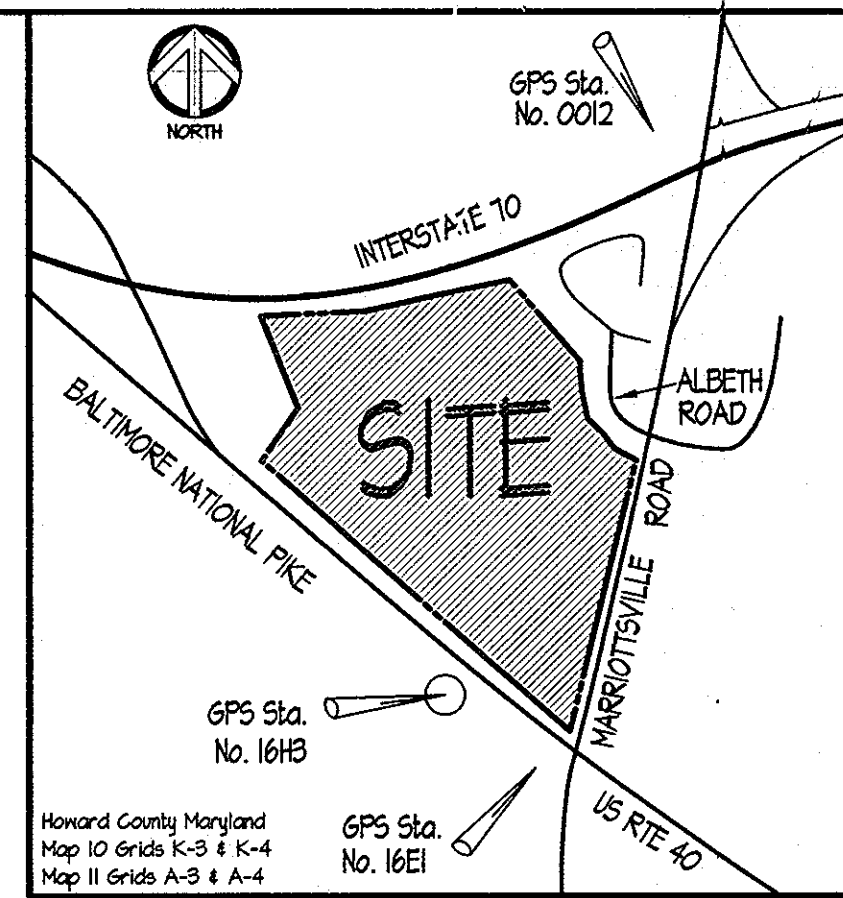


GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1800 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- All plan dimensions are to face of curb unless otherwise noted.
- The existing topography was obtained from a field run survey with 2 foot contour intervals on May 5, 2006 and revised May 24, 2006 performed by Shanabarger and Lane. Additional topography shown taken from an aerial survey prepared by Photogrammetric Data Services dated April 2, 1997.
- 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. 16H5, 16E1, 0012 were used for this project.
- No water is proposed.
- No sewer is proposed.
- Stormwater Management Water Quality is provided by a gabion weir and sheet flow to buffer. (CFV, Qp, and Qf management is provided by an underground "StormTech" chamber system, which has been overdesigned to meet master plan conditions). The facilities are privately maintained.
- Existing utilities are based on surveys performed by Shanabarger and Lane and record drawings, the contractor must determine the exact location of utilities by digging test pits, by hand, at all utility crossings prior to construction. Floodplain shown on this plan from Floodplain Study prepared by Gilliland and Associates approved by Howard County dated September 1988.
- There are Zone A Floodplains on this site based on the FEMA National Flood Insurance Program, Flood Insurance Rate Map, Howard County, Maryland, Panel 16 of 45, Map Number 24004416 B.
- There are wetlands, wetland buffers, streams and or stream buffers located on this site, as shown on the plan. Wetlands shown on this plan from wetland delineation by Landscape, Annapolis, Maryland dated 1988.
- No traffic study is required for this project.
- This site is exempt from the APFO test by date, June 13, 2002.
- The property boundaries shown on these plans are recorded in deed liber 1384, folio 339.
- No grading, removal of vegetative cover or trees, or placement of new structures is permitted within the limits of wetlands, streams, or their required buffers and forest conservation easement areas.
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual. Credit is given for existing vegetation, however two parking lot island shade trees shall be required for the parking expansion. Surety in the amount of \$600,000 shall be posted with the developer's agreement for this plan.
- Forest Conservation obligations in accordance with Section 16.1202 of the Howard County Code and Forest Conservation Manual has been previously addressed by the placement of 12.80 acres of existing forest into retention easements and the posting of surety under SDP-03-122(FC)/Forest Conservation Plat of Easement (recording reference Nos. 15923 to 15925). These previously recorded easements have been reconfigured and a new easement area added due to the proposed improvements shown on this site plan. The revised forest conservation plat SDP-07-193(FC)/Forest Conservation Plat of Easement, has placed 12.80 acres of existing forest into retention easements which meets the obligation of 12.80 acres of required retention. No surety is required under the revised forest conservation plat, SDP-07-193(FC), or this site plan since it has been previously posted under SDP-03-122(FC).
- All exterior light fixtures shall be oriented to direct light downward on-site, away from adjoining residential properties and public roads in accordance with Section 194 of the Howard County Zoning Regulations. Light trespass onto adjoining properties shall be limited to 0.1 foot candles. See sheet CO.02 for light details.
- There are no cemeteries or grave sites on the subject property.
- This project is subject to the amended fifth edition of the Subdivision and Land Development Regulations and the Zoning Regulations as amended under council bill #45-2003. Development or construction must comply with setback and buffer regulations in effect at the time of submission of the Site Development Plan, waiver petition application or building/grading permit.
- All utilities constructed within fill material must be installed in accordance with AASHTO-T100.
- ABBREVIATIONS:**

PROP	Proposed	DIP	Ductile iron pipe, class 54 unless otherwise noted
EX	Existing	PVC	Polyvinyl chloride pipe, schedule 40 unless otherwise noted
BIT	Bituminous	HDPE	High Density Polyethylene Pipe
CONC	Concrete	CMP	Corrugated Metal Pipe, aluminum unless otherwise noted
HT	Manhole	RCP	Reinforced concrete pipe, class III unless otherwise noted
SD	Storm Drain	C&G	Concrete curb & gutter, as detailed
I	Inlet	INV	Invert elevation
SAN	Sanitary Sewer	FFE	Finished floor elevation
TC	Top of curb	BC	Bottom of curb
TS	Top of step	BS	Bottom of step
PS	Parking space	HC	Handicapped parking space
PC	Point of curvature	TYP	Typical
PT	Point of Tangency	L.O.D.	Limit of Disturbance
TM	Top of Wall	BM	Bottom of Wall
TPF	Tree Protection Fence	R.O.W.	Right-of-way
- The subject property is zoned R-20 per the 02/02/04 comprehensive zoning plan.
- No wetlands, wetland buffers, streams, stream buffers, and/or steep slopes 25% or greater of 20,000 sf contiguous are proposed to be disturbed as part of this project.
- For a list of all previous final plats, waiver petition applications, site development plans, temporary use permits and board of appeals cases, what improvements and/or decisions were made, see project timeline on sheet CO.02.



VICINITY MAP
Scale: 1" = 1000'

BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16H3	542408.0425	134523.4617	464.712	NAD83(91)	NAVDB8
16E1	543250.9630	1340192.1010	463.843	NAD83(91)	NAVDB8
0012	546502.7604	1340864.3654	486.194	NAD83(91)	NAVDB8

DRAWING INDEX

SHEET #	DRAWING #	DRAWING TITLE
1 OF 28	CO.01	COVER SHEET
2 OF 28	CO.02	SITE NOTES & MANUFACTURER'S DETAILS
3 OF 28	CO.03	BLEACHER ELEVATIONS
4 OF 28	CO.04	SITE OVERVIEW
5 OF 28	C1.01	EXISTING CONDITIONS & DEMOLITION PLAN STADIUM FIELD
6 OF 28	C1.02	EXISTING CONDITIONS & DEMOLITION PLAN PRACTICE FIELD
7 OF 28	C2.01	LAYOUT & DETAIL REFERENCE PLAN STADIUM FIELD
8 OF 28	C2.02	LAYOUT & DETAIL REFERENCE PLAN PRACTICE FIELD
9 OF 28	C3.01	SITE DETAILS
10 OF 28	C4.01	LANDSCAPE PLAN STADIUM FIELD
11 OF 28	C4.02	LANDSCAPE PLAN PRACTICE FIELD
12 OF 28	C4.03	LANDSCAPE PLAN DETAILS
13 OF 28	C5.01	GRADING & EROSION & SEDIMENT CONTROL PLAN STADIUM FIELD
14 OF 28	C5.02	GRADING & EROSION & SEDIMENT CONTROL PLAN PRACTICE FIELD
15 OF 28	C5.03	EROSION & SEDIMENT CONTROL DETAILS
16 OF 28	C5.04	EROSION & SEDIMENT CONTROL DETAILS
17 OF 28	C6.01	PROPOSED STORM DRAIN D.A. MAP
18 OF 28	C6.02	STADIUM FIELD STORM DRAIN SYSTEM
19 OF 28	C6.03	STORM DRAIN PROFILES
20 OF 28	C6.04	STORM DRAIN PROFILES
21 OF 28	C6.05	STORM DRAIN DETAILS
22 OF 28	C7.01	EXISTING SWM D.A. MAP
23 OF 28	C7.02	PROPOSED SWM D.A. MAP
24 OF 28	C7.03	STORMWATER MANAGEMENT PLAN (STADIUM FIELD)
25 OF 28	C7.04	STORMWATER MANAGEMENT PLAN (PRACTICE FIELD)
26 OF 28	C7.05	STORMWATER MANAGEMENT DETAILS
27 OF 28	C7.06	STORMWATER MANAGEMENT SPECIFICATIONS AND GENERAL NOTES
28 OF 28	C8.00	FOREST CONSERVATION PLAN

SITE ANALYSIS DATA CHART

- Total Project Area = 61.53 Ac / 2,649,315 SF
- Limit of Disturbed Area = 4.16 Ac / 181,004 SF
- Present Zoning Designation = R-20
- Proposed Use for Site and Structures = Athletic Fields (Stadium & Practice Fields) Expansion
Press Box, Bleachers and Parking

- Total Square Feet of Floor Area by Use:

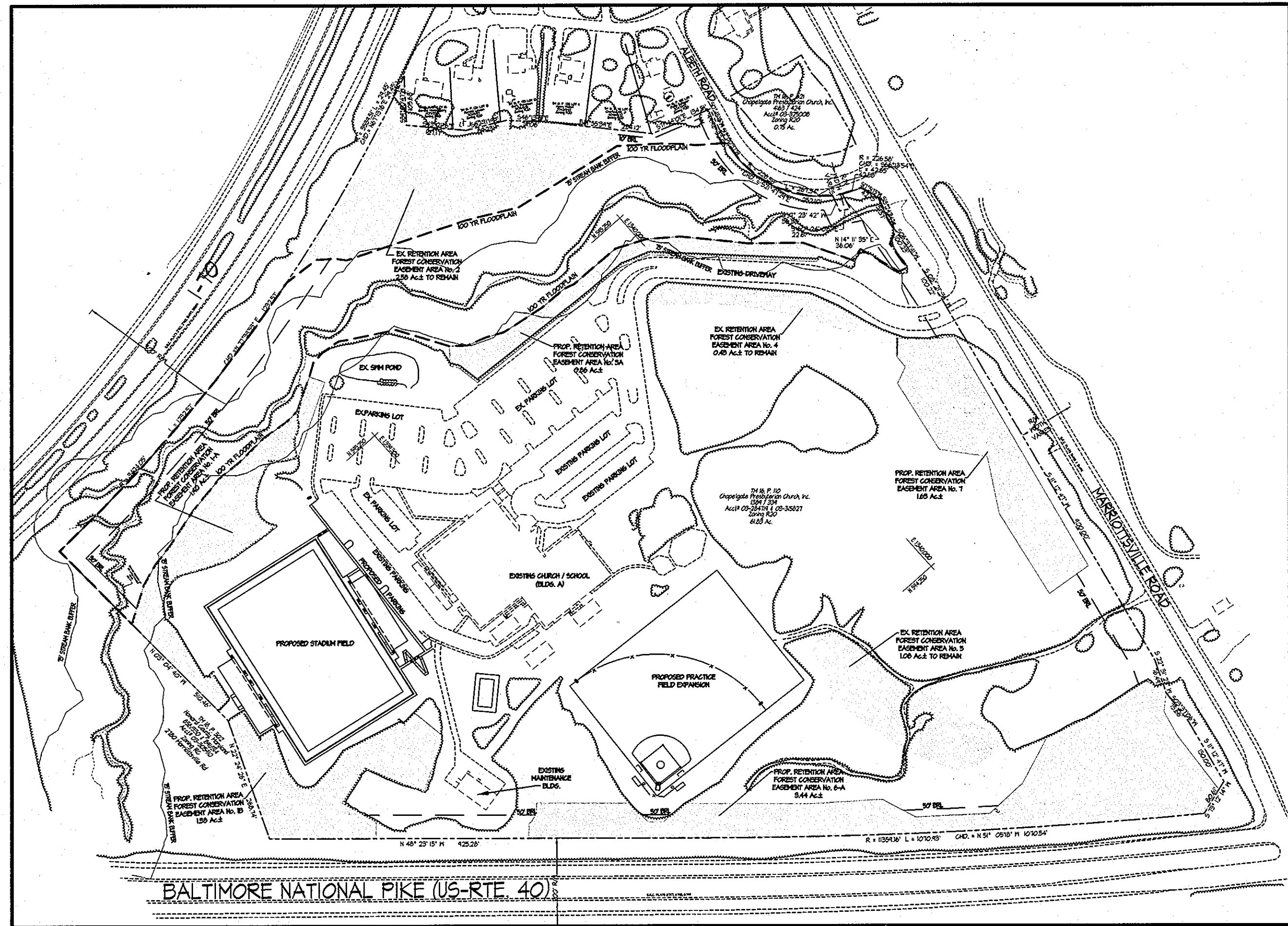
Existing Building (Church & School) =	87,884 sf	0 sf	87,884 sf
Existing Maintenance Building =	4,621 sf	0 sf	4,621 sf
Total =	92,446 sf	0 sf	92,446 sf
- Maximum Number of Users at school = 510
- Maximum Number of Users at church = 1200
- Parking Spaces Required: (From SDP-02-193 and Board of Appeals Case No. BA-07E)

1 space per 20 students	= 50 Parking Spaces
10 spaces for visitors	= 10 Parking Spaces
1 space per 15 student drivers	= 14 Parking Spaces
1 space per 8 auditorium seats	= 350 Parking Spaces
Total Spaces Required	= 424 Parking Spaces
Parking Spaces Provided:	EXISTING PROPOSED TOTAL
	571 34 615
- Handicap Parking Spaces Required:

615 Parking Spaces @ 2%	= 13 Handicap Parking Spaces
-------------------------	------------------------------
- Handicap Parking Spaces Provided:

(Included in Total Parking Spaces Provided) 24	0	32
------------------------------------------------	---	----
- Existing Building Coverage on Site = 1.53 Ac and 2.5% of gross area

Chapelgate Presbyterian Church



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

Robert H. Peter Beilman 8/28/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Mark A. Leight 9/5/08
DIRECTOR DATE

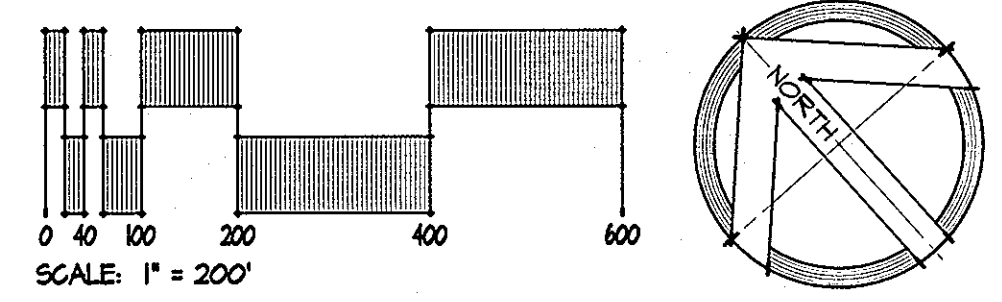
Chris Harris 9/4/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

BUILDING INDEX

EXISTING STRUCTURE	IDENTIFIER
CHURCH / SCHOOL	A

OWNERSHIP HISTORY
 MAP 16 PARCEL 110
 DECEMBER 13, 1982 1133/275
 ISABEL D. ELKINS TO STEPHEN B. ELKINS
 OCTOBER 1, 1985 1324/234
 STEPHEN B. ELKINS III TO CHAPEL GATE PRESBYTERIAN CHURCH

PURPOSE AND INTENT
 This project will provide a competition athletic field with bleachers and expand the existing practice field for the Chapelgate Christian Academy at Chapelgate Presbyterian Church. An additional 34 parking spaces are proposed.



I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15876, expiration date, 05/31/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARIOTTVILLE ROAD

SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	103

PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
LIB94 / FB94	10	R20	16	3	6030

WATER CODE	SEWER CODE
H06	5442000

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
 2600 Marriottville Road
 Marriottville, MD 21044 PHONE: (410) 453-6302

CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

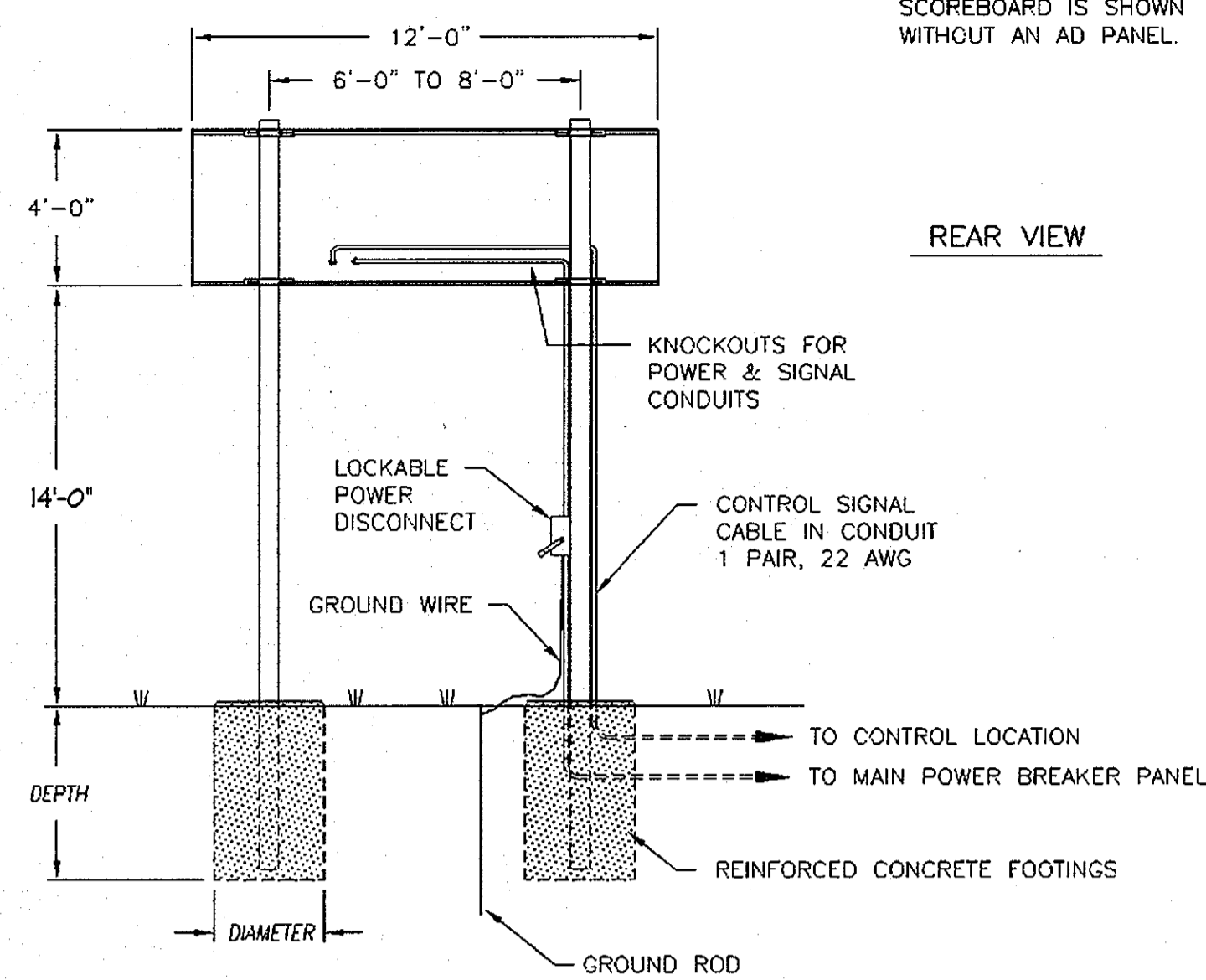
PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

COVER SHEET

REVISIONS

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services
 14307 Jarrattville Pike • Pikesville, Maryland 21111
 (410) 683-3388 • fax (410) 683-3389

DRAWN BY: AM	CONTRACT NO.:
DESIGNED BY: GRM	SCALE: 1" = 200'
CHECKED BY: GRM	SRI PROJECT NO: 05026
DATE: June 20, 2008	SHEET CO.01 1 OF 28

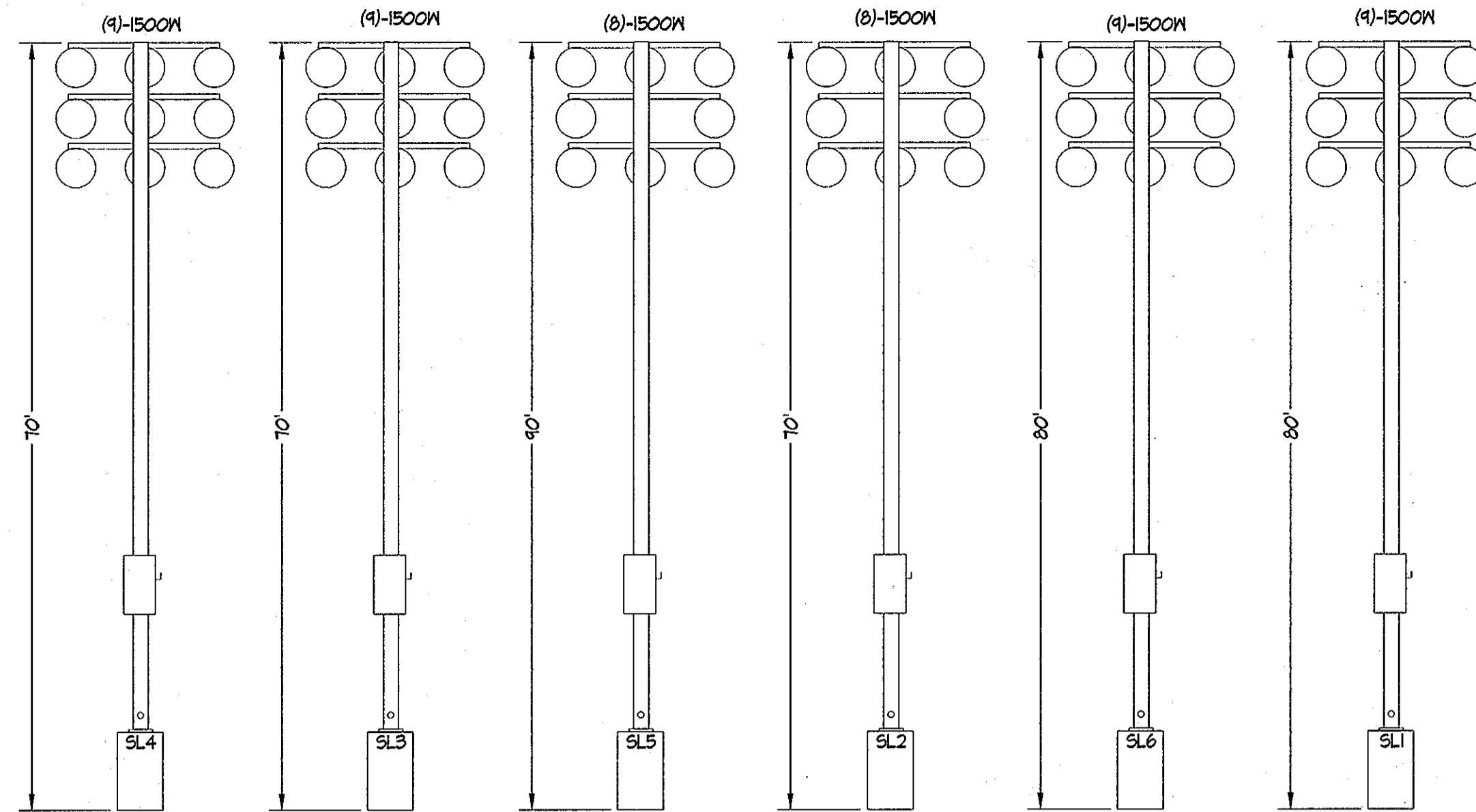


SCOREBOARD IS SHOWN WITHOUT AN AD PANEL.

REAR VIEW

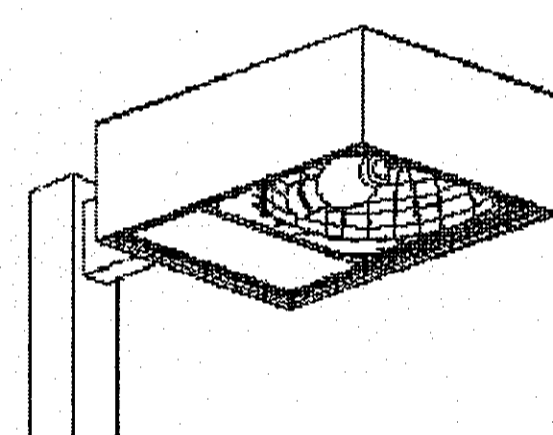
1 SCOREBOARD DETAIL
BY DAKTRONICS OR APPROVED EQUAL

NOT TO SCALE



2 STADIUM LIGHTING DETAIL
BY MUSCO LIGHTING OR APPROVED EQUAL

NOT TO SCALE

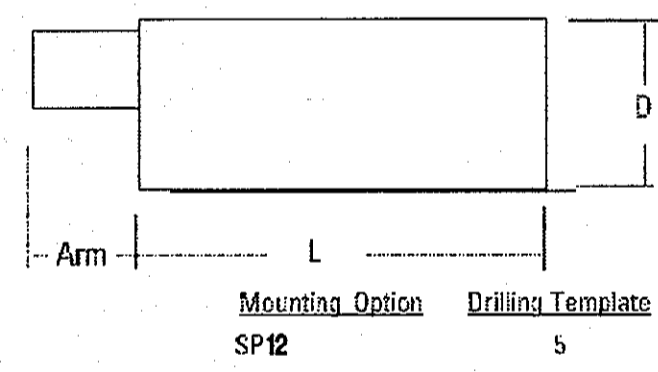


Area Lighting
KSF2

METAL HALIDE
250W - 400W
HIGH PRESSURE SODIUM
200W - 400W
15' to 25' Mounting

Specifications

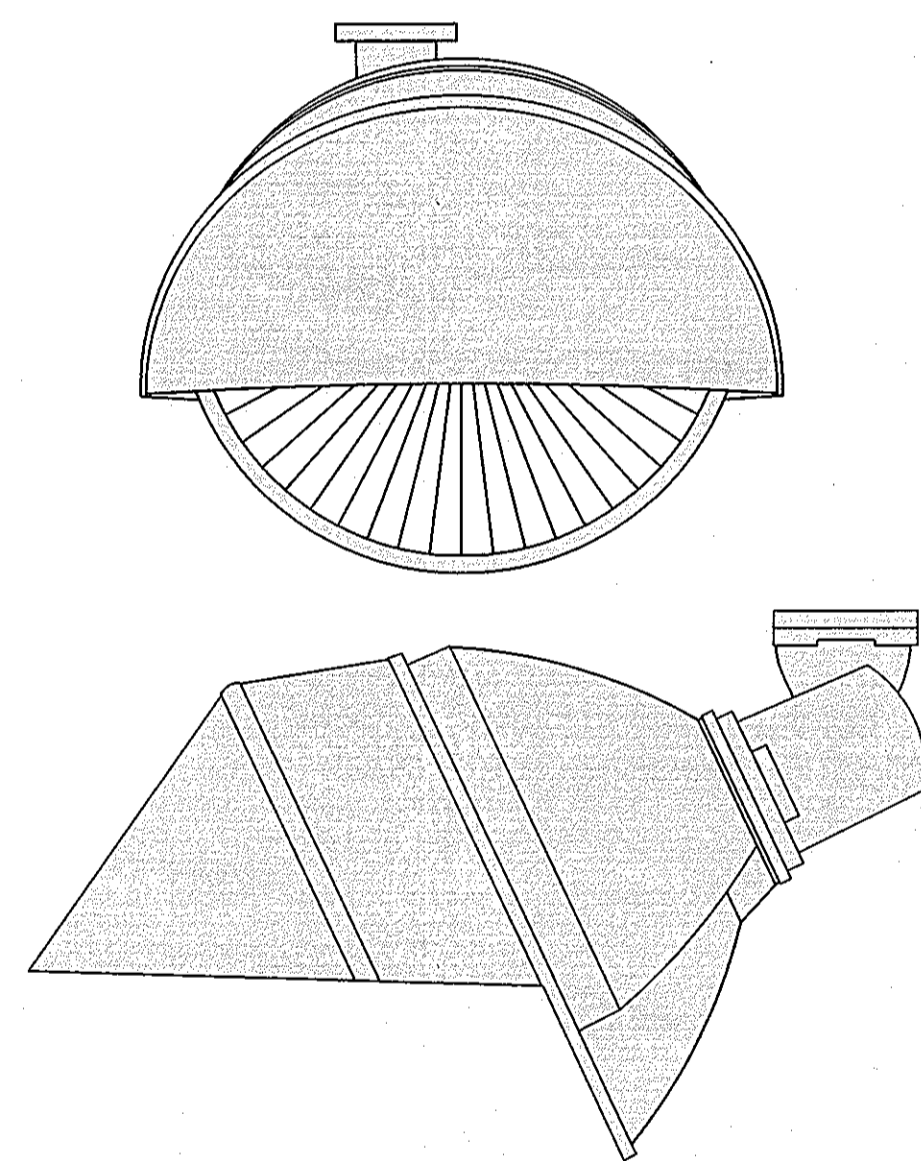
- *Weight: 52 lbs (23.6kg)
- EPA: 2.0 ft² (28m²) (includes arm)
- Length: 24-19/32 (62.5)
- Width: 17-25/32 (45.2)
- Depth: 8-5/16 (21.1)
- Arm: 12 (25.4)



All dimensions are inches (centimeters) unless otherwise specified. Specifications subject to change without notice.

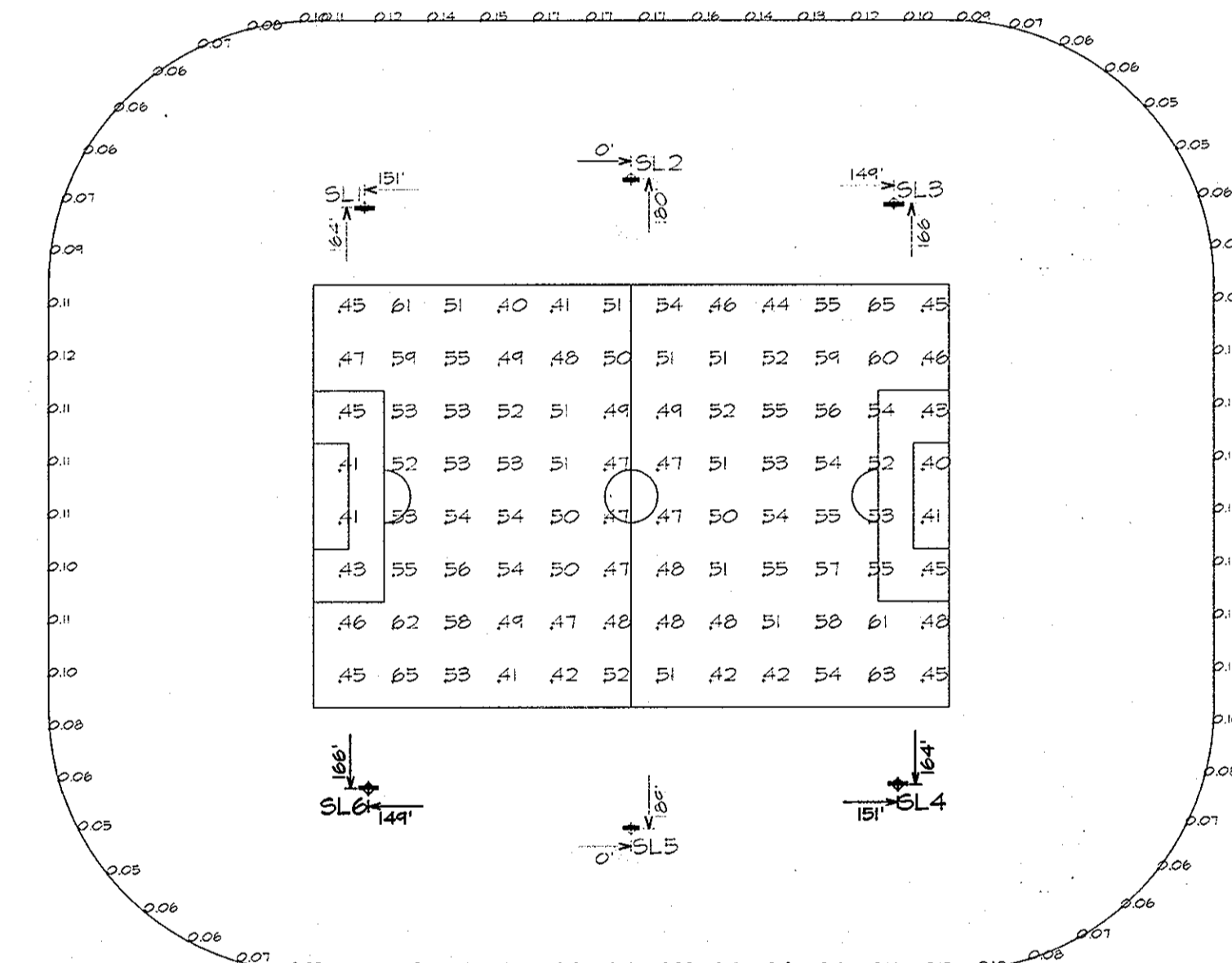
3 PARKING LIGHTING DETAIL
BY LITHONIA OR APPROVED EQUAL

NOT TO SCALE



4 FIELD LIGHTING DETAIL
BY MUSCO LIGHTING OR APPROVED EQUAL

NOT TO SCALE



PROJECT TIMELINE

REFERENCE	ACTION	DATE APPROVED	APPROVED BY
BA CASE NO. 86-04E	SPECIAL EXEMPTION TO BUILD A RELIGIOUS FACILITY	JULY 24, 1986	BOARD OF APPEALS FOR HOWARD COUNTY
SDP-88-37	ORIGINAL CONSTRUCTION OF CHURCH/SCHOOL BUILDING AND ASSOCIATED ROADS, PARKING AND ATHLETIC FIELD.	AUGUST 10, 1987	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
BA CASE NO. 93-07E	SPECIAL EXEMPTION TO EXPAND EXISTING RELIGIOUS FACILITY AND PRIVATE ACADEMIC SCHOOL	MAY 25, 1993	BOARD OF APPEALS FOR HOWARD COUNTY
SDP-93-12B	BUILDING EXPANSION	NOVEMBER 24, 1993	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
TU-01-01	TEMPORARY USE OF FIVE PORTABLE TRAILERS FOR CLASSROOMS AND MAINTENANCE OFFICE	JUNE 28, 2001	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
BA CASE NO. 01-23E	EXPANSION OF CONDITIONAL USE REQUEST TO ENABLE USE OF FIVE PORTABLE TRAILERS	JUNE 28, 2001	BOARD OF APPEALS FOR HOWARD COUNTY
MP-03-44	WAIVER OF SECTIONS 16.156 J AND 16.156 K OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS ALLOWING FOR SUBMITTAL OF FEES, POSTING OF FINANCIAL OBLIGATIONS AND SUBMISSION OF SDP ORIGINALS FOR SIGNATURE TO BE SUBMITTED WITHIN 225 DAYS IN LIEU OF THE 180 DAYS REQUIRED.	MARCH 31, 2003	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
SDP-03-122	FOREST CONSERVATION PLAT OF EASEMENT	MAY 16, 2003	STATE DEPARTMENT OF ASSESSMENTS AND TAXATION HOWARD COUNTY
SDP-02-133	CONSTRUCTION OF MAINTENANCE FACILITY, STORAGE AND PLAYGROUND	MAY 28, 2003	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
TU-06-004	TEMPORARY USE OF SIX MODULAR CLASSROOM UNITS	NOVEMBER 2, 2006	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
MP-08-34	WAIVER OF SECTION 16.156 (F)(2) TO ALLOW AN EXTENSION OF THE 45 DAY DEADLINE BY WHICH TO SUBMIT A REVISED SITE DEVELOPMENT PLAN FOR SDP 07-133, TO BE SUBMITTED WITHIN 90 DAYS FROM DATE APPROVED (FEBRUARY 28, 2008)	NOVEMBER 30, 2007	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

EXISTING VEGETATIVE COMMUNITIES

The Existing Vegetative Communities described below are from the Forest Stand Delineation conducted for approved SDP-02-133 on May 28, 2003.

The 60+/- acre site is located just southwest of the intersection of Interstate 70 and Marriottsville Road. It includes the existing development of church, school and associated site features, and approximately 40 acres of forest in several stands.

Stand A is situated on the northern edge of the property and is approximately 11.3 acres. It is bounded by Interstate 70 and residential uses along the north edge and church parking on the south. It is associated with a 100-year floodplain which crosses the site from east to west, and therefore is a priority retention area. The dominant species in the canopy are maple (average class size less than 12") to the east, transitioning to oak and tulip to the west (average class size 12" - 15"), as the lowland areas adjoin the upland. Other species include maple and beech, with dogwood and viburnum in the understory. To the east there is significant edge growth and invasives in all levels, including lonicera and rosa, as well as scattered standing dead. The stand is in generally good condition to the west, but in fair to poor condition at the eastern end. Soils in the stand are primarily Hattboro silt loam. Approximately 100 sf of clearing is proposed to this stand for the construction of two athletic fields.

Stand B is situated on the western and southern portions of the site and is approximately 11.5 acres. The stand is bounded to the northwest by floodplain and off-site forest and by MD Rte. 40 to the south. The upland area has minimal invasives, with pines along the eastern edge of the stand, and is of generally good quality. Soils in the stand area primarily Chester silt loam on moderate slopes. Average class size is 12" - 15". Approximately 5.6 acres of clearing is proposed to this stand for the construction of two athletic fields.

Stand C covers the eastern portion of the site, and is bounded on the southwest by Marriottsville Road and on the southeast by Route 40. The stand is approximately 16.6 acres and is in fair to good condition. The average class size is 12" - 15", primarily tulip, with cherry and maple species. Dogwood, sassafras and viburnum are in the understory. Soils in the stand area primarily Chester silt loam, 8% - 15%. Disturbance is proposed to the stand for a playground, and the stand contains a specimen Ilex opaca, as shown approximately on the plan. Approximately 1,400 sf of clearing is proposed to this stand for the construction of two athletic fields. Ultimate additional disturbance to this stand will be for the construction of building expansions and parking similar to that shown on the Forest Conservation plan.

For the purposes of this SDP submittal, clearing is only required for the proposed athletic fields. Retention will be in excess of the required retention acreage. Plans for the ultimate building expansion are not complete at this time and are not the subject of this SDP submittal. A final determination will be made at the time of future development.

KNOWN ENCUMBRANCES

1. There are no known encumbrances on this site.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
Brian J. Peter Bildeisen 8/29/08
COUNTY HEALTH OFFICER 50 08/29 DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
David A. Lough 9/15/08
DIRECTOR DATE
John J. Quinn 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Cindy Hume 9/15/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

BUILDING INFORMATION TABLE

EXISTING STRUCTURE	TYPE	MEAN HEIGHT	STREET ADDRESS	AGE
SCHOOL BUILDING	PERMANENT BUILDING	30'±	2600 MARRIOTTVILLE RD	18 YEARS
MAINTENANCE BUILDING	PERMANENT BUILDING	24'±	2600 MARRIOTTVILLE RD	4 YEARS
CLASSROOM TRAILER #1	TEMPORARY MODULAR BUILDING	12'±	2600 MARRIOTTVILLE RD	5 YEARS
CLASSROOM TRAILER #2	TEMPORARY MODULAR BUILDING	12'±	2600 MARRIOTTVILLE RD	5 YEARS
CLASSROOM TRAILER #3	TEMPORARY MODULAR BUILDING	12'±	2600 MARRIOTTVILLE RD	1 YEARS

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMPS		MAX WL	LUMENS	FIXTURE TYPE	SHIELD TYPE	MOUNTING TYPE	HEIGHT (OR APPROVED EQUAL)	MANU. / MODEL No.
		VOLTS	NO.							
FL	SHOE BOX STYLE H.I.D. LUMINAIRE WITH FORMED ALUMINUM SHEET METAL HOUSING, TEMPER GLASS LENS AND TYPE R3 DISTRIBUTION. UL LISTED FOR NET LOCATIONS.	277	4	400	50,000	CUTOFF	FLAT GLASS	POLE	20'	LITHONIA KSF2 400S R-3
SL	SPOTLIGHT HEAD WITH FORMED ALUMINUM SHEET METAL HOUSING TEMPER GLASS LENS AND RSAC DISTRIBUTION. UL LISTED FOR NET LOCATIONS.	480	52	1500	184,000	SPOTLIGHT	TEMPERED GLASS	POLE	SEE CHART	MUSCO LIGHTING GREEN GENERATION

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13976, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARRIOTTVILLE ROAD

SECTION / AREA LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH N/A 110

FLAT No. of L.P. BLOCK No. ZONE TAX MAP No. ELEC. DIST. CENSUS TRACT
110/41 / F334 10 R20 16 3 6030

WATER CODE H26 SEWER CODE 5942000

OWNER CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2600 Marriottsville Road
Marriottsville, MD 21094 PHONE: (410) 933-8020
CONTACT: JAMES E. HEAD III

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SITE NOTES & MANUFACTURER'S DETAILS

REVISIONS

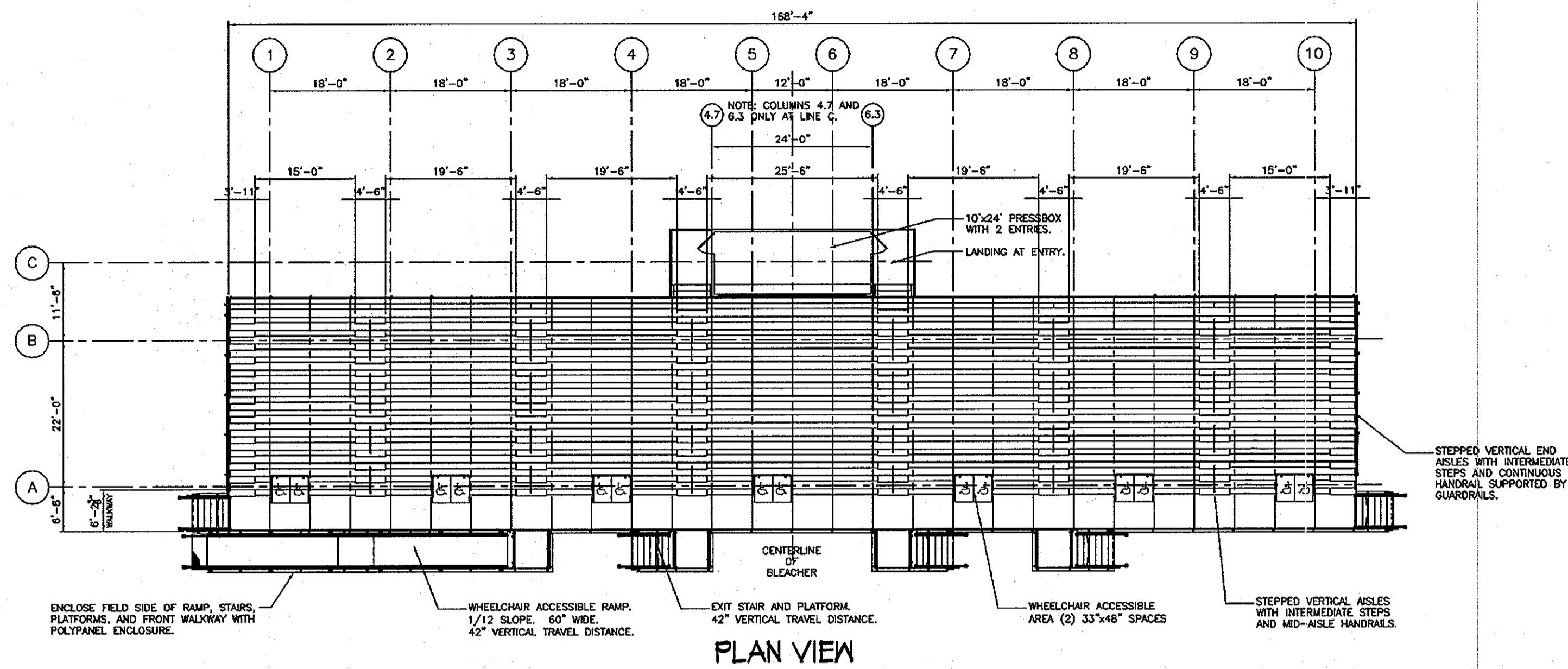
SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14877 Jarrettsville Pike • Poolesville, Maryland 21111
(410) 983-3388 • fax (410) 983-3389

