SITE DEVELOPMENT PLAN

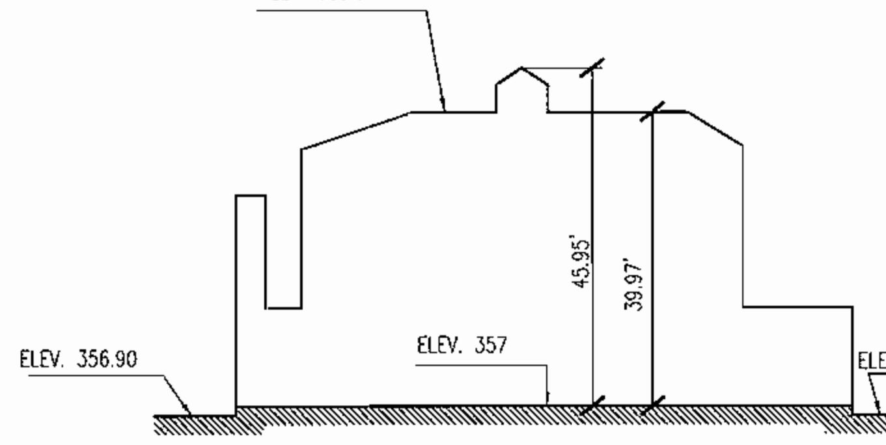
KINGS CONTRIVANCE INTERFAITH CAMPUS

GENERAL NOTES

1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
2. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
3. The contractor is to notify the following utilities or agencies at least five days before starting work on these drawings:

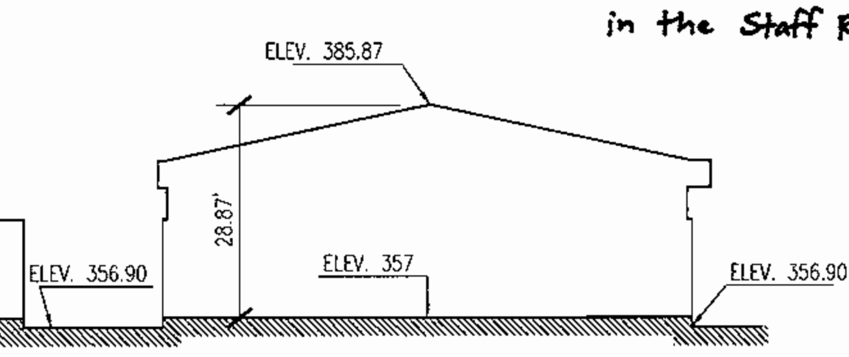
Miss Utility	1-800-257-7777
Verizon Telephone Company:	(410) 754-6281
Howard County Bureau of Utilities:	(410) 313-2366
AT&T Cable Location Division:	393-3553
B.G.E. Co. Contractor Services:	850-4620
B.G.E. Co. Underground Damage Control:	787-4620
State Highway Administration:	531-5533

4. Site analysis:
   Area of parcel F-3: 0.2507 acs.
   Area of parcel F-4: 0.2507 acs.
   Area of parcel F-5: 1.9622 acs.
   Total Site Area : 2.4636 acs.
   Present zoning : NEW TOWN OPEN SPACE per Plat 12376
   Use of structures : Religious
   Total building area : 12,714 sf
   Building coverage on site:
   Area of parcel F-3: 0.1460 acs. 58.2%
   Area of parcel F-4: 0.1460 acs. 58.2%
   Area of parcel F-5: 0 acs. 0%
   There are no steep slopes on-site
5. Project background:
   Location : Columbia, Md.; Tax Map 42, Parcel F-3, F-4 & F-5.
   Zoning : NEW TOWN OPEN SPACE per the 10/18/93 Comprehensive Zoning Plan.
   Section/Area : 2/4
   Site Area : 2.4636 Acres
   DPZ references : SDP-97-25, F-96-181, F-85-114, F-02-137
   FDP PLAN PHASE 178-A-II PART IV, VILLAGE OF KINGS CONTRIVANCE-(PLAT# 3054-A-1658) Has been Recorded on 9/16/02 among the land Records of Howard County as Plats No(s). 15570 to 15573.
6. The contractor shall notify the Department of Public Works/Bureau of Engineering/ Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to start of work.
7. Any damage to public right-of-ways, paving, or existing utilities will be corrected at the contractor's expense.
8. Existing utilities located from Field Surveys and available record drawings. Approximate location of existing utilities are shown for the contractors information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
9. All reinforced concrete for storm drain structures shall have a minimum of 28 days strength of 3,500 p.s.i.
10. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
11. Estimates of earthwork quantities are provided soley for the purpose of calculating fees.
12. Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test.
13. All storm drain pipe bedding shall be Class 'C' .
14. 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. 42R1 and 42R2 were used for this project.
15. A noise study is not required for this project.
16. Existing topography is based on field run information performed by Frederick Ward Associates, Inc. in June, 2001.
17. See sheet 6 for paving section details.
18. All curb and gutter to be Howard County Standard concrete Detail R3.01 unless otherwise specified.
19. There are no wetlands, streams, or flood plains located onsite.
20. Where drainage flows away from curb, contractor to reverse the gutter pan.
21. All elevations are to flowline/bottom of curb unless otherwise noted.
22. All dimensions are to face of curb unless otherwise noted.
23. This site is exempt from the Forest Conservation Ordinance in accordance with 16.1202(b) of Howard County Code with a planned unit development which has preliminary development plan approval and 50% or more of the land is recorded and substantially developed before December 31, 1992.
24. Contractor to connect roof drains to storm drain system, except as noted.
25. Contractor to sod all areas within 10' of proposed building. All other areas to be seeded and mulched.
26. Proposed water and sewer service to be public.
27. Stormwater Management in accordance with 2000 Maryland Stormwater Management Manual. Cpv, is provided by a regional pond located offsite. Rev and WQv provided by Bioretention areas onsite for proposed buildings including future connector building and the adjacent parking.
28. Any increase in impervious area, more than the allowed 1.59 acres, will require a new stormwater management design. The new design will be done in accordance with the current requirements at that time.
29. Water meters are located inside buildings. See architectural plans for details.
30. Handicap accessible entrances located in front of buildings only to have a minimum 5' level section with 2% maximum slope.
31. A reciprocal shared access, parking and maintenance agreement has been recorded in the Land Records of Howard County, concurrently with the plat at Liber 6851, Folio 467, granting the owners/users of Parcels F2, F3, and F4 the right to access for any area of this easement and use of all parking spaces on Parcel F5.
32. Approval of plan by Planning Board included reductions to required setbacks as shown on this plan and outlined in the Staff Report.



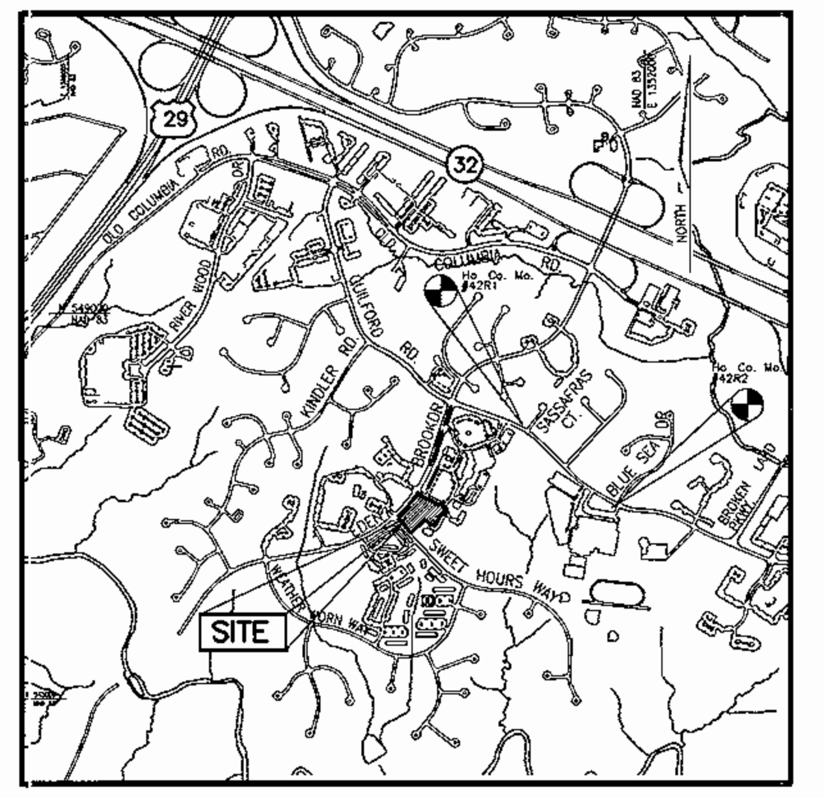
ST. MATTHEWS CHURCH

NOT TO SCALE



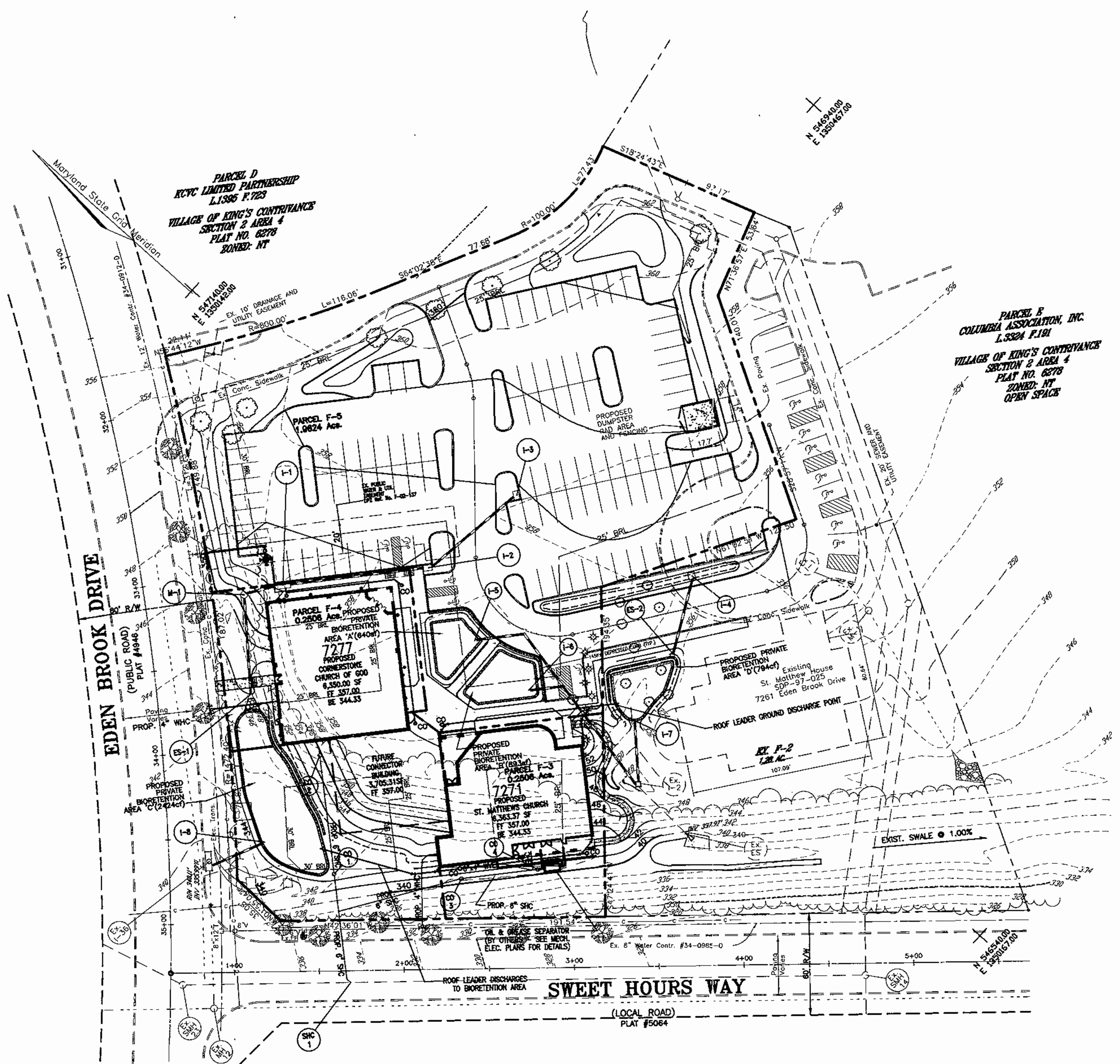
CORNERSTONE CHURCH OF GOD

NOT TO SCALE



VICINITY MAP

SCALE: 1"=2000'



LOCATION MAP

SCALE: 1"= 50'

BENCHMARKS

HOWARD COUNTY MONUMENT #42R1
N 547820.221 E 1351171.573
ELEV. 376.563
REBAR & CAP - 3.1' FROM NORTH EDGE GUILDFORD RD., 50'± WEST OF SASSAFRAS CT.

HOWARD COUNTY MONUMENT #42R2
N 546,946.783 E 1352118.583
ELEV. 332.188
REBAR AND CAP - SOUTH SIDE OF GUILFORD RD. @ S.W. CORNER OF EXIT ROAD FOR HAMMOND H.S.

NOTE:
HORIZONTAL CONTROL IS IN NAD83.
VERTICAL CONTROL IS IN NGVD29.

LEGEND

Existing Contour	382
Proposed Contour	82
Spot Elevation	+82.53
Direction of Flow	←

PARKING TABULATION

PARKING REQUIRED
165 SEATS PER CHURCH BLDG:
330 TOTAL SEATS@ 1 SPC/3 SEATS= 110 SPCS

PARKING PROVIDED 111 SPCS
INCLUDING: 6 HANDICAP SPCS

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

NO.	REVISION	DATE

OWNER/DEVELOPER

KINGS CONTRIVANCE INTERFAITH CAMPUS, INC.
10771 BREDLEREIN TERRACE
COLUMBIA, MARYLAND 21044
(410) 418-8077
CONTACT: FR. RAY VELENCIA, PRESIDENT

SHEET INDEX

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
F-3	7271 Eden Brook Drive, Columbia, MD 21046
F-4	7277 Eden Brook Drive, Columbia, MD 21046

PERMIT INFORMATION CHART

SUBDIVISION NAME			SECTION/AREA		PARCEL NUMBER
Village of Kings Contrivance			2/4		F-3, F-4, F-5
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
Plat # 15393	7	NEW TOWN	42	6th	6068.01
WATER CODE:	E16		SEWER CODE:	6340000	

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/14/03

DIRECTOR — DATE 3/18/03

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

~~COUNTY HEALTH OFFICER — DATE~~

SITE DEVELOPMENT PLAN
COVER SHEET

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

STATE OF MARYLAND ROBERT HARRIS VOGEL No.16193 REGISTERED PROFESSIONAL ENGINEER 2/6/03

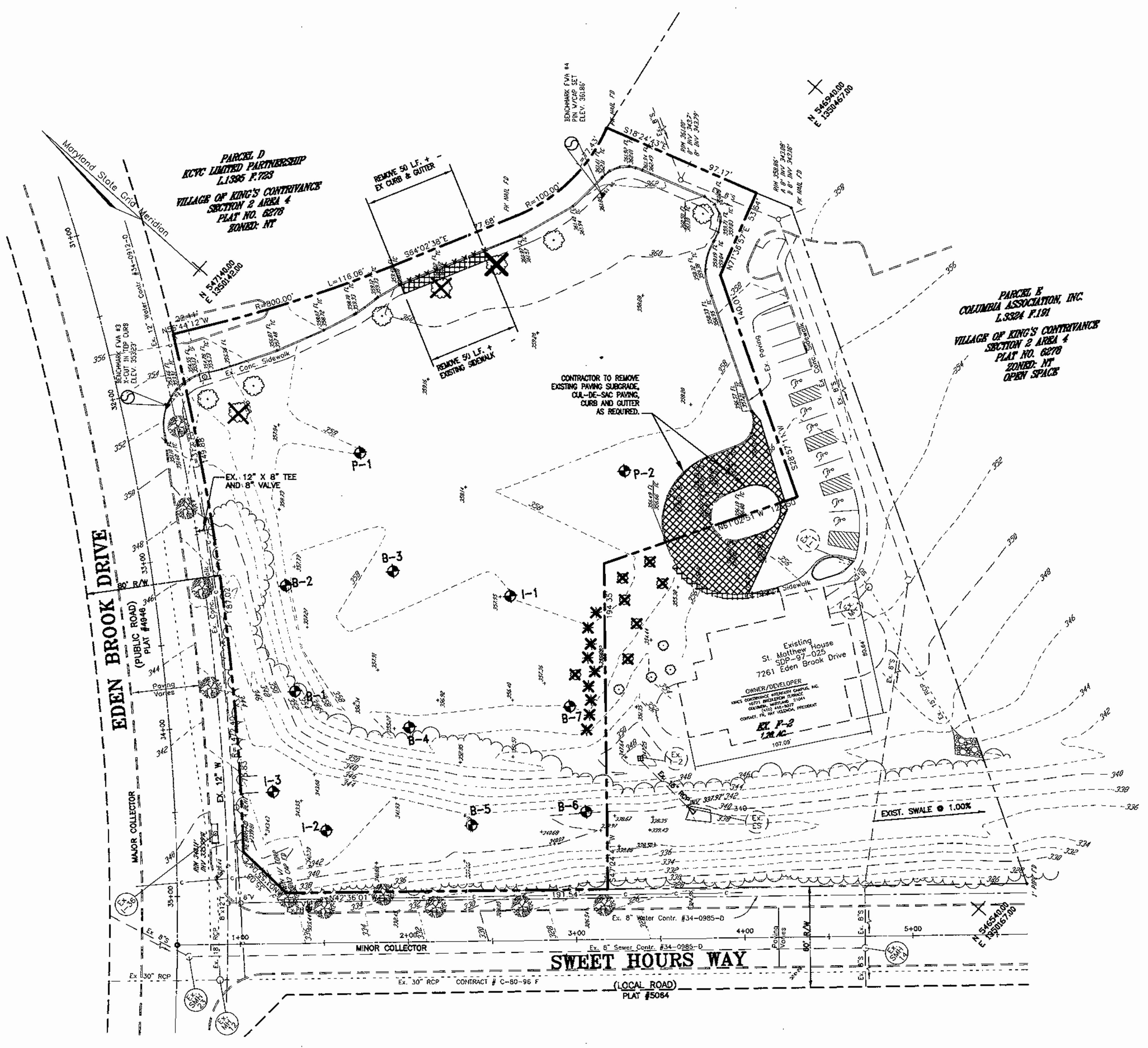
ROBERT H. VOGEL, PE No.16193

DESIGN BY:	CLS
DRAWN BY:	JNA
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=100'
W.O. NO.:	2017138

REF:F-02-137

SHEET 1 OF 12

SDP-02-08



EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 50'

DEMOLITION LEGEND

▨ PAVING TO BE REMOVED

CURB & GUTTER TO BE REMOVED

EXIST. PIPE TO BE ABANDONED

EXIST. TREE TO BE REMOVED

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[illegible] 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 3/14/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[illegible] 3/18/03
DIRECTOR DATE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: B-1 Page 1 of 2

Datum: MSL; Surf. Elev. 354.5; Date Started 04/09/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/09/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
354.5	Surface		0.0					
352.0	Topsoil = 6" Brown, moist, loose, silty SAND, trace mica (SM) FILL	2.5	2.5	I	2, 3, 3	1	16"	Fill Soils Offset 25.0 ft East
349.5	Brown and gray, moist, medium dense, silty SAND with rock fragments and wood fragments, trace mica (SM) FILL	5.0	5.0	I	6, 6, 5	2	13"	%M=16.2
347.0	Gray, moist, loose, silty SAND, trace mica (SM) FILL	7.5	7.5	I	3, 2, 4	3	15"	
344.5	Gray, moist, loose, silty SAND with wood chips, trace mica (SM) FILL	10.0	10.0	I	2, 3, 4	4	14"	%M=22.1
341.0	Gray, moist, loose, silty SAND, trace mica (SM) FILL	13.5	12.5	I	3, 3, 3	5	15"	
338.0	Gray, moist, loose, silty SAND with wood chips, trace mica (SM) FILL	16.5		I	4, 4, 5	6	14"	
	Multicolored, moist, medium dense, silty SAND, trace rock fragments and mica (SM)		17.5	I	8, 6, 7	7	15"	Natural Soils

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING

Groundwater Readings	Time	Date	Depth to Water	Cave-in
Encountered	—	04/09/01	dry	—
At Completion		04/09/01	dry	30.0
After Auger Removal		04/09/01	dry	21.5
Backfilled		04/11/01	16.5	17.0

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

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: B-1 Page 2 of 2

Datum: MSL; Surf. Elev. 354.5; Date Started 04/09/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
			20.0					
326.0	Multicolored, moist, medium dense, silty SAND, trace rock fragments and mica (SM)	28.5	22.5 / 27.5	I	8, 8, 9	8	10"	
324.5	Multicolored, moist, medium dense, silty SAND, trace mica and rock fragments (SM)	30.0		I	6, 6, 6	9	11"	
	Bottom of hole @ 30.0 ft		32.5 / 35.0 / 37.5 / 40.0					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30":COUNT MADE AT 6" INTERVALS

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: B-2 Page 1 of 2

Datum: MSL; Surf. Elev. 358.0; Date Started 04/09/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/09/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
358.0	Surface		0.0					
355.5	Topsoil = 7" Brown, very moist, loose, sandy SILT, trace mica (ML) FILL	2.5	2.5	I	2, 2, 3	1	6"	%M=38.7 Offset 15.0 ft East Fill Soils
				I	4, 4, 4	2	18"	
350.5	Gray, very moist, loose, sandy SILT, trace mica (ML) FILL	7.5	5.0 / 7.5	I	2, 3, 4	3	8"	%M=21.9
348.0	Gray, moist, loose, silty SAND with fragments, trace mica (SM) FILL	10.0	10.0	I	7, 5, 4	4	16"	%M=11.8
344.5	Gray, moist, loose, silty SAND, trace mica (SM) FILL	13.5	12.5	I	4, 3, 5	5	17"	
	Orange brown, moist, loose, silty SAND, trace mica (SM)			I	5, 4, 3	6	16"	Natural Soils
			17.5	I	4, 4, 4	7	13"	

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING

Groundwater Readings	Time	Date	Depth to Water	Cave-in
Encountered	—	04/09/01	dry	—
At Completion		04/09/01	dry	30.0
After Auger Removal		04/09/01	dry	27.5
Backfilled		04/11/01	15.5	18.0

