5.	Install ~~Permanent~~ Perimeter Dike and stabilize. Install Super Silt Fence #1.
1 day	6.	Install stone outlet sediment trap St II.
1 week	7.	Commence Part 1 of By Pass Channel and stabilize (STA 00+93 to 5+00) upon approval from Howard County Sediment Control Inspector remove stone outlet sediment trap and stabilize St II.
2 days	8.	Construct Part 2 of By Pass Channel and stabilize (Sta 0+00 to 0+93) Note: 3 day clear weather forecast from the National Weather Service to commence – Part 2 of By Pass Channel
	9.	Upon receiving approval from the Howard County Sediment Control Inspector remove temporary access culvert.

Phase 2

2 days	1.	Install super silt fence #2 and permanent earth dike along north side of Phase 2 as shown.
2 weeks	2.	Construct temporary sediment basin, including enbankment core trench weir wall, ~~8" steel pipe permanent dewatering device~~. (Form weir wall to outfall.) ~~Temporary dewatering device.~~ Baffle wall grade to SEC grade lines as shown on sediment control plan sheet #3.
2 weeks	3.	Begin on site construction after receiving approval from the inspector. a. Clear and Grub the site b. Begin site to grade (including installation of berms, DO NOT install Bioretention Basin)
9 months	4.	Construct utilities, paving, building, curb and sidewalks, stabilize all disturbed areas as per permanent vegetative notes.
1 week	5.	Install surface paving

Phase 3

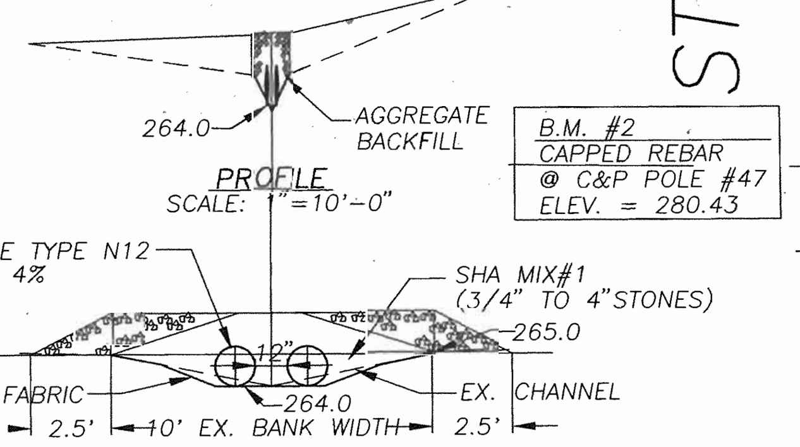
1 day	1.	Install super silt fence #3 and supersilt fence along Stephen's Road.
1 month	2.	construct road improvements to Stephen's Road
2 week	3.	Install Bioretention Facilities. (All areas of concentrated flow – Ditches, swales, berm shall be stabilized with erosion control matting over permanent soil mix unless otherwise indicated)
1 week	4.	Convert temporary sediment basin to permanent stormwater management facility after receiving permission from inspector. a. Pump out all water through RPS. b. Remove all laiden sediment c. Remove 10'-4" PVC and replace with 6" Perforated PVC as shown on the plan. Remove horizontal draw down device support. Remove Baffle Wall. d. Backfill pond bottom upto the elevation shown on plan. Stabilize all disturbed areas. e. Unblock weir openings by removing hardwood boards. f. Install trash deck
2 days	5.	Upon approval from Howard County Sediment Control Inspector remove all sediment control devices and stabilize all disturbed areas as per permanent vegetative notes.

LEGEND

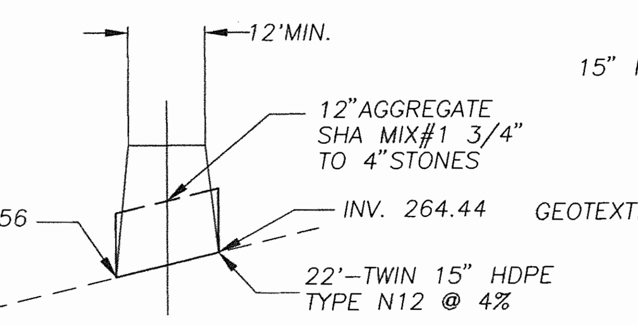
STABILIZED CONSTRUCTION ENTRANCE	SCE
SUPER SILT FENCE	SSF——SSF——
EARTH DIKE	(arrows)
FLOW ARROWS	(arrows)
SOIL TEST LOCATION	B-2
PHASE 1 LOD	
PHASE 2 LOD	
PHASE 3 LOD	

TEMPORARY SEDIMENT BASIN

PRE-DISTURBANCE DRAINAGE AREA = 7.42 AC., Q2= 5.01 CFS
POST-DISTURBANCE DRAINAGE AREA= 4.5 AC., Q2= 0.6 CFS
STORAGE REQUIRED 16200 CFT 0.37 AC FT
STORAGE PROVIDED 16200 CFT 0.37 AC FT
BOTTOM ELEVATION 256.00
TOP OF BERM 262.70
DRY STORAGE VOLUME REQUIRED= 0.185 AC.FT.
WET STORAGE VOLUME REQUIRED= 0.185 AC.FT.
DRY STORAGE ELEVATION 258.00
WET STORAGE ELEVATION 257.00
CLEANOUT ELEVATION 256.50
DRAW DOWN DEVICE
4" DIA. PVC @ ELEV 257.00



TEMPORARY CULVERT CROSSING
SCALE: 1"=10'-0"

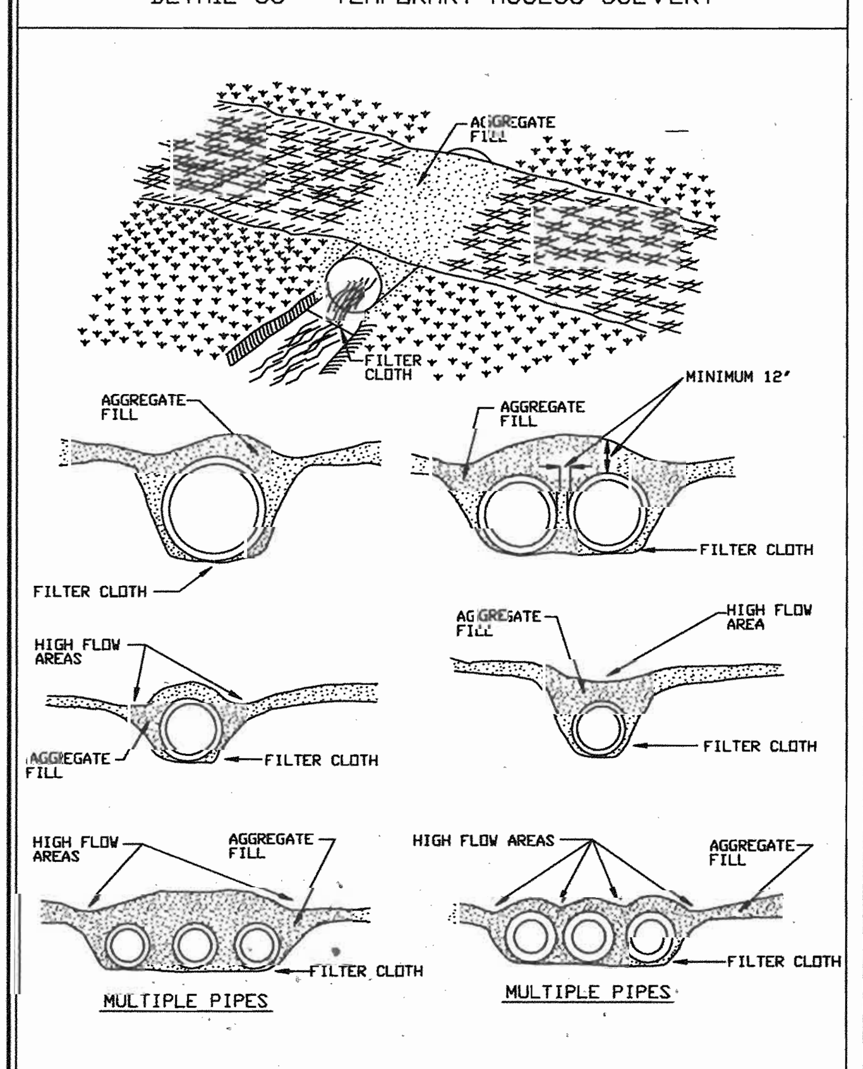


SECTION
NTS

B.M. #2
CAPPED REBAR
@ C&P POLE #47
ELEV. = 280.43

NOTE: UTILITY CONSTRUCTION ROAD CROSSING TO BE STABILIZED AND PAVED AT THE END OF EACH DAY.

DETAIL 36 - TEMPORARY ACCESS CULVERT



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 29 - 12	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

TEMPORARY ACCESS CULVERT

Construction Specifications

1. Restrictions - No Construction or removal of a temporary access culvert will be permitted between October 1 through April 30 for Class III and Class IV Trout Waters or between March 1 through June 15 for non-trout waterways.

2. Culvert Strength - All culverts shall be strong enough to support their cross sectional area under maximum expected loads.

3. Culvert Size - The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the waterway channel or without major approach fills. If a channel width exceeds 3 feet, additional pipes may be used until the cross sectional area of the pipes is greater than 60 percent of the cross sectional area of the existing channel. The minimum size culvert that may be used is a 12" diameter pipe. In all cases, the pipe(s) shall be large enough to convey normal stream flows.

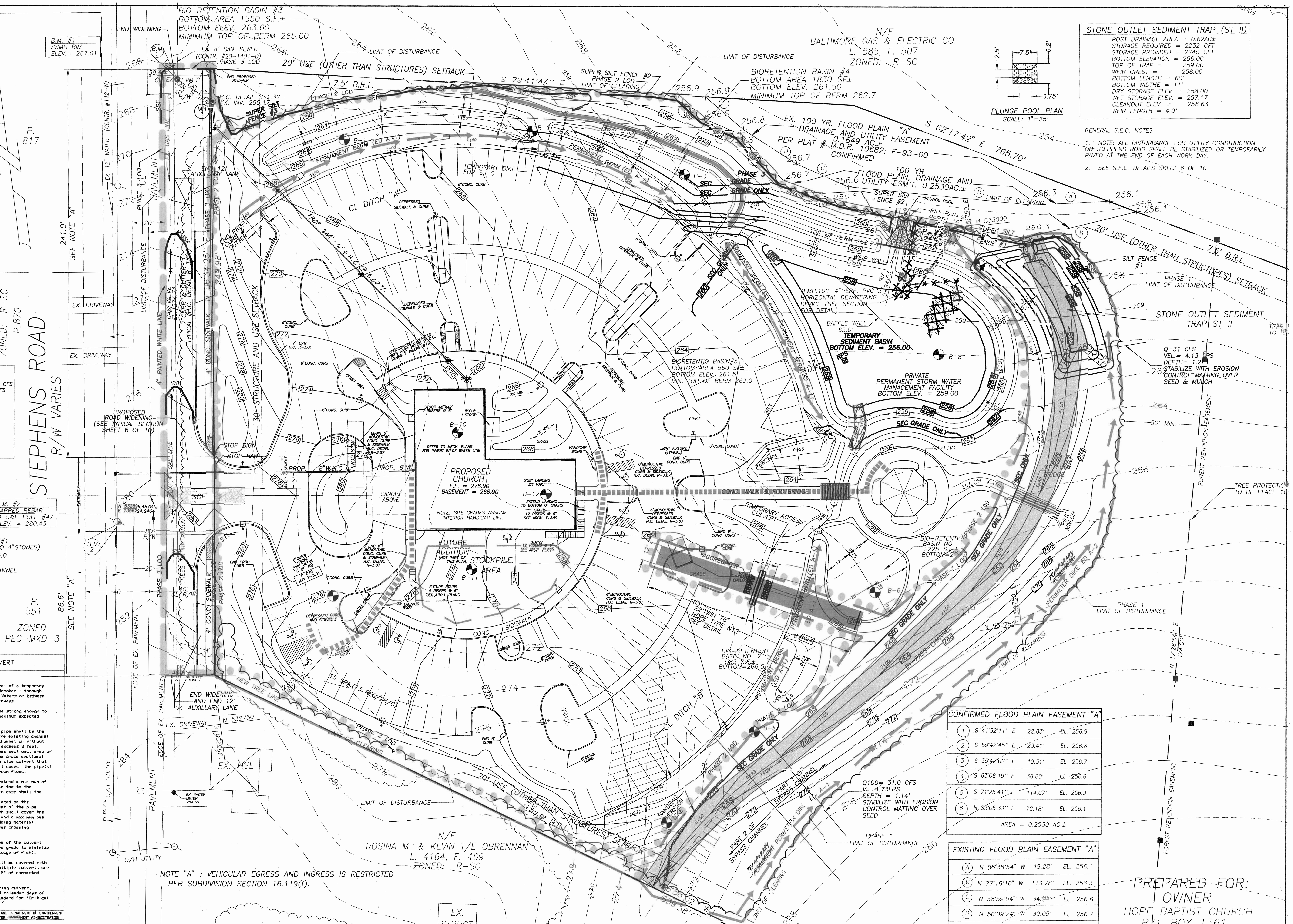
4. Culvert Length - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe to the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.
5. Filter Cloth - Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum six inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.

6. Culvert Placement - The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration (free passage of fish).

7. Culvert Protection - The culvert(s) shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill.

8. Stabilization - All areas disturbed during culvert installation shall be stabilized within 14 calendar days of the disturbance in accordance with the Standard for "Critical Area Stabilization With Permanent Seeding."

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE H - 29 - 12A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).

PLUNGE POOL PLAN
SCALE: 1"=25'

STONE OUTLET SEDIMENT TRAP (ST II)

POST DRAINAGE AREA = 0.62AC±
STORAGE REQUIRED = 2232 CFT
STORAGE PROVIDED = 2240 CFT
BOTTOM ELEVATION = 256.00
TOP OF TRAP = 259.00
WEIR CREST = 258.00
BOTTOM LENGTH = 60'
BOTTOM WIDTHE = 11'
DRY STORAGE ELEV. = 258.00
WET STORAGE ELEV. = 257.17
CLEANOUT ELEV. = 256.63
WEIR LENGTH = 4.0'

GENERAL S.E.C. NOTES

1. NOTE: ALL DISTURBANCE FOR UTILITY CONSTRUCTION ON STEPHENS ROAD SHALL BE STABILIZED OR TEMPORARILY PAVED AT THE END OF EACH WORK DAY.

2. SEE S.E.C. DETAILS SHEET 6 OF 10.

CONFIRMED FLOOD PLAIN EASEMENT "A"

1	S 41°52'11" E	22.83'	EL. 256.9
2	S 59°42'45" E	23.41'	EL. 256.8
3	S 35°42'02" E	40.31'	EL. 256.7
4	S 63°08'19" E	38.60'	EL. 256.6
5	S 71°25'41" E	114.07'	EL. 256.3
6	N 83°05'33" E	72.18'	EL. 256.1
AREA = 0.2530 AC.±			

EXISTING FLOOD PLAIN EASEMENT "A"

A	N 85°38'54" W	48.28'	EL. 256.1
B	N 77°16'10" W	113.78'	EL. 256.3
C	N 58°59'54" W	34.[illegible]	EL. 256.6
D	N 50°09'24" W	39.05'	EL. 256.7
E	N 42°08'55" W	31.36'	EL. 256.8
AREA = 0.1649 AC.±			

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24

4/21/04 REMOVE PERMANENT DEWATERING DEVICE
4/17/02 RELOC. 6"S.H.C.

DEVELOPER'S CERTIFICATE:

By the Developer:

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 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.