DRAWN BY: AM **CONTRACT NO.:**

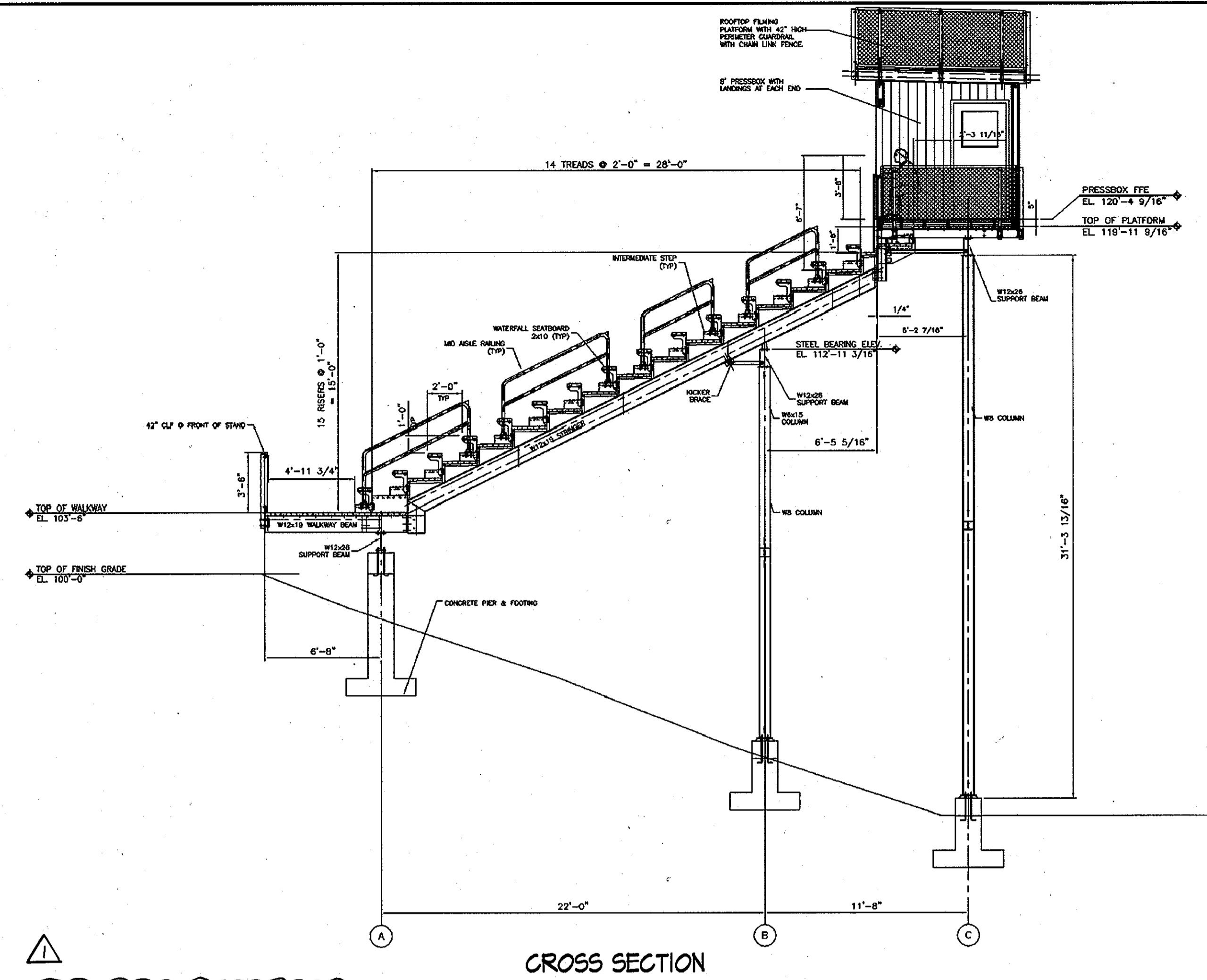
DESIGNED BY: CRM **SCALE:** AS SHOWN

CHECKED BY: CRM **SRI PROJECT NO.:** 05026

DATE: June 20, 2008 **SHEET:** C0.02 2 OF 28

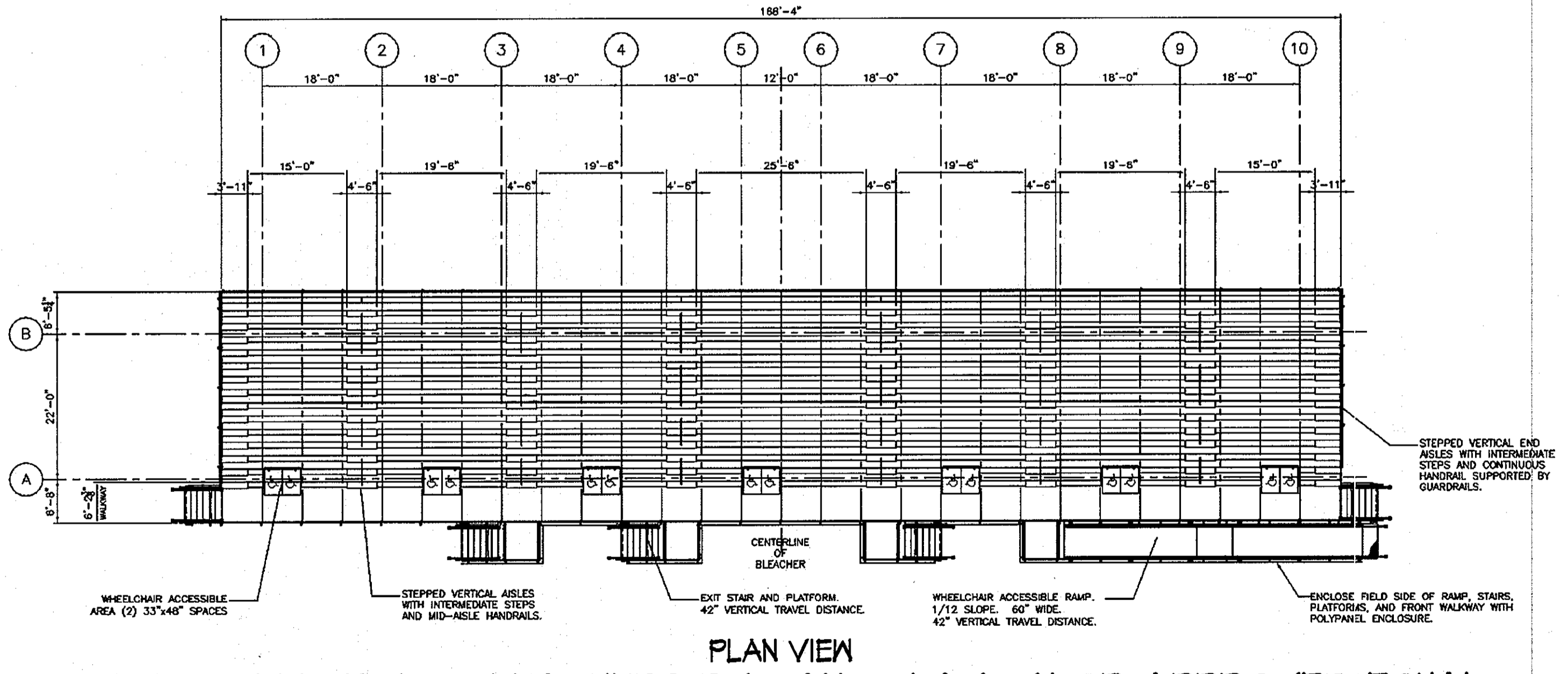


PLAN VIEW

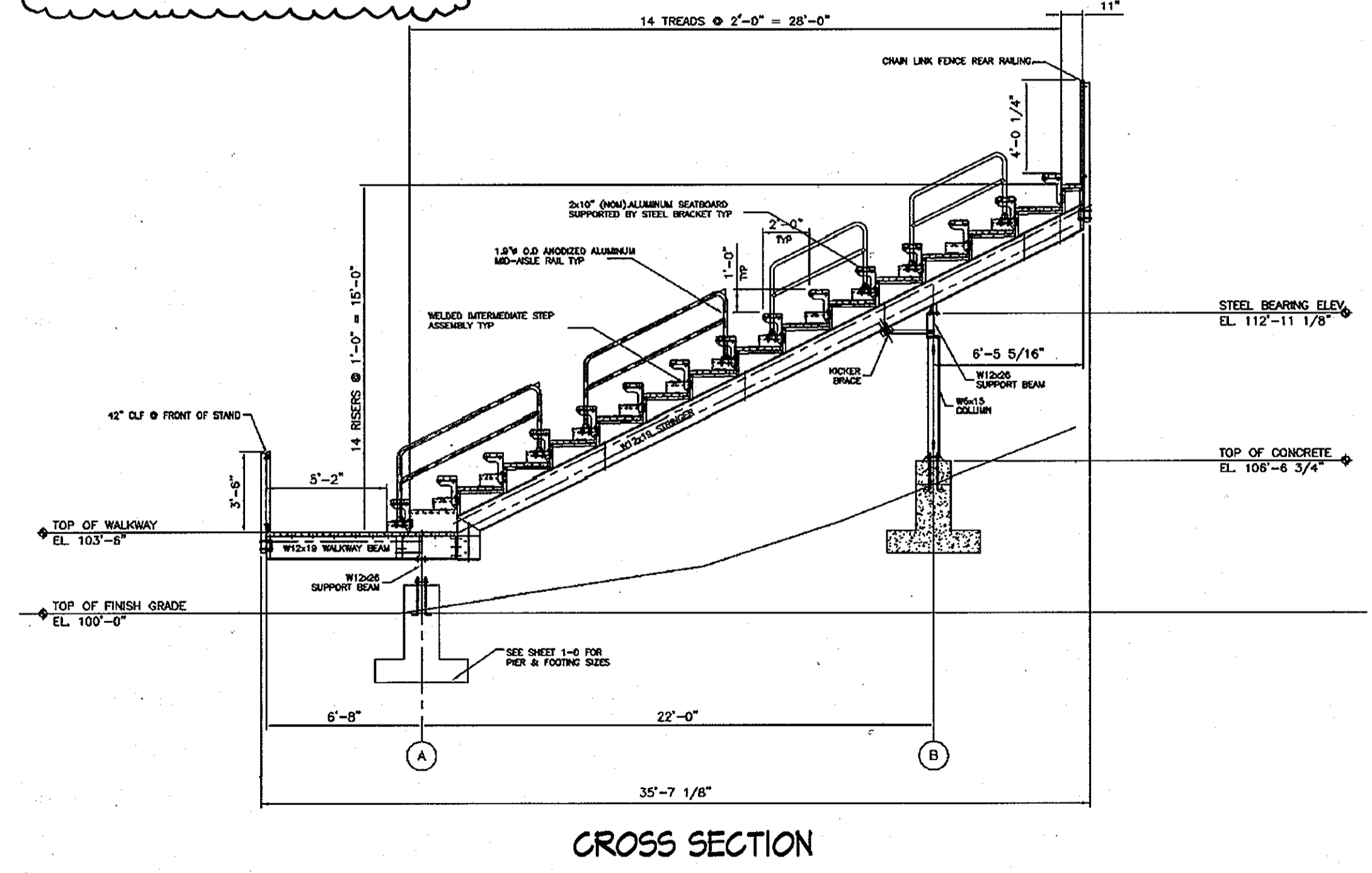


CROSS SECTION

1 HOME ELEVATED BLEACHERS WITH PRESS BOX BY DANT-CLAYTON OR APPROVED EQUAL (TO BE INSTALLED IN FUTURE PHASE)



PLAN VIEW



CROSS SECTION

2 VISITOR ELEVATED BLEACHERS BY DANT-CLAYTON OR APPROVED EQUAL

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
 APPROVED: DEPARTMENT OF PLANNING & ZONING

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15276, expiration date, 03/24/2010.

ADDRESS CHART					
PARCEL #	STREET ADDRESS				
110	2620 HARRIOTTSVILLE ROAD				
SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS			
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	102			
PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	GENUS TRACT
LIB94 / P234	10	R20	16	3	6030
WATER CODE	SEWER CODE				
H06	5442000				
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC. 2620 Harriottsville Road Marristown, MD 21084 PHONE: (410) 453-0023				
CONTACT: JAMES E. HEAD III					

THIS SEAL IS FOR REVISION Δ, BY SITE RESOURCES, INC.

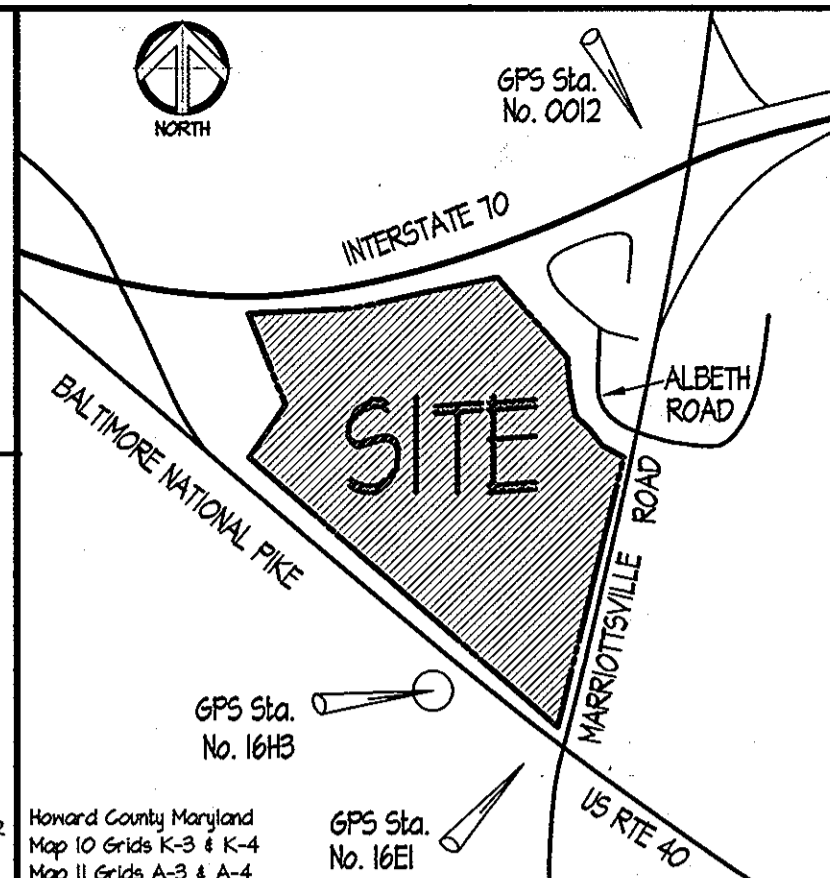
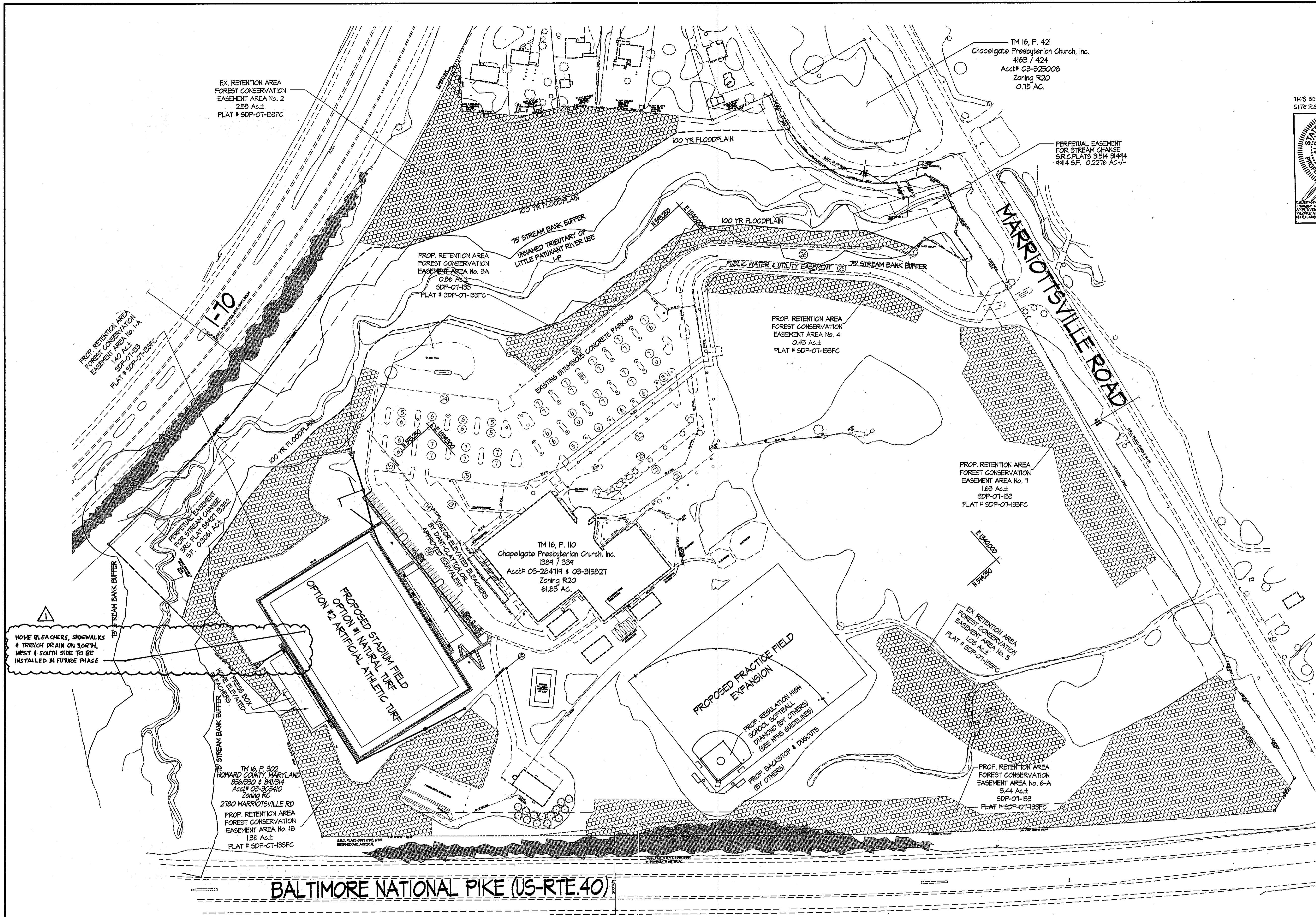
CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BLEACHER ELEVATIONS

REVISIONS
 Δ 05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services
 14307 Jarrettsville Pike • Pikesville, Maryland 21111
 (410) 683-3388 • fax (410) 683-3389

DRAWN BY: AM CONTRACT NO.:
 DESIGNED BY: DANT-CLAYTON SCALE: AS SHOWN
 CHECKED BY: GRM SRI PROJECT NO: 05026
 DATE: June 20, 2008 SHEET CO.03 3 OF 28



THIS SEAL IS FOR REVISION BY SITE RESOURCES, INC.

Howard County Maryland
Map 10 Grids K-3 & K-4
Map 11 Grids A-3 & A-4

VICINITY MAP
Scale: 1" = 1000'

BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16B	542408.0425	134523.4617	464.712	NAD83(91)	NAVD88
16E	543250.9638	134012.1010	463.843	NAD83(91)	NAVD88
002	546502.7604	1340864.3654	486.194	NAD83(91)	NAVD88

LEGEND

	PROPERTY LINE
	EXISTING PAVING
	EXISTING FOREST CONSERVATION EASEMENT
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF
	EXISTING STREAM
	75' STREAM BANK BUFFER
	100 YR FLOODPLAIN
	EXISTING BUILDINGS
	EXISTING PARKING COUNT

*** ALL EXISTING PARKING IS TO REMAIN**

CHAPELGATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SITE OVERVIEW

REVISIONS
 05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14307 Jarrettville Pike • Phoenix, Maryland 21151
(410) 683-3388 • Fax (410) 683-3389

DRAWN BY: AM
 DESIGNED BY: CRM
 CHECKED BY: CRM
 DATE: June 20, 2008

CONTRACT NO.:
 SCALE: 1" = 100'
 SRI PROJECT NO: 05026
 SHEET 00.04 4 OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

Peter Beilerman 8/25/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David A. Wight 7/14/08
DIRECTOR DATE

Chris Williams 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Candy Hamra 7/14/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15876, expiration date, 03/24/2010.

ADDRESS CHART

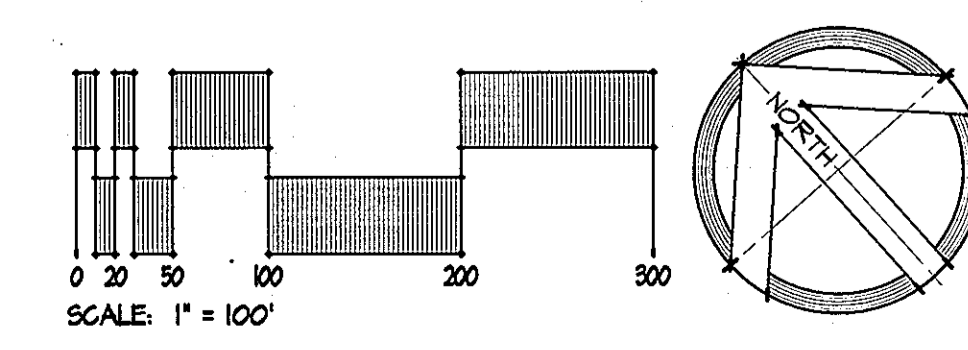
PARCEL #	STREET ADDRESS
110	2600 MARRIOTTVILLE ROAD

SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPELGATE PRESBYTERIAN CHURCH	N/A	1/2

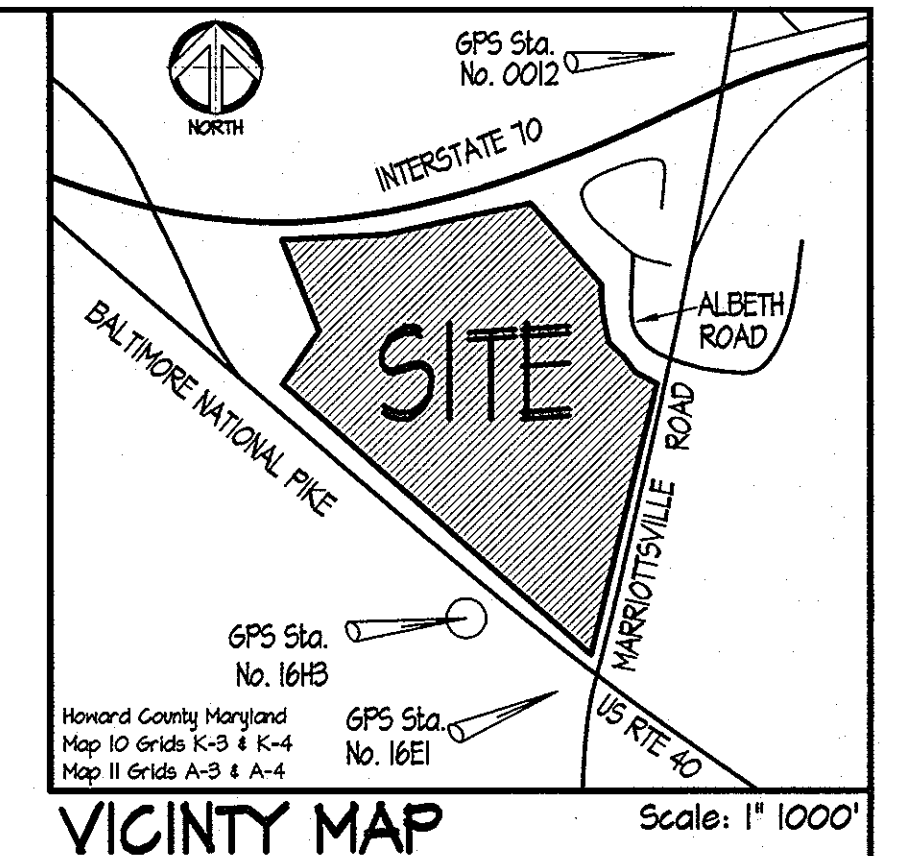
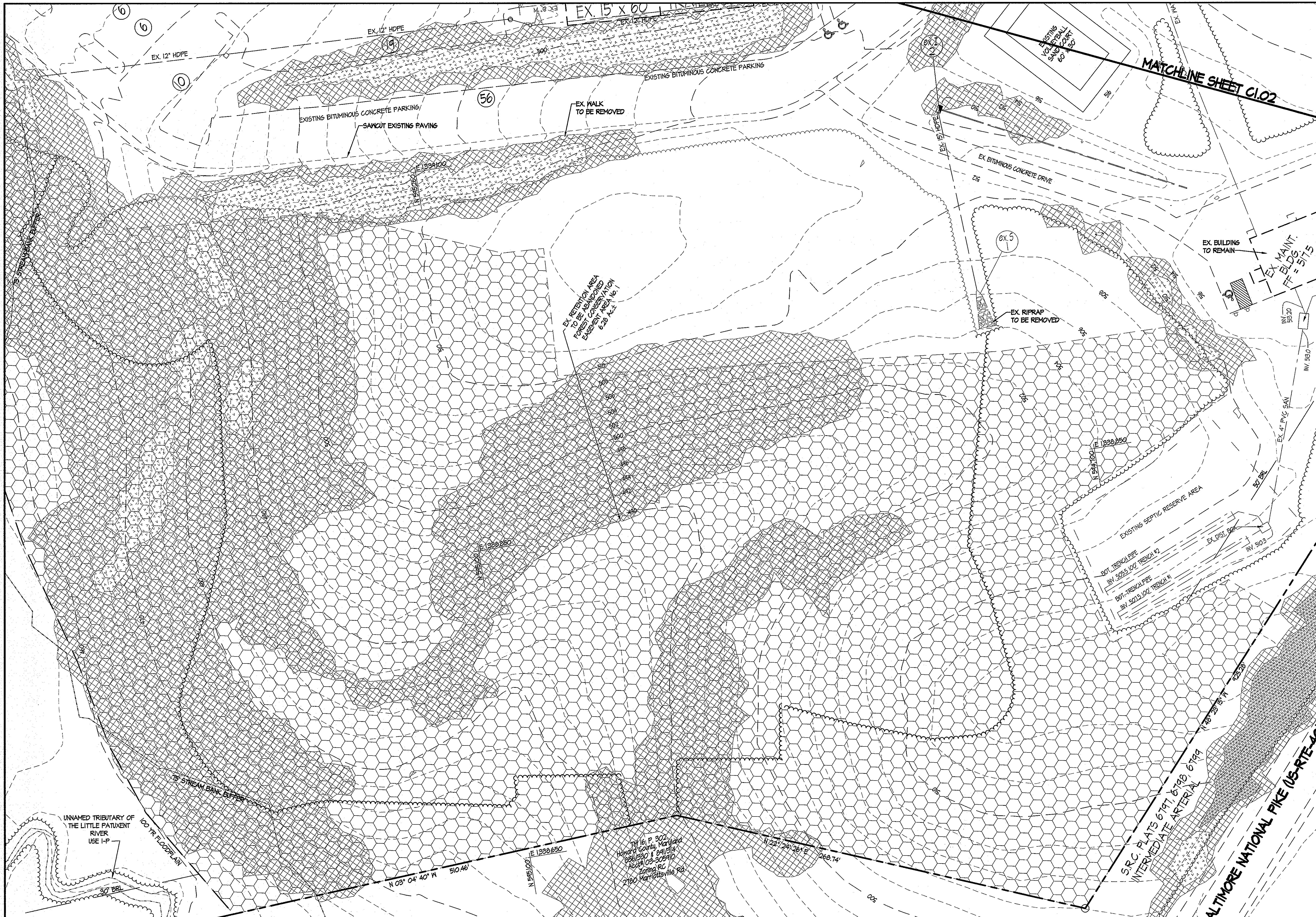
PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
LIB94 / F234	10	R20	16	3	6030

WATER CODE	SEWER CODE
H06	5942000

OWNER: CHAPELGATE PRESBYTERIAN CHURCH, INC.
 2600 Marriottville Road
 Marriottville, MD 21094 PHONE: (410) 683-3382
 CONTACT: JAMES E. HEAD III



2/10/2008: Chapelgate Christian Academy/Howard Co. Site Overview.dwg, 05/20/2008 10:58:15 AM, Copyright, Site Resources, Inc.



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
164B	542408.0425	1341523.4611	464.712	NAD83(91)	NAVDS8
16E1	543250.1638	1340192.1010	463.843	NAD83(91)	NAVDS8
0012	546502.7604	1340064.3654	466.191	NAD83(91)	NAVDS8

LEGEND

	PROPERTY LINE
	EXISTING CONTOURS
	EXISTING TREELINE
	EXISTING TREELINE TO BE REMOVED
	PROPOSED TREELINE
	EXISTING TREES
	TO REMAIN
	TO BE REMOVED
	EXISTING PAVING TO REMAIN
	EXISTING PAVING TO BE REMOVED
	EXISTING BUILDINGS
	EXISTING STORM DRAIN TO REMAIN
	EXISTING STORM DRAIN TO BE ABANDONED/REMOVED
	EXISTING WATER TO REMAIN
	EXISTING SANITARY TO REMAIN
	EXISTING FENCE TO REMAIN
	EXISTING STREAM
	EXISTING STREAM BUFFER
	100 YR FLOODPLAIN
	EXISTING FOREST CONSERVATION EASEMENT
	TO BE ABANDONED
	EXISTING STEEP SLOPES 15% - 25%
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA LESS THAN 20,000 SF
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF

**CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND
PARKING EXPANSION**

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
EXISTING CONDITIONS & DEMOLITION PLAN
STADIUM FIELD
REVISIONS

CHAPEL GATE PRESBYTERIAN CHURCH	SITE RESOURCES Incorporated
14307 Harrodsville Pike • Potosi, Maryland 21111 (410) 683-3388 • fax (410) 683-3389	Comprehensive Land Planning & Site Design Services
DRAWN BY: AM	CONTRACT NO.:
DESIGNED BY: CRM	SCALE: 1" = 30'
CHECKED BY: CRM	SRI PROJECT NO.: 05026
DATE: June 20, 2008	SHEET C1.01 5 OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE
BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

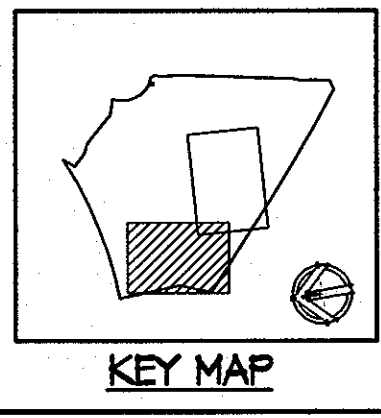
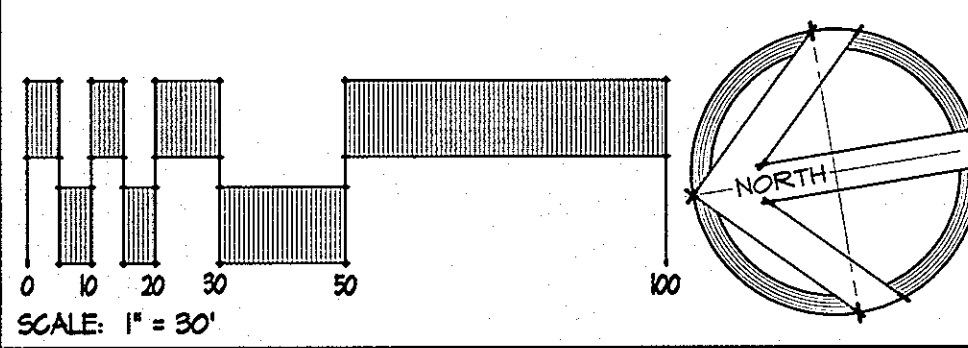
B. Nolan for Peter B. Silvers 8/23/08
COUNTY HEALTH OFFICER 50 DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David A. Geyer 8/23/08
DIRECTOR DATE

William J. ... 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Conny ... 8/14/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15876, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 HARRIOTTSVILLE ROAD

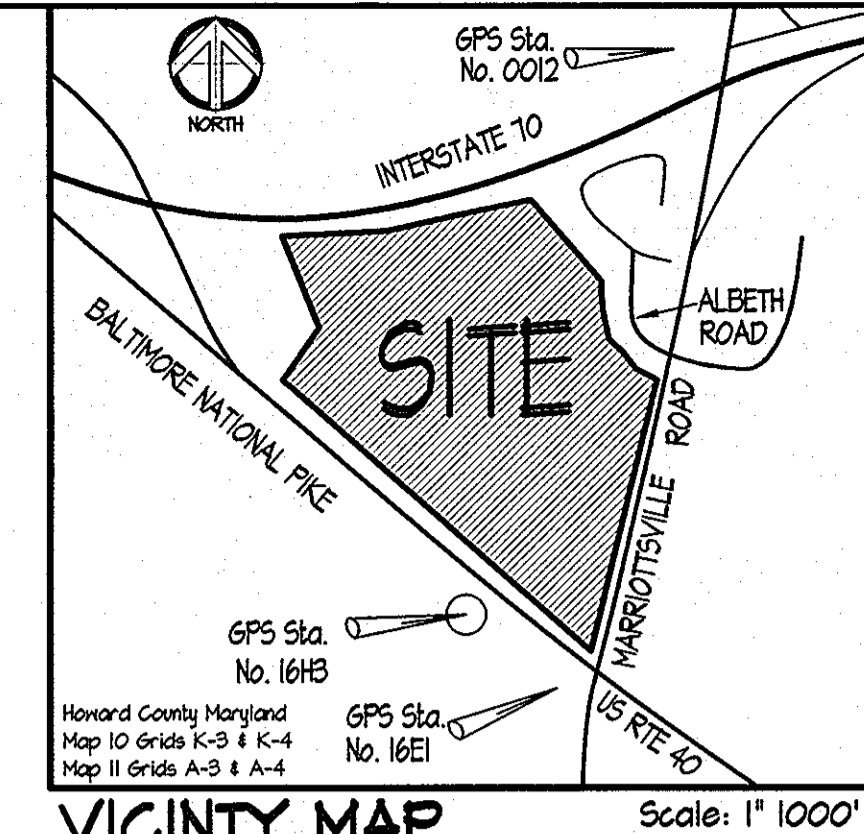
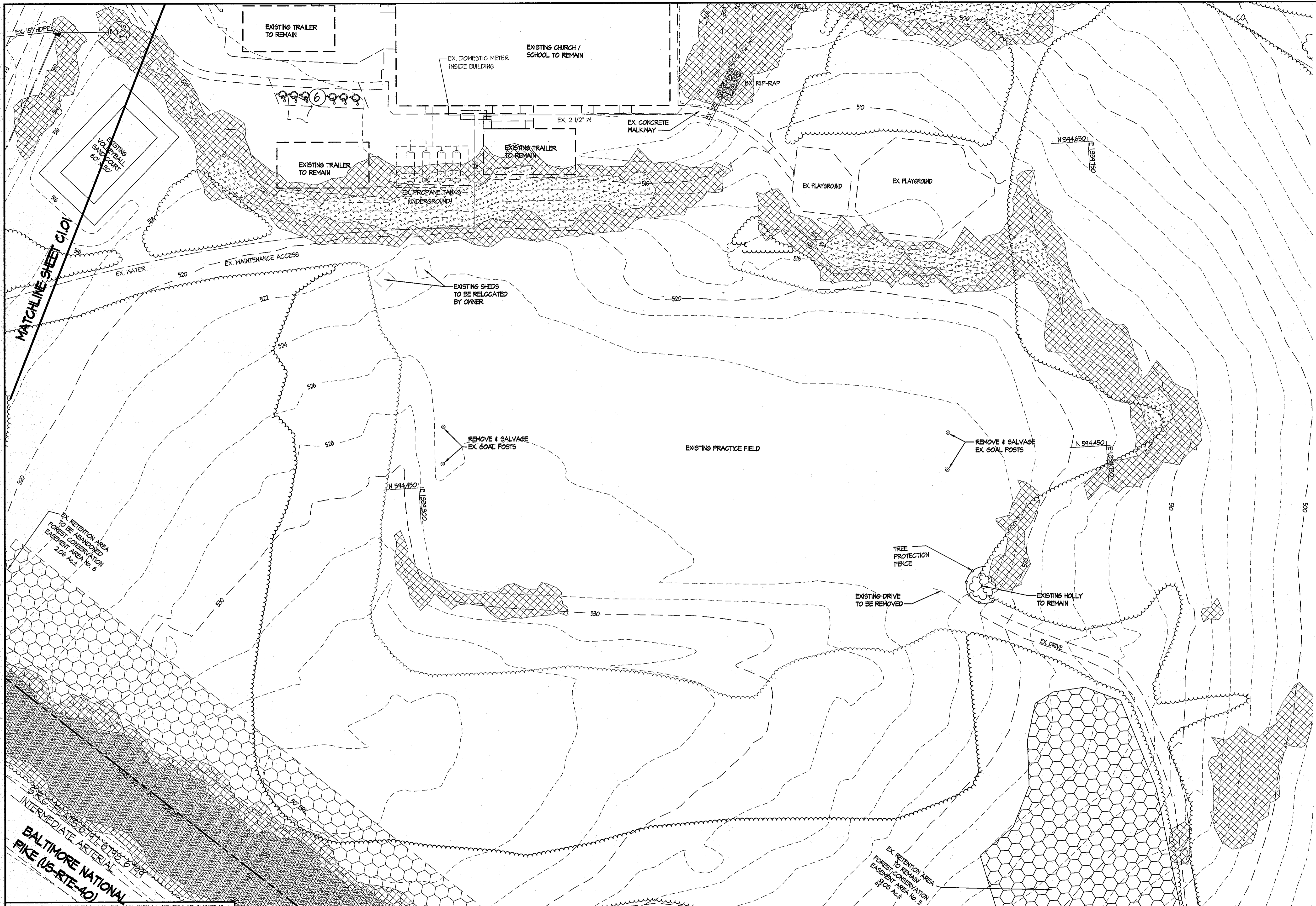
SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	102

PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
LIB94 / P334	10	R20	16	3	6030

WATER CODE	SEWER CODE
H06	5942000

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2600 Harrodsville Road
Harrodsville, MD 21034 PHONE: (410) 683-4002
CONTACT: JAMES E. HEAD III

Z:\200502-Chapelgate Presbyterian Church\Academy\C1.01_F1.dwg, E:\dwg, Conditions\Bldg_Plan.dwg, 6/20/08 10:43:32 AM, Copyright, Site Resources, Inc.



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16H	542408.0425	1341523.9617	464.112	NAD83(91)	NAVDS8
16E1	543250.4638	1340142.1010	463.843	NAD83(91)	NAVDS8
0012	546502.7604	1340264.3654	466.194	NAD83(91)	NAVDS8

LEGEND

	PROPERTY LINE
	EXISTING CONTOURS
	EXISTING TREELINE
	EXISTING TREELINE TO BE REMOVED
	PROPOSED TREELINE
	EXISTING TREES
	TO REMAIN
	TO BE REMOVED
	EXISTING PAVING TO REMAIN
	EXISTING PAVING TO BE REMOVED
	EXISTING BUILDINGS
	EXISTING 15" SD STORM DRAIN TO REMAIN
	EXISTING 15" SD STORM DRAIN TO BE ABANDONED/REMOVED
	EXISTING 8" WATER
	EXISTING 8" PVC SAN
	EXISTING FENCE TO REMAIN
	EXISTING FENCE TO BE REMOVED
	EXISTING STREAM
	75' STREAM BANK BUFFER
	100 YR FLOODPLAIN
	EXISTING FOREST CONSERVATION EASEMENT
	TO BE ABANDONED
	EXISTING STEEP SLOPES 15% - 25%
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA LESS THAN 20,000 SF
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF
	TREE PROTECTION FENCE

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
EXISTING CONDITIONS & DEMOLITION PLAN
PRACTICE FIELD
 REVISIONS

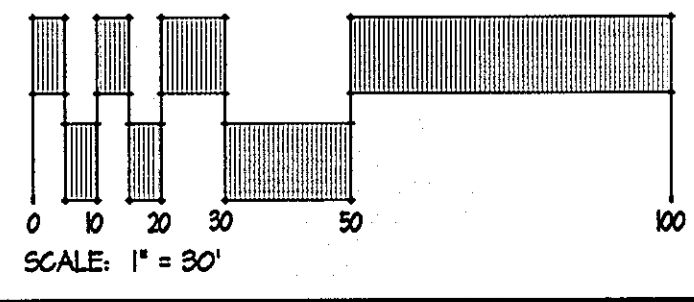
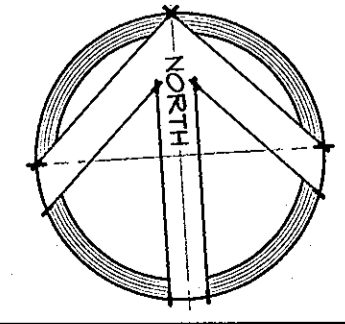
	SITE RESOURCES incorporated Comprehensive Land Planning & Site Design Services 14307 Jarrettsville Pike • Plover, Maryland 21111 (410) 683-3388 • fax (410) 683-3389
	DRAWN BY: RSM DESIGNED BY: GRM CHECKED BY: GRM DATE: June 20, 2008
CONTRACT NO.: SCALE: 1" = 30' SRI PROJECT NO: 05026 SHEET C1.02 6 OF 28	

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
B. Wilson for Peter Brilensan 8/29/08
 COUNTY HEALTH OFFICER (S) DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
David P. Uggel 9/5/08
 DIRECTOR DATE

John DeWitt 9/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

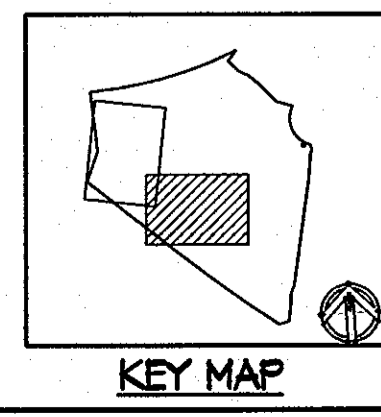
Cindy Hamlin 9/14/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



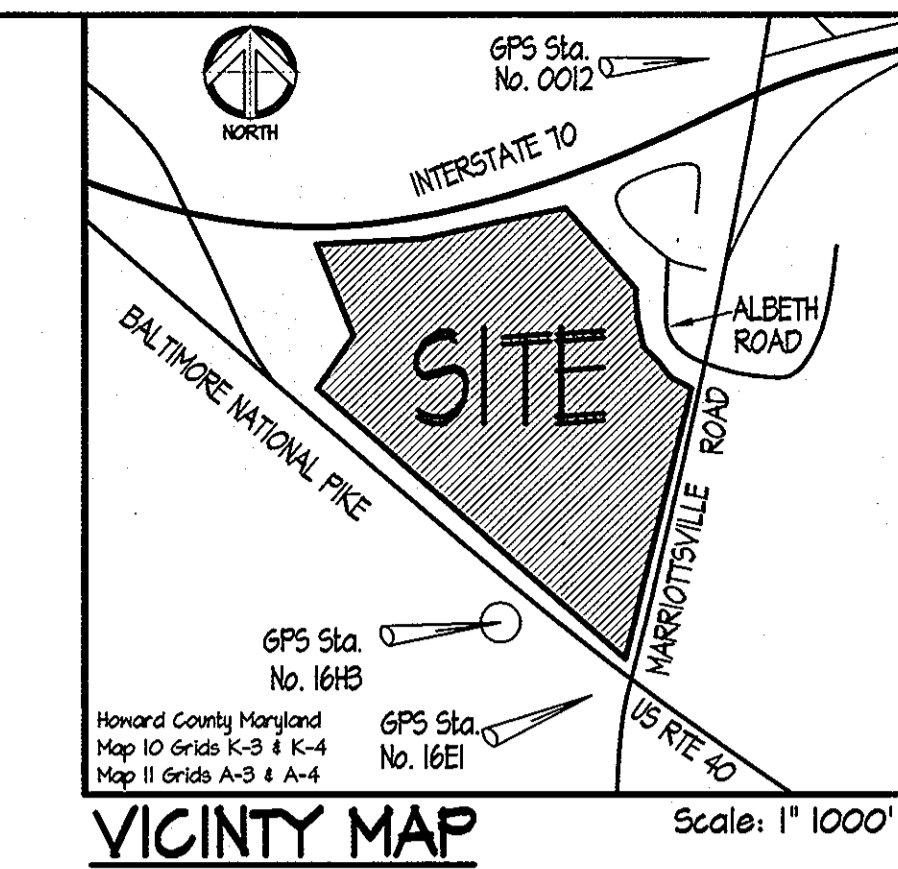
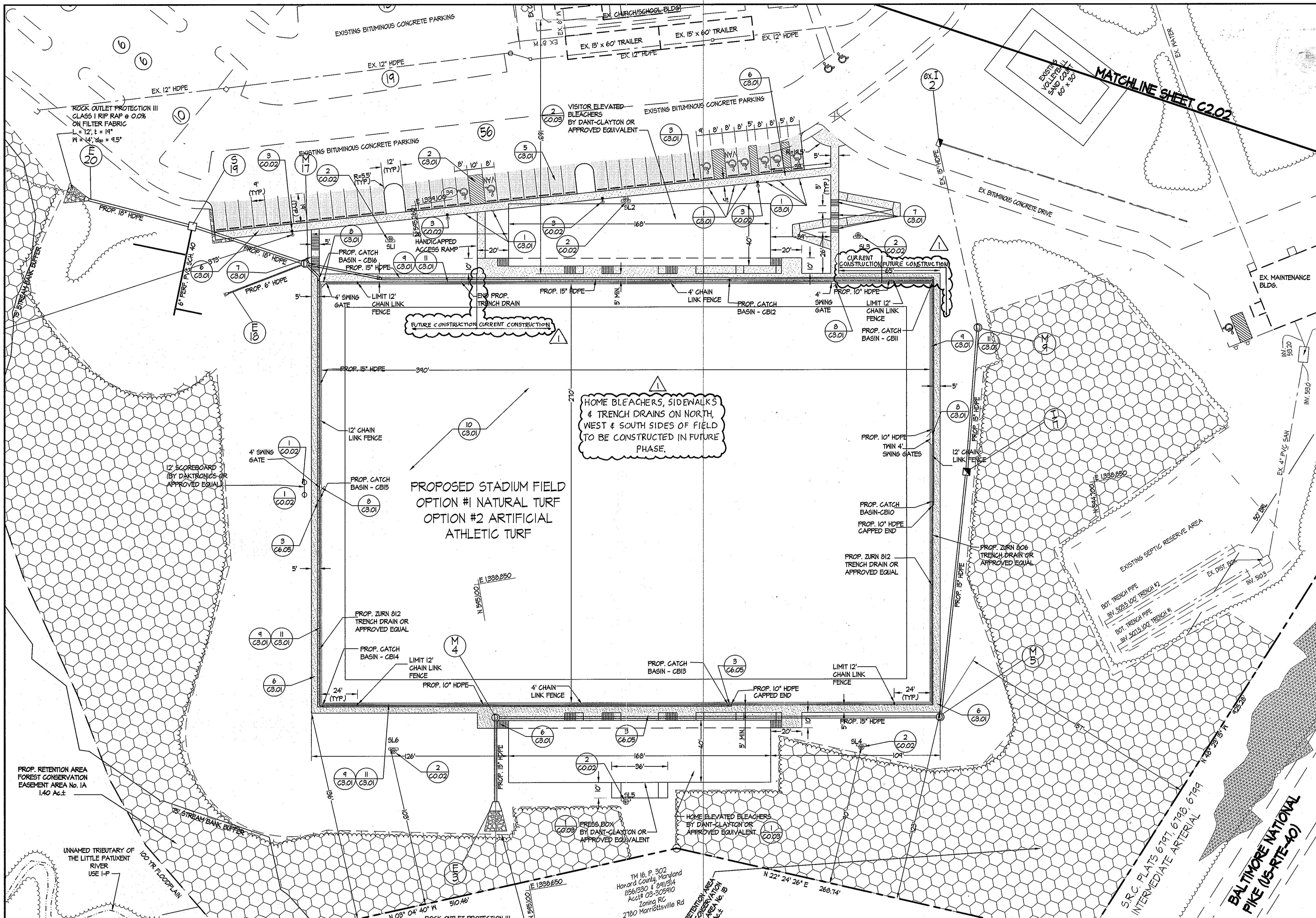
I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15276, expiration date, 02/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARIOTTSVILLE ROAD
SECTION / AREA LOTS / PARCELS	
CHAPEL GATE PRESBYTERIAN CHURCH	N/A 110
FLAT No. or L.P.	ZONE TAX MAP No. ELECT. DIST. CENSUS TRACT
LIB04 / FB99	10 R20 16 3 6030
WATER CODE 106 SEWER CODE 5442000	
OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC. 2600 Marriottsville Road, Marriottsville, MD 21104 PHONE: (410) 683-6002	
CONTACT: JAMES E. HEAD III	



Z:\050002-Chapelgate Presbyterian Church\050002-01-02_Plan02_Existing_Conditions\Demo_Plan.dwg 6/20/2008 11:08:52 AM - Copyright, Site Resources, Inc.



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ DATUM	VERT. DATUM
1643	542408.0425	184523.4611	464.712	NAD83(91)	NAVDS8
16E1	543250.4638	1840142.1010	463.843	NAD83(91)	NAVDS8
0012	546502.1604	1840264.3654	466.191	NAD83(91)	NAVDS8

LEGEND

	PROPERTY LINE
	EXISTING PAVING
	PROPOSED ROAD
	PROPOSED WALKS
	EXISTING STORM DRAIN
	PROPOSED STORM DRAIN
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	EXISTING WATER
	PROPOSED WATER
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING BUILDINGS
	PROPOSED BUILDINGS
	EXISTING BITUMINOUS PAVING
	PROPOSED BITUMINOUS PAVING
	PROPOSED SITE LIGHTING
DETAIL NO. 4	DETAIL REFERENCE
SHEET NO. C-201	DETAIL REFERENCE
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING STREAM
	PROPOSED STREAM
	EXISTING STREAM BUFFER
	PROPOSED STREAM BUFFER
	100 YR FLOODPLAIN
	100 YR FLOODPLAIN
	FOREST CONSERVATION EASEMENT
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION
LAYOUT & DETAIL REFERENCE PLAN
STADIUM FIELD

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

REVISIONS
 05/05/10 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN



SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services
 14307 Jarrattville Pike • Phoenix, Maryland 21131
 (410) 683-3388 • fax (410) 683-3389

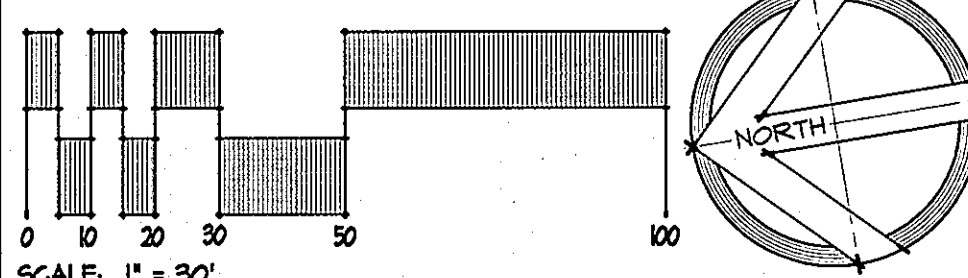
DRAWN BY: AM CONTRACT NO.:
 DESIGNED BY: GRM SCALE: 1" = 30'
 CHECKED BY: GRM SRI PROJECT NO: 05026
 DATE: June 20, 2008 SHEET C2.01 1 OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
 Brian J. Peter Brilman 8/29/08
 COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
 David A. Caylor 7/5/08
 DIRECTOR DATE

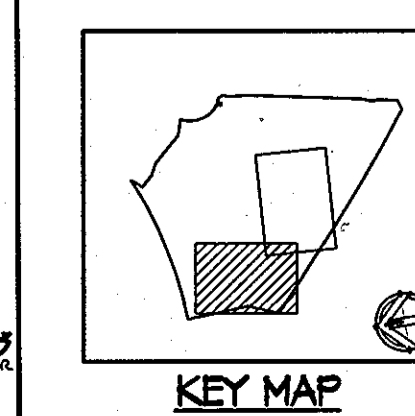
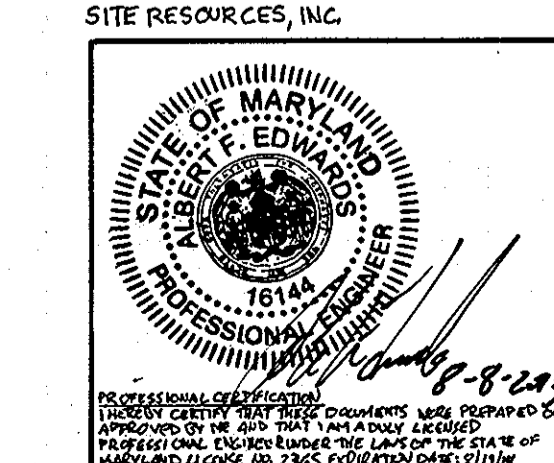
APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] 8/15/08
 DATE

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] 7/14/08
 DATE



TM 16, P. 302
 Howard County, Maryland
 856/0300 & 841/314
 Acct# 08-302910
 Zoning RC
 2180 Marriottsville Rd

THIS SEAL IS FOR REVISION, BY SITE RESOURCES, INC.



I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15276, expiration date, 03/24/2010.