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

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: B-2 Page 2 of 2

Datum: MSL; Surf. Elev. 358.0; Date Started 04/09/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/09/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
			20.0					
334.5	Orange brown, moist, loose, silty SAND, trace mica (SM)	23.5	22.5					
	Multicolored, moist, medium dense, silty SAND, trace mica (SM)			I	4, 5, 8	8	16"	
328.0		30.0	27.5	I	6, 6, 6	9	11"	
	Bottom of hole @ 30.0 ft		32.5 / 35.0 / 37.5 / 40.0					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30":COUNT MADE AT 6" INTERVALS

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: B-7 Page 1 of 2

Datum: MSL; Surf. Elev. 354.1; Date Started 04/10/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/10/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
354.1	Surface		0.0					
351.6	Topsoil = " Dark brown, moist, medium stiff, SILT with sand, trace mica (ML) FILL	2.5	2.5	I	1, 2, 3	1	6"	Fill Soils
	Brown, moist, loose, silty SAND, trace mica (SM) FILL			D	3, 4, 5	2	12.5"	
346.6		7.5	5.0 / 7.5	D	4, 4, 6	3	10"	
	Brown, moist, medium dense silty SAND trace mica (SM) FILL			D	6, 8, 8	4	2"	
			10.0	I	3, 7, 10	5	9.5"	
			12.5	I	30, 14, 9	6	8.5"	
	Brown, moist, medium dense silty SAND trace rock fragments (SM)		17.5	L	9, 9, 8	7		Natural Soils

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING

Groundwater Readings	Time	Date	Depth to Water	Cave-in
Encountered	—	04/10/01	dry	—
At Completion	2:00	04/10/01	dry	—
After Auger Removal	2:10	04/10/01	dry	22.5
Backfilled		04/11/01	dry	21.0

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

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: B-7 Page 2 of 2

Datum: MSL; Surf. Elev. 354.1; Date Started 04/10/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/10/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
			20.0					
330.6	Brown, moist, medium dense silty SAND trace rock fragments (SM)	23.5	22.5					
	Brown, moist, dense, SAND with silt trace mica (SM)			D	11, 18, 28	8	9.5"	
324.4	Brown, moist, medium dense, silty SAND trace mica (SM)	29.7	27.5	D	9, 9, 8	9	10.5"	
	Bottom of hole @ 29.7 ft		30.0 / 32.5 / 35.0 / 37.5 / 40.0					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING
STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30":COUNT MADE AT 6" INTERVALS

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: I-1 Page 1 of 1

Datum: MSL; Surf. Elev. 357.9; Date Started 04/10/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/10/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
357.9	Surface		0.0					
	Topsoil = 7" Brown, moist, loose, sandy SILT trace mica (ML) FILL			I	2, 2, 4	1	14"	Fill Soils
	Tan, moist, medium dense, sandy SILT trace mica (ML) FILL			I	4, 6, 8	2	12"	
351.9		6.0		I	10, 9, 11	3	10.5"	
	Light brown, moist, medium dense sandy SILT trace mica (ML) FILL			I	6, 6, 6	4	14"	
				I	6, 8, 10	5	10.5"	
345.9		12.0	10.0	I	3, 4, 7	6	15"	
343.9	Brown, moist, loose silty SAND trace mica (SM) FILL	14.0		I	7, 6, 3			
342.4	Brown, moist, medium dense silty SAND trace mica (SM) FILL	15.5		I	10, 10, 7			
	Bottom of hole @ 15.5 ft		17.5 / 20.0					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING

Groundwater Readings	Time	Date	Depth to Water	Cave-in
Encountered	—	04/10/01	dry	—
At Completion	10:15	04/10/01	dry	--
After Auger Removal	10:20	04/10/01	dry	13.0'
Backfilled		04/11/01		

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

HILLIS - CARNES ENGINEERING ASSOCIATES, INC.
RECORD OF SOIL EXPLORATION

Project Name: Kings Contrivance
Location: Howard County, MD
Job Number: 05001A
Boring Number: I-2 Page 1 of 1

Datum: MSL; Surf. Elev. 343.5; Date Started 04/10/01
SAMPLER: Hammer Wt. 140 Lbs.; Hammer Drop 30 Inches; Pipe Size 2.0 Inches OD
Hole Diameter 6"; Rock Core Dia. –; Boring Method HSA
Foreman M. Shanaberger; Inspector J. Cooper; Completed 04/10/01

Elev.	Soil Description (Color, Moisture, Density, Size, Proportion)	Stra. Depth	Depth Scale	Cond. of Soil	Blows 6"	No.	Rec.	Boring and Sampling Notes
343.5	Surface		0.0					
341.0	Topsoil = 6" Multicolored, moist, loose, silty SAND with rock fragments, trace mica (SM) FILL	2.5	2.5	I	1, 1, 4	1	15"	Fill Soils
338.5	Multicolored, moist, medium dense, silty SAND with rock fragments, trace mica (SM)	5.0	5.0	I	4, 4, 8	2	15"	Natural Soils
336.0	Multicolored, moist, loose, silty SAND with rock fragments, trace mica (SM)	7.5	7.5	I	6, 5, 4	3	15"	
333.5	Multicolored, moist, medium dense, silty SAND, trace mica (SM)	10.0	10.0	I	26, 16, 10	4	13"	
	Multicolored, moist, loose, silty SAND, trace mica (SM)			I	3, 4, 4	5	16"	
				I	2, 4, 5	6	15"	
328.0		15.5		I	5, 3, 5	7	11"	
	Bottom of hole @ 15.5 ft		17.5 / 20.0					

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED; PT-PRESSED SHELBY TUBE; CA-CONTINUOUS FLIGHT AUGER; RC-ROCK CORE
SAMPLE CONDITIONS: D-DISINTEGRATED; I-INTACT; U-UNDISTURBED; L-LOST
BORING METHOD: HSA-HOLLOW STEM AUGERS; CFA-CONT. FLIGHT AUGERS; DC-DRIVING CASING; MD-MUD DRILLING

Groundwater Readings	Time	Date	Depth to Water	Cave-in
Encountered	—	04/10/01	dry	—
At Completion		04/10/01	dry	—
After Auger Removal		04/10/01	dry	11.0
Backfilled		04/11/01	4.0	5.0

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

NO.	REVISION	DATE

EXISTING CONDITIONS AND DEMOLITION PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

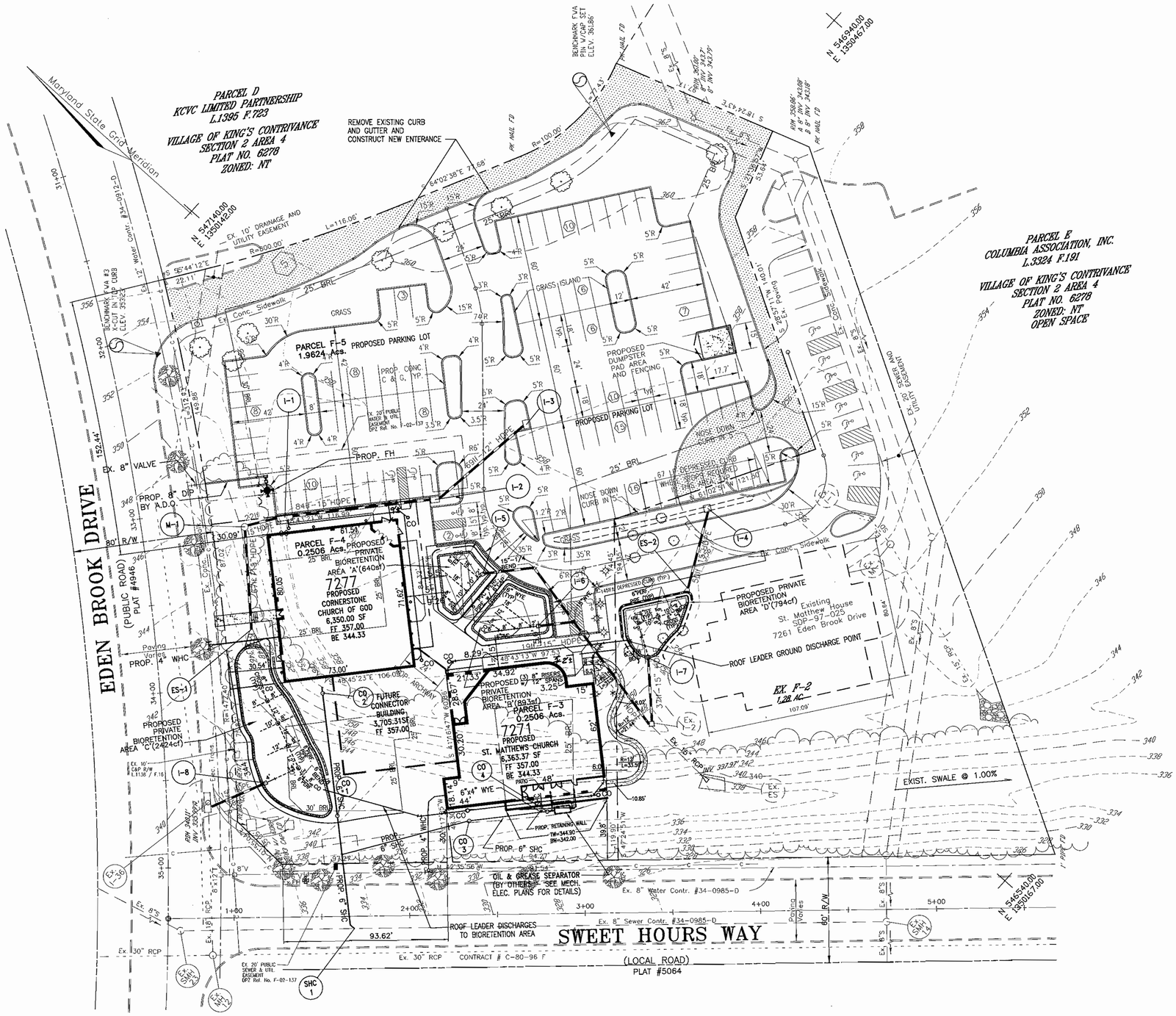
STATE OF MARYLAND ROBERT HARRIS VOGEL No. 16193 REGISTERED PROFESSIONAL ENGINEER 2/18/03
ROBERT H. VOGEL, PE No.16193

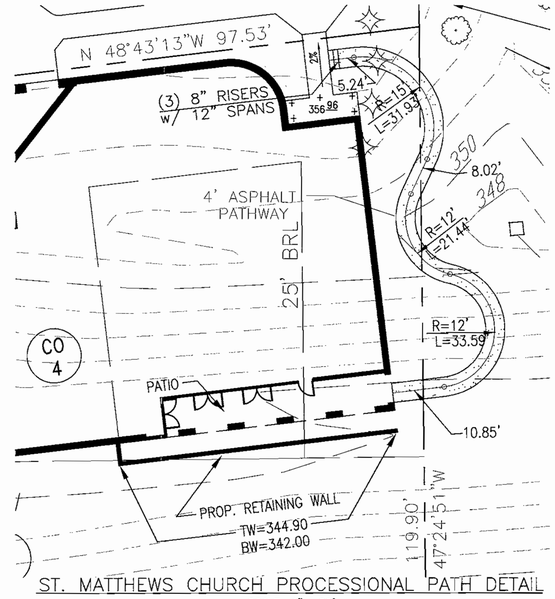
DESIGN BY: CLS
DRAWN BY: JNA
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: 1"=50'
W.O. NO.: 2017138

REF:F-02-137

2 SHEET OF 12

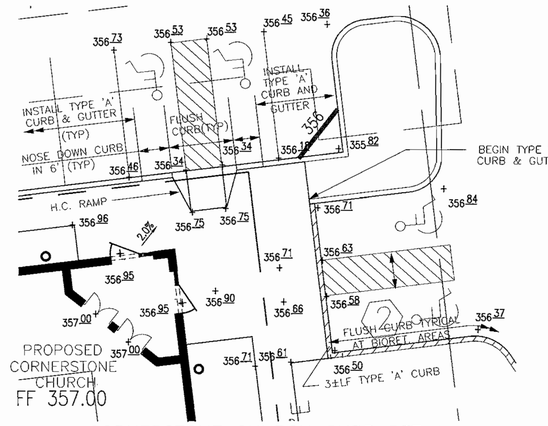
SDP-02-08





ST. MATTHEWS CHURCH PROCESSIONAL PATH DETAIL

SCALE: 1"= 20'



CORNERSTONE CHURCH CURB DETAIL

SCALE: 1"= 10'

NO.	REVISION	DATE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE 3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT	HB	DATE 3/14/03
DIRECTOR		DATE 3/18/03

NOTE:
WATER METERS ARE LOCATED INSIDE BUILDINGS. SEE ARCHITECTURAL PLANS FOR DETAILS.

*NOTE:
HANDICAP ACCESSIBLE ENTRANCES LOCATED IN FRONT OF BUILDINGS ONLY TO HAVE A MINIMUM 5' LEVEL SECTION WITH 2% MAXIMUM SLOPE.

*NOTE:
A SHARED PARKING AND MAINTENANCE AGREEMENT HAS BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, GRANTING THE OWNERS OF PARCEL F3 AND PARCEL F4 THE RIGHT TO USE ALL PARKING SPACES ON PARCEL F5.

SITE LAYOUT AND UTILITIES PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

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HOWARD COUNTY, MARYLAND

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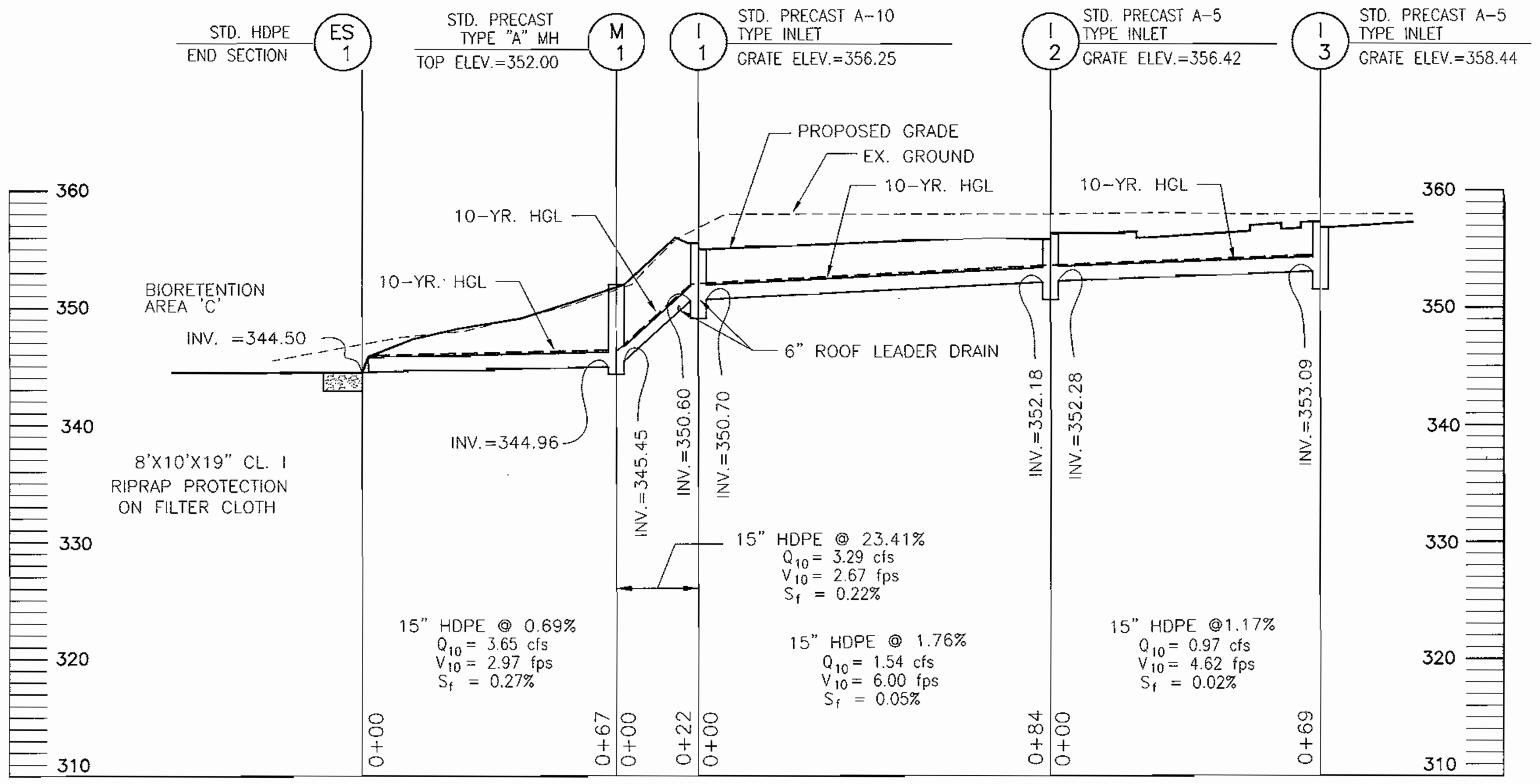
STATE OF MARYLAND
ROBERT HARRIS VOGEL
#16193
REGISTERED
PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No.16193

DESIGN BY:	CLS
DRAWN BY:	GRL
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=30'
W.O. NO.:	2017138

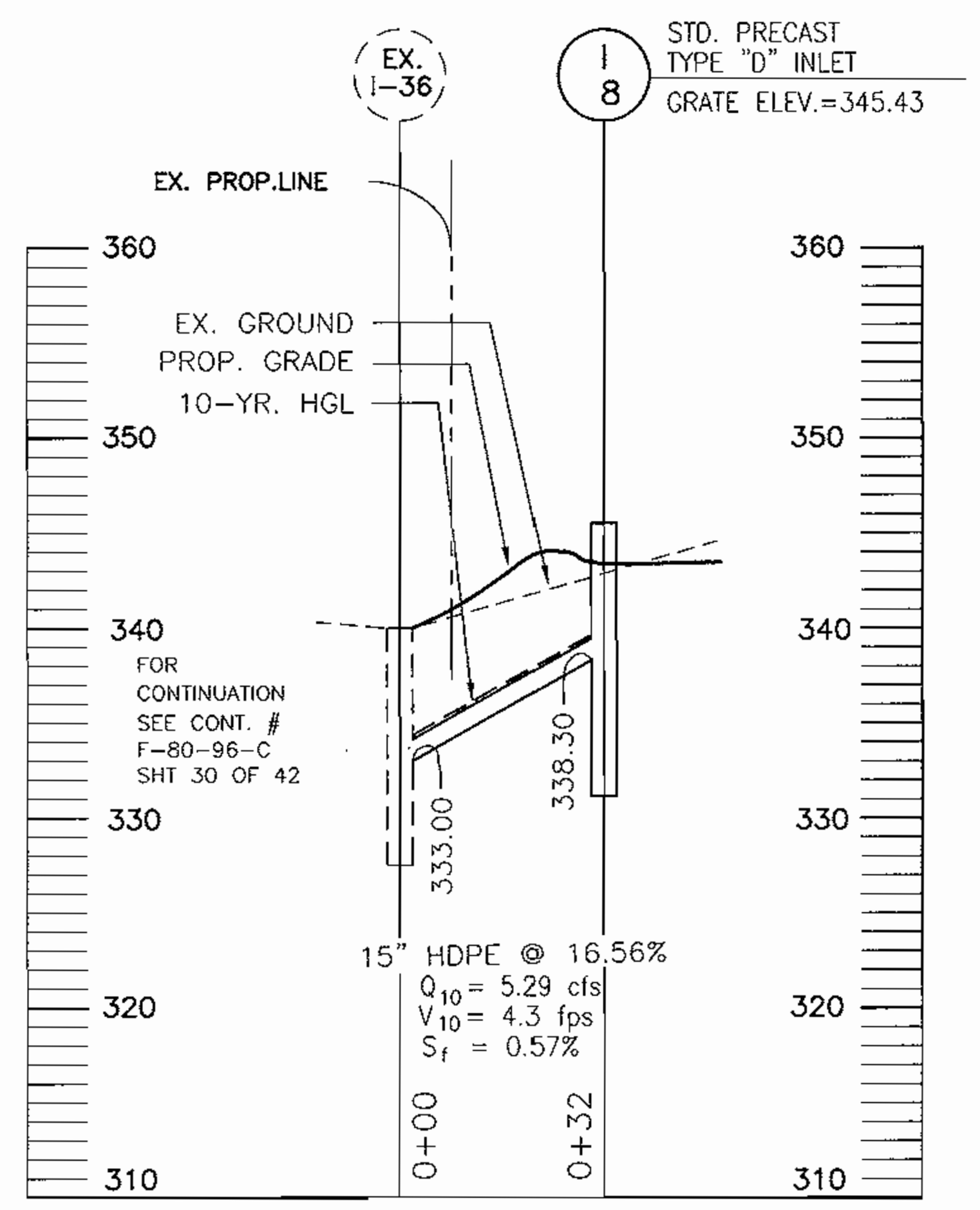
REF:F-02-137

SHEET 3 OF 12

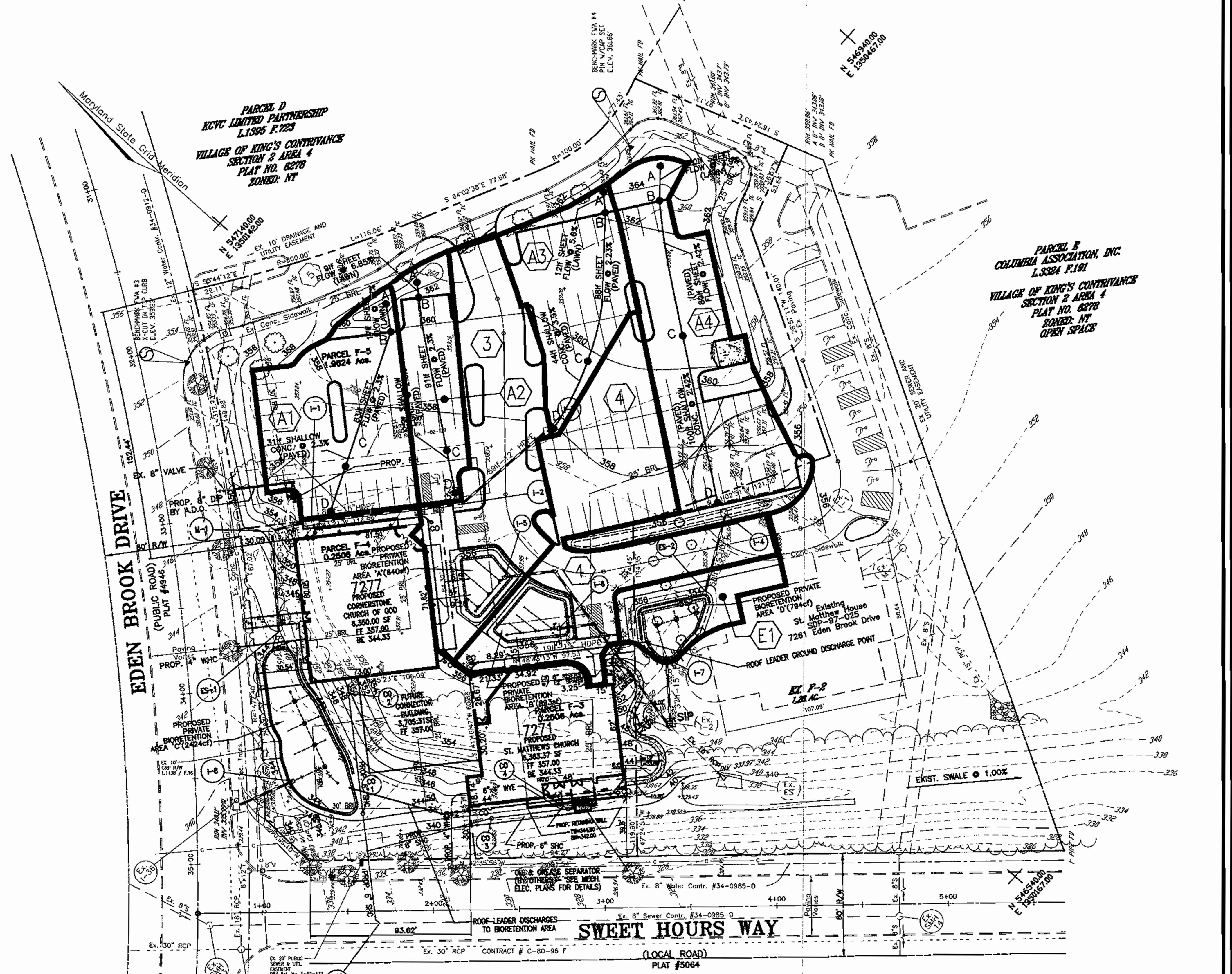
SDP-02-08



STORM DRAIN PROFILE
SCALE: 1"=30' HORIZ.
1"=10' VERT.