Stanley Makowski — 5-10-2001
Signature of the Developer — Date
Print name below signature
STANLEY MAKOWSKI

Reviewed For HOWARD SCD and meets Technical Requirements.
[signature] 6/21/01
USDA-Natural Resources Conservation Service — Date

This development plan is approved for soil erosion and Sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
[signature] — Date 6/21/01
Howard SCD

ENGINEER'S CERTIFICATE:

By the Engineer:

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

[signature] — 5/8/01
Signature of the Engineer — Date
Print name below signature

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

[signature] — 7/2/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

[signature] — 7/3/01
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] — 7/5/01
DIRECTOR — DATE

DATE	REVISIONS
5/17/00	AS PER CO. COMMENTS DATED 4/28/00
6/8/00	S.E.C. NOTES
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/26/00

STATE OF MARYLAND — SOURABH G. MUNSHI — REGISTERED PROFESSIONAL ENGINEER — 5/8/01

SEDIMENT CONTROL PLAN

HOPE BAPTIST CHURCH

LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy,Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

SHEET NO. 3 OF 10
SDP-00-105

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
Plot date: 05/07/01 at 15:12

HOWARD COUNTY
FOREST CONSERVATION WORKSHEET

		ACRES (1/10 acre)
I.	**BASIC SITE DATA**	
	GROSS SITE AREA	11.1828
	AREA WITHIN 100 YEAR FLOODPLAIN	0.4062
	AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	0
	NET TRACT AREA	10.7766
	LAND USE CATEGORY (R–RLD, R–RMD, R–S, C/I/O, I) C/I/O	
II.	**INFORMATION FOR CALCULATIONS**	
	A. NET TRACT AREA	10.7766
	B. REFORESTATION THRESHOLD (20 % x A)	2.1553
	C. AFFORESTATION MINIMUM (15 % x A)	1.6165
	D. EXISTING FOREST ON NET TRACT AREA	10.7766
	E. FOREST AREAS TO BE CLEARED	6.89
	F. FOREST AREAS TO BE RETAINED	3.89

III. DETERMINING REQUIREMENTS: AFFORESTATION OR REFORESTATION

1. Reforestation

If existing forest areas equal or exceed the afforestation minimum (if D equals or is more than C), and clearing of forest areas is proposed, reforestation requirements apply.

GO TO SECTION IV

If existing forests exceed the afforestation minimum (if D equals or is more than C) and no clearing of existing forest resources is proposed, no reforestation is required. No further calculations are needed.

2. Afforestation

If existing forest areas are less than the afforestation minimum (if D is less than C), afforestation requirements apply.

GO TO SECTION V

IV.	**REFORESTATION CALCULATIONS**	
	A. NET TRACT AREA	10.7766
	B. REFORESTATION THRESHOLD (20 % x A)	2.15
	D. EXISTING FOREST ON NET TRACT AREA	10.7766
	E. FOREST AREAS TO BE CLEARED	6.89
	F. FOREST AREAS TO BE RETAINED	3.89
	G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D–F, if F equals or is greater than B, Alternate 1) (D–B, if F is less than B, Alternate 2)	6.89
	H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B–F, if applicable)	0.0
	I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F–B, Retention Credit, if applicable)	1.74

Select the alternative that applies:

1. Clearing above the threshold only

If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD G x 1/4	1.72
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD I = Retention Credit	1.74
TOTAL REFORESTATION REQUIRED (G X 1/4)–I	0.00

If the total reforestation requirement is equal to or less than 0, no reforestation is required.

2. Clearing below the threshold

If forest areas to be retained are less than the reforestation threshold (if F is less than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD G x 1/4	N/A
REFORESTATION FOR CLEARING BELOW THRESHOLD H x 2	
TOTAL REFORESTATION REQUIRED (G x 1/4)+(H x 2)	

NOTE: THIS WORKSHEET IS A REFINEMENT OF THE WORKSHEET APPROVED BY RESOLUTION 48. THIS WORKSHEET MUST ACCOMPANY ALL FOREST STAND DELINEATION AND FOREST CONSERVATION PLAN SUBMISSIONS.

(Worksheet corrected 1/00, there is no "C" in Section "A" or "B" in Section "V".)

FOREST CONSERVATION OBLIGATION: 3.89 AC.
FOREST CONSERVATION PROVIDED: 3.89 AC.± WITHOUT FLOOD PLAIN.
TOTAL ACREAGE OF 100 YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENTS = 0.4062 ACRES±
RECORDING REFERENCE FOR AMENDED SUBDIVISION PLAT:

GENERAL NOTES:

1. The number of trees in the existing woods exceeds the 100 stem per acre threshold as defined in the Forest Conservation Manual.
2. These perpetual forest easements are established in accordance with the Howard County Forest Conservation Manual (FCM), as specifically set forth in the terms of the recorded FCM easement.
3. Super Silt Fence protective fencing and signage to be installed at the perimeter of forest preservation areas as shown. This protective fencing is to remain in place and in good repair during the period of construction.
4. Tree protection signs @ 100' o.c., with Super Silt Fence adjacent to 100 year flood plain, drainage, and utility easement shall be installed as shown on plan and inspected prior to any grading or disturbance activities on–site.
5. A forest conservation easement will be placed around each forest preservation area and a deed of easement will be recorded specifying long–term protection for the area.
6. The owner will execute a forest public works agreement for each section as development occurs.
7. As each section is developed, a preconstruction meeting is to be arranged as follows:
   After the boundaries of the limits of disturbance have been staked and flagged and the forest protection devices have been installed, and before any disturbance has taken place on site, a pre–construction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate local inspectors should attend. The purpose of this meeting will be to:
   A. Identify the locations of the forest retention areas, specimen trees, limits of construction, employee parking areas, and equipment staging areas on site plans.
   B. Inspect all flagged boundaries, protection devices, and Sediment and Erosion control devices on site.
   C. Make all necessary adjustments.
   D. Assign responsibilities as appropriate and discuss penalties.
8. This plan is for site afforestation, tree protection and conservation measures only.
9. All contractors performing work on this site shall notify "Miss Utility" 48 hours prior to any construction or grading by calling 1–800–257–7777 for the location of all utilities.
10. The contractors performing work on the site are responsible for protecting existing native & noninvasive plantings during construction.
11. For tree pruning and care methods please refer to the National Arborist Standards, latest edition.
12. Cost estimate: 19 signs at $10.00 each=$190.00
    15% contingency = $30.00
    Total = $220.00
13. Surety in the amount of $16,944.84 has been posted as a part of the Developer's Agreement for the 3.89 acre retention easement shown on this plan and recorded on plat F–01–32.

WETLANDS METES AND BOUNDS

LIMITS OF WETLANDS

NUMBER	DIRECTION	DISTANCE
W19	S 30°51'48" W	62.25'
W20	S 18°26'45" W	27.44'
W21	S 11°25'19" W	66.02'
W22	S 03°58'45" W	66.02'
W23	S 11°45'35" W	66.02'
W24	S 05°37'32" W	42.07'
W25	S 16°22'04" W	66.24'
W26	S 01°37'47" E	38.46'
W27	S 42°26'07" W	20.44'
W28	N 06°55'53" W	36.87'
W29	N 05°01'01" E	24.82'
W30	N 16°17'47" E	75.03'
W31	N 03°27'18" E	25.21'
W32	N 05°51'19" E	43.82'
W33	N 11°07'48" E	61.61'
W34	N 10°36'19" E	38.69'
W35	N 20°12'10" E	20.06'
W36	N 32°35'44" E	63.12'
W37	S 62°17'42" E	13.81'

NOTE: SITE GRADES ASSUME INTERIOR HANDICAP LIFT.

LEGEND

SOIL BOUNDARY
SOIL TYPE — BeB2
FOREST RETENTION SIGN
15 TO 25% SLOPES
>25% SLOPES
SUPER SILT FENCE — SSF
LIMIT OF DISTURBANCE

SOIL LEGEND

SYMBOL	NAME	HYDROLOGIC SOIL GROUP	HYDRIC SOIL
Co	CODORUS SILT LOAM	C	HYDRIC INCLUSIONS
NeC2	NESHAMINY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B	
L1	LEONARDTOWN SILT LOAM	D	HYDRIDIC SOIL
CnB2	CHILLUM–FAIRFAX LOAMS, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C	
BeD2	BELTSVILLE SILT LOAM, 10 TO 15 PERCENT SLOPES, MODERATELY ERODED	C	HYDRIC INCLUSIONS
BeB2	BELTSVILLE SILT LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	C	
S1B2	SASSAFRAS LOAM, 1 TO 5 PERCENT SLOPES, MODERATELY ERODED	B	

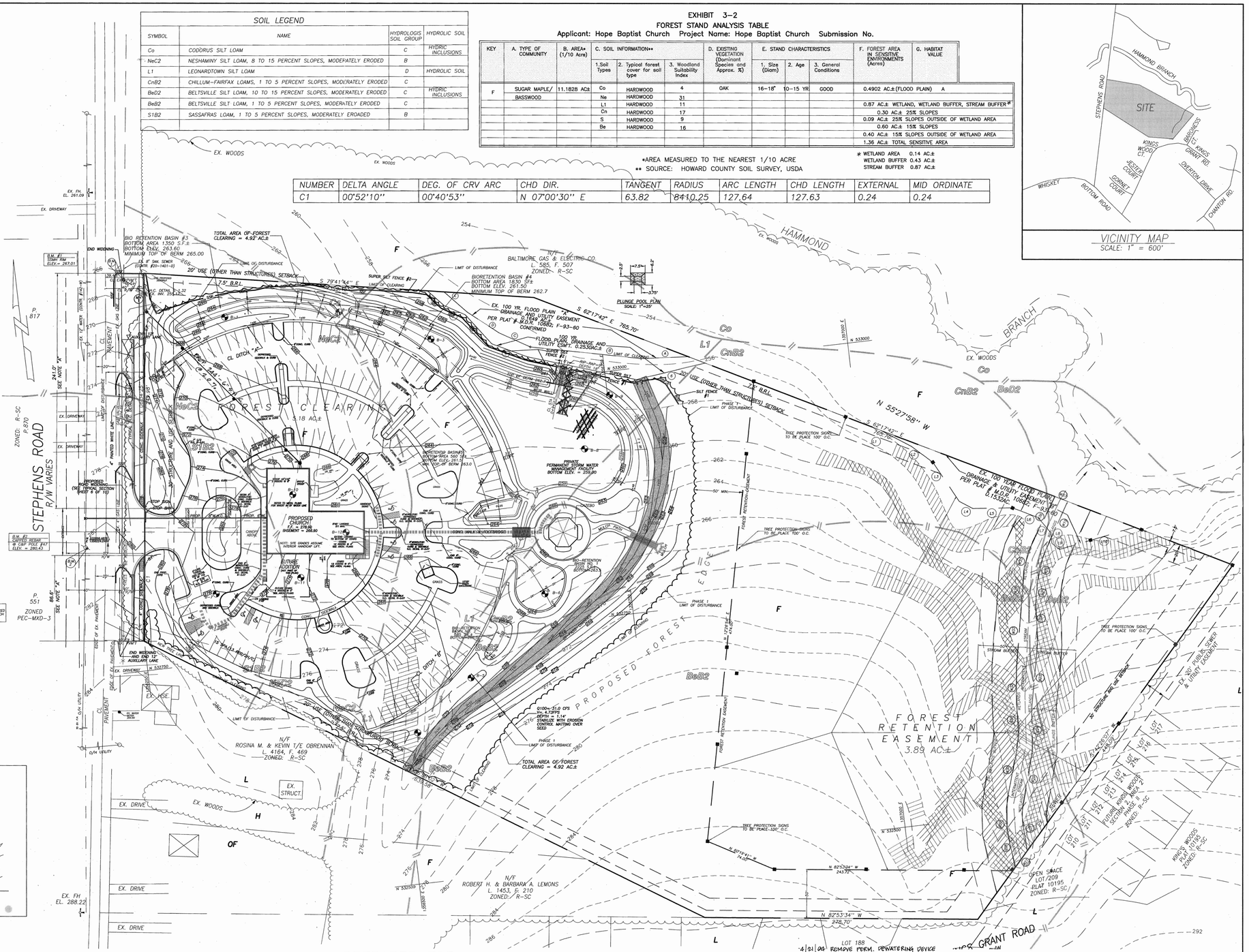
EXHIBIT 3–2
FOREST STAND ANALYSIS TABLE
Applicant: Hope Baptist Church Project Name: Hope Baptist Church Submission No.

KEY	A. TYPE OF COMMUNITY	B. AREA* (1/10 Acre)	C. SOIL INFORMATION** 1. Soil Types	2. Typical forest cover for soil type	3. Woodland Suitability Index	D. EXISTING VEGETATION (Dominant Species and Approx. %)	E. STAND CHARACTERISTICS 1. Size (Diam)	2. Age	3. General Conditions	F. FOREST AREA IN SENSITIVE ENVIRONMENTS (Acres)	G. HABITAT VALUE
F	SUGAR MAPLE/ BASSWOOD	11.1828 AC±	Co	HARDWOOD	4	OAK	16–18"	10–15 YR	GOOD	0.4902 AC.±(FLOOD PLAIN)	A
			Ne	HARDWOOD	31						
			L1	HARDWOOD	11					0.87 AC.± WETLAND, WETLAND BUFFER, STREAM BUFFER*	
			Cn	HARDWOOD	17					0.30 AC.± 25% SLOPES	
			S	HARDWOOD	9					0.09 AC.± 25% SLOPES OUTSIDE OF WETLAND AREA	
			Be	HARDWOOD	16					0.60 AC.± 15% SLOPES	
										0.40 AC.± 15% SLOPES OUTSIDE OF WETLAND AREA	
										1.36 AC.± TOTAL SENSITIVE AREA	

*AREA MEASURED TO THE NEAREST 1/10 ACRE
** SOURCE: HOWARD COUNTY SOIL SURVEY, USDA

* WETLAND AREA 0.14 AC.±
WETLAND BUFFER 0.43 AC.±
STREAM BUFFER 0.87 AC.±

NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24



VICINITY MAP
SCALE: 1" = 600'

SIGNAGE

NOTES:
1. Forest conservation easement signage to be installed using 2" x 2" timber, 6' in length and installed to a depth of no less than 1/3 of the total height of post.
2. Signage may be installed on anchor posts used for support of Tree Protection Fence, and post may remain after construction is complete and mesh is removed.
3. Boundaries of Retention area should be staked and flagged prior to installing device.
4. SPACE SIGNS 100' O.C.

NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725–1361

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/2/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/5/01

DIRECTOR — DATE 7/6/01

DATE	REVISIONS
5/16/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/3/00	AS PER D.L.D. COMM. DATED 9/29/00
11/21/00	AS PER CO. COMM. DATED 10/11/00
5/5/01	AS PER CO. COMM. DATED 12/15/00

STATE OF MARYLAND RONALD ALLMAN JOHNSON REGISTERED LANDSCAPE ARCHITECT NO. 660 — 6/8/01

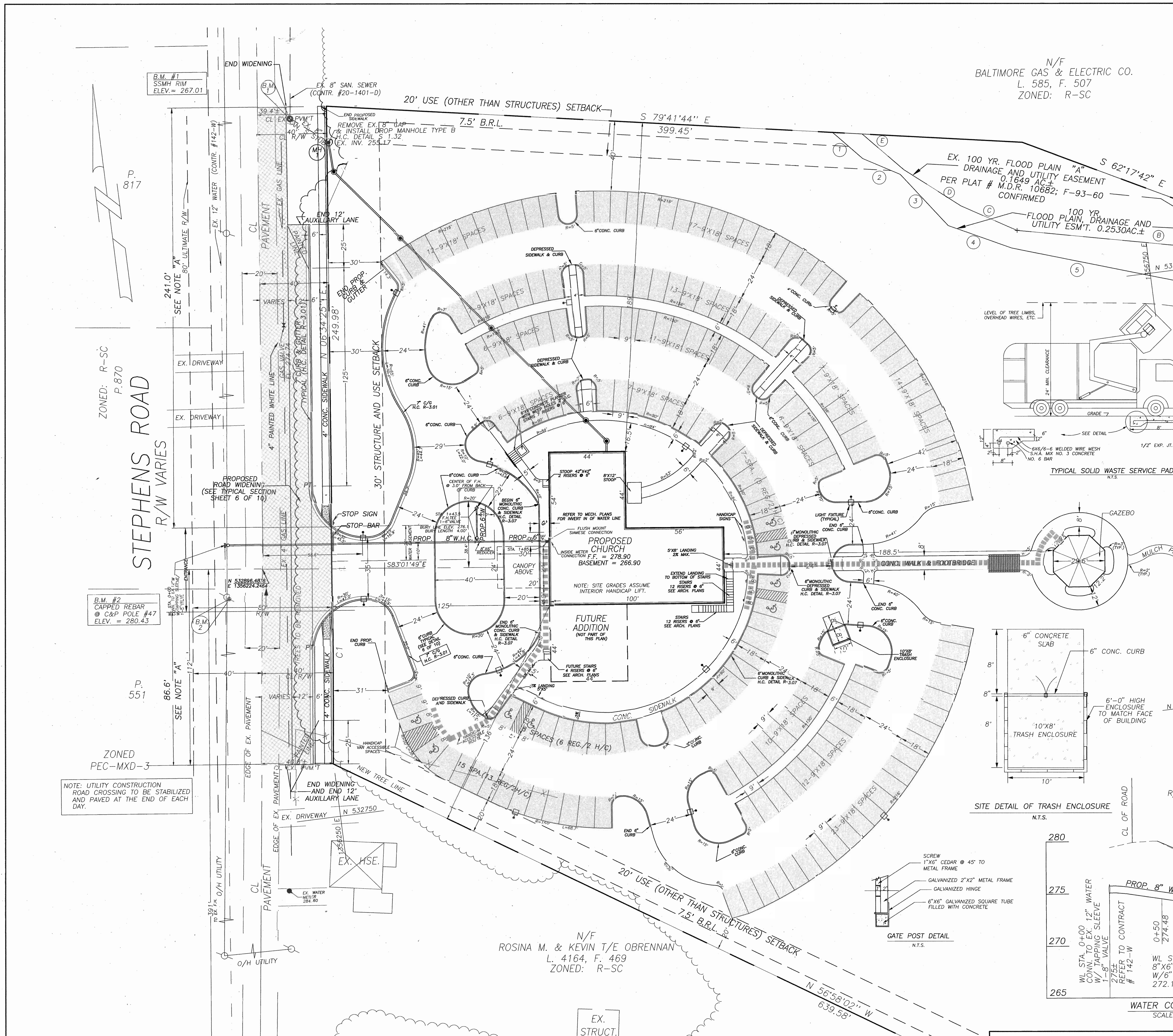
FOREST CONSERVATION PLAN
HOPE BAPTIST CHURCH
LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. Box 328 Mount Airy,Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