ADDRESS CHART

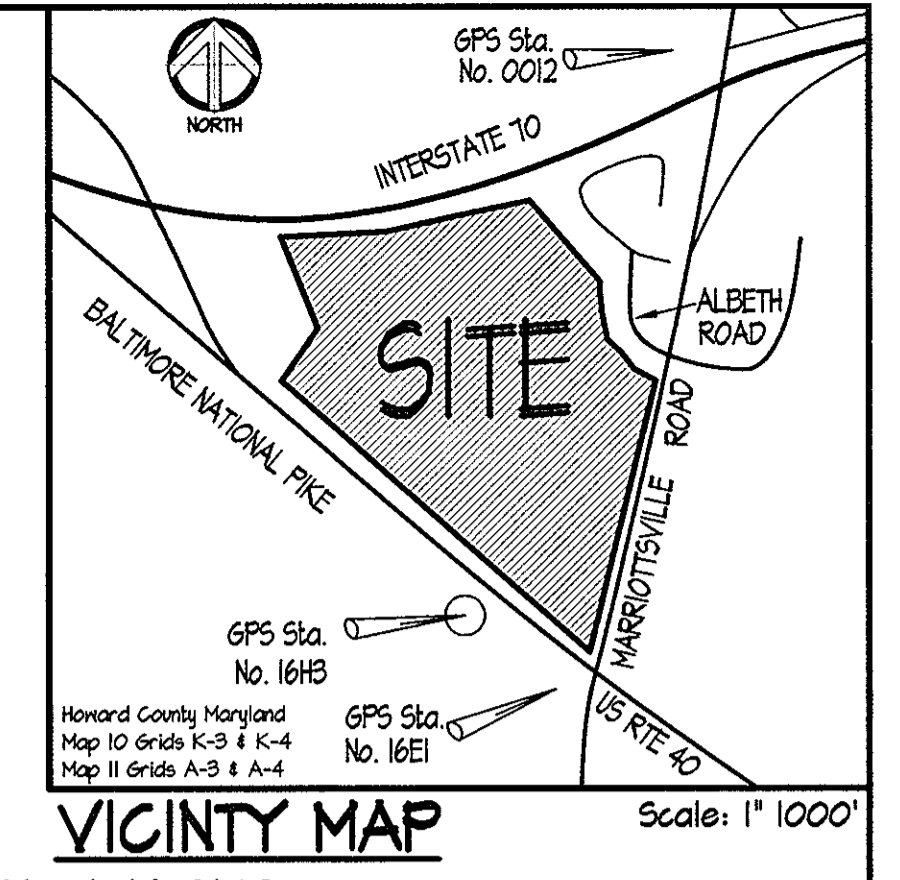
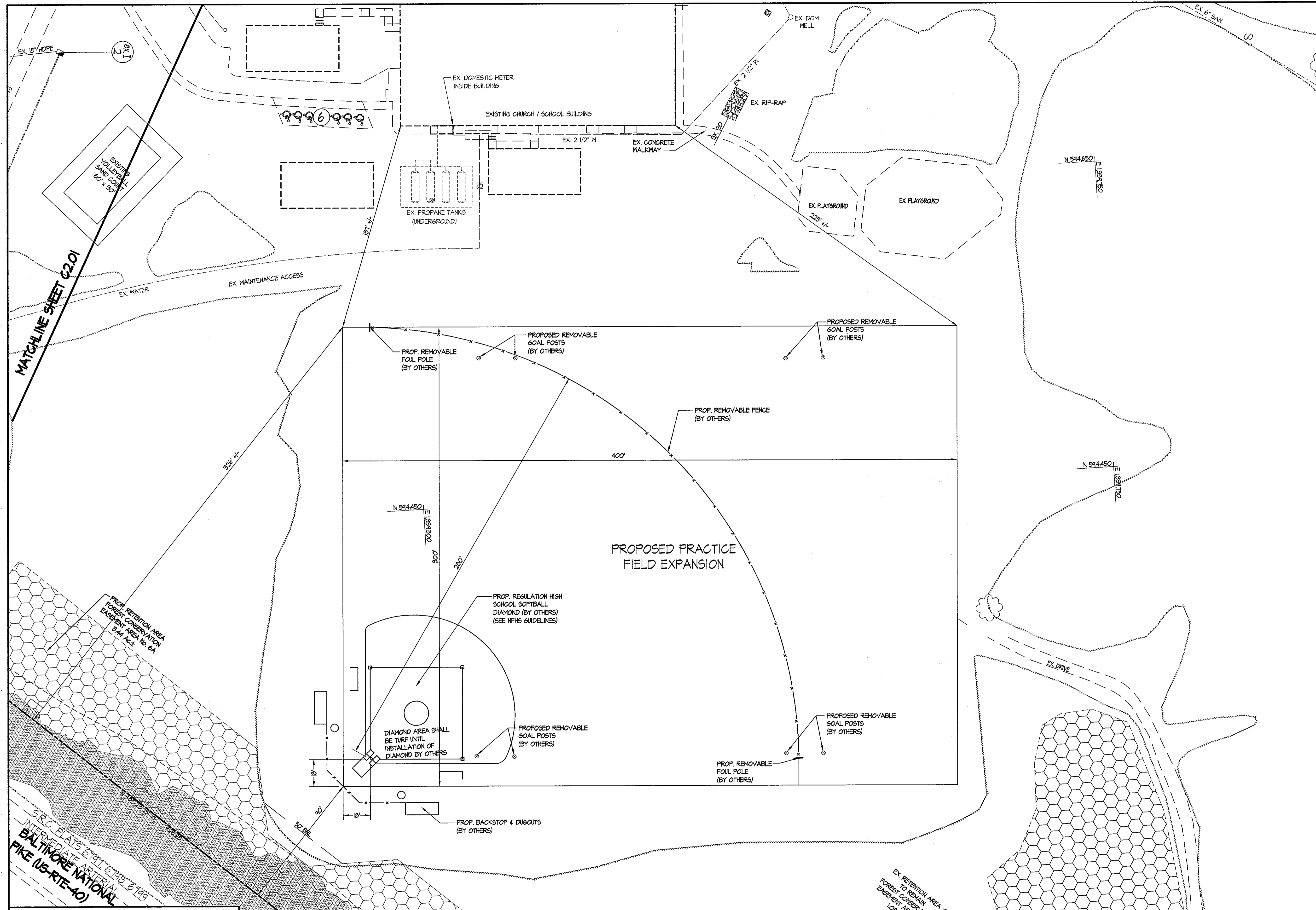
PARCEL #	STREET ADDRESS
110	2600 MARIOTTSVILLE ROAD

SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	110

PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	GENUS TRACT
LIB94 / FEB94	10	R20	16	3	6030

MATERIAL CODE	SEWER CODE
HO2	5942000

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
 2600 Marriottsville Road
 Marriottsville, MD 21084. PHONE: (410) 683-6002
 CONTACT: JAMES E. HEAD III



MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16HB	542408.0425	1341523.4617	464.712	NAD83(91)	NAVDB8
16EI	543250.4638	1340142.1010	463.843	NAD83(91)	NAVDB8
0012	545502.7604	1340864.3654	466.199	NAD83(91)	NAVDB8

	PROPERTY LINE
	EXISTING PAVING
	PROPOSED ROAD
	PROPOSED WALKS
	15" SD EXISTING STORM DRAIN
	18" HDPE PROPOSED STORM DRAIN
	8" SAN EXISTING SANITARY SEWER
	8" WATER EXISTING WATER
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING BUILDINGS
	PROPOSED BITUMINOUS PAVING
	PROPOSED SITE LIGHTING
	DETAIL NO. 4 SHEET NO. C-201 DETAIL REFERENCE
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING STREAM
	75' STREAM BANK BUFFER EXISTING STREAM BUFFER
	100 YR FLOODPLAIN 100 YR FLOODPLAIN
	FOREST CONSERVATION EASEMENT
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

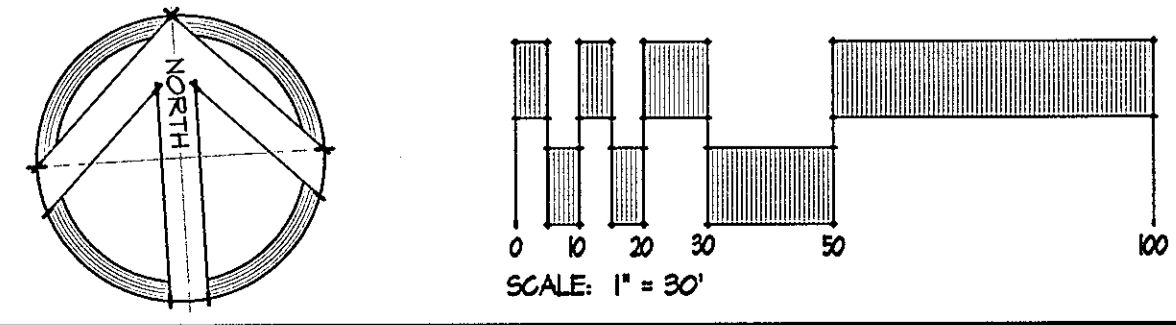
William P. Peter COUNTY HEALTH OFFICER 8/23/08 DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

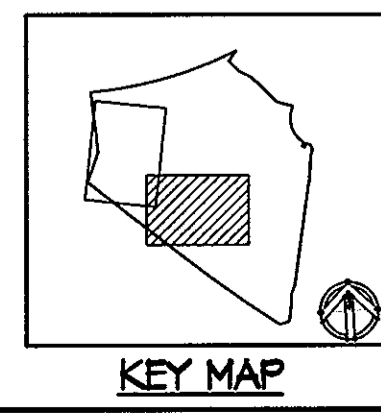
David L. Cagle DIRECTOR 7/30/08 DATE

Michael J. ... CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/15/08 DATE

Cinda Hamm CHIEF, DIVISION OF LAND DEVELOPMENT 9/1/08 DATE



NOTE: EXTENT OF WORK IN CONTRACT FOR THIS AREA AND ON THIS PLAN INCLUDES GRADING AND TURF STABILIZATION ONLY.



I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13876, expiration date, 03/24/2010.

PARCEL #	STREET ADDRESS
110	2600 MARRIOTTSVILLE ROAD

SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	110

PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
LIB94 / FB39	10	R20	16	3	6030

WATER CODE	SEWER CODE
H0B	5942000

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2600 Marriottsville Road
CONTACT: JAMES E. HEAD III
MARRIOTTSVILLE, MD 21044 PHONE: (410) 453-6002

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

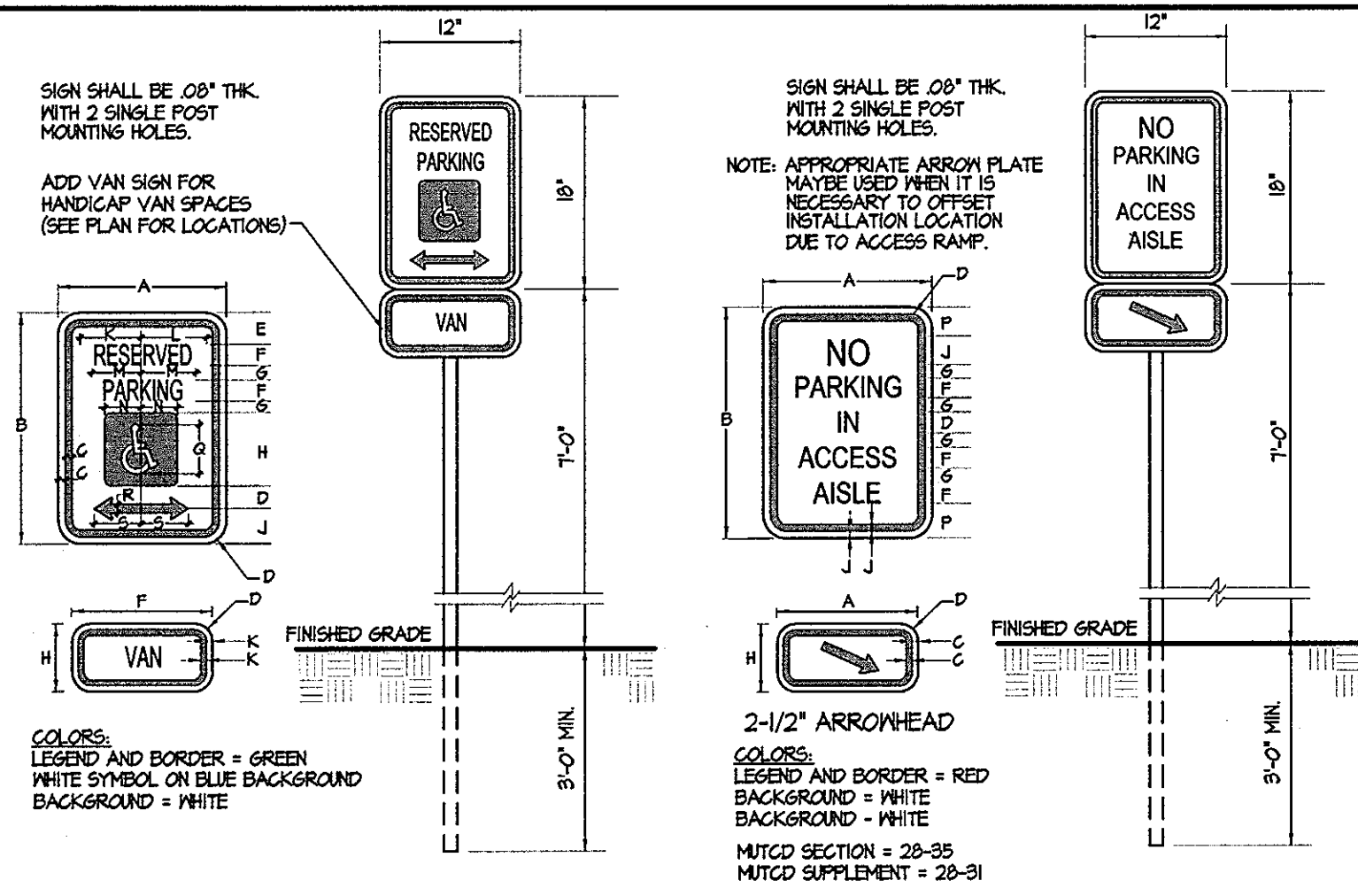
LAYOUT & DETAIL REFERENCE PLAN
PRACTICE FIELD

REVISIONS

DATE	DESCRIPTION

	SITE RESOURCES INCORPORATED Comprehensive Land Planning & Site Design Services 14307 Jarrettsville Pike • Pikesville, Maryland 21113 (410) 683-3388 • fax (410) 683-3389
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

DRAWN BY: AM	CONTRACT NO.:
DESIGNED BY: GRM	SCALE: 1" = 30'
CHECKED BY: GRM	SRI PROJECT NO: 05026
DATE: June 20, 2008	SHEET C2.02 8 OF 28

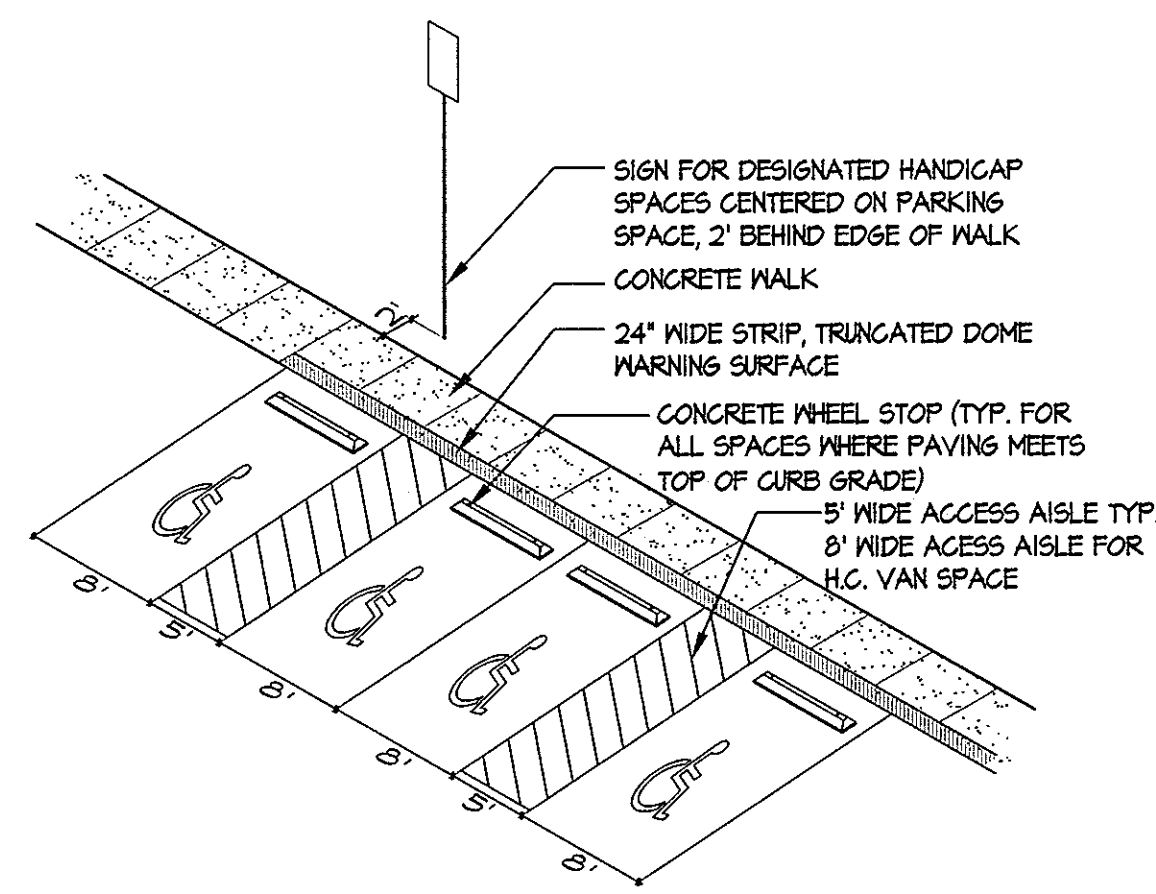


SIGN SIZE	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	
STD	12	18	1/2	1-1/2	2	2	C	1	6	2-1/2	4-7/8

SIGN SIZE	DIMENSIONS (INCHES)							
	L	M	N	P	Q	R	S	
STD	5	4-1/4	3	1/2	4	3/4	3-7/8	

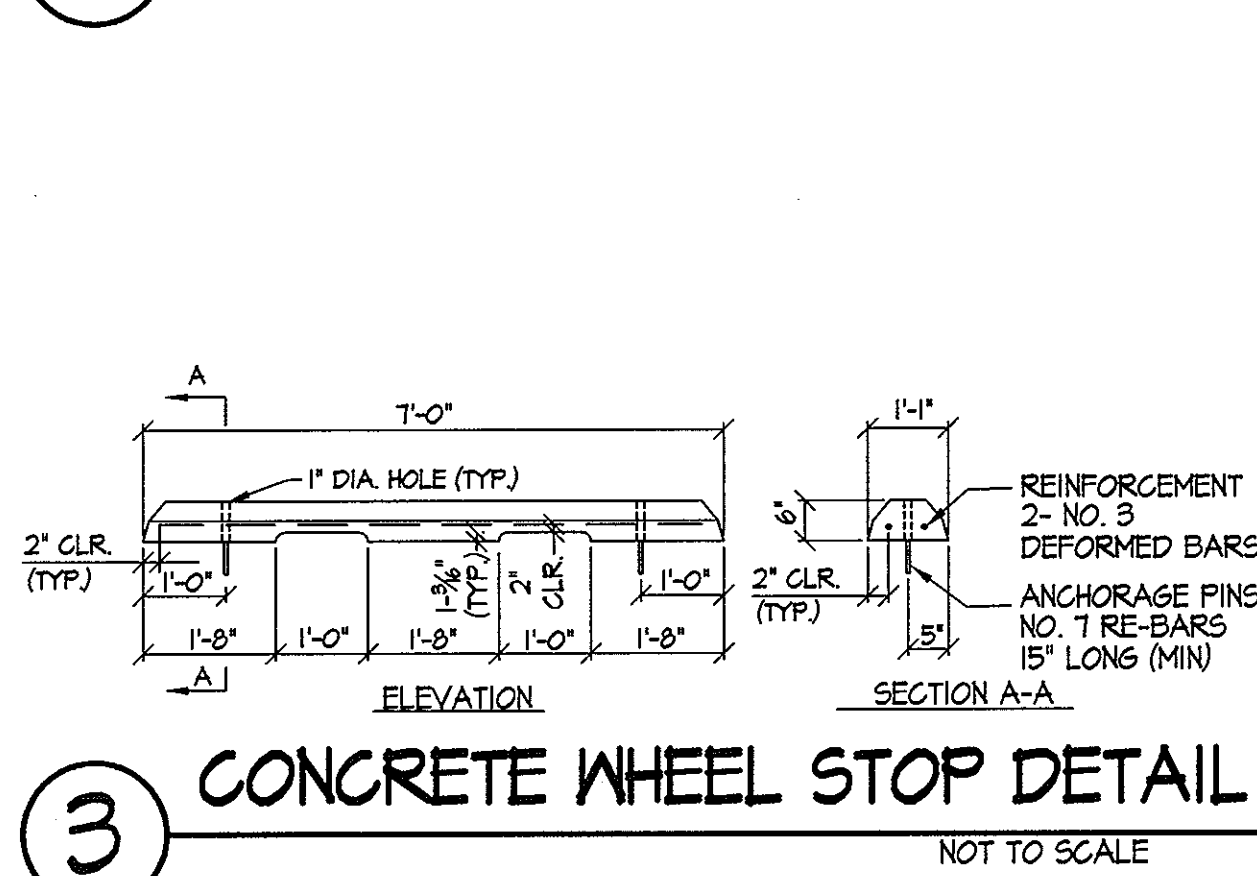
1 HANDICAP PARKING SIGN

NOT TO SCALE



2 HANDICAP PARKING DETAIL

NOT TO SCALE



3 CONCRETE WHEEL STOP DETAIL

NOT TO SCALE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

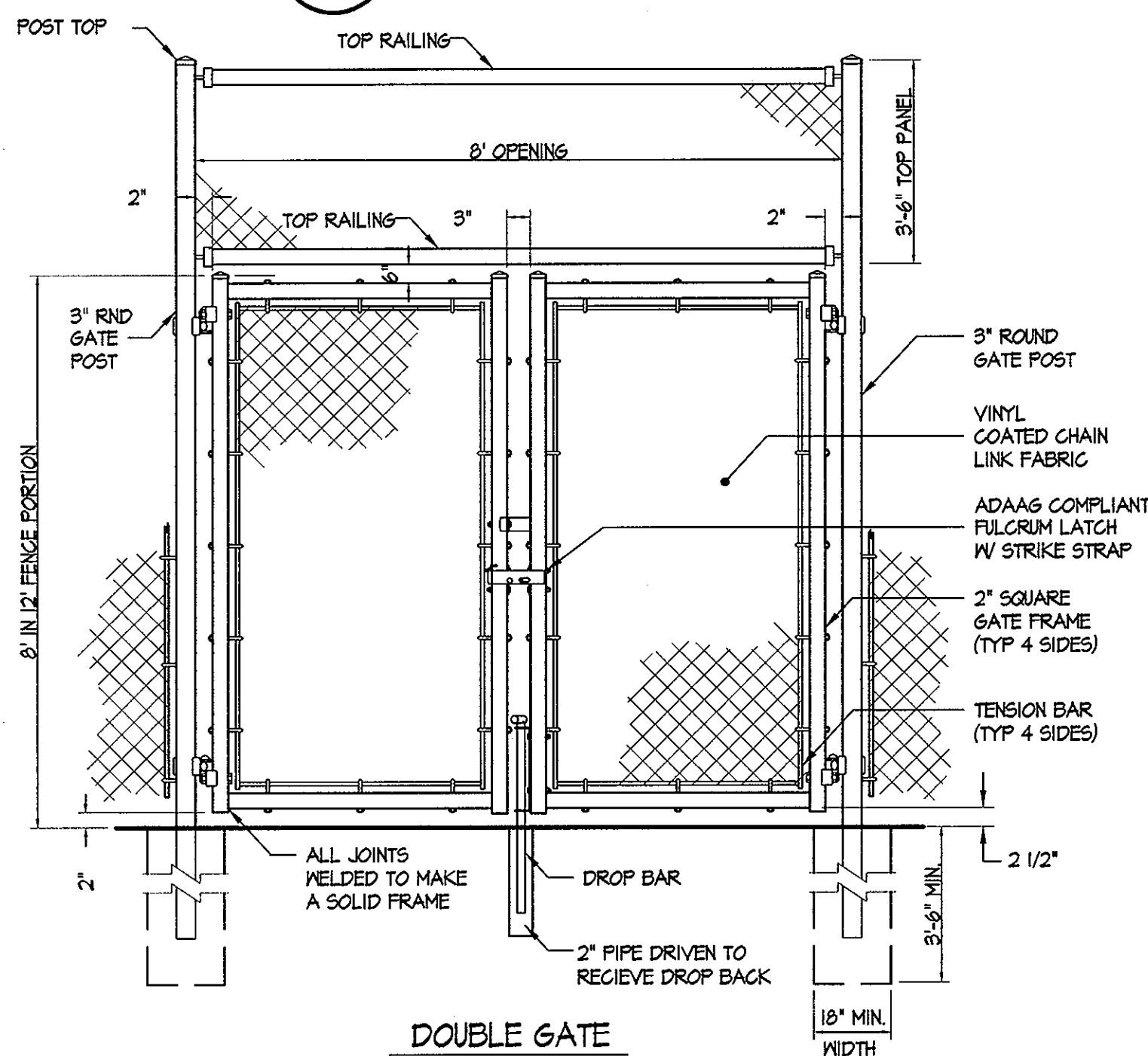
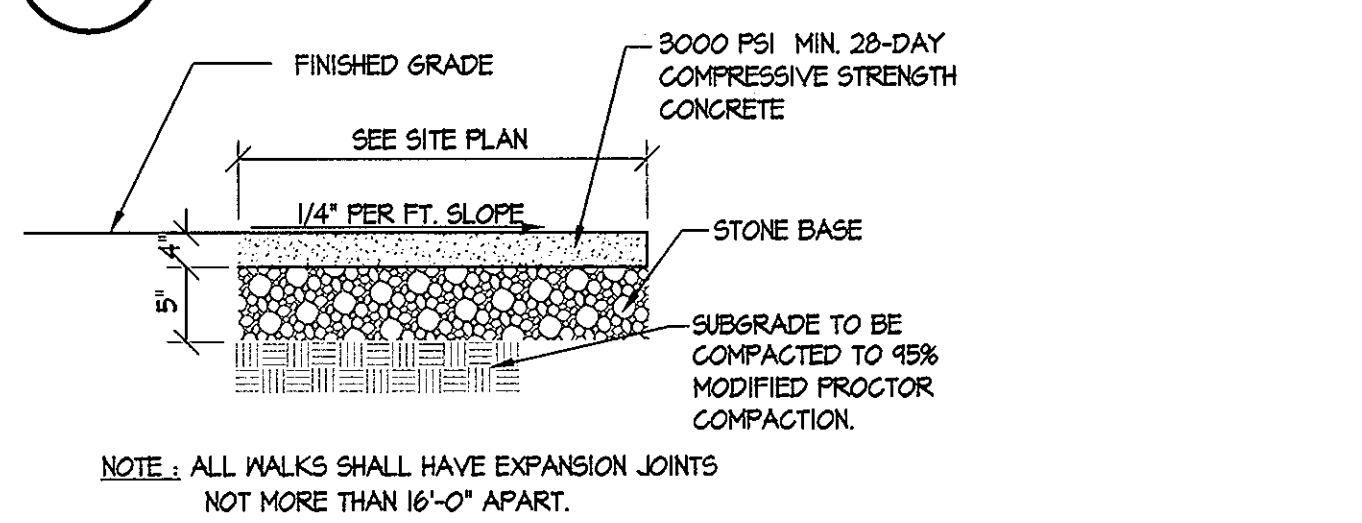
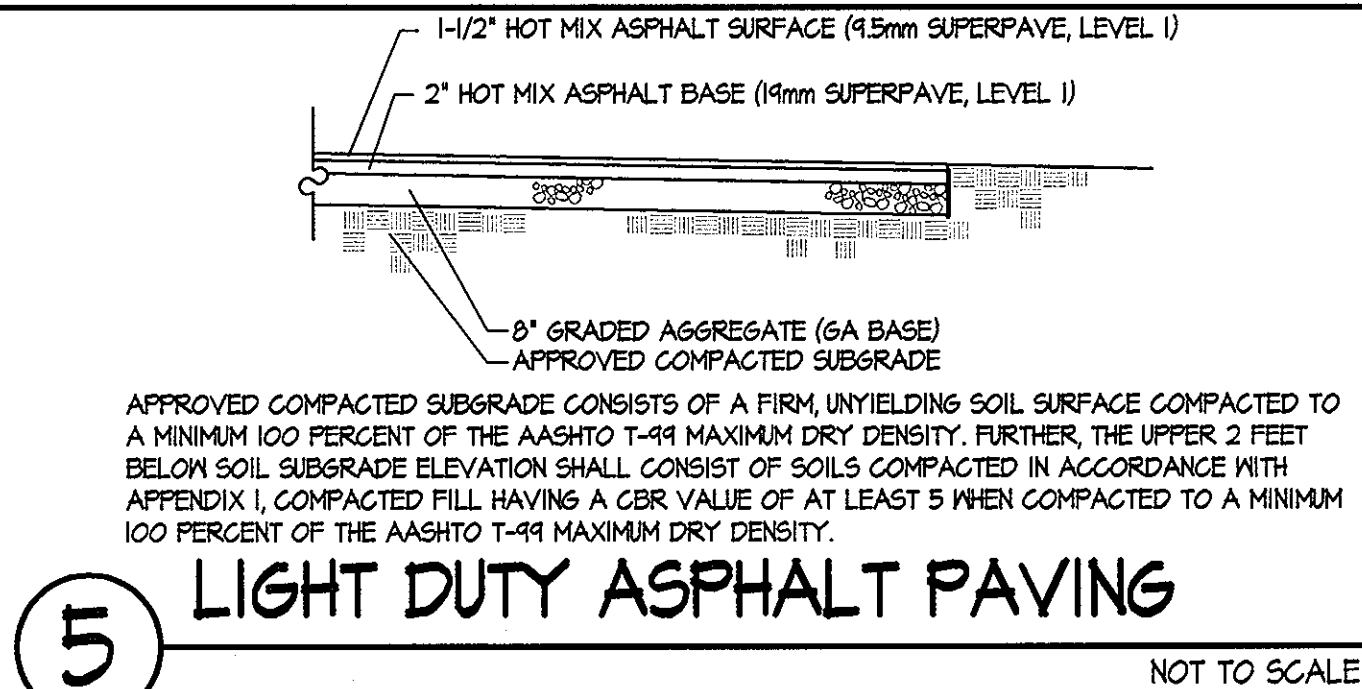
B. Williams Peter Beileman 8/15/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David L. Weyl 7/5/08
DIRECTOR DATE

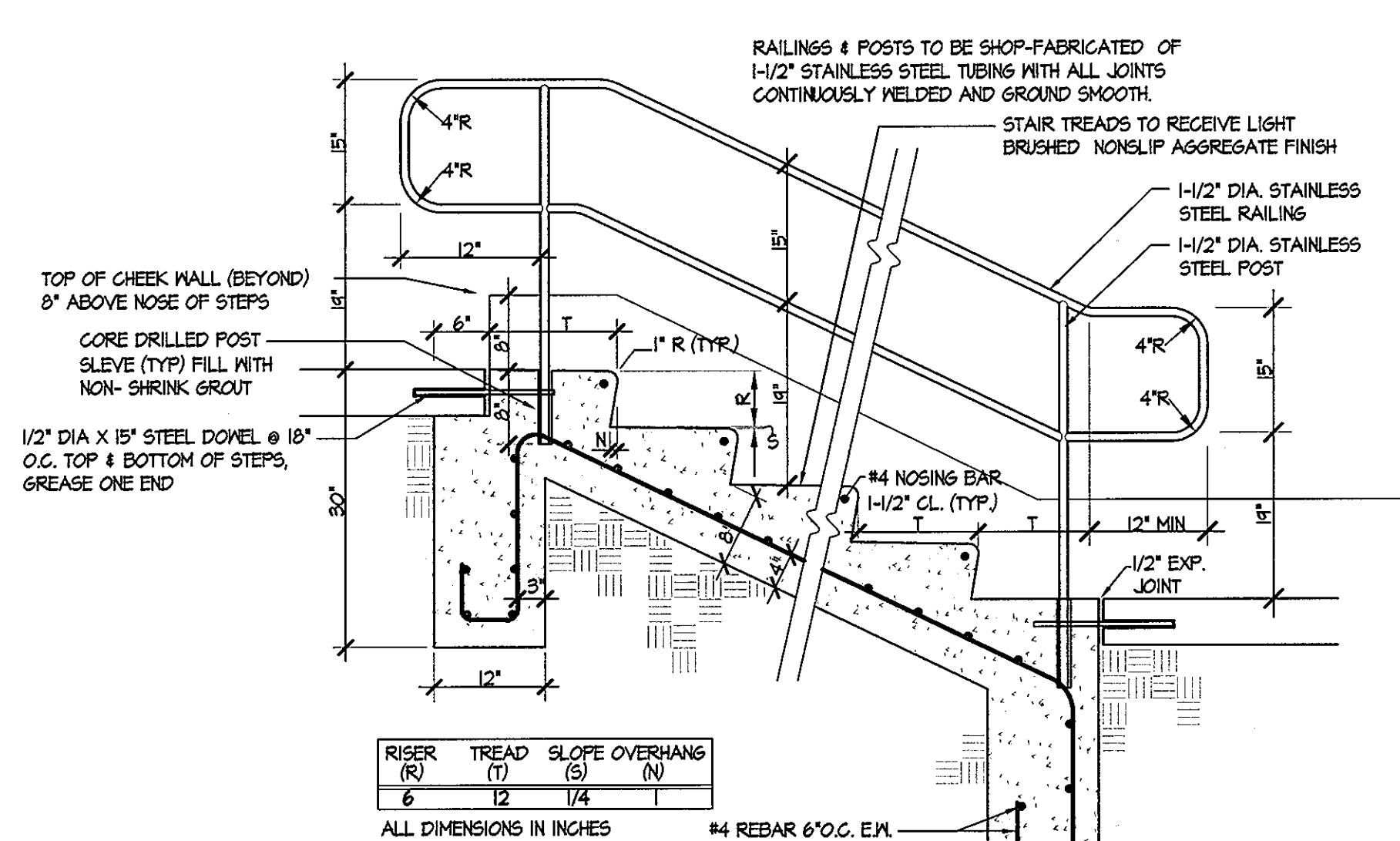
Mr. [Signature] 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy Ham 9/14/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



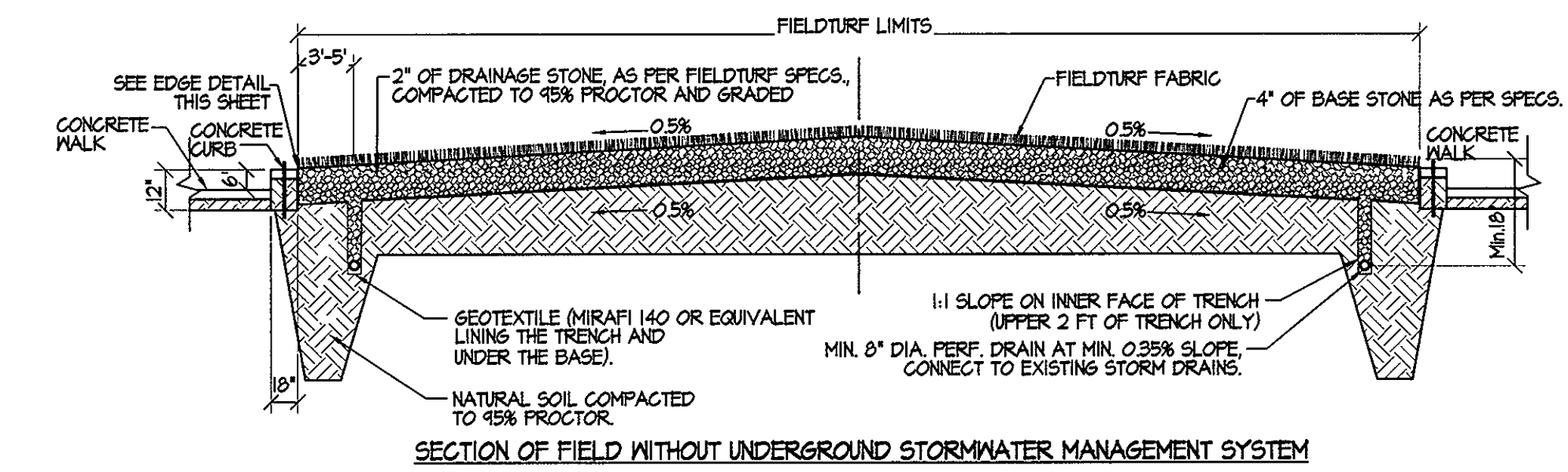
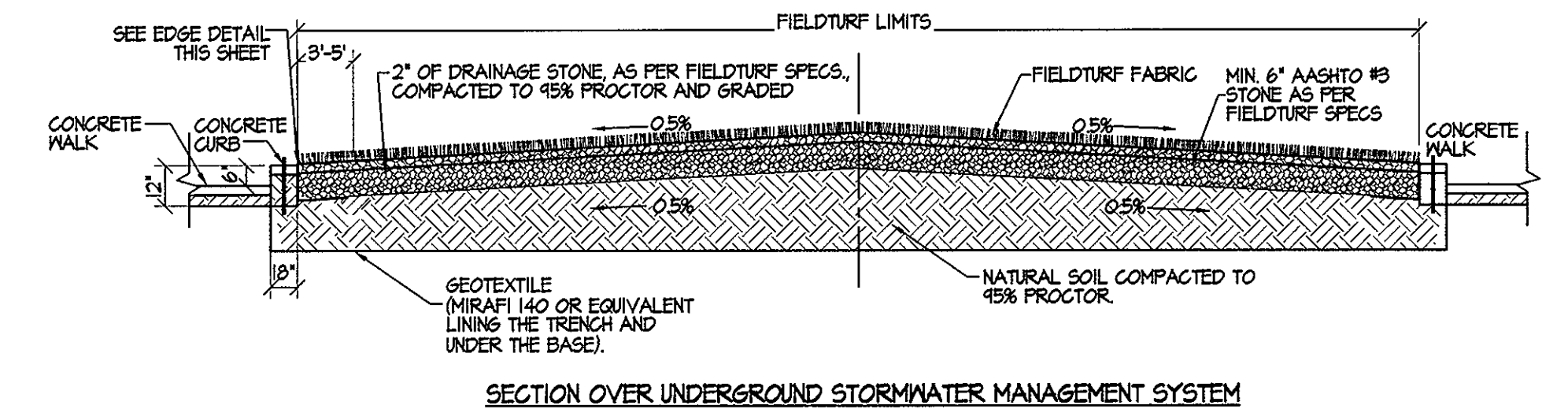
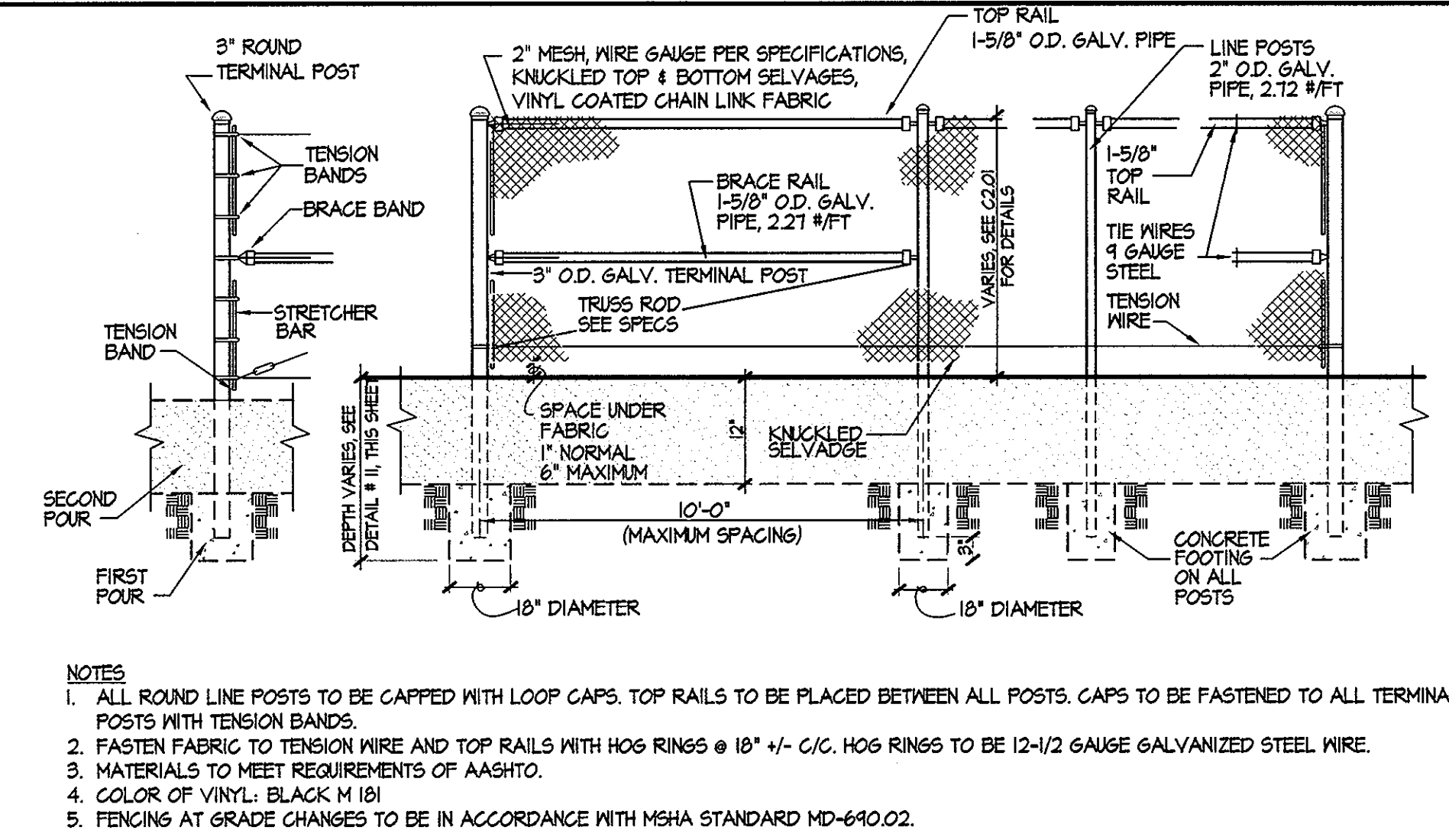
8 CHAIN LINK GATE DETAIL

NOT TO SCALE



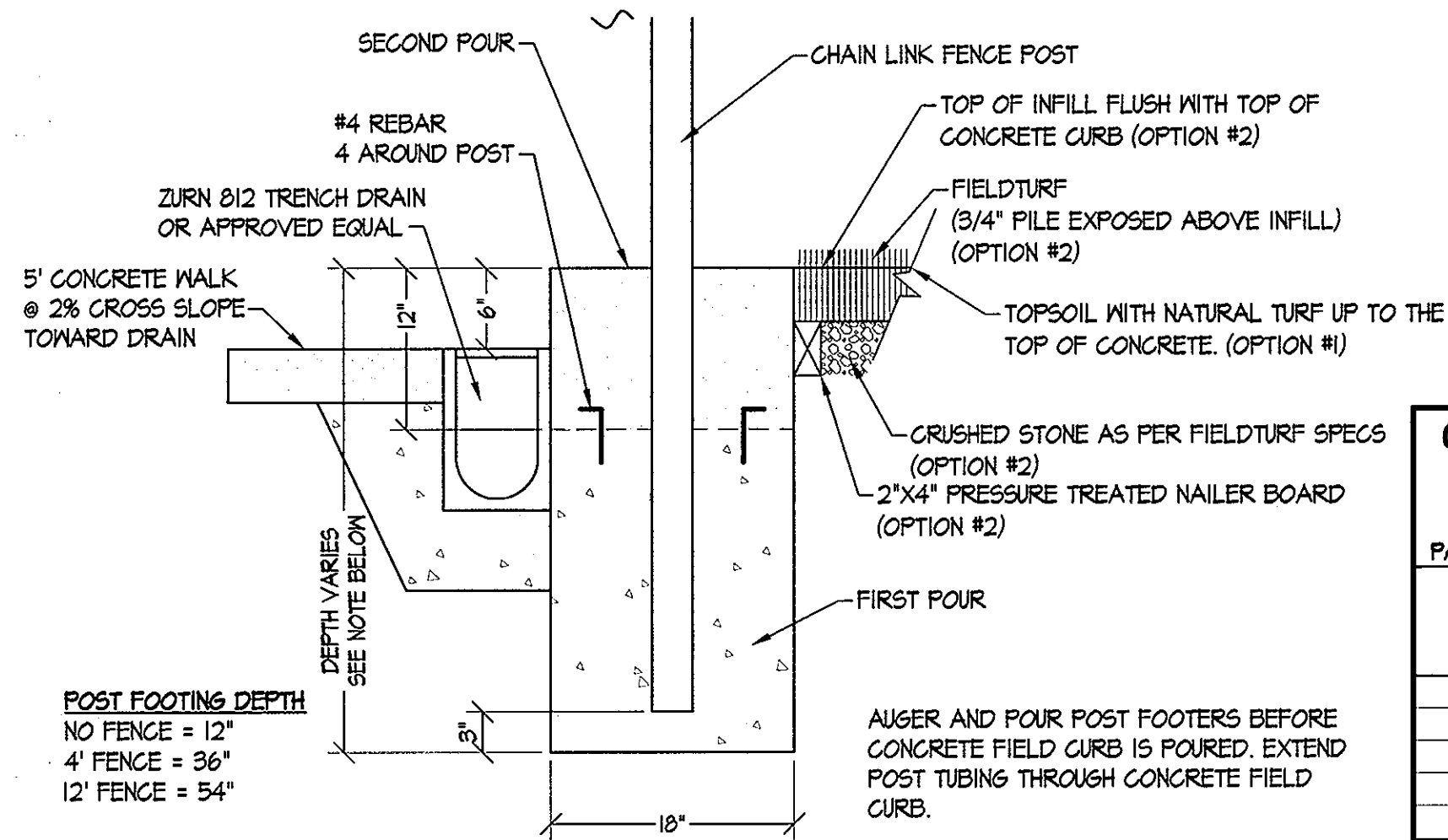
7 CONCRETE STAIRS DETAIL

NOT TO SCALE



10 FIELD TURF DETAIL (OPTION #2)

NOT TO SCALE



11 EDGE DETAIL

NOT TO SCALE

NOTE:
FIELD TURF & FIELD EDGE DETAILS PREPARED BY:
FIELDTURF TARKETT
1104 GREENHILL ROAD
WESTCHESTER, PA 19380
Tel. (484) 432-4380
WWW.FIELDTURFTARKETT.COM

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SITE DETAILS

REVISIONS

DATE: June 20, 2008

DRAWN BY: AM
DESIGNED BY: CRM
CHECKED BY: CRM
DATE: June 20, 2008

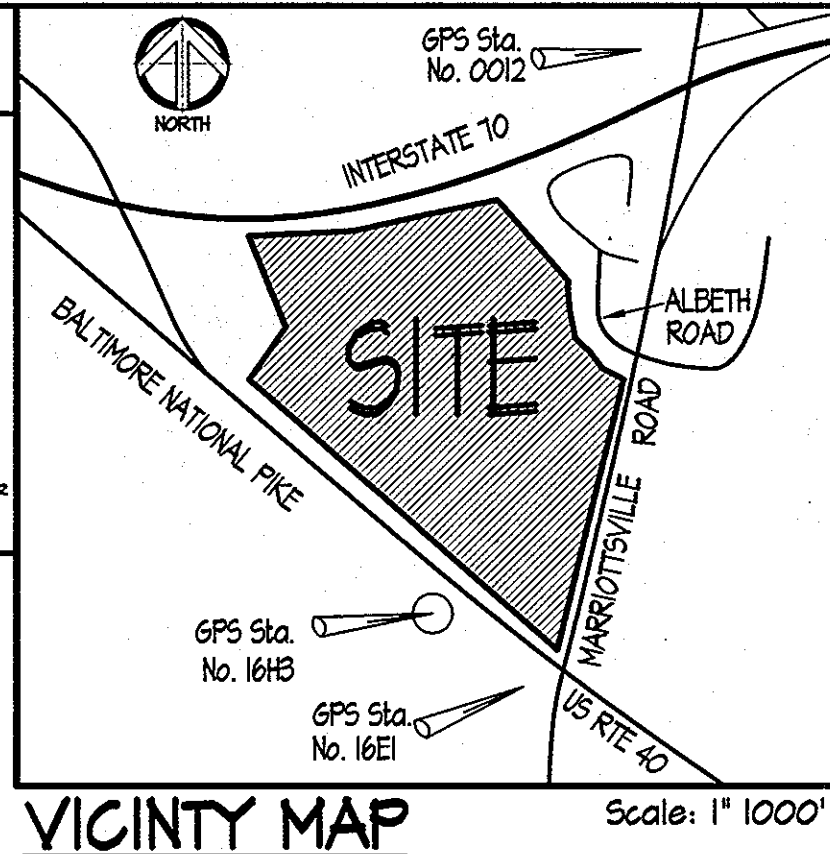
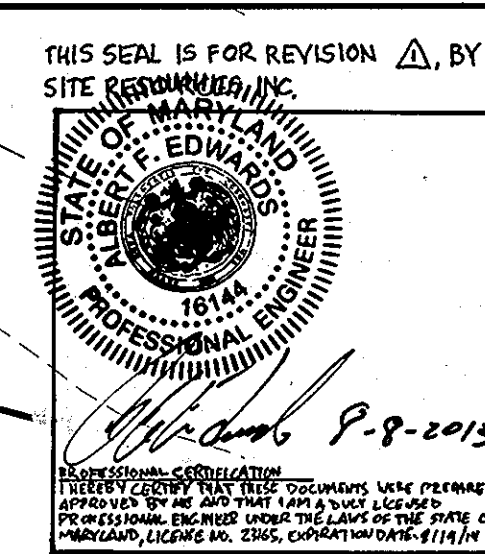
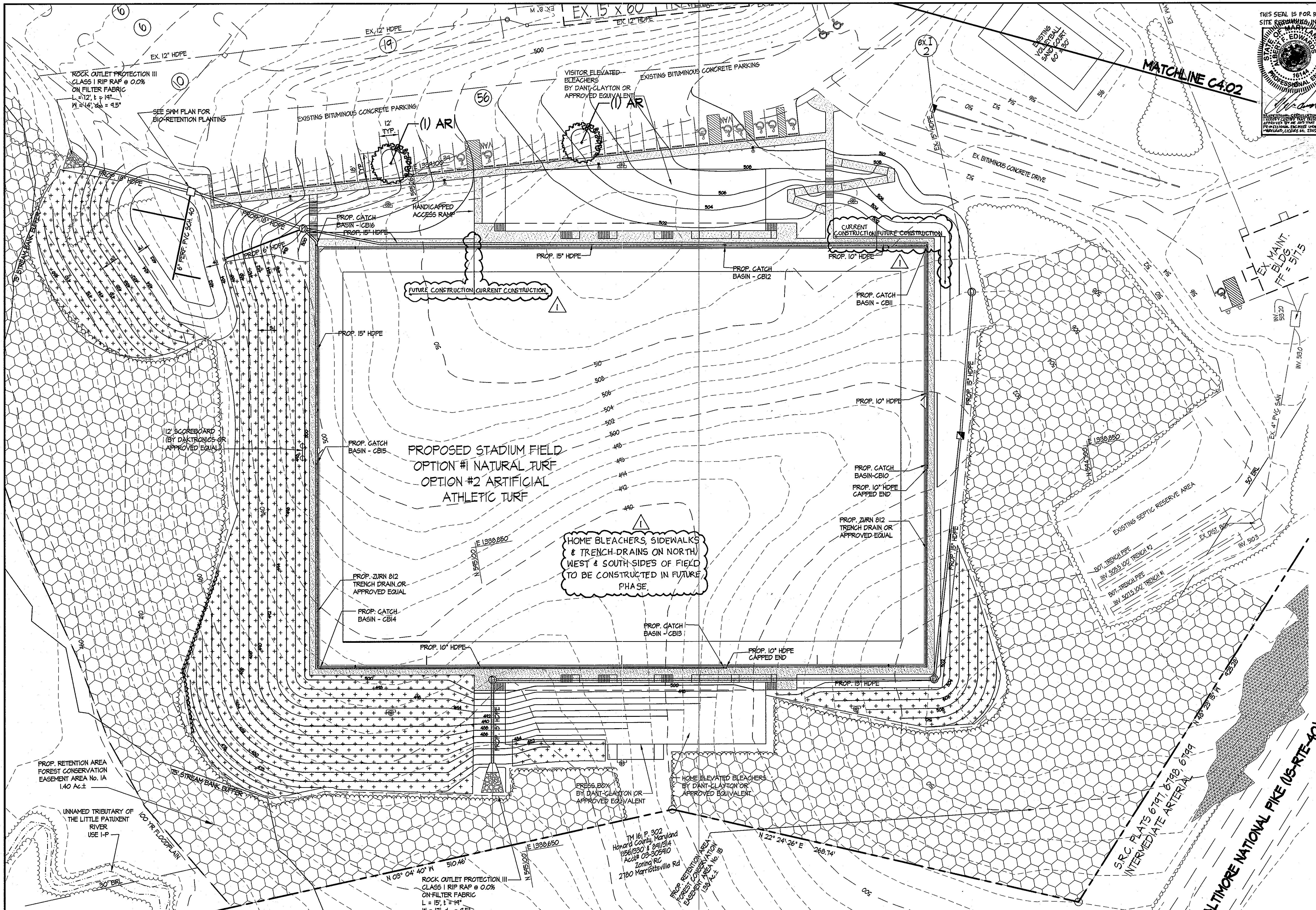
CONTRACT NO.:
SCALE: AS SHOWN
SRI PROJECT NO: 05026
SHEET C3.01 1 OF 28

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14977 Invertonville Pike • Phoenix, Maryland 21131
(410) 683-3388 • fax (410) 683-3389

NOT TO SCALE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15076, expiration date, 09/24/2010.