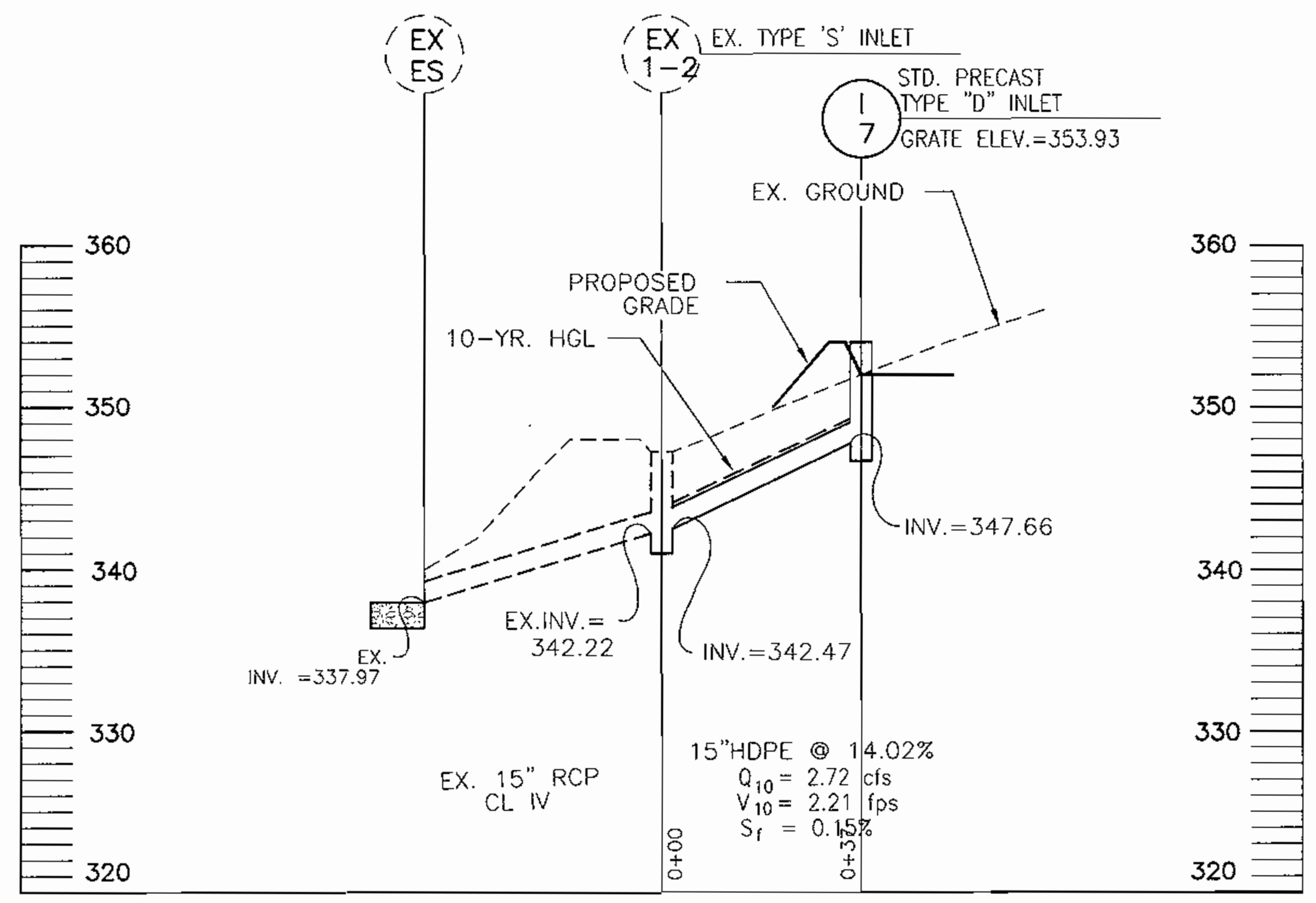


STORM DRAIN PROFILE
SCALE: 1"=30' HORIZ.
1"=10' VERT.

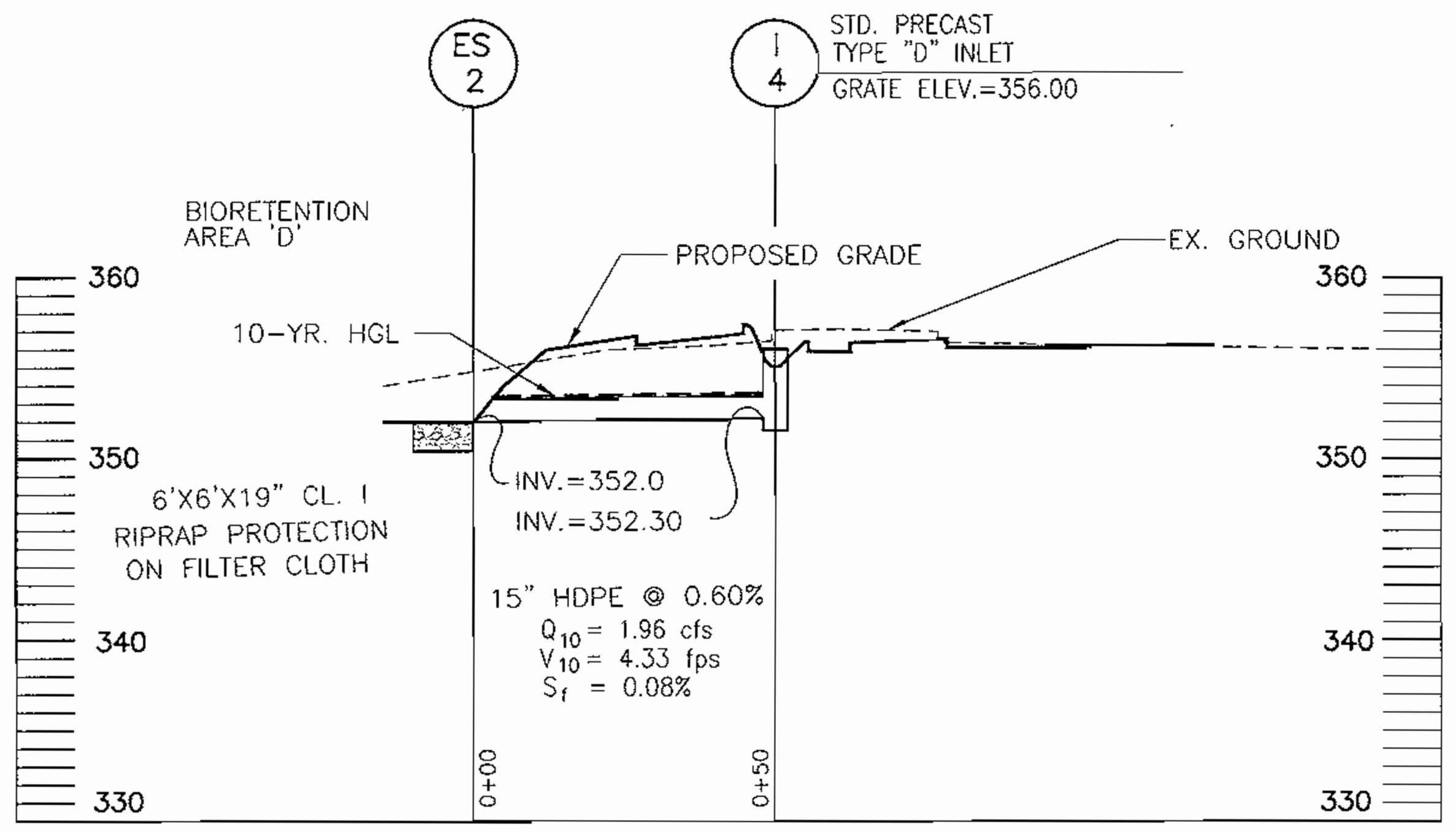


STORM DRAIN DRAINAGE AREA MAP
SCALE: 1"= 50'

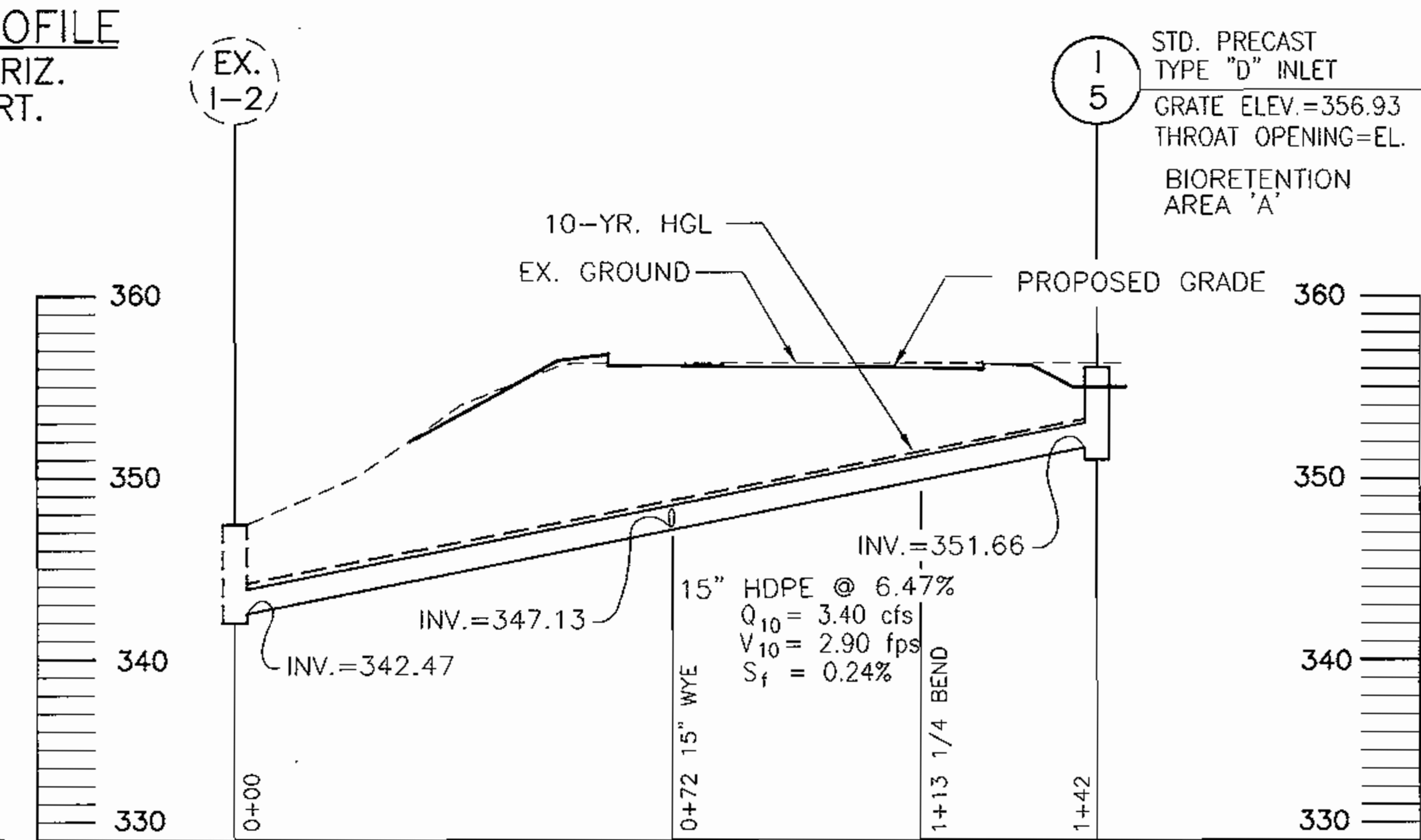
"B" SOIL
85% IMPERVIOUS
C = 0.72



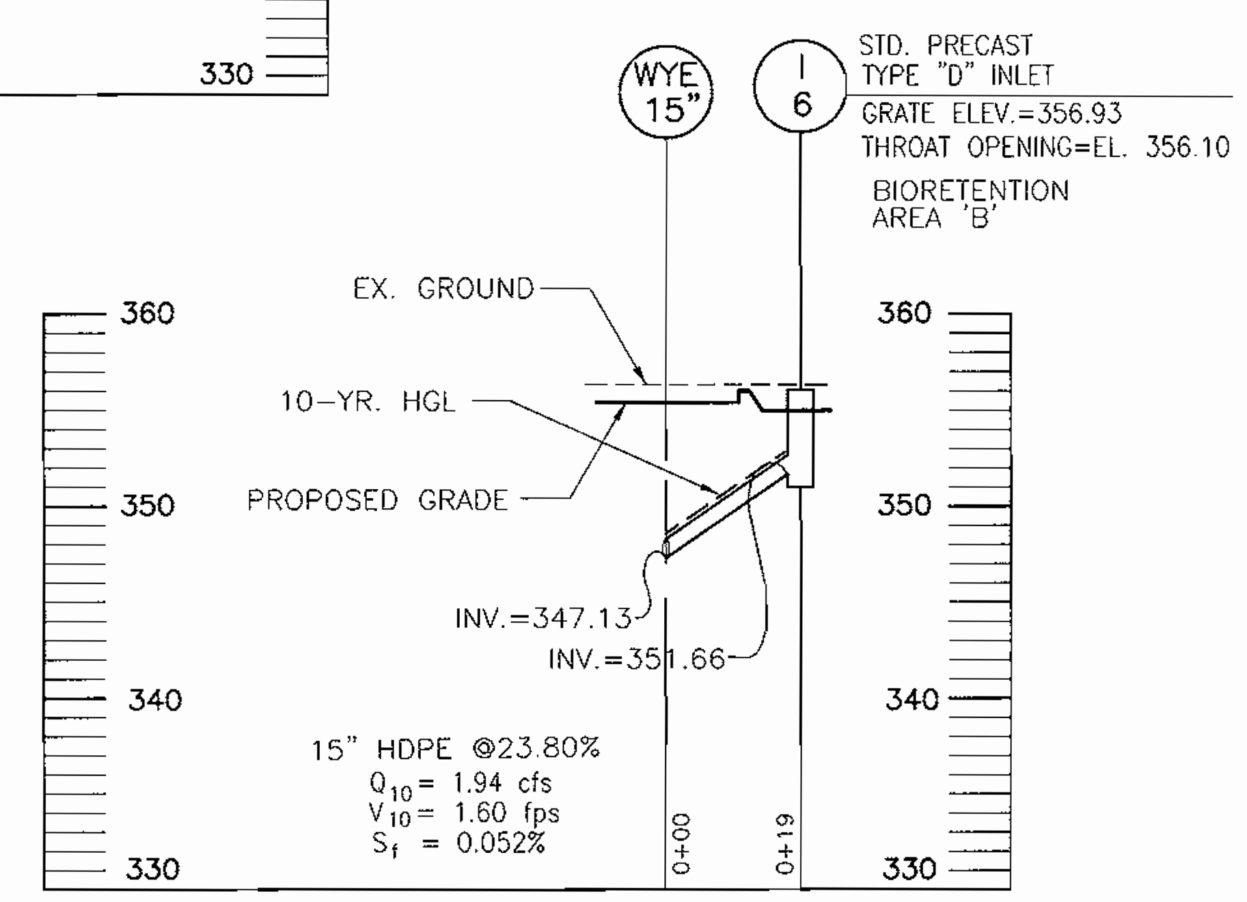
STORM DRAIN PROFILE
SCALE: 1"=30' HORIZ.
1"=10' VERT.



STORM DRAIN PROFILE
SCALE: 1"=30' HORIZ.
1"=10' VERT.



STORM DRAIN PROFILE
SCALE: 1"=30' HORIZ.
1"=10' VERT.



STORM DRAIN PROFILE
SCALE: 1"=30' HORIZ.
1"=10' VERT.

STORM DRAIN PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	HDPE	522 LF
6"	PVC	433 LF

DRAINAGE STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV OUT	TOP ELEV.	DETAIL
I-1	A-10 INLET	350.70	350.60	356.25	SD-4.41
I-2	A-5 INLET	352.28	352.18	356.42	SD-4.00
I-3	A-5 INLET	–	353.09	358.44	SD-4.00
I-4	TYPE "D" INLET	–	352.30	356.00	SD-4.39
I-5	TYPE 'D' INLET	–	351.66	356.93	SD-4.39
I-6	TYPE 'D' INLET	–	351.66	356.93	SD-4.39
I-7	TYPE 'D' INLET	–	347.66	353.93	SD-4.39
I-8	TYPE 'D' INLET	–	340.33	345.43	SD-4.39
M-1	TYPE 'A' MANHOLE, 48"	345.45	344.96	352.00	G-5.12
ES-1	HDPE END SECTION, 15"	–	344.50	–	SHT 6 OF 12
ES-2	HDPE END SECTION, 15"	–	352.00	–	SHT 6 OF 12

STORM DRAIN DRAINAGE AREA CHART

	INLET NO.	DRAINAGE AREA DESIGNATION	AREA (Ac)	% IMPERVIOUS	C	TC	Q
	I-7	E-1	0.140	85	0.72	5.00	0.86
	I-6	4	0.217	85	0.72	5.00	1.94
	I-5	3	0.268	85	0.72	5.00	1.64
	I-4	A-4	0.275	85	0.72	5.00	1.68
	I-3	A-3	0.158	85	0.72	5.00	0.97
	I-2	A-2	0.106	85	0.72	5.00	0.65
	I-1	A-1	0.220	85	0.72	5.00	1.35
+	R.L.	5C	0.140	85	0.72	5.00	0.44 (to bio-ret. C)
*	R.L.	5B	0.073	85	0.72	5.00	0.44 (to bio-ret. D)
0	R.L.	5A	0.073	85	0.72	5.00	0.44 (to bio-ret. C)

ZONING "B" SOIL
+ CORNERSTONE CHURCH ROOF DRAIN TO BIO-RETENTION C.
* ST. MATTHEWS ROOF DRAIN TO BIO-RETENTION D.
O ST. MATTHEWS ROOF DRAIN TO BIO-RETENTION C.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 3/11/03 AG
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

[signature] 3/14/03
CHIEF, DIVISION OF LAND DEVELOPMENT HB — DATE

[signature] 3/18/03
DIRECTOR — DATE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

NO.	REVISION	DATE

STORM DRAIN PROFILES AND DRAINAGE AREA MAP

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
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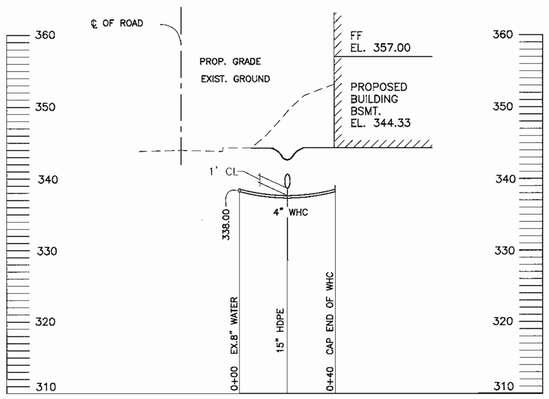
STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — REGISTERED PROFESSIONAL ENGINEER 2/18/03
ROBERT H. VOGEL, PE No.16193

DESIGN BY: CLS
DRAWN BY: JNA
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: (AS SHOWN)
W.O. NO.: 2017138

REF:F-02-137

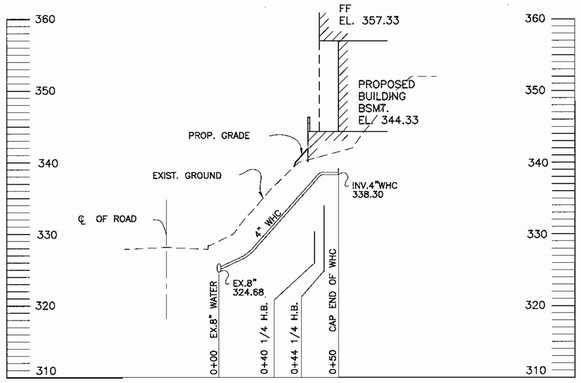
SHEET 4 OF 12

SDP-02-08



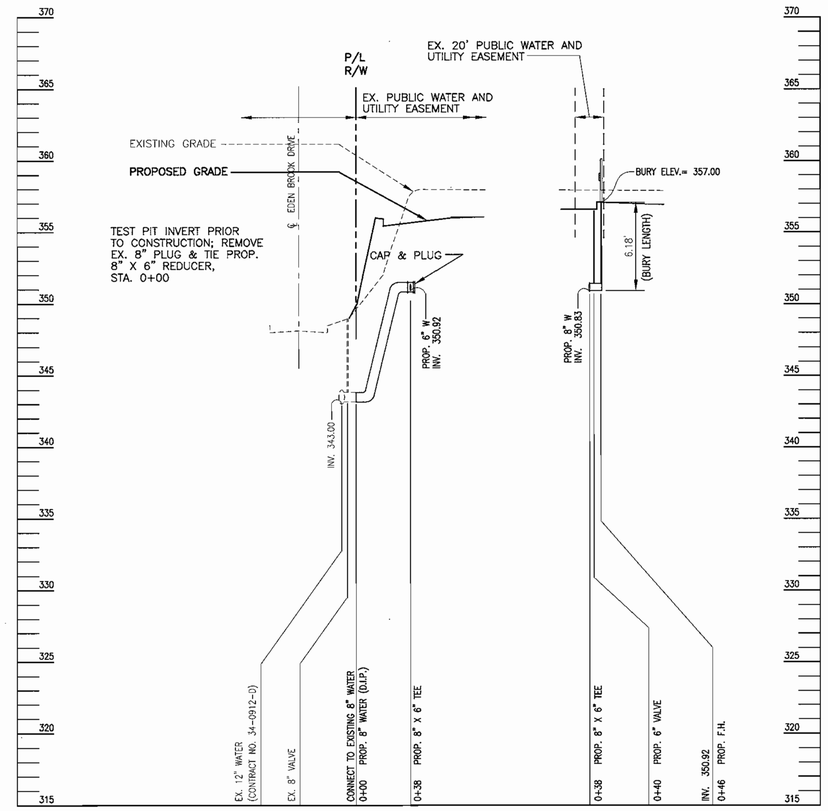
WATER HOUSE CONNECTION PROFILE
CORNERSTONE CHURCH OF GOD

SCALE: 1"=30' HORIZ.
1"=10' VERT.