File name: T:\EP\JOBS\98-4312\SITEPLAN\98431250

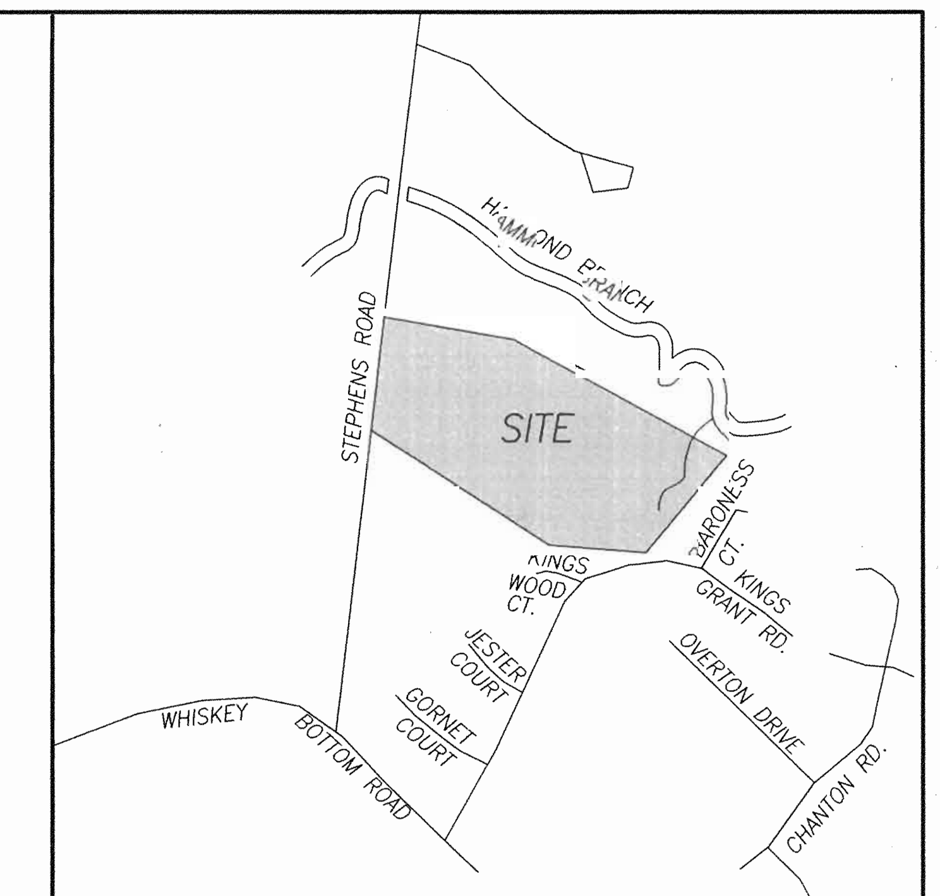
SHEET NO. 4 OF 10

SDP-00-105

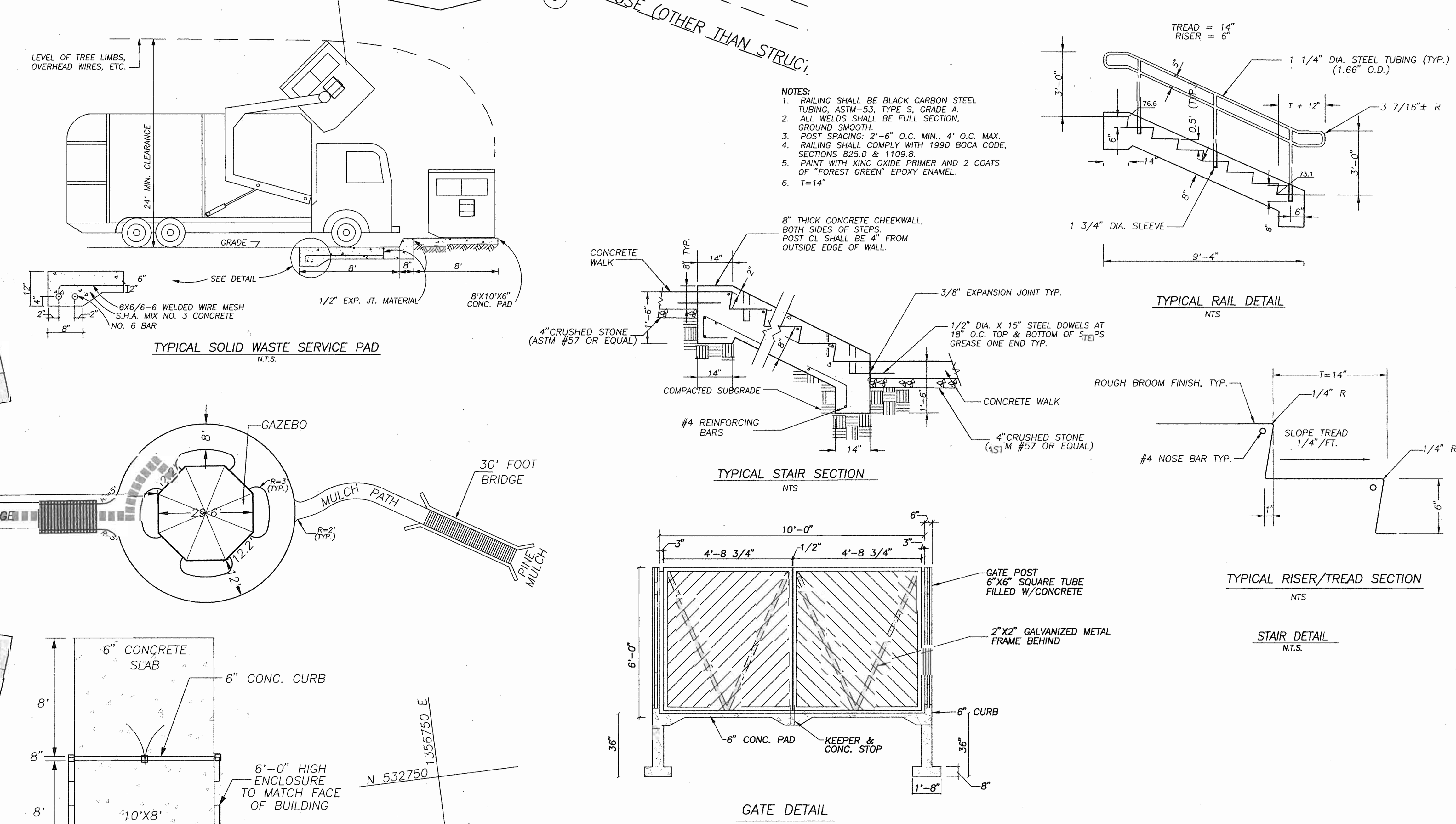


EXISTING FLOOD PLAIN EASEMENT "A"			
(A)	N 85°38'54" W	48.28'	EL. 256.1
(B)	N 77°16'10" W	113.78'	EL. 256.3
(C)	N 58°59'54" W	34.99'	EL. 256.6
(D)	N 50°09'24" W	39.05'	EL. 256.7
(E)	N 42°08'55" W	31.36	EL. 256.8
AREA = 0.1649 AC.±			

CONFIRMED FLOOD PLAIN EASEMENT "A"			
(1)	S 41°52'11" E	22.83'	EL. 256.9
(2)	S 59°42'45" E	23.41'	EL. 256.8
(3)	S 35°42'02" E	40.31'	EL. 256.7
(4)	S 63°08'19" E	38.60'	EL. 256.6
(5)	S 71°25'41" E	114.07'	EL. 256.3
(6)	N 83°05'33" E	72.18'	EL. 256.1
AREA = 0.2530 AC.±			



VICINITY MAP
SCALE: 1" = 600'



TYPICAL SOLID WASTE SERVICE PAD
N.T.S.

TYPICAL STAIR SECTION
NTS

TYPICAL RAIL DETAIL
NTS

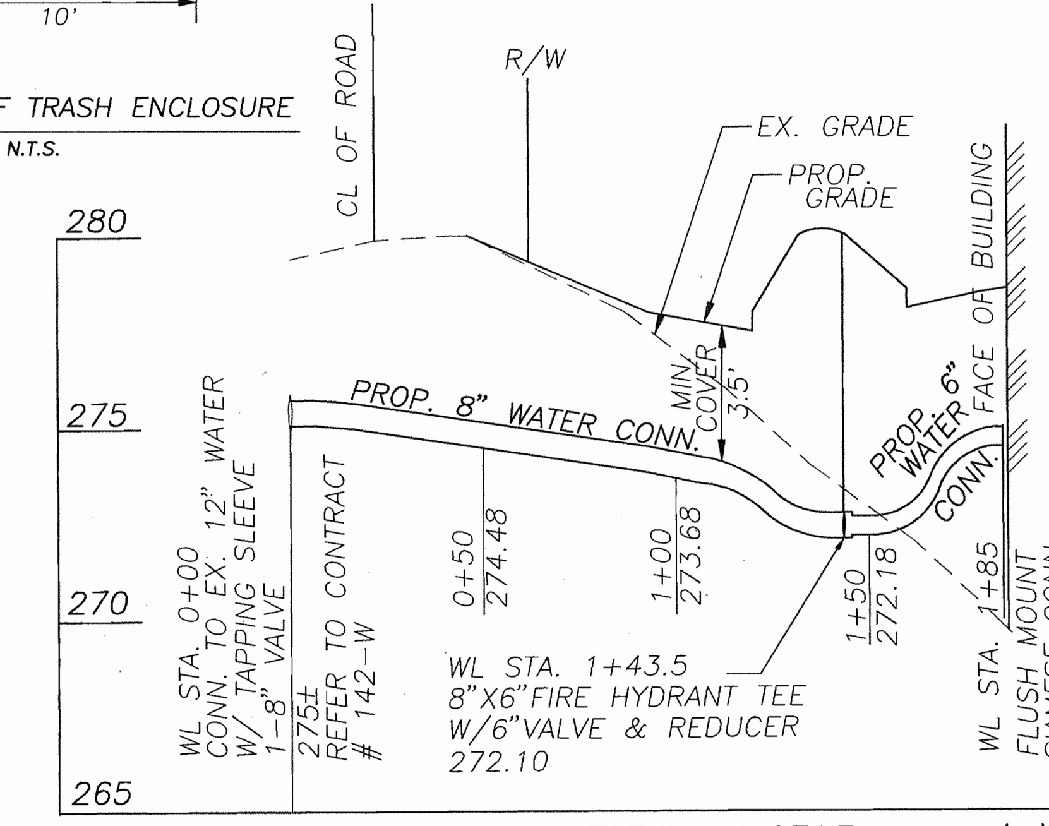
TYPICAL RISER/TREAD SECTION
NTS

STAIR DETAIL
N.T.S.

SITE DETAIL OF TRASH ENCLOSURE
N.T.S.

GATE DETAIL
N.T.S.

GATE POST DETAIL
N.T.S.



WATER CONNECTION PROFILE
SCALE: HORT: 1" = 50'
VERT: 1" = 5'

LEGEND

- SITE LIGHTING
- HANDICAP SIGN
- BITUMINOUS PAVEMENT / P-2 HOWARD CO. STD. DET. R-2.01
- BITUMINOUS PAVEMENT / P-1 HOWARD CO. STD. DET. R-2.01
- BITUMINOUS PAVEMENT / P-5 HOWARD CO. STD. DET. R-2.01
- CONCRETE SIDEWALK, SEE DETAIL SHEET 6 OF 10.
- HANDICAP RAMPS, HOWARD CO. STD. DET. R-4.01
- 6" CONCRETE CURB (SEE DETAIL SHT. 6 OF 10)
- 7" CONCRETE CURB & GUTTER, HOWARD CO. STD. DET. R-3.01.
- 6"SHC SEWER HOUSE CONNECTION
- 6"WHC WATER HOUSE CONNECTION

NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24

NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

4/21/04 REMOVE PERMANENT DEWATERING DEVICE
4/17/02 RELOC. 6" S.H.C.

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 7/2/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 7/5/01 DATE
DIRECTOR — 7/6/01 DATE

DATE	REVISIONS
5/17/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/15/00

STATE OF MARYLAND — SOURABH G. MUNSHI — REGISTERED PROFESSIONAL ENGINEER
5/28/01

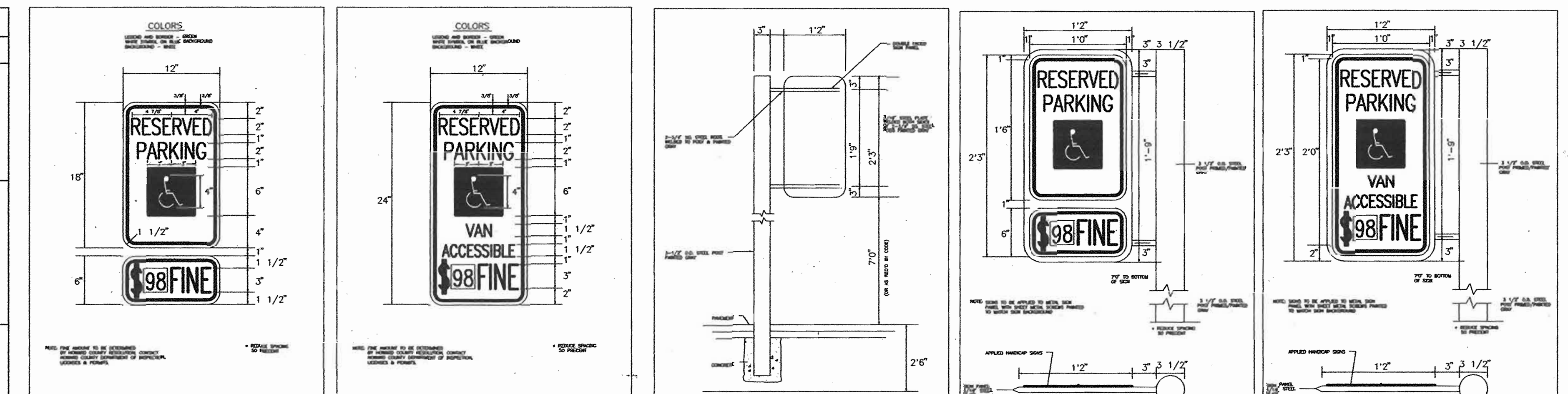
LAYOUT, UTILITY AND DIMENSION PLAN AND SITE DETAILS
HOPE BAPTIST CHURCH
LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy, Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
SHEET NO. 5 OF 10
SDP-00-105

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
Plot date: 05/07/01 at 16:03

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	PARKING BAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 2" BIT. CONC. BASE 4" GRADED AGGREGATE BASE (GAB)
P-2	TRAVELWAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY•	1 1/2"BIT. CONC. SURFACE 5"BIT. CONC. BASE	1 1/2"BIT. CONC. SURFACE 2 1/2"BIT. CONC. BASE 6"GRADED AGGREGATE BASE (GAB)
P-5	COMMERCIAL-INDUSTRIAL ZONES MAJOR COLLECTOR ALL ZONES MINOR ARTERIAL	1 1/2"BIT. CONC. SURFACE 4 1/2"BIT. CONC. BASE 5"BIT. CONC. BASE	1 1/2"BIT. CONC. SURFACE 1 1/2"BIT. CONC. BASE 5"BIT. CONC. BASE 6"GRADED AGGREGATE BASE (GAB)