ADDRESS CHART					
PARCEL #	STREET ADDRESS				
110	2800 MARIOTTSVILLE ROAD				
SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS			
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	N/A			
FLAT NO. OR L.P.	BLOCK NO.	ZONE	TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
LIBBY / 1334	10	R20	16	3	60330
WATER CODE	SEWER CODE				
H26	5492000				
OWNER	SEWER CODE				
CHAPEL GATE PRESBYTERIAN CHURCH, INC.	2800 Marriottsville Road Marriottsville, MD 21104 PHONE: (410) 683-6022				
CONTACT:	SEWER CODE				
JAMES E. HEAD III					



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16B	592408.0425	134012.9817	461.712	NAD83(91)	NAVDS8
16E	593250.4638	134012.7010	463.843	NAD83(91)	NAVDS8
0012	596502.7604	134006.4354	466.194	NAD83(91)	NAVDS8

LEGEND

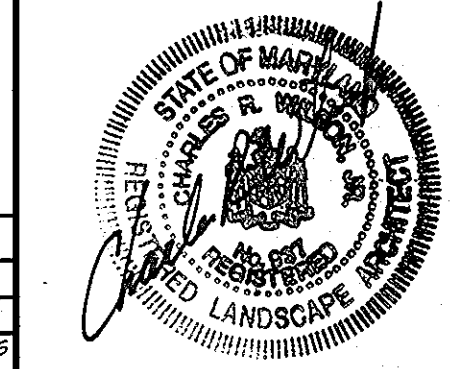
- PROPERTY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING PAVING
- PROPOSED ROAD
- EXISTING TREES
- PROPOSED PLANTING
- EXISTING BUILDINGS
- PROPOSED CONCRETE WALK
- PROPOSED SITE LIGHTING
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING STREAM
- 7' STREAM BANK BUFFER
- 100 YR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF
- REVEGETATION PLANTING ZONE (SEE SCHEDULE SHEET C4.03)

CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND
 PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN
STADIUM FIELD

REVISIONS
 05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN



SITE RESOURCES
 incorporated
 Comprehensive Land Planning & Site Design Services
 14807 Jarrattville Pike • Phoenix, Maryland 21131
 (410) 683-3388 • fax (410) 683-3389

DRAWN BY: AM / KRM
DESIGNED BY: KRM
CHECKED BY: GRM
DATE: June 20, 2008

CONTRACT NO.:
SCALE: 1" = 30'
SRI PROJECT NO.: 05026
SHEET C4.01 10 OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

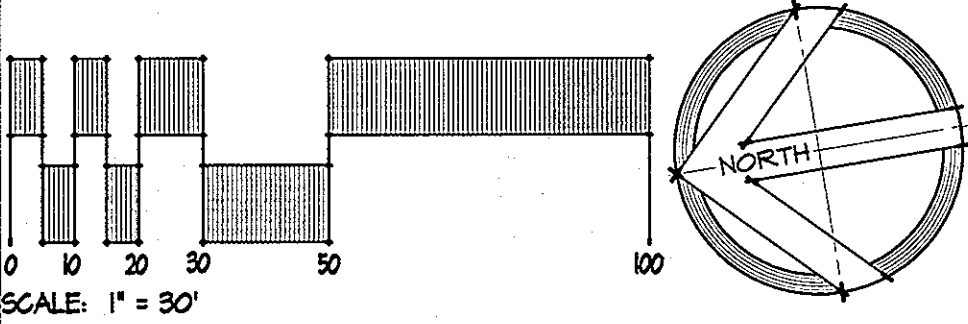
B. D. P. Peter B. Bilenson
 COUNTY HEALTH OFFICER 5/8/08 DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Charles R. Wilson
 DIRECTOR 7/5/08 DATE

Charles R. Wilson
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/15/08 DATE

Charles R. Wilson
 CHIEF, DIVISION OF LAND DEVELOPMENT 9/14/08 DATE



PARKING LANDSCAPE CALCULATIONS

NUMBER OF PARKING SPACES 34

INTERNAL ISLANDS @ 1/20 SPACES REQUIRED PROVIDED 2

SHADE TREES @ 1/20 SPACES REQUIRED PROVIDED 2

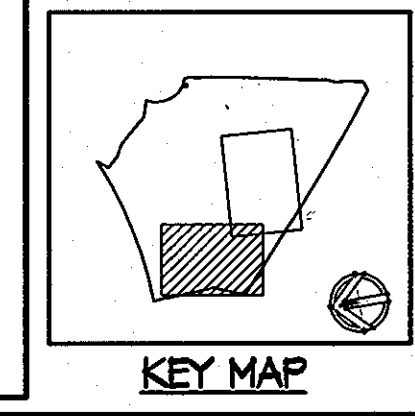
PREPARED BY: CHARLES R. WILSON JR., RLA
 STATE OF MARYLAND REGISTERED LANDSCAPE ARCHITECT
 REGISTRATION NO. 451

Charles R. Wilson
 NAME DATE 6-23-08

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I/We further certify that upon completion a letter of Landscape Installation, accompanied by an evocated one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Charles R. Wilson
 Name DATE 6/26/2008



ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARRIOTTSVILLE ROAD

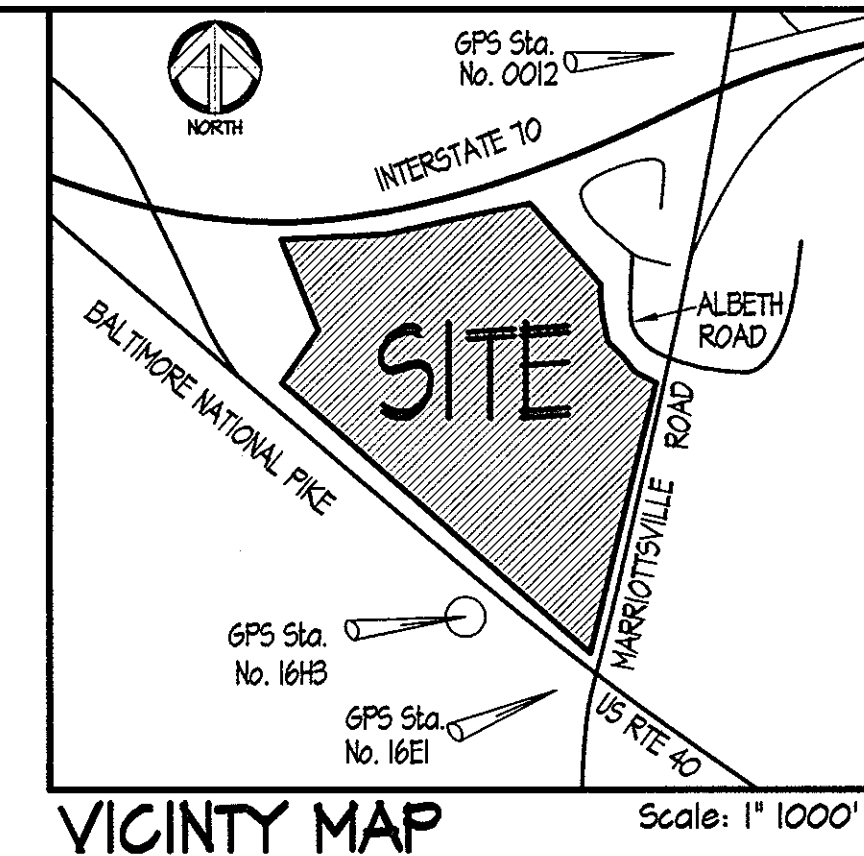
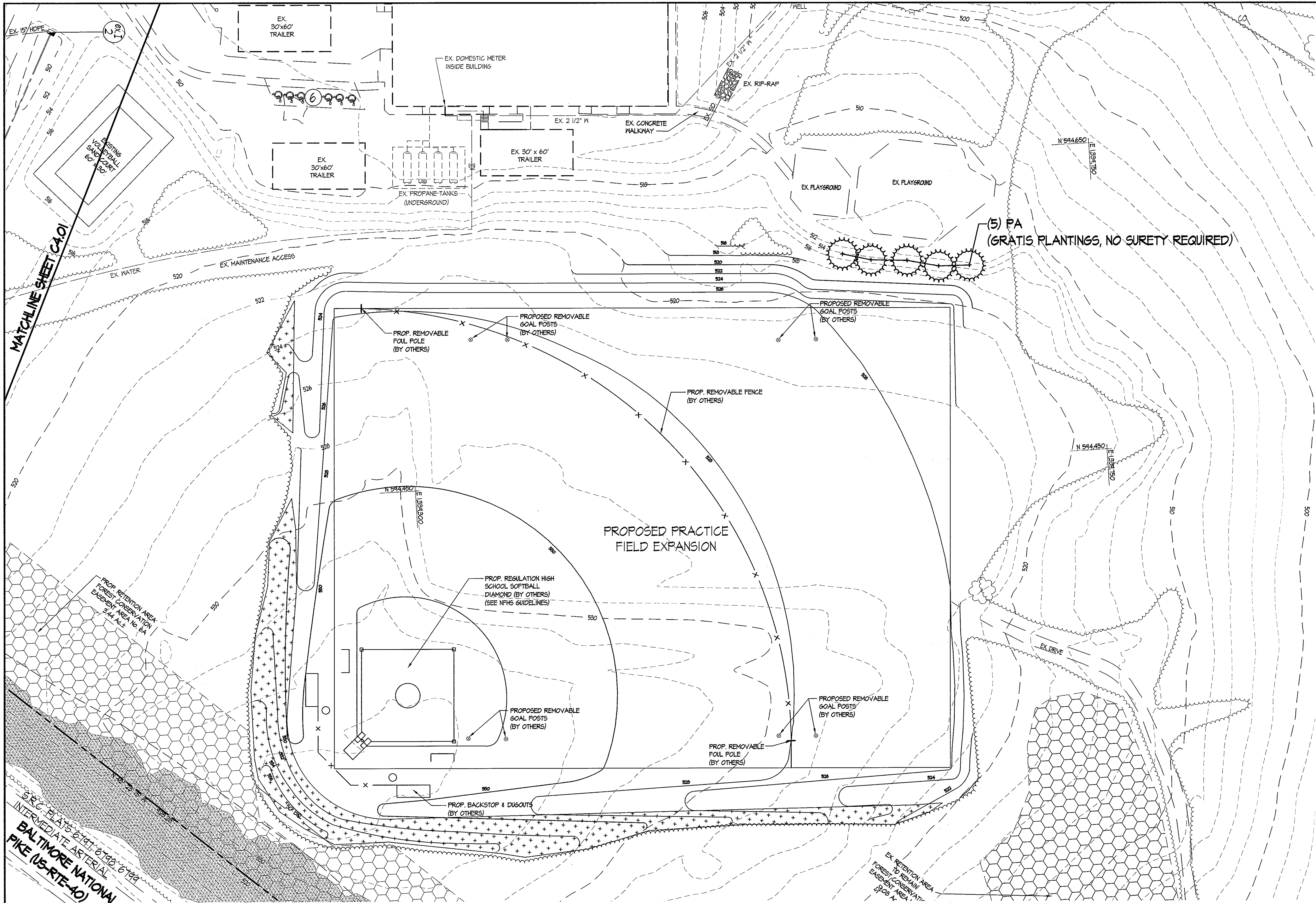
SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	1/12

PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
11847 / F330	10	R20	16	3	60330

WATER CODE	SEWER CODE
H06	5942000

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
 2600 Marriottsville Road
 Marriottsville, MD 21104 PHONE: (410) 683-6012
 CONTACT: JAMES E. HEAD III

2/20/2008 - Chapelgate Christian Academy/CS-01 Landscape_Plan.dwg 6/20/2008 11:55:23 AM - Copyright, Site Resources, Inc.



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
164B	542408.0425	1341523.9617	464.712	NAD83(91)	NAVD88
16E1	543250.9638	1340942.1010	463.843	NAD83(91)	NAVD88
0012	546502.7604	1340064.3654	486.199	NAD83(91)	NAVD88

LEGEND

- PROPERTY LINE
- EXISTING CONTOURS (348, 340)
- PROPOSED CONTOURS (348, 340)
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING PAVING
- PROPOSED ROAD
- EXISTING TREES
- PROPOSED PLANTING (various symbols)
- EXISTING BUILDINGS
- PROPOSED CONCRETE WALK
- PROPOSED SITE LIGHTING
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING STREAM
- 75' STREAM BANK BUFFER
- 100 YR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF
- REVEGETATION PLANTING ZONE (SEE SCHEDULE SHEET C4.03)

CHAPELGATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND
 PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
LANDSCAPE PLAN
PRACTICE FIELD
 REVISIONS

STATE OF MARYLAND
 REGISTERED LANDSCAPE ARCHITECT

SITE RESOURCES
 Incorporated

Comprehensive Land Planning & Site Design Services

14307 Jarrettville Pike • Phoenix, Maryland 21131
 (410) 683-3388 • fax (410) 683-3389

6-23-08

DRAWN BY: AM / KRM	CONTRACT NO.:
DESIGNED BY: KRM	SCALE: 1" = 30'
CHECKED BY: CRM	SRI PROJECT NO.: 05026
DATE: June 20, 2008	SHEET C4.02 II OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

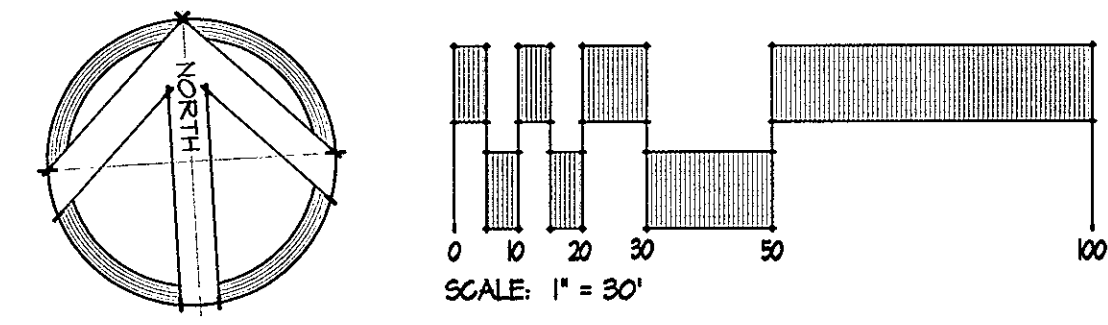
B. Wilson for Peter Beilenson 8/29/08
 COUNTY HEALTH OFFICER (7/0) DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Charles R. Wilson 9/5/08
 DIRECTOR DATE

Chris H. Hannon 8/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris H. Hannon 7/14/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

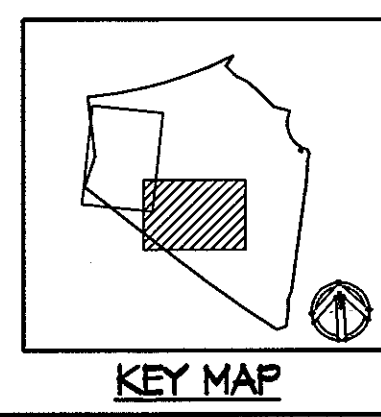


PREPARED BY: CHARLES R. WILSON, RLA
 STATE OF MARYLAND
 REGISTERED LANDSCAPE ARCHITECT
 REGISTRATION NO. 931

Charles R. Wilson 6-23-08
 NAME DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
 I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I/We further certify that upon completion a letter of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

James E. Head III 6/26/2008
 Name Date



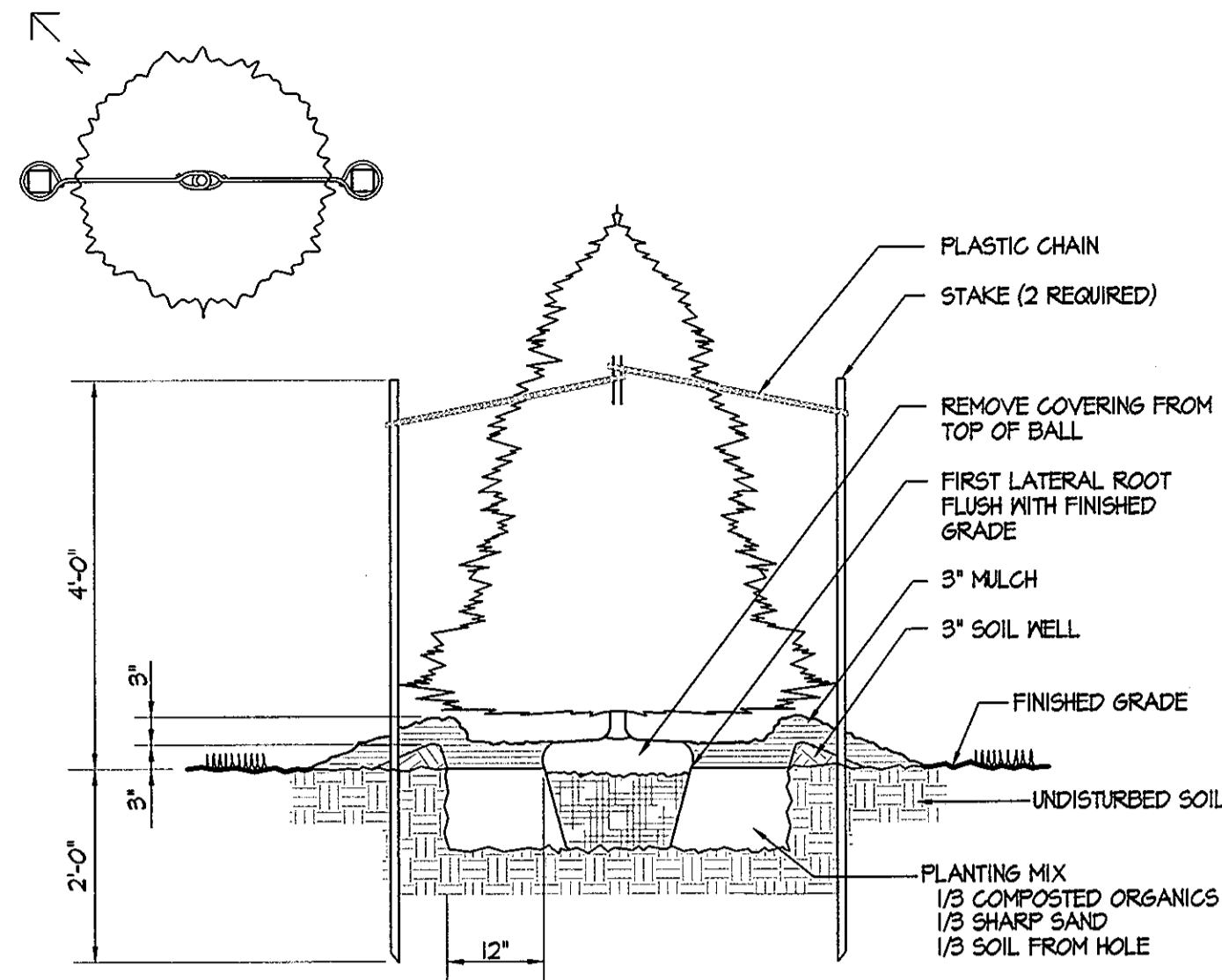
ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARILOTTSVILLE ROAD
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS
CHAPELGATE PRESBYTERIAN CHURCH	N/A / N/A / 110
PLAT No. & LP#	BLOCK No.
1/1584 / 1/3394	10
ZONE	TAX MAP No.
R20	16
ELECT. DIST.	CENSUS TRACT
3	60330
WATER CODE	SEWER CODE
H06	5942000
OWNER	CHAPELGATE PRESBYTERIAN CHURCH, INC.
CONTACT: JAMES E. HEAD III	2600 Marlottsville Road Marlottsville, MD 21094 PHONE: (410) 683-6002

D:\projects\p0505026-08-Chapelgate_Plan.dwg, 6/20/2008 9:44:09 AM, Copyright, Site Resources, Inc.

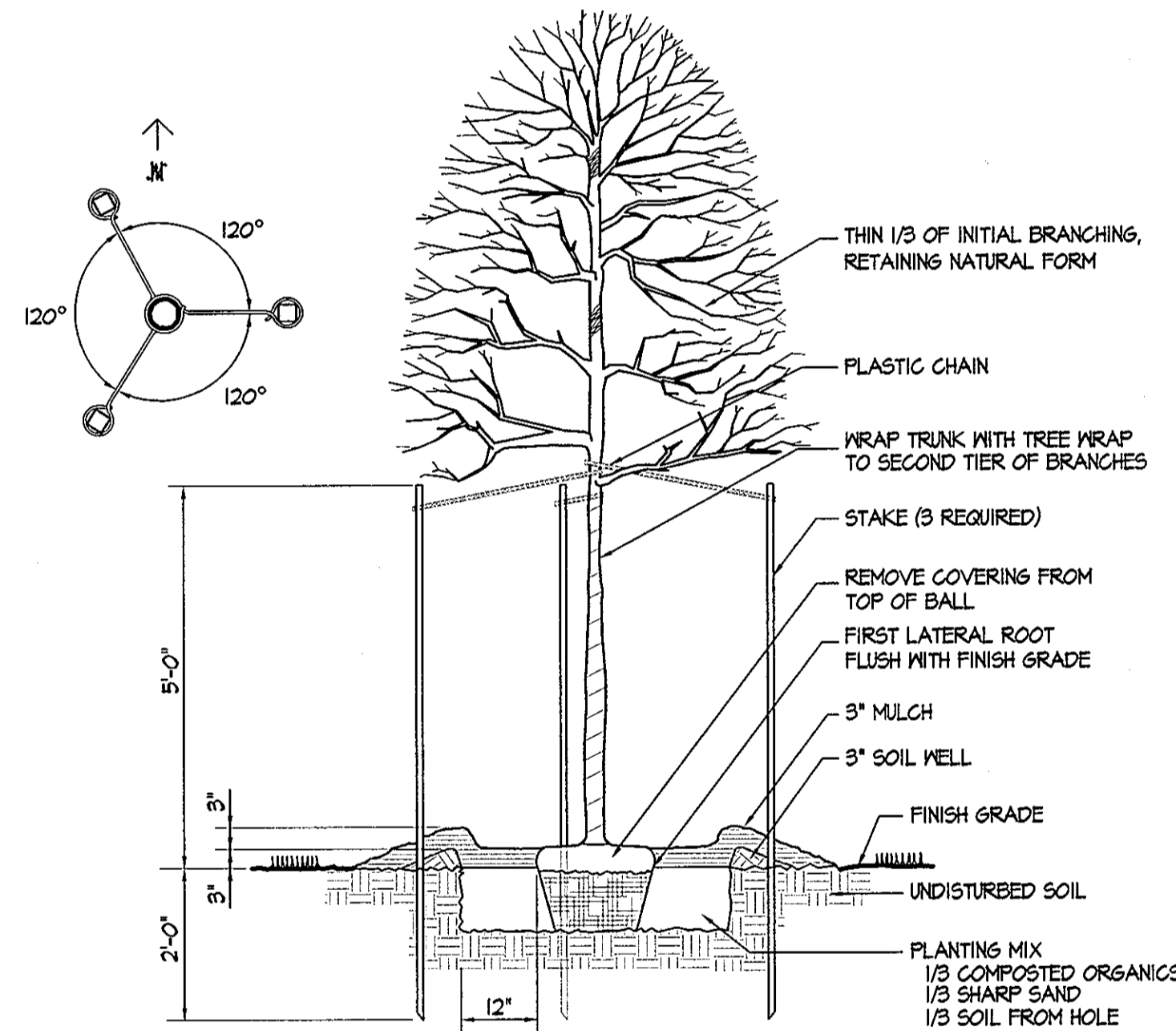
GENERAL PLANTING NOTES

1. PLANT MATERIAL SUBSTITUTIONS ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.
2. PLANT MATERIAL SHALL BE TAGGED AT THE SOURCE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE UNLESS THE REQUIREMENT IS SPECIFICALLY WAIVED.
3. LOCATIONS OF ALL PLANT MATERIAL SHALL BE STAKED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE.
4. ALL SHRUB AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BEDS, MULCHED WITH COMPOSTED HARDWOOD MULCH AS DETAILED AND SPECIFIED.
5. PLANTING BEDS SHALL HAVE POSITIVE DRAINAGE WITH A MINIMUM 2 PERCENT SLOPE.
6. CONTRACTOR SHALL VERIFY ACCURACY OF BASE INFORMATION AND EXISTING CONDITIONS IN THE FIELD TO HIS OWN SATISFACTION. BID SHALL BE BASED ON ACTUAL SITE CONDITIONS. NO EXTRA PAYMENT SHALL BE MADE FOR WORK ARISING FROM SITE CONDITIONS DIFFERING FROM THOSE INDICATED ON DRAWINGS AND SPECIFICATIONS.
7. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL CONFORM TO AMERICAN NURSERYMEN ASSOCIATION STANDARDS.
8. ALL PLANTING PROCEDURES SHALL CONFORM TO THE LATEST EDITION OF LANDSCAPE CONTRACTOR ASSOCIATION GUIDELINES FOR THE BALTIMORE/WASHINGTON METROPOLITAN AREA AND THE PROJECT SPECIFICATIONS.
9. SEE GRADING & UTILITY DRAWINGS FOR EXISTING & PROPOSED GRADES AND UTILITIES. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS TO HIS OWN SATISFACTION.
10. SEE SHEETS C4.01 AND C4.02 FOR LANDSCAPE PLANS.
11. AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING.
12. SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN DIE, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIFER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.
13. THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERRS, FENCES, AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
14. SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED, AS NEEDED, IN ACCORDANCE WITH LOCAL JURISDICTION REQUIREMENTS. STABILIZE ALL DISTURBED AREAS AS SOON AS FINAL GRADING HAS BEEN COMPLETED. ALL DISTURBED AREAS SHALL BE SEEDED WITH THE EXCEPTION OF PLANTING BEDS.
15. INSTALL TREE PROTECTION FENCINGS ALONG THE LIMITS OF DISTURBANCE (LOD) OF THE EXISTING WOODS. ALL SITE GRADINGS, PLANTING BED PREPARATION, AND TREE AND SHRUB PLANTING MUST BE DONE OUTSIDE OF THE DRIP LINE OF EXISTING TREES TO BE PRESERVED IN ORDER TO MAINTAIN AND PROTECT THE ROOT SYSTEM.
16. TREES ARE NOT TO BE INSTALLED CLOSER THAN 6' TO ANY EDGE OF PAVEMENT, CURB OR SIDEWALK.
17. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. CREDIT IS GIVEN FOR EXISTING VEGETATION, HOWEVER TWO PARKING LOT ISLAND SHADE TREES SHALL BE REQUIRED FOR THE PARKING EXPANSION. SURETY IN THE AMOUNT OF \$600.00 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN.



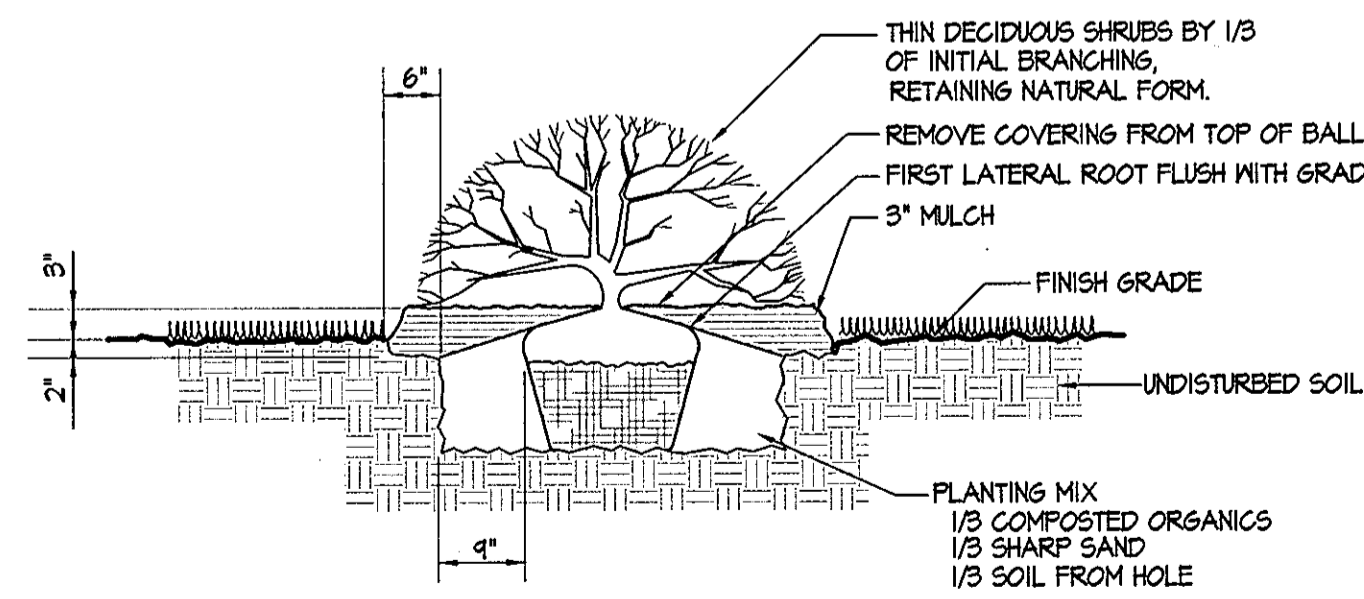
EVERGREEN TREE DETAIL

N.T.S.



DECIDUOUS TREE DETAIL

N.T.S.



SHRUB DETAIL

N.T.S.

PARKING LOT LANDSCAPE SCHEDULE / PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	COMMENTS
AR	ACER RUBRUM RED SUNSET	RED SUNSET RED MAPLE	2 1/2"-3" CAL.	AS SHOWN	2	FULL CROWN

SURETY IN THE AMOUNT OF \$600.00 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT UNDER THIS SITE PLAN.

PRACTICE FIELD LANDSCAPE SCHEDULE / PLANT LIST

PA	PICEA ABIES	NORWAY SPRUCE	6'-8' HT.	AS SHOWN	5	HEAVY
----	-------------	---------------	-----------	----------	---	-------

GRATIS PLANTINGS, NO SURETY REQUIRED.

REVEGETATION ZONE PLANTING SCHEDULE / PLANT LIST

Zone 1: Upland Forest

Size (sq ft): 51936.4
Size (acres): 1.14

Overall Spacing (feet on center)	Quantity per acre	Frequency (%)	Species Quantity	Vegetation Strata/Species Name	Common Name	Unit	Size	Spacing Type	Individual Spacing (ft.)	
12	302	20	50	CANOPY TREES	Shagbark hickory	Container	1" CAL	Random	27	
			81	Carya ovata	Tulip poplar	Container	1" CAL	Random	20	
			50	Liriodendron tulipifera	White oak	Container	1" CAL	Random	27	
			62	Quercus alba	Red oak	Container	1" CAL	Random	24	
			25	Quercus rubra						
			100	241	= Total					
16	170	25	35	SUB-CANOPY TREES	Shadblow serviceberry	Container	5 - 6'	Random	32	
			42	Amelanchier canadensis	Black cherry	Container	5 - 6'	Random	24	
			35	Prunus serotina	Sassafras	Container	5 - 6'	Random	32	
			28	Sassafras albidum	Black gum	Container	5 - 6'	Random	36	
			100	140	= Total					
14	222	20	36	SHRUBS	Hazelnut	Container	2 - 3 ft.	Random	31	
			46	Corylus americana	Witch hazel	Container	2 - 3 ft.	Random	28	
			21	Hamamelis virginiana	Spicebush	Container	1 GAL	Random	36	
			36	Lindera benzoin	Pink azalea	Container	1.5 - 2 ft.	Random	31	
			36	Rhododendron nudiflorum	Maple-leaf viburnum	Container	2 - 3 ft.	Random	31	
			100	181	= Total					
NA	60	100	12.30	SEED	Andropogon elliotii	Elliot's beardgrass	LBS	PLS	Random	NA
			12.30	Andropogon scoparius	Little bluestem	LBS	PLS	Random	NA	
			1.48	Coreopsis verticillata	Whorled tickseed	LBS	PLS	Random	NA	
			1.38	Dichanthelium clandestinum	Deer tonguegrass	LBS	PLS	Random	NA	
			12.30	Festuca rubra	Creeping red fescue	LBS	PLS	Random	NA	
			0.98	Lupinus perennis	Wild lupine	LBS	PLS	Random	NA	
			2.46	Rudbeckia hirta	Black-eyed Susan	LBS	PLS	Random	NA	
			44.2	= Total						

Trees/Acre: 412
PLS-Pure Live Seed

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

William R. Peter Beilensen 8/29/08
COUNTY HEALTH OFFICER 50 DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Charles R. Wilson 9/5/08
DIRECTOR DATE

Chad Pennington 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Wanda Hamer 9/4/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

PREPARED BY: CHARLES R. WILSON JR., RLA
STATE OF MARYLAND
REGISTERED LANDSCAPE ARCHITECT
REGISTRATION NO. 487

Charles R. Wilson
NAME DATE 6-23-08

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I/We further certify that upon completion a letter of Landscape Installation accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.

Charity S. Smith 6/26/2008
Name Date

ADDRESS CHART

PARCEL #	STREET ADDRESS			
110	2600 MARIOTTSVILLE ROAD			
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS			
CHAPEL GATE PRESBYTERIAN CHURCH	N/A 110			
PLAT No. or L.P.	ZONE	TAX MAP No.	ELECT. DIST.	CENSUS TRACT
LIB94 / FB39	RD	16	3	6030
WATER CODE	SEWER CODE			
H06	5992000			
OWNER:	CHAPEL GATE PRESBYTERIAN CHURCH, INC. 2600 Marriottsville Road Marriottsville, MD 21104 PHONE: (410) 453-6002			
CONTACT: JAMES E. HEAD III				

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN DETAILS

REVISIONS

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services

14307 Jarrettsville Pike • Phoenix, Maryland 21131
(410) 683-3388 • fax (410) 683-3389

6-23-08

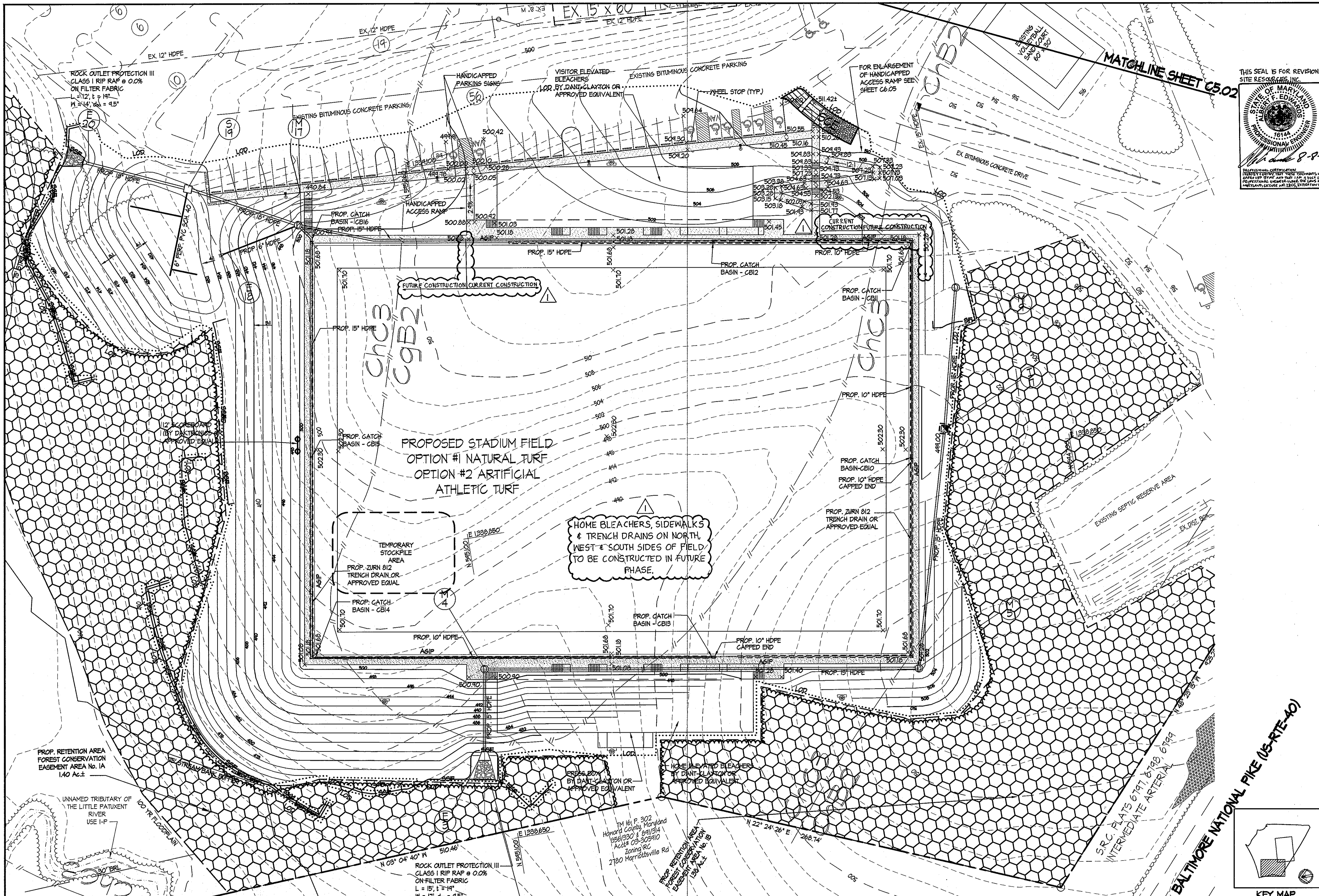
DRAWN BY: AM/KRM CONTRACT NO.:

DESIGNED BY: KRM SCALE: AS SHOWN

CHECKED BY: GRM SRI PROJECT NO: 05026

DATE: June 20, 2008 SHEET C4.03 12 OF 28

SDP-07-133



THIS SEAL IS FOR REVISION Δ , BY SITE RESOURCES, INC.

GPS Sta. No. 0012
INTERSTATE 10
BALTIMORE NATIONAL PIKE
ALBETH ROAD
MARCOTTSVILLE ROAD
US RT 40

GPS Sta. No. 16B3
GPS Sta. No. 16E1

Howard County Maryland
Map 10 Grids K-3 & K-4
Map 11 Grids A-3 & A-4

VICINITY MAP
Scale: 1" = 1000'

BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16B3	542408.0425	1341523.9611	464.712	NAD83(91)	NAVDS8
16E1	543250.4639	1340142.1010	463.843	NAD83(91)	NAVDS8
0012	546502.7604	1340264.3654	466.194	NAD83(91)	NAVDS8

LEGEND

	PROPERTY LINE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING PAVING
	PROPOSED ROAD
	EXISTING STORM DRAINS
	PROPOSED STORM DRAIN
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	EXISTING WATER
	PROPOSED WATER
	PROPOSED CONCRETE WALK
	EROSION CONTROL MATTING
	SOILS LINE
	SILT FENCE
	SUPER SILT FENCE
	TREE PROTECTION FENCE
	STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
	STANDARD INLET PROTECTION
	LIMIT OF DISTURBANCE
	PROPOSED SITE LIGHTING
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING STREAM
	EXISTING STREAM BUFFER
	100 YR FLOODPLAIN
	FOREST CONSERVATION EASEMENT
	EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF
	EXISTING BUILDINGS

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

GRADING & EROSION & SEDIMENT CONTROL PLAN - STADIUM FIELD

REVISIONS
 Δ 05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN

KEY MAP

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2800 MARIOTTSVILLE ROAD

DEVELOPER'S CERTIFICATE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 16E1, expiration date, 03/24/2016.

ENGINEER'S CERTIFICATE

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

DEVELOPER'S CERTIFICATE

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

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2800 Marriottsville Road
Marriottsville, MD 21104 PHONE: (410) 453-6002

DRAWN BY: AM
DESIGNED BY: CRM
CHECKED BY: CRM
DATE: June 20, 2008

CONTRACT NO.:
SCALE: 1" = 30'
SRI PROJECT NO.: 05026
SHEET C5.01 13 OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

B. Wilson for Peter Bilalansen 8/29/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Shirley L. Cuyler 9/15/08
DIRECTOR DATE

Michael J. Hume 9/14/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NOTE:
SILT FENCE AND SUPER SILT FENCE SHALL BE INSTALLED IN SUCH A MANNER THAT NO EXISTING VEGETATION GREATER THAN 1" IN DIAMETER SHALL BE REMOVED.

ROCK OUTLET PROTECTION III
CLASS 1 RIP RAP @ 0.0% ON FILTER FABRIC
L = 15', E = 14"
M = 17', dia = 9.5"
OUTFALL PROTECTION DETAIL (SEE SHEET C5.03)

UNNAMED TRIBUTARY OF THE LITTLE PATUXENT RIVER
USE I-P

TEMPORARY STOCKPILE AREA
PROP. ZURN 812 TRENCH DRAIN OR APPROVED EQUAL
PROP. CATCH BASIN - CB14

PROPOSED STADIUM FIELD
OPTION #1 NATURAL TURF
OPTION #2 ARTIFICIAL ATHLETIC TURF

HOME BLEACHERS, SIDEWALKS & TRENCH DRAINS ON NORTH, WEST & SOUTH SIDES OF FIELD TO BE CONSTRUCTED IN FUTURE PHASE.

PROPOSED CONSTRUCTION CURRENT CONSTRUCTION

PROPOSED ZURN 812 TRENCH DRAIN OR APPROVED EQUAL

PROPOSED CATCH BASIN - CB12

PROPOSED CATCH BASIN - CB16

PROPOSED CATCH BASIN - CB14

PROPOSED CATCH BASIN - CB15

PROPOSED CATCH BASIN - CB13

PROPOSED CATCH BASIN - CB11

PROPOSED CATCH BASIN - CB10

PROPOSED CATCH BASIN - CB09

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PROPOSED CATCH BASIN - CB04

PROPOSED CATCH BASIN - CB03

PROPOSED CATCH BASIN - CB02

PROPOSED CATCH BASIN - CB01

PROPOSED CATCH BASIN - CB00

PROPOSED CATCH BASIN - CB-01

PROPOSED CATCH BASIN - CB-02

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PROPOSED CATCH BASIN - CB-99

PROPOSED CATCH BASIN - CB-100

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John L. Houston 8/14/08
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

James E. Head III 6/25/08
ENGINEER DATE

DEVELOPER'S CERTIFICATE

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

James E. Head III 6/25/08
DEVELOPER DATE

AREA OF DISTURBANCE = 221,284 SF / 5.08 AC.

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 16E1, expiration date, 03/24/2016.