WATER HOUSE CONNECTION PROFILE
ST. MATTHEWS CHURCH

SCALE: 1"=30' HORIZ.
1"=10' VERT.

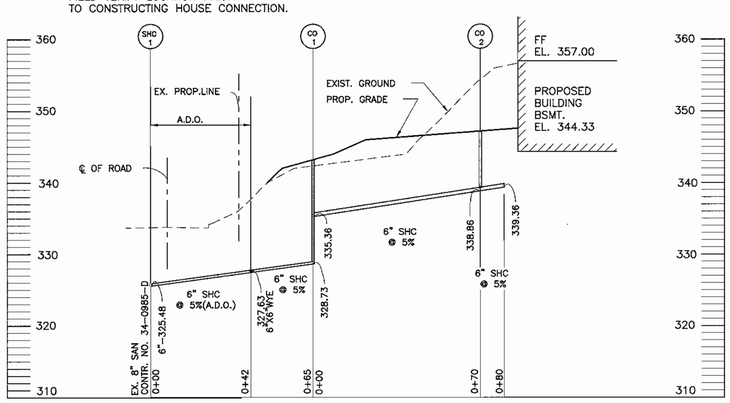


8" D.I.P. 6" D.I.P.

WATER MAIN PROFILE

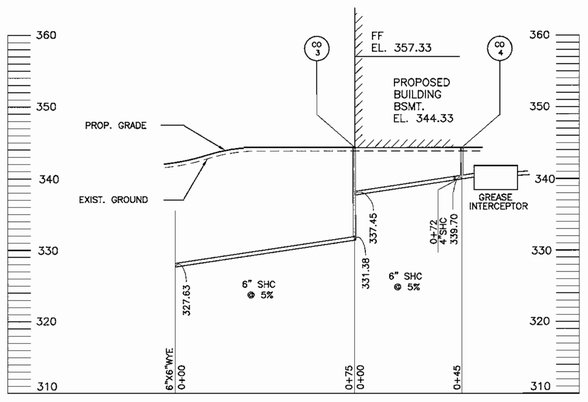
SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

NOTE:
ELEVATION UNKNOWN.
CONTRACTOR TO TEST PIT &
FIELD VERIFY LOCATION PRIOR
TO CONSTRUCTING HOUSE CONNECTION.



SEWER HOUSE CONNECTION PROFILE
CORNERSTONE CHURCH OF GOD

SCALE: 1"=30' HORIZ.
1"=10' VERT.



SEWER HOUSE CONNECTION PROFILE
ST. MATTHEWS CHURCH

SCALE: 1"=30' HORIZ.
1"=10' VERT.

GENERAL NOTES FOR UTILITY CONSTRUCTION

1. INFORMATION CONCERNING THE HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES WAS TAKEN FROM RECORDS PROVIDED BY UTILITY COMPANIES, AN ALTA SURVEY PREPARED BY FREDERICK WARD ASSOCIATES (DATED 3/01), AND HOWARD COUNTY DPW. THESE LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. FREDERICK WARD ASSOCIATES, INC. MAKES NO GUARANTEE AS TO THE COMPLETENESS OR ACCURACY OF UTILITIES AND THEIR LOCATIONS, SHOWN OR NOT SHOWN, ON THESE DRAWINGS. SUCH INFORMATION PROVIDED ON THESE PLANS IS FOR THE CONVENIENCE OF THE CONTRACTOR. HOWEVER, THE CONTRACTOR SHALL VERIFY THE PRESENCE, ABSENCE AND LOCATIONS OF ALL UTILITIES TO HIS SATISFACTION, PRIOR TO ANY WORK UNDER THIS CONTRACT.

2. THE CONTRACTOR IS TO NOTIFY MISS UTILITY AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION AND EXCAVATION. PHONE: 1-800-257-7777.

3. PRIOR TO ANY CONSTRUCTION UNDER THIS CONTRACT, CONTRACTOR SHALL TEST PIT TO VERIFY EXACT LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHERE UTILITY TIE-INS AND CROSSINGS WILL BE ENCOUNTERED. ANY DISCREPANCIES IN HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DRAWINGS, PARTICULARLY AT PROPOSED STORM DRAIN, SANITARY AND WATER CONNECTIONS SHALL BE IMMEDIATELY REPORTED TO FREDERICK WARD ASSOCIATES PRIOR TO ANY CONTINUATION OF WORK UNDER THIS CONTRACT. THIS IS FOR THE PURPOSE OF IDENTIFYING ANY CONFLICTS, WHICH MAY IMPACT THE PROPOSED DESIGN, AND RESOLUTION OF SAID CONFLICTS PRIOR TO CONTINUATION OF WORK.

4. ANY EXISTING UTILITIES AND AMENITIES, WHICH MAY BE DAMAGED DUE TO TEST PITTING AND UTILITY CONSTRUCTION, SHALL BE REPAIRED IN KIND AT THE SOLE EXPENSE OF THE CONTRACTOR.

5. ANY SEDIMENT CONTROL MEASURES REMOVED FOR THE PURPOSE OF UTILITY CONSTRUCTION SHALL BE REPLACED AT THE END OF THE DAY BY THE UTILITY CONTRACTOR.

6. LOCATION OF GAS AND ELECTRIC, AND TELEPHONE SERVICE TO BUILDING TO BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES BY THE OWNER.

7. UTILITIES TO BE INSTALLED IN LANDSCAPED AREAS SHALL BE WRAPPED WITH BIOBARRIER PIPE PROTECTION.

8. ALL UTILITY WORK WITHIN SHA R/W SHALL BE GOVERNED BY THE UTILITY PERMIT.

GENERAL NOTES FOR GRADING

1. COMPACTION IN BUILDING AND PAVEMENT AREAS TO BE AT 95%, AND COMPACTION IN LANDSCAPING AREAS TO BE AT 90%, TO MEET ASTM D-1557 REQUIREMENTS.

2. IT IS RECOMMENDED A GEOTECHNICAL ENGINEER BE RETAINED TO MONITOR EARTHWORK ACTIVITIES TO MAKE APPROPRIATE RECOMMENDATIONS AS NECESSARY.

GENERAL NOTES FOR WATER AND SEWER CONSTRUCTION

1. SANITARY CLEANOUT TOPS TO BE ADJUSTED TO MATCH CROSS-PITCH AND SLOPE OF PROPOSED GRADES. CLEANOUT TOPS TO BE IDENTIFIED AS SANITARY CLEANOUTS, THREADED AND CONTAIN COUNTERSUNK PLUGS.

2. UTILITIES SHALL MAINTAIN A MINIMUM 12-INCH CLEARANCE WHEN CROSSING EXISTING AND PROPOSED UTILITIES ON AND OFF SITE.

3. WATER SERVICES SHALL HAVE A MINIMUM 3.5 FOOT COVER OVER CROWN PIPE.

4. WATER SERVICE SHALL BE SOFT ANNEALED TYPE K COPPER TUBING, OR APPROVED EQUAL. SANITARY SEWER PIPE SHALL BE PVC SDR 35, OR APPROVED EQUAL.

5. WATER AND SEWER SERVICES SHALL BE COORDINATED WITH THE BUILDING CONTRACTOR FOR HORIZONTAL AND VERTICAL ALIGNMENT AND CONNECTION.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

NO.	REVISION	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/4/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/4/03

DIRECTOR — DATE 3/4/03

WATER AND SEWER PROFILES

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

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HOWARD COUNTY, MARYLAND

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STATE OF MARYLAND
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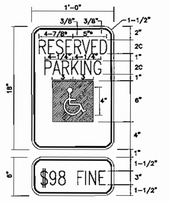
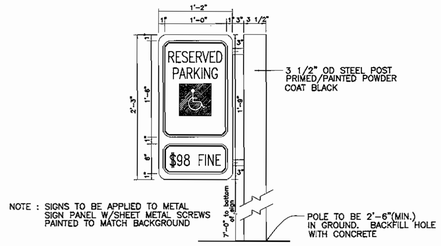
SHEET 5 OF 12

SDP-02-08



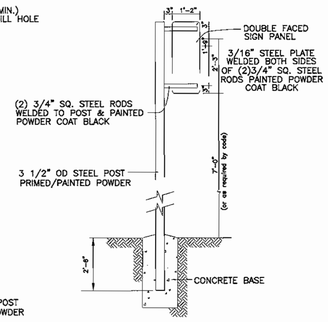
PARKING RESTRICTION SIGN FOR HANDICAPPED PARKING

NOT TO SCALE



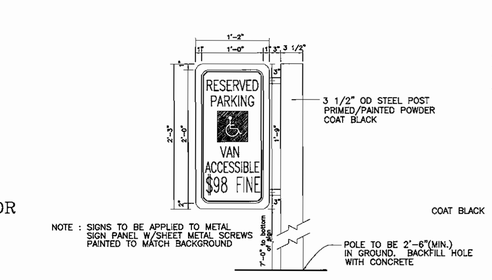
MOUNTING DETAIL FOR PARKING RESTRICTION SIGN

NOT TO SCALE



PARKING RESTRICTION SIGN FOR VAN HANDICAPPED PARKING

NOT TO SCALE



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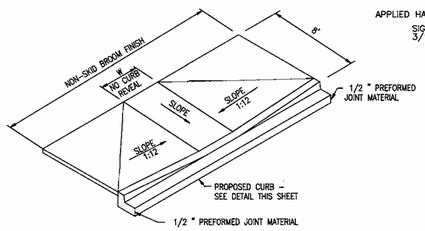


DETAIL - TYPE 2 SIDEWALK RAMP

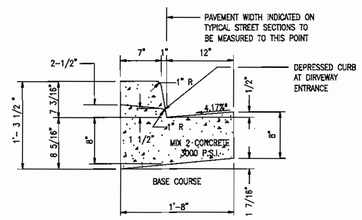
NOT TO SCALE

MOUNTING DETAIL FOR PARKING RESTRICTION SIGN

NOT TO SCALE

HANDICAP PARKING SIGNS

NOT TO SCALE

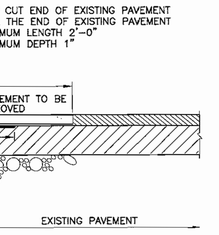


STANDARD COMBINATION (TYPE 'A') CURB AND GUTTER

HOWARD COUNTY STD DETAIL R-3.01

NOT TO SCALE

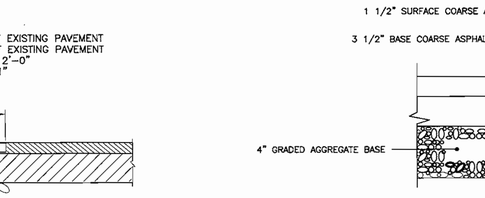
*NOTE: DEPRESSED CURB IN HANDICAP ACCESSABLE AREAS SHALL HAVE A 0.0417"(1/2") RISE FROM PAVING TO TOP OF CURB



NOTE: THIS DETAIL SHALL BE USED WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT. NO EXCEPTIONS WILL BE PERMITTED .

TYPICAL PAVEMENT JOINING DETAIL

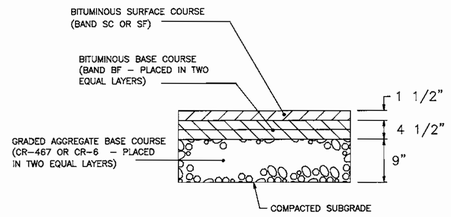
NOT TO SCALE



HDPE FLARED END SECTION						
DIMENSION	PIPE DIAMETER(INCHES)					
	10/12	15	18	24	30	36
A	42	41	49	59 1/2	88	88
B	14 1/2	19	22	28	36	43
C	33	34	43	48	63 1/2	66 1/2
D	6	6	6	6	6	6

HDPE END SECTION DETAIL

NOT TO SCALE



ASPHALT PAVING SECTION

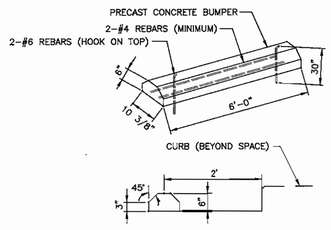
NOT TO SCALE

LIGHT DUTY PAVEMENT

PAVEMENT SECTIONS DETAILS

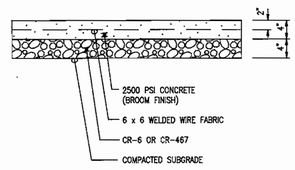
NOTE: PAVING SECTION ARE SUPPLIED BY GEOTECH ENGINEER (HERBST-BENSON ASSCO.)

NOT TO SCALE



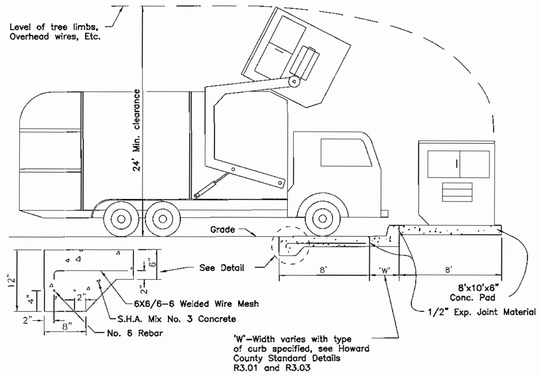
CONCRETE WHEEL STOP DETAIL

NOT TO SCALE



CONCRETE WALK SECTION

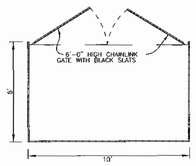
NOT TO SCALE



SOLID WASTE SERVICE PAD

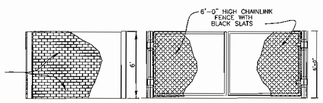
HOWARD COUNTY STD. R 11.01

NOT TO SCALE



TRASH ENCLOSURE PLAN

NOT TO SCALE



TRASH ENCLOSURE ELEVATION

NOT TO SCALE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

NO.	REVISION	DATE

SITE DETAILS

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5

A RESUBDIVISION OF PARCEL F-1

VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7 — PARCEL 482

6TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.

ENGINEERS | ARCHITECTS | SURVEYORS

7125 Riverwood Drive Columbia, Maryland 21046-2354

Phone: 410-290-9550 Fax: 410-720-6226

Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO. 16193 — REGISTERED PROFESSIONAL ENGINEER — 2/20/03

ROBERT H. VOGEL PE. NO.16193

DESIGN BY: CLS
DRAWN BY: PS
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: (AS SHOWN)
W.O. NO.: 2017138

REF:F-02-137

SHEET 6 OF 12

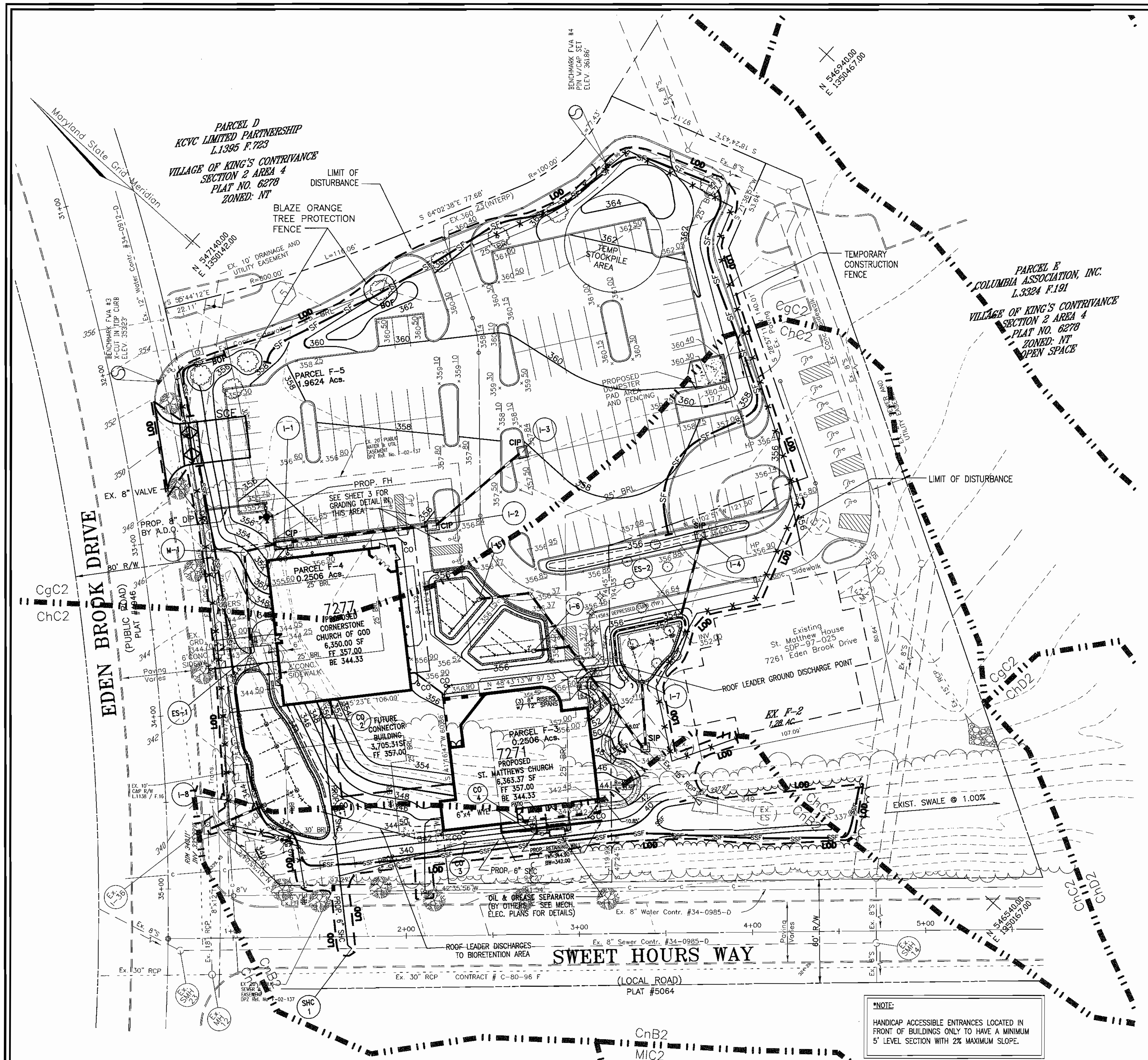
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/14/03

DIRECTOR — DATE 3/18/03

SDP-02-08



*NOTE:

HANDICAP ACCESSIBLE ENTRANCES LOCATED IN FRONT OF BUILDINGS ONLY TO HAVE A MINIMUM 5' LEVEL SECTION WITH 2% MAXIMUM SLOPE.