PARKING RESTRICTION SIGN FOR HANDICAPPED PARKING
NO SCALE

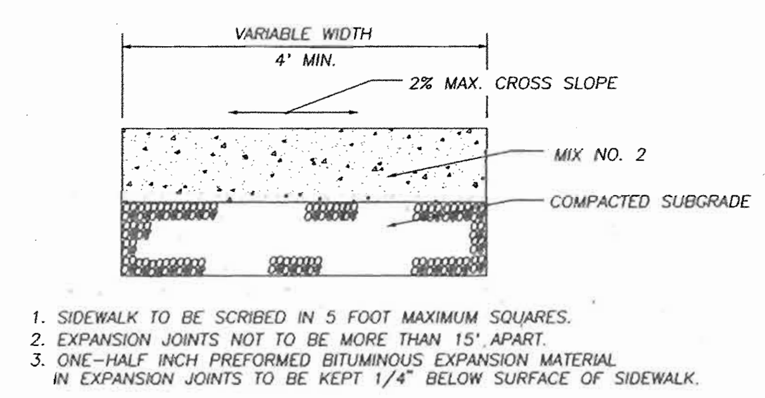
PARKING RESTRICTION SIGN FOR HANDICAPPED PARKING
NO SCALE

POST & SIGN PANEL DETAIL FOR PARKING RESTRICTION SIGN
NO SCALE

MOUNTING DETAIL FOR PARKING RESTRICTION SIGN
NO SCALE

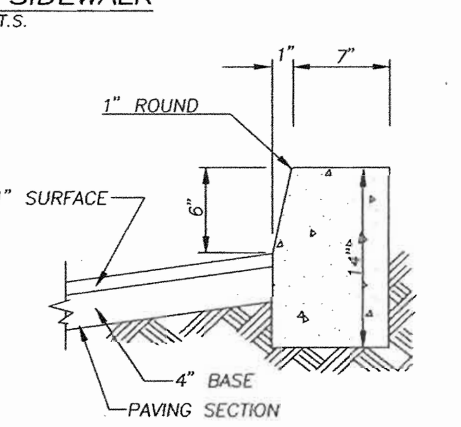
MOUNTING DETAIL FOR PARKING RESTRICTION SIGN
NO SCALE

DRIVEWAY AND PARKING

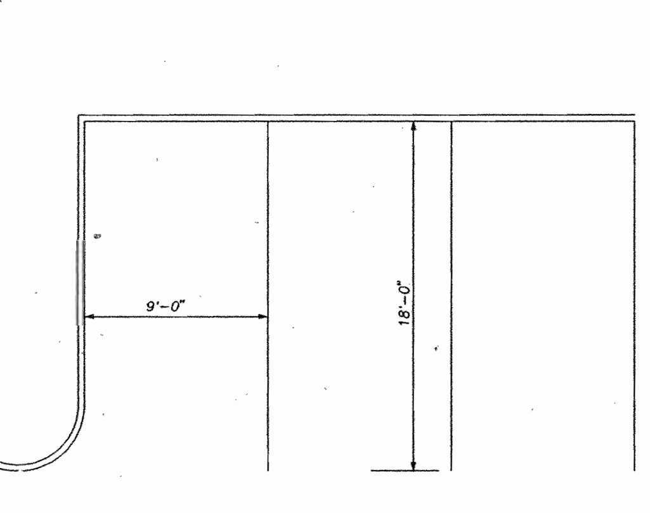


1. SIDEWALK TO BE SCRIBED IN 5 FOOT MAXIMUM SQUARES.
2. EXPANSION JOINTS NOT TO BE MORE THAN 15' APART.
3. ONE-HALF INCH PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.

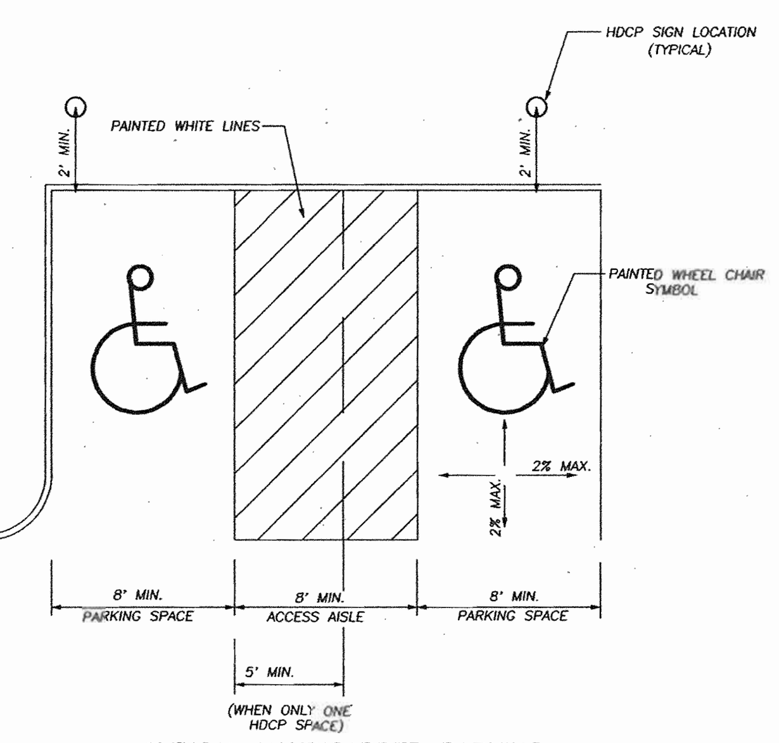
TYPICAL SIDEWALK
N.T.S.



6" CURB DETAIL
N.T.S.



TYPICAL PARKING SPACE
N.T.S.



TYPICAL HANDICAPPED PARKING
N.T.S.

NOTE:
ALL LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134.

M:\WORDDOCS\hoco.seeding.doc

HOWARD SOIL CONSERVATION DISTRICT PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
Seedbed preparation: Loosen upper three inches of soil by raking, 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/acre dolomitic limestone (92 lbs/1000 sq. ft) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 urea form fertilizer (9 lbs/1000 sq. ft.)
2. Acceptable - Apply 2 tone/acre dolomitic limestone (92 lab/1000 sq. ft) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.
Seeding - For the periods March 1 - April 30, and August 1 - October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue.. For the period May 1 - July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping love grass.
During the period of October 16 - February 28, protect site by: Option 1 - Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option 2 - Used sod. Option 3 - Seed with 60 lbs/acre Kentucky 30 Tall fescue and mulch with 2 tons/acre well anchored straw.
Mulching - Apply 1 -1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons 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 re-disturbed where a short-term vegetative cover is needed.
Seedbed 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/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)
Seeding - For periods March 1 - April 30 and from August 15 - October 15, seed with 2 ? bushel per acre of annual rye (3.2 lbs/1000 sq. ft.) For the period May 1 - August 14, seed with 3 lbs/acre of weeping love grass (.07 lbs/100 sq. ft.). For the period November 16 - February 28, protect site by applying 2 tons/acre of well-anchored straw mulch and seed as soon as possible in the spring, or use sod.
Mulching - Apply 1 ? to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. Per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 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 EROSIOIN AND SEDIMENT CONTROL for additional rates and methods not covered.

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County department of Inspections, Licenses and Permits. Sediment Control Division prior to the start of any construction (313-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL SEROSION AND SEDIMENT CONTROL and revisions thereto
3. Following initial solid disturbance or re-disturbance, 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 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chapter 12 of the HOWAR 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 SOILS 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.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:

Total Area of Site	11.20 Acres
Area Disturbed	4.84 Acres
Area to be roofed or paved	2.17 Acres
Area to be vegetatively stabilized	2.67 Acres
Total Cut	12,200 Cu. Yds
Total Fill	8,500 Cu. Yds.
Offsite waste/borrow area location	N/A

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance
9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

PURPOSE

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

CONDITIONS WHERE PRACTICE APPLIES

I. This practice is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. 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.

Note:
Earthwork cut and fill quantities and area of disturbance indicated on this plan are shown for purpose of obtaining sediment control plan approval and are not to be used for contractual obligation.

DUST CONTROL
DUST CONTROL METHOD FOR THIS SITE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES: CALCIUM CHLORIDE SHALL BE APPLIED TO EXPOSED SURFACES AT A RATE THAT WILL KEEP SURFACE MOIST UNTIL SOIL IS STABILIZED ACCORDING TO VEGETATIVE SPECS. FOR THIS SITE AND AREAS TO BE PAVED ARE COMPLETED.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
i. Topsoil shall be a loam, sandy loam, clay 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 cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 ?" in diameter.
ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
iii. Where the subsoil is either highly 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

II. For sites having disturbed areas over 5 acres:
i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:
i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit disscipation of phyto-toxic materials.
Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be use in lieu of natural topsoil.
ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Material.

V. Topsoil Application
i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope silt Fence and Sediment Traps and Basins.
ii Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
iii Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or deeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
iv. 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.

VI. 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:
i. 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:
a. 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.
b. 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.
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
iv. 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 Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

24.0 MATERIALS SPECIFICATIONS
Table 27 Geotextile Fabrics

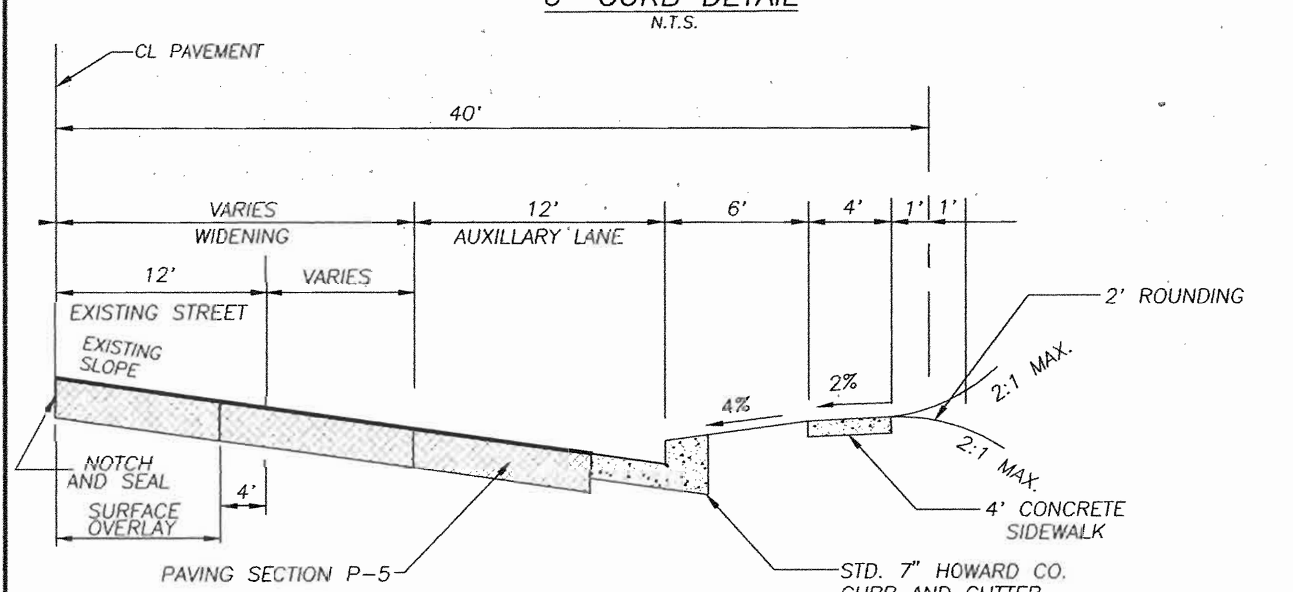
CLASS STRENGTH	APPARENT OPENING SIZE MM. MAX	GRAB TENSILE STRENGTH LB. MIN.	BURST PSI. MIN.
A	0.30	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (Silt Fence)	0.40-0.80*	90	190

? US Std Sieve CW-02215

The properties shall be determined in accordance with the following procedures:
Apparent opening size MSMT 323
Grab tensile strength ASTM D 1682: 4x8" specimen, 1x2" clamps, 12"/min strain rate in both principal directions of geotextile fabric.
Burst strength ASTM D 3786

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyolephins, polyesters, or polyamides. The geotextile fabric shall resist deterioration from ultraviolet exposure.
In addition, Classes A through E shall have a 0.01 cm./sec. Minimum permeability when tested in accordance with MSMT 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

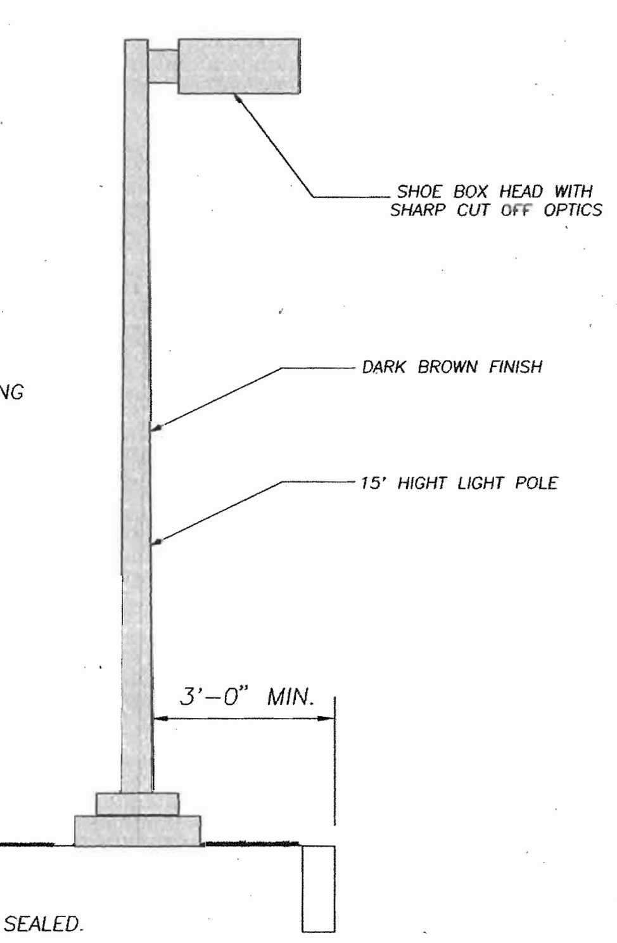
Silt Fence
Class F geotextile fabrics for silt fence shall have a 50 lb/in. minimum tensile strength and a 20 lb./in. minimum tensile modules when tested in accordance with MSMT 509. The material shall also have a 0.3 gal. Ft. 2/min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tsted in accordance with MSMT 322.
Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected usable construction life at a temperature range of 0 to 120 degrees F.