ADDRESS CHART

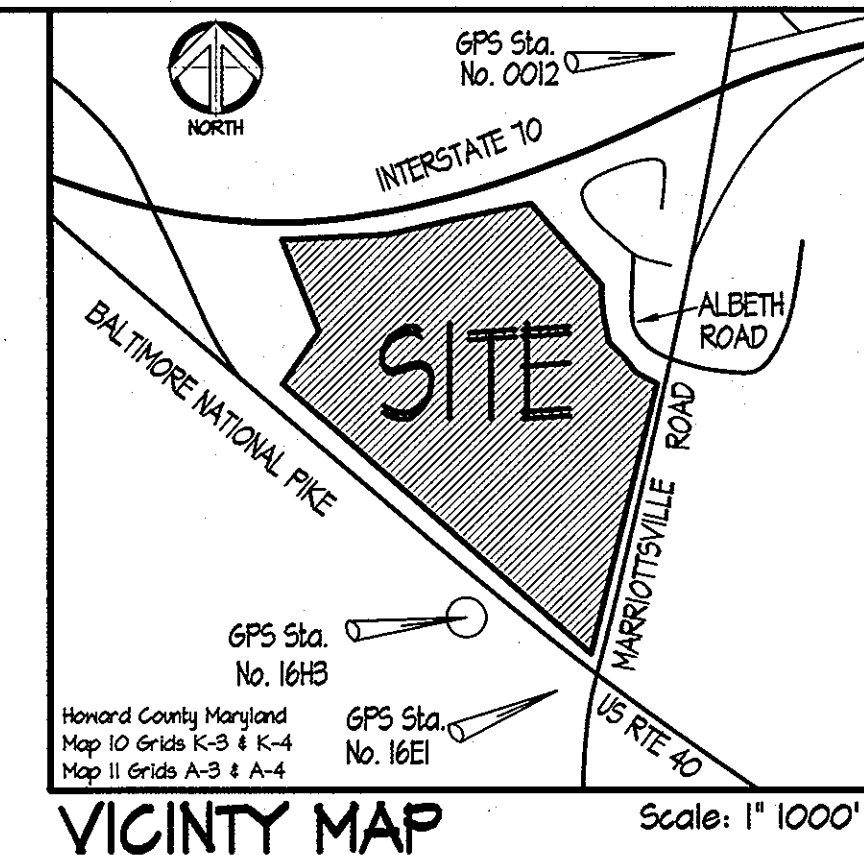
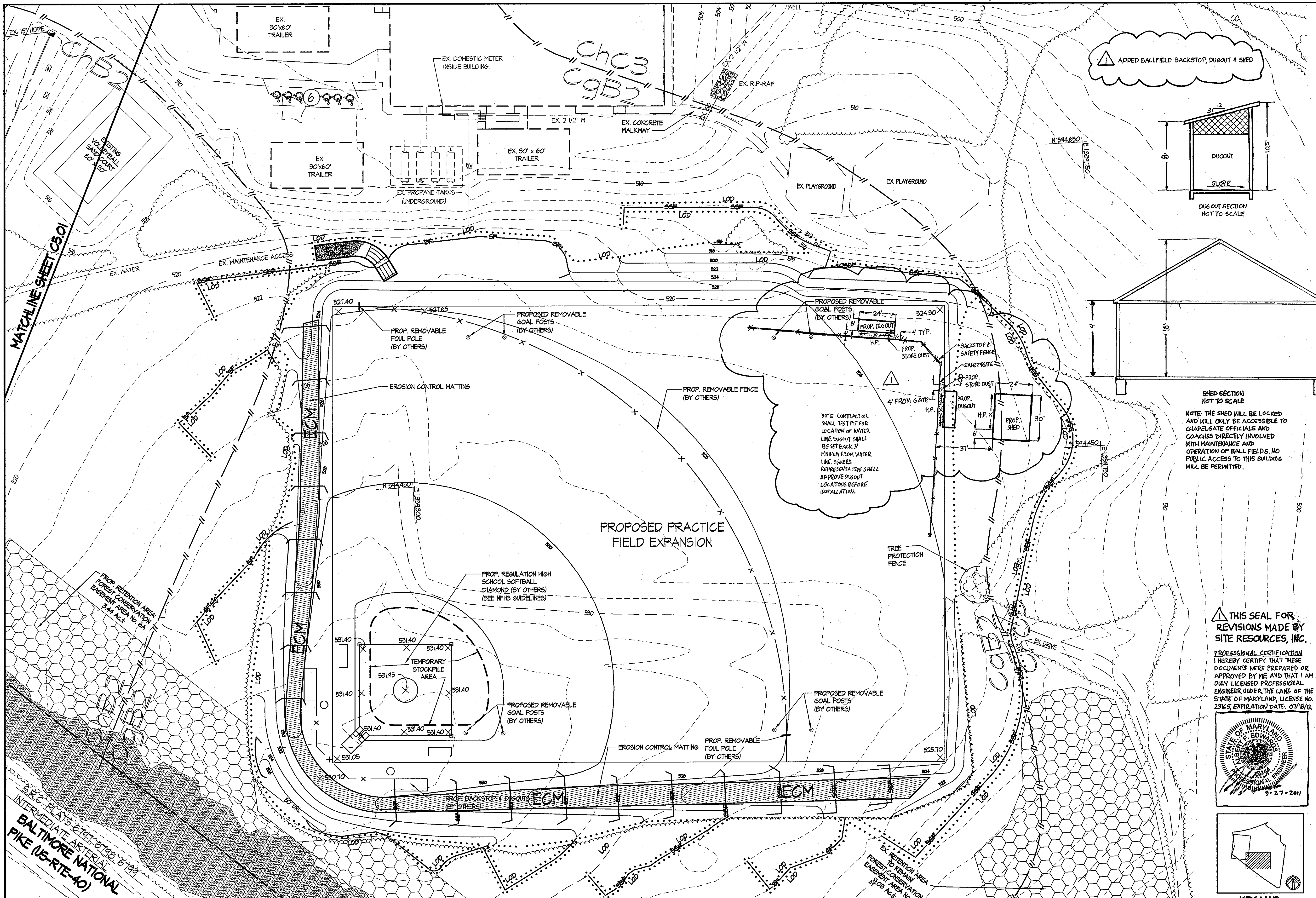
PARCEL #	STREET ADDRESS
110	2800 MARIOTTSVILLE ROAD

SECTION / AREA LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH N/A 102

PLAT No. or L.P. BLOCK No. ZONE TAX MAP No. ELECT. DIST. CENSUS TRACT
LIB84 / F331 10 R20 16 3 6030

MATER CODE HO2 **SEWER CODE** 5942000

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2800 Marriottsville Road
Marriottsville, MD 21104 PHONE: (410) 453-6002

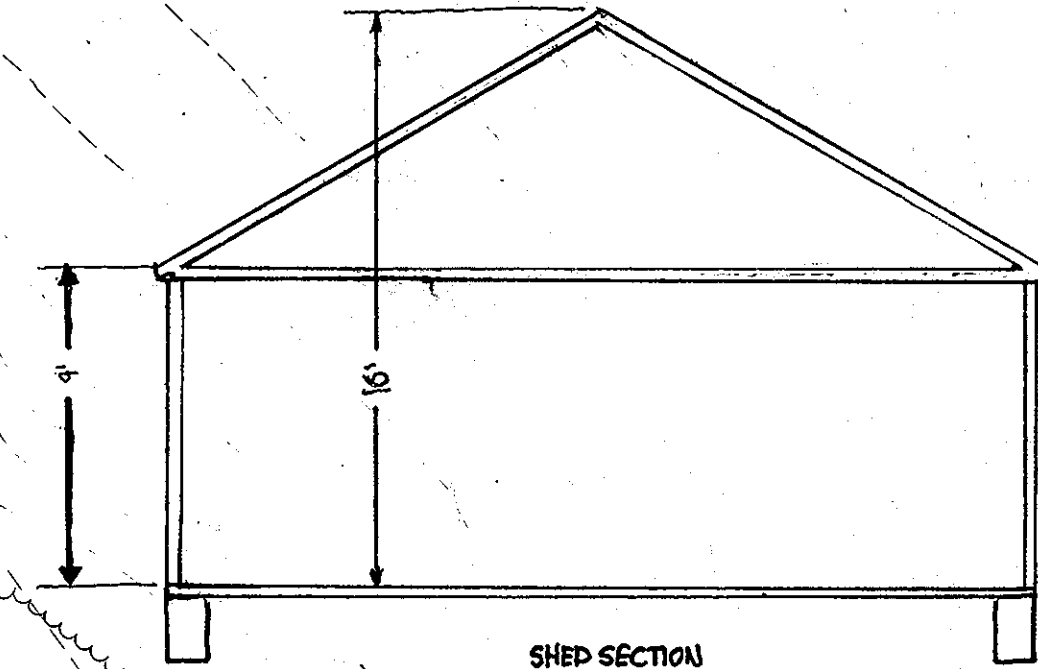
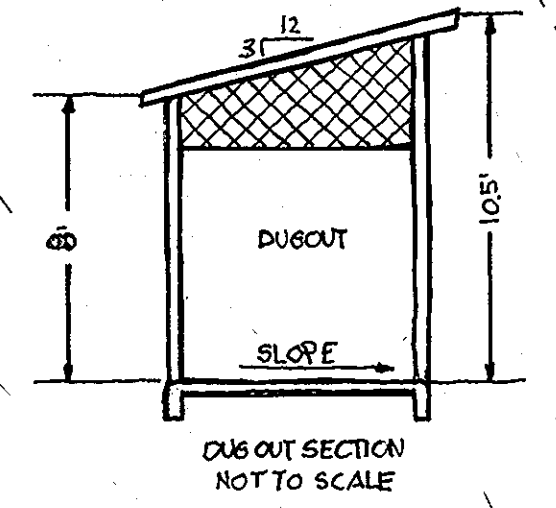


BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
164B	542408.0425	134523.4617	464.712	NAD83(1)	NAVD83
16E1	543250.4638	1340142.7010	463.843	NAD83(1)	NAVD83
0012	546502.7604	1340264.3654	486.199	NAD83(1)	NAVD83

LEGEND

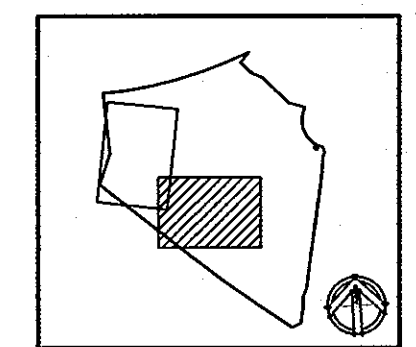
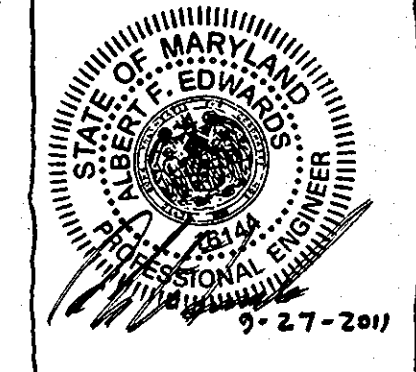
- PROPERTY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING PAVING
- PROPOSED ROAD
- EXISTING STORM DRAINS
- PROPOSED STORM DRAIN
- EXISTING SANITARY SEWER
- EXISTING WATER
- PROPOSED CONCRETE WALK
- EROSION CONTROL MATTING
- SOILS LINE
- SILT FENCE
- SUPER SILT FENCE
- TREE PROTECTION FENCE
- STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- STANDARD INLET PROTECTION
- LIMIT OF DISTURBANCE
- PROPOSED SITE LIGHTING
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING STREAM
- EXISTING STREAM BUFFER
- 100 YR FLOODPLAIN
- FOREST CONSERVATION EASEMENT
- EXISTING STEEP SLOPES GREATER THAN 25% IN A CONTIGUOUS AREA MORE THAN 20,000 SF
- EXISTING BUILDINGS



NOTE: THE SHED WILL BE LOCKED AND WILL ONLY BE ACCESSIBLE TO CHAPEL GATE OFFICIALS AND COACHES DIRECTLY INVOLVED WITH MAINTENANCE AND OPERATION OF BALL FIELDS. NO PUBLIC ACCESS TO THIS BUILDING WILL BE PERMITTED.

THIS SEAL FOR REVISIONS MADE BY SITE RESOURCES, INC.

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23165, EXPIRATION DATE, 07/18/13.



CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

GRADING & EROSION & SEDIMENT CONTROL PLAN - PRACTICE FIELD

REVISIONS
ADDED BALLFIELD BACKSTOP, DUGOUT & SHED

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

Peter Brileman 8/29/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David A. Coyle 9/10/08
DIRECTOR DATE

John R. Robinson 8/14/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Ham 9/4/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NOTE: SILT FENCE AND SUPER SILT FENCE SHALL BE INSTALLED IN SUCH A MANNER THAT NO EXISTING VEGETATION GREATER THAN 1" IN DIAMETER SHALL BE REMOVED.

SCALE: 1" = 30'

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

John R. Robinson DATE 8/14/08
NATURAL RESOURCES CONSERVATION SERVICE
HOWARD SOIL CONSERVATION DISTRICT

ENGINEER'S CERTIFICATE

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

James E. Head III 6/23/08
ENGINEER DATE

DEVELOPER'S CERTIFICATE

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

James E. Head III 6/23/08
DEVELOPER DATE

AREA OF DISTURBANCE = 171,125 SF / 4.08 AC.

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15876, expiration date, 05/24/2010.

ADDRESS CHART

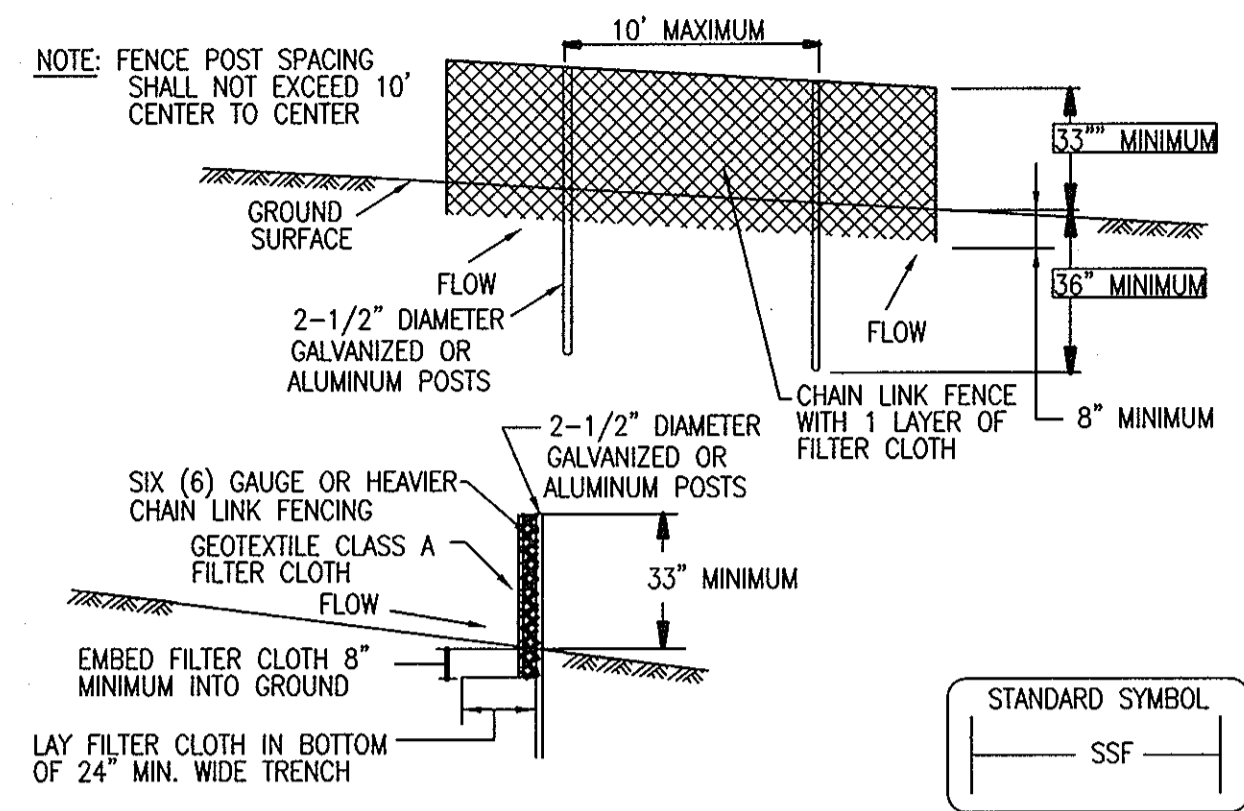
PARCEL #	STREET ADDRESS
110	2800 MARRIOTTVILLE ROAD
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A
PLAT No. or L&P BLOCK No.	ZONE TAX MAP No.
LIBRARY / F&S# 10	R20 16
ELECT. DIST.	GENUS TRACT
3	6030
WATER CODE	SEWER CODE
H06	594000
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC.
CONTACT: JAMES E. HEAD III	2800 Marriottville Road Marriottville, MD 21094 PHONE: (410) 683-6022

SITE RESOURCES
INCORPORATED
Comprehensive Land Planning & Site Design Services

14307 Jannettsville Pike • Phoenix, Maryland 21151
(410) 683-3388 • fax (410) 683-3389

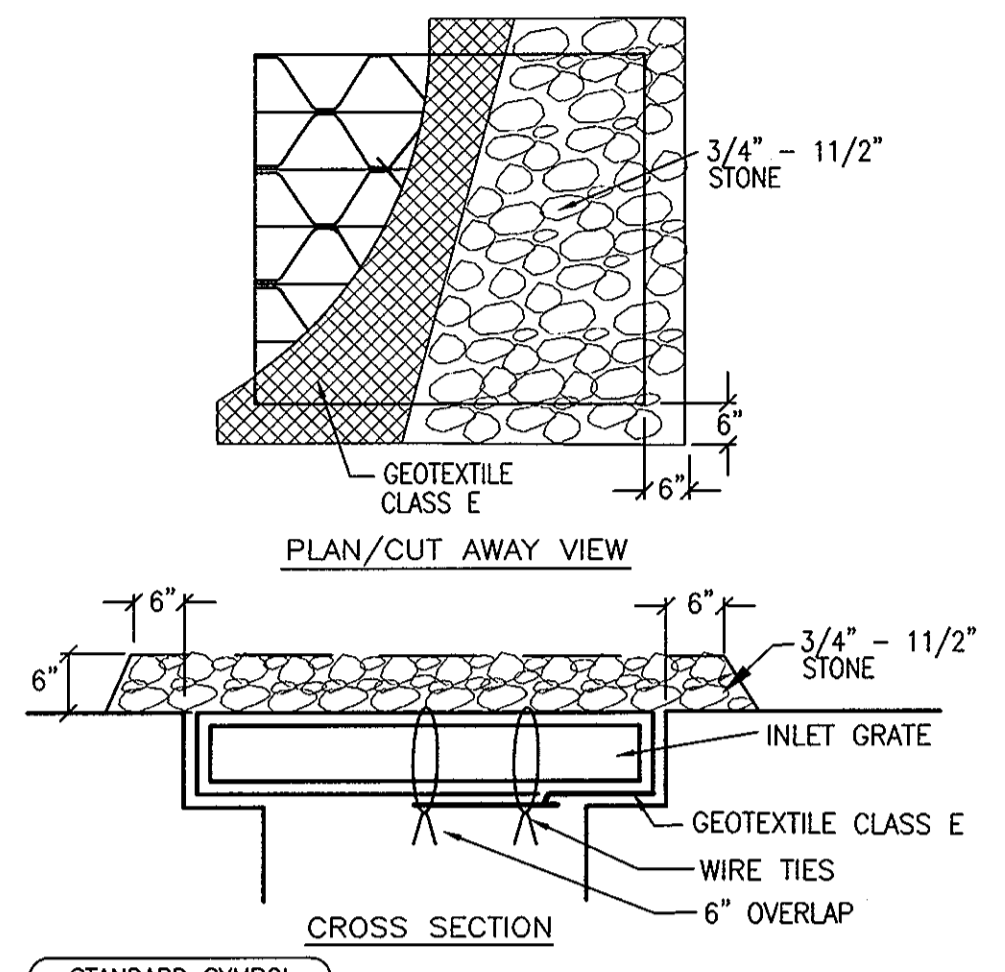
DRAWN BY: AM
DESIGNED BY: CRM
CHECKED BY: CRM
DATE: June 20, 2008

CONTRACT NO.:
SCALE: 1" = 30'
SRI PROJECT NO: 05026
SHEET C5,02 14 OF 28



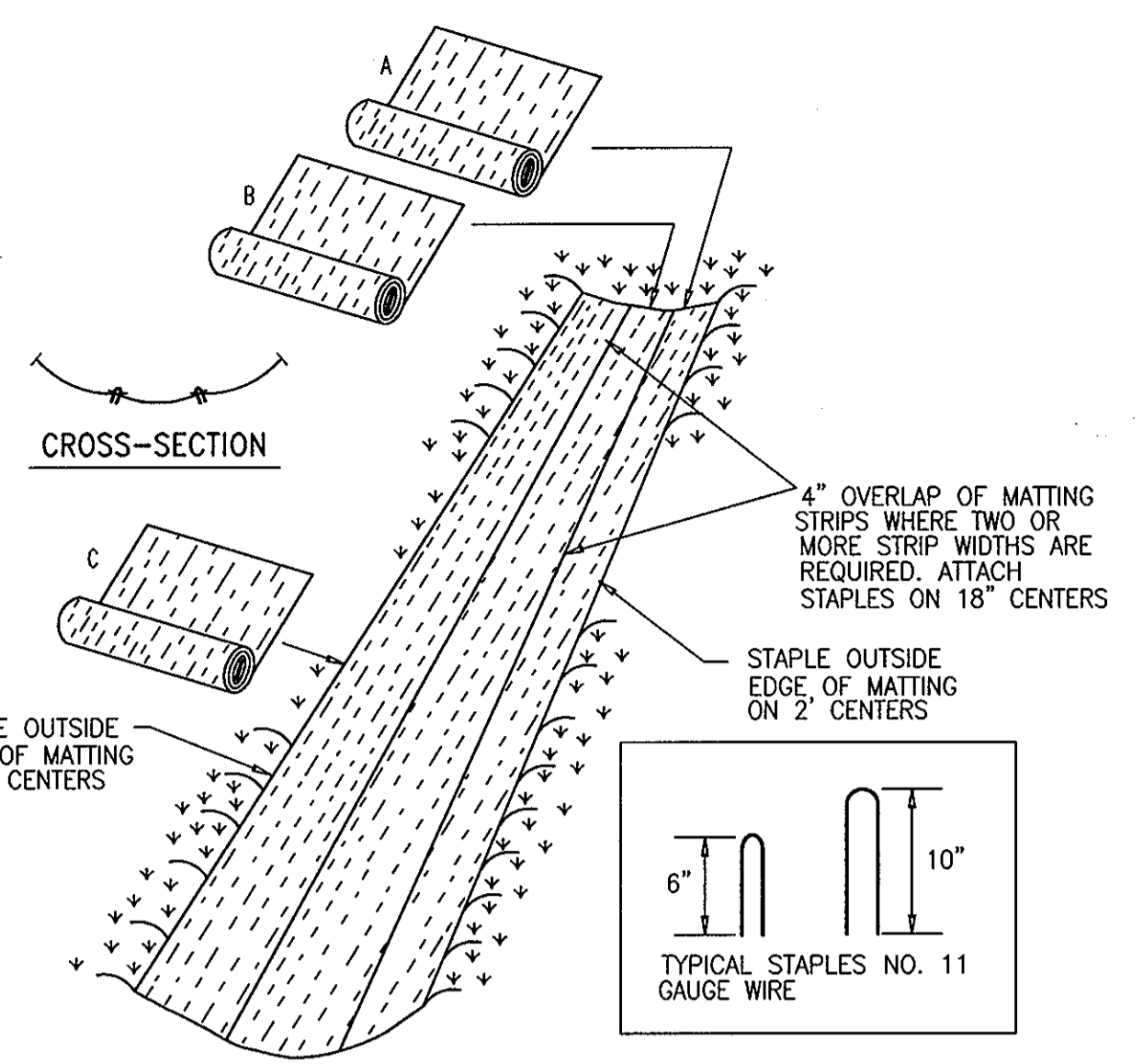
- CONSTRUCTION SPECIFICATIONS**
- FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS.
 - THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
 - CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE. THE CHAIN LINK FENCING SHALL BE SIX (6) GAUGE OR HEAVIER.
 - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
 - FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF FENCE HEIGHT.

**DETAIL H-26-3
SUPER SILT FENCE**
NOT TO SCALE



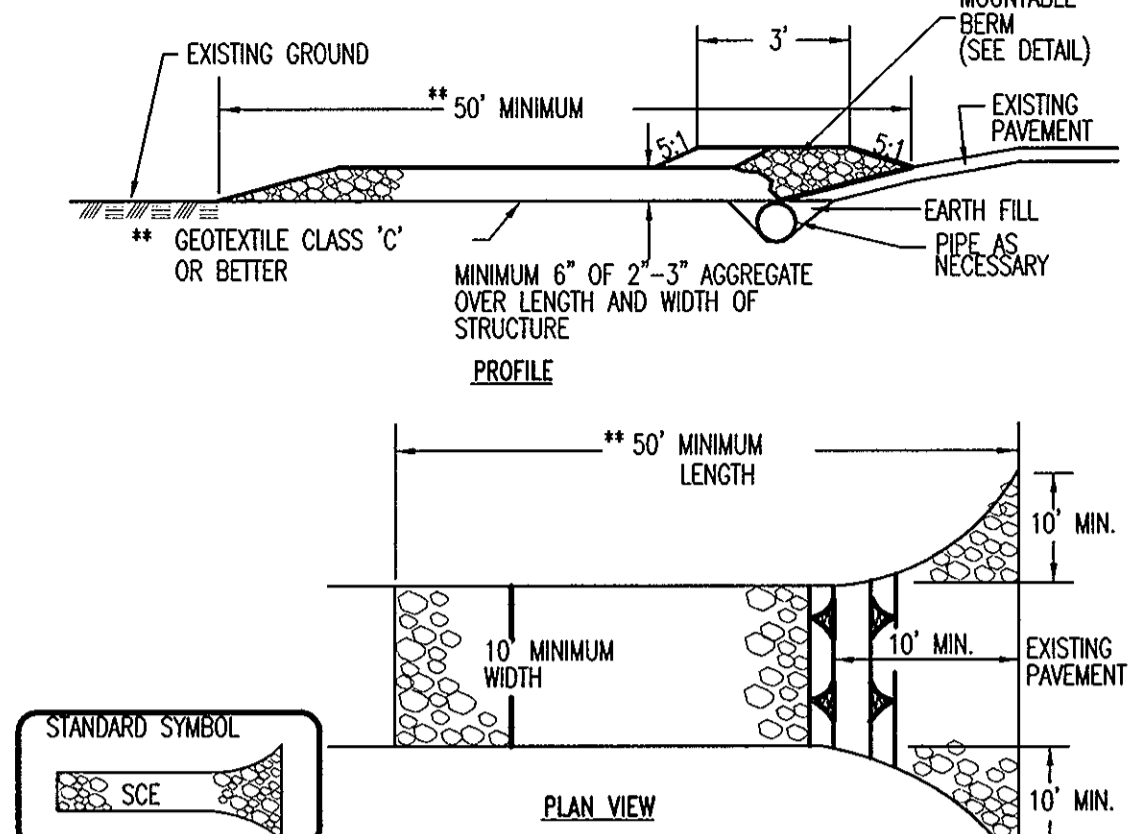
- CONSTRUCTION SPECIFICATIONS**
- LIFT GRATE AND WRAP WITH GEOTEXTILE CLASS E TO COMPLETELY COVER ALL OPENINGS THEN SET GRATE BACK IN PLACE.
 - PLACE 3/4" TO 1 1/2" STONE, 4"-6" THICK ON THE GRATE TO SECURE THE FABRIC AND PROVIDE ADDITIONAL FILTRATION.

**AT GRADE
INLET PROTECTION**
NOT TO SCALE



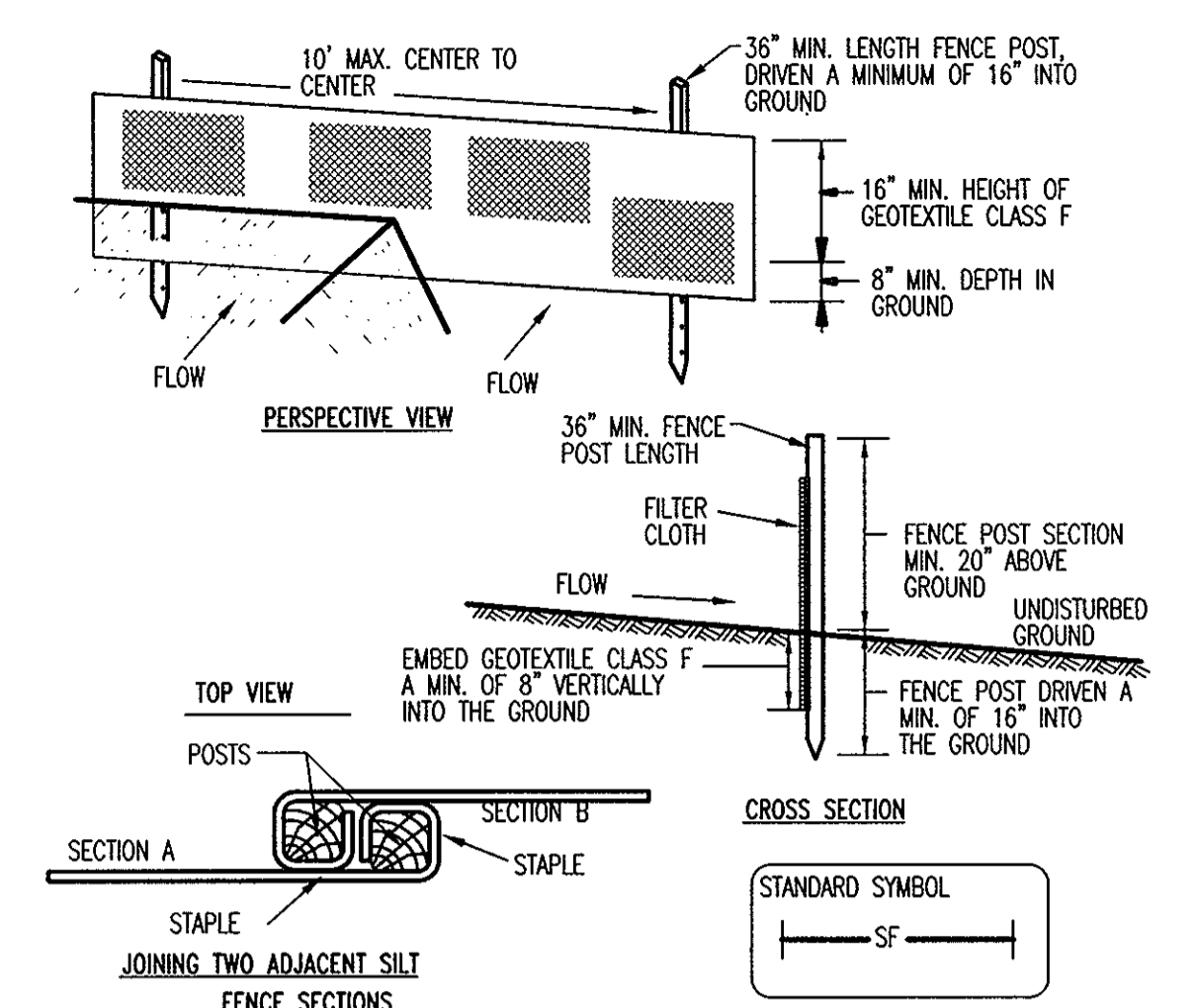
- CONSTRUCTION SPECIFICATIONS**
- KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTING IN A NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6".
 - STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.
 - BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
 - STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
 - WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4", SHIRLAP FASHION. REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
 - THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH 2 DOUBLE ROWS OF STAPLES.
- NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEYED-IN.

EROSION CONTROL MATTING
NOT TO SCALE



- CONSTRUCTION SPECIFICATION**
- LENGTH - MINIMUM OF 50' (*50' FOR SINGLE RESIDENCE LOT).
 - WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
 - GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
 - STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
 - SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
 - LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 3/4" DIA. (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
 - GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

TENSILE STRENGTH	50 LBS/IN (MIN.)	TEST: MSMT 509
TENSILE MODULUS	20 LBS/IN (MIN.)	TEST: MSMT 509
FLOW RATE	0.3 GAL. FT. / MINUTE (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY	75% (MIN.)	TEST: MSMT 322
 - WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
 - SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

SILT FENCE
NOT TO SCALE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

HOWARD NATURAL RESOURCES CONSERVATION SERVICE DATE: 8/14/08

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

HOWARD SOIL CONSERVATION DISTRICT DATE: 6/23/08

ENGINEER'S CERTIFICATE

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

ENGINEER DATE: 6/23/08

DEVELOPER'S CERTIFICATE

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

DEVELOPER DATE: 6/26/2008

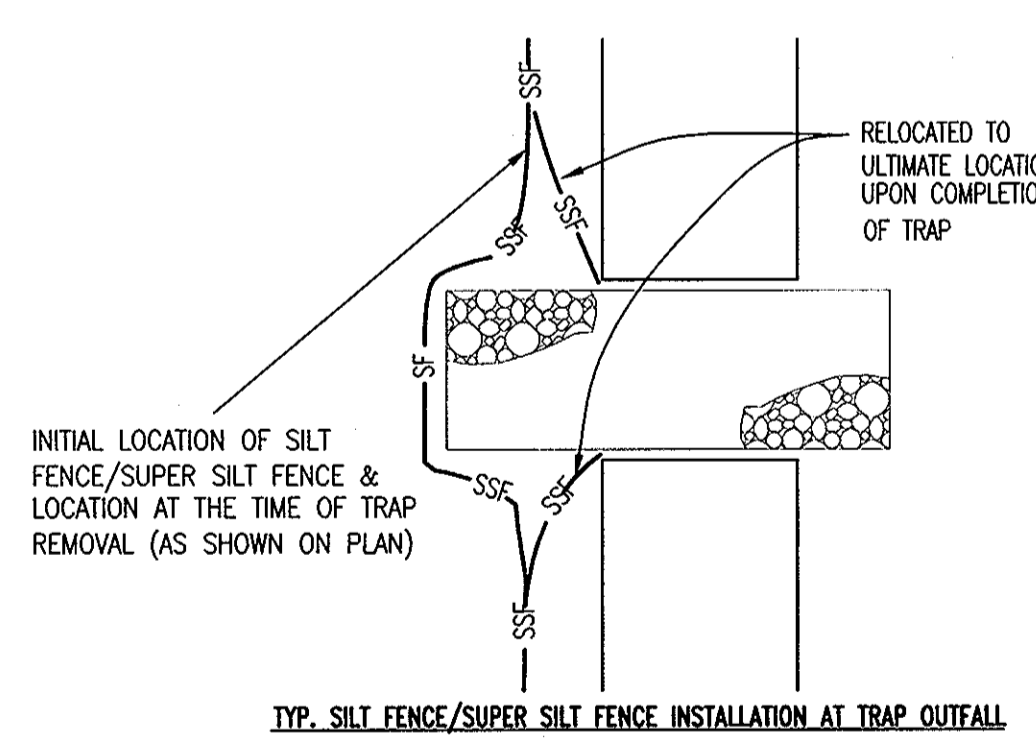
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE: 8/23/08

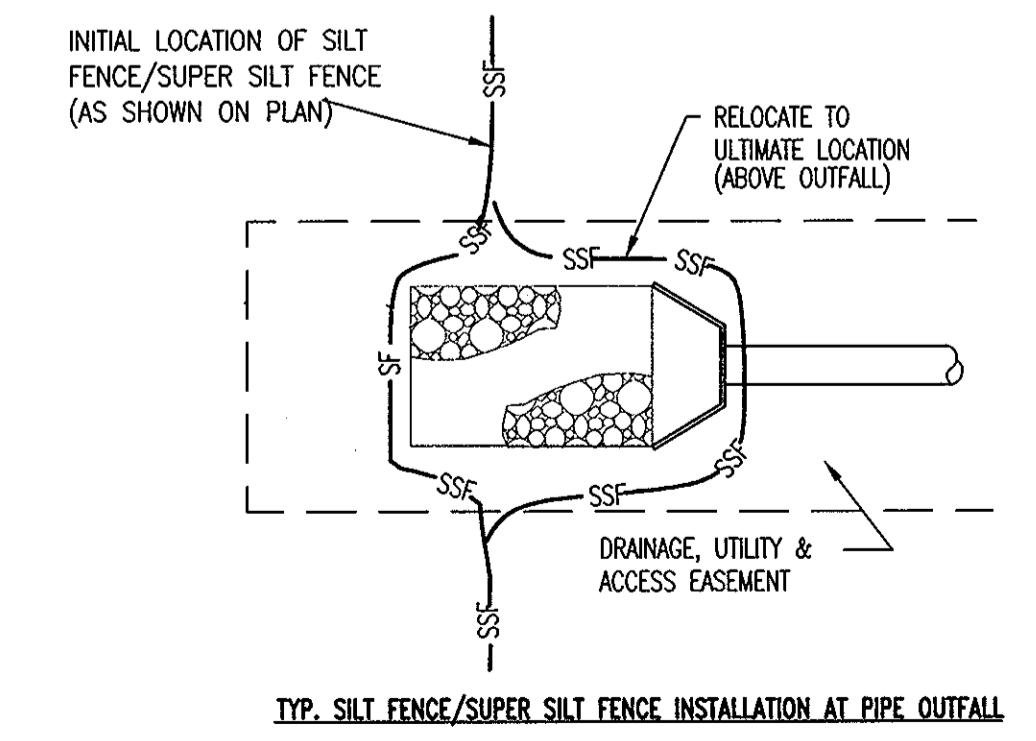
APPROVED: DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 7/5/08

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 7/5/08

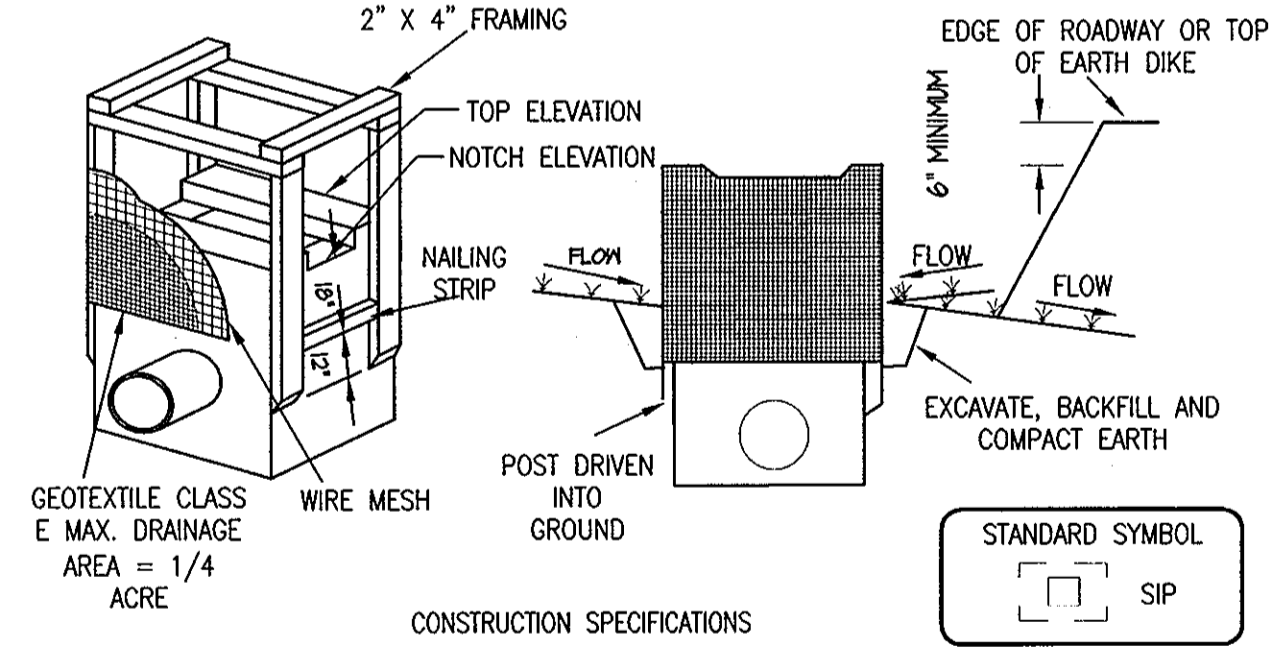


TYP. SILT FENCE/SUPER SILT FENCE INSTALLATION AT TRAP OUTFALL



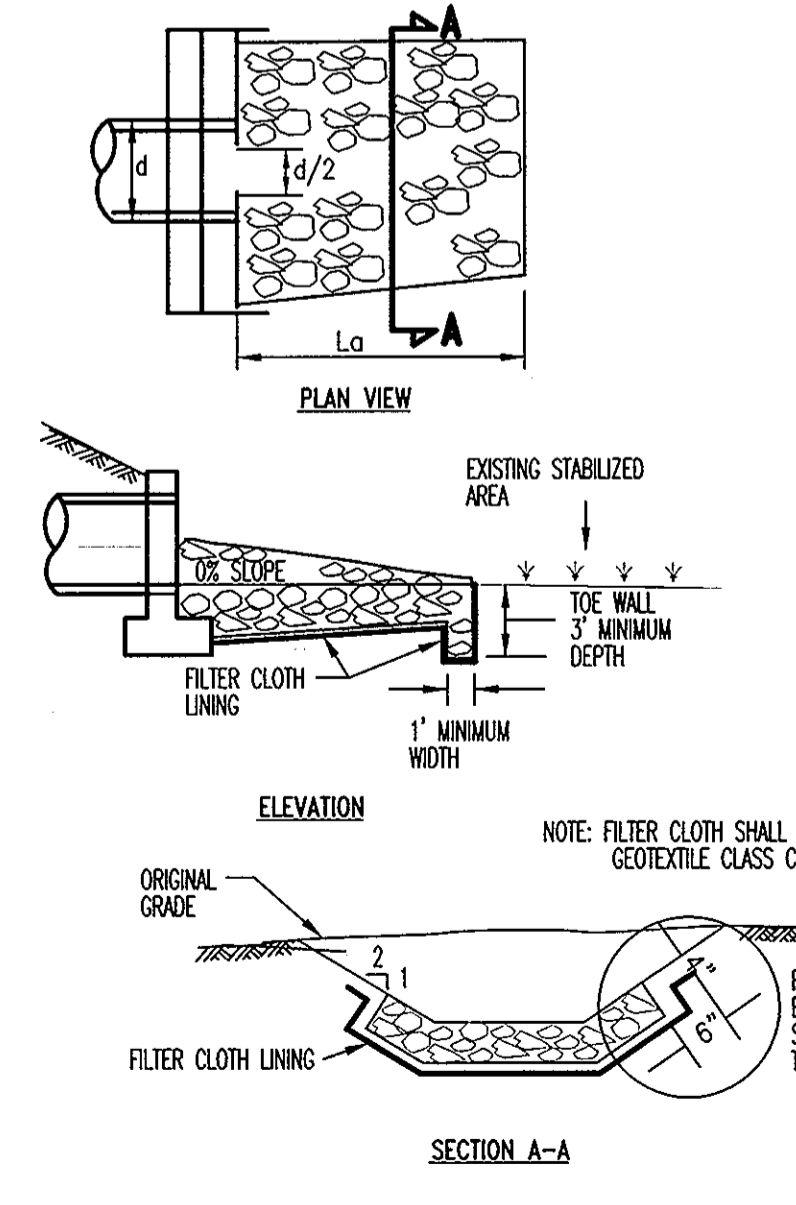
TYP. SILT FENCE/SUPER SILT FENCE INSTALLATION AT PIPE OUTFALL

SUPER SILT FENCE OUTFALL PROTECTION
NOT TO SCALE



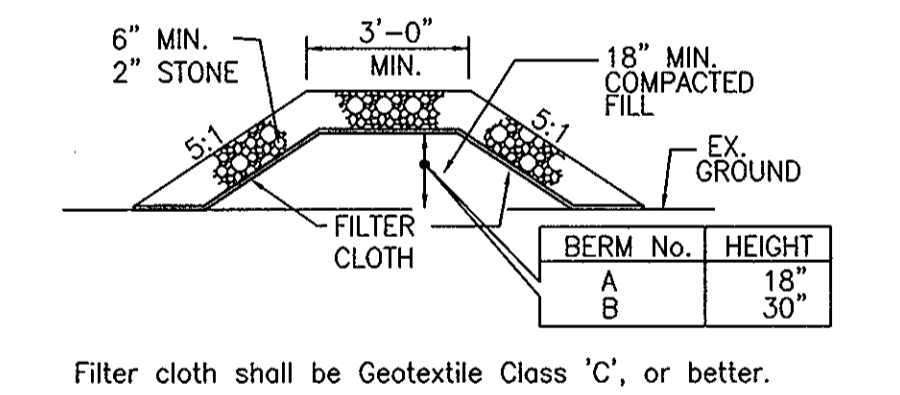
- CONSTRUCTION SPECIFICATIONS**
- EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION.
 - DRIVE THE 2" X 4" CONSTRUCTION GRADE LUMBER POSTS 1" INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS PM THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2" X 4" FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 23A. THE TOP OF THE FRAME (WEIR) MUST BE 6" BELOW ADJACENT ROADWAYS WHERE FLOORING AND SAFETY ISSUES MAY ARISE.
 - STRETCH THE 1/2" X 1/2" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT THE POST.
 - STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME 18" BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THE FASTENED DOWN.
 - BACKFILL AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
 - IF THE INLET IS NOT IN A SUMO, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.
 - THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.

STANDARD INLET PROTECTION
NOT TO SCALE



ROCK OUTLET PROTECTION III
NOT TO SCALE

- CONSTRUCTION SPECIFICATIONS**
- THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
 - THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
 - GEOTEXTILE SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE SHALL BE A MINIMUM OF ONE FOOT.
 - STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
 - THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.



MOUNTABLE BERM
NOT TO SCALE

**CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX BLEACHERS, AND
PARKING EXPANSION**

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EROSION & SEDIMENT CONTROL DETAILS

REVISIONS



SITE RESOURCES
INCORPORATED

Comprehensive Land Planning & Site Design Services

14307 Jannettsville Pike • Plover, Maryland 21151
(410) 683-3388 • Fax (410) 683-3389

DRAWN BY: AM CONTRACT NO.:

DESIGNED BY: CRM SCALE: AS SHOWN

CHECKED BY: CRM SRI PROJECT NO: 05026

DATE: June 20, 2008 SHEET C5.03 15 OF 28

SEDIMENT AND EROSION CONTROL NOTES

- 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 (410-918-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil 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.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol.1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec.5), sod (Sec.54), temporary seeding (Sec.50) and mulching (Sec.52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative conditions until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- SITE ANALYSIS:

Total Area of Site: 61.82 Acres
 Area Disturbed: 4.16 Acres
 Area to be rooted or paved: 0.52 Acres
 Area to be vegetatively stabilized: 2.64 Acres
 Total Cut: 28,682 Cu. Yds.
 Total Fill: 24,616 Cu. Yds.

- Offsite Waste/Borrow Area Location: HOWARD COUNTY APPROVED FACILITY FOR ROOT MAT AND ORGANIC MATERIALS.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
 - On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment control, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
 - Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each work day, whichever is shorter.

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

- Preferred** -- Apply 2 tons/acre dolomitic limestone (42 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 ureaform fertilizer (9 lbs/1000 sq. ft.).
- Acceptable** -- Apply 2 tons/acre dolomitic limestone (42 lbs/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 (14 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 creeping lovegrass.

During the period 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 -- Use 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 (10 to 14 lbs/1000 sq. ft.) of rotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 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 the periods March 1 -- April 30, and August 1 -- October 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of creeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 -- February 28, protect site by apply 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching -- Apply 1-1/2 to 2 tons per acre (10 to 14 lbs/1000 sq. ft.) of rotted need-tree, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 210 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.

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

DUST CONTROL

Temporary Methods

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

Permanent Methods

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

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

B. Dwyer Peter Bilewicz 8/29/08
 COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David L. Leyle DATE
 DIRECTOR
Chris Hannon 8/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Chris Hannon 9/4/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

2.0 STANDARD AND SPECIFICATIONS

FOR TOPSOIL

Definition

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

Purpose

I. 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

- II. This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent materials not adequate to produce vegetative growth.
 - 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.
 - The original soil to be vegetated contains material too toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.

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 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 type of soil can be found in the representative soil profile section in the Soil Survey published by USDA in cooperation with Maryland Agricultural Experimental Station.
- II. Topsoil Specifications - Soil to be used must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of chinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quack grass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons per acre (200-400 pounds per 1000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and be worked into the soil in conjunction with tillage operations as described in the following procedures.
- III. For site shaving disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Vegetative Stabilization Methods and Materials.
- IV. For sites having disturbed areas over 5 acres:
 - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil in compliance with the following:
 - pH for topsoil shall not 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.
 - Organic content of topsoil shall not be less than 15 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient lime has elapsed (14 days min) to permit dissipation of phytotoxic materials.
 Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Vegetative Stabilization Methods and Materials.
- V. Topsoil Application
 - 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.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - 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 seeding 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.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy 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:
 - Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 15 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 prior to use.
 - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1000 square feet, and 1/3 the normal lime application rate.

STONE SIZE AND MATERIAL SPECIFICATIONS

1994 MDE Table 2b

NUMBER 51 *	SIZE RANGE	D ₁₀	D ₅₀	AASHTO	WEIGHT
NUMBER I	2'-3"	1/2"	1 1/2"	M-43	N/A
RIP-RAP **	4'-7"	2 1/2"	3"	M-43	N/A
CLASS I	N/A	9.5"	15"	N/A	150 LB MAX.
CLASS II	N/A	16"	24"	N/A	100 LB MAX.
CLASS III	N/A	23"	34"	N/A	200 LB MAX.

* This classification is to be used on the inside face of stone outlets and check dams.

** This classification is to be used whenever small rip-rap is required. The State Highway Administration designation for this stone is Stone For Gabions (405.01.04).

Stone For Gabion Baskets

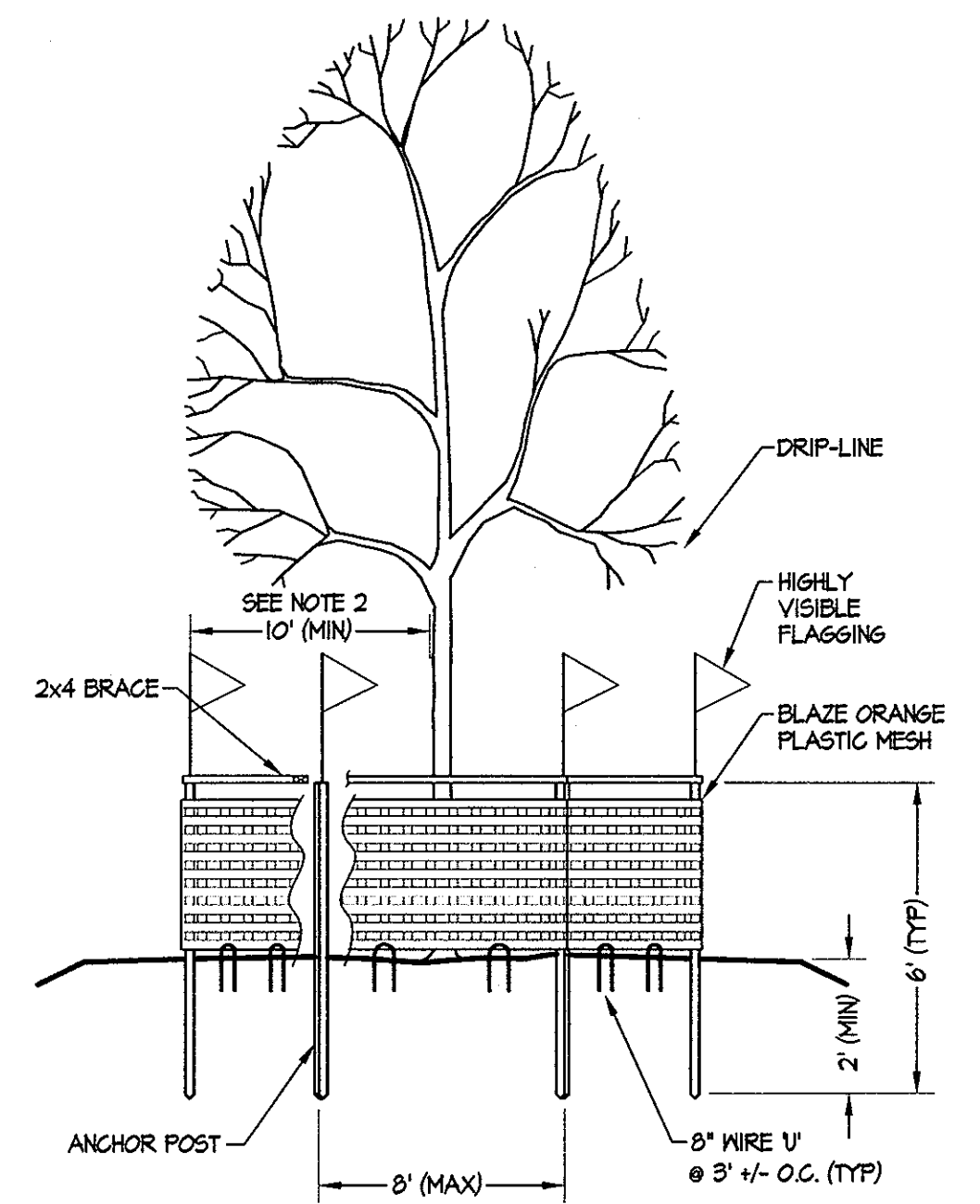
BASKET THICKNESS	SIZE OF INDIVIDUAL STONES
INCHES	MM
6	150
9	225
12	300
18	460
36	910

NOTE: Recycled concrete equivalent may be substituted for all stone classifications. Recycled concrete equivalent shall be concrete broken into the sizes meeting the appropriate classification, shall contain no steel reinforcement, and shall have a density of 150 pounds per cubic foot.