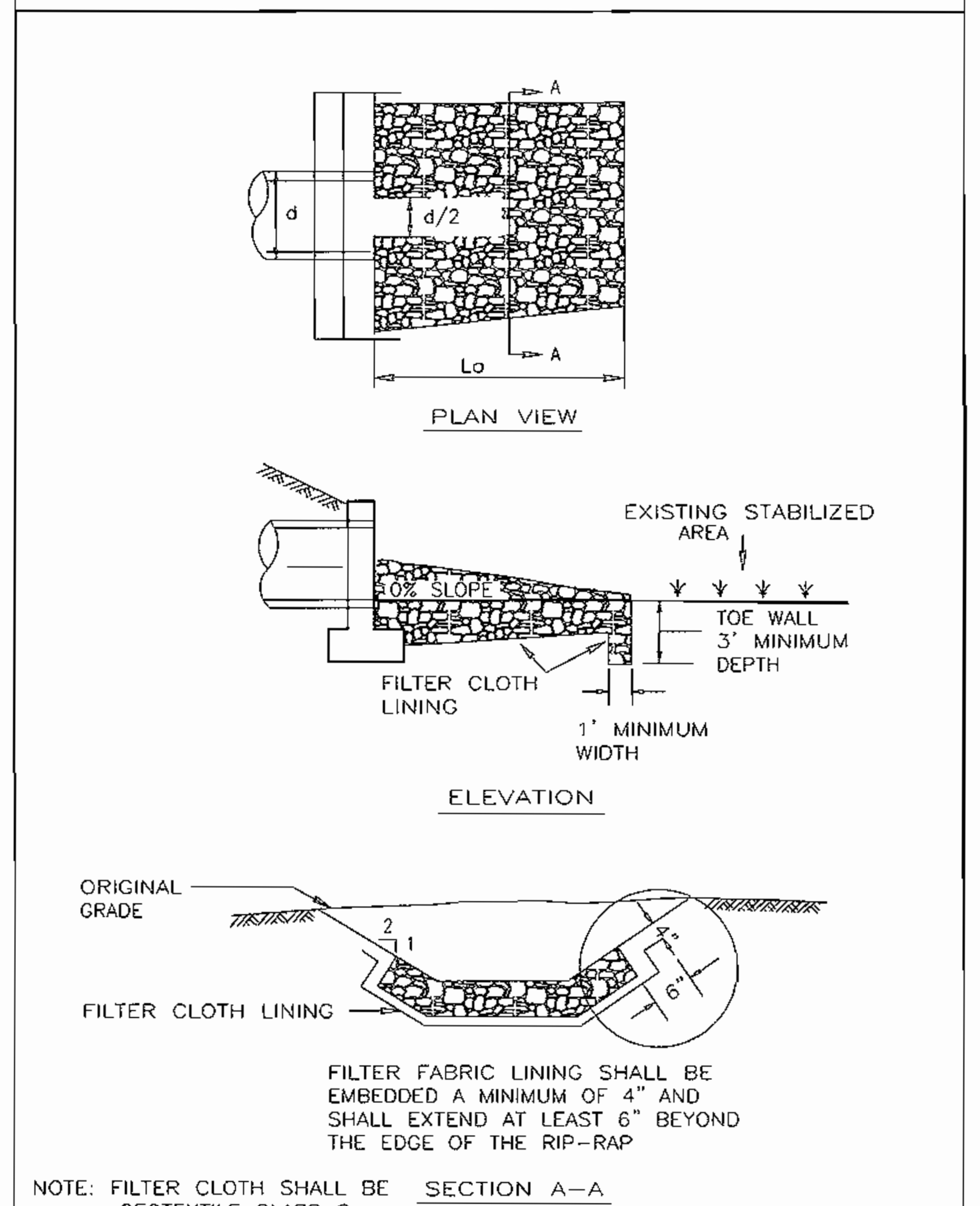
SEQUENCE OF CONSTRUCTION

1. Obtain grading permit.
2. Notify Howard County Bureau of Inspections and Permits at (410)313-1880 at least 24 hours before starting any work.
3. Install Stabilized Construction Entrance, Silt Fence, Super Silt Fence, Inflow Protection, Tree Protection and Temporary Construction Fencing. (5 days)
4. Rough grade site and temporarily stabilize. (1 week)
5. Construct Water, Sewer and Storm Drain, and install Inlet Protection. (2 weeks)
6. Begin building construction. Remove existing paving as required to grade in parking lot and driveway near cul-de-sac. Fine grade driveway and immediately stabilize any disturbed area with gravel base course and temporary seed and mulch. (2 weeks)
7. Grade remainder of site and install curb and gutter, except flush curb by bioretention areas. Immediately stabilize parking lot and driveway with gravel base course. Permanently stabilize parking islands with seed and mulch. (1 week)
* 8. Install any remaining parking lot curb and gutter, pavement, curb stops and sidewalks. Complete building construction and permanently stabilize any disturbed areas. (1 1/2 weeks)
9. With permission from the Inspector, Construct bioretention area. Install underdrain piping, inlet, sand, gravel and planting soil mixture. Install sidewalk between Bioretention areas and permanently stabilize perimeter and embankments with seed and mulch. Install plant materials and apply mulch. (2 weeks)
10. With permission from the Inspector, Construct Bioretention Area No. 3. Install underdrain piping, inlet, sand, gravel, and planting soil mixture. Permanently stabilize embankment and surrounding disturbed areas with permanent seed and mulch. Install plant materials and apply mulch to beds. (1 1/2 weeks)
11. Install Site Landscaping. (4 weeks)
10. With permission of the Inspector, remove all Sediment Controls from the site. Stabilize all disturbed areas immediately. (1 week)
11. During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the Sediment Control measures on this plan.
12. Following initial soil disturbances or redisturbance permanent or temporary stabilization shall be completed within :
    A. 7 calendar days for all perimeter Sediment Control Structures, Dikes, Swales and all slopes greater than 3:1.
    B. 14 calendar days for all other disturbed areas.

* NOTE: Do not install flush curb surrounding bioretention areas or handicap ramp and sidewalk in front of St. Matthew's Church until Bioretention Area is constructed during step No.9.

SOILS CHART		
KEY	DESCRIPTION	TYPE
CgC2	CHESTER SILT LOAM, 8-15%	B
ChC2	CHESTER SILT LOAM, 5-10%	B
CnB2	CHESTER SILT LOAM, 3-8%	B

DETAIL 27 – ROCK OUTLET PROTECTION III



NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 18 - 10	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NO.	L	W	D
ES-1	10'	8'	19"
ES-2	6'	6'	19"

LEGEND

- Existing Contour — 360
- Proposed Contour — 356
- Spot Elevation — +356.50
- Direction of Flow
- Light Poles — Post Top, Overhead, Bollard
- Mountable Stabilized Construction Entrance — SCE
- Silt Fence — SF
- Super Silt Fence — SSF
- Temporary Construction Fencing — X
- Blaze Orange Fence — BOF
- Earth Dike — ED A-1
- Limit of Disturbance — LOD
- Rip-Rap Inflow Protection — RRP
- Gabion Inflow Protection — GIP
- Curb Inlet Protection — CIP
- Standard Inlet Protection — SIP
- Existing/Proposed Treeline

NO.	REVISION	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/14/03

DIRECTOR — DATE 3/18/03

ENGINEERS 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 CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER ROBERT H. VOGEL — DATE 2/12/03

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.

Maxwell H. Allen, President KCIC 2/7/03
SIGNATURE OF DEVELOPER — DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Jim Myers — 3/10/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

John R Robertson — 3/10/03
HOWARD SCD — DATE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

GRADING AND EROSION & SEDIMENT CONTROL PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

STATE OF MARYLAND ROBERT HARRIS VOGEL No.16193 REGISTERED PROFESSIONAL ENGINEER 2/12/03
ROBERT H. VOGEL, PE No.16193

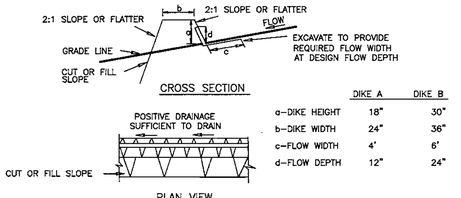
DESIGN BY:	CLS
DRAWN BY:	GRL
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=30'
W.O. NO.:	2017138

REF:F-02-137

SHEET 7 OF 12

SDP-02-08

DETAIL 1 – EARTH DIKE



	DIKE A	DIKE B
a–DIKE HEIGHT	18"	30"
b–DIKE WIDTH	24"	36"
c–FLOW WIDTH	4'	6'
d–FLOW DEPTH	12"	24"

STANDARD SYMBOL: A–2, B–3

FLOW CHANNEL STABILIZATION
GRADE 0.5% MIN. 10% MAX.

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" – 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.

2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non–erosive velocity.

4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.

5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

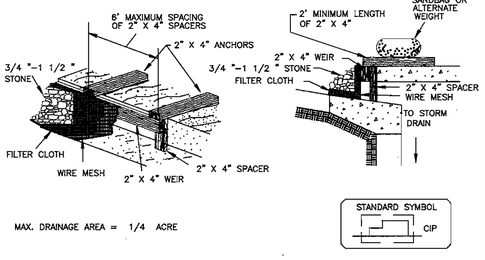
6. Fill shall be compacted by earth moving equipment.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE A – 1 – 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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



MAX. DRAINAGE AREA = 1/4 ACRE

STANDARD SYMBOL: CIP

Construction Specifications

1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.

2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.

3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart).

4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.

5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.

6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 " stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

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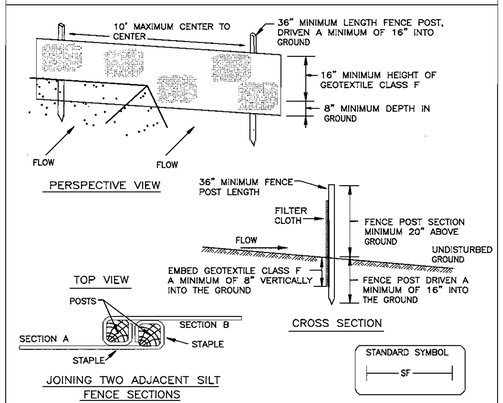
DETAIL 22 – SILT FENCE



STANDARD SYMBOL: SF

Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. 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:

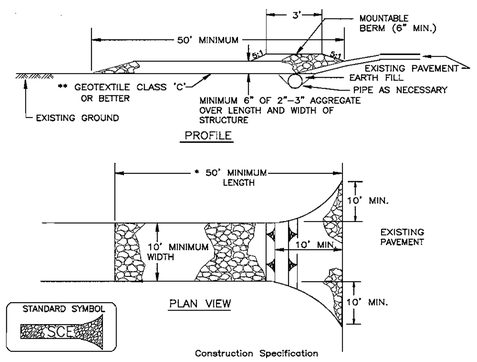
Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft² / minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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

DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



STANDARD SYMBOL: SCE

Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. 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.

4. 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.

5. 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.

6. 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.

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21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

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

Purpose

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

Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA–SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications – Soil to be used as topsoil must meet the following:

i. 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 a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger that 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4–8 tons/acre (200–400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization – Section I – Vegetative Stabilization Methods and Materials.

iii. For sites having disturbed areas over 5 acres:

i. On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
   a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
   b. Organic content of topsoil shall be not less than 1.5 percent by weight.
   c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
   d. No sod or seed shall be placed on soil soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto–toxic materials.

NOTE: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

ii. Place topsoil (if required) and apply soil ammendments specified in 20.0 Vegetative Stabilization–Section I–Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" – 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" – 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or 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.

iv. Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

TEMPORARY SEEDING NOTES

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

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

SEEDING: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

PERMANENT SEEDING NOTES

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

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

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:

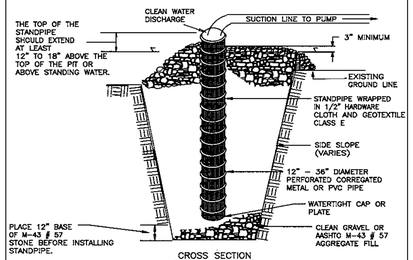
1) Preferred–Apply 2 tons per acre dolomitic limestone (92 lbs/ 100 sq.ft.) and 600 lbs per acre 10–10–10 fertilizer (14 lbs./ 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30–0–0 ureaform fertilizer (9 lbs/1000 sq.ft.)
2) Acceptable–Apply 2 tons per acre dolomatic limestone (92 lbs/ 1000 sq.ft.) and apply 1000 lbs. per acre 10–10–10– fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

SEEDING: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

MULCHING: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

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

DETAIL 20B – SUMP PIT



STANDARD SYMBOL: SP

Construction Specifications

1. Pit dimensions are variable, with the minimum diameter being 2 times the standpipe diameter.

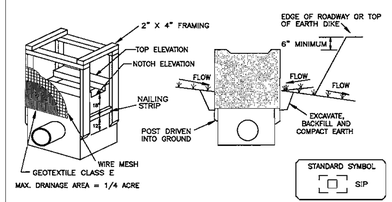
2. The standpipe should be constructed by perforating a 12" to 24" diameter corrugated or PVC pipe. Then wrapping with 1/2" hardware cloth and Geotextile Class E. The perforations shall be 1/2" x 6" slits or 1" diameter holes.

3. A base of filter material consisting of clean gravel or #57 stone should be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe should then be backfilled with the same filter material.

4. The standpipe should extend 12" to 18" above the lip of the pit or the riser crest elevation (basin dewatering only) and the filter material should extend 3" minimum above the anticipated standing water elevation.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE D – 13 – 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL 23A – STANDARD INLET PROTECTION



MAX. DRAINAGE AREA = 1/4 ACRE

STANDARD SYMBOL: SIP

Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.

2. 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 on 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 8" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 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, then fastened down.

5. 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.

6. If the inlet is not in a sump, 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.

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E – 16 – 5	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

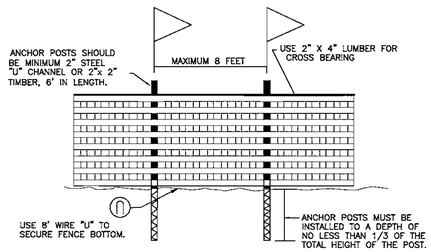
SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313–1855).
2. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis :

Total Area (F–3, F–4 AND F–5)	2.464 Acres
Area Disturbed	2.565 Acres
Area to be roofed or paved	1.444 Acres
Area to be vegetatively stabilized	1.121 Acres
Total Cut	1004 CY
Total Fill	2,311 CY
Offsite waste/borrow area location	*

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

* To be determined by contractor, with pre–approval of the Sediment Control Inspector with an approved and active grading permit



NOTES:
1. Forest protection device only.
2. Retention area will be set as part of the review process.
3. Boundaries of retention area should be staked and flagged prior to installing device.
4. Roof damage should be avoided.
5. Protection signage should be used.
6. Device should be maintained throughout construction.

BLAZE ORANGE PLASTIC MESH
TYPICAL TREE PROTECTION FENCE DETAIL
NO SCALE

NO.	REVISION	DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/11/03
DIRECTOR — DATE 3/10/03

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA–NATURAL RESOURCES CONSERVATION SERVICE — DATE 3/10/03

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

HOWARD SCD — DATE 3/10/03

ENGINEERS 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 CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER ROBERT H. VOGEL — DATE 2/7/03

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 OF DEVELOPER Maxwell H. Ware, Pres. KCIC — DATE 2/6/03

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

EROSION & SEDIMENT CONTROL NOTES AND DETAILS

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F–3, F–4 AND F–5
A RESUBDIVISION OF PARCEL F–1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7 — PARCEL 482
6TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS
ARCHITECTS
SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046–2354
Phone: 410–290–9550 Fax: 410–720–6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

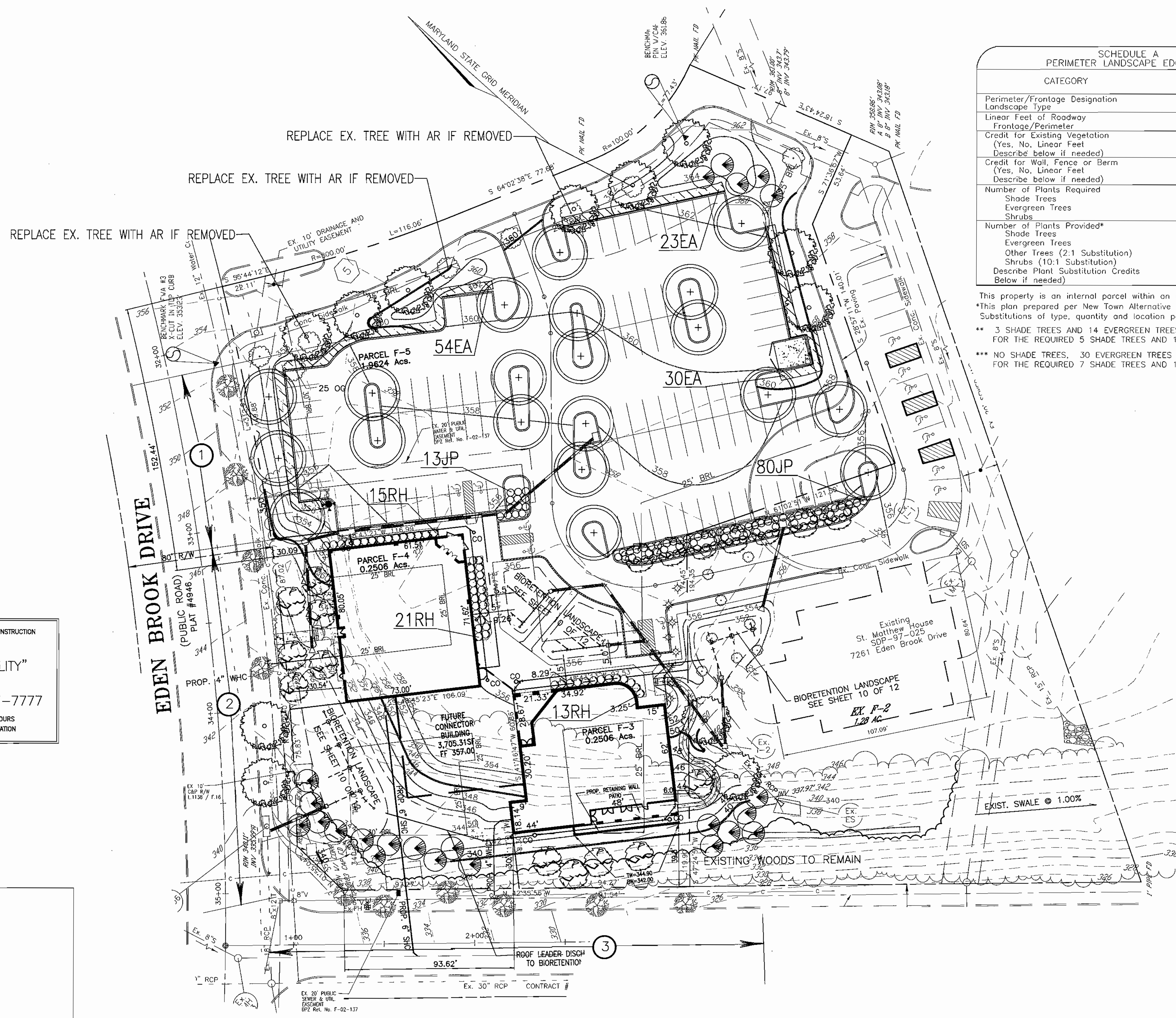
STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO.16193 — REGISTERED PROFESSIONAL ENGINEER — 2/7/03
ROBERT H. VOGEL, PE No.16193

DESIGN BY: CLS
DRAWN BY: CLS
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: 1"=30'
W.O. NO.: 2017138

REF:F–02–137

SHEET 8 OF 12

SDP–02–08



LEGEND

- Existing Contour
- Proposed Contour
- Spot Elevation
- Direction of Flow
- Existing Trees to Remain
- Shade Trees
- Evergreen Trees
- Shrubs
- Flowering Trees
- Ground Cover/Annuals
- Perimeter Landscape Edge

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS*		
Perimeter/Frontage Designation Landscape Type	1 E	2 C	3 C
Linear Feet of Roadway Frontage/Perimeter	99	195	260
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet Describe below if needed)	No	No	No
Number of Plants Required Shade Trees Evergreen Trees Shrubs	1:40 2 – 1:04 25	1:40 5 1:20 10 –	1:40 7 1:20 13 –
Number of Plants Provided* Shade Trees Evergreen Trees Other Trees (2:1 Substitution) Shrubs (10:1 Substitution) Describe Plant Substitution Credits Below if needed)	2 – – 25	3** 14** – –	–*** 30*** 4*** –

This property is an internal parcel within an existing subdivision.
*This plan prepared per New Town Alternative Compliance method. Substitutions of type, quantity and location per HRD.

** 3 SHADE TREES AND 14 EVERGREEN TREES ARE BEING SUBSTITUTED FOR THE REQUIRED 5 SHADE TREES AND 10 EVERGREEN TREES.

*** NO SHADE TREES, 30 EVERGREEN TREES AND 4 ORNAMENTAL TREES ARE BEING SUBSTITUTED FOR THE REQUIRED 7 SHADE TREES AND 13 EVERGREEN TREES.

LANDSCAPE SCHEDULE KEY

PS, RH, JP, AR, FP, EA, AC

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
AC	11	Amelanchier canadensis 'Robin Hill' Robin Hill Serviceberry	2-2 1/2" Cal.	B & B or Cont.
AR	10	Acer rubrum 'October Glory' October Glory Red Maple	3-3 1/2" Cal.	B & B
EA	107	Euonymus alatus 'Compacta' Dwarf Burning Bush	24-36" Ht	B & B or Cont.
FP	20	Fraxinus p. 'Patmore' Patmore Green Ash	3-3 1/2" Cal.	B & B
JP	93	Juniperus parsonii Parsons Juniper	24-36" Spd.	B & B or Cont.
PS	23	Pinus Strobus White Pine	6-8' Ht.	B & B
RH	49	Rhododendron hy. 'Glacier' or 'White Rosebud Glacier Evergreen White-flowered Azalea	18"-24" Ht	B & B or Cont.

LANDSCAPE SCHEDULE NOTES

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
2. MAINTENANCE TO INCLUDE MONITERING AND HAND WATERING AS NEEDED FOR THE FIRST TWO GROWING SEASONS TO ESTABLISH WOODY PLANTS. SPECIALIZED PLANTING AREAS INCLUDING FOUNDATION PLANTING AND ANNUAL BEDS MAY REQUIRE REGULAR HAND WATERING OR IRRIGATION.
3. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
4. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
5. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

BEFORE BEGINNING CONSTRUCTION
CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

NO.	REVISION	DATE

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

GENERAL NOTES

1. This plan has been prepared in accordance with the New Town alternative compliance provisions of Section 16.124 of the Howard County Code and the Landscape Manual. The required parking, swmf, and perimeter landscaping will be bonded per this submission.
2. Financial Surety for the required landscaping has been posted as part of the Developer's Agreement in the amount of $10,200.00 for the required 14 shade trees, 23 evergreen trees and 25 shrubs.
3. For planting details, see sheet 11 of 13.