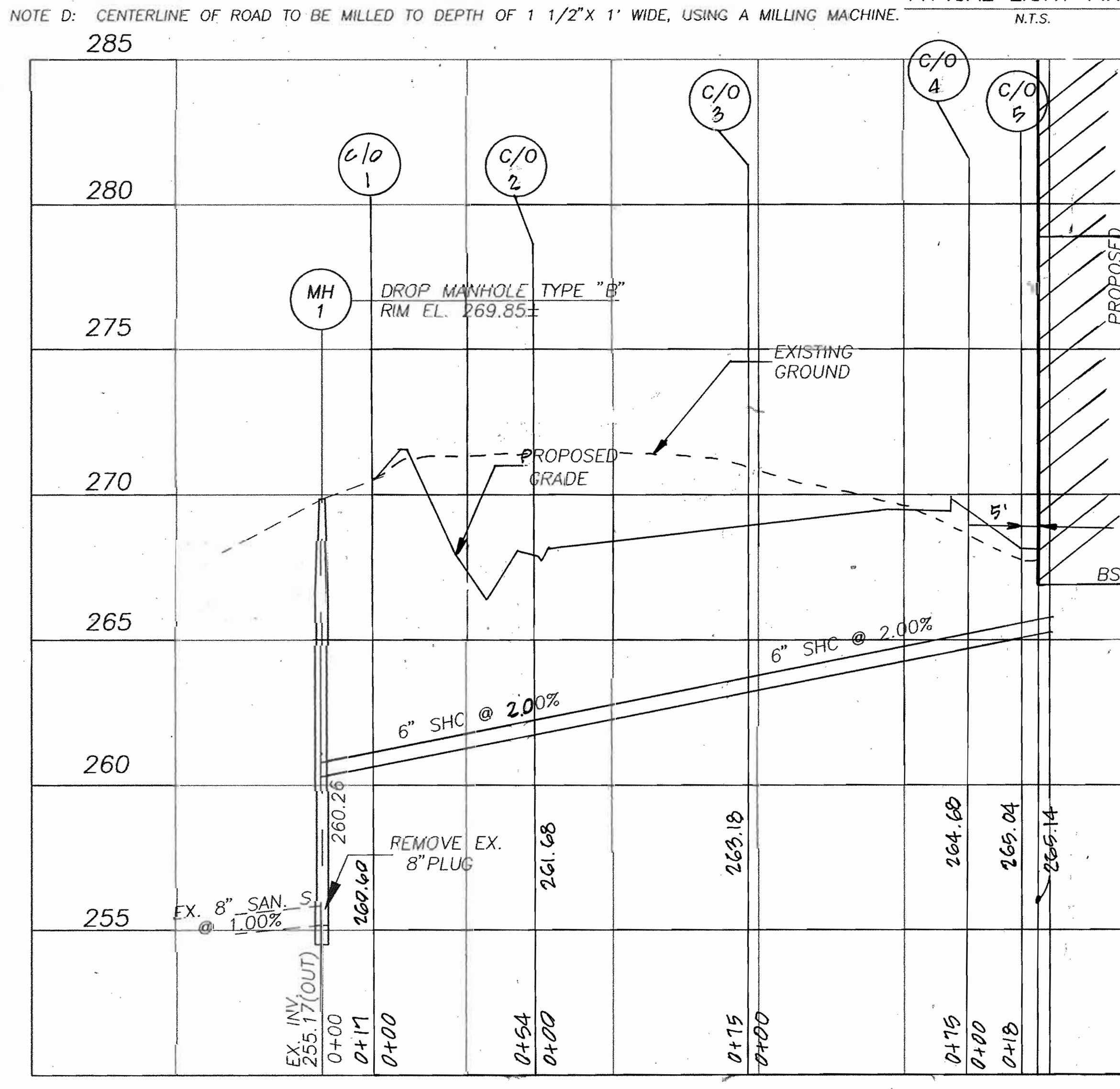
NOTE: SLOPE GUTTER PAN WITH SLOPE OF PAVEMENT

TYPICAL SECTION
PROPOSED ROAD WIDENING
SEE DETAIL R-10.01
NTS

NOTE A: WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE, CONTRACTOR SHALL REMOVE ENOUGH OF THE EXISTING ROAD BED TO PROVIDE A MINIMUM BASE WIDENING OF 4'.
NOTE B: THE SURFACE OVERLAY SHALL BE CARRIED TO THE CENTERLINE OF THE ROAD AND NOTCHED AND SEALED.
NOTE C: SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL PAVING SECTION OF SUBDIVISION.
NOTE D: CENTERLINE OF ROAD TO BE MILLED TO DEPTH OF 1 1/2"X 1' WIDE, USING A MILLING MACHINE.

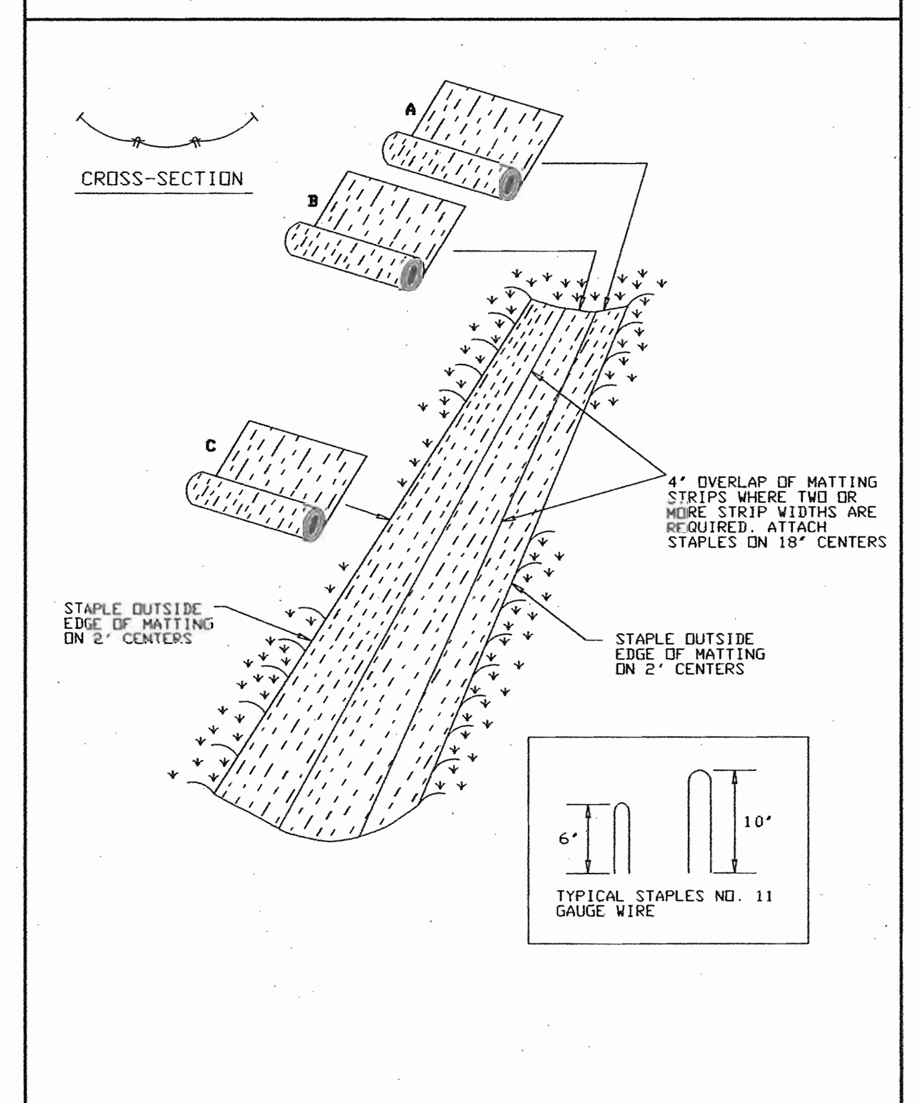


TYPICAL LIGHT FIXTURE
N.T.S.



PROPOSED 6" SANITARY SEWER CONNECTION PROFILE
SCALE: 1"=5' VERT. 1"=50' HORIZ.

DETAIL 30 - EROSION CONTROL MATTING



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE G - 22 - 2 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

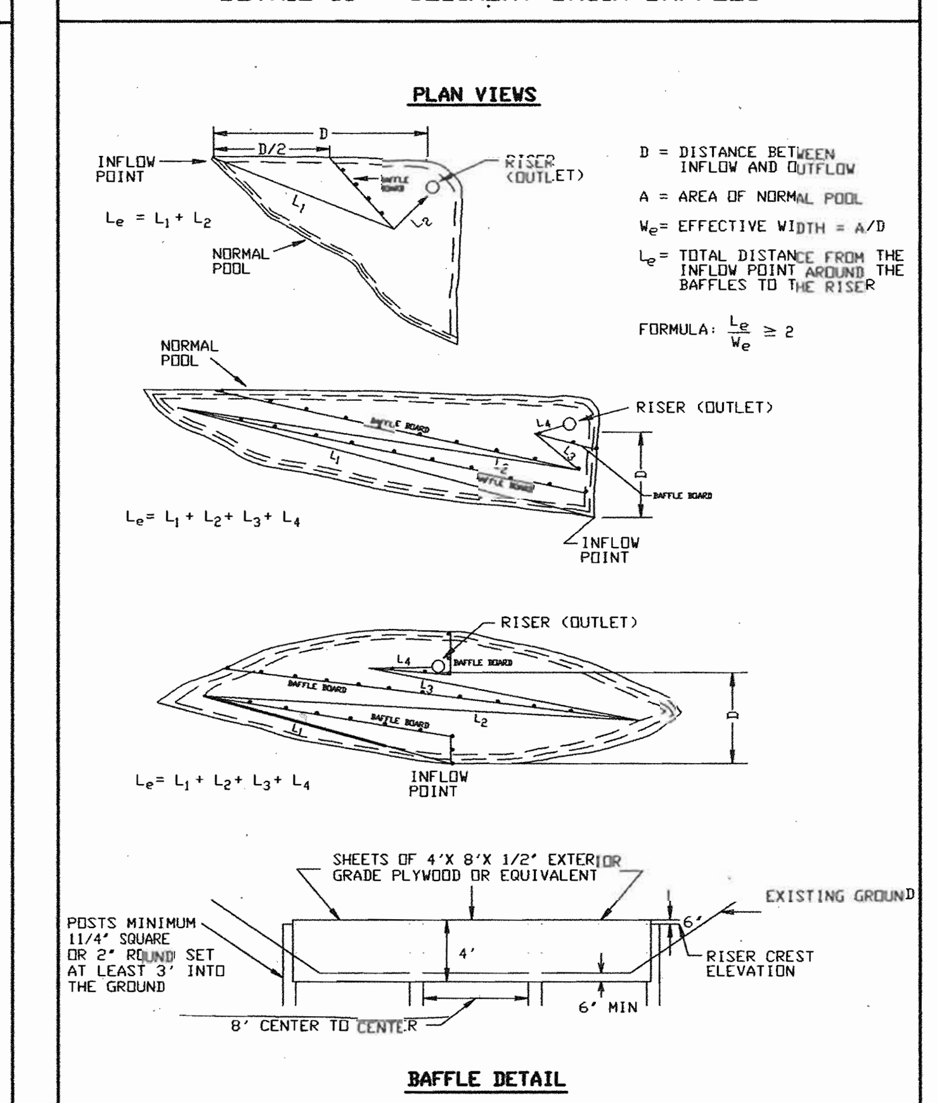
SILT FENCE

Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

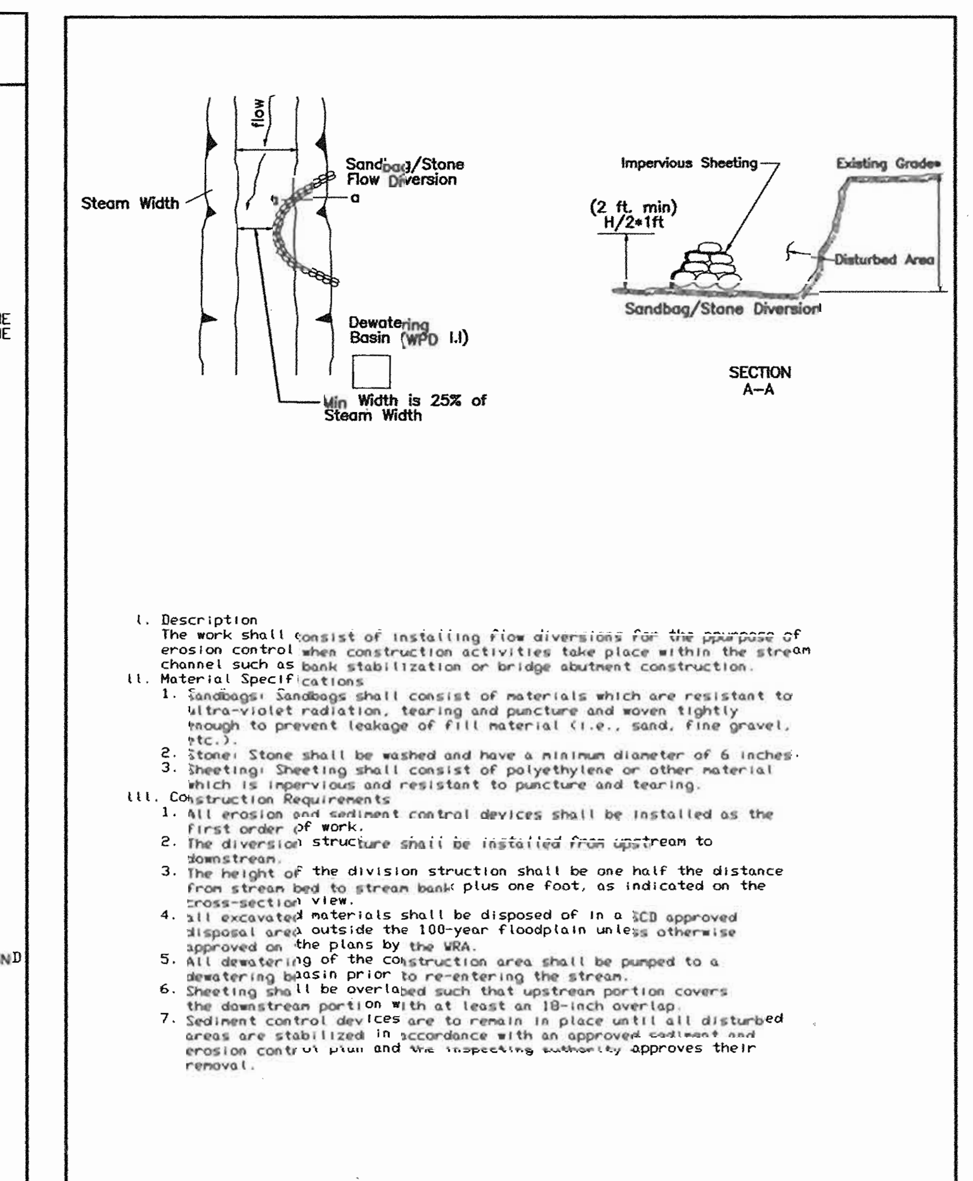
Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

DETAIL 18 - SEDIMENT BASIN BAFFLES



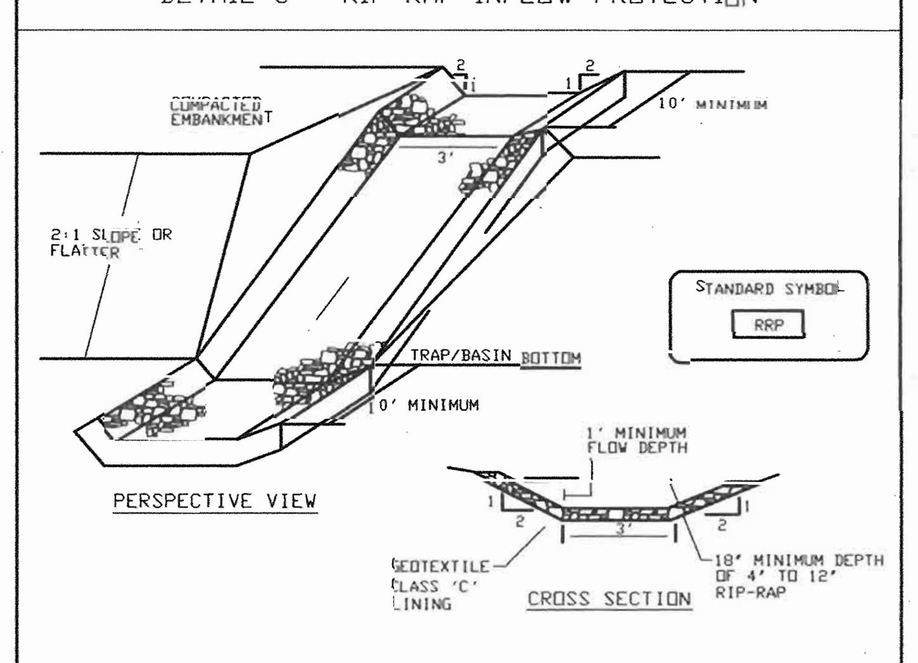
BAFFLE DETAIL

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE E - 18 - 29 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



WATER RESOURCES ADMINISTRATION | SandbagStone Diversion | Approved On ____ Chife,Waterway Permits | WPD 2.3