SEQUENCE OF CONSTRUCTION

NUMBER OF DAYS

- Obtain grading permits 2 days
 - Contact Miss Utility at 1-800-251-TTTT at least three days in advance of starting work shown on plans. 3 days
 - Clear and grub for and install erosion and sediment control measures or devices. 1 week
 - Once erosion and sediment controls are operational and with permission of the sediment control inspector (inspector) mass grade all areas within limits of disturbance. 6 weeks
 - Install utilities excepting trench drains. Install stormwater management facility per manufacturer specifications and installation guidelines. Runoff shall be prevented from entering the stormwater management system until contributing drainage area is stabilized. 4 weeks
 - Install artificial playing surface per manufacturer specifications and installation guidelines. 4 weeks
 - Install bleachers and lighting per manufacturer specifications and installation guidelines. 4 weeks
 - Fine grade all parking surfaces, walkways and other paved areas. Apply road sub-base. Install trench drain and all other paved areas. 4 weeks
 - Fine grade remaining areas and permanently stabilize those areas. 2 weeks
 - Pave all road surfaces. 1 week
 - After Permanent stabilization of site with established vegetation and with permission of the inspector, remove erosion and sediment control measures or devices. 1 week
 - Remove any accumulated sediment from the stormwater management facility. 2 weeks
 - Conduct final "as-built" surveys of the stormwater management facilities month and submit "as-built" plans and computations to Howard County within 30 days of accumulated sediment removal. 1 month
- Practice Field**
- Clear and grub for and install erosion and sediment control measures or devices. 1 week
 - Once erosion and sediment controls are operational and with permission of the inspector mass grade all areas within limits of disturbance. 4 weeks
 - Fine grade all areas and permanently stabilize those areas. 2 weeks
 - After Permanent stabilization of site with established vegetation and with permission of the inspector, remove erosion and sediment control measures or devices excepting erosion control matting which shall remain in swales. 2 weeks
 - 1 week



- Forest protection device only.
- Retention area will be set as part of the review process.
- Boundaries of retention area to be staked and flagged prior to installing device.
- Root damage should be avoided.
- Protection signage may also be used.
- Maintain tree protection devices throughout construction.

TREE PROTECTION FENCE
 NOT TO SCALE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.
 NRC - NATURAL RESOURCES CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.
John K. Roberts 8/14/08
 HOWARD COUNTY CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
 I certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site and that it was prepared in accordance with the requirements of the Howard County Conservation District.
 ENGINEER *[Signature]* 6/23/08 DATE

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard County Conservation District.
 DEVELOPER *[Signature]* 6/26/2008 DATE

CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EROSION & SEDIMENT CONTROL DETAILS

REVISIONS

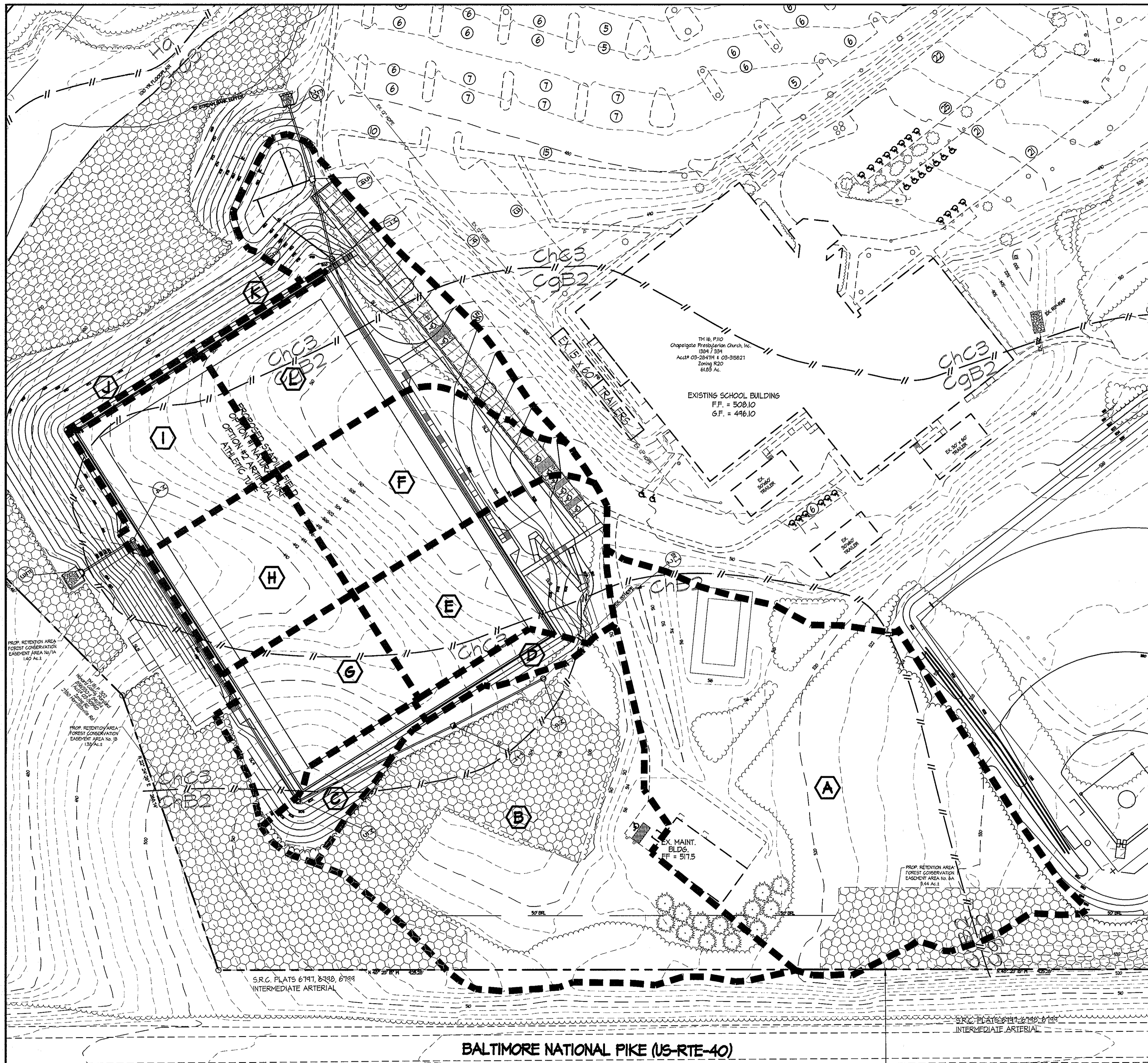
ADDRESS CHART
 STREET ADDRESS: 2600 HARRIOTTSVILLE ROAD
 SUBDIVISION NAME: CHAPEL GATE PRESBYTERIAN CHURCH
 SECTION / AREA: N/A LOTS / PARCELS: 110
 PLAT NO. OF L.P. / LIBRARY / F334: 10 ZONE: R20 ELEC. DIST: 3 CENSUS TRACT: 6030
 WATER CODE: H26 SEWER CODE: 5492000
 OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
 CONTACT: JAMES E. HEAD III 2600 Harriottsville Road, Harriottsville, MD 21094 PHONE: (410) 653-6002

DATE: June 20, 2008

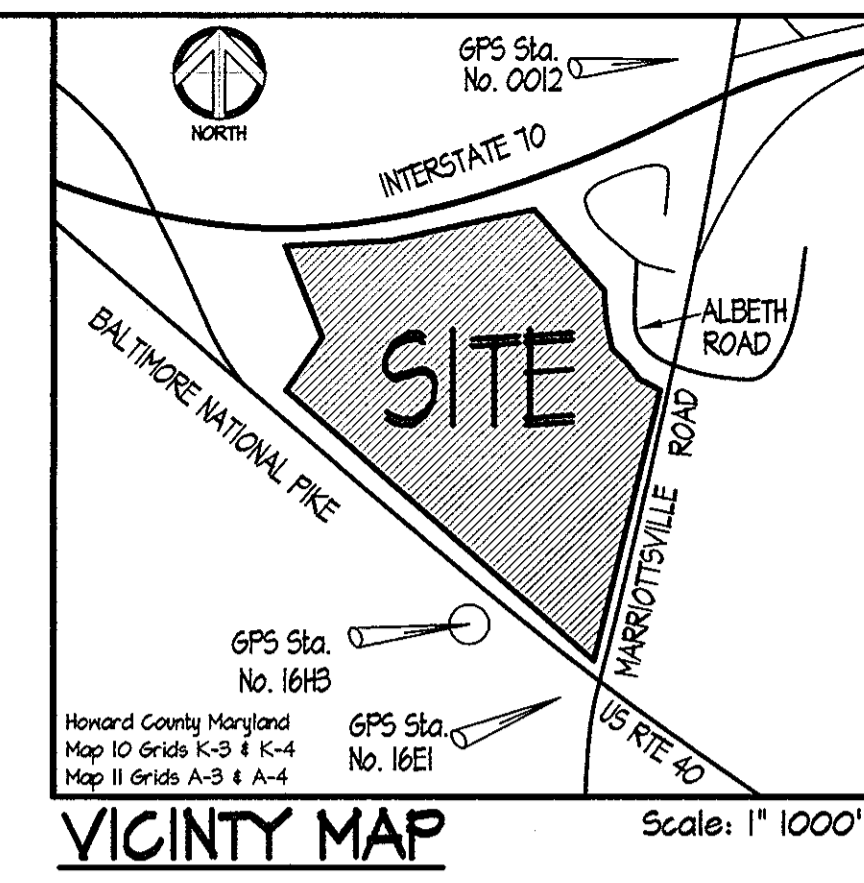
DRAWN BY: AM CONTRACT NO.:
 DESIGNED BY: CRM SCALE: AS SHOWN
 CHECKED BY: CRM SRI PROJECT NO: 05026
 SHEET C5.04 16 OF 28

SITE RESOURCES Incorporated Comprehensive Land Planning & Site Design Services
 14977 Arrettsville Pike • Phoenix, Maryland 21151
 (410) 653-3388 • fax (410) 653-3389

SDP-07-133



SYMBOL	NAME	HYDROLOGIC SOIL GROUP
CgB2	CHESTER GRAVELLY SILT LOAM	B
CgC2	CHESTER GRAVELLY SILT LOAM	B
CgB2	CHESTER SILT LOAM	B
ChC3	CHESTER SILT LOAM	B
ChB	COMUS SILT LOAM	B
Hs	HATBORO SILT LOAM	D
MdS	MANOR LOAM	D



BENCHMARKS					
MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16H3	542408.0425	134523.4617	464.712	NAD83(91)	NAVD83
16E1	543250.9630	1340192.1010	463.843	NAD83(91)	NAVD83
0012	546502.1604	1340264.3654	466.199	NAD83(91)	NAVD83

LEGEND	
	PROPERTY LINE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING TREES
	EXISTING PAVING
	PROPOSED PAVING
	EXISTING STORM DRAINS
	PROPOSED STORM DRAIN
	SOILS LINE
	EXISTING BUILDINGS
	EXISTING STREAM
	EXISTING STREAM BUFFER
	100 YR FLOODPLAIN
	DRAINAGE AREA LIMIT
	PROPOSED REFORESTATION EASEMENT
	DRAINAGE AREA DESIGNATION

- 2.26 AC. **A** R-20
C = 0.18 10.60% IMPERVIOUS
- 1.78 AC. **B** R-20
C = 0.12 1.69% IMPERVIOUS
- * 0.17 AC. **C** R-20
C = 0.17 5.80% IMPERVIOUS
- * 0.10 AC. **D** R-20
C = 0.28 20.00% IMPERVIOUS
- * 0.64 AC. **E** R-20
C = 0.25 15.60% IMPERVIOUS
- * 0.63 AC. **F** R-20
C = 0.22 11.10% IMPERVIOUS
- * 0.46 AC. **G** R-20
C = 0.17 4.30% IMPERVIOUS
- * 0.43 AC. **H** R-20
C = 0.16 2.30% IMPERVIOUS
- * 0.39 AC. **I** R-20
C = 0.16 2.50% IMPERVIOUS
- * 0.03 AC. **J** R-20
C = 0.85 100.0% IMPERVIOUS
- * 0.03 AC. **K** R-20
C = 0.85 100.0% IMPERVIOUS
- ** 0.99 AC. **L** R-20
C = 0.33 27.27% IMPERVIOUS
- ** PORTION OF SWM DRAINAGE AREA C1
- ** SWM DRAINAGE AREA C2

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

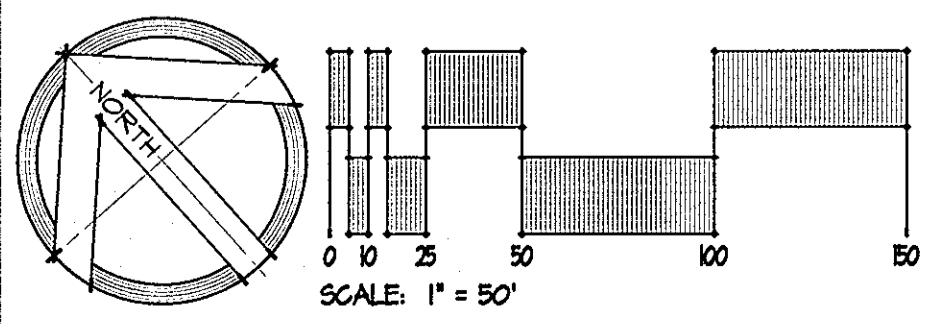
Peter Bilewicz 8/29/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Charles DeLozier 9/5/08
DIRECTOR DATE

John D. Williams 9/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Andy Hume 9/14/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS:

[Signature] JEFFREY A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

[Signature] JOHN T. LAUBER HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

[Signature] ENGINEER DATE

DEVELOPER'S CERTIFICATE

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

[Signature] DEVELOPER DATE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13876, expiration date, 03/24/2010.

ADDRESS CHART			
PARCEL #	STREET ADDRESS		
110	2600 MARIOTTSVILLE ROAD		
SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS	
CHAPEL GATE PRESBYTERIAN CHURCH	NEA	110	
PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.
L1284 / P334	10	R20	16
WATER CODE	SEWER CODE		
H06	S942000		
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC.		
	2600 Marriottsville Road		
	Marriottsville, MD 21094 PHONE: (410) 683-3800		
CONTACT: JAMES E. HEAD III			

FOR TRENCH DRAIN LAYOUT SEE SHEET C6.07

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PROPOSED STORM DRAIN DA MAP

REVISIONS

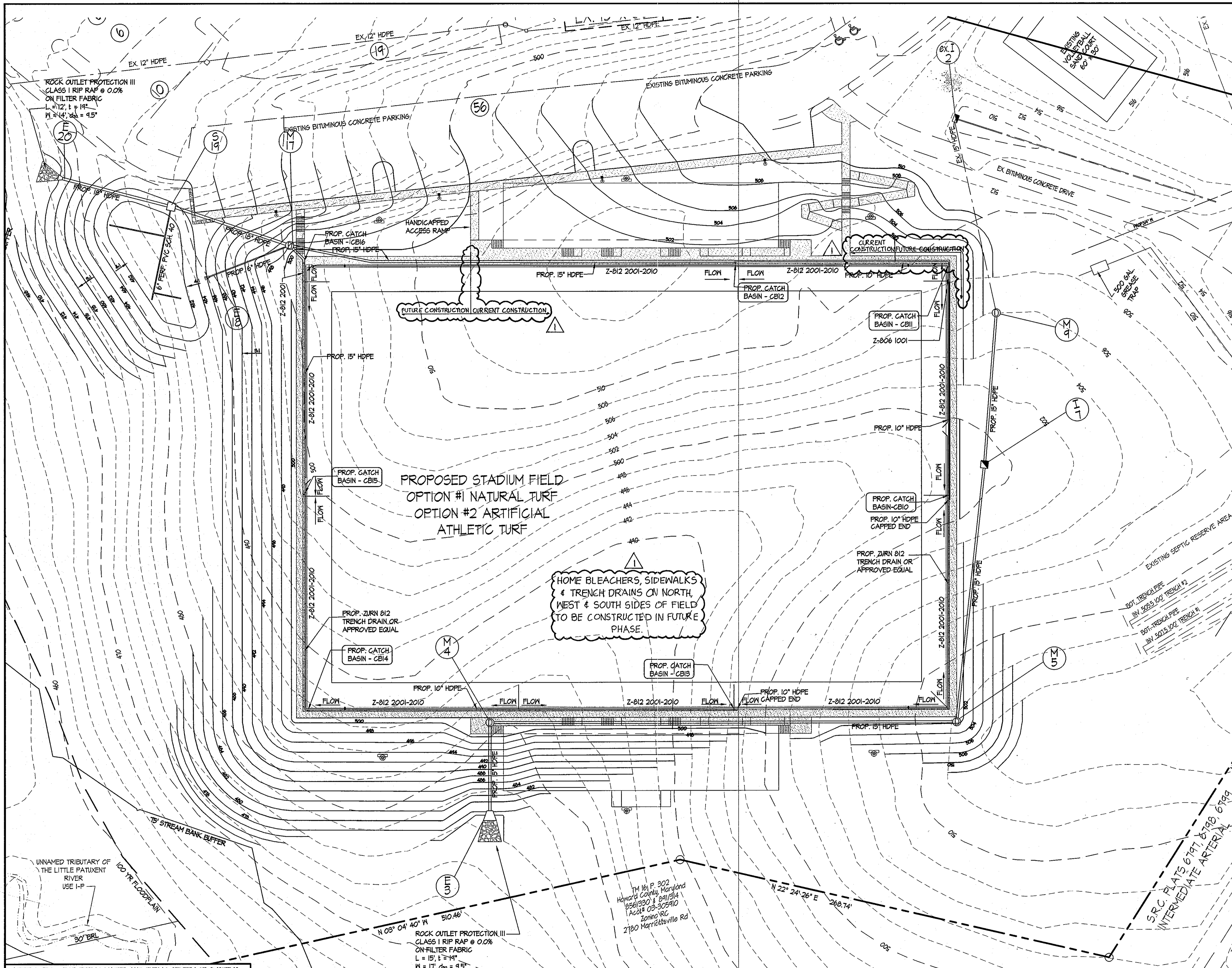
DATE	BY	DESCRIPTION

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
6/23/08

SITE RESOURCES
INCORPORATED
Comprehensive Land Planning & Site Design Services

14877 Jarrettsville Pike • Phoenix, Maryland 21111
(410) 683-3388 • Fax (410) 683-3389

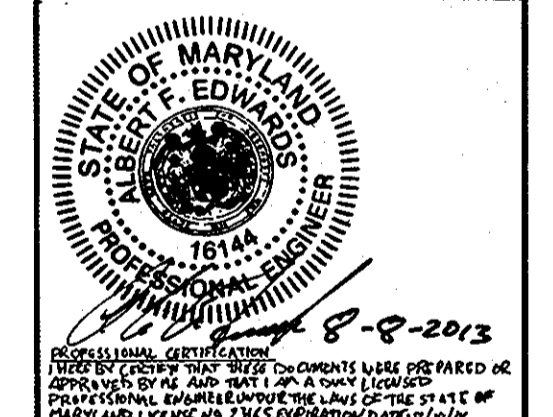
DRAWN BY: AM	CONTRACT NO.:
DESIGNED BY: GDS	SCALE: 1" = 50'
CHECKED BY: CRM	SRI PROJECT NO: 05026
DATE: June 20, 2008	SHEET C6.01 17 OF 28



LEGEND

- PROPERTY LINE
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- ⊙ 15" SD EXISTING STORM DRAIN
- ⊙ 10" HDPE PROPOSED STORM DRAIN
- EXISTING BUILDINGS
- ⊙ PROPOSED FIELD LIGHTING
- ⊙ PROPOSED SITE LIGHTING
- EXISTING FENCE
- PROPOSED FENCE
- PROPOSED SIDEWALK
- PROPOSED TRENCH DRAIN AND CATCH BASIN

THIS SEAL IS FOR REVISION Δ, BY SITE RESOURCES, INC.



CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STADIUM FIELD STORM DRAIN SYSTEM

REVISIONS
 Δ 05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services
 14307 Jannettsville Pike • Plover, Maryland 21151
 (410) 683-3388 • fax (410) 683-3389

DRAWN BY: RSM **CONTRACT NO.:**
DESIGNED BY: GDS **SCALE:**
CHECKED BY: GRM **SRI PROJECT NO.:** 05026
DATE: June 20, 2008 **SHEET C6.02** 18 OF 28

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
B. Wilson for Peter B. Wilson 8/29/08
 COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
Debra D. Wynn 9/5/08
 DIRECTOR DATE

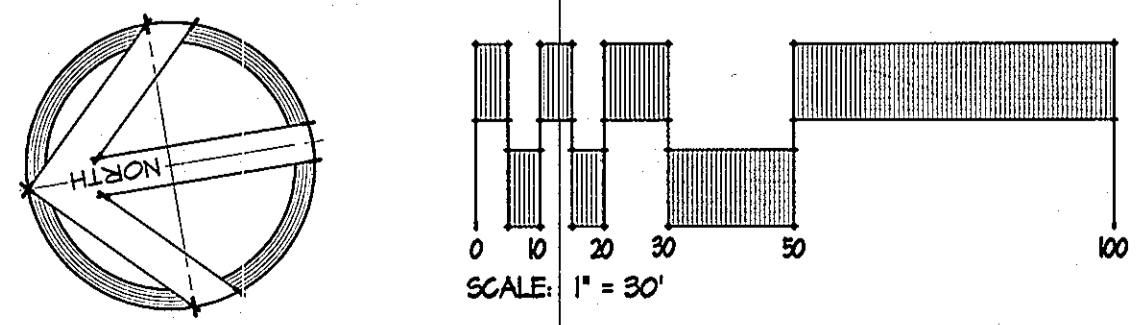
W. DeWitt 8/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Wanda Harris 9/1/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

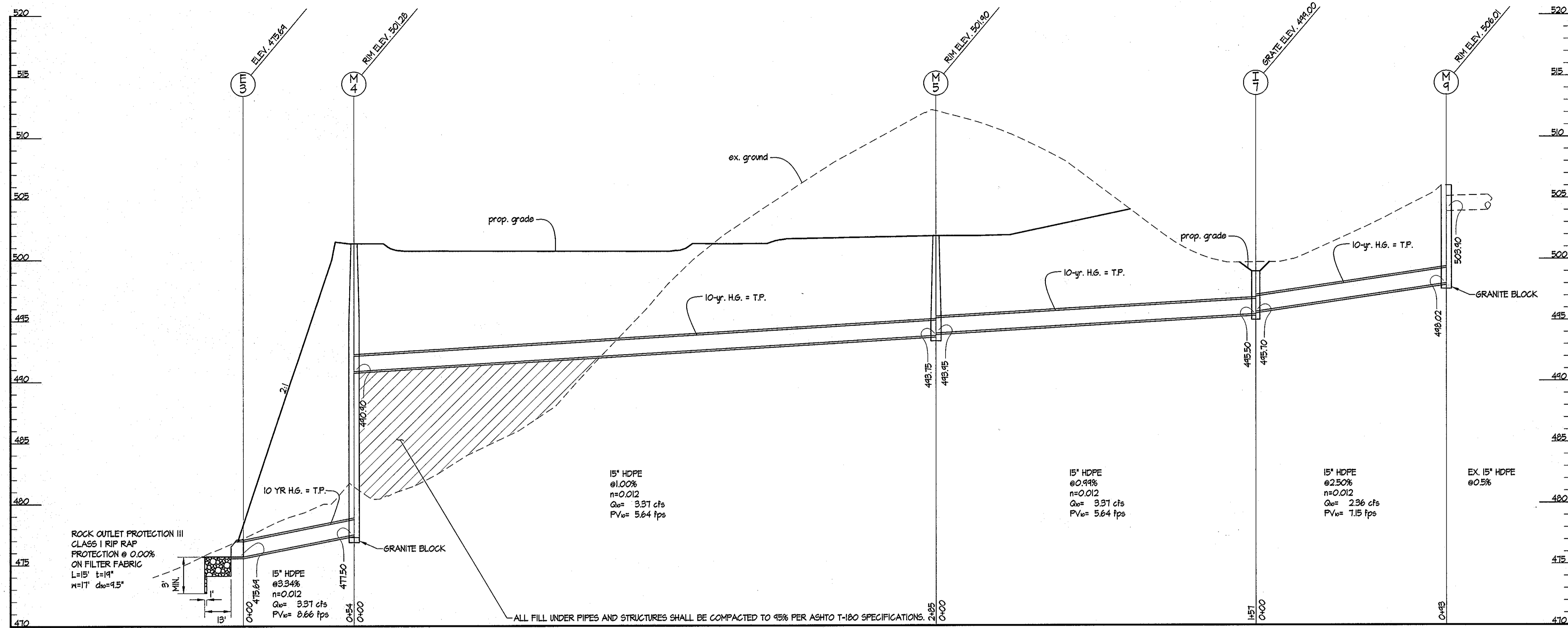
I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15876, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 HARRIOTTSVILLE ROAD
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A / 110
PLAT No. or L.P. BLOCK No.	ZONE TAX MAP No.
LIBRARY / FB34 12	R20 16
ELECT. DIST.	CENSUS TRACT
3	6020
WATER CODE	SEWER CODE
H06	5942000
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC.
CONTACT: JAMES E. HEAD III	2600 Harriottsville Road Harriottsville, MD 21044 PHONE: (410) 683-4022



Z:\050502-02-Chapelgate Presbyterian Church\Academy\dwg\C6.02_Trench_Drain_Plan.dwg 6/20/08 2:30:02 PM - Copyright, Site Resources, Inc.



PROFILE M-9 TO E-3

SCALE: HORIZ: 1"=30'
VERT: 1"=5'

STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	TYPE	DETAIL	TOP/GRATE ELEVATION	INVERT IN	INVERT OUT
E-3	15' HDPE END SECTION	HOWARD COUNTY STD. DETAIL NO. D-5.51	---	---	475.64
M-4	48" STANDARD PRECAST MANHOLE	HOWARD COUNTY STD. DETAIL NO. 6-5.12	501.28	440.90	477.50
M-5	48" STANDARD PRECAST MANHOLE	HOWARD COUNTY STD. DETAIL 6.5.12	501.90	443.95	443.75
I-7	YARD INLET	HOWARD COUNTY STD. DETAIL D-4.14	449.00	445.70	445.50
M-9	48" STANDARD SHALLOW PRECAST MANHOLE	HOWARD COUNTY STD. DETAIL 6-5.12	506.01	503.90	448.02
CB-10	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.80	---	441.75
CB-11	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.18	446.38	446.38
CB-12	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.18	445.27	444.85
CB-13	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.18	---	446.75
CB-14	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.18	444.50	444.08
CB-15	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.80	442.97	442.97
CB-16	ZURN Z-812 CATCH BASIN 12"x24" OR APPROVED EQUAL	SEE DETAIL SHEET C6.05	501.18	441.50	441.50
M-17	48" STANDARD PRECAST MANHOLE	HOWARD CO. STD DETAIL 6-5.12	448.00	441.95 / 442.13	487.00 / 487.47
E-18	6" PVC END SECTION	HOWARD CO. STD DETAIL D-5.51	---	---	486.50
S-19	CONCRETE RISER STRUCTURE 5'x5'	SEE DETAIL SHEET C1.04	482.50	477.00 / 478.00	478.50
E-20	18" RCCP END SECTION	HOWARD CO. STD DETAIL D-5.51	---	---	475.00

PIPE SCHEDULE

PIPE TYPE	TOTAL LENGTH (FT.)
6" HDPE PIPE	43'
10" HDPE PIPE	595'
15' HDPE PIPE	1,183'
18" HDPE PIPE	141'

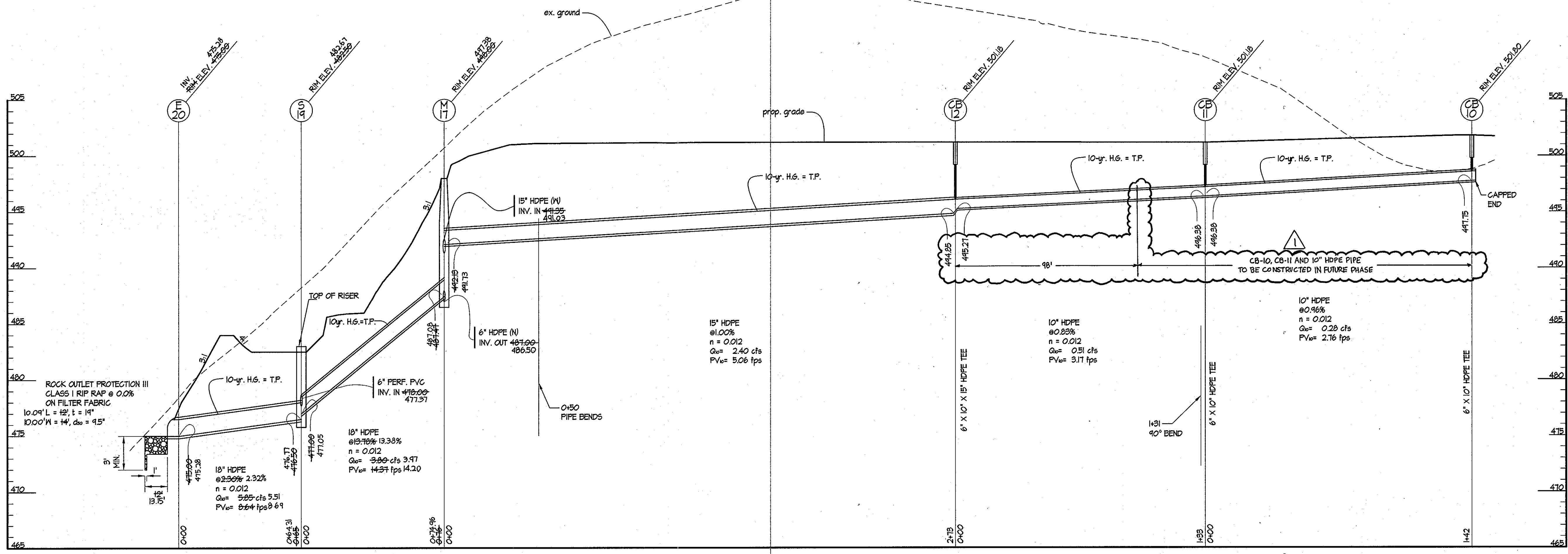
TRENCH DRAIN SCHEDULE

CHANNEL TYPE	NUMBER
2001	10
2002	9
2002N	9
2003	9
2004	9
2004N	9
2005	9
2006	9
2007	9
2008	9
2008N	9
2009	9
2010	9

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: Peter Brilenson, DATE: 8/29/08
 APPROVED: DEPARTMENT OF PLANNING & ZONING
 DIRECTOR: [Signature], DATE: 9/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature], DATE: 8/15/08
 CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature], DATE: 9/14/08

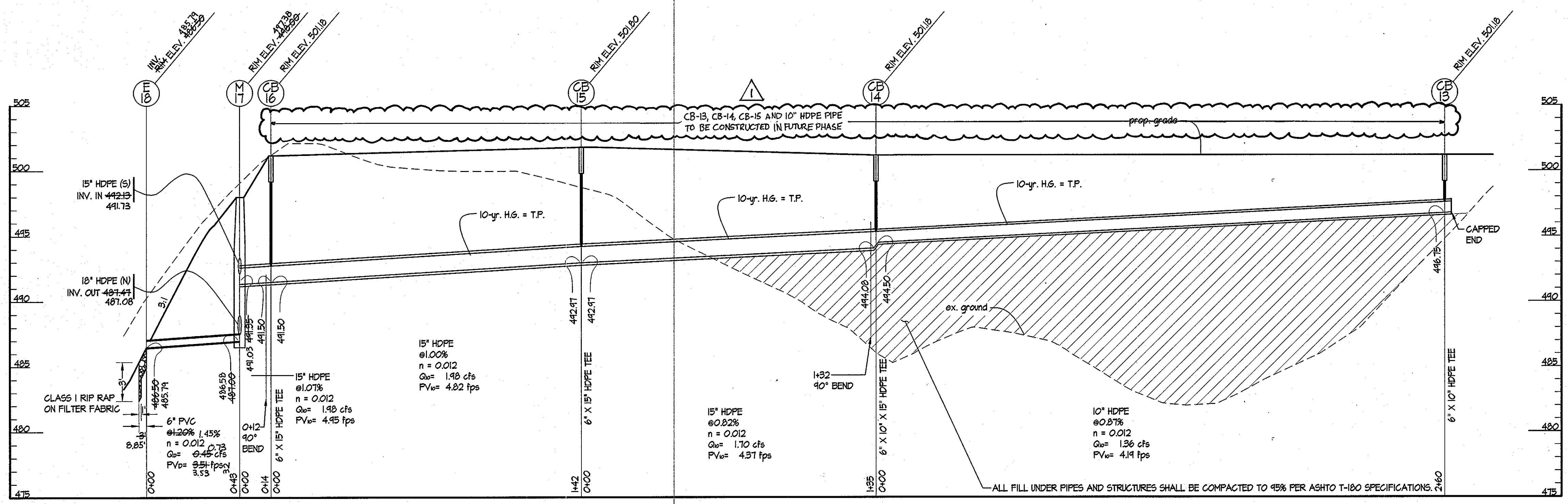
I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13876, expiration date: 03/24/2010.
 ADDRESS CHART
 PARCEL # 110, STREET ADDRESS 2800 MARIOTTSVILLE ROAD
 SUBDIVISION NAME CHAPEL GATE PRESBYTERIAN CHURCH, SECTION / AREA N/A, LOTS / PARCELS 10
 PLAT No. or L.P. LIB94 / F334, BLOCK No. 10, ZONE R20, TAX MAP No. 16, ELECT. DIST. 3, CENSUS TRACT 6030
 WATER CODE H06, SEWER CODE 5942000
 OWNER CHAPEL GATE PRESBYTERIAN CHURCH, INC., 2800 Marriottsville Road, Marriottsville, MD 21104, PHONE (410) 653-4002
 CONTACT: JAMES E. HEAD III

CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 STORM DRAIN PROFILES
 REVISIONS
 CHAPEL GATE PRESBYTERIAN CHURCH
 SITE RESOURCES
 Comprehensive Land Planning & Site Design Services
 14307 Jarrattsville Pike • Plover, Maryland 21101
 (410) 653-3388 • fax (410) 653-3389
 DRAWN BY: RSM CONTRACT NO.:
 DESIGNED BY: GDS SCALE: AS SHOWN
 CHECKED BY: GRM SRI PROJECT NO: 05026
 DATE: June 20, 2008 SHEET C6.03 19 OF 28



PROFILE CB10 TO E20

SCALE: HORIZ: 1"=30'
VERT: 1"=5'



PROFILE CB13 TO E18

SCALE: HORIZ: 1"=30'
VERT: 1"=5'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

Peter Brilensan
COUNTY HEALTH OFFICER 5/17/12 DATE 8/23/08

APPROVED: DEPARTMENT OF PLANNING & ZONING

Mark L. Weyer
DIRECTOR 7/6/08 DATE 8/15/08

Chris Hancock
CHIEF, DIVISION OF LAND DEVELOPMENT 9/14/08 DATE 8/15/08

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 15876, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2800 MARIOTTVILLE ROAD
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	110
PLAT No. & L.P. BLOCK No.	ZONE TAX MAP No. ELEC. DIST. CENSUS TRACT
LIB84 / F334 10	R20 3 6030
WATER CODE	SEWER CODE
H26	5942000
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC.
CONTACT: JAMES E. HEAD III	2800 Marriottville Road Marriottville, MD 21094 PHONE: (410) 653-6025

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STORM DRAIN PROFILES

REVISIONS

05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN

Sum annotations added 8-22-2013

THIS SEAL IS FOR REVISION BY SITE RESOURCES, INC.

SITE RESOURCES
INCORPORATED
Comprehensive Land Planning & Site Design Services

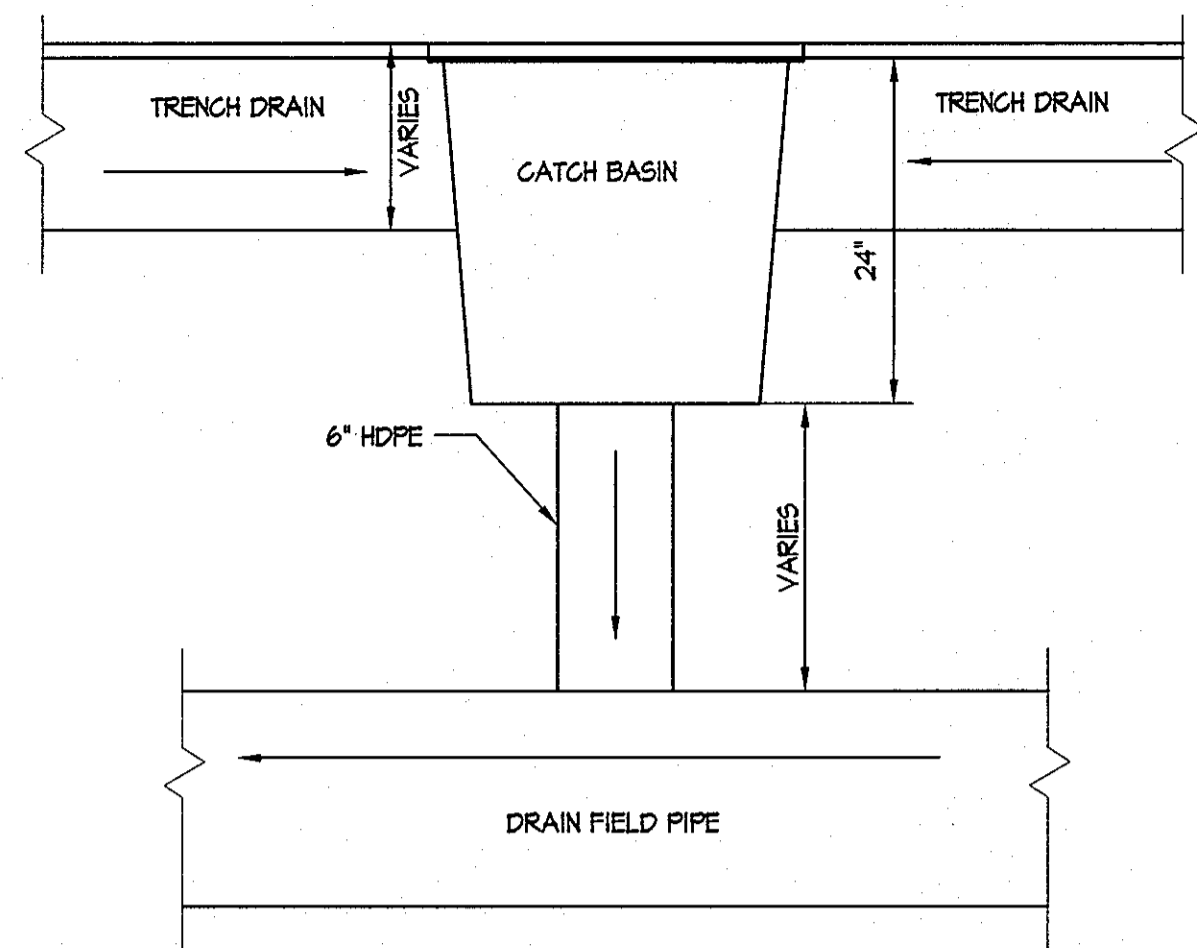
14307 Jannettsville Pike • Poolesville, Maryland 21131
(410) 653-3388 • fax (410) 653-3389

DRAWN BY: RSM CONTRACT NO.:

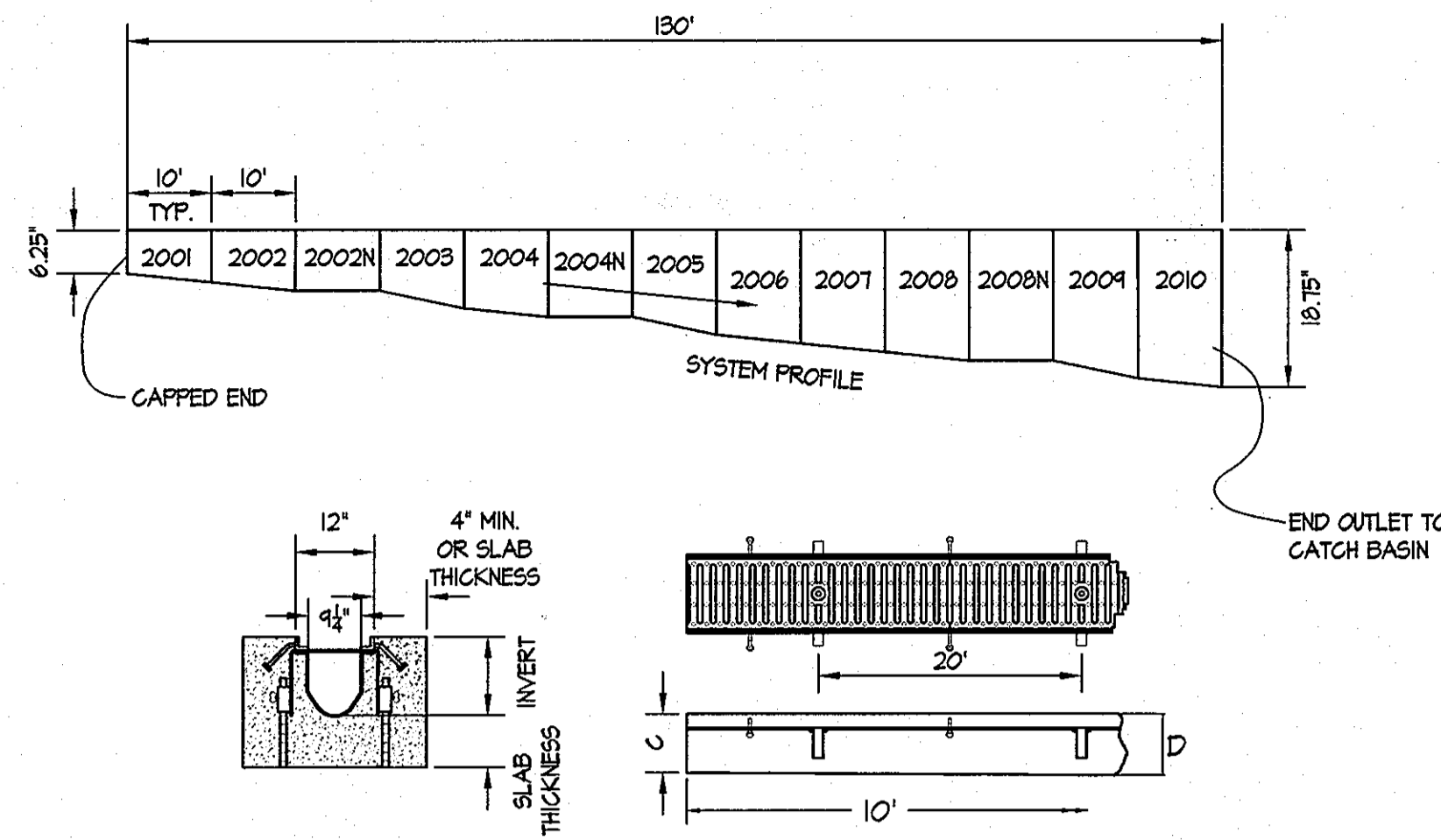
DESIGNED BY: GDS SCALE: AS SHOWN

CHECKED BY: CRM SRI PROJECT NO: 05026

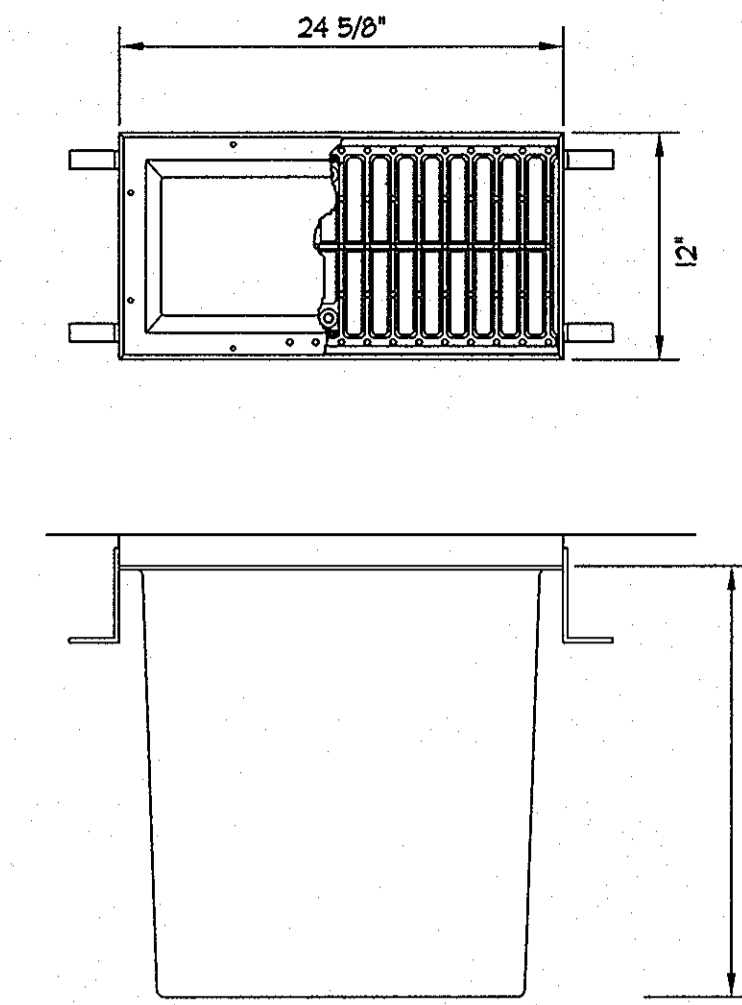
DATE: June 20, 2008 SHEET C6.04 20 OF 28



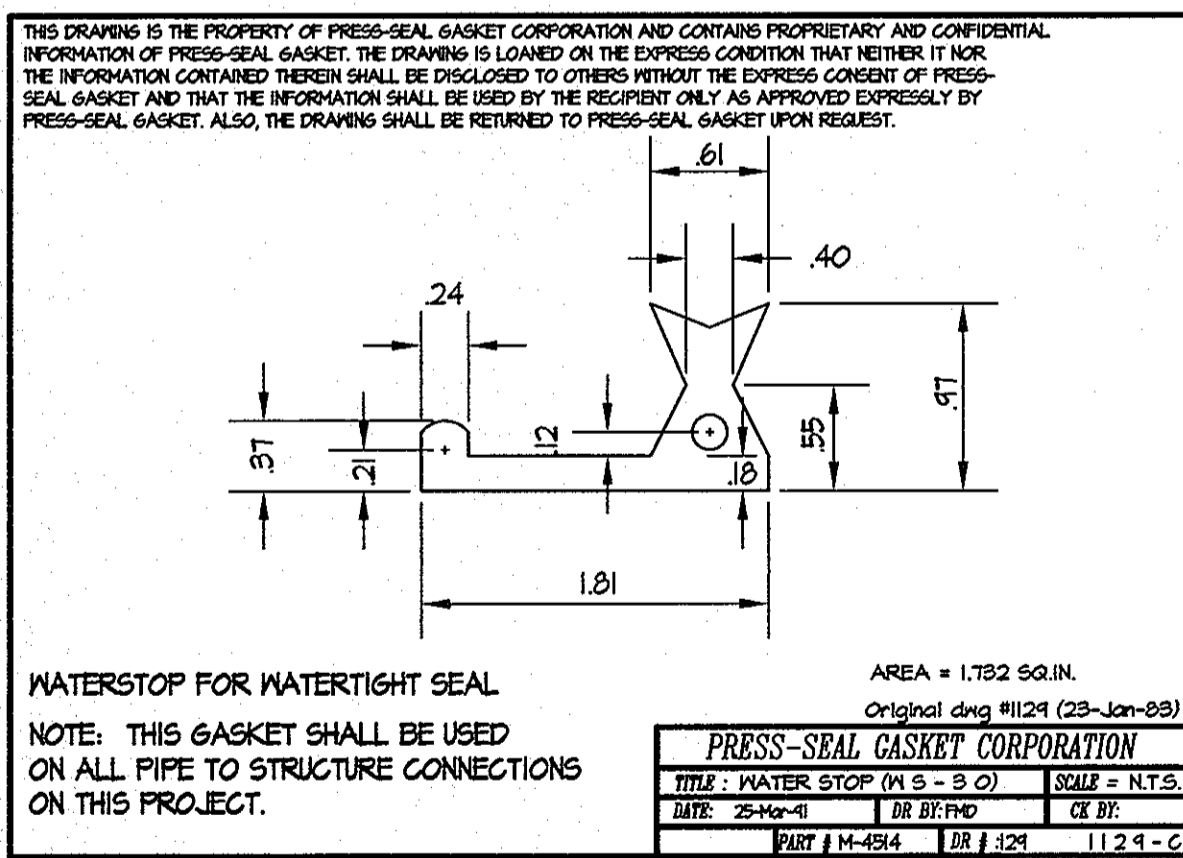
1 TYPICAL TRENCH DRAIN / CATCH BASIN / DRAIN PIPE CONNECTION
NOT TO SCALE



2 TRENCH DRAIN DETAIL
ZURN Z-812 OR APPROVED EQUAL
NOT TO SCALE



3 CATCH BASIN DETAIL
ZURN Z-812 12\"/>



5 WATERSTOP DETAIL
N.T.S.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
Peter DeLorenzo 8/29/08
 COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
David L. Gage 9/15/08
 DIRECTOR DATE

Mr. DeLorenzo 8/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Harris 9/04/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13876, expiration date, 03/24/2010.