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

Number of parking spaces (Includes existing)	111
Number of trees and islands required	6
Number of trees and islands provided Shade Trees Other Trees (2:1 Substitution)	 11 –

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[signature] 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

Cindy Hamilton 3/14/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 3/18/03
DIRECTOR — 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 CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

Maxwell H. Ware, President KCIC 2/7/03
SIGNATURE OF DEVELOPER — DATE

SITE LANDSCAPE PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

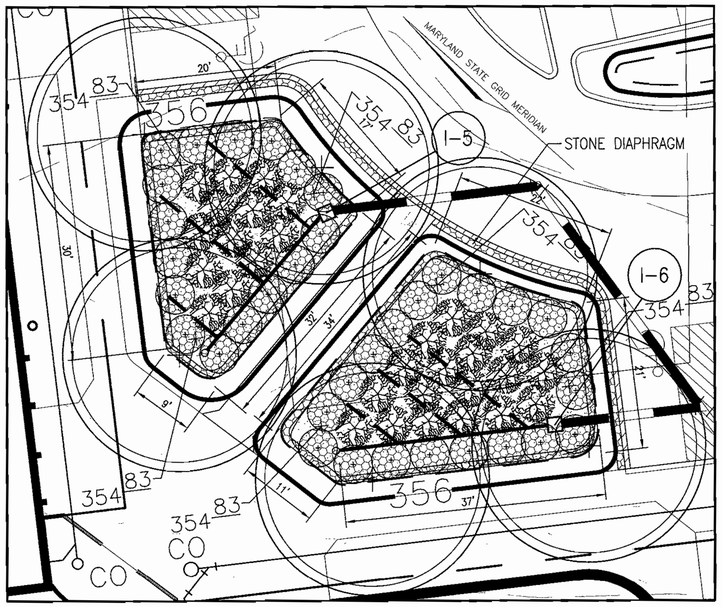
STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — PROFESSIONAL ENGINEER

DESIGN BY: MHM
DRAWN BY: CY
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: 1"=30'
W.O. NO.: 2017138

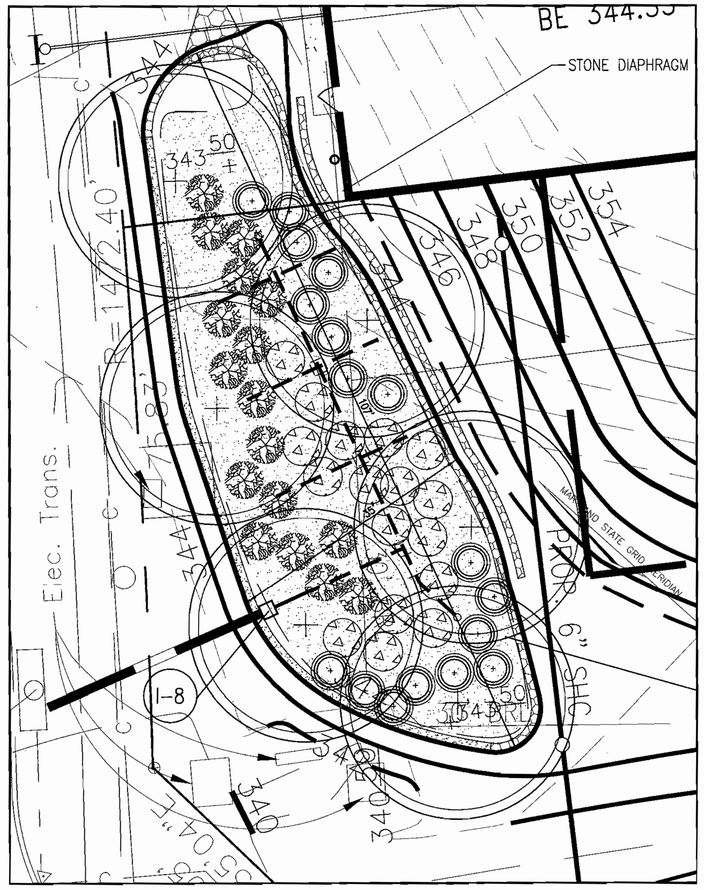
REF:F-02-137

9 SHEET OF 12

SDP-02-08



BIORETENTION AREAS 'A' AND 'B'



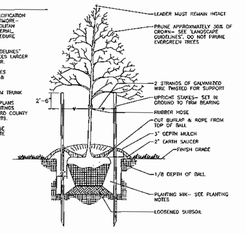
BIORETENTION AREA 'C'

BIORETENTION AREA 'D'

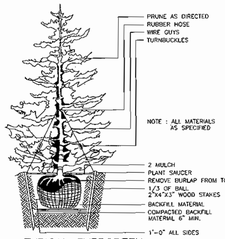
SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING	
LINEAR FEET OF PERIMETER	577 LF (ALL FOUR FACILITIES)
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	YES, 100%*
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	(C BUFFER) 14 SHADE TREES 29 EVERGREEN TREES
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES	SEE BIORETENTION PLANT LIST

*BIORETENTION AREAS ARE LANDSCAPED BASED ON A DENSITY OF 1000 STEMS PER PLANTED ACRE OR AS REVISED BY HRD.
*SURETY FOR BIORETENTION PROVIDED IN THE DED COST ESTIMATE

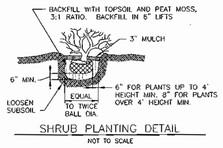
NOTES:
1. SEE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS" FOR ALL MATERIAL, PRODUCT AND PROCEDURE SPECIFICATIONS
2. SEE "LANDSCAPE GUIDELINES" FOR SUPPORTING TREES LARGER THAN 2-1/2" CALIPER.
3. PLACE UPRIGHT STAKES PARALLEL TO WALKS & BUILDINGS
4. KEEP MULCH 1" FROM TRUNK
5. SEE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTINGS WHICH EXCEED HOWARD COUNTY MINIMUM REQUIREMENTS.
6. TREES ARE NOT TO BE PLANTED OVER PRIVATE SERVICE EASEMENT



TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

BIORETENTION PLANTING SCHEDULE				
KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
	15	CLADRASTIS LUTEA "SWEETSHADE" SWEETSHADE YELLOWWOOD	1 1/2"-2" CAL	B & B
	17	VIBURNUM TRILOBUM AMERICAN HIGHBUSH CRANBERRY	5 GALLON	CONT
	52	ILEX GLABRA COMPACTA DWARF INKBERRY	3 GALLON	CONT
	16	KALMIA LATIFOLIA MOUNTAIN LAUREL	5 GALLON	CONT
	63	RHODODENDRON HY. "GLACIER" OR "WHITE ROSEBUD" GLACIER OR WHITE ROSEBUD HYBRID AZALEA	3 GALLON	CONT
	3600	LIRIOPE MUSCARI "MAJESTIC" MAJESTIC LILY TURF	2" POT	1' O.C.

BIORETENTION PLANTING REQUIREMENTS			
NBR	AREA	STEMS REQUIRED	STEMS PROVIDED
A	640 SF	15	31
B	893 SF	20	37
C	2424 SF	56	57
D	794 SF	18	35

BIORETENTION AREAS ARE LANDSCAPED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (.0229 STEMS PER SQUARE FOOT).

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/11/03
DIRECTOR — DATE 3/10/03

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 19, 2002

NO.	REVISION	DATE

STORMWATER MANAGEMENT DETAILS
NOTES & SPECIFICATIONS

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7 — PARCEL 482
6TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS | ARCHITECTS | SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO 16193 — REGISTERED PROFESSIONAL ENGINEER — 3/7/03
ROBERT H. VOGEL, PE No.16193

DESIGN BY: MHM
DRAWN BY: MHM
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: 1"=10'
W.O. NO.: 2017138

REF:F-02-137

SHEET 10 OF 12

SDP-02-08

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

Specifications for Bioretention

1. Material Specifications

The allowable materials to be used in bioretention area are detailed in Table B.3.2.

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 – % (by weight)
magnesium	35 lb/ac
phosphorus (phosphate – P 20.9	75 lb/ac
potassium (potash – K 20)	85 lb/ac
soluble salts	nil 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 test of organic matter, and soluble salts. A textural analysis shall be performed for each location where the top soil was excavated.

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

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

3. Compaction

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use hoes to remove original soil. If bioretention areas are excavated using loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tire. 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.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as chisel plow, ripper, or subsoiler. These tilling operations are to retracture 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 bioretenion facility before backfilling the required 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.

4. Plant Material

Recommended plant material for bioretention areas can be found in Appendix A, Section A.2.3. of the 2000 Maryland Stormwater Design Manual.

5. Plant Installation

Mulch should be placed to a uniform thickness of 2" to 3". Shredded hardwood much is the only accepted mulch. Pine 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 1/8th 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.

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 defeats, 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 of nitrogen per 1000 square feet.

6. Underdrains

Underdrains are to be placed on a 3'-0" wide section 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 slope of 0.5%. Observation well and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

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

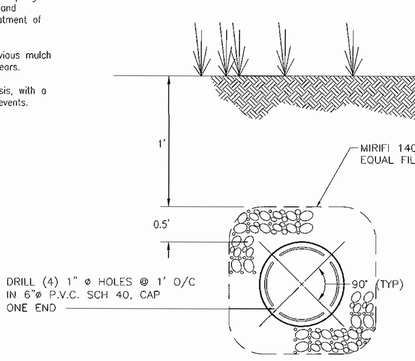
OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS

1. annual maintenance of plant material, mulch layer and soil Layer is required. maintenance of mulch and soil is limited To correcting areas of erosion or wash out. any mulch Replacement shall be done in the spring. plant material Shall be checked for disease and insect infestation and Maintenance will address dead material and pruning.

2. schedule of plant inspection will be twice a year in spring And fall. this inspection will include removal of dead and Diseased vegetation considered beyond treatment, treatment of All deficient stakes and wires.

3. mulch shall be inspected each spring. remove previous mulch Layer before applying new layer once every 2 to 3 years.

4. soil erosion to be addressed on an as needed basis, with a Minimum of once per month and after heavy storm events.



UNDERDRAIN DETAIL
6" P.V.C. SCH-40
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 3/14/03
DIRECTOR	DATE: 3/10/03

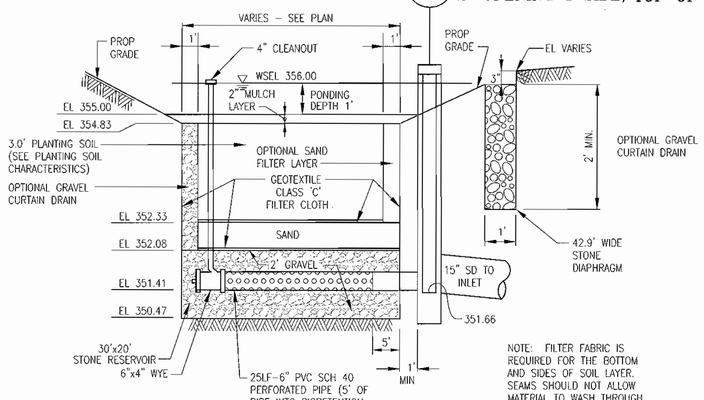
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SCD — DATE

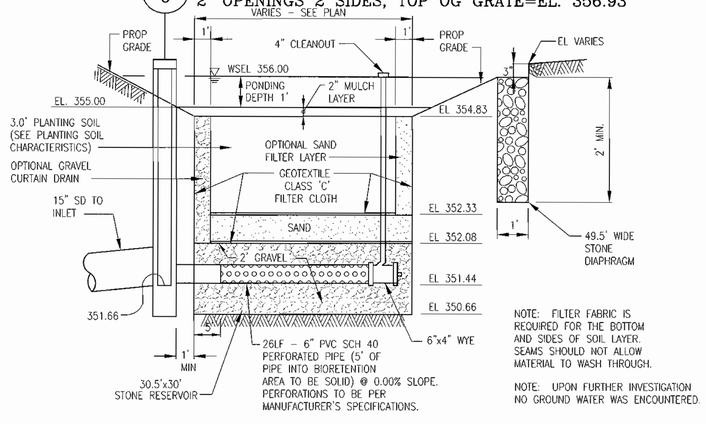
I 5 "D" INLET CREST (THROAT OPENING) EL. 356.10
2' OPENING 1 SIDE, TOP OF GRATE=EL. 356.93



NOTE: FILTER FABRIC IS REQUIRED FOR THE BOTTOM AND SIDES OF SOIL LAYER. SEAMS SHOULD NOT ALLOW MATERIAL TO WASH THROUGH.
NOTE: UPON FURTHER INVESTIGATION NO GROUND WATER WAS ENCOUNTERED.

DETAIL - BIORETENTION AREA 'A'
NOT TO SCALE

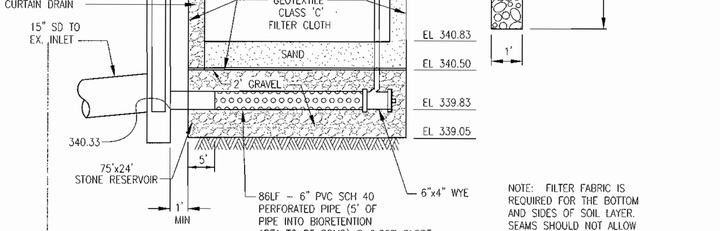
I 6 "D" INLET CREST (THROAT OPENING) EL. 356.10
2' OPENINGS 2 SIDES, TOP OG GRATE=EL. 356.93



NOTE: FILTER FABRIC IS REQUIRED FOR THE BOTTOM AND SIDES OF SOIL LAYER. SEAMS SHOULD NOT ALLOW MATERIAL TO WASH THROUGH.
NOTE: UPON FURTHER INVESTIGATION NO GROUND WATER WAS ENCOUNTERED.

DETAIL - BIORETENTION AREA 'B'
NOT TO SCALE

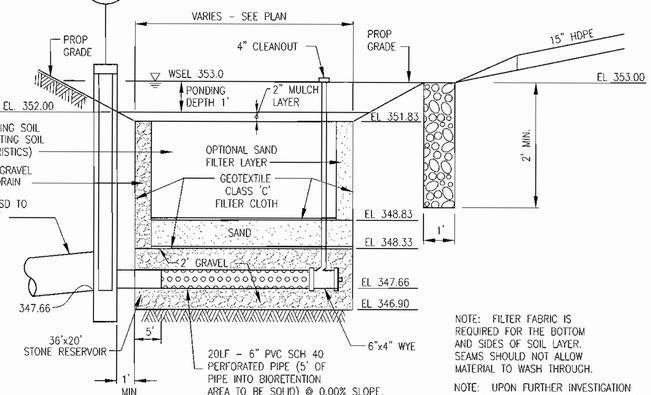
I 8 "D" INLET CREST (THROAT OPENING) EL. 344.60
2' OPENINGS ALL 4 SIDES, TOP OF GRATE=EL. 345.43



NOTE: FILTER FABRIC IS REQUIRED FOR THE BOTTOM AND SIDES OF SOIL LAYER. SEAMS SHOULD NOT ALLOW MATERIAL TO WASH THROUGH.
NOTE: UPON FURTHER INVESTIGATION NO GROUND WATER WAS ENCOUNTERED.

DETAIL - BIORETENTION AREA 'C'
NOT TO SCALE

I 7 "D" INLET CREST (THROAT OPENING) EL. 353.10
2' OPENINGS 2 SIDES, TOP OF GRATE=EL. 353.93



NOTE: FILTER FABRIC IS REQUIRED FOR THE BOTTOM AND SIDES OF SOIL LAYER. SEAMS SHOULD NOT ALLOW MATERIAL TO WASH THROUGH.
NOTE: UPON FURTHER INVESTIGATION NO GROUND WATER WAS ENCOUNTERED.

DETAIL - BIORETENTION AREA 'D'
NOT TO SCALE

APPROVED
PLANNING BOARD of HOWARD COUNTY
DATE July 10, 2002

SUMMARY TABLE

STEP	REQUIREMENT	VOLUME REQUIREMENT	NOTES
1	WATER QUALITY VOLUME WQV	A- 767 C.F. B- 1073 C.F. C- 2896 C.F. D- 927 C.F.	WATER QUALITY VOLUME PROVIDED IN PROPOSED BIO-RETENTION
2	RECHARGE VOLUME REV	A- 240 C.F. B- 278 C.F. C- 753 C.F. D- 240 C.F.	PROVIDED THROUGH STONE TRENCHES BELOW BIO-RETENTION
3	CHANNEL PROTECTION VOLUME CPV	N/A	N/A
4	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A
5	EXTREME FLOOD VOLUME, Q100P	N/A	N/A

NOTE: SWM QUANTITY PROVIDED BY A REGIONAL STORMWATER MANAGEMENT FACILITY.

NO.	REVISION	DATE

STORMWATER MANAGEMENT DETAILS
NOTES & SPECIFICATIONS

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS
ARCHITECTS
SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

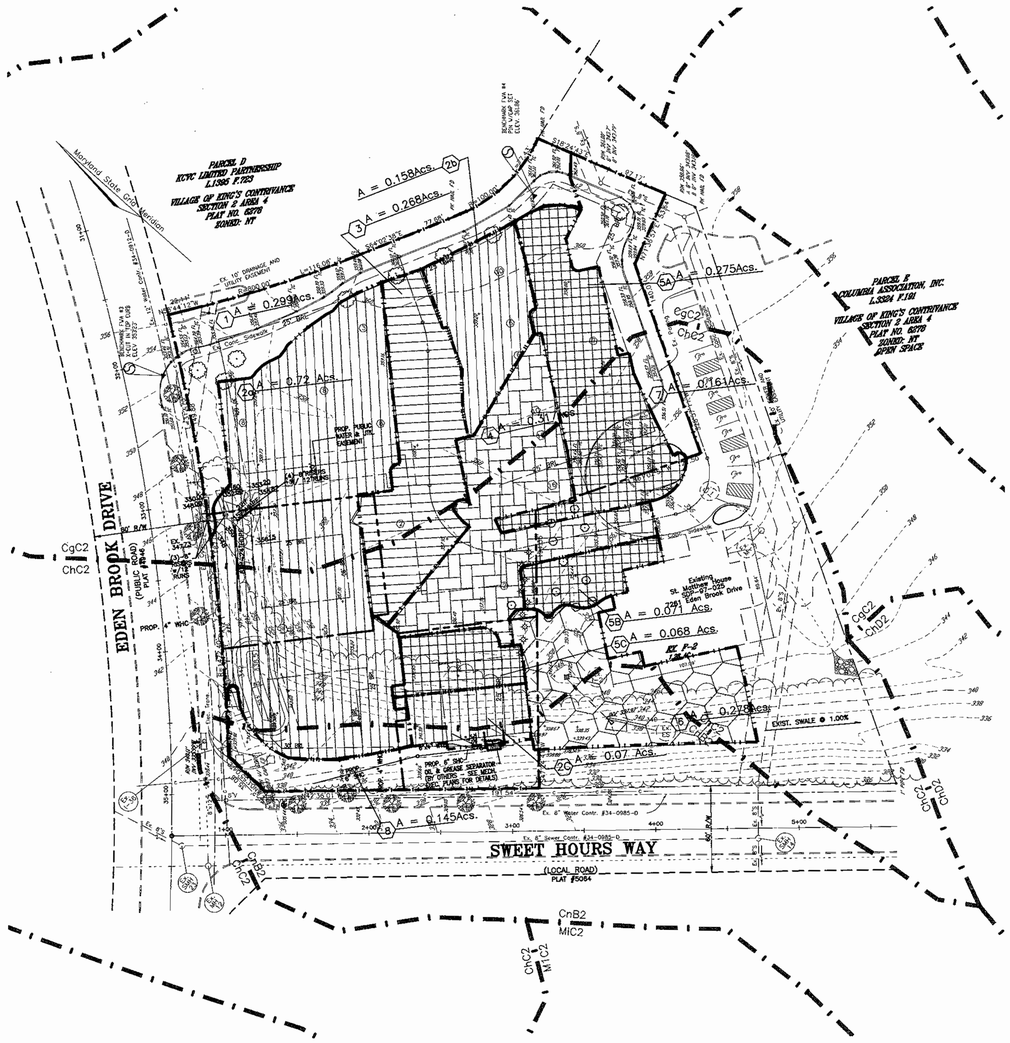
STATE OF MARYLAND — ROBERT HARRIS VOGEL — No. 16193 — REGISTERED PROFESSIONAL ENGINEER — 5/16/03
ROBERT H. VOGEL, PE. No. 16193

DESIGN BY:	CLS
DRAWN BY:	CLS
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=30'
W.O. NO.:	2017138

REF:F-02-137

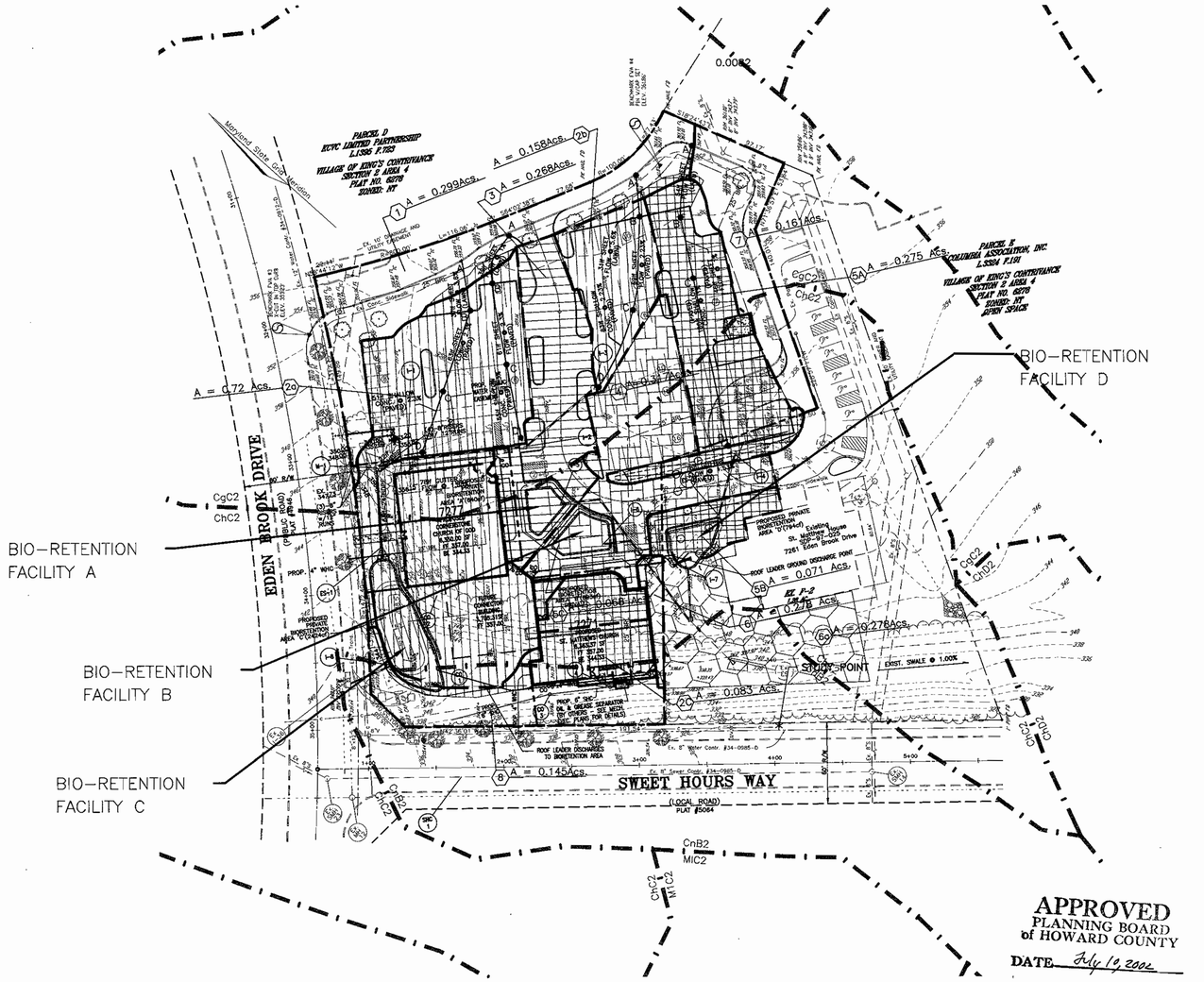
SHEET 11 OF 12

SDP-02-08



EXISTING CONDITIONS DRAINAGE AREA MAP

SCALE: 1" = 50'