DETAIL 5 - RIP-RAP INFLOW PROTECTION

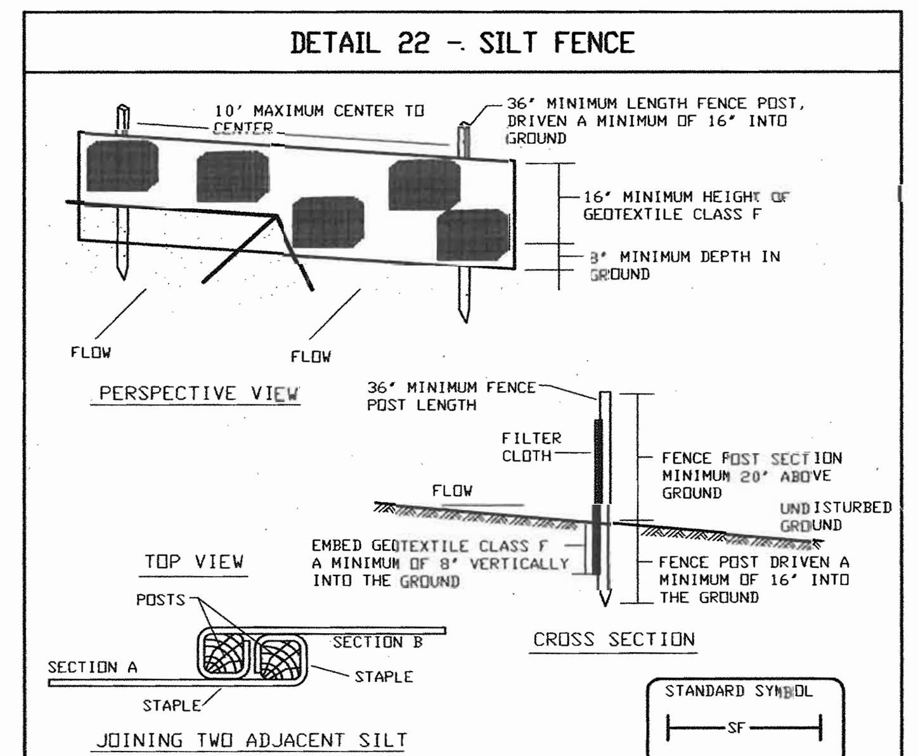


Construction Specifications

5. Gabion Inflow Protection may be used in lieu of Rip-rap Inflow Protection.
6. Rip-rap should blend into existing ground.
7. Rip-rap Inflow Protection shall be used where the slope is between 4:1 and 10:1, for slopes flatter than 10:1 use Earth Dike or Temporary Swale lining criteria.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE B - 6 - 2 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

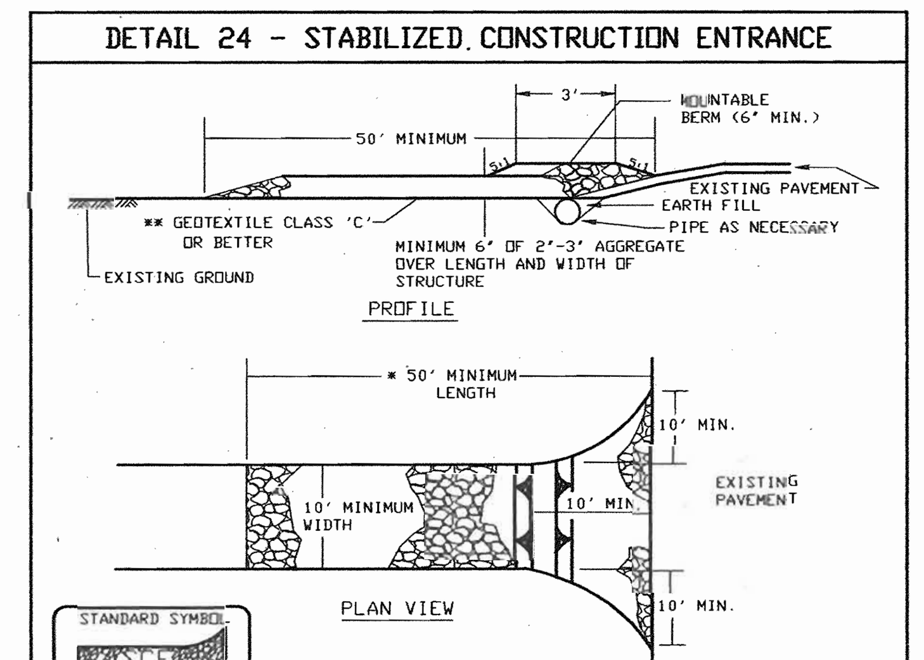
DETAIL 22 - SILT FENCE



Construction Specifications

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE E - 15 - 3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

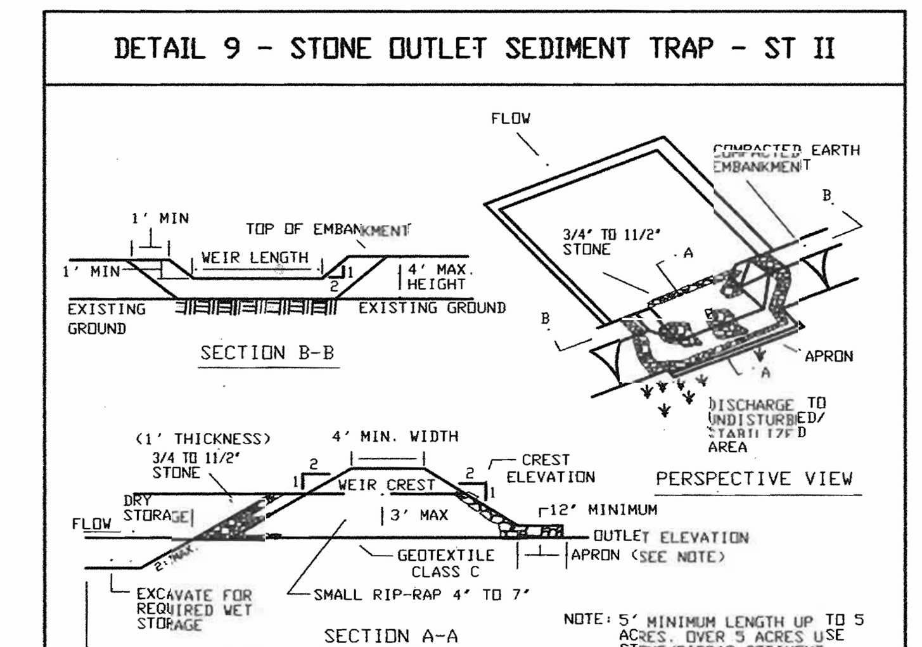
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE F - 17 - 3 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II



Construction Specifications

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE C - 9 - 18 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

DISTURBED AREA QUANITY

TOTAL SITE AREA IS 11.20 AC.±
THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 4.84 AC.±
AND THE TOTAL AMOUNT OF EXCAVATION AND FILL SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE
APPROXIMATELY 12,200 C.Y. OF EXCAVATION AND
APPROXIMATELY 8,500 C.Y. OF FILL.

SIGNED [signature] DATE 5/8/01
SOURABH G. MUNSHI

4/17/02 RELOC. 6" S.H.C. 4/21/04 REMOVE PERM. DEWATERING DEVICE

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

[signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION 7/2/01 DATE
[signature] CHIEF, DIVISION OF LAND DEVELOPMENT 7/5/01 DATE
[signature] DIRECTOR 7/6/01 DATE

DATE	REVISIONS
5/16/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/26/00

[Seal: STATE OF MARYLAND, SOURABH G. MUNSHI, NO. 10,539, REGISTERED PROFESSIONAL ENGINEER] 5/8/01

SITE DETAILS AND SEDIMENT CONTROL NOTES AND DETAILS
HOPE BAPTIST CHURCH
LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy,Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

SHEET NO. 6 OF 10
SDP-00-105

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
Plot date: 05/07/01 at 16:06

OPERATION AND MAINTENANCE SCHEDULE FOR
PRIVATELY OWNED AND MAINTAINED
DETENTION QUANTITY MANAGEMENT POND

ROUTINE MAINTENANCE:

1. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes, the bottom of the basin, and maintenance access shall be mowed as needed. In any event vegetation in the basin area shall note exceed 18? in height.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

1. Structural components of the pond of the pond such as the dam, the riser, and the pipes shall be repaired upon the detection of damage. The components shall be inspected during routine maintenance operations.
2. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond, or forebay is half full of sediment, or, when deemed necessary for aesthetic reasons, upon approval from the Department of Public Works.

OPERATION AND MAINTENANCE SCHEDULE FOR
PRIVATELY OWNED AND MAINTAINED
BIO-RETENTION WATER QUALITY MANAGEMENT

ROUTINE MAINTENANCE:

1. Remulch any areas void of mulch.
2. Remove and replace all dead and diseased vegetation considered beyond treatment.
3. Treat all diseased trees and shrubs.
4. Maintain all plant material according to the latest specifications by the American Association of Nurserymen.
5. Facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the pond is functioning properly.
6. Top and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes, the bottom of the basin, and maintenance access shall be mowed as needed. In any event vegetation in the basin area shall note exceed 18? in height.
7. Debris and litter shall be removed during regular mowing operations and as needed.
8. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

1. Structural components of the facility such as the dam, the riser, and the pipes shall be repaired upon the detection of damage. The components shall be inspected during routine maintenance operations.

TEST PIT LOG

GROUNDWATER OBSERVATION* — INSPECTOR: WILLIAM RYAN

Test pit B-1 Surface El: 267.5'	Test pit B-2 Surface El: 263.5'	Test pit B-3 Surface El: 258.0'	Test pit B-4 Surface El: 270.0'	Test pit B-5 Surface El: 270.0'	Test pit B-6 Surface El: 267.5'
Topsoil	Topsoil	Topsoil	Topsoil	Topsoil	Topsoil
Orange brown SILT, some sand little decomposed rock (MH)	Tan yellow clayey SILT (MH)	Tan yellow clayey SILT (MH)	Tan yellow clayey SILT (MH)	Orange brown SILT (MH)	Tan silty CLAY with some bankrun gravel (CL)
Bottom of test pit @ 8'	Orange brown SILT, some sand little decompresed rock(MH)	Bottom of test pit @ 4'	Bottom of test pit @ 1.5'	Light brown sandy CLAY, trace decomposed rock with mica (CL)	Bottom of test pit @ 3'
	Bottom of test pit @ 6'			Bottom of test pit @ 8'	
*No groundwater incountered	*No groundwater incountered	*Water @1.5' (probable runoff seeps)	*Water @1' (probable runoff seeps)	*Water @7'	*Water @1' (probable runoff seeps)

DEPTH: 5, 10, 15

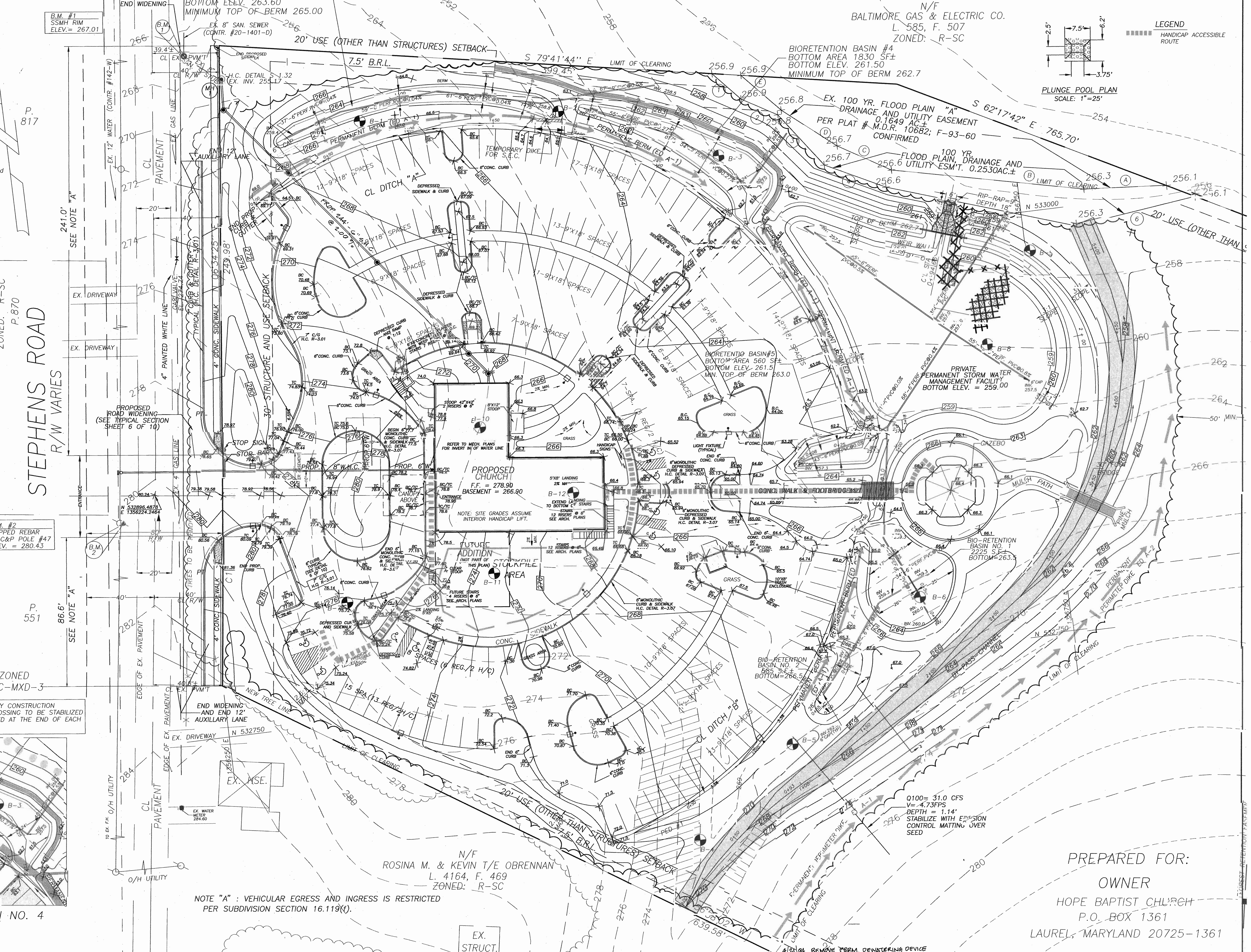
TEST PIT LOG

GROUNDWATER OBSERVATION* — INSPECTOR: WILLIAM RYAN

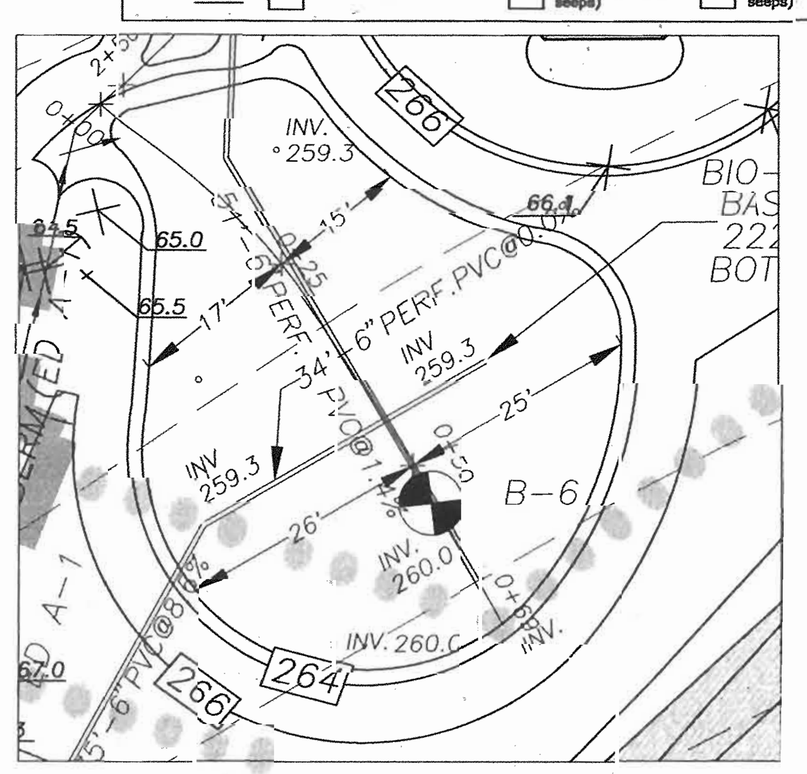
Test pit B-7 Surface El: 274.0'	Test pit B-8 Surface El: 260.0'	Test pit B-9 Surface El: 257.5'	Test pit B-10 Surface El: 268.0'	Test pit B-11 Surface El: 268.5'	Test pit B-12 Surface El: 265.5'
Topsoil	Topsoil	Topsoil	Topsoil	Topsoil	Topsoil
Orange brown SILT, some sand little decompresed rock(MH)	Light brown SILT, little sand trace decomposed rock with mica (CL)	Light brown SILT, little sand trace decomposed rock with mica (CL)	Orange brown SILT, some sand little decompresed rock(MH)	Orange brown SILT, some sand, trace decompresed rock with mica (MH)	Orange brown SILT, some sand, trace decompresed rock with mica (MH)
Tan yellow SILT (MH)	Bottom of test pit @ 3'	Bottom of test pit @ 3'	Bottom of test pit @ 3'	Orange brown SILT, some sand little decompresed rock (MH)	Bottom of test pit @ 3'
Bottom of test pit @ 6'				Bottom of test pit @ 5'	
*No groundwater incountered	*Water @1.5' (probable runoff seeps)	*Water @1.5' (probable runoff seeps)	*No groundwater incountered	*No groundwater incountered	*No groundwater incountered