ADDRESS CHART			
PARCEL #	STREET ADDRESS		
110	2600 HARRIOTTSVILLE ROAD		
SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS	
CHAPEL GATE PRESBYTERIAN CHURCH	N/A	110	
PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.
LIBRARY / FCB#	R20	18	5
	ELECT. DIST.	CENSUS TRACT	
	5	6020	
WATER CODE	SEWER CODE		
H06	S9R2000		
OWNER:	CHAPEL GATE PRESBYTERIAN CHURCH, INC.		
	2600 Harriottsville Road		
	Marriottsville, MD 21104 PHONE: (410) 663-6020		
CONTACT:	JAMES E. HEAD III		

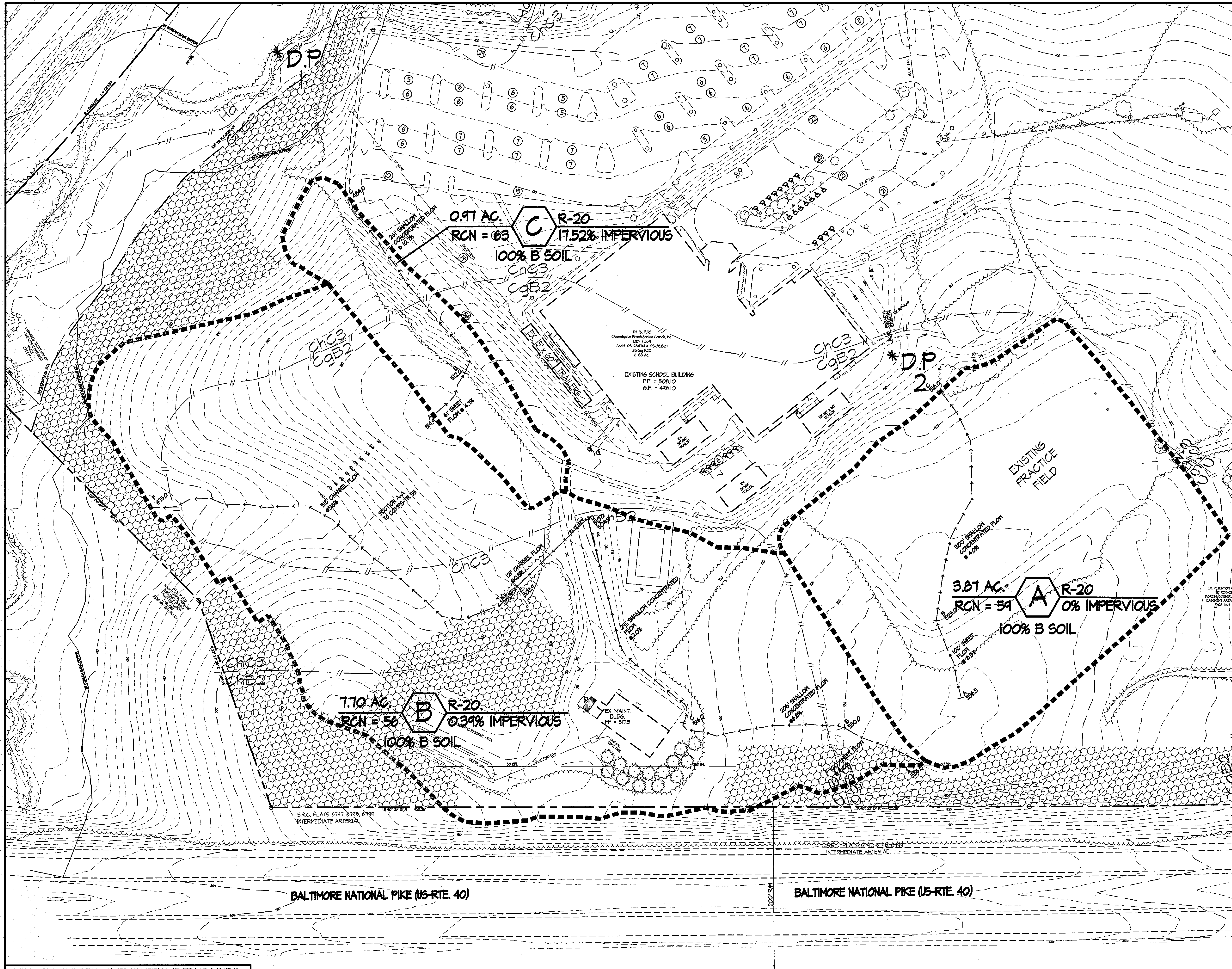
BY THE ENGINEER:
 "I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion."
Ken R. Kinsey 6/23/08
 Signature of Engineer Date
 Ken R. Kinsey
 Printed Name of Engineer

~~These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 USDI National Resources Conservation Service Date
 These plans meet the requirements for small pond construction, soil erosion and sediment control and meet the requirements of the Howard Soil Conservation District.
 Howard Soil Conservation District Date~~

CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND
 PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STORM DRAIN DETAILS
 REVISIONS

		DRAWN BY: RSM	CONTRACT NO.:
		DESIGNED BY: GDS	SCALE: AS SHOWN
		CHECKED BY: CRM	SRI PROJECT NO: 05026
		DATE: June 20, 2008	SHEET C6.05 21 OF 28

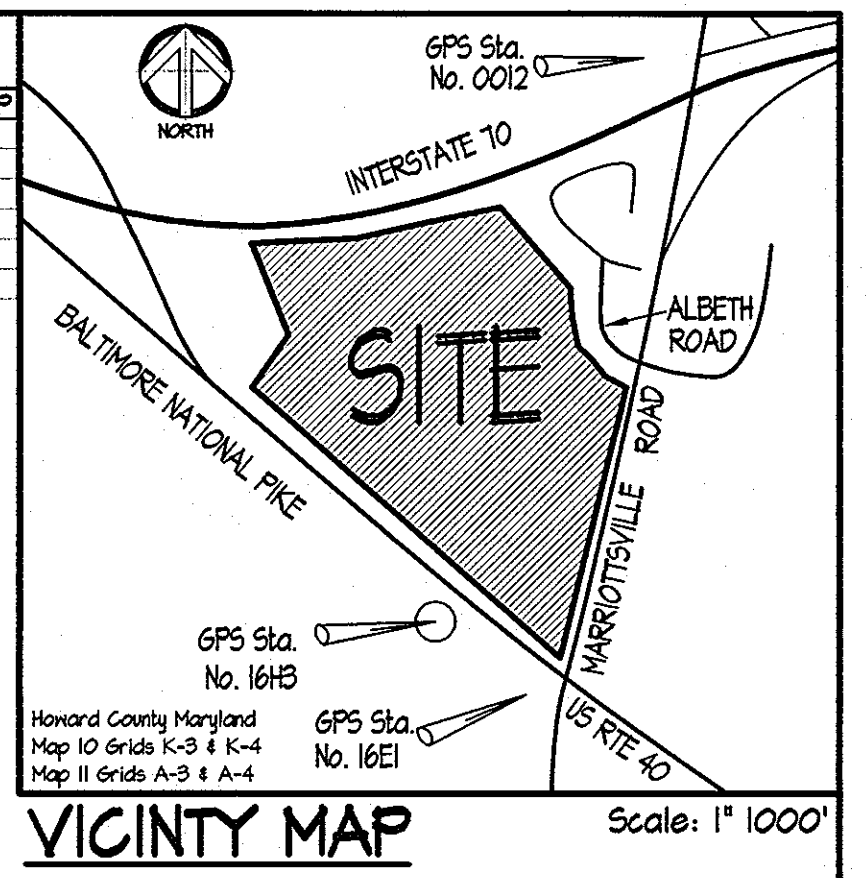


SOILS CHART

SYMBOL	NAME	HYDROLOGIC SOIL GROUP
CgB2	CHESTER GRAVELLY SILT LOAM	B
CgC2	CHESTER GRAVELLY SILT LOAM	B
CgE2	CHESTER SILT LOAM	B
CgC3	CHESTER SILT LOAM	B
CgB	COMUS SILT LOAM	B
Hs	HATEBORD SILT LOAM	B
MDS	MANOR LOAM	B

Drainage Area

Drainage Area	Tc
'A'	0.224 hr
'B'	0.410 hr
'C'	0.185 hr



BENCHMARKS

BENCHMARK	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
164B	542408.0425	1341523.9611	464.112	NAD83(91)	NAVD88
16E1	543250.9638	1340142.1010	463.843	NAD83(91)	NAVD88
0012	546502.1604	1340864.3654	486.144	NAD83(91)	NAVD88

DESIGN POINT (D.P. #1) SUMMARY

EXISTING D.P. (c.f.s.) (TR-55)	1 YEAR	10 YEAR	100 YEAR
	0.44	9.01	20.91

DESIGN POINT (D.P. #2) SUMMARY

EXISTING D.P. (c.f.s.)	1 YEAR	10 YEAR	100 YEAR
	0.33	5.49	12.90

- LEGEND**
- PROPERTY LINE
 - 340 --- EXISTING CONTOURS
 - EXISTING TREELINE
 - EXISTING TREES
 - EXISTING PAVING
 - 15" SD --- EXISTING STORM DRAIN
 - NeB2 --- GcB2 --- SOILS LINE
 - EXISTING BUILDINGS
 - EXISTING STREAM
 - 75' STREAM BANK BUFFER --- EXISTING STREAM BUFFER
 - 100 YR FLOODPLAIN --- 100 YR FLOODPLAIN
 - DRAINAGE AREA LIMIT
 - TC PATH
 - PROPOSED REFORESTATION EASEMENT

CHAPELGATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND
 PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

EXISTING SWM DRAINAGE AREA MAP

REVISIONS

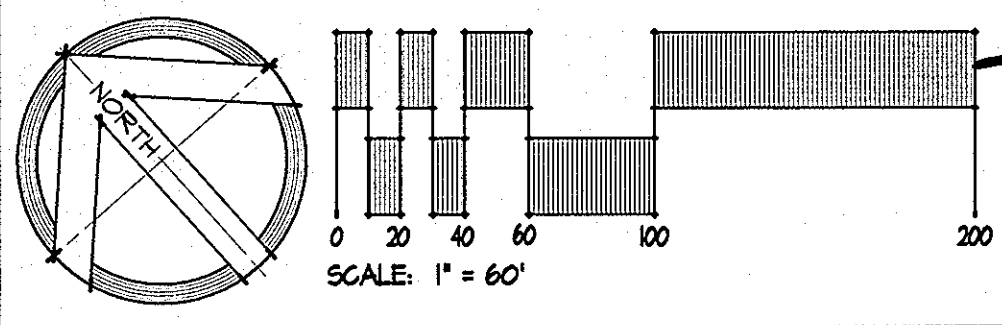
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

R. Wilson for Peter Beilansen 8/23/08
 COUNTY HEALTH OFFICER S.D. DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

Frank L. Cagle 9/5/08
 DIRECTOR DATE

Chris H. Hays 9/4/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

REVIEWED BY: NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John L. Whitson 8/14/08
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

Chris H. Hays 8/23/08
 ENGINEER DATE

DEVELOPER'S CERTIFICATE

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

James E. Head III 6/26/2008
 DEVELOPER DATE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13576, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARRIOTTSVILLE ROAD

SUBDIVISION NAME	SECTION / AREA	LOTS / PARCELS
CHAPELGATE PRESBYTERIAN CHURCH	N/A	110

PLAT No. or L.P.	BLOCK No.	ZONE	TAX MAP No.	ELEVT. DIST.	CENSUS TRACT
L1284 / P334	10	R20	16	3	6030

WATER CODE	SEWER CODE
H26	5412000

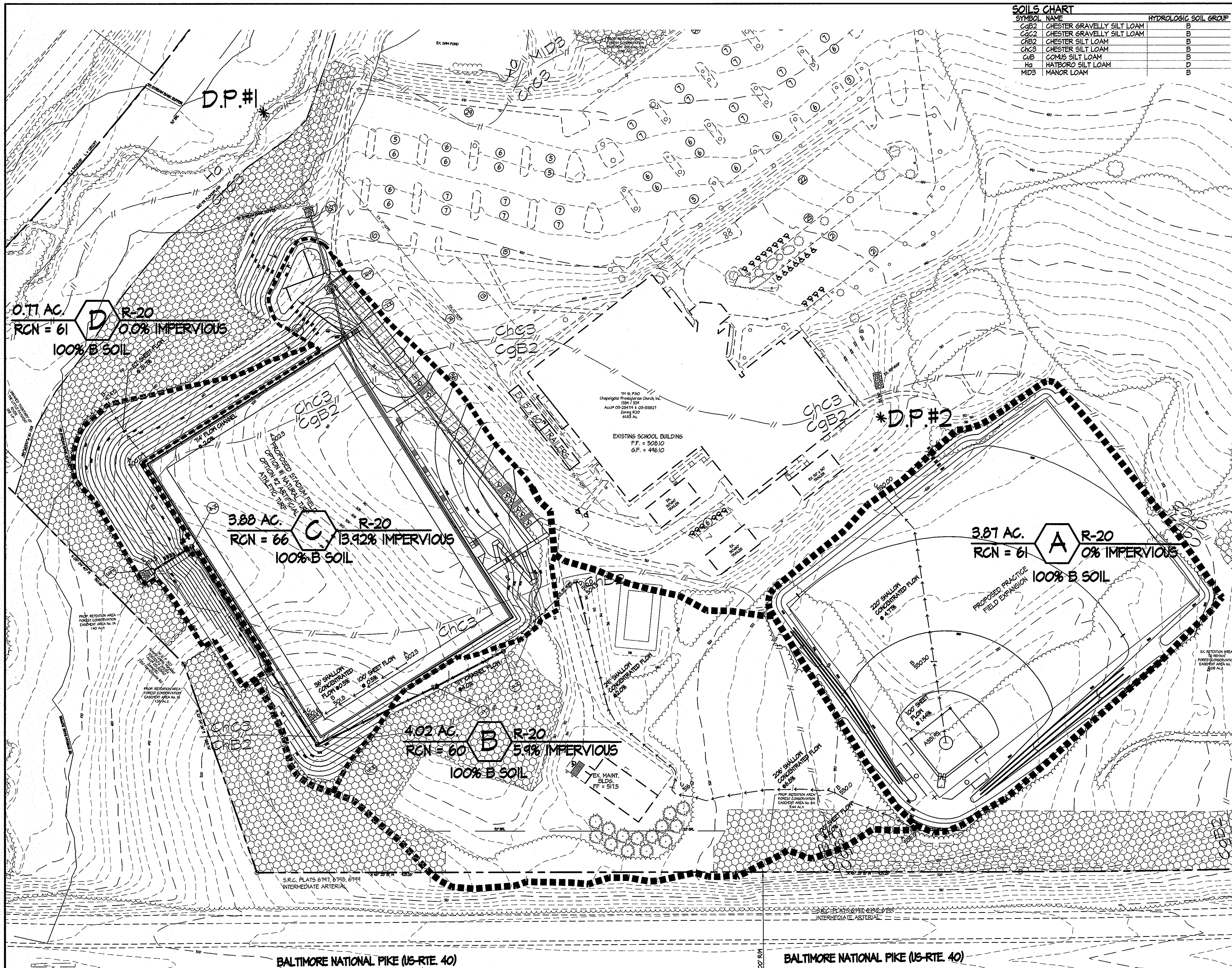
OWNER: CHAPELGATE PRESBYTERIAN CHURCH, INC.
 2600 Marriottsville Road
 Marriottsville, MD 21094 PHONE: (410) 933-8002
 CONTACT: JAMES E. HEAD III

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services

14807 Jarrettsville Pike • Phoenix, Maryland 21151
 (410) 683-3388 • Fax (410) 683-3389

DRAWN BY: AM
 DESIGNED BY: GDS
 CHECKED BY: CRM
 DATE: June 20, 2008

CONTRACT NO.:
 SCALE: 1" = 60'
 SRI PROJECT NO.: 05026
 SHEET C7.01 22 OF 28



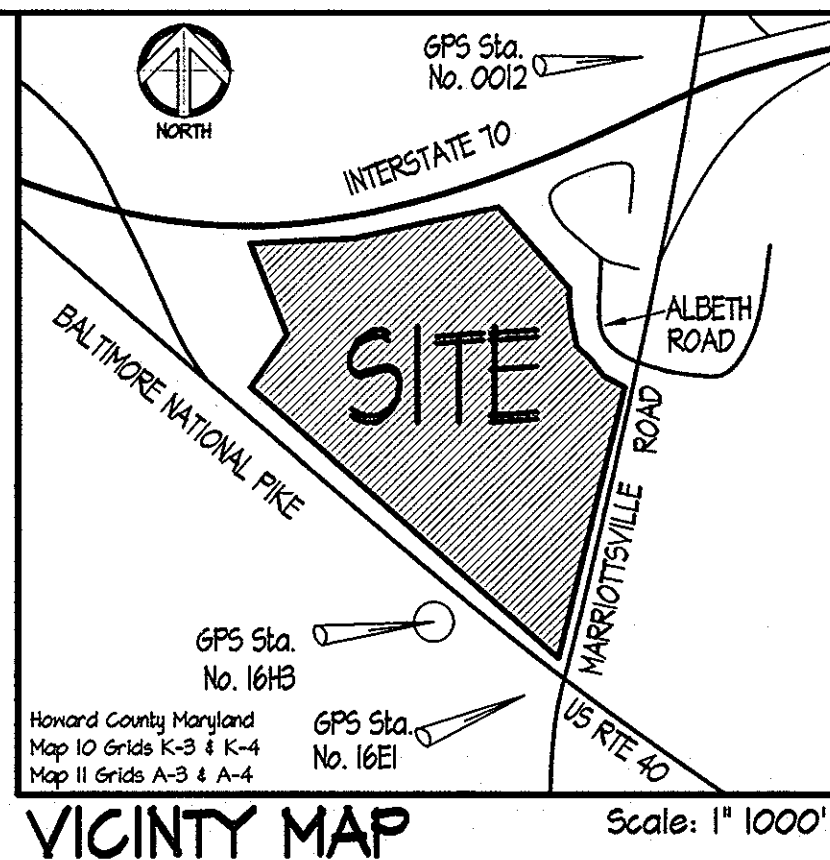
SYMBOL	NAME	HYDROLOGIC SOIL GROUP
CgB2	CHESTER GRAVELLY SILT LOAM	B
CgC2	CHESTER GRAVELLY SILT LOAM	B
ChB2	CHESTER SILT LOAM	B
ChC2	CHESTER SILT LOAM	B
GcB	GOMAS SILT LOAM	B
H2	HATZEGO SILT LOAM	D
MbS	MAJOR LOAM	B

DESIGN POINT (D.P. #1) SUMMARY

EXISTING D.P. (C.F.S.) (TR-20)	1 YEAR	10 YEAR	100 YEAR
2.8	7.61	18.33	
DEVELOPED D.P. (C.F.S.) (TR-20)	1.25	11.54	23.73

DESIGN POINT (D.P. #2) SUMMARY

EXISTING D.P. (C.F.S.) (TR-20)	1 YEAR	10 YEAR	100 YEAR
0.91	5.61	12.21	
DEVELOPED D.P. (C.F.S.) (TR-20)	0.46	5.75	12.00



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
164B	542408.0425	134523.4611	464.712	NAD83(11)	NAVD88
16E1	543250.9638	134092.7010	463.843	NAD83(11)	NAVD88
002	546502.7604	134086.43654	486.191	NAD83(11)	NAVD88

LEGEND

- PROPERTY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING TREES
- EXISTING PAVING
- PROPOSED PAVING
- EXISTING STORM DRAINS
- PROPOSED STORM DRAIN
- SOILS LINE
- EXISTING FOREST CONSERVATION EASEMENT
- EXISTING BUILDINGS
- EXISTING STREAM
- EXISTING STREAM BUFFER
- 100 YR FLOODPLAIN
- DRAINAGE AREA LIMIT
- TC PATH
- DRAINAGE AREA DESIGNATION

Drainage Area

Drainage Area	Tc
A'	0.288 hr
B'	0.302 hr
C'	0.441 hr
D'	0.100 hr

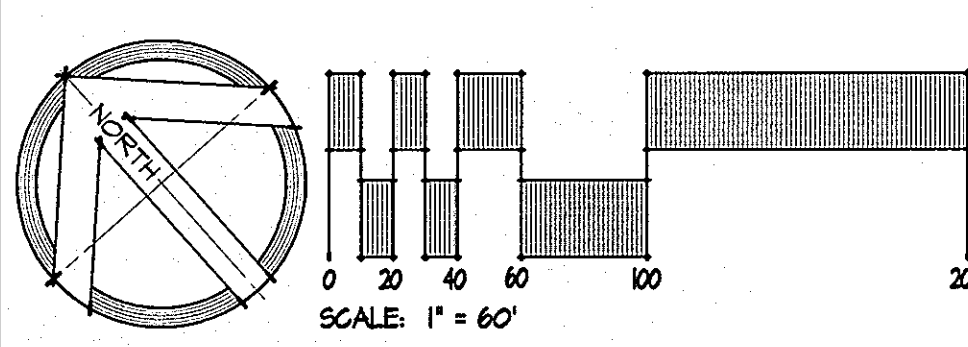
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

R. Wilson for Peter Baileisen 8/23/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David L. Leyle 9/15/08
DIRECTOR DATE

Chris Hant 9/15/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

NRCS - NATURAL RESOURCES CONSERVATION SERVICE DATE 8/11/08

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

John R. Wilson 8/11/08
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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

Chris Hant 6/23/08
ENGINEER DATE

DEVELOPER'S CERTIFICATE

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

James E. Head III 6/23/08
DEVELOPER DATE

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13876, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 HARRIOTTSVILLE ROAD

CHAPEL GATE PRESBYTERIAN CHURCH

FLAT No. of L.P.	BLOCK No.	ZONE	TAX MAP No.	ELEGT. DIST.	CENSUS TRACT
LIB04 / F5394	10	R20	16	3	6030

OWNER: CHAPEL GATE PRESBYTERIAN CHURCH, INC.
2600 Harriottsville Road
Marrriottsville, MD 21094 PHONE: (410) 653-8002

FOR TRENCH DRAIN LAYOUT SEE SHEET C6.01

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

PROPOSED SWM DRAINAGE AREA MAP

REVISIONS

SITE RESOURCES
INCORPORATED
Comprehensive Land Planning & Site Design Services

14977 Jarrattsville Pike • Phoenix, Maryland 21151
(410) 653-3388 • fax (410) 653-3389

DRAWN BY: AM
DESIGNED BY: GDS
CHECKED BY: CRM
DATE: June 20, 2008

CONTRACT NO.:
SCALE: 1" = 60'
SRI PROJECT NO: 05026
SHEET C1.02 23 OF 28

SDP-07-133

2/16/2008-Chapelgate Christian Academy/07.02_Prog_SWM_LDA_Map.dwg 1:44:57 PM Copyright: Site Resources, Inc.

**BIO-RETENTION FACILITY
INSPECTION AND MAINTENANCE SCHEDULE**

1. THE FACILITY IS PRIVATE AND SHALL BE MAINTAINED BY CHAPELGATE PRESBYTERIAN CHURCH.
2. THE FACILITY SHALL BE INSPECTED TWICE ANNUALLY, MARCH AND SEPTEMBER, AND AFTER MAJOR STORMS. THE FACILITY OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE FACILITY AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE FACILITY OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.
3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR INSPECTION.
4. 3:1 SLOPES SHALL BE FILLED WITH SUITABLE MATERIAL AND THOROUGHLY COMPACTED. THESE AREAS SHALL BE RESEDED OR RESODDED, LIMED, AND FERTILIZED AS NEEDED.
5. ALL APPURTENANCES SHALL BE KEPT FREE OF TRASH.
6. MULCH LAYER SHALL BE MAINTAINED AT 3" DEPTH AT ALL TIMES.
7. ANY DEAD PLANTING MATERIAL SHALL BE REPLACED IN KIND DURING THE APPROPRIATE PLANTING SEASON.

SWM SUMMARY

Drainage Area	Required	Provided	Notes
Drainage Area A=3.87 Ac.			
Water Quality Volume (MGV)	-	-	No proposed impervious
Recharge Volume (Rev)	-	-	No proposed impervious
Channel Protection (Cpv)	-	-	1 yr. Q < 2 CFS (See narrative for peak flow management requirement)
Overbank Protection (Op)	N/A	N/A	No downstream impact
Extreme Flood Volume (GF)	N/A	N/A	Not located in 100 yr. floodplain

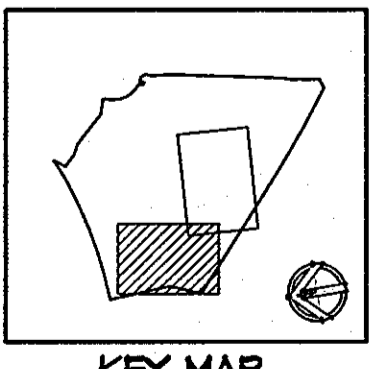
Drainage Area	Required	Provided	Notes
Drainage Area B=4.02 Ac.			
Water Quality Volume (MGV)	-	-	No change to existing
Recharge Volume (Rev)	-	-	No change to existing
Channel Protection (Cpv)	-	-	No change to existing
Overbank Protection (Op)	N/A	N/A	No change to existing
Extreme Flood Volume (GF)	N/A	N/A	Not located in 100 yr. floodplain

Drainage Area	Required	Provided	Notes
Drainage Area C=3.88 Ac.			
Water Quality Volume (MGV)	2,810 CF	3,710 CF	Bioretention 4,544
Recharge Volume (Rev)	645 CF	729 CF	Bioretention 785.4
Channel Protection (Cpv)	-	-	1 yr. Q < 2 CFS (See narrative for peak flow management requirement)
Overbank Protection (Op)	N/A	N/A	No downstream impact
Extreme Flood Volume (GF)	N/A	N/A	Not located in 100 yr. floodplain

Drainage Area	Required	Provided	Notes
Drainage Area D=0.21 Ac.			
Water Quality Volume (MGV)	-	-	No proposed impervious
Recharge Volume (Rev)	-	-	No proposed impervious
Channel Protection (Cpv)	-	-	1 yr. Q < 2 CFS (See narrative for peak flow management requirement)
Overbank Protection (Op)	N/A	N/A	No downstream impact
Extreme Flood Volume (GF)	N/A	N/A	Not located in 100 yr. floodplain

SWM FACILITY - DESIGN POINT (D.P. #1) SUMMARY

EXISTING D.P. (c.f.s.) (TR-20)	1 YEAR	10 YEAR	100 YEAR
ALLOWABLE RELEASE (c.f.s.)	0.26	1.67	18.99
DEVELOPED INFLOW (c.f.s.) (TR-20 SEC.1)	0.83	3.69	6.68
DEVELOPED OUTFLOW (c.f.s.) (TR-20 STRUCT.1) C:17	0.76	3.37	5.62
DEVELOPED D.P. (c.f.s.) (TR-20 SEC.5)	1.25	11.54	23.79
WATER SURFACE ELEVATION	482.71	482.71	482.86
STORAGE PROVIDE 1 YR. (ac. ft.)	0.0024	0.0046	482.81
STORAGE PROVIDE 10 YR. (ac. ft.)	0.0035	0.0140	
STORAGE PROVIDE 100 YR. (ac. ft.)	0.0140	0.0278	
STORAGE PROVIDE TOTAL (ac. ft.)	0.0140	0.0278	
MATERSHED	LITTLE PATUXENT RIVER (USE I-P)		
STRUCTURE TYPE	URBAN		
BMP TYPE	FILTERING SYSTEM - BIORETENTION		
WATER POOL SURFACE AREA (ACRES)	N/A		
STRUCTURE CLASSIFICATION	A		
STRUCTURE LOCATION	N 545260 E 1334100		
STORAGE HEIGHT PRODUCT (AC. FT.)	N/A		
DRAINAGE AREA TO FACILITY (AC.)	3.88		
LEVEL MANAGEMENT REQUIRED	MGV		
LEVEL MANAGEMENT PROVIDED	MGV		
FREEBOARD REQUIRED (100 YR)	1.00		
FREEBOARD PROVIDED (100 YR)	1.14		
PRINCIPAL SPILLWAY CAPACITY 100 YR (c.f.s.)	5.62/10.54		
EMERGENCY SPILLWAY CAPACITY 100 YR (c.f.s.)	N/A		



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

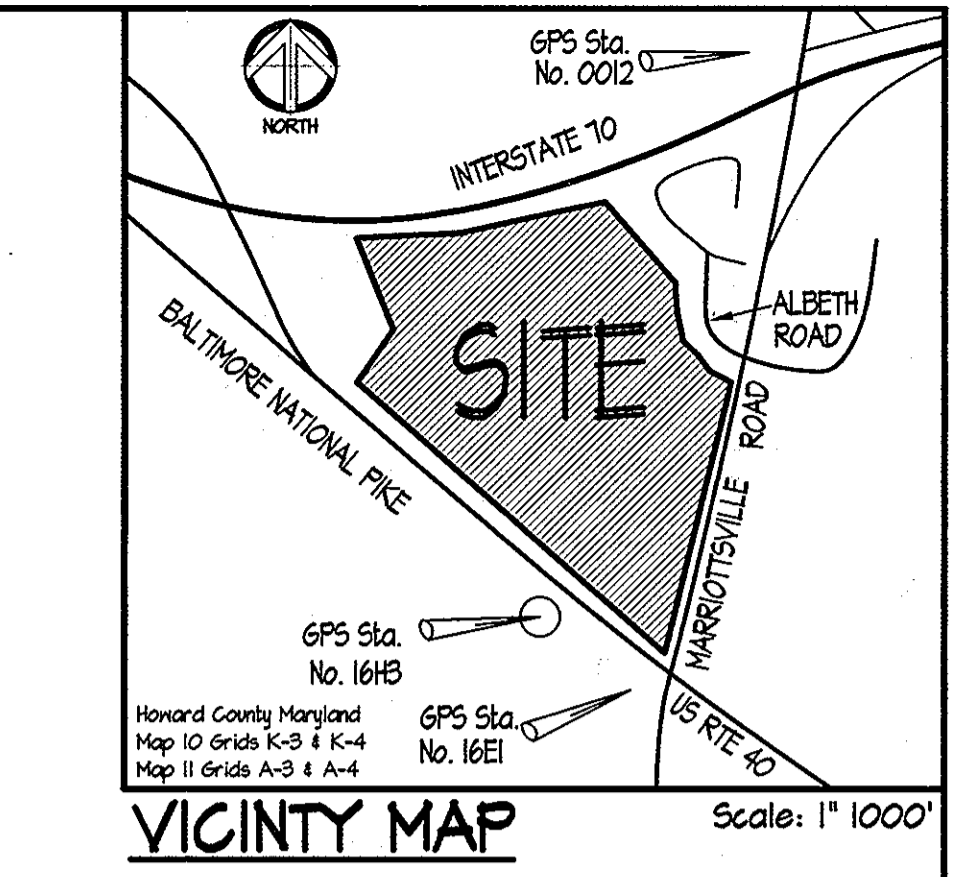
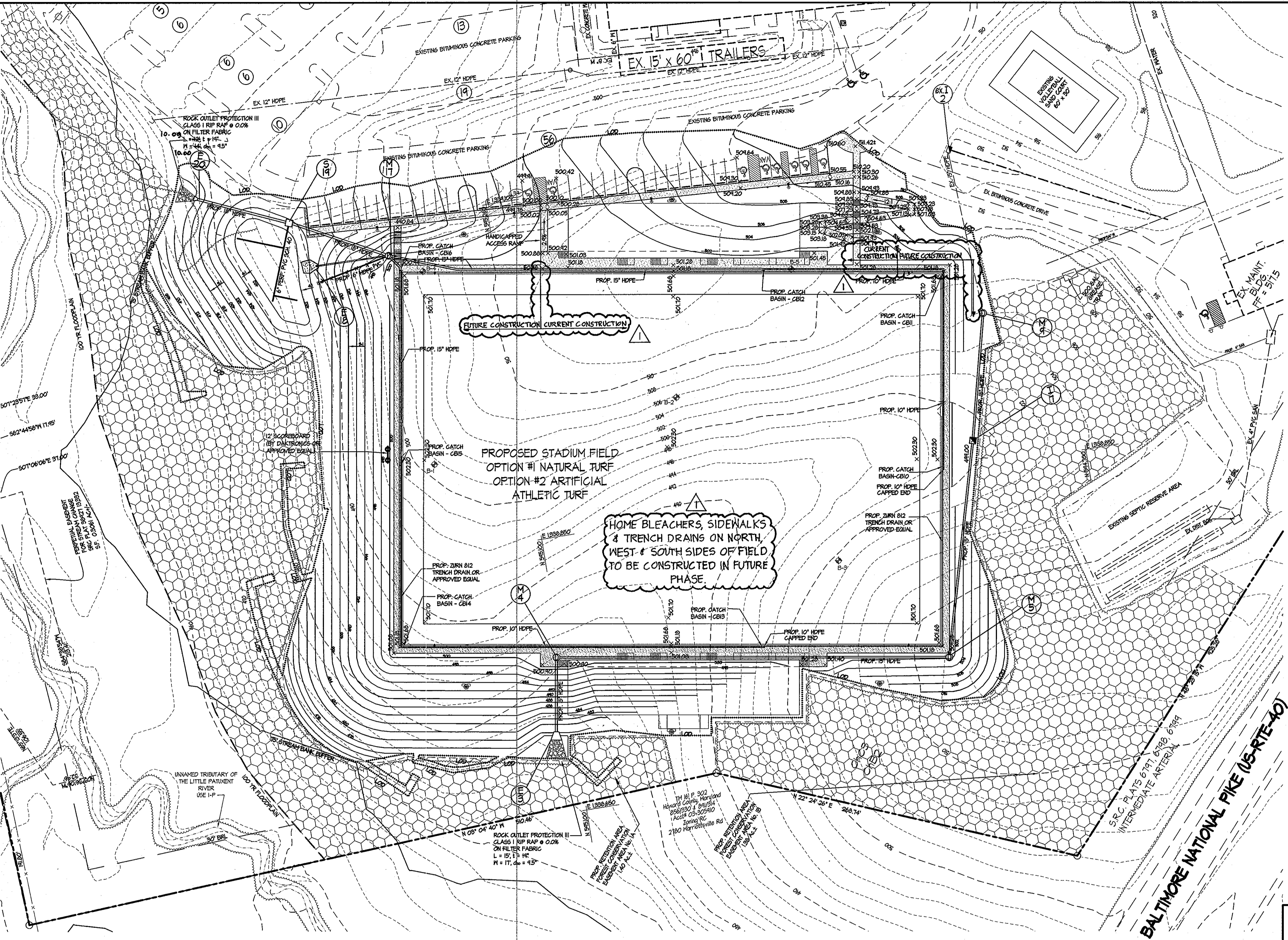
B. Nelson for Peter Beilensen 8/23/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David L. Weyler 9/15/08
DIRECTOR DATE

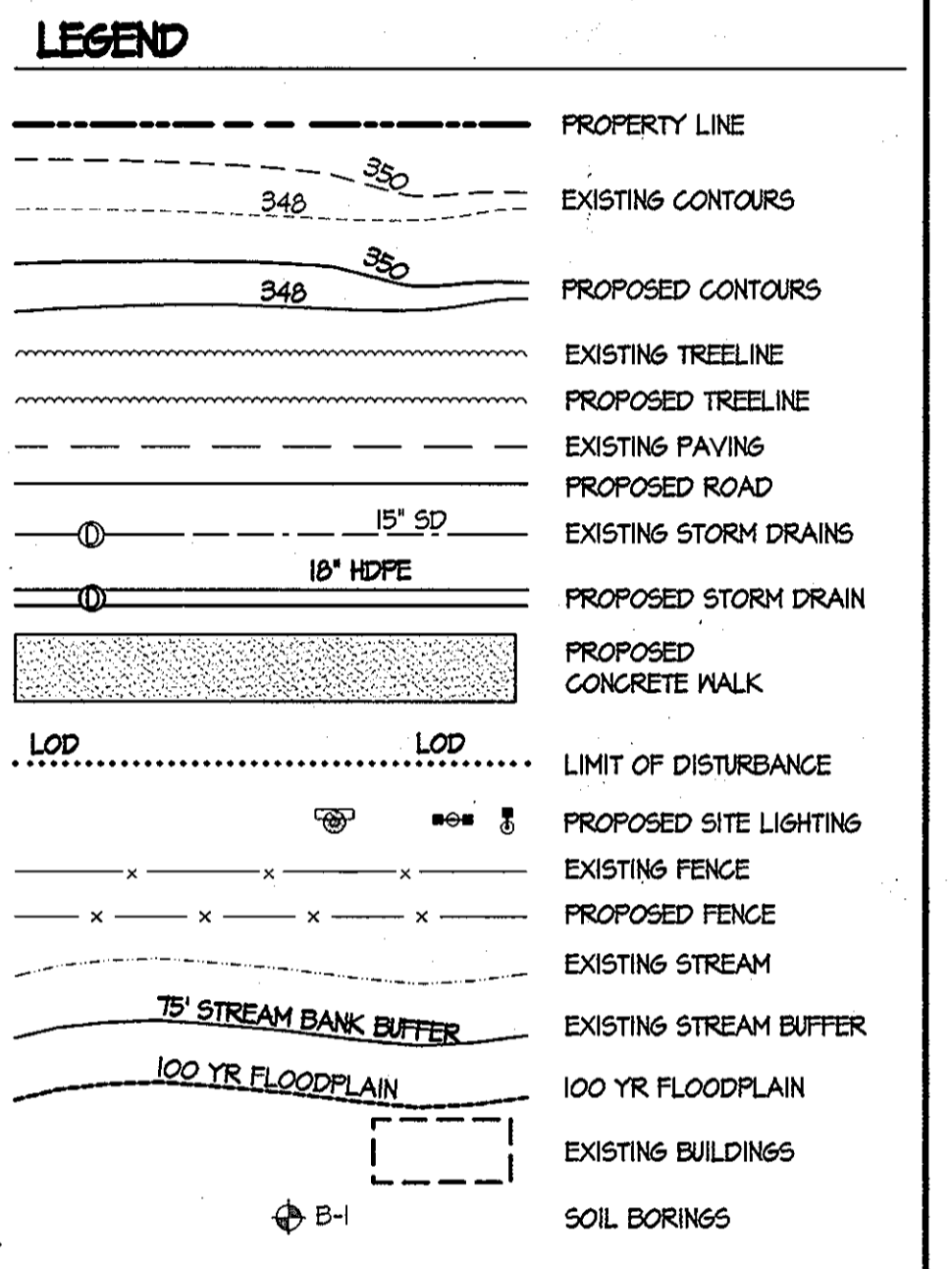
Michael J. ... 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Condy ... 9/16/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
16H	542408.0425	134523.4617	464.712	NAD83(91)	NAVDS8
16E1	543250.4638	134042.7010	463.843	NAD83(91)	NAVDS8
0012	546502.7604	134026.4364	466.194	NAD83(91)	NAVDS8



NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY, ON BEHALF OF THE OWNER, TO ENGAGE A LICENSED PROFESSIONAL ENGINEER TO CERTIFY THE STORMWATER MANAGEMENT FACILITY AND TO PREPARE AND SUBMIT AS-BUILT DRAWINGS.

AS-BUILT CERTIFICATION FOR PSHM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE DRAWINGS WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" DRAWINGS. I HAVE VERIFIED THAT THE FACILITY IS SUFFICIENTLY DESIGNED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

Robert F. Edwards, PE 16144
STATE OF MARYLAND
DATE OF AS-BUILT: 8/22/13

BY THE ENGINEER:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a final plan of the pond within 30 days of completion."

Kevin R. ... 6/23/08
Signature of Engineer Date

Kevin R. ...
Printed Name of Engineer

BY THE DEVELOPER:

"We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Charles M. Suter 6/23/08
Signature of Developer Date

Charles M. Suter
Printed Name of Developer

ADDRESS CHART

PARCEL #	STREET ADDRESS
10	2600 HARRIOTTSVILLE ROAD

OWNER: CHAPELGATE PRESBYTERIAN CHURCH, INC.
2600 Harriottsville Road, Harriottsville, MD 21094. PHONE: (410) 683-8002

CHAPELGATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 10 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STORMWATER MANAGEMENT PLAN, STADIUM FIELD

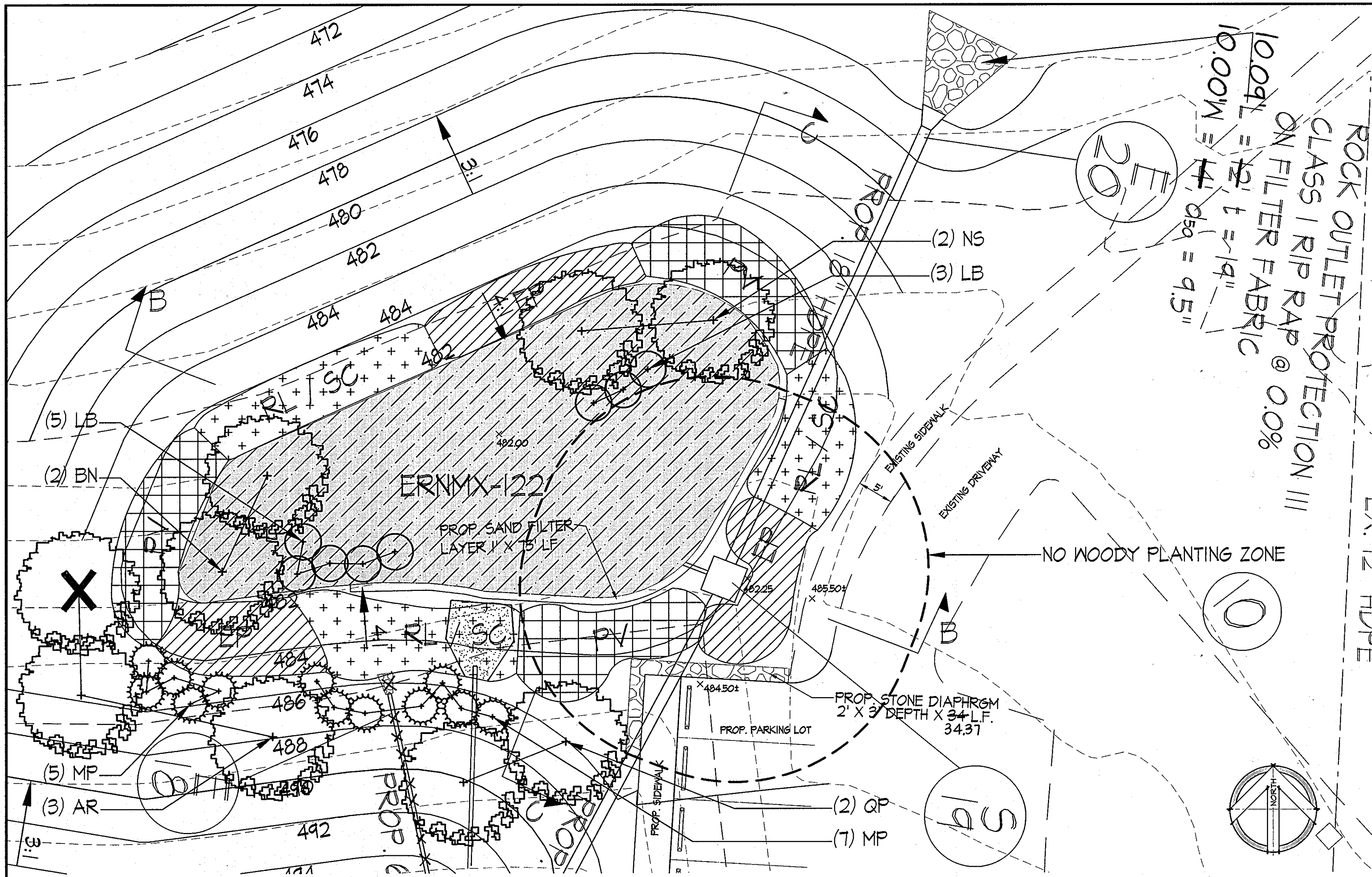
REVISIONS
05/05/13 - REVISE FUTURE BLEACHERS, WALKS & STORM DRAIN
8-22-2013 Added Swm as-builts.

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14807 Arrettsville Pike • Plover, Maryland 21151
(410) 683-3388 • fax (410) 683-3389

DRAWN BY: AM
DESIGNED BY: GDS
CHECKED BY: CRW
DATE: June 20, 2008

CONTRACT NO.:
SCALE: 1" = 40'
SRI PROJECT NO: 05026
SHEET C1.03 24 OF 28

SOP-07-133



PLAN VIEW
SCALE: 1"=10'

BIO-RETENTION LANDSCAPE SCHEDULE / PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	CONDITION	NOTES
GRASS/COVER						
EP	EUPATORIUM PERPUREA	JOE PYE WEED	321	2" P.P.	PLUG	18" O.G.
PV	PANICUM VIRGATUM	SPITCHGRASS	343	2" P.P.	PLUG	18" O.G.
RL	RIBESCKIA LACINATA	TALL CONEFLOWER	148	2" P.P.	PLUG	18" O.G., MIX EVENLY WITH SC
SC	SCIRPUS CYPERINUS	MOORGRASS	141	2" P.P.	PLUG	18" O.G., MIX EVENLY WITH RL
SHRUBS						
LB	LINDERA BENZON	NORTHERN SPICEBUSH	6	30" HT.	#3 CONT.	
MP	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	12	30" HT.	#3 CONT.	
TREES						
AR	ACER RUBRUM	RED MAPLE	2	25" CAL.	B4B	SPECIMEN, FULL CROWN
BN	BETULA NIGRA	RIVER BIRCH	2	8" HT.	B4B	MULTI-STEM, 3 TRUNK, MIN.
NS	NYSSA SYLVATICA	BLACK OAK	2	25" CAL.	B4B	SPECIMEN, FULL CROWN
QP	QUERCUS PHELLOS	MILLOW OAK	2	25" CAL.	B4B	SPECIMEN, FULL CROWN
SEED MIXES						
ERNMX-122	LOWLAND SEED MIX (SEE SPECIAL SEEDING SPECS)	0.88 lbs (2340 S.F.)	SEE SPECIAL SEEDING SPECS	APPLY @ 15LBS/ACRE		

MATERIAL SPECIFICATIONS FOR BIO-RETENTION

MATERIAL	SPECIFICATION / TEST METHOD	SIZE	NOTES
plantings	see appendix A, Table A.4	n/a	Plantings are site specific.
planting soil (2 1/2' deep)	sand 45 - 85% silt 30 - 55%	n/a	USDA soil types loamy sand, sandy loam or loam.
mulch	shredded hardwood		Aged 6 months, minimum.
geotextile fabric	CLASS 100 apparent opening size (ASTM-D-4751) grab tensile strength (ASTM-D-4632) puncture resistance (ASTM-D-4883)	0.008" thick	Must maintain 125 gpm per sq. ft. flow rate. Note: a 4" pea gravel
underdrain gravel	ASHFTO-M-45	0.375" to 0.75"	
underdrain piping	1" IPS, type PS 28 or ASHTO-M-21B	6" rigid schedule 40 PVC or SDR35	3/8" pert. @ 6" on center, 4 holes per row, minimum of 3" of gravel over pipes, not necessary underdrain pipes
sand	clean ASHTO-M-6 or ASTM-C-33 concrete sand	0.02" to 0.04"	Sand substitutions such as Diabase and Gneissstone #10 are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

LEGEND

- PROPERTY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- EXISTING TREES
- PROPOSED PLANTING

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

B. Wilson for Peter Brilenson 8/29/08
COUNTY HEALTH OFFICER DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

M. de la Cruz 7/16/08
DIRECTOR DATE

W. Williams 8/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

C. Harris 8/14/08
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

BY THE ENGINEER:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with a copy of the plan within 30 days of completion."