DEVELOPED CONDITIONS SWM DRAINAGE AREA MAP

SCALE: 1" = 50'

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

DRAINAGE AREA CHART

D.A. NO.	EXISTING CONDITIONS AREA (AC)	PERVIOUS AREA(AC)	IMPERV. AREA(AC)	% IMPERV.
1	0.299	0.0908	0.1358	45
2A	0.72	0.72	0.0	0
2B	0.158	0.158	0.0	0
2C	0.07	0.07	0.0	0
3	0.268	0.268	0.0	0
4	0.317	0.317	0.0	0
5A	0.275	0.213	0.062	22.5
5B	0.071	0.07	0.0	0
5C	0.068	0.068	0.0	0
6	0.278	0.278	0.0	0
7	0.161	0.1033	0.0877	54
8	0.145	0.145	0.0	0

BIO-RETENTION DESIGN SUMMARY

FACILITY NO.	DRAINAGE AREA	AREA TOTAL	AREA IMP.	RV	WQV CF	V TEMP .75 WQV	SURFACE AREA PROVIDED (AREA)x(DEPTH)	DF FT.	AF SF	REV CF	STONE RESEVOIR LxW	STONE RESEVOIR D
A	3	0.268	0.22	0.79	767	575	640	2.5	640	240	30x20	0.94
B	4	0.317	0.312	0.93	1072	804	893	2.5	893	278	30.5x30	0.78
C	2	0.95	0.83	0.84	2896	2172	2424	2.5	2413	755	90x25.5	0.76
D	5	0.414	0.26	0.63	727	545	727	3	727	240	40x23	0.76

SLOPE: 2:1

WQV=[P(RV)(A)]/12
AF=(WQV)(DF)

WHERE [Kx(HF+DF)xTF]
K= 0.5 FT/DAY
N= 40% VOIDS
TF= 2.0DAYS

D= Vrev / AFxN

NOTES:

1. BIO-RETENTION FACILITIES ARE DESIGNED FOR PROPOSED BUILDINGS (INCLUDING FUTURE CONNECTOR BUILDING) AND ADJACENT PARKING. ANY ADDITIONAL NEW IMPERVIOUS AREAS TO THE PROPOSED LAYOUT SHOWN ON PLANS WILL REQUIRE AN ADDITIONAL STUDY AND ADDITIONAL NEW STORMWATER MANAGEMENT.
2. SITE LIES WITHIN THE MIDDLE PATUXENT WATERSHED WHICH IS A CLASS I STREAM.
3. REGIONAL FACILITY DOWNSTREAM PROVIDES FOR QUANTITATIVE MANAGEMENT.
4. Cpv, Qp10, AND Qf ARE NOT REQUIRED.

DRAINAGE AREA CHART

	D.A. NO.	DEVELOPED CONDITIONS AREA (AC)	PERVIOUS AREA(AC)	IMPERV. AREA(AC)	% IMPERV.
*	1	0.299	0.0832	0.1358	62
	2A	0.72	0.098	0.62	87
	2B	0.158	0.0175	0.14	89
	2C	0.070	0.0	0.07	100
	3	0.268	0.048	0.22	82
	4	0.317	0.005	0.312	98
+	5A	0.275	0.08	0.19	69
	5B	0.071	0.024	0.047	66
	5C	0.068	0.0	0.068	100
*	6	0.278	0.267	0.011	4
*	7	0.161	0.0947	0.0963	50
*	8	0.145	0.145	0.0	0

* DOES NOT GO TO BIO-RETENTION FACILITY.
+ CREDIT APPLIES. SEE COMPUTATIONS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/14/03

DIRECTOR — DATE 3/12/03

NO.	REVISION	DATE

EXISTING AND DEVELOPED DRAINAGE AREA MAPS

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

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STATE OF MARYLAND
ROBERT HARRIS VOGEL
#16193
REGISTERED
PROFESSIONAL ENGINEER
2/18/03

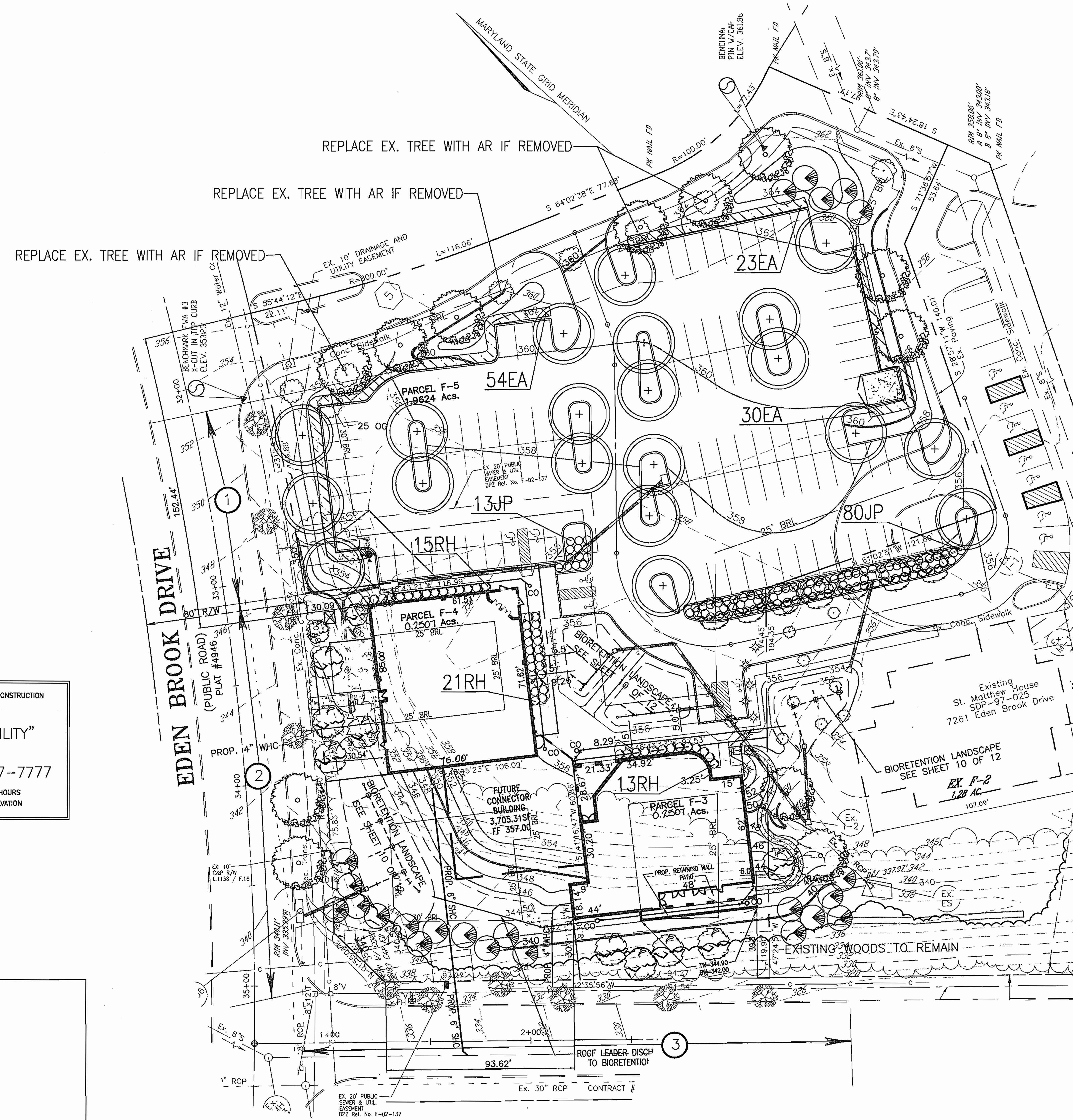
ROBERT H. VOGEL, PE No.16193

DESIGN BY:	CLS
DRAWN BY:	CLS
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=50'
W.O. NO.:	2017138

REF:F-02-137

SHEET 12 OF 12

SDP-02-08



LEGEND

Existing Contour	- - - - - - - - 382
Proposed Contour	82
Spot Elevation	+82 53
Direction of Flow	←
Existing Trees to Remain	
Shade Trees	
Evergreen Trees	
Shrubs	
Flowering Trees	
Ground Cover/Annuals	▨
Perimeter Landscape Edge	2

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS*		
Perimeter/Frontage Designation Landscape Type	1 E	2 C	3 C
Linear Feet of Roadway Frontage/Perimeter	99	195	260
Credit for Existing Vegetation (Yes, No, Linear Feet Describe below if needed)	No	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet Describe below if needed)	No	No	No
Number of Plants Required Shade Trees Evergreen Trees Shrubs	 1:40 2 – 1:04 25	 1:40 5 1:20 10 –	 1:40 7 1:20 13 –
Number of Plants Provided* Shade Trees Evergreen Trees Other Trees (2:1 Substitution) Shrubs (10:1 Substitution) Describe Plant Substitution Credits Below if needed)	 2 – – 25	 3** 14** – –	 –*** 30*** 4*** –

This property is an internal parcel within an existing subdivision.
*This plan prepared per New Town Alternative Compliance method.
Substitutions of type, quantity and location per HRD.

** 3 SHADE TREES AND 14 EVERGREEN TREES ARE BEING SUBSTITUTED FOR THE REQUIRED 5 SHADE TREES AND 10 EVERGREEN TREES.

*** NO SHADE TREES, 30 EVERGREEN TREES AND 4 ORNAMENTAL TREES ARE BEING SUBSTITUTED FOR THE REQUIRED 7 SHADE TREES AND 13 EVERGREEN TREES.

LANDSCAPE SCHEDULE KEY

PS
RH
JP
AR
FP
EA
AC

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
AC	11	Amelanchier canadensis 'Robin Hill' Robin Hill Serviceberry	2–2 1/2" Cal.	B & B or Cont.
AR	10	Acer rubrum 'October Glory' October Glory Red Maple	3–3 1/2" Cal.	B & B
EA	107	Euonymus alatus 'Compacta' Dwarf Burning Bush	24–36" Ht	B & B or Cont.
FP	20	Fraxinus p. 'Patmore' Patmore Green Ash	3–3 1/2" Cal.	B & B
JP	93	Juniperus parsonii Parsons Juniper	24–36" Spd.	B & B or Cont.
PS	23	Pinus Strobus White Pine	6–8' Ht.	B & B
RH	49	Rhododendron hy. 'Glacier' or 'White Rosebud' Glacier Evergreen White-flowered Azalea	18"–24" Ht	B & B or Cont.

LANDSCAPE SCHEDULE NOTES

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
2. MAINTENANCE TO INCLUDE MONITERING AND HAND WATERING AS NEEDED FOR THE FIRST TWO GROWING SEASONS TO ESTABLISH WOODY PLANTS. SPECIALIZED PLANTING AREAS INCLUDING FOUNDATION PLANTING AND ANNUAL BEDS MAY REQUIRE REGULAR HAND WATERING OR IRRIGATION.
3. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
4. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
5. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

BEFORE BEGINNING CONSTRUCTION
CONTACT
"MISS UTILITY"
AT
1-800-257-7777
AT LEAST 48 HOURS PRIOR TO EXCAVATION

NO.	REVISION	DATE
1	REVISED BUILDING DIMENSIONS	09-30-02
2	ADD PLAYGROUND AREA; ADD DAYCARE USE NOTES; RELOCATE TREES	1-8-08

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

GENERAL NOTES

1. This plan has been prepared in accordance with the New Town alternative compliance provisions of Section 16.124 of the Howard County Code and the Landscape Manual. The required parking, swmf, and perimeter landscaping will be bonded per this submission.
2. Financial Surety for the required landscaping has been posted as part of the Developer's Agreement in the amount of $10,200.00 for the required 14 shade trees, 23 evergreen trees and 25 shrubs.
3. For planting details, see sheet 11 of 13.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[illegible] 3/11/03
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[illegible] 3/14/03
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[illegible] 3/18/03
DIRECTOR 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 CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[illegible] 2/7/03
SIGNATURE OF DEVELOPER DATE

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

Number of parking spaces (Includes existing)	111
Number of trees and islands required	6
Number of trees and islands provided Shade Trees Other Trees (2:1 Substitution)	 11 –

SITE LANDSCAPE PLAN
KINGS CONTRIVANCE INTERFAITH CAMPUS
PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

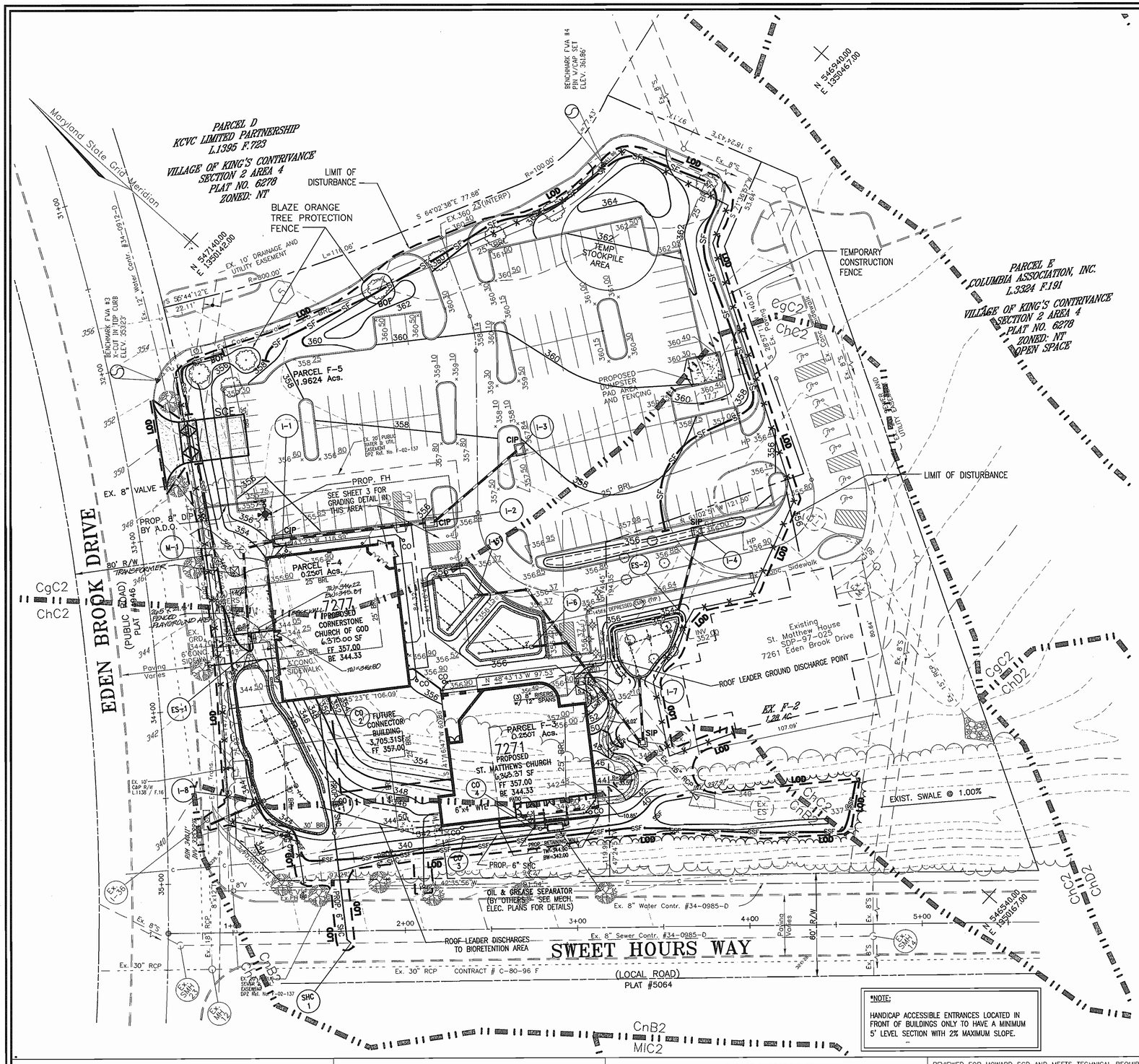
STATE OF MARYLAND ROBERT HARRIS VOGEL No. 16193 PROFESSIONAL ENGINEER

DESIGN BY: MHM
DRAWN BY: CY
CHECKED BY: MMR
DATE: FEB. 6, 2003
SCALE: 1"=30'
W.O. NO.: 2017138

REF:F-02-137

9 SHEET OF 12

SDP-02-08



SEQUENCE OF CONSTRUCTION

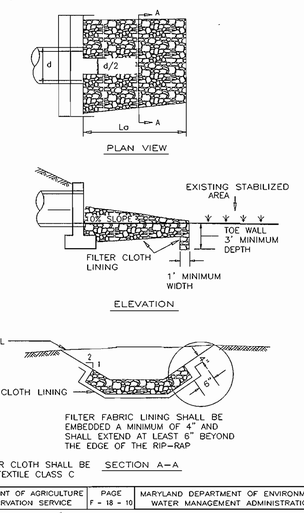
1. Obtain grading permit.
2. Notify Howard County Bureau of Inspections and Permits at (410)313-1880 at least 24 hours before starting any work.
3. Install Stabilized Construction Entrance, Silt Fence, Super Silt Fence, Inflow Protection, Tree Protection and Temporary Construction Fencing. (5 days)
4. Rough grade site and temporarily stabilize. (1 week)
5. Construct Water, Sewer and Storm Drain, and install Inlet Protection. (2 weeks)
6. Begin building construction. Remove existing paving as required to grade in parking lot and driveway near cul-de-sac. Fine grade driveway and immediately stabilize any disturbed area with gravel base course and temporary seed and mulch. (2 weeks)
7. Grade remainder of site and install curb and gutter, except flush curb by bioretention areas. Immediately stabilize parking lot and driveway with gravel base course. Permanently stabilize parking islands with seed and mulch. (1 week)
* 8. Install any remaining parking lot curb and gutter, pavement, curb stops and sidewalks. Complete building construction and permanently stabilize any disturbed areas. (1 1/2 weeks)
9. With permission from the Inspector, Construct bioretention area. Install underdrain piping, inlet, sand, gravel and planting soil mixture. Install sidewalk between Bioretention areas and permanently stabilize perimeter and embankments with seed and mulch. Install plant materials and apply mulch. (2 weeks)
10. With permission from the Inspector, Construct Bioretention Area No. 3. Install underdrain piping, inlet, sand, gravel, and planting soil mixture. Permanently stabilize embankment and surrounding disturbed areas with permanent seed and mulch. Install plant materials and apply mulch to beds. (1 1/2 weeks)
11. Install Site Landscaping. (4 weeks)
10. With permission of the Inspector, remove all Sediment Controls from the site. Stabilize all disturbed areas immediately. (1 week)
11. During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the Sediment Control measures on this plan.
12. Following initial soil disturbances or redisturbance permanent or temporary stabilization shall be completed within :
    - A. 7 calendar days for all perimeter Sediment Control Structures, Dikes, Swales and all slopes greater than 3:1.
    - B. 14 calendar days for all other disturbed areas.

* NOTE: Do not install flush curb surrounding bioretention areas or handicap ramp and sidewalk in front of St. Matthew's Church until Bioretention Area is constructed during step No.9.

SOILS CHART

KEY	DESCRIPTION	TYPE
CgC2	CHESTER SILT LOAM, 8-15%	B
ChC2	CHESTER SILT LOAM, 5-10%	B
CnB2	CHESTER SILT LOAM, 3-8%	B

DETAIL 27 - ROCK OUTLET PROTECTION III



NOTE: FILTER CLOTH SHALL BE GEOTEXTILE CLASS C

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE | PAGE F - 18 - 10 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NO.	L	W	D
ES-1	10'	8'	19"
ES-2	6'	6'	19"

LEGEND

Existing Contour 360
Proposed Contour 356
Spot Elevation +356.50
Direction of Flow
Light Poles ☼ Post Top ☼ Overhead ✱ Bollard
Mountable Stabilized Construction Entrance
Silt Fence SF SF
Super Silt Fence SSF SSF
Temporary Construction Fencing X X
Blaze Orange Fence BOF
Earth Dike ED A-1
Limit of Disturbance LOD
Rip-Rap Inflow Protection RRP
Gabion Inflow Protection GIP
Curb Inlet Protection CIP
Standard Inlet Protection SIP
Existing/Proposed Treeline

*NOTE:
HANDICAP ACCESSIBLE ENTRANCES LOCATED IN FRONT OF BUILDINGS ONLY TO HAVE A MINIMUM 5' LEVEL SECTION WITH 2% MAXIMUM SLOPE.