DEPTH: 5, 10, 15

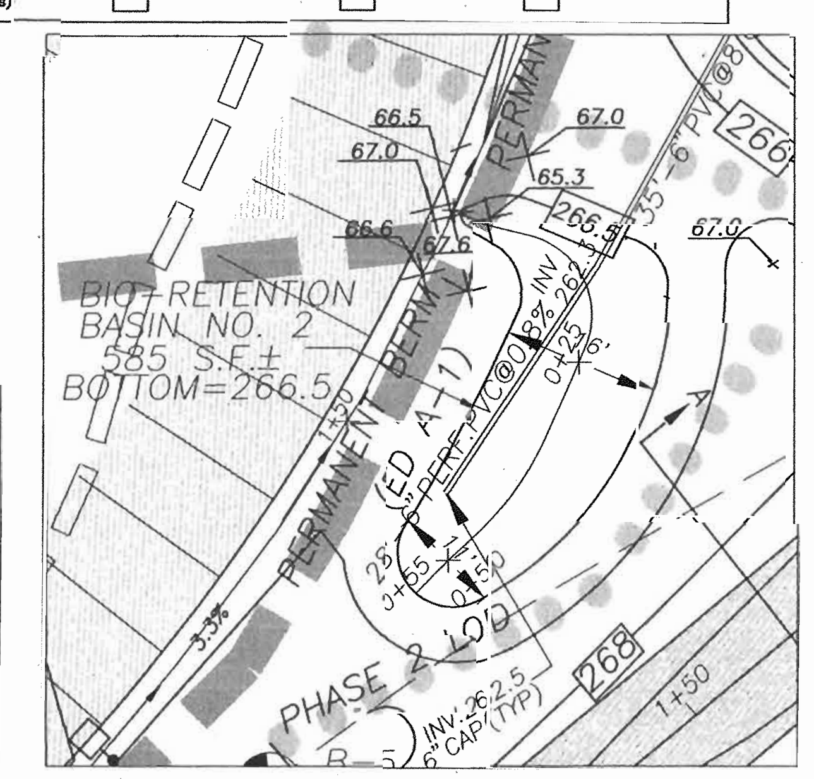
NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24



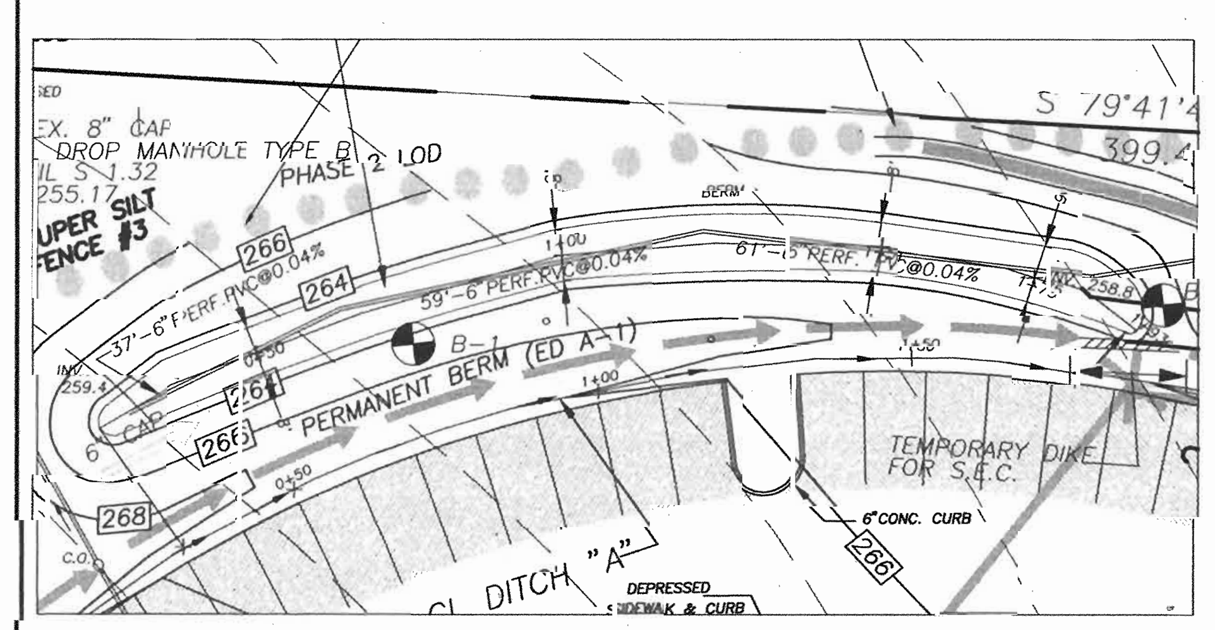
N/F
BALTIMORE GAS & ELECTRIC CO.
L. 585, F. 507
ZONED: R-SC
LEGEND
HANDICAP ACCESSIBLE ROUTE
PLUNGE POOL PLAN
SCALE: 1"=25'
BIO RETENTION BASIN #3
BOTTOM AREA 1350 S.F.±
BOTTOM ELEV. 263.60
MINIMUM TOP OF BERM 265.00
BIORETENTION BASIN #4
BOTTOM AREA 1830 SF±
BOTTOM ELEV. 261.50
MINIMUM TOP OF BERM 262.7
EX. 100 YR. FLOOD PLAIN "A" DRAINAGE AND UTILITY EASEMENT
0.1649 AC±
PER PLAT # M.D.R. 10682; F-93-60
CONFIRMED
100 YR. FLOOD PLAIN, DRAINAGE AND UTILITY ESM'T. 0.2530AC.±
20' USE (OTHER THAN STRUCTURES) SETBACK
S 79°41'44" E
399.45
S 62°17'42" E 765.70'
LIMIT OF CLEARING
B.M. #1
SSMH RIM
ELEV.= 267.01
END WIDENING
EX. 12' AUXILIARY LANE
STEPHENS ROAD
R/W VARIES
ZONED: R-SC
P. 870
P. 817
P. 551
241.0'
SEE NOTE "A"
86.6'
SEE NOTE "A"
PROPOSED ROAD WIDENING (SEE TYPICAL SECTION SHEET 6 OF 10)
CL PAVEMENT
EX. DRIVEWAY
30' STRUCTURE AND USE SETBACK
CL DITCH "A"
CL DITCH "B"
PROPOSED CHURCH
F.F. = 278.90
BASEMENT = 266.90
NOTE: SITE GRADES ASSUME INTERIOR HANDICAP LIFT.
FUTURE ADDITION
STOCKPILE AREA
B.M. #2
CAPPED REBAR
@ C&P POLE #47
ELEV. = 280.43
BIORETENTION BASIN#5
BOTTOM AREA 560 SF±
BOTTOM ELEV. 261.5
MIN. TOP OF BERM 263.0
PRIVATE PERMANENT STORM WATER MANAGEMENT FACILITY
BOTTOM ELEV. = 259.00
GAZEBO
MULCH PATH
CONC. WALK & FOOTBRIDGE
BIO-RETENTION BASIN NO. 1
2225 S.F.±
BOTTOM=263.5
BIO-RETENTION BASIN NO. 2
585 S.F.±
BOTTOM=266.5
ZONED PEC-MXD-3
NOTE: UTILITY CONSTRUCTION ROAD CROSSING TO BE STABILIZED AND PAVED AT THE END OF EACH DAY.
END WIDENING AND END 12' AUXILARY LANE
N/F
ROSINA M. & KEVIN T/E OBRENNAN
L. 4164, F. 469
ZONED: R-SC
EX. HSE.
EX. STRUCT.
O/H UTILITY
Q100= 31.0 CFS
V= 4.73FPS
DEPTH = 1.14'
STABILIZE WITH EROSION CONTROL MATTING OVER SEED
639.58'
NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).



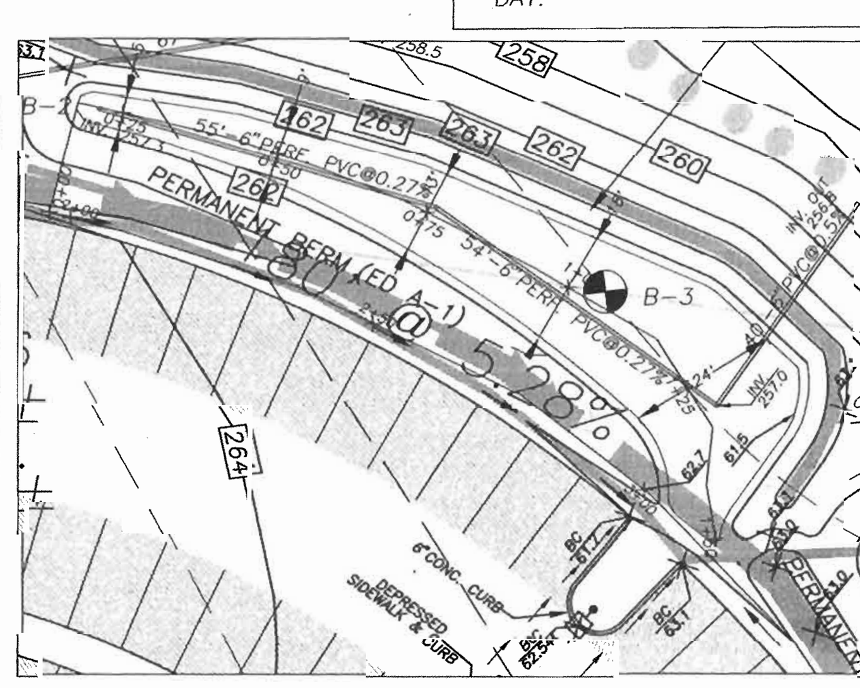
BIO-RETENTION BASIN NO. 1
SCALE: 1"= 20



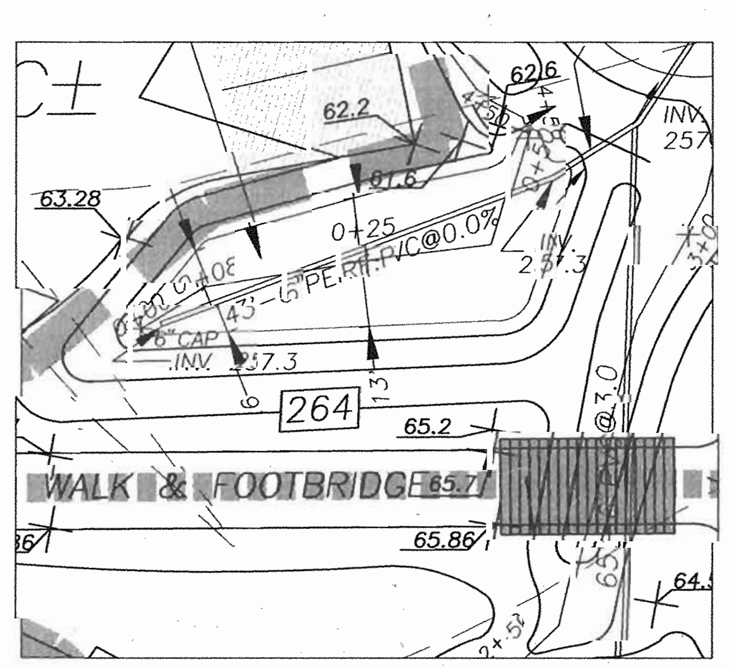
BIO-RETENTION BASIN NO. 2
SCALE: 1"= 20



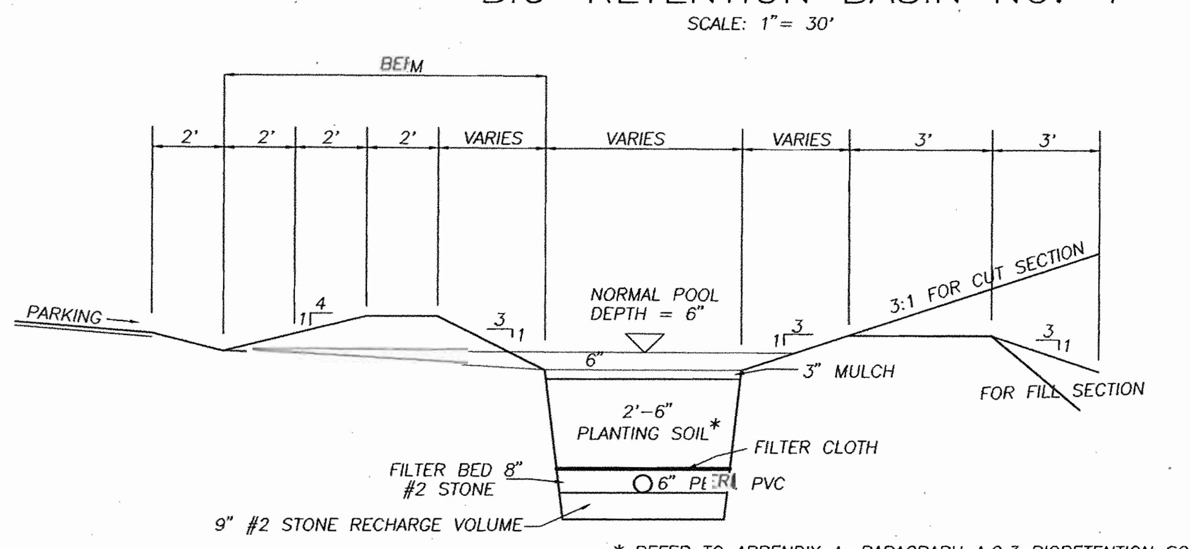
BIO-RETENTION BASIN NO. 3
SCALE: 1"= 30'



BIO-RETENTION BASIN NO. 4
SCALE: 1"= 30'

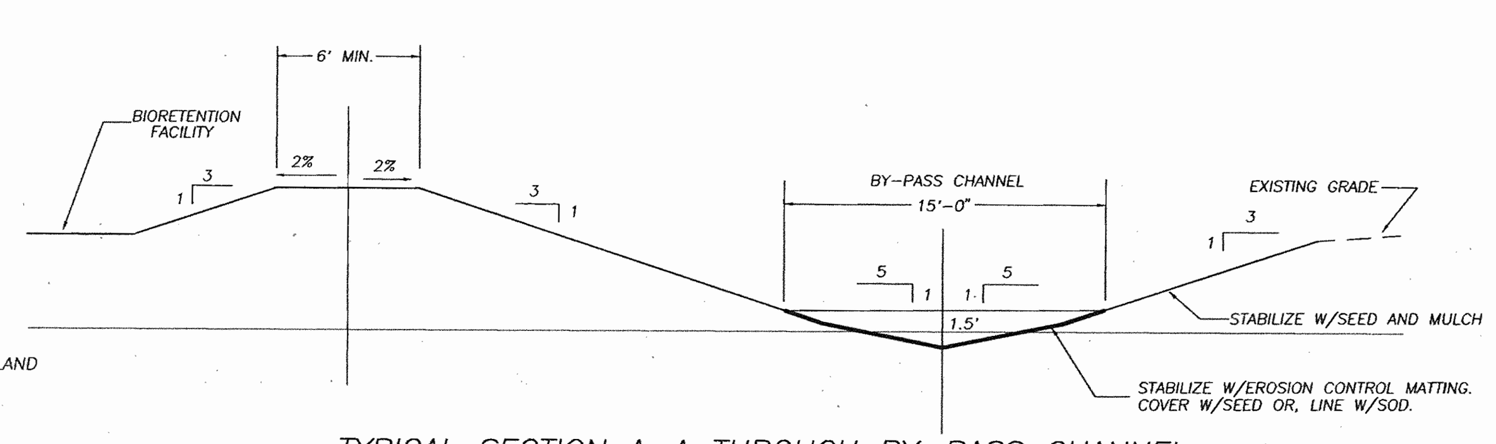


BIO-RETENTION BASIN NO. 5
SCALE: 1"= 20'



* REFER TO APPENDIX A, PARAGRAPH A.2.3 BIORETENTION SOIL BED CHARACTERISTICS, AMEND SOIL AS REQUIRED, 2000 MARYLAND STORM WATER DESIGN MANUAL.