USDA - Natural Resources Conservation Service

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

Howard Soil Conservation District Date

BY THE DEVELOPER:

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: *Charles M. Soyer* 6/26/2008
Printed Name of Developer: CHARLES M. SOYER

Stormwater Management Basin Special Seeding Specifications:

- Lowland Seed Mix:**
Lowland seed mix is FACH Wetland Meadow Mix (ERNMX - 122) for Wet Meadow and Riparian Sites, provided by Ernst Conservation Seeds. Substitutions must be approved by the landscape architect prior to substitution.
Ernst Conservation Seeds Contact Information:
4006 Mercer Pike
Meadville, PA 16335
phone 1-800-879-3921 / fax 814-336-5141
- Soil Preparation:**
Two weeks prior to seeding, all existing vegetation in the seeding area shall be eradicated. Seeding area shall be rototilled to a depth of 1 inch prior to seeding.
- Application:**
The seeding shall be applied at a rate of 15 lbs/acre. Seeding shall be combined and uniformly mixed with calcine clay carrier (cat litter) to aid in application. Seeds shall be split in half and broadcast spread in two passes at right angles to each other, spreading one half of the mix at each angle. Ensuring that no more than 10% of the soil surface is exposed, the seeding area shall be mulched with 1 1/2 to 3 inches of loose straw mulch.

MEADOW PLANTING

Wetland Meadow Mix
ERNMX-122

20.00%	Elymus virginicus	Virginia Wild Rye
14.00%	Carex vulpinoidea	Fox Sedge
9.00%	Verbena hastata	Blue Vervain
9.00%	Heliopsis helianthoides	Ox Eye Sunflower
9.00%	Scirpus atrovirens	Green Bulrush
4.00%	Glyceria grandis	American Managras
3.00%	Carex lurida	Lurid (shallow) Sedge
3.00%	Eupatorium perfoliatum	Boneset
3.00%	Juncus effusus	Soft Rush
3.00%	Scirpus polyphyllus	Many Leaved Bulrush
2.50%	Euthamia graminifolia	Grass Leaved Goldenrod
2.00%	Asclepias incarnata	Swamp Milkweed
2.00%	Carex comosa	Cosmos (Bristly) Sedge
2.00%	Carex lupulina	Hop Sedge
2.00%	Carex scoparia	Blunt Broom Sedge
2.00%	Scirpus capuritus	Wool Grass
2.00%	Vernonia gigantea	Giant Ironweed
1.50%	Eupatorium fistulosum	Joe Pye Weed
1.50%	Eupatorium maculatum	Spotted Joe Pye Weed
1.00%	Aster novae-angliae	New England Aster
1.00%	Aster puniceus	Purple Stemmed Aster
1.00%	Bromus altissimus	Wild Bromo Grass
1.00%	Carex stipata	Avil Sedge
1.00%	Sium laciniatum	Rough Avens
1.00%	Glyceria canadensis	Rattlesnake Grass
1.00%	Halenium autumnale	Common Sneezeweed
1.00%	Juncus tenuis	Path Rush
1.00%	Zizia aurea	Golden Alexanders
0.50%	Aster umbellatus	Flat Topped White Aster
0.50%	Bidens cernua mix	Nodding Bur Marigold Mix
0.50%	Carex trivloides	Bristlebract Sedge
0.50%	Cirna arundinacea	Wood Reedgrass
0.50%	Mimulus ringens	Square Stemmed Monkey Flower
0.50%	Penthorum sedoides	Ditch Stonecrop

Seeding Rate: 15 lb/ acre, or 1/3-1/2 lb/ 1000 sq.ft.

General Maintenance
Grassy weeds or persistent perennials can re-establish in this type of soil. Monitoring weeds and mowing is very critical in the first and second years. Burning (by experienced professionals) about every three years, in early spring, can prevent shrub invasions.

Appendix B.3 Construction Specifications for Sand Filters, Bioretention and Open Channels

B.C.A. Specifications for Bioretention

- Material Specifications**
The allowable materials to be used in bioretention area are detailed in Table B.3.2.
- Planting Soil**
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.
The planting soil shall be tested and shall meet the following criteria:
pH range 5.2 - 7.0
organic matter 1.5 - 4% (by weight)
magnesium 35 lb/acre
phosphorus (phosphate - P2O5) 75 lb/acre
potassium (potash - K2O) 85 lb/acre
soluble salts not to exceed 500 ppm

All bioretention areas shall have a minimum of one test. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the top soil was excavated.

Since different labs calibrate their testing equipment differently, all testing results shall come from the same testing facility.

Should the pH fall out to the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

- Compaction**
It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoers to remove original soil. If bioretention areas are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure. These tilling operations are to restructure the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

- Plant Material**
Recommended plant material for bioretention areas can be found in Appendix A, Section A.2.3.

- Plant Installation**
Mulch should be placed to a uniform thickness of 2" to 3". Shredded hardwood mulch is the only accepted mulch. Fine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.
Root stock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8" of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers, dolomite, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

- Underdrains**
Underdrains are to be placed on a 3'-0" wide section of filter cloth. Pipe is placed next, followed by the gravel bedding. The ends of underdrain pipes not terminating in an observation well shall be capped.

The main collector pipe for underdrain systems shall be constructed at a minimum of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

- Miscellaneous**
The bioretention facility may not be constructed until all contributing drainage area has been stabilized.

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

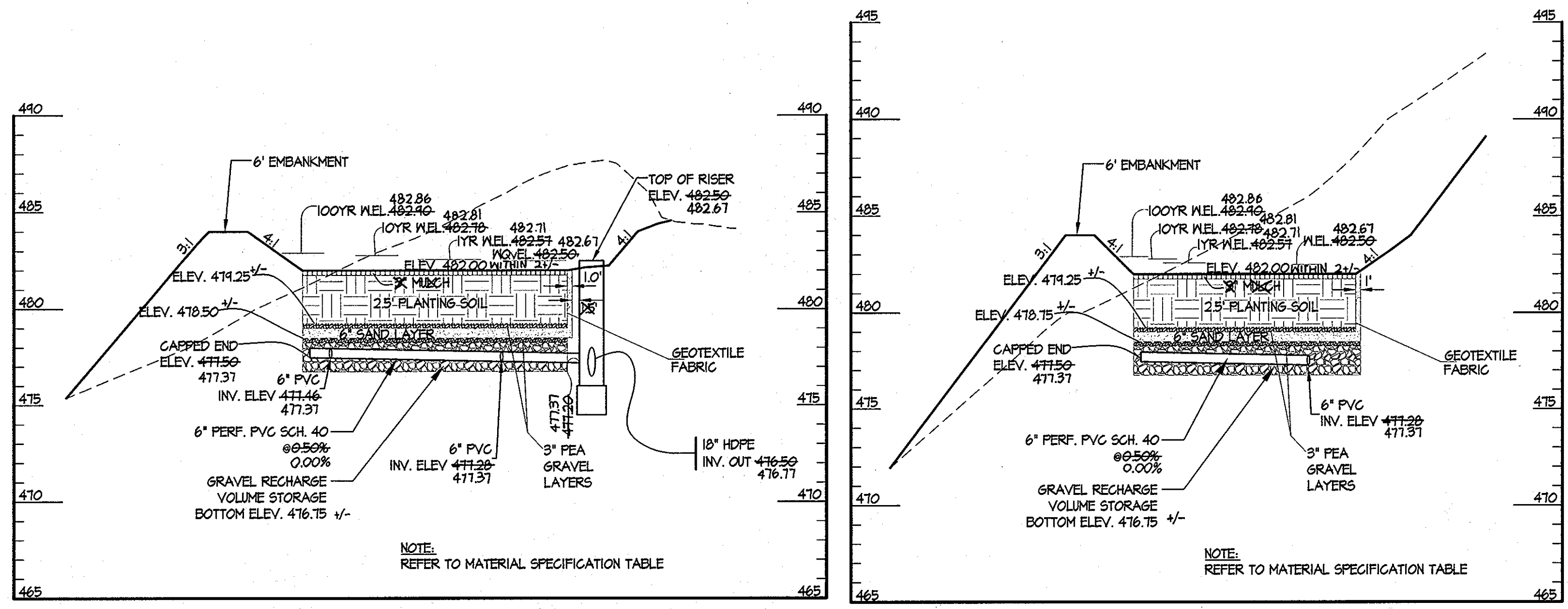
STORMWATER PLANTING DETAILS

REVISIONS
8-22-2013 SWM as-built added

ADDRESS CHART
710 2600 HARRIOTTSVILLE ROAD
CHAPEL GATE PRESBYTERIAN CHURCH N/A SECTION / AREA LOTS / PARCELS
LIBRARY / FEBA 10 R20 16 3 6030

DRAWN BY: AM/MAS CONTRACT NO.:
DESIGNED BY: GDS SCALE: AS SHOWN
CHECKED BY: GRM SRI PROJECT NO: 05026
DATE: June 20, 2008 SHEET C1.04 25 OF 28

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14307 Jannettsville Pike • Poolesville, Maryland 21131
(410) 683-3388 • fax (410) 683-3389



BIORETENTION SECTION B-B

SCALE: HORIZ: 1"=30'
VERT: 1"=5'

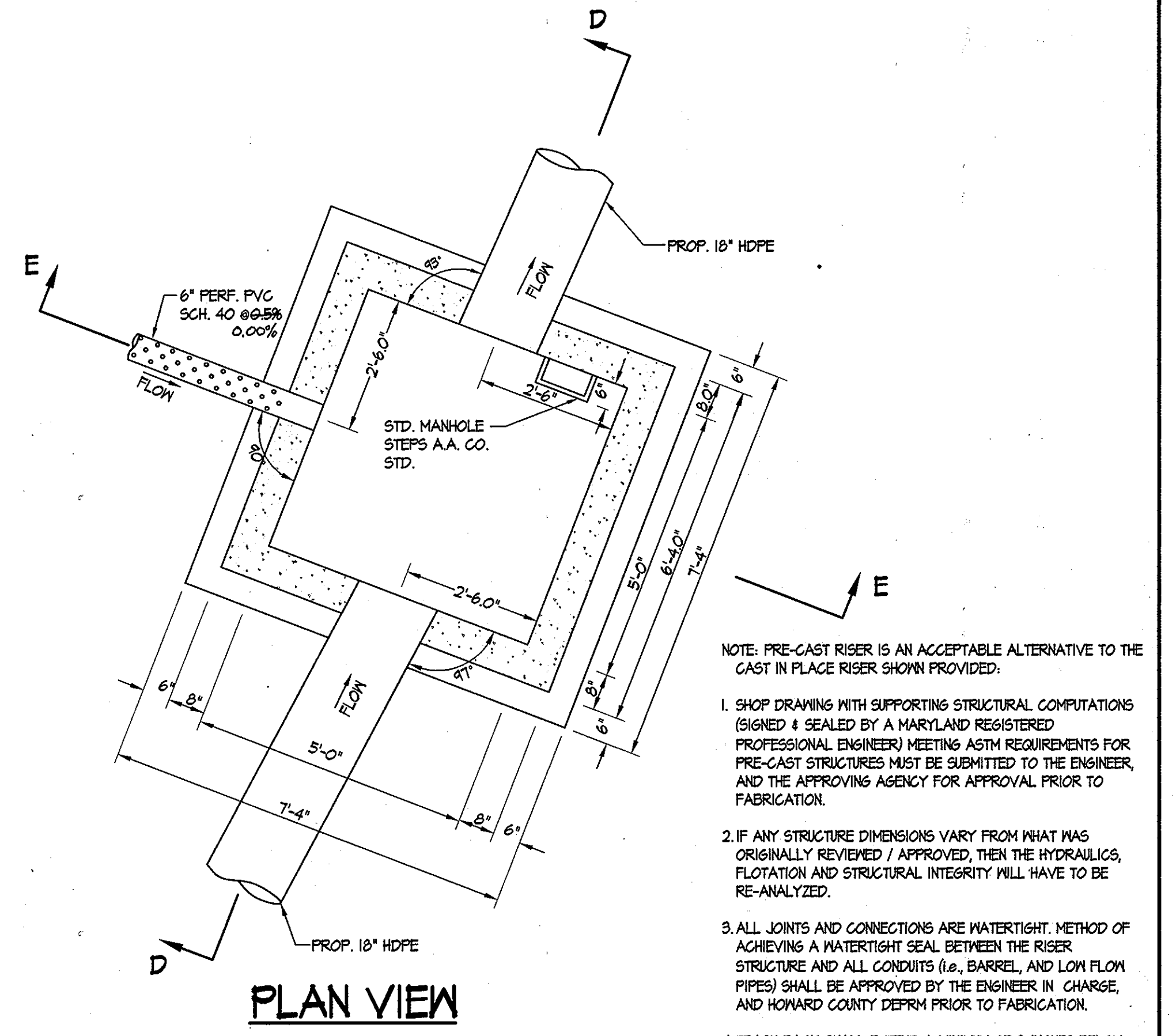
BIORETENTION SECTION C-C

SCALE: HORIZ: 1"=30'
VERT: 1"=5'

1 BIORETENTION SYSTEM
SCALE AS NOTED

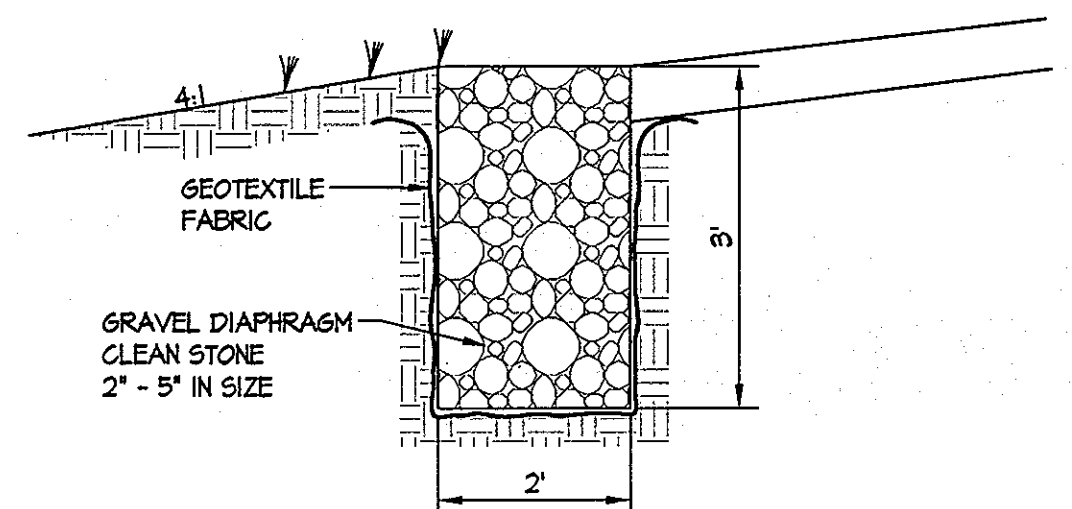
NOTE: REFER TO MATERIAL SPECIFICATION TABLE ON SHEET C7.1.

SCALE: 1"=2'



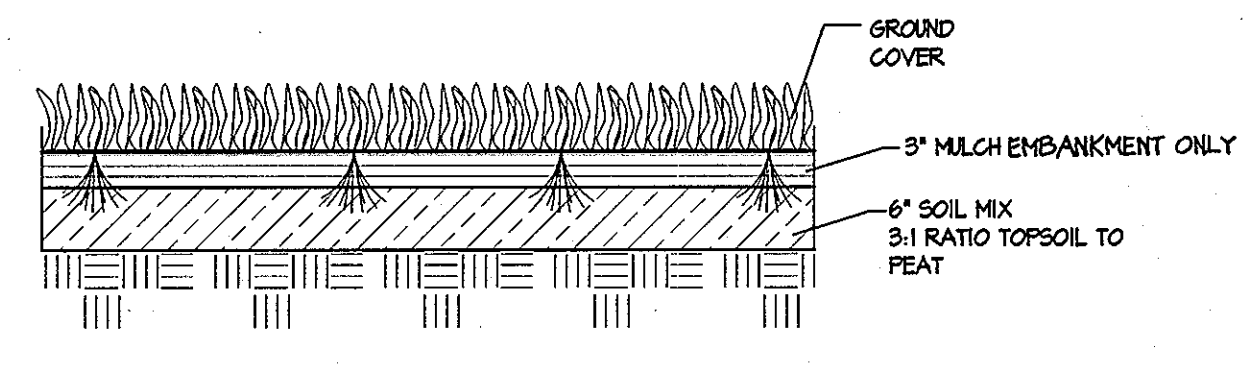
PLAN VIEW

- NOTE: PRE-CAST RISER IS AN ACCEPTABLE ALTERNATIVE TO THE CAST IN PLACE RISER SHOWN PROVIDED:
1. SHOP DRAWING WITH SUPPORTING STRUCTURAL COMPUTATIONS (SIGNED & SEALED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER) MEETING ASTM REQUIREMENTS FOR PRE-CAST STRUCTURES MUST BE SUBMITTED TO THE ENGINEER, AND THE APPROVING AGENCY FOR APPROVAL PRIOR TO FABRICATION.
 2. IF ANY STRUCTURE DIMENSIONS VARY FROM WHAT WAS ORIGINALLY REVIEWED / APPROVED, THEN THE HYDRAULICS, FLOTATION AND STRUCTURAL INTEGRITY WILL HAVE TO BE RE-ANALYZED.
 3. ALL JOINTS AND CONNECTIONS ARE WATER-TIGHT. METHOD OF ACHIEVING A WATER-TIGHT SEAL BETWEEN THE RISER STRUCTURE AND ALL CONDUITS (i.e., BARREL, AND LOW FLOW PIPES) SHALL BE APPROVED BY THE ENGINEER IN CHARGE, AND HOWARD COUNTY DEPRM PRIOR TO FABRICATION.
 4. TRASH RACK SHALL EXTEND A MINIMUM OF 8 INCHES BELOW THEIR CREST.



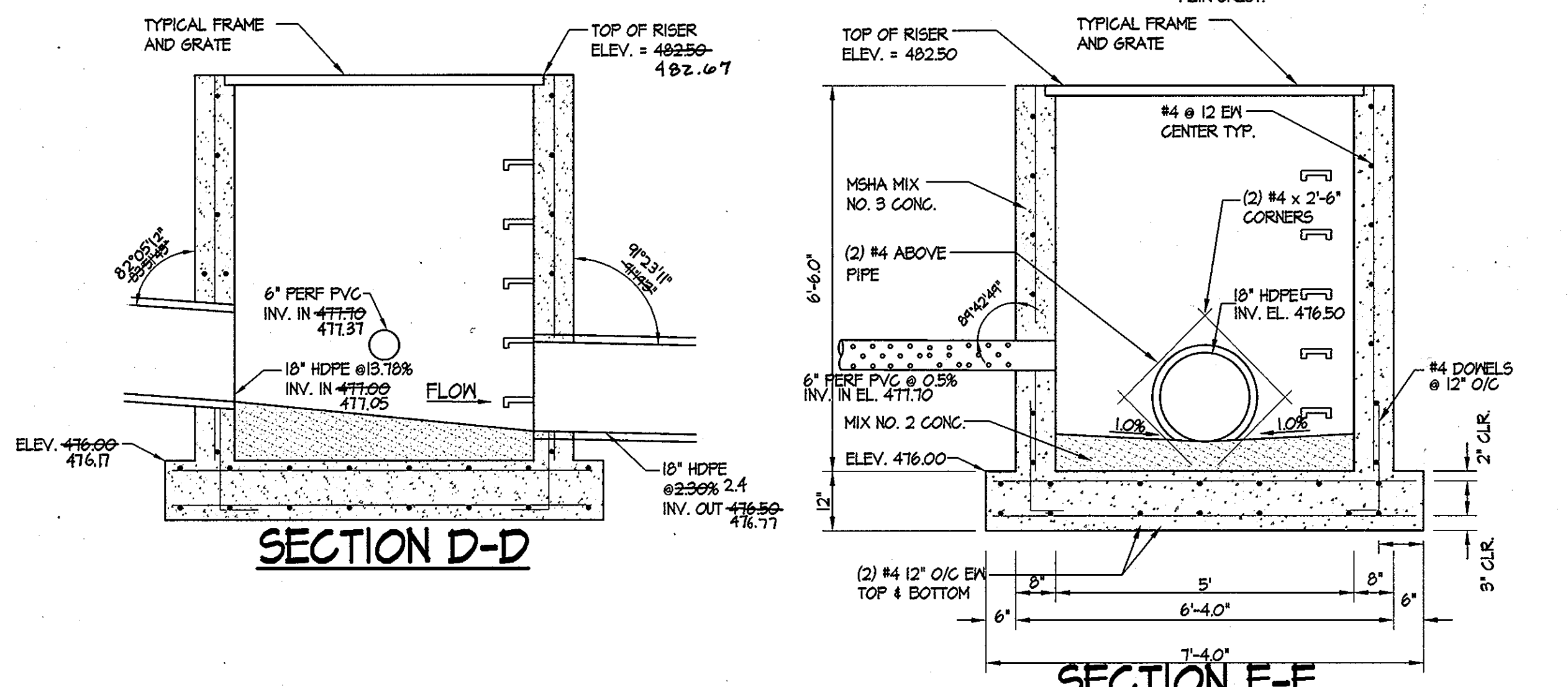
2 STONE DIAPHRAGM FOR BIO-RETENTION

NOT TO SCALE



4 GROUND COVER FOR BIO-RETENTION

NOT TO SCALE



SECTION D-D

SECTION E-E

3 CONCRETE RISER STRUCTURE (S-19) BIORETENTION
SCALE: 1"=2'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

B. Wilson for Peter Beilensen
COUNTY HEALTH OFFICER 6/25/08

APPROVED: DEPARTMENT OF PLANNING & ZONING

Bertha M. Lough
DIRECTOR 7/15/08

John P. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/15/08

Condy ...
CHIEF, DIVISION OF LAND DEVELOPMENT 9/4/08

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

Used in accordance with the resources Conservation Service Date

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

Howard Soil Conservation District Date

BY THE ENGINEER:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion."

Signature of Engineer: *Kevin R. Kinsey* Date: 6/26/08

Printed Name of Engineer: KEVIN R. KINSEY

BY THE DEVELOPER:

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an 'as-built' plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: *Charles M. Suzer* Date: 6/26/08

Printed Name of Developer: CHARLES M. SUZER

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland, license number 13876, expiration date, 03/24/2010.

ADDRESS CHART

PARCEL #	STREET ADDRESS
10	2600 HARRIOTTSVILLE ROAD
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A / 10
PLAT No. & L.P. BLOCK No.	ZONE TAX MAP No. ELEC. DIST. GENUS TRACT
LB84 / F334	10 R20 16 3 6030
WATER CODE	SEWER CODE
H06	5942000
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC.
CONTACT: JAMES E. HEAD III	2600 Harriottsville Road Harriottsville, MD 21034 PHONE: (410) 483-6022

CHAPEL GATE PRESBYTERIAN CHURCH
ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND PARKING EXPANSION

PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

STORMWATER MANAGEMENT DETAILS

REVISIONS

Added Swm As-Built 8-22-2013

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services
14807 Jarnettville Pike • Poolesville, Maryland 21131
(410) 683-3388 • fax (410) 683-3389

DRAWN BY: AM/MAS
DESIGNED BY: GDS
CHECKED BY: GRM
DATE: June 20, 2008

CONTRACT NO.:
SCALE: AS SHOWN
SRI PROJECT NO: 05026
SHEET C1.05 26 OF 28

SOP-07-133

GENERAL CONSTRUCTION SPECIFICATIONS (NON-MD 318 FACILITY)

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 no steeper than 1:1. All trees shall be cleared and grubbed within 20 feet of the toe of the embankment.

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.

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

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

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

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 (Standard Proctor).

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.

Removal and Replacement of Defective Fill

Fill placed at densities lower than specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be reworked to meet the requirements or removed and replaced by acceptable fill. The bottoms of such excavations shall be finished flat or gently curving and at the sides of such excavations the adjacent sound fill shall be trimmed to a slope not steeper than 3 feet horizontally to 1 foot vertically extending from the bottom of the excavation to the fill surface.

Pipe Conduits

All pipes shall be circular in cross section.

Plastic Pipe

All of the following criteria shall apply for all plastic pipes:

- Materials: PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4-10 inch pipe shall meet the requirements of AASHTO M252 Type 5, and 12-24 inch shall meet the requirements of AASHTO M244 Type 5.
- Joints and connections to anti-seep collars shall be completely watertight.
- Bedding: The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
- Backfilling shall conform to 'Structure Backfill'.
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

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

Rock Rip Rap

Rock Rip Rap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 911. Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.04, Class C. Rock Rip Rap shall be brown or grey in color.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from 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 not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT

B. Wilson for Peter Bilanson
COUNTY HEALTH OFFICER DATE: 8/23/08

APPROVED: DEPARTMENT OF PLANNING & ZONING

David M. Taylor
DIRECTOR DATE: 9/5/08

Mr. [Signature]
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE: 8/15/08

Chris [Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 9/10/08

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY, ON BEHALF OF THE OWNER, TO ENGAGE A LICENSED PROFESSIONAL ENGINEER TO CERTIFY THE STORMWATER MANAGEMENT FACILITY AND TO PREPARE AND SUBMIT AS-BUILT DRAWINGS.

Stabilization

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

Erosion and Sediment Control

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

Seeding (For Bio-Retention planting see sheet C1.04)

Seeding, fertilizing and mulching shall be as follows:

- Seed Mix:
- 50% Kentucky Bluegrass
 - 40% Perennial Creeping Red Fescue
 - 10% Streaker Redtop
 - Applied at a rate of 150 lbs. per acre, or
 - Rebel II Tall Fescue (125 lbs. per acre)
 - Perennial Ryegrass (15 lbs. per acre)
 - Kentucky Bluegrass (10 lbs. per acre)
 - or
 - Perennial Creeping Red Fescue (10 lbs. per acre)
 - Aurora Hard Fescue (50 lbs. per acre)
 - Common White Clover (6 lbs. per acre)
 - Minter Rye (45 lbs. per acre)
 - or
 - 70% Forager Tall Fescue
 - 30% Chemung Crownvetch, Inoculated
 - Applied at a rate of 55 lbs. per acre
 - Optimum seeding dates: March 1 to April 30

Lime: 2 tons/acre Dolomitic Limestone

Fertilizer: 600 lbs./acre 10-10-10 fertilizer before seeding, 400 lbs./acre 30-0-0 urea fertilizer at time of seeding.

Mulch: Straw at 4,000 lbs. per acre.

Anchoring: Mulching tool or wood cellulose fiber binder at a net dry binder rate of 150 lbs. per acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water or at rates recommended by the manufacturer.

Filter Cloth

All filter cloth shall conform to the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control, or the latest edition.

Construction Inspection by Designated Engineers

The construction of the pond and embankment and certification that the pond and embankment have been built in accordance with the plans shall be under the supervision of a Registered Professional Engineer. The Engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for (1) inspection of pipe trench and bedding, (2) inspection of riser and anti-seep collars and (3) supervision of embankment construction, minor conditions not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.

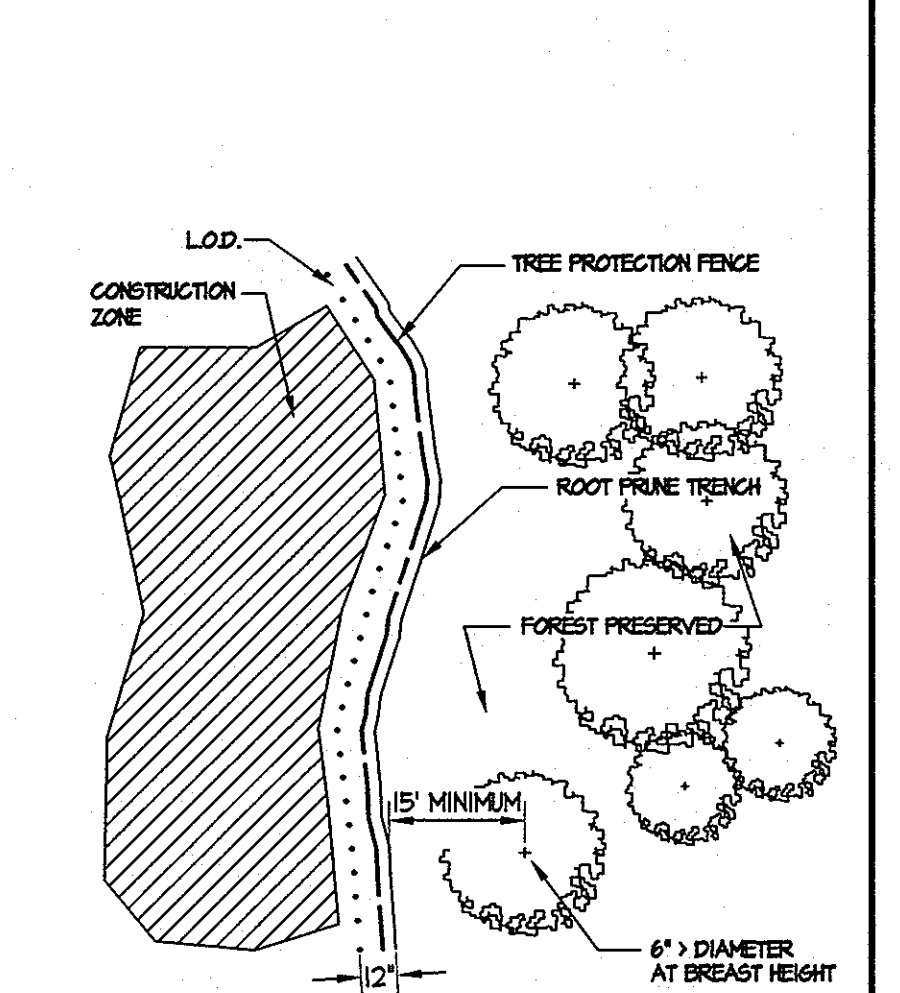
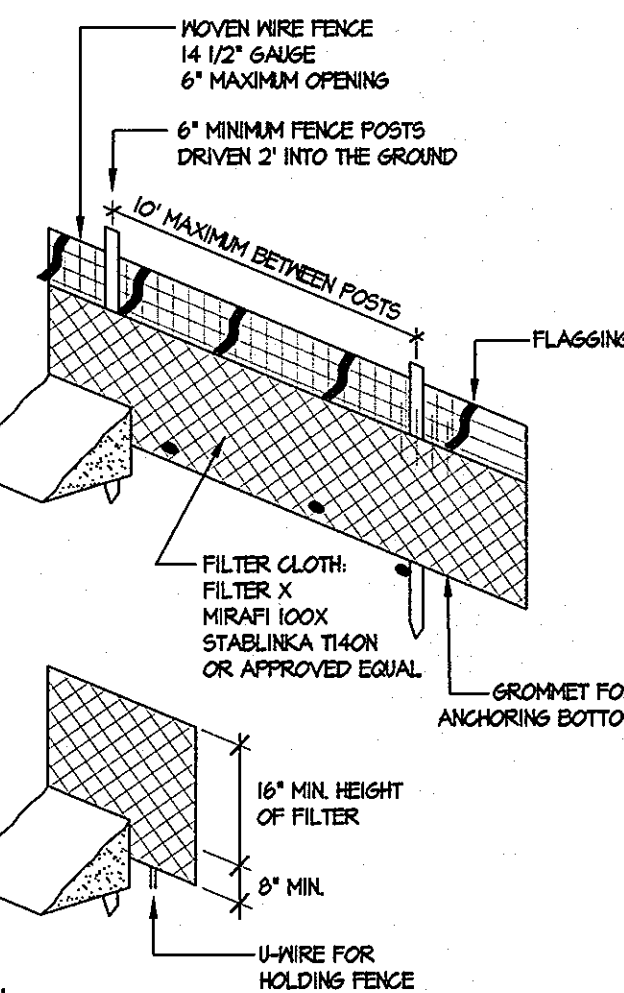
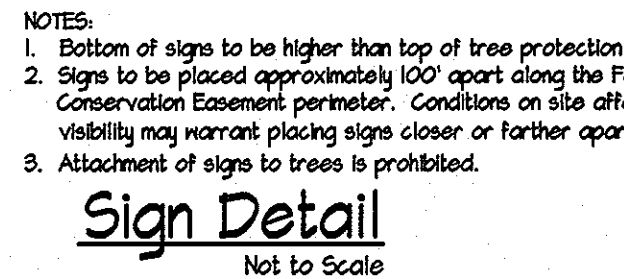
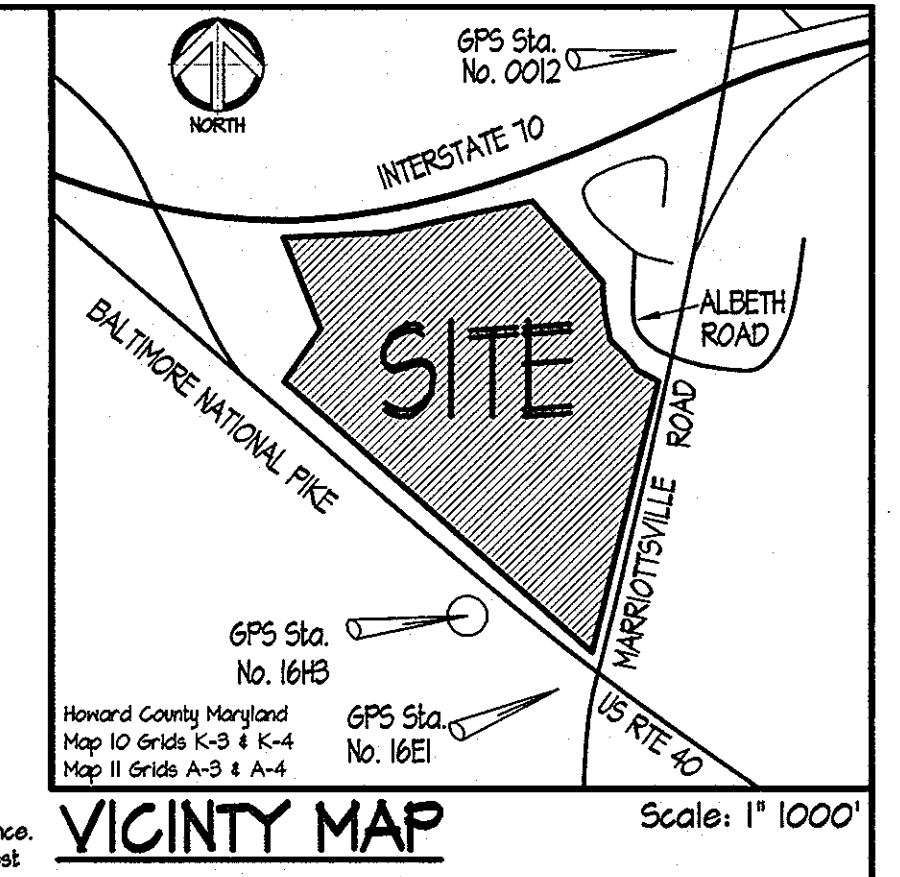
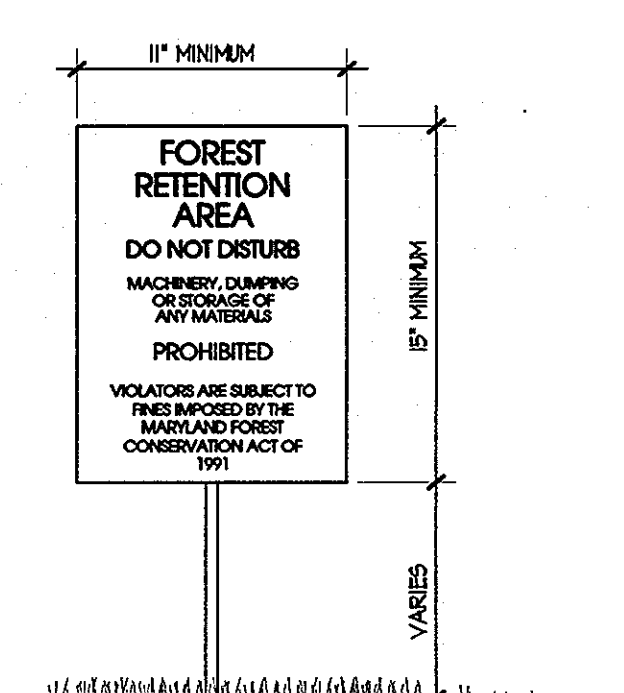
RECORD OF SUBSURFACE EXPLORATION														
BORING NO. & LOCATION	PROJECT	DATE	COMPLETION DATE	FIELD REPRESENTATIVE	GILES PROJECT NUMBER	FEET	DEPTH	N	Q ₁	Q ₂	Q ₃	W	PID	NOTES
1 - SE Slope	Proposed Chapelgate Christian Academy Athletic Field	2/28/08	3/28/08	Chris Blanche	3G-0720002	1-5.5	18	1	1.5			24		
MATERIAL DESCRIPTION														
1'-2" Brown Silty Clay (Topsoil)														
2'-3" Brown Silty Clay, trace fine sand, trace silt														
3'-4" Brown Silty Clay and Silty fine Sand, trace Rock Fragments - Moist														
4'-5" Red-Brown Micaceous Silty fine Sand, trace to silt														
5'-6" Red-Brown Micaceous Silty fine Sand, trace to silt														
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208'-209" Red-Brown Micaceous Silty fine Sand, trace to silt														
209'-210" Red-Brown Micaceous Silty fine Sand, trace to silt														
210'-21														

Retention Area Summary Table

RETENTION AREA #1A	1.40 Ac.
RETENTION AREA #1B	1.38 Ac.
RETENTION AREA #2	2.58 Ac.
RETENTION AREA #3A	0.86 Ac.
RETENTION AREA #4	0.43 Ac.
RETENTION AREA #5	1.08 Ac.
RETENTION AREA #6A	3.44 Ac.
RETENTION AREA #7	1.63 Ac.
TOTAL RETENTION	12.80 Ac.

Forest Conservation Worksheet

NET TRACT AREA:	46.6
A. Total tract area:	46.6
(Excludes acreage within L.O.D. for previously approved SDP-08-07, which was exempt from forest conservation obligations)	
B. Area within 100 year floodplain	8.3
C. Area to remain in agricultural production	0.0
D. Net tract area	38.3
LAND USE CATEGORY:	
ARA MDR IDA HDR MPD CIA	0 0 1 0 0 0
E. Afforestation Threshold	15% x D = 5.7
F. Conservation Threshold	20% x D = 7.7
EXISTING FOREST COVER:	
G. Existing forest cover (excluding floodplain)	33.5
H. Area of forest above afforestation threshold	21.8
I. Area of forest above conservation threshold	25.4
BREAK EVEN POINT:	
J. Forest retention above threshold with no mitigation	12.8
K. Clearing permitted without mitigation	20.1
PROPOSED FOREST CLEARING:	
L. Total area of forest to be cleared	20.1
(based on current schematic master plan)	
M. Total area of forest to be retained	12.8
(In addition to 8.3 Ac forested floodplain)	
PLANTING REQUIREMENTS:	
N. Reforestation for clearing above conservation threshold	5.2
O. Reforestation for clearing below conservation threshold	0.0
P. Credit for retention above conservation threshold	5.2
R. Total reforestation required	0.0
S. Total afforestation required	0.0
T. Total reforestation and afforestation required	0.0



Notes:

1. Construction sediment control and protective device
2. Retention area will be set as part of the review process
3. Boundaries of retention area should be staked prior to installing protective device.
4. Root damage should be avoided, as described in detail.
5. Hand soil only within limits of disturbance.
6. Protective signage is also required, as shown in detail.
7. All standard maintenance for sediment control devices applies to these details.

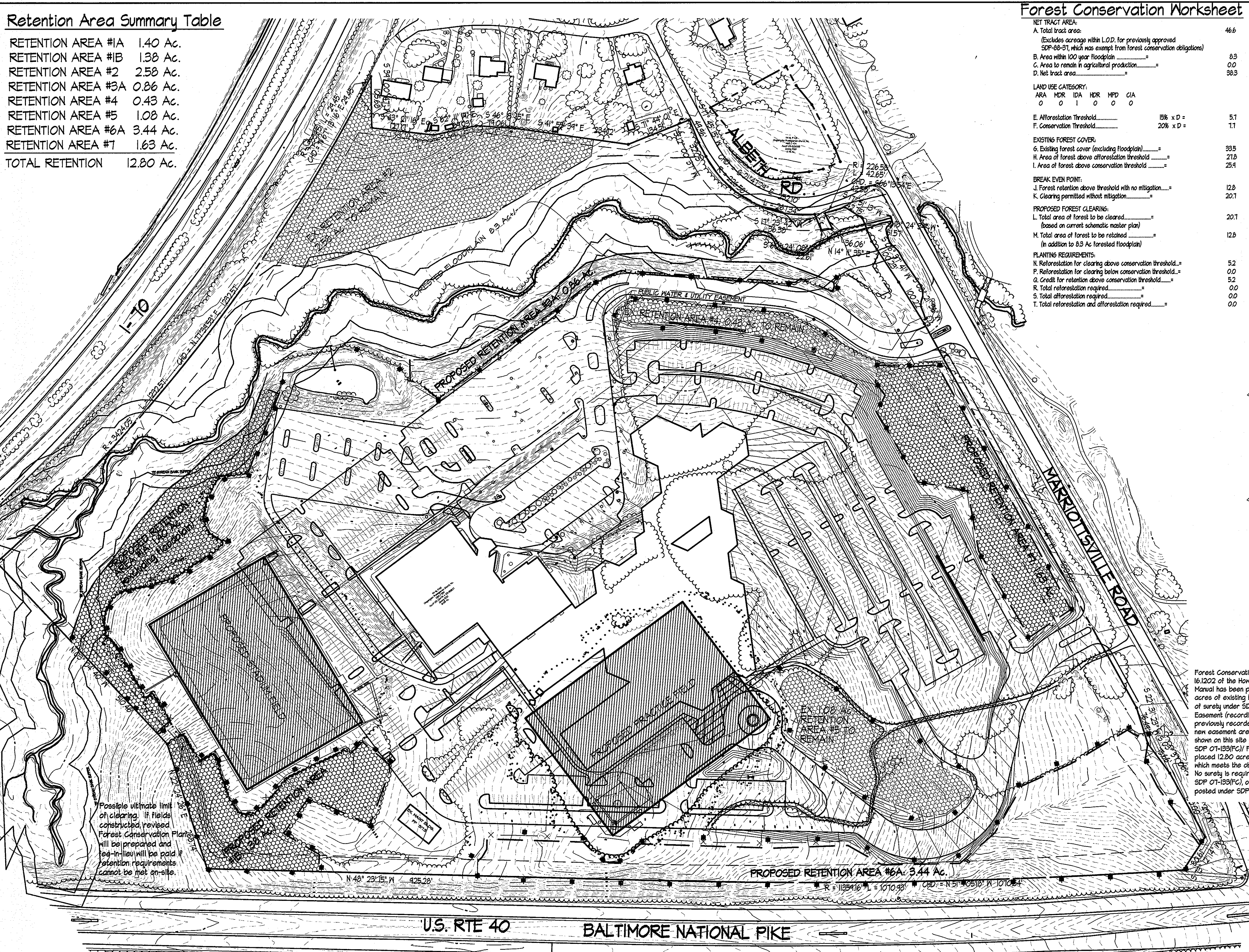
Protective Fence Detail

Root Pruning Detail

Forest Conservation obligations in accordance with Section 16.1202 of the Howard County Code and Forest Conservation Manual has been previously addressed by the placement of 12.80 acres of existing forest into retention easements and the posting of surety under SDP-05-122(FC)/Forest Conservation Plat of Easement (according reference Nos. 15022 to 15025). These previously recorded easements have been reconfigured and a new easement area added due to the proposed improvements shown on this site plan. The revised forest conservation plat, SDP 07-133(FC)/ Forest Conservation Plat of Easement, has placed 12.80 acres of existing forest into retention easements which meets the obligation of 12.80 acres of required retention. No surety is required under the revised forest conservation plat, SDP 07-133(FC), or this site plan since it has been previously posted under SDP 03-122(FC).

NOTE:
The proposed Forest Retention Areas, as shown hereon, are based on the proposed ultimate development as currently anticipated. The owner reserves the right to adjust the limits of the Forest Retention Areas on site, and to pay fees-in-lieu, if retention requirements cannot ultimately be met on-site. The owner shall record an amended plat if Forest Conservation Areas change during the future phases of development, with no financial penalty for changes or reduction in the limits of retention. Standard fees will be charged as surety for retention or for fee-in-lieu.

NOTE:
Prior to ultimate construction, owner to provide fencing on the site along the perimeters of the easements to protect the retention areas from construction activity.

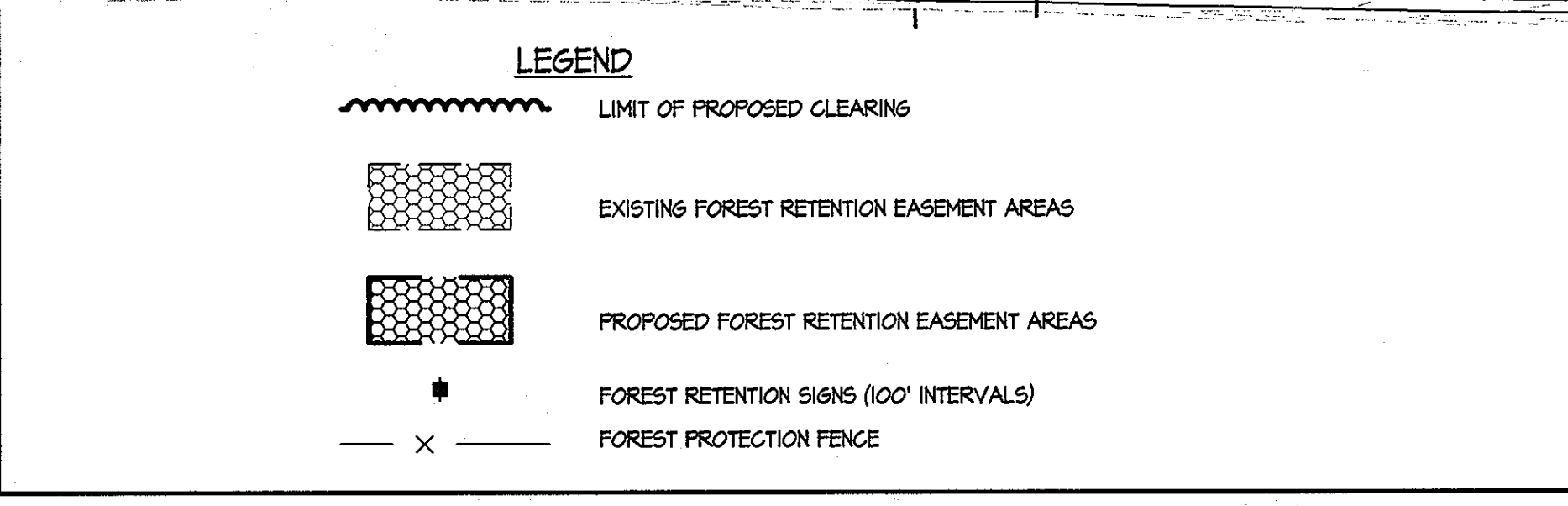


APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS AND PRIVATE SEWERAGE SYSTEM FOR MAINTENANCE BUILDING ONLY HOWARD COUNTY HEALTH DEPARTMENT
 B. Wilson for Peter DeLorenzo 8/29/08
 COUNTY HEALTH OFFICER 69 DATE

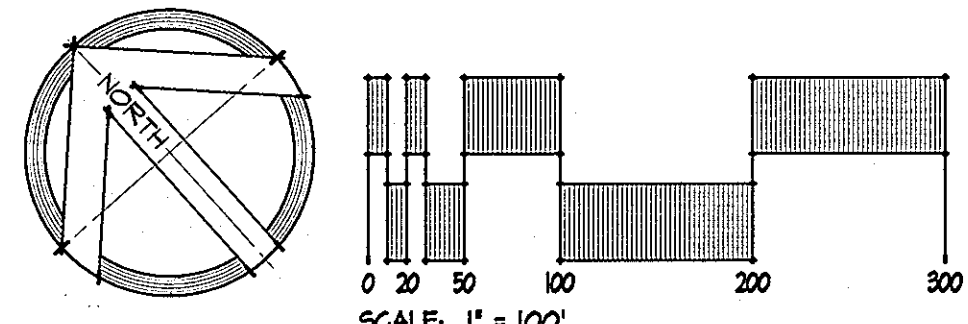
APPROVED: DEPARTMENT OF PLANNING & ZONING
 [Signature] 7/15/08
 DIRECTOR DATE

[Signature] 8/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 7/14/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



PREPARED BY: CHARLES R. WILSON JR., RLA
 STATE OF MARYLAND
 REGISTERED LANDSCAPE ARCHITECT
 REGISTRATION NO. 431
 [Signature] 6-25-08
 NAME DATE



ADDRESS CHART

PARCEL #	STREET ADDRESS
110	2600 MARRIOTTVILLE ROAD
SUBDIVISION NAME	SECTION / AREA / LOTS / PARCELS
CHAPEL GATE PRESBYTERIAN CHURCH	N/A
PLAT NO. OF L.P. BLOCK NO. TAX MAP NO. ZONE ELEC. DIST. CENSUS TRACT	1224 / P334 10 1220 16 3 5 6020
WATER CODE	SEWER CODE
H26	542000
OWNER	CHAPEL GATE PRESBYTERIAN CHURCH, INC.
	2600 Marriottsville Road
	Marriottsville, MD 21094 PHONE: (410) 953-6002
	CONTACT: JAMES E. HEAD III

CHAPEL GATE PRESBYTERIAN CHURCH
 ATHLETIC FIELDS, PRESS BOX, BLEACHERS, AND
 PARKING EXPANSION
 PARCEL 110 3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FOREST CONSERVATION PLAN

REVISIONS

STATE OF MARYLAND
 REGISTERED LANDSCAPE ARCHITECT

SITE RESOURCES
 Incorporated
 Comprehensive Land Planning & Site Design Services
 14807 Jarrattville Pike • Phoenix, Maryland 21151
 (410) 683-3388 • fax (410) 683-3389

6-23-08

DRAWN BY: KFR CONTRACT NO.:

DESIGNED BY: KFR SCALE: 1" = 100'

CHECKED BY: CRM SRI PROJECT NO: 05026

DATE: June 20, 2008 SHEET C8.00 28 OF 28

SDP-07-133