NO.	REVISION	DATE
1	REVISED BUILDING DIMENSIONS	09-30-03
2	ADD PLAYGROUND AREA AND DAYCARE USE NOTES	1-7-04

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/14/03
DIRECTOR — DATE 3/10/03

ENGINEERS 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 CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF ENGINEER — DATE 2/12/03
ROBERT H. VOGEL

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 OF DEVELOPER, President KCVC — DATE 2/7/03

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 3/10/03

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

HOWARD SCD — DATE 3/10/03

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

GRADING AND EROSION & SEDIMENT CONTROL PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7
6TH ELECTION DISTRICT

PARCEL 482
HOWARD COUNTY, MARYLAND

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STATE OF MARYLAND
ROBERT HARRIS VOGEL
NO. 16193
REGISTERED
PROFESSIONAL ENGINEER
2/12/03
ROBERT H. VOGEL, PE No.16193

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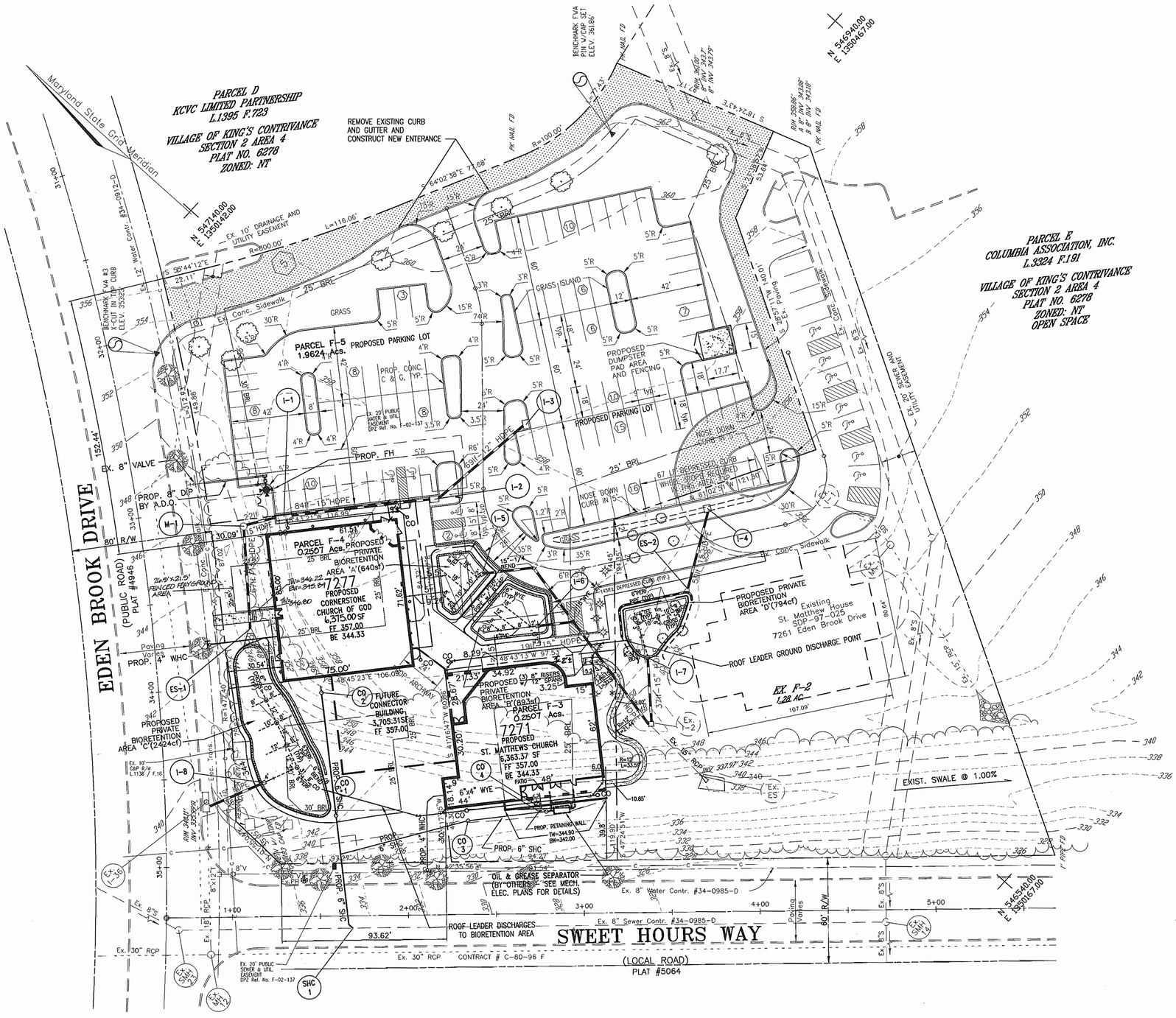
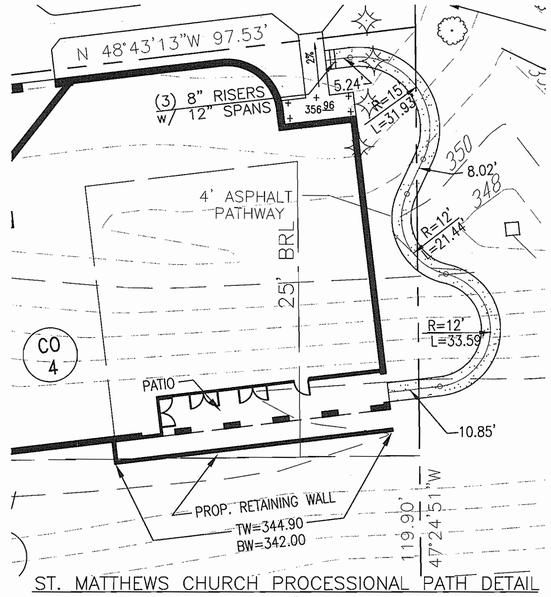
SHEET 7 OF 12

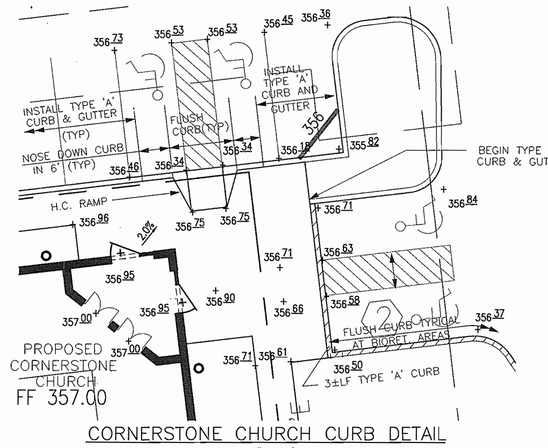
SDP-02-08





ST. MATTHEWS CHURCH PROCESSIONAL PATH DETAIL

SCALE: 1"= 20'



CORNERSTONE CHURCH CURB DETAIL

SCALE: 1"= 10'

NO.	REVISION	DATE
1	REVISED BUILDING DIMENSIONS	09-30-05
2	ADD PLAYGROUND AND DAYCARE USE NOTES	1-7-08

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE	3/11/03
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE	2/14/03
DIRECTOR	DATE	3/18/03

NOTE:
WATER METERS ARE LOCATED INSIDE BUILDINGS. SEE ARCHITECTURAL PLANS FOR DETAILS.

***NOTE:**
HANDICAP ACCESSIBLE ENTRANCES LOCATED IN FRONT OF BUILDINGS ONLY TO HAVE A MINIMUM 5' LEVEL SECTION WITH 2% MAXIMUM SLOPE.

***NOTE:**
A SHARED PARKING AND MAINTENANCE AGREEMENT HAS BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, GRANTING THE OWNERS OF PARCEL F3 AND PARCEL F4 THE RIGHT TO USE ALL PARKING SPACES ON PARCEL F5.

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

SITE LAYOUT AND UTILITIES PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE

TAX MAP 42, GRID 7 — PARCEL 482
6TH ELECTION DISTRICT — HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS | ARCHITECTS | SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO. 16193 — REGISTERED PROFESSIONAL ENGINEER — 2/20/03
ROBERT H. VOGEL, PE No.16193

DESIGN BY:	CLS
DRAWN BY:	GRL
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=30'
W.O. NO.:	2017138

REF:F-02-137

SHEET 3 OF 12

SDP-02-08

SITE DEVELOPMENT PLAN

KINGS CONTRIVANCE INTERFAITH CAMPUS

GENERAL NOTES

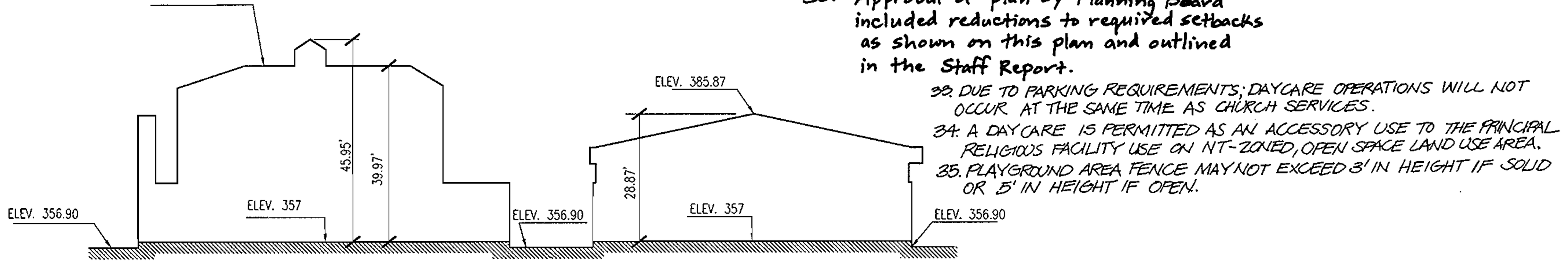
1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
2. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
3. The contractor is to notify the following utilities or agencies at least five days before starting work on these drawings:

Miss Utility	1-800-257-7777
Verizon Telephone Company:	(410) 754-6281
Howard County Bureau of Utilities:	(410) 313-2366
AT&T Cable Location Division:	393-3553
B.G.E. Co. Contractor Services:	850-4620
B.G.E. Co. Underground Damage Control:	787-4620
State Highway Administration:	531-5533

4. Site analysis:
   Area of parcel F-3: 0.2507 acs.
   Area of parcel F-4: 0.2507 acs.
   Area of parcel F-5: 1.9622 acs.
   Total Site Area : 2.4636 acs.

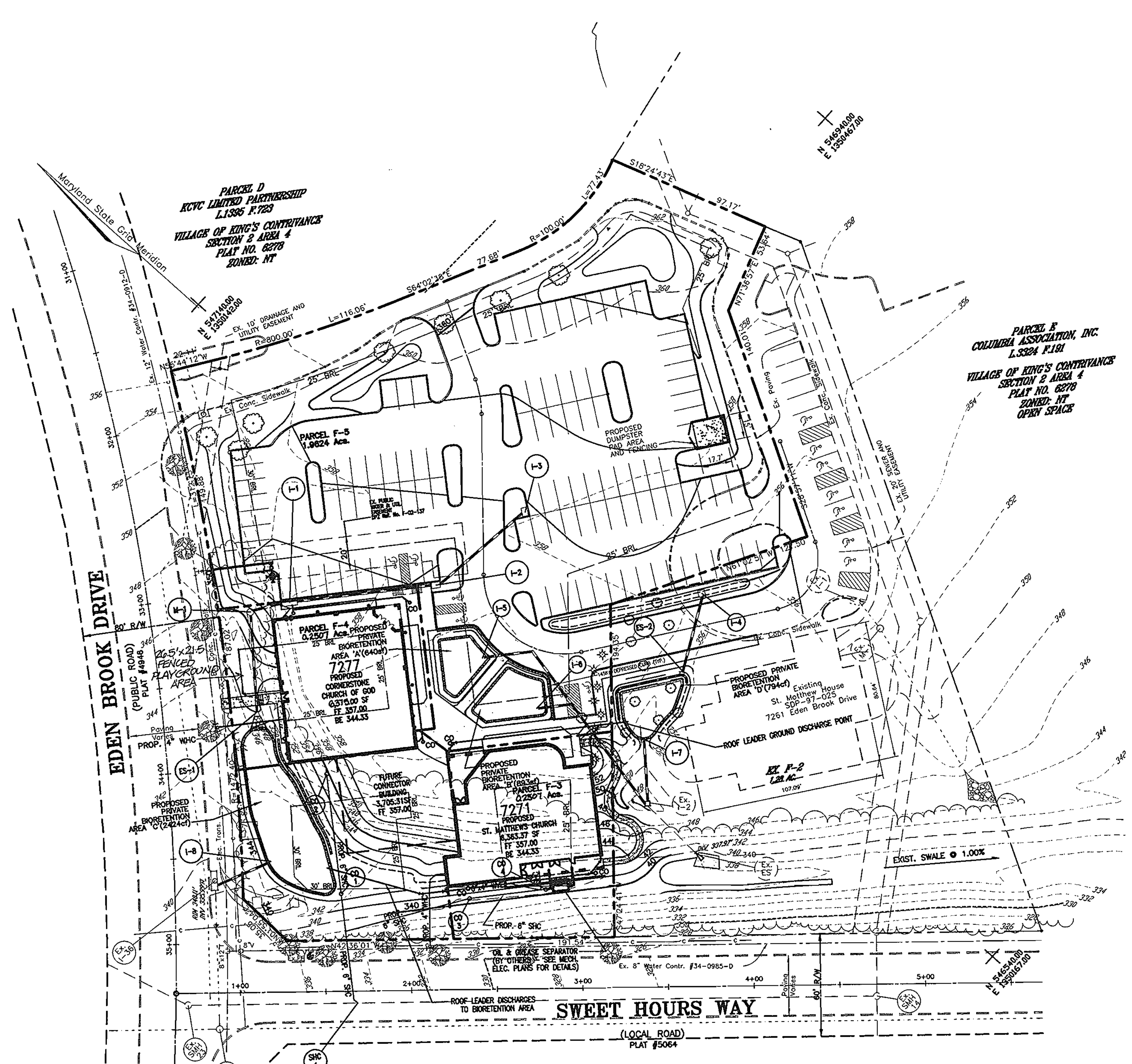
   Present zoning : NEW TOWN OPEN SPACE per Plat 12376
   Use of structures : Religious AND DAYCARE FACILITY WITHIN.
   Total building area : 12,738 sf
   Building coverage on site:
   Area of parcel F-3: 0.1460 acs. 58.2%
   Area of parcel F-4: 0.1463 acs. 58.4%
   Area of parcel F-5: 0 acs. 0%

   There are no steep slopes on-site
5. Project background:
   Location : Columbia, Md.; Tax Map 42, Parcel F-3, F-4 & F-5.
   Zoning : NEW TOWN OPEN SPACE per the 10/18/93 Comprehensive Zoning Plan.
   Section/Area : 2/4
   Site Area : 2.4636 Acres
   DPZ references : SDP-97-25, F-96-181, F-85-114, F-02-137
   FDP PLAN PHASE 178-A-II PART IV, VILLAGE OF KINGS CONTRIVANCE- (PLAT# 3054-A-1658) Has been Recorded on 9/16/02 among the land Records of Howard County as Plats No(s). 15570 to 15573.
6. The contractor shall notify the Department of Public Works/Bureau of Engineering/ Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to start of work.
7. Any damage to public right-of-ways, paving, or existing utilities will be corrected at the contractor's expense.
8. Existing utilities located from Field Surveys and available record drawings. Approximate location of existing utilities are shown for the contractors information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
9. All reinforced concrete for storm drain structures shall have a minimum of 28 days strength of 3,500 p.s.i.
10. Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
11. Estimates of earthwork quantities are provided soley for the purpose of calculating fees.
12. Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test.
13. All storm drain pipe bedding shall be Class 'C' .
14. 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. 42R1 and 42R2 were used for this project.
15. A noise study is not required for this project.
16. Existing topography is based on field run information performed by Frederick Ward Associates, Inc. in June, 2001.
17. See sheet 6 for paving section details.
18. All curb and gutter to be Howard County Standard concrete Detail R3.01 unless otherwise specified.
19. There are no wetlands, streams, or flood plains located onsite.
20. Where drainage flows away from curb, contractor to reverse the gutter pan.
21. All elevations are to flowline/bottom of curb unless otherwise noted.
22. All dimensions are to face of curb unless otherwise noted.
23. This site is exempt from the Forest Conservation Ordinance in accordance with 16.1202(b) of Howard County Code with a planned unit development which has preliminary development plan approval and 50% or more of the land is recorded and substantially developed before December 31, 1992.
24. Contractor to connect roof drains to storm drain system, except as noted.
25. Contractor to sod all areas within 10' of proposed building. All other areas to be seeded and mulched.
26. Proposed water and sewer service to be public.
27. Stormwater Management in accordance with 2000 Maryland Stormwater Management Manual. Cpv, is provided by a regional pond located offsite. Rev and WQv provided by Bioretention areas onsite for proposed buildings including future connector building and the adjacent parking.
28. Any increase in impervious area, more than the allowed 1.59 acres, will require a new stormwater management design. The new design will be done in accordance with the current requirements at that time.
29. Water meters are located inside buildings. See architectural plans for details.
30. Handicap accessible entrances located in front of buildings only to have a minimum 5' level section with 2% maximum slope.
31. A reciprocal shared access, parking and maintenance agreement has been recorded in the Land Records of Howard County, concurrently with the plat at Liber 6851, Folio 467, granting the owners/users of Parcels F2, F3, and F4 the right to access for any area of this easement and use of all parking spaces on Parcel F5.
32. Approval of plan by Planning Board included reductions to required setbacks as shown on this plan and outlined in the Staff Report.
33. DUE TO PARKING REQUIREMENTS; DAYCARE OPERATIONS WILL NOT OCCUR AT THE SAME TIME AS CHURCH SERVICES.
34. A DAYCARE IS PERMITTED AS AN ACCESSORY USE TO THE PRINCIPAL RELIGIOUS FACILITY USE ON NT-ZONED, OPEN SPACE LAND USE AREA.
35. PLAYGROUND AREA FENCE MAY NOT EXCEED 3' IN HEIGHT IF SOLID OR 5' IN HEIGHT IF OPEN.

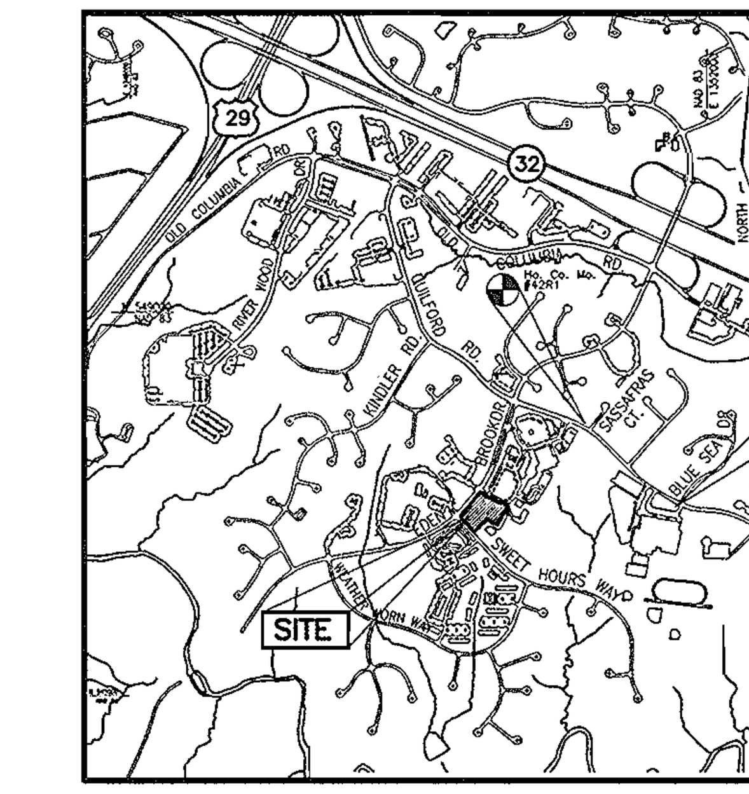


ST. MATTHEWS CHURCH
NOT TO SCALE

CORNERSTONE CHURCH OF GOD
NOT TO SCALE



LOCATION MAP
SCALE: 1"= 50'



VICINITY MAP
SCALE: 1"=2000'

BENCHMARKS

HOWARD COUNTY MONUMENT #42R1
N 547820.221 E 1351171.573
ELEV. 376.563
REBAR & CAP - 3.1' FROM NORTH EDGE GUILDFORD RD., 50'± WEST OF SASSAFRAS CT.

HOWARD COUNTY MONUMENT #42R2
N 546,946.783 E 1352118.583
ELEV. 332.188
REBAR AND CAP - SOUTH SIDE OF GUILFORD RD. @ S.W. CORNER OF EXIT ROAD FOR HAMMOND H.S.

NOTE:
HORIZONTAL CONTROL IS IN NAD83.
VERTICAL CONTROL IS IN NGVD29.

LEGEND

Existing Contour	382
Proposed Contour	82
Spot Elevation	+82.53
Direction of Flow	←

PARKING TABULATION

PARKING REQUIRED
165 SEATS PER CHURCH BLDG:
330 TOTAL SEATS@ 1 SPC/3 SEATS= 110 SPCS

PARKING PROVIDED 111 SPCS
INCLUDING: 6 HANDICAP SPCS

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE July 10, 2002

NO.	REVISION	DATE
1	REVISED BUILDING DIMENSIONS	09-30-03
2	ADD PLAYGROUND AND DAYCARE USE NOTES	1-7-08

SITE DEVELOPMENT PLAN
COVER SHEET
KINGS CONTRIVANCE INTERFAITH CAMPUS
PARCELS F-3, F-4 AND F-5
A RESUBDIVISION OF PARCEL F-1
VILLAGE OF KINGS CONTRIVANCE
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PARCEL 482 — HOWARD COUNTY, MARYLAND

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STATE OF MARYLAND — ROBERT HARRIS VOGEL — NO. 16193 — REGISTERED PROFESSIONAL ENGINEER
ROBERT H. VOGEL, PE No.16193

DESIGN BY:	CLS
DRAWN BY:	JNA
CHECKED BY:	MMR
DATE:	FEB. 6, 2003
SCALE:	1"=100'
W.O. NO.:	2017138

REF:F-02-137

SHEET 1 OF 12

OWNER/DEVELOPER

KINGS CONTRIVANCE INTERFAITH CAMPUS, INC.
10771 BREDLEREIN TERRACE
COLUMBIA, MARYLAND 21044
(410) 418-8077
CONTACT: FR. RAY VELENCIA, PRESIDENT

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
F-3	7271 Eden Brook Drive, Columbia, MD 21046
F-4	7277 Eden Brook Drive, Columbia, MD 21046

PERMIT INFORMATION CHART

SUBDIVISION NAME			SECTION/AREA	PARCEL NUMBER	
Village of Kings Contrivance			2/4	F-3, F-4, F-5	
DEED REF.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
Plat # 15393	7	NEW TOWN	42	6th	6068.01
WATER CODE:	E16		SEWER CODE:	6340000	

SHEET INDEX

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 3/11/03

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 3/14/03

DIRECTOR — DATE 3/18/03

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

~~COUNTY HEALTH OFFICER — DATE~~

SDP-02-08