TYPICAL SECTION THROUGH OFFLINE BIO-RETENTION FACILITY
3/16" = 1'-0"



TYPICAL SECTION A-A THROUGH BY-PASS CHANNEL
1/8" = 1'-0"

PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725-1361

4/21/04 REMOVE PERM. DEWATERING DEVICE
4/17/02 RELOC. 6" S.H.C.

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 7/2/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 7/5/01

DIRECTOR — DATE 7/6/01

DATE	REVISIONS
5/16/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS PER CO. COMMENTS DATED 10/10/00
5/5/01	AS PER CO. COMMENTS DATED 12/15/00

STATE OF MARYLAND — SOURABH G. MUNSHI — REGISTERED PROFESSIONAL ENGINEER — 5/18/01

GRADING, UTILITIES AND STORM WATER MANAGEMENT PLAN
HOPE BAPTIST CHURCH

LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' AUGUST, 1999

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy,Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

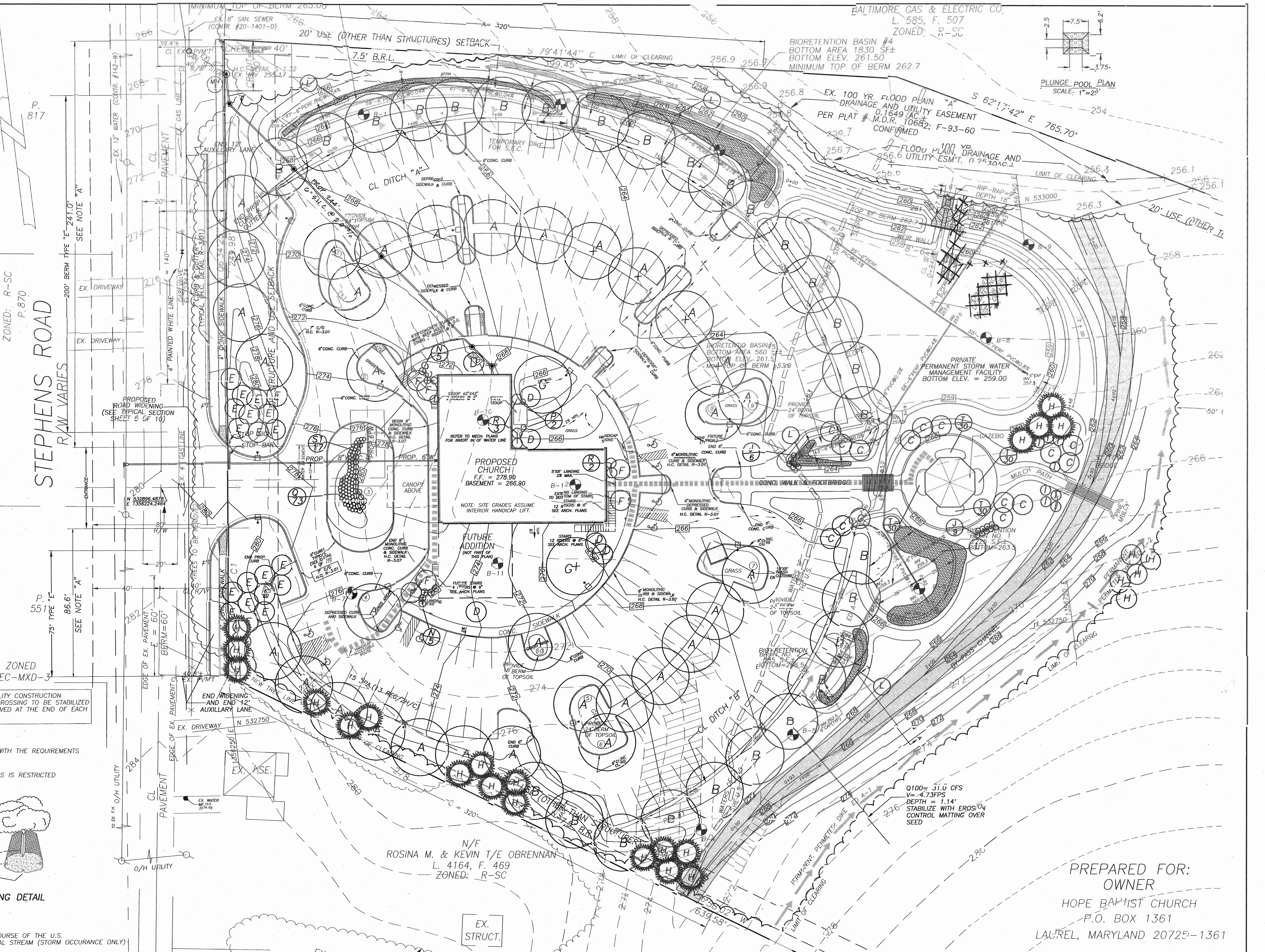
File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

LANDSCAPE SCHEDULE

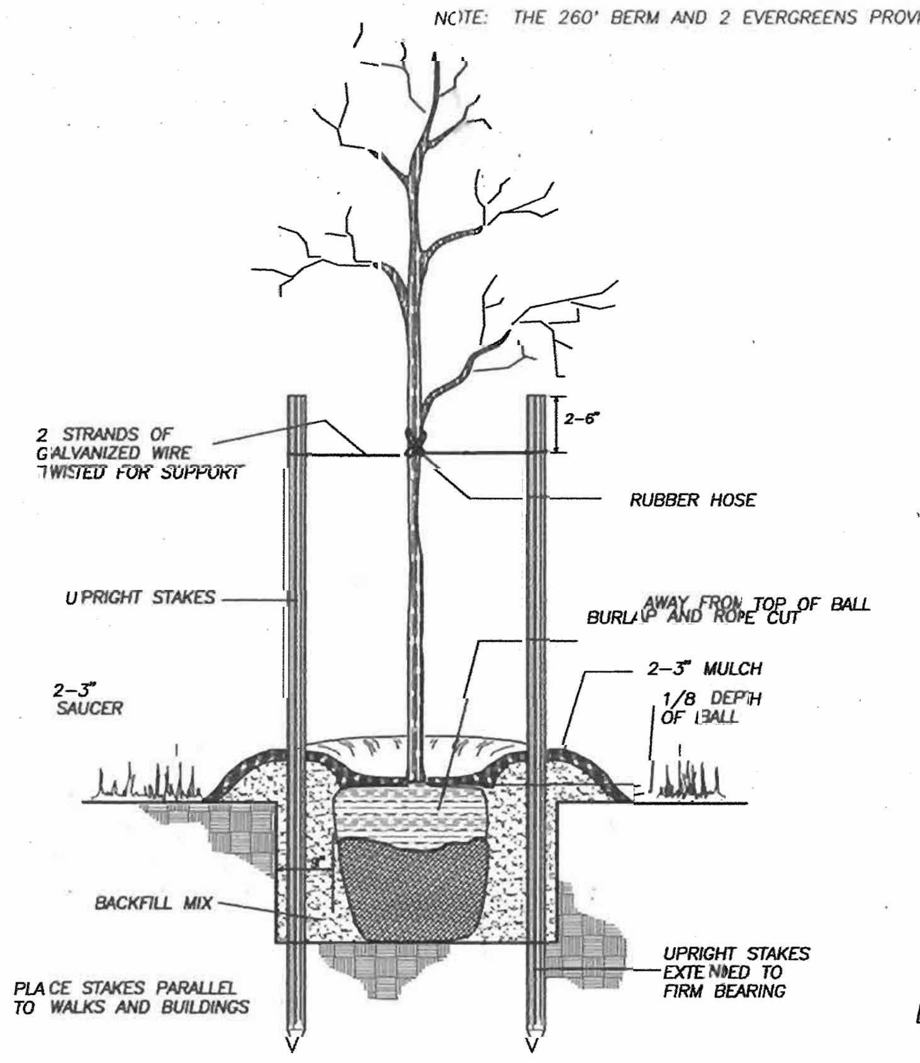
SYMBOL	QUANTITY	BOTANICAL NAME COMMON NAME	SIZE	NOTES	SPACING
A	32	ACER RUBRUM OCTOBER GLORY Red Maple	2 1/2–3" CAL.	B & B	as shown
B	28	PLATANUS ACERIFOLIA "BLOODGOOD" London Plane Tree	2 1/2–3" CAL.	B & B	as shown
C	12	OXYDENDRUM ARBOREUM Sourwood	1 1/2–2" CAL.	B & B	as shown
D	5	ACER GRISEUM Paperbark Maple	1 1/2–2" CAL.	B & B	as shown
E	20	MALUS INDIAN SUMMER Indian Summer Red Crab Apple	1 1/2–2" CAL.	B & B	as shown
F	6	AMELANCHIER CANADENSIS Downy Shadblow	1 1/2–2" CAL.	B & B	as shown
G	2	M. VIRGINIA Sweetbay Mongolia	2 1/2–3" CAL.	B & B	as shown
H	19	PICEA ABIES NORWAY SPRUCE	2 1/2–3" CAL.	B & B	as shown
I	8	ILEX VERTICILLATA X HYBRID HARCEST RED Winterberry	4–5' HT.	B & B	as shown
J	15	VIBURNUM CARLESI Fragrant Viburnum	18–24" HT.	CANS	as shown
L	295	CORNUS STOLONIFERA Red Osier Dogwood	12–16" HT.	CANS	3' O/C
N	10	ANTHONY WATERER SPIREA Spirea Anthony Waterer bumalda	12–16" HT.	CANS	as shown
O	1	PIERIS JAPONICA Andromeda	18–24" HT.	CANS	as shown
P	2	NANDINA DOMESTICA Heavenly bamboo	18–24" HT.	CANS	as shown
Q	73	JUNIPERS CHINENSIS SARGENTII GLAUCA Sargent's Juniper	12–16" HT.	CANS	as shown
R	5	PRUNUS LAUROCERASUS (SCHIPKAENSIS) Cherry Laurel	18–24" HT.	CANS	as shown
S1	17	AZALEA HINO–CRIMSON Hino–Crimson Azalea	12–16" HT.	CANS	as shown
S2	0	Azalea Delaware Valley White	12–16" HT.	CANS	as shown
S3	0	Azalea Poukhanensis (lavender)	12–16" HT.	CANS	as shown
T	120	Liiriope	Bare root		1' O/C
U	0	Hosta	Bare root		as shown
W	0	Hosta	2" pots		as shown

SCHEDULE "A" CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO SOUTHERN PERIMETER PROPERTIES	ADJACENT TO NORTHERN PERIMETER PROPERTIES	BUFFER PARKING ADJACENT TO ROADWAY
LANDSCAPE TYPE	B (1:50';1:40')	C (1:40';1:20')	A (1:60')	E (1:40';1:4')
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	65 L.F.	C=320' SOUTH	A=320'	E=75' 200' = 275'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	30	NONE SOUTH	40'	NONE
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)		NONE		260' BERM SUBSTITUTED FOR TYPE 'E' PLANTING
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	1 SHADE TREE 1 EVERGREEN TREE	8 SHADE TREES 16	5 SHADE TREES	7 SHADE TREES 4 SHRUBS
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	5 SHADE TREES 6 EVERGREEN TREES	11 SHADE TREES 14 EVERGREEN TREES 0 FLOWERING TREES 3 SHADE TREES FOR 2 EVERGREEN TREES	11 SHADE TREES	6 SHADE TREES 2 FLOWERING TREES FOR 1 SHADE TREE 260' BERM FOR 65 SHRUBS

NOTE: THE 260' BERM AND 2 EVERGREENS PROVIDED IN LIEU OF THE REQUIRED 69 SHRUBS.



PREPARED FOR:
OWNER
HOPE BAPTIST CHURCH
P.O. BOX 1361
LAUREL, MARYLAND 20725–1361

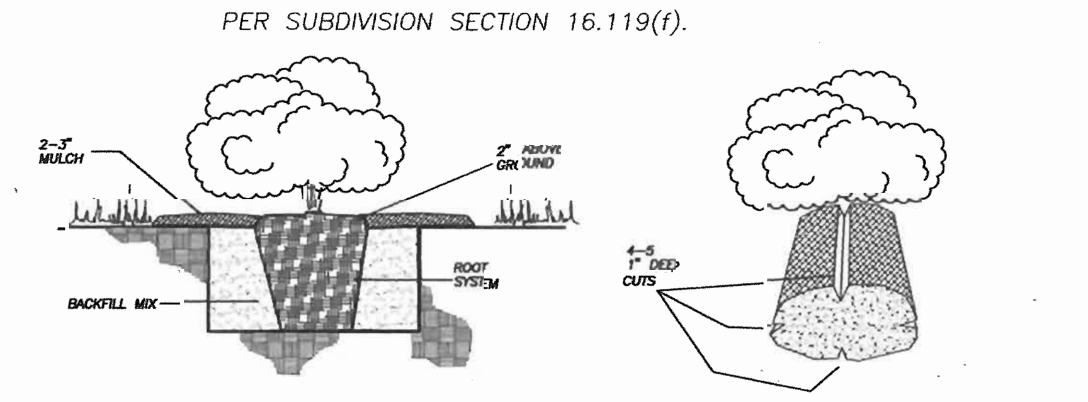


TYPICAL UPRIGHT STAKING DETAIL
(N.T.S.)

GENERAL NOTES:

1. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134.

NOTE "A" : VEHICULAR EGRESS AND INGRESS IS RESTRICTED PER SUBDIVISION SECTION 16.119(f).



TYPICAL CONTAINER–GROWN PLANTING DETAIL
(N.T.S.)

KEY: ▭ ▭ ▭ WATER COURSE OF THE U.S. EPHEMERAL STREAM (STORM OCCURANCE ONLY)

LANDSCAPE NOTES:

NUMBER	DELTA ANGLE	DEG. OF CRV ARC	CHD DIR.	TANGENT	RADIUS	ARC LENGTH	CHD LENGTH	EXTERNAL	MID ORDINATE
C1	00°52'10"	00°40'53"	N 07°00'30" E	63.82	8410.25	127.64	127.63	0.24	0.24

APPROVED:
DEPARTMENT OF PLANNING AND ZONING

[signature] 7/2/01 — CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

[signature] 7/5/01 — CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 7/6/01 — DIRECTOR — DATE

Landscape and Forest Conservation Notes

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE OWNER'S DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF $14,950.00 FOR 37 SHADE TREES, 25 EVERGREEN TREES AND 4 SHRUBS.

Conservation by

3. This project complies with the requirements of Section 16.1200 of the Howard County Code for Forest providing 3.89 ac.± of forest retention.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	194
NUMBER OF TREES REQUIRED	1:20 = 10
NUMBER OF TREES PROVIDED (FOR BONDING) SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	10
LANDSCAPED ISLANDS REQUIRED	10
LANDSCAPED ISLANDS PROVIDED (SEE NUMBERED ISLANDS (1)–(10))	10

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING	
LINEAR FEET OF PERIMETER	640 L.F. B BUFFER
NUMBER OF TREES REQUIRED SHADE TREES EVERGREENS	BUFFER B (1:50', 1:40') 6 8
CREDIT FOR EXISTING VEGETATION (NO, YES AND%)	CREDIT FOR 50% OF REQUIREMENT (320 L.F.)
CREDIT FOR OTHER LANDSCAPING (NO, YES AND%)	
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	 6 4 9 SMALL TREES FOR 3 EVERGREENS

4/17/02 RELOC. 6" S.H.C. 4/21/04 REMOVE PERM. DEWATERING DEVICE

DATE	REVISIONS
5/16/00	AS PER CO. COMMENTS DATED 4/28/00
6/25/00	AS PER CO. COMMENTS DATED 7/23/00
11/21/00	AS CO. COMMENTS DATED 10/10/00
5/5/01	AS CO. COMMENTS DATED 12/15/00

STATE OF MARYLAND — DAVID ALLMAN ADAMS — REGISTERED LANDSCAPE ARCHITECT — NO. 569 [signature] 5/8/01

LANDSCAPE AND LIGHTING PLAN AND DETAILS
HOPE BAPTIST CHURCH

LOT 1, BOLLING BROOKE
TAX MAP: 47; PARCEL: 141; EX. ZONING: RSC
SITUATED ON STEPHENS ROAD
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' MARCH, 2000

VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street P.O. box 328 Mount Airy, Maryland 21771
(301) 829 2890 (301)831 5015 (410) 549 2751

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD

SHEET NO. 10 OF 10

SDP-00-105

File name: T:\EP\JOBS\98-4312\SITEPLAN\984312SD
Plo date: 05/07/01 at 15:34